

# Atlantic Fleet Training and Testing Final Environmental Impact Statement / Overseas Environmental Impact Statement



## **Volume 5 — Appendices D-H August 2013**

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Department of the Navy

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**APPENDIX D**

**AIR QUALITY EXAMPLE EMISSIONS CALCULATIONS  
AND  
EXAMPLE RECORD OF NON-APPLICABILITY**

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## D.1 AIR QUALITY EXAMPLE CALCULATIONS

This appendix discusses emission factor development and calculations including assumptions employed in the analyses presented in the Air Quality section of Chapter 3 (Section 3.2). Section D.2 includes an example Record of Non-Applicability developed using the methods described in this Section D.1.

### D.1.1 SURFACE ACTIVITIES EMISSIONS

Surface activities consist of activities associated with boat and ship traffic. Fleet training activities incorporate a variety of marine vessels including cruisers, destroyers, frigates, carriers, submarines, amphibious vessels, and rigid hull inflatable boats. Testing activities at the Naval Undersea Warfare Center Division, Newport Testing Range incorporate a variety of marine vessels including the testing support vessel (TWR-81), a work boat (WB-30), various torpedo recovery vessels, unmanned surface vehicles, and rigid hull inflatable boats. Testing activities at Naval Surface Warfare Center, Panama City Division Testing Range incorporate a variety of marine craft including the Athena 1, Athena 2, Research Vessel (R/V) Mr. Offshore, several 13 to 25 feet (ft.) (4.0 to 7.6 meters [m]) outboard motor boats, a 30 ft. (9.1 m) rigid hull inflatable boat, and 32 ft. (9.8 m), 65 ft. (20 m), and 68 ft. (21 m) inboard diesel vessels. Testing at the South Florida Ocean Measurement Facility Testing Range involves a mix of testing support vessels. Marine vessels participating in sea trials, shock trials, lifecycle activities, and combat system ship qualification trials are similar to those used in fleet training activities. Each of these vessels incorporates different propulsion methods such as marine outboard engines, diesel engines, and gas turbines. Calculations were developed utilizing the propulsion mechanism.

#### Marine Outboard Engines:

The U.S. Environmental Protection Agency (USEPA) has published emissions factors for air pollutants produced by several types of two-stroke and four-stroke outboard engines. The most conservative emission factors for two-stroke engines of various horsepower are represented in Table D-1.

**Table D-1: Emission Factors for Two-Stroke Engines**

USEPA Outboard Engine Emissions Factors (grams/hp-hr)			
NO <sub>x</sub>	CO	VOC	SO <sub>x</sub>
0.018	0.63	0.25	0.00108

Source: USEPA, 1999, Exhaust Emissions Factors for Non-Road Engine Modeling-Spark Ignition. Report No. NR-010b; Office of Mobile Sources, Assessment and Modeling Division, EPA-R-99-009.

CO: Carbon Monoxide; hp: Horsepower; hr: Hour; NO<sub>x</sub>: Nitrogen Oxides; SO<sub>x</sub>: Sulfur Oxides; USEPA: United States Environmental Protection Agency; VOC: Volatile Organic Compound

Emissions estimates for surface craft utilizing outboard engines were calculated using USEPA AP-42 factors and multiplied by the engine horsepower and hours of operation.

$$Emissions = HP \times HR/YR \times EF \times ENG \times CF$$

Where:

*Emissions = Surface craft Emissions (lb. per year)*

*HP = Horsepower (reflective of a particular load factor/engine power setting)*

*HR/YR = Hours per year*

*EF = Emission factor for specific engine type*

*ENG = Number of engines*

*CF = Conversion Factor for grams to tons*

To determine the entire project emissions, a calculation was conducted for each surface vessel type and for each pollutant and converted to tons, then compared to the baseline Study Area emissions. These values were summed according to the appropriate pollutant to provide the cumulative emissions associated with surface vessel emissions activities.

### **Diesel Engines:**

Limited data were available for large marine diesel engines. Therefore, USEPA AP-42 emissions factors for industrial reciprocating engines were used to calculate diesel engine emissions. Another source utilized for vessel emissions factors included data presented in, John J. McMullen Associates as referenced in previous Navy EIS/OEIS documentation. Diesel was assumed to be the primary fuel to ensure an overly conservative approach. A similar calculation methodology to the outboard engines was employed to ascertain emissions from the diesel engines.

$$\text{Emissions} = \text{HP} \times \text{HR/YR} \times \text{EF} \times \text{ENG} \times \text{CF}$$

Where:

*Emissions = Surface craft Emissions (lb. per year)*

*HP = Horsepower (reflective of a particular load factor/engine power setting)*

*HR/YR = Hours per year*

*EF = Emission factor for specific engine type (lb. per hour)*

*ENG = Number of engines*

*CF = Conversion Factor for pounds to tons*

Diesel engine emission factors were multiplied by the engine horsepower and annual hours of operation to calculate the pounds of pollutant emissions per year. This value was then converted to a tons per year value for comparison with the Study Area total summed emissions on an individual pollutant basis.

### **D.1.2 AIR ACTIVITIES EMISSIONS**

Fleet training and Naval Air Systems Command testing consists of various activities associated with airplanes or helicopters including, but not limited to, the F/A-18, P-3, SH-60B, MH-53, MH-60S, and Lear jets. Testing activities at Naval Surface Warfare Center, Panama City Division Testing Range consist of various activities associated with airplanes or helicopters including the 1UH-1N, SH-60B, MH-53, MH-60S, and Cessna-172. Aircraft activities of concern are those that occur from ground level up to 3,000 feet (ft.) (914 meters [m]) above ground level. The 3,000 ft. (914 m) above ground level ceiling was assumed to be the atmospheric mixing height above which any pollutant generated would not contribute to increased pollutant concentrations at ground level (known as the mixing zone). All pollutant emissions from aircraft generated greater than 3,000 ft. (914 m) above ground level are excluded from this analysis. The pollutant emission rate is a function of the engine's operating mode, the fuel flow rate, and the engine's overall efficiency. Emissions for one complete flight for a particular aircraft are calculated by knowing the specific engine pollutant emission factors for each mode of operation.

For this EIS/OEIS, emission factors for most military engines were obtained from Navy's Aircraft Environmental Support Office (AESO) memoranda and the Federal Aviation Administration's Emissions and Dispersion Modeling System model. For those aircraft for which engine data was unavailable, an applicable surrogate was used. Emissions factors vary depending on engine power mode, time in each



mode, and fuel flow. Using these data, as well as information on activity levels (i.e., number of sorties), pollutant emissions for each aircraft and activity were calculated by applying the equation below.

$$\text{Emissions} = \text{TIM} \times \text{FF} \times \text{EF} \times \text{ENG} \times \text{CF}$$

Where:

*Emissions = Aircraft Emissions (lb. per activity) (for EF in lb./1000 gallon fuel)*

*TIM = Time-in-mode at a specified power setting (hr/activity).*

*FF = Fuel flow at a specified power setting (gallons/hr/engine)*

*EF = Emission factor for specific engine type and power setting (lb./1000 gallons of fuel used)*

*ENG = Number of engines on aircraft*

*CF = Conversion Factor (0.001)*

As the equation indicates, emissions were estimated by first calculating total fuel used in each of the different modes with the appropriate emission factor.

The following is a list of emissions factor sources used in the EIS/OEIS:

- AESO Memorandum Report No. 9961, Revision A, November 2009
- AESO Memorandum Report No. 9963, Revision B, July 2001
- AESO Memorandum Report No. 2000-10B, January 2001
- AESO Memorandum Report No. 9959, Revision B, January 2001
- AESO Memorandum Report No. 9960B, April 2000
- AESO Memorandum Report No. 9943B, April 2000
- AESO Memorandum Report No. 9941, Revision B, December 2009
- AESO Memorandum Report No. 9933, Revision B, November 2002
- AESO Memorandum Report No. 9933, Revision D, March 2011
- AESO Memorandum Report No. 9929, February 1999
- AESO Memorandum Report No. 9929, Revision A, November 2009
- AESO Memorandum Report No. 9948, Revision C, March 2010
- AESO Memorandum Report No. 9915A, March 2000
- AESO Memorandum Report No. 9824, Revision B, November 2009
- AESO Memorandum Report No. 9962, Revision A, November 2009
- FEIS for the Introduction of the P-8A Multi-Mission Maritime Aircraft into the U.S. Navy Fleet, October 2008
- USAF Institute for Environment, Safety and Occupational Health Risk Analysis, October 2002
- USEPA 1978 - Air Pollutant Emission Factors for Military and Civil Aircraft

### **D.1.3 ORDNANCE AND MUNITIONS EMISSIONS**

Available emissions factors (AP-42, Compilation of Air Pollutant Emission Factors) were utilized. These factors were then multiplied by the net weight of the explosive (or a conversion factor for pounds per item) and the number of times that the munition was used during a designated time frame. This calculation provided annual pounds per year of emissions, which were converted to tons per year for comparison purposes.

$$\text{Emissions} = \text{EXP/YR} \times \text{EF} \times \text{Net Wt} \times \text{CF}$$

Where:

*Emissions = Ordnance Emissions (lb. per year)*

*EXP/YR = Explosives, propellants, and pyrotechnics used per year*

*EF = Emissions factor*

*Net Wt = Net Weight of explosive*

*CF = Conversion Factor for pounds to tons*

#### **D.1.4 EMISSIONS ESTIMATES SPREADSHEETS**

The following spreadsheets (Tables D-2, D-3, and D-4) are the emissions calculations for vessels, aircraft, and munitions, respectively. The examples provided for vessels and aircraft are for baseline training within the Virginia Capes Range Complex. These examples are representative of similar calculation spreadsheets developed for each range complex or testing area. Moreover, they are representative of the calculations developed for each alternative analyzed in this EIS/OEIS. The example included for ordnance emissions is for baseline ordnance emissions for all range complexes and testing areas utilized for training and testing within the AFTT Study Area. The full set of calculation spreadsheets is available upon request.

Table D-2: Virginia Capes Range Complex - Training Related - Vessel Air Emissions—No-Action Alternative

			OPERATIONAL INFORMATION - VESSELS													EMISSIONS/YEAR (lb.) BY JURISDICTION																				
Training or Testing Event	Location	Annual Operations (#)	Ship / Vessel / Boat				Range Time (hr.)			Distribution (%)			Distribution (hr.)			State (0-3 nm offshore)					Waters of U.S. (3-12 nm)					International Waters (> 12 nm)					Fuel Flow (GPH)	Greenhouse Gas Emissions				
			Number	Ship Type	Type	Participation	Per Ship	Time at Each Power Level (%)	Total	0-3 nm from shore	3-12 nm from Shore	>12 nm from Shore	0-3 nm from shore	3-12 nm from shore	>12 nm from shore	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM		Annual Fuel Consumption (gal)	CO <sub>2</sub>	N <sub>2</sub> O	CH <sub>4</sub>	CO <sub>2-e</sub>
Anti-Air Warfare																																				
Air Combat Maneuver	Northeast	0			Aircraft emissions																															
	VACAPES	2,320																																		
	Cherry Pt	385																																		
	JAX	498																																		
	Key West	5,700																																		
	GOMEX	0																																		
	Outside RCs	0																																		
Air Defense Exercise	Total	8,903																																		
	Northeast	0	36	CVN	Nuclear Carrier (No	0.06	1.0	100%	36	0%	0%	100%	0.0	0.0	35.7																					
	VACAPES	595	184	CG	Cruiser	0.31	1.0	100%	184	0%	0%	100%	0.0	0.0	184.5	0	0	0	0	0	0	0	0	0	0	19,880	8,691	1,627	3,877	485	158	29,143	613,579	20	17	620,113
	Cherry Pt	21	369	DDG	Guided Missile Destroyer	0.62	1.0	100%	369	0%	0%	100%	0.0	0.0	368.9	0	0	0	0	0	0	0	0	0	0	38,362	18,039	2,962	6,618	907	160	59,024	1,242,691	40	35	1,255,926
	JAX	117	6	FFG	Guided Missile Frigate	0.01	1.0	100%	6	0%	0%	100%	0.0	0.0	6.0	0	0	0	0	0	0	0	0	0	0	398	403	46	69	19	68	405	8,518	0	0	8,609
	Key West	0																																		
	GOMEX	80																																		
Gunnery Exercise, Air-to-Air (Medium-Caliber)	Outside RCs	0																																		
	Total	813																																		
	Northeast	0			Aircraft emissions																															
	VACAPES	30																																		
	Cherry Pt	10																																		
	JAX	23																																		
	Key West	36																																		
Missile Exercise, Air-to-Air	GOMEX	0																																		
	Outside RCs	0																																		
	Total	99																																		
	Northeast	0			Aircraft emissions																															
	VACAPES	160																																		
	Cherry Pt	20																																		
	JAX	22																																		
Gunnery Exercise, Surface-to-Air (Large-Caliber)	Key West	0																																		
	GOMEX	0																																		
	Outside RCs	0																																		
	Total	202																																		
	Northeast	0	0	CVN	Nuclear Carrier (No		2.0	100%	0	0%	0%	100%	0.0	0.0	0.0																					
	VACAPES	18	5	CG	Cruiser	0.25	3.0	100%	14	0%	0%	100%	0.0	0.0	13.5	0	0	0	0	0	0	0	0	0	0	1,455	636	119	284	36	158	2,133	44,908	1	1	45,386
Gunnery Exercise, Surface-to-Air (Medium-Caliber)	Cherry Pt	0	5	DDG	Guided Missile Destroyer	0.25	3.0	100%	14	0%	0%	100%	0.0	0.0	13.5	0	0	0	0	0	0	0	0	0	0	1,404	660	108	242	33	160	2,160	45,477	1	1	45,961
	JAX	13	9	FFG	Guided Missile Frigate	0.5	3.0	100%	27	0%	0%	100%	0.0	0.0	27.0	0	0	0	0	0	0	0	0	0	0	1,804	1,828	211	312	88	68	1,836	38,655	1	1	39,067
	Key West	0	18	AOE	Logistics/Support	1	4.9	100%	88	0%	0%	100%	0.0	0.0	88.2	0	0	0	0	0	0	0	0	0	0	329	1,940	246	5,834	1,171	1,599	141,032	2,969,284	96	84	3,000,906
	GOMEX	0																																		
	Outside RCs	0																																		
	Total	31																																		
	Northeast	0	0	CVN	Nuclear Carrier (No		2.0	100%	0	0%	0%	100%	0.0	0.0	0.0																					
Missile Exercise, Surface-to-Air	VACAPES	30	8	CG	Cruiser	0.25	3.0	100%	23	0%	0%	100%	0.0	0.0	22.5	0	0	0	0	0	0	0	0	0	0	2,425	1,060	198	473	59	158	3,555	74,847	2	2	75,644
	Cherry Pt	0	8	DDG	Guided Missile Destroyer	0.25	3.0	100%	23	0%	0%	100%	0.0	0.0	22.5	0	0	0	0	0	0	0	0	0	0	2,340	1,100	181	404	55	160	3,600	75,794	2	2	76,602
	JAX	11	15	FFG	Guided Missile Frigate	0.5	3.0	100%	45	0%	0%	100%	0.0	0.0	45.0	0	0	0	0	0	0	0	0	0	0	3,007	3,047	351	521	146	68	3,060	64,425	2	2	65,111
	Key West	0	30	AOE	Logistics/Support	1	4.9	100%	147	0%	0%	100%	0.0	0.0	147.0	0	0	0	0	0	0	0	0	0	0	548	3,233	410	9,723	1,952	1,599	235,053	4,948,806	161	140	5,001,511
	GOMEX	0																																		
	Outside RCs	0																																		
	Total	41																																		
Intelligence, Surveillance, & Reconnaissance Test	Northeast	0	0	CVN	Nuclear Carrier (No	0	2.0	100%	0	0%	0%	100%	0.0	0.0	0.0																					
	VACAPES	24	6	CG	Cruiser	0.25	4.0	100%	24	0%	0%	100%	0.0	0.0	24.0	0	0	0	0	0	0	0	0	0	0	2,587	1,131	212	504	63	158	3,792	79,837	3	2	80,687
	Cherry Pt	8	6	DDG	Guided Missile Destroyer	0.25	4.0	100%	24	0%	0%	100%	0.0	0.0	24.0	0	0	0	0	0	0	0	0	0	0	2,496	1,174	193	431	59	160	3,840	80,847	3	2	81,708
	JAX	8	12	FFG	Guided Missile Frigate	0.5	4.0	100%	48	0%	0%	100%	0.0	0.0	48.0	0	0	0	0	0	0	0	0	0	0	3,207	3,251	375	555	156	68	3,264	68,720	2	2	69,452
	Key West	0																																		
	GOMEX	0																																		
	Outside RCs	0																																		
Intelligence, Surveillance, & Reconnaissance Test	Total	40		</																																

Table D-2: Virginia Capes Range Complex - Training Related - Vessel Air Emissions—No-Action Alternative (Continued)

			OPERATIONAL INFORMATION - VESSELS													EMISSIONS/YEAR (lb.) BY JURISDICTION																				
Training or Testing Event	Location	Annual Operations (#)	Ship / Vessel / Boat			Range Time (hr.)			Distribution (%)			Distribution (hr.)			State (0-3 nm offshore)					Waters of U.S. (3-12 nm)					International Waters (> 12 nm)					Fuel Flow (GPH)	Greenhouse Gas Emissions					
			Number	Ship Type	Type	Participation	Per Ship	Time at Each Power Level (%)	Total	0-3 nm from shore	3-12 nm from Shore	>12 nm from Shore	0-3 nm from shore	3-12 nm from shore	>12 nm from shore	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM	Annual Fuel Consumption (gal)	CO <sub>2</sub>	N <sub>2</sub> O	CH <sub>4</sub>	CO <sub>2-e</sub>	
Amphibious Warfare																																				
Naval Surface Fire Support Exercise Land Based Targets (FIREX-Land)	Northeast	0	0	CG	Cruiser	1	9.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	158	0	0	0	0	0
	VACAPES	0	0	DDG	Guided Missile Destroyer	0.42	9.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	160	0	0	0	0	0
	Cherry Pt	30																																		
	JAX	0																																		
	Key West	0																																		
	GOMEX	0																																		
	Outside RCs	0																																		
	Total	30																																		
Naval Surface Fire Support Exercise At Sea (FIREX-at Sea)	Northeast	0	22	CG	Cruiser	1	9.0	100%	198	0%	0%	100%	0.0	0.0	198.0	0	0	0	0	0	0	0	0	0	0	21,340	9,330	1,746	4,162	521	158	31,284	658,653	21	19	665,668
	VACAPES	22	9	DDG	Guided Missile Destroyer	0.42	9.0	100%	83	0%	0%	100%	0.0	0.0	83.2	0	0	0	0	0	0	0	0	0	0	8,648	4,067	668	1,492	205	160	13,306	280,136	9	8	283,120
	Cherry Pt	2																																		
	JAX	10																																		
	Key West	0																																		
	GOMEX	8																																		
	Outside RCs	0																																		
	Total	42																																		
MEU Certification Exercise (CERTEX)	Northeast	0	0	LHA	Amphib. Assault Ship - Tarawa	1	6.0	100%	0	10%	30%	60%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,119	0	0	0	0	0
	VACAPES	0	0	LHD	Large Helicopter-Dock Ships	1	2.5	100%	0	10%	30%	60%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	320	0	0	0	0	0
	Cherry Pt	0	0	LPD	Amphibious Transport Dock - Wasp	1	2.5	100%	0	10%	30%	60%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	933	0	0	0	0	0
	JAX	0	0	LCU	Landing Craft Utility	6	3.0	100%	0	10%	30%	60%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57	0	0	0	0	0
	Key West	0	0	AAV/EFV	Amphibious Assault Vehicle	14	6.0	100%	0	10%	30%	60%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	0	0	0	0	0
	GOMEX	0	0	LCAC	Landing Craft Air Cushioned	5	3.0	100%	0	10%	30%	60%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	523	0	0	0	0	0
	Outside RCs	0	0	CRRC	Combat Raiding Rubber Craft	0	6.0	100%	0	10%	30%	60%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
	Total	0																																		
Amphibious Assault	Northeast	0	0	CRRC	Combat Raiding Rubber Craft	13	2.0	100%	0	100%	0%	0%	0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
	VACAPES	0	0	LPD	Amphibious Transport Dock - Wasp	1	2.0	100%	0	100%	0%	0%	0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	320	0	0	0	0	0
	Cherry Pt	10	0	LCU	Landing Craft Utility	2	2.0	100%	0	100%	0%	0%	0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57	0	0	0	0	0
	JAX	0	0	LCAC	Landing Craft Air Cushioned	2	2.0	100%	0	100%	0%	0%	0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	523	0	0	0	0	0
	Key West	0	0	AAV/EFV	Amphibious Assault Vehicle	6	2.0	100%	0	100%	0%	0%	0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	0	0	0	0	0
	GOMEX	0																																		
	Outside RCs	0																																		
	Total	10																																		
Amphibious Raid / Humanitarian Assistance	Northeast	0	0	LHD	Large Helicopter-Dock Ships	2	8.0	100%	0	38%	38%	25%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	933	0	0	0	0	0
	VACAPES	0	0	LHA	Amphib. Assault Ship - Tarawa	1	8.0	100%	0	38%	38%	25%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,119	0	0	0	0	0
	Cherry Pt	24	0	LPD	Amphibious Transport Dock - Wasp	3	8.0	100%	0	38%	38%	25%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	320	0	0	0	0	0
	JAX	0	0	LCAC	Landing Craft Air Cushioned	4	8.0	100%	0	38%	38%	25%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	523	0	0	0	0	0
	Key West	0	0	LCU	Landing Craft Utility	4	8.0	100%	0	38%	38%	25%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57	0	0	0	0	0
	GOMEX	0																																		
	Outside RCs	0																																		
	Total	24																																		
Strike Warfare																																				
High-speed Anti-Radiation (Air-to-Surface) (HARMEX [A-S])	Northeast	0			Aircraft emissions																															
	VACAPES	26																																		
	Cherry Pt	8																																		
	JAX	0																																		
	Key West	0																																		
	GOMEX	0																																		
	Outside RCs	0																																		
	Total	34																																		

**Table D-2: Virginia Capes Range Complex - Training Related - Vessel Air Emissions—No-Action Alternative (Continued)**

[illegible]



**Table D-2: Virginia Capes Range Complex - Training Related - Vessel Air Emissions—No-Action Alternative (Continued)**

Training or Testing Event	Location	Annual Operations (#)	OPERATIONAL INFORMATION - VESSELS													EMISSIONS/YEAR (lb.) BY JURISDICTION																				
			Ship / Vessel / Boat				Range Time (hr.)			Distribution (%)			Distribution (hr.)			State (0-3 nm offshore)					Waters of U.S. (3-12 nm)					International Waters (> 12 nm)					Fuel Flow (GPH)	Greenhouse Gas Emissions				
			Number	Ship Type	Type	Participation	Per Ship	Time at Each Power Level (%)	Total	0-3 nm from shore	3-12 nm from Shore	>12 nm from Shore	0-3 nm from shore	3-12 nm from shore	>12 nm from shore	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM		Annual Fuel Consumption (gal)	CO <sub>2</sub>	N <sub>2</sub> O	CH <sub>4</sub>	CO <sub>2-e</sub>
High Energy Laser Weapons Test	Northeast	0	0	CG	Cruiser	0.5	11.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	158	0	0	0	0	0	
	VACAPES	0	0	DDG	Guided Missile Destroyer	0.5	11.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	160	0	0	0	0	0	
	Cherry Pt	0																																		
	JAX	0																																		
	Key West	0																																		
	GOMEX	0																																		
	Outside RCs	0																																		
	Total	0																																		
Anti-Submarine Warfare																																				
TRACKEX/ TORPEX- Submarine	Northeast	30	10	TRB	Torpedo Retrieval Boats	1	3.6	100%	36	1%	10%	89%	0.4	3.6	32.0	2.8	11.9	0.2	1.2	0.4	27.5	119.1	2.1	12.2	4.2	245	1060	19	109	37	51	1,836	38,655	1	1	39,067
	VACAPES	10																																		
	Cherry Pt	14																																		
	JAX	45																																		
	Key West	0																																		
	GOMEX	1																																		
	Outside RCs	0																																		
	Total	100																																		
TRACKEX/ TORPEX- Surface	Northeast	0	15	CG	Cruiser	0.210526	3.6	100%	52	1%	10%	89%	0.5	5.2	46.5	56.4	24.6	4.6	11.0	1.4	563.6	246.4	46.1	109.9	13.8	5016	2193	411	978	122	158	8,263	173,960	6	5	175,813
	VACAPES	69	22	DDG	Guided Missile Destroyer	0.32	2.0	100%	44	1%	10%	89%	0.4	4.4	38.8	45.3	21.3	3.5	7.8	1.1	453.2	213.1	35.0	78.2	10.7	4033	1897	311	696	95	160	6,973	146,802	5	4	148,365
	Cherry Pt	91	11	FFG	Guided Missile Frigate	0.16	2.0	100%	22	1%	10%	89%	0.2	2.2	19.4	14.6	14.8	1.7	2.5	0.7	145.6	147.6	17.0	25.2	7.1	1296	1313	151	224	63	68	1,482	31,195	1	1	31,528
	JAX	292	22	TRB	Torpedo Retrieval Boats	0.315789	3.6	100%	78	1%	10%	89%	0.8	7.8	69.8	6.0	26.0	0.5	2.7	0.9	59.9	259.6	4.6	26.6	9.1	533	2310	41	237	81	51	4,001	84,228	3	2	85,125
	Key West	0																																		
	GOMEX	5																																		
	Outside RCs	0																																		
	Total	457																																		
TRACKEX/ TORPEX- Helicopter	Northeast	0	5	CG	Cruiser	0.2	3.6	100%	18	1%	10%	89%	0.2	1.8	16.0	19.4	8.5	1.6	3.8	0.5	194.0	84.8	15.9	37.8	4.7	1727	755	141	337	42	158	2,844	59,878	2	2	60,515
	VACAPES	25	13	DDG	Guided Missile Destroyer	0.5	3.6	100%	45	1%	10%	89%	0.5	4.5	40.1	46.8	22.0	3.6	8.1	1.1	468.0	220.1	36.1	80.7	11.1	4165	1958	322	718	99	160	7,200	151,589	5	4	153,203
	Cherry Pt	25	8	TRB	Torpedo Retrieval Boats	0.3	3.6	100%	27	1%	10%	89%	0.3	2.7	24.0	2.1	8.9	0.2	0.9	0.3	20.6	89.3	1.6	9.2	3.1	184	795	14	81	28	51	1,377	28,991	1	1	29,300
	JAX	115																																		
	Key West	0																																		
	GOMEX	0																																		
	Outside RCs	0																																		
	Total	165																																		
TRACKEX-MPA	Northeast	238	7	CG	Cruiser	0.086957	2	100%	14	5%	10%	85%	0.7	1.4	11.7	74.0	32.4	6.1	14.4	1.8	148.1	64.7	12.1	28.9	3.6	1259	550	103	245	31	158	2,171	45,704	1	1	46,190
	VACAPES	79	14	DDG	Guided Missile Destroyer	0.173913	2	100%	27	5%	10%	85%	1.4	2.7	23.4	142.9	67.2	11.0	24.6	3.4	285.7	134.4	22.1	49.3	6.8	2429	1142	188	419	57	160	4,397	92,564	3	3	93,550
	Cherry Pt	111	10	FFG	Guided Missile Frigate	0.130435	2	100%	21	5%	10%	85%	1.0	2.1	17.5	68.9	69.8	8.0	11.9	3.3	137.7	139.6	16.1	23.8	6.7	1171	1186	137	203	57	68	1,401	29,505	1	1	29,819
	JAX	356	48	TRB	Torpedo Retrieval Boats	0.608696	2	100%	96	5%	10%	85%	4.8	9.6	81.7	36.7	159.1	2.8	16.3	5.6	73.5	318.2	5.7	32.6	11.2	625	2705	48	277	95	51	4,905	103,267	3	3	104,367
	Key West	0																																		
	GOMEX	7																																		
	Outside RCs	0																																		
	Total	791																																		
TRACKEX/ TORPEX MPA-Sonobuoy	Northeast	34	3	CG	Cruiser	0.086957	2	100%	6	5%	10%	85%	0.3	0.6	5.0	31.9	13.9	2.6	6.2	0.8	63.7	27.9	5.2	12.4	1.6	542	237	44	106	13	158	934	19,670	1	1	19,879
	VACAPES	34	6	DDG	Guided Missile Destroyer	0.173913	2	100%	12	5%	10%	85%	0.6	1.2	10.1	61.5	28.9	4.7	10.6	1.5	123.0	57.8	9.5	21.2	2.9	1045	492	81	180	25	160	1,892	39,838	1	1	40,262
	Cherry Pt	34	4	FFG	Guided Missile Frigate	0.130435	2	100%	9	5%	10%	85%	0.4	0.9	7.5	29.6	30.0	3.5	5.1	1.4	59.3	60.1	6.9	10.3	2.9	504	511	59	87	25	68	603	12,698	0	0	12,834
	JAX	34	21	TRB	Torpedo Retrieval Boats	0.608696	2	100%	41	5%	10%	85%	2.1	4.1	35.2	15.8	68.5	1.2	7.0	2.4	31.6	137.0	2.4	14.0	4.8	269	1164	21	119	41	51	2,111	44,444	1	1	44,917
	Key West	0																																		
	GOMEX	34																																		
	Outside RCs	0																																		
	Total	170																																		
SEASWIT	Northeast	0	0	CG	Cruiser	1	60	100%	0	0%	0%	100%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	158	0	0	0	0	0	
	VACAPES	0	0	DDG	Guided Missile Destroyer	1	60	100%	0	0%	0%	100%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	160	0	0	0	0	0	
	Cherry Pt	0	0	FFG	Guided Missile Frigate	1	60	100%	0	0%	0%	100%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	68	0	0	0	0	0	
	JAX	4																																		
	Key West	0																																		
	GOMEX	0																																		
	Outside RCs	0																																		
	Total	4																																		

Table D-2: Virginia Capes Range Complex - Training Related - Vessel Air Emissions—No-Action Alternative (Continued)

			OPERATIONAL INFORMATION - VESSELS													EMISSIONS/YEAR (lb.) BY JURISDICTION																						
Training or Testing Event	Location	Annual Operations (#)	Ship / Vessel / Boat				Range Time (hr.)			Distribution (%)			Distribution (hr.)			State (0-3 nm offshore)					Waters of U.S. (3-12 nm)					International Waters (> 12 nm)					Fuel Flow (GPH)	Annual Fuel Consumption (gal)	Greenhouse Gas Emissions					
			Number	Ship Type	Type	Participation	Per Ship	Time at Each Power Level (%)	Total	0-3 nm from shore	3-12 nm from Shore	>12 nm from Shore	0-3 nm from shore	3-12 nm from shore	>12 nm from shore	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM			CO <sub>2</sub>	N <sub>2</sub> O	CH <sub>4</sub>	CO <sub>2-e</sub>		
Integrated Anti-Submarine Warfare Course	Northeast	0	0	CG	Cruiser	1	60	100%	12	0%	0%	100%	0.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1293	565	106	252	32	158	1,896	39,918	1	1	40,344		
	VACAPES	0	0	DDG	Guided Missile Destroyer	1	60	100%	12	0%	0%	100%	0.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1248	587	96	215	30	160	1,920	40,424	1	1	40,854		
	Cherry Pt	1	0	FFG	Guided Missile Frigate	1	60	100%	12	0%	0%	100%	0.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	802	813	94	139	39	68	816	17,180	1	0	17,363		
	JAX	2																																				
	Key West	0																																				
	GOMEX	1																																				
	Outside RCs	0																																				
	Total	5																																				
Group Sail	Northeast	0	3	CG	Cruiser	1	60	100%	180	0%	0%	100%	0.0	0.0	180.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19400	8482	1588	3784	473	158	28,440	598,776	19	17	605,153		
	VACAPES	3	3	DDG	Guided Missile Destroyer	1	60	100%	180	0%	0%	100%	0.0	0.0	180.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18718	8802	1445	3229	443	160	28,800	606,355	20	17	612,813		
	Cherry Pt	4	3	FFG	Guided Missile Frigate	1	60	100%	180	0%	0%	100%	0.0	0.0	180.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12028	12190	1406	2083	585	68	12,240	257,701	8	7	260,445		
	JAX	13																																				
	Key West	0																																				
	GOMEX	0																																				
	Outside RCs	0																																				
	Total	20																																				
Submarine Command Course Operations	Northeast	0		SSN	No emissions																																	
	VACAPES	0																																				
	Cherry Pt	0																																				
	JAX	2																																				
	Key West	0																																				
	GOMEX	0																																				
	Outside RCs	0																																				
	Total	2																																				
ASW for Composite Training Unit Exercise (COMPTUEX)	Northeast	0			Conducted during COMPTUEX																																	
	VACAPES	1																																				
	Cherry Pt	1																																				
	JAX	1																																				
	Key West	0																																				
	GOMEX	1																																				
	Outside RCs	0																																				
	Total	5																																				
ASW for Joint Task Force Exercise (JTFEX) Sustainment Exercise (SUSTAINEX)	Northeast	0			Conducted during JTFEX																																	
	VACAPES	1																																				
	Cherry Pt	1																																				
	JAX	1																																				
	Key West	0																																				
	GOMEX	0																																				
	Outside RCs	0																																				
	Total	2																																				
Electronic Warfare																																						
Electronic Warfare Operations	Northeast	0	60	CG	Cruiser	0.2	6.5	100%	393	0%	3%	97%	0.0	11.8	380.8	0.0	0.0	0.0	0.0	0.0	1269.4	555.0	103.9	247.6	31.0	41045	17944	3359	8005	1002	158	62,031	1,305,996	42	37	1,319,905		
	VACAPES	302	42	DDG	Guided Missile Destroyer	0.14	6.5	100%	275	0%	3%	97%	0.0	8.2	266.6	0.0	0.0	0.0	0.0	0.0	857.4	403.2	66.2	147.9	20.3	27721	13036	2141	4782	656	160	43,971	925,770	30	26	935,629		
	Cherry Pt	2,620	36	FFG	Guided Missile Frigate	0.12	6.5	100%	236	0%	3%	97%	0.0	7.1	228.5	0.0	0.0	0.0	0.0	0.0	472.2	478.6	55.2	81.8	23.0	15268	15474	1785	2644	743	68	16,018	337,245	11	10	340,836		
	JAX	181																																				
	Key West	0																																				
	GOMEX	0																																				



Table D-2: Virginia Capes Range Complex - Training Related - Vessel Air Emissions—No-Action Alternative (Continued)

[illegible]

**Table D-2: Virginia Capes Range Complex - Training Related - Vessel Air Emissions—No-Action Alternative (Continued)**

Training or Testing Event	Location	Annual Operations (#)	OPERATIONAL INFORMATION - VESSELS													EMISSIONS/YEAR (lb.) BY JURISDICTION																				
			Ship / Vessel / Boat				Range Time (hr.)			Distribution (%)			Distribution (hr.)			State (0-3 nm offshore)					Waters of U.S. (3-12 nm)					International Waters (> 12 nm)					Fuel Flow (GPH)	Greenhouse Gas Emissions				
			Number	Ship Type	Type	Participation	Per Ship	Time at Each Power Level (%)	Total	0-3 nm from shore	3-12 nm from Shore	>12 nm from Shore	0-3 nm from shore	3-12 nm from shore	>12 nm from shore	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM		Annual Fuel Consumption (gal)	CO <sub>2</sub>	N <sub>2</sub> O	CH <sub>4</sub>	CO <sub>2-e</sub>
Mine Laying	Northeast	0			Aircraft emissions																															
	VACAPES	0																																		
	Cherry Pt	0																																		
	JAX	0																																		
	Key West	0																																		
	GOMEX	0																																		
	Outside RCs	0																																		
	Total	0																																		
Coordinated Unit Level Helicopter AMCM Exercises	Northeast	0			Aircraft emissions																															
	VACAPES	0																																		
	Cherry Pt	0																																		
	JAX	0																																		
	Key West	0																																		
	GOMEX	0																																		
	Outside RCs	0																																		
	Total	0																																		
Major Training Events																																				
Composite Training Unit Exercise (COMPTUEX)	Northeast	0	1	CVN	Nuclear Carrier (No emissions)	1	120.0	100%	0	0%	0%	100%	0.0	0.0	0.0																					
	VACAPES	1	3	CG	Cruiser	2	120.0	100%	300	0%	0%	100%	0.0	0.0	300.0	0	0	0	0	0	0	0	0	0	32,334	14,136	2,646	6,306	789	158	47,400	997,960	32	28	1,008,588	
	Cherry Pt	1	3	DDG	Guided Missile Destroyer	2	120.0	100%	300	0%	0%	100%	0.0	0.0	300.0	0	0	0	0	0	0	0	0	31,197	14,670	2,409	5,382	738	160	48,000	1,010,592	33	29	1,021,355		
	JAX	1	1	FFG	Guided Missile Frigate	1	120.0	100%	150	0%	0%	100%	0.0	0.0	150.0	0	0	0	0	0	0	0	0	10,023	10,158	1,172	1,736	488	68	10,200	214,751	7	6	21		

**Table D-2: Virginia Capes Range Complex - Training Related - Vessel Air Emissions—No-Action Alternative (Continued)**

Training or Testing Event	Location	Annual Operations (#)	OPERATIONAL INFORMATION - VESSELS												EMISSIONS/YEAR (lb.) BY JURISDICTION																						
			Ship / Vessel / Boat				Range Time (hr.)			Distribution (%)			Distribution (hr.)			State (0-3 nm offshore)					Waters of U.S. (3-12 nm)					International Waters (> 12 nm)					Fuel Flow (GPH)	Annual Fuel Consumption (gal)	Greenhouse Gas Emissions				
			Number	Ship Type	Type	Participation	Per Ship	Time at Each Power Level (%)	Total	0-3 nm from shore	3-12 nm from Shore	>12 nm from Shore	0-3 nm from shore	3-12 nm from shore	>12 nm from shore	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM			CO <sub>2</sub>	N <sub>2</sub> O	CH <sub>4</sub>	CO <sub>2-e</sub>	
Submarine Under Ice Certification	Northeast	0		SSN	No emissions																																
	VACAPES	0																																			
	Cherry Pt	0																																			
	JAX	0																																			
	Key West	0																																			
	GOMEX	0																																			
	Outside RCs	0																																			
	Total	0																																			
Surface Ship Object Detection	Northeast	0	22	CG	Cruiser	0.33	4	100%	90	0%	50%	50%	0.0	44.9	44.9	0.0	0.0	0.0	0.0	0.0	4837.2	2114.7	395.8	943.4	118.0	4837	2115	396	943	118	158	14,182	298,590	10	8	301,769	
	VACAPES	68	22	DDG	Guided Missile Destroyer	0.33	4	100%	90	0%	50%	50%	0.0	44.9	44.9	0.0	0.0	0.0	0.0	0.0	4667.1	2194.6	360.4	805.1	110.4	4667	2195	360	805	110	160	14,362	302,369	10	9	305,589	
	Cherry Pt	0	22	FFG	Guided Missile Frigate	0.33	4	100%	90	0%	50%	50%	0.0	44.9	44.9	0.0	0.0	0.0	0.0	0.0	2998.9	3039.3	350.5	519.3	145.9	2999	3039	351	519	146	68	6,104	128,507	4	4	129,875	
	JAX	40																																			
	Key West	0																																			
	GOMEX	0																																			
	Outside RCs	0																																			
	Total	108																																			
Surface Ship Sonar Maintenance (in OPAREAs and Ports)	Northeast	0	20	CG	Cruiser	0.33	4	100%	81	0%	50%	50%	0.0	40.3	40.3	0.0	0.0	0.0	0.0	0.0	4339.2	1897.1	355.1	846.3	105.9	4339	1897	355	846	106	158	12,722	267,852	9	8	270,705	
	VACAPES	61	20	DDG	Guided Missile Destroyer	0.33	4	100%	81	0%	50%	50%	0.0	40.3	40.3	0.0	0.0	0.0	0.0	0.0	4186.6	1968.7	323.3	722.3	99.0	4187	1969	323	722	99	160	12,883	271,243	9	8	274,132	
	Cherry Pt	82	20	FFG	Guided Missile Frigate	0.33	4	100%	81	0%	50%	50%	0.0	40.3	40.3																						

Table D-2: Virginia Capes Range Complex - Training Related - Vessel Air Emissions—No-Action Alternative (Continued)

			OPERATIONAL INFORMATION - VESSELS												EMISSIONS/YEAR (lb.) BY JURISDICTION																					
Training or Testing Event	Location	Annual Operations (#)	Ship / Vessel / Boat			Range Time (hr.)			Distribution (%)			Distribution (hr.)			State (0-3 nm offshore)					Waters of U.S. (3-12 nm)					International Waters (> 12 nm)					Fuel Flow (GPH)	Greenhouse Gas Emissions					
			Number	Ship Type	Type	Participation	Per Ship	Time at Each Power Level (%)	Total	0-3 nm from shore	3-12 nm from shore	>12 nm from shore	0-3 nm from shore	3-12 nm from shore	>12 nm from shore	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM	Annual Fuel Consumption (gal)	CO <sub>2</sub>	N <sub>2</sub> O	CH <sub>4</sub>	CO <sub>2-e</sub>	
Amphibious Ship Sea Trial	Northeast	0	0	LPD	Amphibious Transport Dock - Wasp	0.33	40.0	100%	0	0%	15%	85%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	320	0	0	0	0	0	
	VACAPES	0	0	LSD	Landing Ship Dock	0.33	40.0	100%	0	0%	15%	85%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	320	0	0	0	0	0
	Cherry Pt	0	0	LHD	Large Helicopter-Dock Ships	0.33	40.0	100%	0	0%	15%	85%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	320	0	0	0	0	0
	JAX	0																																		
	Key West	0																																		
	GOMEX	0																																		
	Outside RCs	0																																		
	Total	0																																		
Submarine Sea Trial	Northeast	0		SSN	No emissions																															
	VACAPES	0																																		
	Cherry Pt	0																																		
	JAX	0																																		
	Key West	0																																		
	GOMEX	0																																		
	Outside RCs	0																																		
	Total	0																																		
Other Class Ship Sea Trials	Northeast	0	0	CG	Cruiser	0.1429	16.0	100%	0	0%	15%	85%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	158	0	0	0	0	0	
	VACAPES	0	0	DDG	Guided Missile Destroyer	0.1429	16.0	100%	0	0%	15%	85%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	160	0	0	0	0	0	
	Cherry Pt	0	0	FFG	Guided Missile Frigate	0.1429	16.0	100%	0	0%	15%	85%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	68	0	0	0	0	0		
	JAX	0	0	LPD	Amphibious Transport Dock - Wasp	0.1429	16.0	100%	0	0%	15%	85%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	320	0	0	0	0	0		
	Key West	0	0	LSD	Landing Ship Dock	0.1429	16.0	100%	0	0%	15%	85%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	320	0	0	0	0	0		
	GOMEX	0	0	LHD	Large Helicopter-Dock Ships	0.1429	16.0	100%	0	0%	15%	85%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	320	0	0	0	0	0		
	Outside RCs	0	0	PC	Patrol Coastal	0.1429	16.0	100%	0	0%	15%	85%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	90	0	0	0	0	0		
	Total	0																																		
LCS Sea Trials and Mission Package Testing	Northeast	0	0	FFG	Guided Missile Frigate	1	40	100%	0	0.0	15%	85%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	68	0	0	0	0	0	
	VACAPES	0																																		
	Cherry Pt	0																																		
	JAX	0																																		
	Key West	0																																		
	GOMEX	0																																		
	Outside RCs	0																																		
	Total	0																																		
Post-Homeporting Test (all Classes)	Northeast	0	0	CG	Cruiser	0.1429	16.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	158	0	0	0	0	0		
	VACAPES	0	0	DDG	Guided Missile Destroyer	0.1429	16.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	160	0	0	0	0	0		
	Cherry Pt	0	0	FFG	Guided Missile Frigate	0.1429	16.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	68	0	0	0	0	0			
	JAX	0	0	LPD	Amphibious Transport Dock - Wasp	0.1429	16.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	320	0	0	0	0	0			
	Key West	0	0	LSD	Landing Ship Dock	0.1429	16.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	320	0	0	0	0	0			
	GOMEX	0	0	LHD	Large Helicopter-Dock Ships	0.1429	16.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	320	0	0	0	0	0			
	Outside RCs	0	0	PC	Patrol Coastal	0.1429	16.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	90	0	0	0	0	0			
	Total	0																																		
Testing - Shock Trials																																				
Aircraft Carrier Full Ship Shock Trial	Northeast	0		CVN	No emissions																															
	VACAPES	0																																		
	Cherry Pt	0																																		
	JAX	0																																		
	Key West	0																																		
	GOMEX	0																																		
	Outside RCs	0																																		
	Total	0																																		
DDG 1000 Zumwalt Class Destroyer Full Ship Shock Trial	Northeast	0	0	DDG	Guided Missile Destroyer	1	24	100%	0	0%	0%	100%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	160	0	0	0	0	0		
	VACAPES	0																																		
	Cherry Pt	0																																		
	JAX	0																																		
	Key West	0																																		
	GOMEX	0																																		
	Outside RCs	0																																		
	Total	0																																		

Table D-2: Virginia Capes Range Complex - Training Related - Vessel Air Emissions—No-Action Alternative (Continued)

			OPERATIONAL INFORMATION - VESSELS													EMISSIONS/YEAR (lb.) BY JURISDICTION																				
Training or Testing Event	Location	Annual Operations (#)	Ship / Vessel / Boat				Range Time (hr.)			Distribution (%)			Distribution (hr.)			State (0-3 nm offshore)					Waters of U.S. (3-12 nm)					International Waters (> 12 nm)					Fuel Flow (GPH)	Annual Fuel Consumption (gal)	Greenhouse Gas Emissions			
			Number	Ship Type	Type	Participation	Per Ship	Time at Each Power Level (%)	Total	0-3 nm from shore	3-12 nm from Shore	>12 nm from Shore	0-3 nm from shore	3-12 nm from shore	>12 nm from shore	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM			CO <sub>2</sub>	N <sub>2</sub> O	CH <sub>4</sub>	CO <sub>2-e</sub>
Littoral Combat Ship Full Ship Shock Trial	Northeast	0	0	FFG	Guided Missile Frigate	1	24	100%	0	0%	0%	100%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	68	0	0	0	0	0		
	VACAPES	0																																		
	Cherry Pt	0																																		
	JAX	0																																		
	Key West	0																																		
	GOMEX	0																																		
	Outside RCs	0																																		
	Total	0																																		
Testing - Lifecycle Activities																																				
Ship Signature Test	Northeast	0	0	CG	Cruiser	0.33	16	100%	0	50%	50%	0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	158	0	0	0	0	0		
	VACAPES	0	0	DDG	Guided Missile Destroyer	0.33	16	100%	0	50%	50%	0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	160	0	0	0	0	0		
	Cherry Pt	0	0	FFG	Guided Missile Frigate	0.33	16	100%	0	50%	50%	0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	68	0	0	0	0	0		
	JAX	0																																		
	Key West	0																																		
	GOMEX	0																																		
	Outside RCs	0																																		
	Total	0																																		
Shipboard Protection Systems and																																				
Shipboard Protection Systems Testing	Northeast	0	0	CG	Cruiser	0.2	2.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	158	0	0	0	0	0			
	VACAPES	0	0	DDG	Guided Missile Destroyer	0.2	2.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	160	0	0	0	0	0			
	Cherry Pt	0	0	FFG	Guided Missile Frigate	0.2	2.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	68	0	0	0	0	0				
	JAX	0	0	LPD	Amphibious Transport Dock - Wasp	0.2	2.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	320	0	0	0	0	0				
	Key West	0	0	LSD	Landing Ship Dock	0.2	2.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	320	0	0	0	0	0				
	GOMEX	0																																		
	Outside RCs	0																																		
	Total	0																																		
Chemical/ Biological Simulant Testing	Northeast	0	0	CG	Cruiser	0.2	4.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	158	0	0	0	0	0				
	VACAPES	0	0	DDG	Guided Missile Destroyer	0.2	4.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	160	0	0	0	0	0				
	Cherry Pt	0	0	FFG	Guided Missile Frigate	0.2	4.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	68	0	0	0	0	0					
	JAX	0	0	LPD	Amphibious Transport Dock - Wasp	0.2	4.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	320	0	0	0	0	0					
	Key West	0	0	LSD	Landing Ship Dock	0.2	4.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	320	0	0	0	0	0					
	GOMEX	0																																		
	Outside RCs	0																																		
	Total	0																																		
Unmanned Vehicle Testing																																				
Underwater Deployed UAV Testing	Northeast	0		SSN	No emissions																															
	VACAPES	0																																		
	Cherry Pt	0																																		
	JAX	0																																		
	Key West	0																																		
	GOMEX	0																																		
	Outside RCs	0																																		
	Total	0																																		
Unmanned Vehicle Development and Payload Testing	Northeast	0	0	TRB	Torpedo Retrieval Boats	1	8	100%	0	75%	25%	0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	51	0	0	0	0	0			
	VACAPES	0																																		
	Cherry Pt	0																																		
	JAX	0																																		
	Key West	0																																		
	GOMEX	0																																		
	Outside RCs	0																																		
	Total	0																																		
Other Testing																																				
Test and Evaluation Catapult Launch	Northeast	0		CVN	no emissions												</																			

Table D-2: Virginia Capes Range Complex - Training Related - Vessel Air Emissions—No-Action Alternative (Continued)

Training or Testing Event	Location	Annual Operations (#)	OPERATIONAL INFORMATION - VESSELS												EMISSIONS/YEAR (lb.) BY JURISDICTION																					
			Ship / Vessel / Boat				Range Time (hr.)			Distribution (%)			Distribution (hr.)		State (0-3 nm offshore)					Waters of U.S. (3-12 nm)					International Waters (> 12 nm)					Fuel Flow (GPH)	Annual Fuel Consumption (gal)	Greenhouse Gas Emissions				
			Number	Ship Type	Type	Participation	Per Ship	Time at Each Power Level (%)	Total	0-3 nm from shore	3-12 nm from Shore	>12 nm from Shore	0-3 nm from shore	3-12 nm from shore	>12 nm from shore	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>			PM	CO <sub>2</sub>	N <sub>2</sub> O	CH <sub>4</sub>	CO <sub>2-e</sub>
Air Platform Shipboard Integrate Test	Northeast	0		CVN	no emissions																															
	VACAPES	0																																		
	Cherry Pt	0																																		
	JAX	0																																		
	Key West	0																																		
	GOMEX	0																																		
	Outside RCs	0																																		
Total	0																																			
Shipboard Electronic Systems Evaluation	Northeast	0	0	CG	Cruiser	0.2	4.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	158	0	0	0	0	0
	VACAPES	0	0	DDG	Guided Missile Destroyer	0.2	4.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	160	0	0	0	0	0
	Cherry Pt	0	0	FFG	Guided Missile Frigate	0.2	4.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	68	0	0	0	0	0	
	JAX	0	0	LPD	Amphibious Transport Dock - Wasp	0.2	4.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	320	0	0	0	0	0	
	Key West	0	0	LSD	Landing Ship Dock	0.2	4.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	320	0	0	0	0	0	
	GOMEX	0																																		
	Outside RCs	0																																		
Total	0																																			
Maritime Security	Northeast	0	0	CG	Cruiser	0.25	4.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	158	0	0	0	0	0	
	VACAPES	0	0	DDG	Guided Missile Destroyer	0.51	4.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	160	0	0	0	0	0	
	Cherry Pt	0	0	FFG	Guided Missile Frigate	0.1	4.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	68	0	0	0	0	0		
	JAX	0	0	LPD	Amphibious Transport Dock - Wasp	0.04	4.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	320	0	0	0	0	0		
	Key West	0	0	LSD	Landing Ship Dock	0.1	4.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	320	0	0	0	0	0		
	GOMEX	0																																		
	Outside RCs	0																																		
Total	0																																			
Countermeasure Testing: Acoustic System Testing	Northeast	0	0	CG	Cruiser	0.33	4.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	158	0	0	0	0	0		
	VACAPES	0	0	DDG	Guided Missile Destroyer	0.33	4.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	160	0	0	0	0	0		
	Cherry Pt	0	0	FFG	Guided Missile Frigate	0.33	4.0	100%	0	0%	0%	100%	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	68	0	0	0	0	0			
	JAX	0																																		
	Key West	0																																		
	GOMEX	0																																		
	Outside RCs	0																																		
Total	0																																			
Special Warfare Testing	Northeast	0	0	RHIB	Rigid Hulled Inflatable Boat	2	6	100%	0	100%	0%	0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	12	0	0	0	0	0	
	VACAPES	0																																		
	Cherry Pt	0																																		
	JAX	0																																		
	Key West	0																																		
	GOMEX	0																																		
	Outside RCs	0																																		
Total	0																																			
Radio-Frequency Testing	Northeast	0	0	TRB	Torpedo Retrieval Boats	1	8	100%	0	75%	25%	0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	51	0	0	0	0	0		
	VACAPES	0																																		
	Cherry Pt	0																																		
	JAX	0																																		
	Key West	0																																		
	GOMEX	0																																		
	Outside RCs	0																																		
Total	0																																			
Hydrodynamic Testing	Northeast	0		SSN	no emissions																															
	VACAPES	0																																		
	Cherry Pt	0																																		
	JAX	0																																		
	Key West	0																																		
	GOMEX	0																																		
	Outside RCs	0																																		

Table D-2: Virginia Capes Range Complex - Training Related - Vessel Air Emissions—No-Action Alternative (Continued)

			OPERATIONAL INFORMATION - VESSELS												EMISSIONS/YEAR (lb.) BY JURISDICTION																					
Training or Testing Event	Location	Annual Operations (#)	Ship / Vessel / Boat				Range Time (hr.)			Distribution (%)			Distribution (hr.)			State (0-3 nm offshore)					Waters of U.S. (3-12 nm)					International Waters (> 12 nm)					Fuel Flow (GPH)	Annual Fuel Consumption (gal)	Greenhouse Gas Emissions			
			Number	Ship Type	Type	Participation	Per Ship	Time at Each Power Level (%)	Total	0-3 nm from shore	3-12 nm from Shore	>12 nm from Shore	0-3 nm from shore	3-12 nm from shore	>12 nm from shore	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM			CO <sub>2</sub>	N <sub>2</sub> O	CH <sub>4</sub>	CO <sub>2-e</sub>
At-Sea Explosives Testing	Northeast	0	0	TRB	Torpedo Retrieval Boats	1	8	100%	0	0%	0%	100%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	51	0	0	0	0	0		
	VACAPES	0																																		
	Cherry Pt	0																																		
	JAX	0																																		
	Key West	0																																		
	GOMEX	0																																		
	Outside RCs	0																																		
	Total	0																																		
RANGE COMPLEX TOTAL (lb)															789.91	5,997.73	1,036.51	709.54	94.24	43,486.89	29,222.16	6,880.16	9,251.92	1,711.18	530,729.98	318,031.61	47,512.48	134,045.11	23,045.77		1,677,480.09	35,317,665.89	1,145.72	998.10	35,693,798.86	
RANGE COMPLEX TOTAL (TPY)															0.39	3.00	0.52	0.35	0.05	21.74	14.61	3.44	4.63	0.86	265.36	159.02	23.76	67.02	11.52		838.74	17,658.83	0.57	0.50	17,846.90	
Testing: NSWC Panama City Division (GOMEX Range Complex)																																				
AUV Demo		0																																		
		0																																		
Mine Detect		0																																		
		0																																		
MCM Testing		0																																		
		0																																		
Stationary Test		0																																		
		0																																		
Spec War Test		0	0	RHIB	Rigid Hulled Inflatable Boat	0	6	100%	0	100%	0%	0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	12	0	0	0	0	0	0		
		0		SDV	No emissions																															
UUV Test		0																																		
		0																																		
Ord Test		0																																		
		0																																		
CM Test		0																																		
		0																																		
Total		0																																		
Testing: NUWC Division Newport, RI																																				
Launcher Test		0																																		
		0																																		
Torpedo Test		0																																		
		0																																		
Towed Equip Test		0																																		
		0																																		
UUV Test		0																																		
		0																																		
USV Test		0																																		
		0																																		
UAV Test		0																																		
		0																																		
Semi-Stationary Equip Test		0																																		
		0																																		
AUV Demo		0																																		
		0																																		
Pierside Int Swimmer Defense		0																																		
		0																																		
Total	Total	0																																		

Table D-2: Virginia Capes Range Complex - Training Related - Vessel Air Emissions—No-Action Alternative (Continued)

Training or Testing Event	Location	Annual Operations (#)	OPERATIONAL INFORMATION - VESSELS												EMISSIONS/YEAR (lb.) BY JURISDICTION																					
			Ship / Vessel / Boat				Range Time (hr.)			Distribution (%)			Distribution (hr.)			State (0-3 nm offshore)					Waters of U.S. (3-12 nm)					International Waters (> 12 nm)					Fuel Flow (GPH)	Annual Fuel Consumption (gal)	Greenhouse Gas Emissions			
			Number	Ship Type	Type	Participation	Per Ship	Time at Each Power Level (%)	Total	0-3 nm from shore	3-12 nm from Shore	>12 nm from Shore	0-3 nm from shore	3-12 nm from shore	>12 nm from shore	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM			CO <sub>2</sub>	N <sub>2</sub> O	CH <sub>4</sub>	CO <sub>2-e</sub>
South Florida Ocean Measurement Facility Testing																																				
Signature Analysis Ops		0																																		
		0																																		
Mine RDT&E		0																																		
		0																																		
Surface Testing		0																																		
		0																																		
Subsurface Testing		0																																		
		0																																		
UUV Demos		0																																		
		0																																		
Total		0																																		
Pierside Events																																				
Surface Combatant Sea Trials: Pierside Sonar Testing	Pierside, Bath ME	0	0	CG	Cruiser	0.33	4	100%	0	100%	0%	0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	158	0	0	0	0	0	
	Pierside, Groton CT	0	0	DDG	Guided Missile Destroyer	0.33	4	100%	0	100%	0%	0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	160	0	0	0	0	0	
	Pierside , RI	0	0	FFG	Guided Missile Frigate	0.33	4	100%	0	100%	0%	0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	68	0	0	0	0	0	
	Pierside, Norfolk Little Creek or Newport News	0																																		
	Pierside Kings Bay GA	0																																		
	Pierside, Mayport FL	0																																		
	Pierside, Port Canaveral FL	0																																		
	Pierside, Pascagoula MS	0																																		
	Total	0																																		
Submarine Sea Trials- Pierside Sonar Testing	Pierside, Bath ME	0		SSN	No emissions																															
	Pierside, Groton CT	0																																		
	Pierside , RI	0																																		
	Pierside, Norfolk Little Creek or Newport News	0																																		
	Pierside Kings Bay GA	0																																		
	Pierside, Mayport FL	0																																		
	Pierside, Port Canaveral FL	0																																		
	Pierside, Pascagoula MS	0																																		
	Total	0																																		



Table D-2: Virginia Capes Range Complex - Training Related - Vessel Air Emissions—No-Action Alternative (Continued)

			OPERATIONAL INFORMATION - VESSELS													EMISSIONS/YEAR (lb.) BY JURISDICTION																				
Training or Testing Event	Location	Annual Operations (#)	Ship / Vessel / Boat				Range Time (hr.)			Distribution (%)			Distribution (hr.)			State (0-3 nm offshore)					Waters of U.S. (3-12 nm)					International Waters (> 12 nm)					Fuel Flow (GPH)	Greenhouse Gas Emissions				
			Number	Ship Type	Type	Participation	Per Ship	Time at Each Power Level (%)	Total	0-3 nm from shore	3-12 nm from Shore	>12 nm from Shore	0-3 nm from shore	3-12 nm from shore	>12 nm from shore	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM		Annual Fuel Consumption (gal)	CO <sub>2</sub>	N <sub>2</sub> O	CH <sub>4</sub>	CO <sub>2-e</sub>
Pierside Integrated Swimmer Defense	Pierside, Bath ME	0	0	CG	Cruiser	0.33	3	100%	0	100%	0%	0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	158	0	0	0	0	0		
	Pierside, Groton CT	0	0	DDG	Guided Missile Destroyer	0.33	3	100%	0	100%	0%	0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	160	0	0	0	0	0			
	Pierside , RI	0	0	FFG	Guided Missile Frigate	0.33	3	100%	0	100%	0%	0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	68	0	0	0	0	0			
	Pierside, Norfolk Little Creek or Newport News	0																																		
	Pierside Kings Bay GA	0																																		
	Pierside, Mayport FL	0																																		
	Pierside, Port Canaveral FL	0																																		
	Pierside, Pascagoula MS	0																																		
	Total	0																																		

AAV: amphibious assault vehicle; AFTT: Atlantic Fleet Training and Testing; AOE: fast combat support ship; ASW: anti-submarine warfare; AUV: autonomous underwater vehicle; BOMBEX: bombing exercise; BW: boston whaler; CG: cruiser; CH4: methane; Cherry Pt: Navy Cherry Point Range Complex; CM: countermeasures; CO: carbon monoxide; CO2: carbon dioxide; CO2e: carbon dioxide equivalent; CVN: aircraft carrier; DDG: destroyer; EFV: expeditionary fighting vehicle; EOD: explosive ordnance disposal; FFG: frigate; gal: gallon; GHG: greenhouse gas; GOMEX: Gulf of Mexico Range Complex; GPH: gallons per hour; hr: hour; JAX: Jacksonville Range Complex; Key West: Key West Range Complex; lb: pound; LCAC: landing craft air cushion; LCU: landing craft utility; LHA: amphibious assault ship; LHD: landing helicopter dock; LPD: landing platform dock; LSD: landing ship dock; MCM: mine countermeasures; MPA: maritime patrol aircraft; N2O: nitrous oxide; nm: nautical mile; Northeast: Northeast Range Complexes; NOx: nitrogen oxides; NSWC: Naval Surface Warfare Center, Panama City Division Testing Range; NUWC: Naval Undersea Warfare Center Division, Newport Testing Range; Ord: ordnance; Outside RCs: Other AFTT Areas; PC: patrol coastal; PM: particulate matter; RDT&E: research, development, test, and evaluation; RHIB: rigid hull inflatable boat; ROV: remotely operated vehicle; SDV: SEAL delivery vehicle; SEASWITI: southeast anti-submarine warfare integration training initiative; SFOMF: South Florida Ocean Measurement Facility; SOx: sulfur oxides; SSN: nuclear powered fast attack submarine; TORPEX: torpedo exercise; TRACKEX: tracking exercise; TRB: torpedo retrieval boat; UAV: unmanned aerial vehicle; USV: unmanned surface vehicle; UUV: unmanned undersea vehicle; VACAPES: Virginia Capes Range Complex; VOC: volatile organic compounds

NOTES: A standardized calculation worksheet was developed for all training and testing locations; for each alternative; and for each training and testing activity listed in Chapter 2 (Description of Proposed Action and Alternatives). Emissions estimates for the VACAPES Range Complex example are based on the VACAPES Range Complex activities (Annual Operations #) presented in Column C. Applied emission factors not shown.

**Table D-3: Virginia Capes Range Complex - Training Related - Aircraft Air Emissions—No-Action Alternative**

Training or Testing Event	Location	Annual Operations (#)	TRAINING OPS INFORMATION - AIRCRAFT												Training Platform		EMISSIONS (lb./yr)																						
			Distribution	Aircraft		Time		Altitude		Distribution (%)			Distribution (hr.)				State (0-3 nm)					U.S. (3-12 nm)					International (>12 nm)					Annual Fuel Use (total)		Greenhouse Gas Emissions (lb)					
				A/C Sorties (#)	Type	Ave Time on Range (hr.)	Total Time on Range (hr.)	Time < 3,000 ft (%)	Time < 3,000 ft (hr.)	0-3 nm from shore	3-12 nm from Shore	>12 nm from Shore	Total Time 0-3 nm from shore	Total Time 3-12 nm from Shore	Total Time >12 nm from shore	Engines (#)	Fuel Flow (lb/hr)	CO	NOx	VOC	SOx	PM	CO	NOx	VOC	SOx	PM	CO	NOx	VOC	SOx	PM	Pounds	Gallons	CO <sub>2</sub>	N <sub>2</sub> O	CH <sub>4</sub>	CO <sub>2-e</sub>	
Anti-Air Warfare																																							
Air Combat Maneuver	Northeast	0	1.75	4,060	FA-18E/F	1.0	4,060	0%	0.0	4%	11%	85%	0.00	0.00	0.00	2	5,169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41,972,280	5,996,040	126,240,626	4,095	3568	127,585,088	
	VACAPES	2,320	0.25	580	AV-8B	1.0	580	0%	0.0	4%	11%	85%	0.00	0.00	0.00	1	6,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,480,000	497,143	10,466,846	340	296	10,578,318	
	Cherry Pt	385																																					
	JAX	498																																					
	Key West	5,700																																					
	GOMEX	0																																					
	Outside RCs	0																																					
Total	8,903																																						
Air Defense Exercise	Northeast	0	0.14	83	E-2	1.0	83	50%	41.7	0%	0%	100%	0.00	0.00	41.65	2	1,100	0	0	0	0	0	0	0	0	0	0	0	198	739	45	37	364	183,260	26,180	551,194	18	16	557,064
	VACAPES	595	0.86	512	FA-18E/F	1.0	512	50%	255.9	0%	0%	100%	0.00	0.00	255.85	2	5,169	0	0	0	0	0	0	0	0	0	0	1,904	39,013	317	1,058	17,351	5,289,955	755,708	15,910,672	516	450	16,080,121	
	Cherry Pt	21																																					
	JAX	117																																					
	Key West	0																																					
	GOMEX	80																																					
	Outside RCs	0																																					
Total	813																																						
Gunnery Exercise, Air-to-Air (Medium-Caliber)	Northeast	0	1.75	53	FA-18E/F	1.0	53	0%	0.0	4%	11%	85%	0.00	0.00	0.00	2	5,169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	542,745	77,535	1,632,422	53	46	1,649,807	
	VACAPES	30	0.25	8	AV-8B	1.0	8	0%	0.0	4%	11%	85%	0.00	0.00	0.00	1	6,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45,000	6,429	135,347	4	4	136,789		
	Cherry Pt	10																																					
	JAX	23																																					
	Key West	36																																					
	GOMEX	0																																					
	Outside RCs	0																																					
Total	99																																						
Missile Exercise, Air-to-Air	Northeast	0	0.33	53	FA-18A/C	2.0	106	0%	0.0	0%	0%	100%	0.00	0.00	0.00	2	3,318	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	700,762	100,109	2,107,691	68	60	2,130,138	
	VACAPES	160	0.5	80	FA-18E/F	2.0	160	0%	0.0	0%	0%	100%	0.00	0.00	0.00	2	5,169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,654,080	236,297	4,975,000	161	141	5,027,984		
	Cherry Pt	20	0.09	14	E-2C	4.0	58	0%	0.0	0%	0%	100%	0.00	0.00	0.00	2	1,100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	126,720	18,103	381,138	12	11	385,197		
	JAX	22	0	0	EA-18G	2.0	0	0%	0.0	0%	0%	100%	0.00	0.00	0.00	2	5,169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	Key West	0	0.08	13	DC-130	4.0	51	0%	0.0	0%	0%	100%	0.00	0.00	0.00	4	1,125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	230,400	32,914	692,977	22	20	700,358		
	GOMEX	0																																					
	Outside RCs	0																																					
Total	202																																						
Gunnery Exercise, Surface-to-Air (Large-Caliber)	Northeast	0	0.58	10	Learjet	3.0	31	50%	15.7	0%	0%	100%	0.00	0.00	15.66	2	532	0	0	0	0	0	0	0	0	0	0	0	373	98	71	7	21	33,324	4,761	100,231	3	3	101,298
	VACAPES	18																																					
	Cherry Pt	0																																					
	JAX	13																																					
	Key West	0																																					
	GOMEX	0																																					
	Outside RCs	0																																					
Total	31																																						
Gunnery Exercise, Surface-to-Air (Medium-Caliber)	Northeast	0	0.58	17	Learjet	3.0	52	50%	26.1	0%	0%	100%	0.00	0.00	26.10	2	532	0	0	0	0	0	0	0	0	0	0	622	164	118	11	35	55,541	7,934	167,051	5	5	168830	
	VACAPES	30																																					
	Cherry Pt	0																																					
	JAX	11																																					
	Key West	0																																					
	GOMEX	0																																					
	Outside RCs	0																																					
Total	41																																						
Missile Exercise, Surface-to-Air	Northeast	0	0.33	8	SH-60B	3.0	24	100%	23.8	0%	0%	100%	0.00	0.00	23.76	2	600	0	0	0	0	0	0	0	0	0	0	178	182	16	11	120	28,512	4,073	85,756	3	2	86,669	
	VACAPES	24	0.33	8	P-3	3.0	24	67%	15.8	0%	0%	100%	0.00	0.00	15.85	4	1,200	0	0	0	0	0	0	0	0	0	138	641	31	30	302	114,048	16,293	343,024	11	10	346,677		
	Cherry Pt	8	0.33	8	Learjet	3.0	24	67%	15.8	0%	0%	100%	0.00	0.00	15.85	2	532	0	0	0	0	0	0	0	0	0	377	99	72	7	21	25,281	3,612	76,037	2	2	76,847		
	JAX	8	0	0	C-130	3.0	0	67%	0.0	0%	0%	100%	0.00	0.00	0.00	4	1,125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	Key West	0																																					

Table D-3: Virginia Capes Range Complex - Training Related - Aircraft Air Emissions—No-Action Alternative (Continued)

[illegible]

Table D-3: Virginia Capes Range Complex - Training Related - Aircraft Air Emissions—No-Action Alternative (Continued)

Training or Testing Event	Location	Annual Operations (#)	TRAINING OPS INFORMATION - AIRCRAFT												Training Platform		EMISSIONS (lb./yr)																					
			Distribution	Aircraft		Time		Altitude		Distribution (%)			Distribution (hr.)				State (0-3 nm )					U.S. (3-12 nm)					International (>12 nm)					Annual Fuel Use (total)		Greenhouse Gas Emissions (lb)				
				A/C Sorties (#)	Type	Ave Time on Range (hr.)	Total Time on Range (hr.)	Time < 3,000 ft (%)	Time < 3,000 ft (hr.)	0-3 nm from shore	3-12 nm from Shore	>12 nm from Shore	Total Time 0-3 nm from shore	Total Time 3-12 nm from shore	Total Time >12 nm from shore	Engines (#)	Fuel Flow (lb/hr)	CO	NOx	VOC	SOx	PM	CO	NOx	VOC	SOx	PM	CO	NOx	VOC	SOx	PM	Pounds	Gallons	CO <sub>2</sub>	N <sub>2</sub> O	CH <sub>4</sub>	CO <sub>2e</sub>
Gunnery Exercise, Surface-to-Surface, (Boat) Medium-Caliber	Northeast	0			vessel emissions																																	
	VACAPES	36																																				
	Cherry Pt	0																																				
	JAX	96																																				
	Key West	0																																				
	GOMEX	4																																				
	Outside RCs	0																																				
Total	136																																					
Missile Exercise, Surface-to-Surface	Northeast	0			vessel emissions																																	
	VACAPES	0																																				
	Cherry Pt	0																																				
	JAX	0																																				
	Key West	0																																				
	GOMEX	0																																				
	Outside RCs	0																																				
Total	0																																					
Gunnery Exercise, Air-to-Surface, Small-Caliber	Northeast	0	0.74	386	SH-60B	1.0	386	100%	386.3	0%	50%	50%	0.00	193.14	193.14	2	600	0	0	0	0	0	1207	1236	106	77	811	1,449	1,483	127	93	973	463,536	66,219	1,394,184	45	39	1,409,032
	VACAPES	522	0.25	131	SH-60F	1.0	131	100%	130.5	0%	50%	50%	0.00	65.25	65.25	2	600	0	0	0	0	0	408	418	36	26	274	489	501	43	31	329	156,600	22,371	471,008	15	13	476,024
	Cherry Pt	120	0.01	5	MH-60R/S	1.0	5	100%	5.2	0%	50%	50%	0.00	2.61	2.61	2	600	0	0	0	0	0	16	17	1	1	11	20	20	2	1	13	6,264	895	18,840	1	1	19,041
	JAX	168																																				
	Key West	0																																				
	GOMEX	0																																				
	Outside RCs	0																																				
Total	810																																					
Gunnery Exercise, Air-to-Surface, Medium-Caliber	Northeast	0	0.74	8	SH-60B	1.0	8	100%	8.1	0%	25%	75%	0.00	2.04	6.11	2	600	0	0	0	0	0	13	13	1	1	9	46	47	4	3	31	9,768	1,395	29,379	1	1	29,692
	VACAPES	11	0.25	3	SH-60F	1.0	3	100%	2.8	0%	25%	75%	0.00	0.69	2.06	2	600	0	0	0	0	0	4	4	0	0	3	15	16	1	1	10	3,300	471	9,925	0	0	10,031
	Cherry Pt	20	0.01	0	MH-60R/S	1.0	0	100%	0.1	0%	25%	75%	0.00	0.03	0.08	2	600	0	0	0	0	0	0	0	0	0	1	1	0	0	0	132	19	397	0	0	401	
	JAX	0																																				
	Key West	0																																				
	GOMEX	40																																				
	Outside RCs	0																																				
Total	71																																					
Missile Exercise, Air-to-Surface, Rocket	Northeast	0	0.33	32	SH-60B	3.0	96	100%	96.0	0%	25%	75%	0.00	24.01	72.02	2	600	0	0	0	0	0	150	154	13	10	101	540	553	48	35	363	115,236	16,462	346,597	11	10	350,288
	VACAPES	97	0.17	16	SH-60F	3.0	49	100%	49.5	0%	25%	75%	0.00	12.37	37.10	2	600	0	0	0	0	0	77	79	7	5	52	278	285	24	18	187	59,364	8,481	178,550	6	5	180,452
	Cherry Pt	0	0.18	17	FA-18A/C	2.0	35	10%	3.5	0%	25%	75%	0.00	0.87	2.62	2	3,318	0	0	0	0	0	2	6	0	0	6	42	117	8	7	111	231,729	33,104	696,975	23	20	704,398
	JAX	0	0.18	17	FA-18E/F	2.0	35	10%	3.5	0%	25%	75%	0.00	0.87	2.62	2	5,169	0	0	0	0	0	1	13	0	0	6	19	399	3	11	178	361,003	51,572	1,085,794	35	31	1,097,357
	Key West	0	0.14	14	S-3B	3.0	41	10%	4.1	0%	25%	75%	0.00	1.02	3.06	2	1,145	0	0	0	0	0	14	4	2	0	4	99	28	13	3	25	93,295	13,328	280,604	9	8	283,592
	GOMEX	0																																				
	Outside RCs	0																																				
Total	97																																					
Missile Exercise, Air-to-Surface	Northeast	0	0.33	26	SH-60B	3.0	79	100%	79.2	0%	0%	100%	0.00	0.00	79.20	2	600	0	0	0	0	0	0	0	0	0	0	594	608	52	38	399	95,040	13,577	285,853	9	8	288,898
	VACAPES	80	0.17	14	SH-60F	3.0	41	100%	40.8	0%	0%	100%	0.00	0.00	40.80	2	600	0	0	0	0	0	0	0	0	0	306	313	27	20	206	48,960	6,994	147,258	5	4	148,826	
	Cherry Pt	16	0.18	14	FA-18A/C	2.0	29	10%																														

**Table D-3: Virginia Capes Range Complex - Training Related - Aircraft Air Emissions—No-Action Alternative (Continued)**

[illegible]

**Table D-3: Virginia Capes Range Complex - Training Related - Aircraft Air Emissions—No-Action Alternative (Continued)**

[illegible]

**Table D-3: Virginia Capes Range Complex - Training Related - Aircraft Air Emissions—No-Action Alternative (Continued)**

[illegible]





**Table D-3: Virginia Capes Range Complex - Training Related - Aircraft Air Emissions—No-Action Alternative (Continued)**

[illegible]

**Table D-3: Virginia Capes Range Complex - Training Related - Aircraft Air Emissions—No-Action Alternative (Continued)**

[illegible]

**Table D-3: Virginia Capes Range Complex - Training Related - Aircraft Air Emissions—No-Action Alternative (Continued)**

[illegible]

Table D-3: Virginia Capes Range Complex - Training Related - Aircraft Air Emissions—No-Action Alternative (Continued)

Training or Testing Event	Location	Annual Operations (#)	TRAINING OPS INFORMATION - AIRCRAFT												Training Platform		EMISSIONS (lb./yr)																					
			Distribution	Aircraft		Time		Altitude		Distribution (%)			Distribution (hr.)				State (0-3 nm )					U.S. (3-12 nm)					International (>12 nm)					Annual Fuel Use (total)		Greenhouse Gas Emissions (lb)				
				A/C Sorties (#)	Type	Ave Time on Range (hr.)	Total Time on Range (hr.)	Time < 3,000 ft (%)	Time < 3,000 ft (hr.)	0-3 nm from shore	3-12 nm from Shore	>12 nm from Shore	Total Time 0-3 nm from shore	Total Time 3-12 nm from shore	Total Time >12 nm from shore	Engines (#)	Fuel Flow (lb/hr)	CO	NOx	VOC	SOx	PM	CO	NOx	VOC	SOx	PM	CO	NOx	VOC	SOx	PM	Pounds	Gallons	CO <sub>2</sub>	N <sub>2</sub> O	CH <sub>4</sub>	CO <sub>2-e</sub>
Pierside Events																																						
Surface Combatant Sea Trials: Pierside Sonar Testing	Pierside, Bath ME	0																																				
	Pierside, Groton CT	0																																				
	Pierside, RI	0																																				
	Pierside, Norfolk Little Creek or Newport News	0																																				
	Pierside Kings Bay GA	0																																				
	Pierside, Mayport FL	0																																				
	Pierside, Port Canaveral FL	0																																				
	Pierside, Pascagoula MS	0																																				
	Total	0																																				
	Submarine Sea Trials- Pierside Sonar Testing	Pierside, Bath ME	0																																			
Pierside, Groton CT		0																																				
Pierside, RI		0																																				
Pierside, Norfolk Little Creek or Newport News		0																																				
Pierside Kings Bay GA		0																																				
Pierside, Mayport FL		0																																				
Pierside, Port Canaveral FL		0																																				
Pierside, Pascagoula MS		0																																				
Total		0																																				
Pierside Integrated Swimmer Defense		Pierside, Bath ME	0																																			
	Pierside, Groton CT	0																																				
	Pierside, RI	0																																				
	Pierside, Norfolk Little Creek or Newport News	0																																				
	Pierside Kings Bay GA	0																																				
	Pierside, Mayport FL	0																																				
	Pierside, Port Canaveral FL	0																																				
	Pierside, Pascagoula MS	0																																				
	Total	0																																				

A/C: aircraft; AFTT: Atlantic Fleet Training and Testing; ASW: anti-submarine warfare; AUV: autonomous underwater vehicle; BOMBEX: bombing exercise; CH4: methane; Cherry Pt: Navy Cherry Point Range Complex; CM: countermeasures; CO: carbon monoxide; CO2: carbon dioxide; CO2e: carbon dioxide equivalent; EOD: explosive ordnance disposal; gal: gallon; GHG: greenhouse gas; GOMEX: Gulf of Mexico Range Complex; GPH: gallons per hour; hr: hour; JAX: Jacksonville Range Complex; Key West: Key West Range Complex; lb: pound; MCM: mine countermeasures; MPA: maritime patrol aircraft; N2O: nitrous oxide; nm: nautical mile; Northeast Range Complexes; NOx: nitrogen oxides; NSWC: Naval Surface Warfare Center, Panama City Division Testing Range; NUWC: Naval Undersea Warfare Center Division, Newport Testing Range; Ord: ordnance; Outside RCs: Other AFTT Areas; PM: particulate matter; RDT&E: research, development, test, and evaluation; ROV: remotely operated vehicle; SEASWITI: southeast anti-submarine warfare integration training initiative; SFOMF: South Florida Ocean Measurement Facility; SOx: sulfur oxides; TORPEX: torpedo exercise; TRACKEX: tracking exercise; UAV: unmanned aerial vehicle; USV: unmanned surface vehicle; UUV: unmanned undersea vehicle; VACAPES: Virginia Capes Range Complex; VOC: volatile organic compounds

NOTE: A standardized calculation worksheet was developed for all training and testing locations; for each alternative; and for each training and testing activity listed in Chapter 2 (Description of Proposed Action and Alternatives). Emissions estimates for the VACAPES Range Complex example are based on the VACAPES Range Complex activities (Annual Operations #) presented in Column C. Applied emission factors not shown.

**Table D-4: Ordnance Emissions Estimates - No Action Alternative**

[illegible]

**Table D-4: Ordnance Emissions Estimates - No Action Alternative (Continued)**

ORDNANCE EMISSIONS ESTIMATES - NO ACTION ALTERNATIVE																																						
MEM Category	Location – Range Complex	Number of MEM Items (Annual) for Training Activities	Number of MEM Items (Annual) for Testing Activities	Emission Factors (lb./item)						Emissions (lb./year) Training						Emissions (TPY) Training						Emissions (lb./year) Testing						Emissions (TPY) Testing										
		No Action Alternative	No Action Alternative	CO	NOx	VOC	SOx	PM10	PM2.5	CO	NOx	VOC	SOx	PM10	PM2.5	CO	NOx	VOC	SOx	PM10	PM2.5	CO	NOx	VOC	SOx	PM10	PM2.5	CO	NOx	VOC	SOx	PM10	PM2.5					
Medium-Caliber (Non-Explosive Practice Munitions)	Northeast / NUWC Newport	0	0	0.0330	0.0004	0.0000	0.0000	0.0007	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Virginia Capes	226,750	42,210	0.0330	0.0004	0.0000	0.0000	0.0007	0.0005	7482.7500	97.5025	0.0000	0.0000	149.6550	104.3050	3.7414	0.0488	0.0000	0.0000	0.0748	0.0522	1392.9300	18.1503	0.0000	0.0000	27.8586	19.4166	0.6965	0.0091	0.0000	0.0000	0.0000	0.0000	0.0139	0.0097			
	Navy Cherry Pt.	39,075	0	0.0330	0.0004	0.0000	0.0000	0.0007	0.0005	1289.4750	16.8023	0.0000	0.0000	25.7895	17.9745	0.6447	0.0084	0.0000	0.0000	0.0129	0.0090	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	Jacksonville	68,825	16,000	0.0330	0.0004	0.0000	0.0000	0.0007	0.0005	2271.2250	29.5948	0.0000	0.0000	45.4245	31.6595	1.1356	0.0148	0.0000	0.0000	0.0227	0.0158	528.0000	6.8800	0.0000	0.0000	10.5600	7.3600	0.2640	0.0034	0.0000	0.0000	0.0053	0.0037					
	Key West	36,000	0	0.0330	0.0004	0.0000	0.0000	0.0007	0.0005	1188.0000	15.4800	0.0000	0.0000	23.7600	16.5600	0.5940	0.0077	0.0000	0.0000	0.0119	0.0083	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
	GOMEX / NSWC Panama City	34,880	5,272	0.0330	0.0004	0.0000	0.0000	0.0007	0.0005	1151.0400	14.9984	0.0000	0.0000	23.0208	16.0448	0.5755	0.0075	0.0000	0.0000	0.0115	0.0080	173.9760	2.2670	0.0000	0.0000	3.4795	2.4251	0.0870	0.0011	0.0000	0.0000	0.0017	0.0012					
	Any OPAREA	0	0	0.0330	0.0004	0.0000	0.0000	0.0007	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
	Other AFTT	0	4,572	0.0330	0.0004	0.0000	0.0000	0.0007	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
	Total	405,530	68,054																																			
Large-Caliber (High-Explosive)	Northeast / NUWC Newport	0	0	0.1280	0.1600	0.0000	0.0000	0.0096	0.0074	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
	Virginia Capes	858	0	0.1280	0.1600	0.0000	0.0000	0.0096	0.0074	109.8240	137.2800	0.0000	0.0000	8.2368	6.3835	0.0549	0.0686	0.0000	0.0000	0.0041	0.0032	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
	Navy Cherry Pt.	78	0	0.1280	0.1600	0.0000	0.0000	0.0096	0.0074	9.9840	12.4800	0.0000	0.0000	0.7488	0.5803	0.0050	0.0062	0.0000	0.0000	0.0004	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
	Jacksonville	390	0	0.1280	0.1600	0.0000	0.0000	0.0096	0.0074	49.9200	62.4000	0.0000	0.0000	3.7440	2.9016	0.0250	0.0312	0.0000	0.0000	0.0019	0.0015	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
	Key West	0	0	0.1280	0.1600	0.0000	0.0000	0.0096	0.0074	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
	GOMEX / NSWC Panama City	0	0	0.1280	0.1600	0.0000	0.0000	0.0096	0.0074	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
	Other AFTT	700	0	0.1280	0.1600	0.0000	0.0000	0.0096	0.0074	89.6000	112.0000	0.0000	0.0000	6.7200	5.2080	0.0448	0.0560	0.0000	0.0000	0.0034	0.0026	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
	Total	2,026	0																																			
	Large-Caliber (Non-Explosive Practice Munition)	Northeast / NUWC Newport	0	148	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
Virginia Capes		3,844	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				
Navy Cherry Pt.		1,392	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				
Jacksonville		2,372	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				
Key West		0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				
GOMEX / NSWC Panama City		1,240	448	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				
Other AFTT		0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				
Total		8,848	596																																			
Missiles (High Explosive)		Northeast / NUWC Newport	0	0																																		
	Virginia Capes	178	5																																			
	Navy Cherry Pt.	44	0																																			
	Jacksonville	88	5																																			
	Key West	0	0																																			
	GOMEX / NSWC Panama City	0	0																																			
	Other AFTT	11	0																																			
	Total	321	10																																			
Missiles (Non-Explosive Practice Munition)	Northeast / NUWC Newport	0	4																																			
	Virginia Capes	112	128																																			
	Navy Cherry Pt.	8	0																																			
	Jacksonville	15	5																																			
	Key West	0	0																																			
	GOMEX / NSWC Panama City	0	4																																			
	Any AFTT	0	0																																			
	Total	135	141																																			

Table D-4: Ordnance Emissions Estimates - No Action Alternative (Continued)

ORDNANCE EMISSIONS ESTIMATES - NO ACTION ALTERNATIVE																																		
MEM Category	Location – Range Complex	Number of MEM Items (Annual) for Training Activities	Number of MEM Items (Annual) for Testing Activities	Emission Factors (lb./item)						Emissions (lb./year) Training						Emissions (TPY) Training						Emissions (lb./year) Testing						Emissions (TPY) Testing						
		No Action Alternative	No Action Alternative	CO	NOx	VOC	SOx	PM10	PM2.5	CO	NOx	VOC	SOx	PM10	PM2.5	CO	NOx	VOC	SOx	PM10	PM2.5	CO	NOx	VOC	SOx	PM10	PM2.5	CO	NOx	VOC	SOx	PM10	PM2.5	
Rockets (High-Explosive)	Northeast / NUWC Newport	0	0	0.9300	0.0056	0.0000	0.0000	0.4000	0.2900	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Virginia Capes	0	150	0.9300	0.0056	0.0000	0.0000	0.4000	0.2900	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	139.5000	0.8400	0.0000	0.0000	60.0000	43.5000	0.0698	0.0004	0.0000	0.0000	0.0300	0.0218	
	Navy Cherry Pt.	0	0	0.9300	0.0056	0.0000	0.0000	0.4000	0.2900	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
	Jacksonville	0	110	0.9300	0.0056	0.0000	0.0000	0.4000	0.2900	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	102.3000	0.6160	0.0000	0.0000	44.0000	31.9000	0.0512	0.0003	0.0000	0.0000	0.0220	0.0160	
	Key West	0	0	0.9300	0.0056	0.0000	0.0000	0.4000	0.2900	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
	GOMEX / Panama City	0	0	0.9300	0.0056	0.0000	0.0000	0.4000	0.2900	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
	Other AFTT	0	0	0.9300	0.0056	0.0000	0.0000	0.4000	0.2900	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
	Total	0	260																															
Rockets (Non-Explosive)	Northeast / NUWC Newport	0	0	0.9300	0.0056	0.0000	0.0000	0.4000	0.2900	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
	Virginia Capes	3,700	0	0.9300	0.0056	0.0000	0.0000	0.4000	0.2900	3441.0000	20.7200	0.0000	0.0000	1480.0000	1073.0000	1.7205	0.0104	0.0000	0.0000	0.7400	0.5365	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
	Navy Cherry Pt.	0	0	0.9300	0.0056	0.0000	0.0000	0.4000	0.2900	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
	Jacksonville	0	0	0.9300	0.0056	0.0000	0.0000	0.4000	0.2900	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
	Key West	0	0	0.9300	0.0056	0.0000	0.0000	0.4000	0.2900	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
	GOMEX / Panama City	0	0	0.9300	0.0056	0.0000	0.0000	0.4000	0.2900	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
	Other AFTT	0	0	0.9300	0.0056	0.0000	0.0000	0.4000	0.2900	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
	Total	3,700	0																															
Pyrotechnic Buoys (e.g. MK 58 Marine Marker)	Northeast / NUWC Newport	238	10	0.0460	0.0010	0.0000	0.0001	0.6800	0.1100	10.9480	0.2380	0.0000	0.0286	161.8400	26.1800	0.0055	0.0001	0.0000	0.0000	0.0809	0.0131	0.4600	0.0100	0.0000	0.0012	6.8000	1.1000	0.0002	0.0000	0.0000	0.0000	0.0034	0.0006	
	Virginia Capes	345	158	0.0460	0.0010	0.0000	0.0001	0.6800	0.1100	15.8700	0.3450	0.0000	0.0414	234.6000	37.9500	0.0079	0.0002	0.0000	0.0000	0.1173	0.0190	7.2680	0.1580	0.0000	0.0190	107.4400	17.3800	0.0036	0.0001	0.0000	0.0000	0.0537	0.0087	
	Navy Cherry Pt.	199	5	0.0460	0.0010	0.0000	0.0001	0.6800	0.1100	9.1540	0.1990	0.0000	0.0239	135.3200	21.8900	0.0046	0.0001	0.0000	0.0000	0.0677	0.0109	0.2300	0.0050	0.0000	0.0006	3.4000	0.5500	0.0001	0.0000	0.0000	0.0000	0.0017	0.0003	
	Jacksonville	511	7	0.0460	0.0010	0.0000	0.0001	0.6800	0.1100	23.5060	0.5110	0.0000	0.0613	347.4800	56.2100	0.0118	0.0003	0.0000	0.0000	0.1737	0.0281	0.3220	0.0070	0.0000	0.0008	4.7600	0.7700	0.0002	0.0000	0.0000	0.0000	0.0024	0.0004	
	Key West	0	0	0.0460	0.0010	0.0000	0.0001	0.6800	0.1100	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
	GOMEX / Panama City	56	5	0.0460	0.0010	0.0000	0.0001	0.6800	0.1100	2.5760	0.0560	0.0000	0.0067	38.0800	6.1600	0.0013	0.0000	0.0000	0.0000	0.0190	0.0031	0.2300	0.0050	0.0000	0.0006	3.4000	0.5500	0.0001	0.0000	0.0000	0.0000	0.0017	0.0003	
	Other AFTT	0	5	0.0460	0.0010	0.0000	0.0001	0.6800	0.1100	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.2300	0.0050	0.0000	0.0006	3.4000	0.5500	0.0001	0.0000	0.0000	0.0000	0.0017	0.0003	
	Total	1,349	190																															
TOTALS BY COMPLEX (TPY)		Northeast / NUWC Newport	CO	NOx	VOC	SOx	PM10	PM2.5																										
		Virginia Capes	7.6293	0.1910	0.0000	0.0000	0.9694	0.6355																										
		Navy Cherry Pt.	0.8834	0.0244	0.0000	0.0000	0.0860	0.0240																										
		Jacksonville	1.7498	0.0706	0.0000	0.0000	0.2111	0.0549																										
		Key West	0.5940	0.0077	0.0000	0.0000	0.0119	0.0083																										
		GOMEX / NSWC Panama City	0.7443	0.0094	0.0000	0.0000	0.0316	0.0119																										
		Other AFTT	0.0448	0.0560	0.0000	0.0000	0.0034	0.0026																										
		Study Area Training Total	11.6511	0.3593	0.0000	0.0001	1.3942	0.7503																										
TOTALS BY COMPLEX (TPY)		Northeast / NUWC Newport	CO	NOx	VOC	SOx	PM10	PM2.5																										
		Virginia Capes	1.0217	0.0129	0.0000	0.0000	0.1027	0.0437																										
TOTALS BY COMPLEX (TPY)	Navy Cherry Pt.	0.0001	0.0000	0.0000	0.0000	0.0017	0.0003																											
	Jacksonville	0.4143	0.0050	0.0000	0.0000	0.0316	0.0214																											
	Key West	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																											
	GOMEX / NSWC Panama City	0.0963	0.0015	0.0000	0.0000	0.0036	0.0016																											
	Other AFTT	0.0756	0.0010	0.0000	0.0000	0.0032	0.0013																											
	Study Area Testing Total	1.6082	0.0204	0.0000	0.0000	0.1463	0.0688																											





## D.2 EXAMPLE RECORD OF NON-APPLICABILITY

This appendix shows an example of the documentation that will be prepared for each air quality control region in nonattainment or maintenance of the National Ambient Air Quality Standards potentially impacted by the Proposed Action. The example documentation (shown for Rhode Island) includes: a record of non-applicability memorandum (Figure D.2-1), a standard example form to show Clean Air Act conformity (Figure D.2-2), and sample conformity analyses (Figure D.2-3a and Figure D.2-3b).

### MEMORANDUM FOR THE RECORD

From: \_\_\_\_\_

Subj: Conformity Analyses for Atlantic Fleet Training and Testing (AFTT) Environmental Impact Statement/Overseas Environmental Impact Statement – Activities in Rhode Island Waters

Ref: 40 CFR, 51.853(b)

Encl: (1) Record of Non-Applicability for Atlantic Fleet Training and Testing in Rhode Island State Waters;

(2) Conformity Analyses for Preferred Alternative Operating Scenario in Rhode Island State Waters

1. Enclosure (1) is a Record of Non-Applicability for those activities associated with Atlantic Fleet Training and Testing activities which are expected to occur in Rhode Island waters annually. The total NO<sub>x</sub> and VOC emissions for the Preferred Alternative are included in enclosure (2). Comparison of the calculated values in enclosure (2) with those in reference (b) show this project is significantly below the *de minimis* levels.

2. If there are any questions or if additional information is needed, please call \_\_\_\_\_ at \_\_\_\_\_.

\_\_\_\_\_

Name

Title

**Figure D.2-1: Sample Record of Non-Applicability Memorandum for Rhode Island**

## NAVY RECORD OF NON-APPLICABILITY FOR CLEAN AIR ACT CONFORMITY

The Proposed Action falls under the Record of Non-Applicability (RONA) category and is documented with this RONA.

### **Proposed Action:**

**Action Proponents:** United States Fleet Forces Command

Naval Sea Systems Command

Naval Air Systems Command

Office of Naval Research

**Proposed Action Name:** Atlantic Fleet Training and Testing (AFTT) Environmental Impact Statement/Overseas Environmental Impact Statement (EIS/OEIS)

### **Proposed Action and Emissions Summary:**

**Affected Air Basin:** Metropolitan Providence Air Quality Control Region

**Date RONA prepared:** \_\_\_\_\_

**RONA prepared by:** Naval Facilities Engineering Command, Atlantic

### **Attainment Area Status and Emissions Evaluation Conclusion:**

To the best of my knowledge and belief, the information contained within this General Conformity Applicability Analysis is correct and accurate. By signing this statement, I am in agreement with the finding that the total of all reasonably foreseeable direct and indirect emissions that will result from this action is below the *de minimis* threshold set forth in 40 CFR 51.853(b). Accordingly, it is my determination that this action conforms to the applicable State Implementation Plan (SIP).

### **RONA Approval:**

Signature: \_\_\_\_\_

Name/Rank: \_\_\_\_\_ Date: \_\_\_\_\_

Position: \_\_\_\_\_ Commanding Officer: \_\_\_\_\_ Activity: \_\_\_\_\_

**Figure D.2-2: Sample Record of Non-Applicability Form**

**Subject: Conformity Analysis for Navy Training and Testing in Rhode Island Waters**

The AFTT EIS/OEIS has been prepared to assess current and future activities in the AFTT EIS/OEIS Study Area. The Study Area includes the state waters of Rhode Island wherein Naval Undersea Warfare Center Division, Newport Testing Range conducts testing activities. These training and testing activities generally involve a variety of boats and other watercraft which are used to support and also perform on-water testing activities. Portions of other Navy training and testing events are also conducted within and above Rhode Island waters. Aircraft overflights and vessel activities during portions of anti-submarine warfare and anti-surface warfare training and testing events would occur above Rhode Island waters.

Table 1 contains the list of on-water sources, engines, and their fuels, with the exception of the TWR-841 which also includes diesel-electric generators which can operate independently of the boat engines. This and other engine information was needed to calculate the potential emissions of nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOCs) resulting from testing activities conducted at the Naval Undersea Warfare Center Division, Newport Testing Range.

**Table 1: List of On-Water Sources, Engines and Fuels**

Boat or Source	Fuel	Number of Engines and Engine Size
WB825 (small boat)	Gasoline	One - 225 hp
UB-8906 (small boat)	Gasoline	One - 130 hp
RHIB 54 Boat (small boat)	Gasoline	Two - 40 hp
RHIB 687 Boat (small boat)	Gasoline	One – 90 hp
RHIB 85 Boat (small boat)	Gasoline	One -25 hp
WB-30	Diesel fuel oil	Two – 225 hp
TWR-841	Diesel fuel oil	Two – 2350 hp
Spartan 1 (Unmanned Surface Vehicle)	Diesel fuel oil	Two – 315 hp
Spartan 2 (Unmanned Surface Vehicle)	Diesel fuel oil	Two – 400 hp
Spartan 3 (Unmanned Surface Vehicle)	Diesel fuel oil	Two -440 hp
Spartan 4 (Unmanned Surface Vehicle)	Diesel fuel oil	Two – 500 hp
High Speed Ferry	Diesel fuel oil	Four – 1300 hp
Electric Generator Set 841	Diesel fuel oil	Two – 200 hp

**Figure D.2-3a: Sample Conformity Analysis for Rhode Island**

In addition to the engine information for each boat, the annual hours of operation for each boat was needed to estimate the emissions of NO<sub>x</sub> and VOCs. Using the engine and fuel information and proposed boat activities, the appropriate emission factors were identified from various Environmental Protection Agency documents for marine engines. These documents included, but were not limited to:

1. Draft Regulatory Impact Analysis: Control of Emissions of Air Pollution from Locomotive Engines and Marine Compression-Ignition Engines Less than 30 Liters per Cylinder, EPA420-D-007-001, March 2007.
2. USEPA Memorandum, "Emission Factors for Recreational Marine Diesel Engines," EPA Doc No. EPA420-F-02-044, dated 09 September 2002.
3. Exhaust and Crankcase Emission Factors for Nonroad Engine Modeling – Compression-Ignition EPA 420-P-04-009. April 2004.
4. "Conversion Factors for Hydrocarbon Emission Components" EPA420-R-05-015. December 2005, NR-002c.

For each source, the appropriate emission factor is multiplied by the time of use and engine size to estimate emissions. A similar methodology was applied to calculate aircraft emissions. The emissions of criteria air pollutants from all sources were added and converted to tons per year. Appendix D of the EIS/OEIS contains all the information from which these emissions estimates were calculated. The emissions estimates for CO, NO<sub>x</sub>, and VOC for each alternative are given in Table 2 below.

**Table 2: Rhode Island Emissions Estimates for the Preferred Alternative**

<b>Estimated Annual Air Pollutant Emissions in Rhode Island State Waters (within 3 nautical miles), Alternative 2</b>			
<b>Emissions by Air Pollutant (TPY)</b>			
	<b>CO</b>	<b>NO<sub>x</sub></b>	<b>VOC</b>
<b>No Action Alternative</b>	<b>42.78</b>	<b>38.56</b>	<b>2.02</b>
<b>Alternative 2</b>			
Aircraft	0.04	0.20	0.01
Vessels	64.47	60.64	3.11
<b>Alternative 2 Total</b>	<b>64.51</b>	<b>60.84</b>	<b>3.12</b>
Change	<b>21.73</b>	<b>22.28</b>	<b>1.10</b>
<i>de Minimis</i> Threshold	100	100	50
Exceeds Threshold	NO	NO	NO

TPY=tons per year; CO = carbon monoxide; NO<sub>x</sub> = nitrogen oxides; VOC = volatile organic compounds

**Figure D.2-3b: Sample Conformity Analysis for Rhode Island**

## **REFERENCES**

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- Aircraft Environmental Support Office. (2000a). AESO memorandum report No. 9915, revision A. Aircraft emission estimates: S-3 landing and takeoff cycle and in-frame, maintenance testing using JP-5.
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- U.S. Environmental Protection Agency. (1978). Air pollutant emission factors for military and civil aircraft.

U.S. Environmental Protection Agency. (1999). Exhaust emission factors for nonroad engine modeling - spark ignition.

## **APPENDIX E**

### **PUBLIC COMMENTS AND RESPONSES**

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## APPENDIX E PUBLIC COMMENTS AND RESPONSES

This appendix includes information about the public's participation in the development of the Atlantic Fleet Training and Testing (AFTT) Environmental Impact Statement (EIS)/Overseas Environmental Impact Statement (OEIS).

### E.1 SCOPING PERIOD

The public scoping period began with the issuance of the Notice of Intent in the Federal Register on 15 July 2010 (Appendix B; Federal Register Notices). This notice included a project description and scoping meeting dates and locations. The scoping period lasted 60 days, concluding on 14 September 2010. The scoping period allowed a variety of opportunities for the public to comment on the scope of the EIS/OEIS. The Navy made significant efforts to notify the public to ensure maximum public participation during the scoping process using stakeholder notification letters, postcard mailers, press releases, and newspaper display advertisements (Chapter 8, Public Involvement and Distribution). The meetings were structured in an open house format, presenting informational posters and written information, with Navy staff and project experts available to answer participants' questions.

The Navy received comments from 69 individuals and groups. Because many of the comments addressed more than one issue, 107 total comments resulted. The following provides a synopsis of the comments received.

**Biological Resources—Marine Mammals.** A significant number of participants expressed concern about impacts on marine mammals, in particular the North Atlantic right whale. Concerns were associated with use of Navy sonar; ship strikes; impacts of Navy training and testing on habitat, breeding grounds, and migration corridors; and the efficacy of mitigation measures.

**Sonar and Underwater Detonations.** Many comments mentioned concerns about the effect of Navy sonar on marine life, such as marine mammals, fish, sea turtles, and marine invertebrates. Some comments requested that the EIS/OEIS consider alternative technologies to mid-frequency active sonar.

**Threatened and Endangered Species.** Numerous comments discussed potential impacts on the North Atlantic right whale habitat and migration routes and on sea turtle nesting areas, nesting seasons, and habitat. Safety issues associated with ship strikes and entanglement were also raised, as were requests for identification of additional mitigation measures.

**Water Quality.** Water quality comments included general concerns about potential contaminants in the water, potential water quality impacts to fisheries, and habitat associated with Navy training, and adherence to federal and state regulations, including state coastal management programs.

**Other.** This category includes a range of comments with numerous submissions discussing the importance of offshore alternative energy interests and the need for Navy coordination with those interests and activities, including interaction with federal, regional, and state agencies. Related to that topic was a comment requesting review of wind turbine encroachment on Navy training areas. Other comments stated that new or broadened activities should be performed elsewhere, that previous Navy EIS documents have been inadequate, and that existing National Marine Fisheries Service (NMFS) and other regulatory permits should not be reissued. A comment related to potential effects on cultural and historical resources associated with the Alabama-Coushatta Tribe of Texas in the Gulf of Mexico was also submitted.

**Biological Resources—Fish and Marine Habitat.** A significant number of participants expressed concerns about impacts on fish and marine habitat, with specific mention of the red drum, striped bass, and effects on bottom habitat supporting snapper and grouper. Two commenters also requested evaluation of Navy activities on potential oil spill residue remaining in the Gulf of Mexico and associated impacts on habitat.

**Meetings/National Environmental Policy Act Process.** Comments on the National Environmental Policy Act (NEPA) process and scoping meetings included support of the scoping meetings held, the request for a public forum to be held in Texas, and a question about whether the Navy coordinates with local environmental groups as part of the NEPA process. Other comments stated that the EIS process under NEPA was Navy-driven and should include more independent, third-party review and involvement.

**Public Health and Safety.** Comments were submitted regarding the perceived safety challenges posed to people and the environment from military training and activities. Other comments discussed the importance of Navy training to U.S. defense.

**Alternatives.** A range of comments discussed alternatives, with some stating that alternatives were inadequate and lacked specificity, others providing suggested modifications to the list of alternatives, and others supporting the alternatives provided and the evaluation of adjoining and overlapping range complexes within one EIS document. Specific comments were submitted regarding the need for additional study of the Outer Continental Shelf resources and a request that the EIS include individual planning areas such as were included in the Atlantic Fleet Active Sonar Testing EIS.

**Recreation.** Requests were made that the EIS analyze the effects of training and testing on the nearshore environment and recreational resources.

**Air Quality.** Commenters requested complete characterizations and descriptions of the environmental resources and physical conditions in the area of potential impact, including air quality.

**Terrestrial/Birds.** In addition to comments about impacts on wildlife and birds in general, a specific request was made for the EIS to consider the impact of Navy training and testing on nesting waterbirds, including those found in the southern Chesapeake Bay.

**Depleted Uranium.** The concern with depleted uranium involved its effect on U.S. military personnel specifically and on people and the environment in general.

**Noise.** It was specifically requested that the EIS identify and evaluate potential noise impacts and disturbances from training and testing activities.

**Proposed Action.** The comment pertaining to the Proposed Action supported the proposal and alternatives.

**Regional Economy.** One comment noted the importance of the growing offshore alternative energy industry to the state economy and requested consideration of the impact of training and testing sites and activities on potential alternative energy interests.

## **E.2 PUBLIC COMMENT PERIOD FOR THE DRAFT ENVIRONMENTAL IMPACT STATEMENT/OVERSEAS ENVIRONMENTAL IMPACT STATEMENT**

The 60-day public comment period on the Draft EIS/OEIS began with the issuance of the Notice of Availability and a Notice of Public Meetings in the Federal Register on 11 May 2012 (Appendix B; Federal Register Notices). The public comment period began on 11 May 2012 and concluded on 10 July 2012. The Navy made significant efforts to notify the public to ensure maximum public participation during the public comment period using postcards, press releases, and newspaper display advertisements (Chapter 8, Public Involvement and Distribution).

The Notice of Public Meetings included a project description and dates and locations of the five public meetings. The public comment period allowed a variety of opportunities for the public to comment on the Draft EIS/OEIS (Appendix B; Federal Register Notices). Copies of the Draft EIS/OEIS were provided to 28 libraries along the east and Gulf coasts and the document was available on the project web site for review. Navy representatives were available during the open house public meetings to provide information and answer questions one-on-one. Comment sheets were made available to attendees.

Commenters provided their input on the Draft EIS/OEIS in letters submitted through mail, written or oral comments received at the public meetings, and via the project web site. The Navy also received form letters from one non-governmental organization and a petition from another non-governmental organization. Approximately 76,000 form letters were received, and there were approximately 477,000 signatures on the petition (Sections E.3.2.1 and E.3.2.2, respectively).

### **E.2.1 COMMENTERS, COMMENTS, AND RESPONSES**

This section contains a list of the agencies and private entities that elected to comment on the Draft EIS/OEIS (Tables E-1 and E-2) and a comment matrix with Navy responses associated with each comment (Tables E-3, E-4, and E-5). Scanned copies of comment letters (with comment numbers assigned by the Navy in yellow) are available on the project web site ([www.AFTTEIS.com](http://www.AFTTEIS.com)).

#### **E.2.1.1 Commenters**

During the 60-day public comment period, comments were received from 8 federal agencies, 16 state/local/regional agencies, 14 non-governmental organizations, and approximately 500 private individuals (approximation due to duplicate comments received). The following table lists the agencies and organizations that submitted comments during the comment period (Table E-1). The Commenter Identifier is used to identify the comments and responses in the comment response matrix (Tables E-3 and E-4). For example, a comment letter from a federal agency could have 10 comments within it. To organize responses, each commenter received a Commenter Identifier and each comment within the letter was numbered (e.g., F01-01 is the first comment in the letter from the Marine Mammal Commission).

**Table E-1: Agencies and Organizations Who Commented on the Draft Environmental Impact Statement/Overseas Environmental Impact Statement**

<b>Commenter Identifier</b>	<b>Commenting Agency/Organization</b>
<b>Federal Agencies (F)</b>	
F01	Marine Mammal Commission
F02	U.S. Army Corps of Engineers, Norfolk District
F03	Gulf of Mexico Fishery Management Council
F04	U.S. Army Corps of Engineers, Galveston District
F05	National Aeronautics and Space Administration, John F. Kennedy Space Center
F06	Federal Aviation Administration, New England Region
F07	Department of the Interior, Office of Environmental Policy and Compliance
F08	U.S. Environmental Protection Agency
F09	U.S. Army Corps of Engineers, Wilmington District
<b>State Agencies (S)</b>	
S01	Florida Department of Environmental Protection (includes comments from the Outer Continental Shelf Program, Bureau of Beaches and Coastal Systems, Fish and Wildlife Conservation Commission)
S02	Virginia Department of Environmental Quality
S03	State of Rhode Island Coastal Resources Management Council
S04	Texas Commission on Environmental Quality
S05	Virginia Marine Resources Commission
S06	North Carolina Department of Cultural Resources, State Historic Preservation Office
S07	Connecticut Department of Energy and Environmental Protection
S08	Delaware Department of Natural Resources and Environmental Control
S09	North Carolina Division of Marine Fisheries (also submitted under S11)
S10	Georgia Department of Natural Resources Wildlife Resources Division
S11	North Carolina Department of Administration on behalf of the Department of Environment and Natural Resources (Division of Marine Fisheries, Division of Parks and Recreation, Division of Coastal Management, and the North Carolina Wildlife Resources Commission)
S12	New Jersey Department of Environmental Protection
S13	Port of Virginia, Virginia Port Authority
S14	Maryland Department of Planning, Maryland Department of Natural Resources

**Table E-1: Agencies and Organizations Who Commented on the Draft Environmental Impact Statement/Overseas Environmental Impact Statement (Continued)**

<b>Commenter Identifier</b>	<b>Commenting Agency/Organization</b>
<b>Local/Regional Government Agencies (L)</b>	
L01	City of Norfolk, Virginia
L02	City of Virginia Beach, Virginia
L03	County of Monroe, Florida
<b>Organizations (O)</b>	
O01	Maryland Environmental Services
O02	Ocean Conservation Research
O03	Hampton Roads Military and Federal Facilities Alliance
O04	Sierra Club
O05	Wildseas.org
O06	Sierra Club Ocean County Group (New Jersey)
O07	Last Stand (Protect Key West & the Florida Keys)
O08	Ocean Defender
O09	Natural Resources Defense Council
O10	Humane Society Veterinary Medical Association
O11	Savannah Airport Commission
O12	Natural Resources Defense Council (Form Letter)
O13	Moveon.org (Petition)

As stated above, comments were received from approximately 500 private individuals (approximation due to duplicate comments received). The following list contains the private individuals (P) who submitted oral or written comments during the comment period (Table E-2). The Comment Identifier is used to identify the comments and responses in the comment response matrix (Table E-5). Names of individuals appear as they were provided to the Navy.

**Table E-2: Private Individuals Who Commented on the Draft Environmental Impact Statement/Overseas Environmental Impact Statement**

P001	A Klick	P035	DiDi Hendley	P071	Francisco Santos
P002	Aaron Joslin	P036	Donna Beck	P072	Francisco de Távira
P003	Aaron Dressin	P037	Donya Ayers-Bell	P073	Frank Mangione
P004	Abbey Sutherland	P038	Dorene Szeker	P074	Frederick Rose
P005	Alexander Baggett	P039	Dorene Schutz	P075	Gary Barton
P006	Alexi Curington	P040	Doris Maat	P076	Ana Koopmans
P007	Alisha Arita	P041	Doug Maesk	P077	Gary Pitcock
P008	Amanda Evans	P042	Douglas Morrison	P078	Geisa Teixeira
P009	Amanda Stovall	P043	Amy Donovan	P079	George Lyter
P010	Amanda Beard-White	P044	Ed Madej	P080	Gerrit Blom
P011	Darlene Moak	P045	Edith Wilson	P081	Gertrude Wallis
P012	David Dow	P046	Edith Maxey	P082	Gina Brown
P013	Dawn Royster	P047	Eileen Schendel	P083	Ginger Carter
P014	Dawn Kirch	P048	Elaine Smythe	P084	Guillermo Garcia
P015	Dawn Nelson	P049	Eleanor White	P085	Gunta Kaza
P016	Dawn Lauer	P050	Eleanor White	P086	Gwen Anderson
P017	Debbie Carter	P051	Elisse De Sio	P087	Andrew Weinstein
P018	Debbie Kozin	P052	Elizabeth Abrams	P088	Hanna Chitrik
P019	Deborah Fletcher	P053	Elizabeth Gray	P089	Harriet Shalat
P020	Deborah Seemayer-Iannotti	P054	Amy Evans	P090	Heather Hintz
P021	Amber Tisue	P055	Elizabeth Hall	P091	Heather Carpenter
P022	Deborah Salonek	P056	Elizabeth Hale	P092	Heather Mohan
P023	Deborah & Thomas Taylor	P057	Emilia Wronski	P093	Heidi Johnson
P024	Deborah S Van Damme	P058	Eric Mallin	P094	Heidi Lett
P025	Debra Scott	P059	Erica Cranden	P095	Henry DiPasquale
P026	Denise Boulet	P060	Erika Chotai	P096	Holland VanDieren
P027	Denise Wilson	P061	Eugene O'Keeffe	P097	Holly Gallo
P028	Desiree Herrera	P062	Evelyn Vollmer	P098	Angela Kemper
P029	Diana Marmorstein	P063	Evi Seidman	P099	Howard Lubel
P030	Diana George	P064	Fabiana Fiesmann	P100	Igor Khomyakov
P031	Diane Kastel	P065	Amy Pollman	P101	Ina Sparka
P032	Amy Wheeler	P066	Flo Flowing	P102	J Behrens
P033	Diane Wacker	P067	Florence Eaise	P103	J Ward
P034	Dianne Patterson	P068	Fonda Dichiarra	P104	Jack Foreman
		P069	Fonda Feingold	P105	Jahn Dussich
		P070	Francine Guokas	P106	James Rühle



**Table E-2: Private Individuals Who Commented on the Draft Environmental Impact Statement/Overseas Environmental Impact Statement (Continued)**

P107	Jan Johnson	P142	Anita French	P178	Karli Duran
P108	Jan McCreary	P143	Joanna Randazzo	P179	Kasia Muzyka
P109	Angelika Davis	P144	Joanna Lewis	P180	Kate Coyle
P110	Janet Weeks	P145	Joanna Lewis	P181	Kate Freeman
P111	Janet Arendacs	P146	Jodi Jubran	P182	Katherine McRory
P112	Janet Mercer	P147	Jodi Bauter	P183	Katherine Carrus
P113	Janette Kuhn	P148	Jody Gibney	P184	Katherine Dorothy
P114	Janette Reeve	P149	John Webb	P185	Kathleen Howard
P115	Janice Chalifoux	P150	John Hotvedt	P186	Anna Mason
P116	Janna Kruse	P151	John Abbott	P187	Kathleen Summers
P117	Janna de Braal	P152	John Abbott	P188	Kathleen Smith
P118	Jared Sombat	P153	Anita Welych	P189	Kathleen Reier
P119	Jarrett Gable	P154	John Abbott	P190	Kathryn Chalmers
P120	Angie Winterbottom	P155	John Abbott	P191	Kathy Patterson
P121	Jean Public	P156	John Shippey	P192	Kathy Braidhill
P122	Jeanette Owen	P157	Jonathan Ley	P193	Katie Jones
P123	Jean-François Van den Broeck	P158	Joshua Normandin	P194	Katy Albright
P124	Jedde Regante	P159	Joy Mitchem	P195	Keith Kocsis
P125	Jeff Reynolds	P160	Joyce Heid	P196	Keith Chaisson
P126	Jenni James	P161	Judith Fairly	P197	Anna Mason
P127	Jennifer Pechenik	P162	Julaine Nichols	P198	Kelli Hall
P128	Jennifer Dowdle	P163	Julia Hume	P199	Kelly Grudziecki
P129	Jennifer Vuillermet	P164	Anke Groeber	P200	Kelly Micklo
P130	Jennifer Bruns	P165	Julia Becker	P201	Ken K
P131	Anita Herrmann	P166	Julie Goldman	P202	Kevin Tierney
P132	Jennifer Ford	P167	Julie Rosenwinkel	P203	Kevin Mcmillen
P133	Jennifer Brown	P168	Julie McDaniel	P204	Kevon Storie
P134	Jennifer Wiseman	P169	June Polasek	P205	Kezia Snyder
P135	Jenny Jackman	P170	Justin Holt	P206	Kim Daly
P136	Jessica Woodward	P171	Kara Linsenmeiwr	P207	Kim Springer
P137	Jessica Woodward	P172	Kara Vlach-Lasher	P208	Anna Sillanpaa
P138	Jill Olson	P173	Karen Valerio	P209	Kim Cox
P139	Jill Ray	P174	Karen Maish	P210	Kim Davis
P140	Jill Nelson	P175	Ann Malone	P211	Kim Howell
P141	Joan Lorenz	P176	Karen Swistak	P212	Kimberly Kelly
		P177	Karla Koebernick	P213	Kirsi Hepworth

**Table E-2: Private Individuals Who Commented on the Draft Environmental Impact Statement/Overseas Environmental Impact Statement (Continued)**

P214	Kris Murphy
P215	Krista Gard
P216	Kristal Basanta
P217	Kristin Callis
P218	L Makely
P219	Anne Byers
P220	Lance Groth
P221	Lance Fanguy
P222	Larry Hirsch
P223	Laura Pereira
P224	Lauren Williams
P225	Lauren Garner
P226	Lawrence Baskett
P227	Leanne Williams
P228	Leanne Redmon
P229	Lee Channing
P230	Anneke Loggie
P231	Leinaala Kalama-Dutro
P232	Leslie Porter
P233	LI Southerland
P234	Libby Stortz
P235	Linda Churchwell
P236	Linda Kocsis
P237	Lisa Reff
P238	Lisa Bigger
P239	Lisa Wilkerson
P240	Lise Guillet
P241	Annette Cole
P242	Liz Marshall
P243	Loraine Miscavage
P244	Lori Girshick
P245	Louise Lilja
P246	Louise River
P247	Luanne Cullen
P248	Luke Gardner

P249	Lynn Anderson
P250	Lynn O'Dowd
P251	Lynn Garman
P252	Annette vd Berg
P253	Lynn Olson-Tuma
P254	Madeline Graham, DVM
P255	Magda Novak
P256	Magda Novak
P257	Magda Novak
P258	Marc Lemiere
P259	Margherite DeSanto
P260	Marguerite Strobel
P261	Maria Turcek
P262	Maria Schultz
P263	Anthony Stuckey
P264	Maria Vint
P265	Marica Mueller
P266	Marina Barry
P267	Marjorie Laird
P268	Markus Scherer
P269	Martha Roberts
P270	Maru Angarita
P271	Mary de Mars
P272	Mary Lotts
P273	Mary Barnich
P274	Arturo Lopez
P275	Mary Garrett
P276	Mary Anne O'Sullivan
P277	Mary P. Daoust
P278	Marylou Schmidt
P279	Matthew Reynolds
P280	Maureen Newton
P281	Maureen Engh
P282	Megan Haug
P283	Melanie Barnet

P284	Melinda McComb
P285	Barbara Haddad
P286	Melinda MacInnis
P287	Melissa Minton
P288	Meredith Loughlin
P289	Micah Loggie
P290	Michael Chapman
P291	Miguel Angel Tejada
P292	Mimi Nguyen
P293	Mindy Sweeny
P294	Monika Thelen
P295	Morgan Riley
P296	Barbara Fleming
P297	Naila Costa
P298	Nan Towle
P299	Nancy Jenkins
P300	Natalie Boydston
P301	Natasha Keogh
P302	Nicholas Read
P303	Nick Scholtes
P304	Nick Scholtes
P305	Nicole Silva
P306	Noah Craddock
P307	Barbara Fitzpatrick
P308	Olivia Withington
P309	Olof Minto
P310	Paige Lewandowski
P311	Pam Thompson
P312	Parry Lopez
P313	Pasha Yushin
P314	Pat Rasmussen
P315	Patricia Bourland
P316	Patricia Yager Delagrange
P317	Paul Kelley
P318	Barbara Holtz

**Table E-2: Private Individuals Who Commented on the Draft Environmental Impact Statement/Overseas Environmental Impact Statement (Continued)**

P319	Paula Avila	P355	Sarah Hays	P390	Sylvia Hlynisdottir
P320	Paulette Kaplan	P356	Sean Wise	P391	Tamara Santelli
P321	Perdita Holtz	P357	Serena Burnett	P392	Tamarleigh Grenfell
P322	Rachel Feldman	P358	Shane McKibben	P393	Tara Bionaz
P323	Randy Herz	P359	Sharlene Harrison-Hinds	P394	Tara Selbo
P324	Rebecca Portman	P360	Sharon Cohen	P395	Blake Andrews
P325	Rebecca Siegmund	P361	Sharon Silva	P396	Ted Lewis
P326	Rebecca Lunardi	P362	Barbara B. Ruge	P397	Teresa Keller
P327	Rebekah Maish	P363	Sharon Riley	P398	Terri Canavan
P328	Renate Riffe	P364	Shayna Weinstein	P399	Terry Baresh
P329	Barbara Holt	P365	Sheila Wells	P400	Terry Thompson
P330	Rhonda Rance	P366	Sherry Ramsey	P401	Terry Thompson
P331	Richard Pendarvis	P367	Shevy Singh	P402	Terry Thompson
P332	Rick Monroe	P368	Simran Kaur	P403	Theresa Sheridan
P333	Risa Mandell	P369	Sonia Hurt	P404	Thomas Wright
P334	Rita Lemkuil	P370	Sophie Ebert	P405	Thomas Brown
P335	Robert Seat	P371	Sophie Ebert	P406	Blythe Bostock
P336	Robert Seat	P372	Stacy Wagner	P407	Thomas Mazorlig
P337	Robin Sullivan	P373	Ben McKinley	P408	Thomas Monforte
P338	Robin Brown	P374	Stephanie Small	P409	Tina Drobilek
P339	Ron Cole	P375	Stephanie Terry	P410	Tommy Van Gampelaere
P340	Barbara Wallace	P376	Stephen Augustine	P411	Traci Hunt
P341	Rosalind Peterson	P377	Stephen Smith	P412	Tracy Purcell
P342	Rosemary Packard	P378	Steve Disch	P413	Tracy Korhonen
P343	Ruth Cooper	P379	Steve Armstrong	P414	Tricia Wyse
P344	Ruth Pennington	P380	Sue Murphy	P415	Tricia Rizzi
P345	Rutily Vincent	P381	Sujatha Ramakrishna	P416	Trina Lopatka
P346	Sabrina Roth	P382	Susan Menconi	P417	Bonnie Bennett
P347	Sam Jones	P383	Susan Clapp	P418	Valerie Loe
P348	Samantha Abadinsky	P384	Bill Baker	P419	Valerie Retter
P349	Samantha Novak	P385	Susan Snowball	P420	Valerie Haak
P350	Sandra Taylor	P386	Susan Siragusa-Ortman	P421	Vicki Cooper
P351	Barbara Kann	P387	Susan Woodward	P422	Vicki Mccallister
P352	Sandra Moreland	P388	Swamp Deville	P423	Victoria Anderson
P353	Sandy Dvorsky	P389	Sydney VerVynck	P424	Victoria Chamara
P354	Sarah Swingle				

**Table E-2: Private Individuals Who Commented on the Draft Environmental Impact Statement/Overseas Environmental Impact Statement (Continued)**

P425	Victoria Martin	P452	Caroline Verde	P481	Colleen Crinion
P426	Victoria Strang	P453	Carolyn Eck	P482	Cristina Stoye
P427	Virginia Perry	P454	Carolyn O'Brien	P483	Curt Albright
P428	Bonnie Duncan	P455	Casey Lewis	P484	Cyndi Nelson
P429	Warren Senders	P456	Catherine Blystone	P485	Cynthia Weller
P430	Wendy Vogelgesang	P457	Catherine Daligga	P486	Cynthia Greb
P431	Wendy Alward	P458	Cathy Ritacco	P487	D. Weinstein
P432	Will Jobbins	P459	Cathy Pupo	P488	Daria Gyedu
P433	William Knight	P460	Cayetana Johnson	P489	James Ruhle
P434	William and Martha Cherry	P461	Cecelia Theis	P490	Beverly Bernice Hatley Wilhite
P435	Yolanda Ochoa	P462	Charlene Ozell	P491	Eric Bernthal
P436	Yzetta Smith	P463	Charles Swanson	P492	Chris Capozziello
P437	Joseph Steel	P464	Charlotte Rivas	P493	Brian Hurley
P438	Bonnie Card	P466	Charlotte A. Shockley	P494	Heather Tallent
P439	Brenda Lee	P467	Cherry Lee	P495	Melody Halligan
P440	Brian Wauer	P468	Cheryl Huvar	P496	Richard Barry
P441	Brittany Herz	P469	Chisa Hidaka	P497	F&N
P442	Bruno Felix	P470	Christina Engert	P498	Marisa Landsberg
P443	C. Smith	P471	Christina Tallman	P499	Pat Ginsbach
P444	Camille Rousseau	P472	Christine Roth	P500	J. Capozzelli
P445	Candice McConnell	P473	Christine Cina	P501	Linn Barrett
P446	Carey Cherivtch	P474	Christine Coniglio	P502	Don Timmerman
P447	Carmen McIntyre	P475	Christopher Law	P503	Jean Marie Naples
P448	Carol Stewart	P476	Cindy Wargo	P504	Beverly Bernice Hatley Wilhite
P449	Carol Boyse	P477	Cindy Yang	P505	B. Holden
P450	Carol Brighton	P478	Claudia Cerio	P506	Suzanne Rivell
P451	Caroline Power	P479	Cleia Zinser		
		P480	Colleen Johnson		

## 1 **E.2.2 COMMENTS AND RESPONSES**

2 Tables E-3, E-4, and E-5 provide a listing of all comments received on the Draft EIS/OEIS and the Navy's  
3 responses. Responses to these comments were prepared and reviewed for scientific and technical  
4 accuracy and completeness. Comments appear as they were submitted and have not been altered with  
5 the exception that expletives, addresses, and phone numbers were removed, as necessary. Table E-3  
6 contains comments from federal (F), state (S), and local (L) agencies received during the public comment  
7 period and the Navy's response.

Table E-3: Responses to Comments from Agencies

Comment Identifier	Comment	Navy Response
F01-01	The Marine Mammal Commission recommends that the Navy revise the DEIS by expanding the range of alternatives under consideration to include at least one with lower levels of training and testing activities. Doing so is particularly important at this time when decision-makers may be faced with the choice of reducing the Navy's budget and, if they do so, they should be well informed about the environmental consequences of the various decisions that they might make;	The Navy developed the alternatives considered in this EIS/OEIS after careful assessment by subject matter experts, including military units and commands that utilize the ranges, military range management professionals, and Navy environmental managers and scientists. The environmental consequences of individual activities (e.g., torpedo exercises, mine countermeasures exercises, tracking exercises, etc.) have been analyzed in the EIS/OEIS with sufficient detail to inform the decision maker of the environmental consequences of making a budget-related reduction in training or testing activity if needed. Furthermore, Alternative 1 contains lower levels of training and testing than Alternative 2.
F01-02	The Marine Mammal Commission recommends that the Navy either (1) append to the DEIS any environmental analyses of AUTECH activities or (2) complete such analyses to ensure that activities conducted at AUTECH have been duly evaluated under Executive Order 12114;	Activities at the Atlantic Undersea Test and Evaluation Center (AUTECH) are not part of this Proposed Action. See Section 2.1 (Description of the Atlantic Fleet Training and Testing Study Area) of the EIS/OEIS (also see Figure 2.1-1) for ranges that are included in the AFTT Study Area.
F01-03	The Marine Mammal Commission recommends that the Navy adjust all acoustic and explosive thresholds for low-, mid-, and high-frequency cetaceans by the appropriate amplitude factor (e.g., 16.5 or 19.4 dB) if it intends to use the type II weighting functions as depicted in Figure 6 of Finneran and Jenkins (2012);	The thresholds were adjusted based on weighting the exposures from the original research from which the thresholds were derived with the Type II weighting functions. The weighted threshold is not derived by a simple amplitude shift.
F01-04	The Marine Mammal Commission recommends that the Navy explain why Kastak et al (2005) data were used as the basis for explosive thresholds in pinnipeds and specify the extrapolation process and factors used as the basis for associated TTS thresholds;	The same offset between impulsive and non-impulsive TTS found for the only species where both types of sound were tested (beluga) was used to convert the Kastak data (which used non-impulsive tones) to an impulsive threshold. This method is explained in Finneran and Jenkins (2012) and Southall et al. (2007).
F01-05	Some of the Navy's activities involve the simultaneous use of multiple source types (i.e., acoustic, explosive, non-explosive impulsive) that generate sound within various frequency bands (i.e., low, mid, and high). To account for activities involving those sources, the Navy has proposed to sum all sound exposure levels received by an animal in each frequency band. However, the DEIS did not describe how the Navy would sum the sound exposure levels from multiple source types (e.g., acoustic vs. explosive).	Events involving multiple source types (e.g., acoustic vs. explosive) are treated as separate events and the sound exposure levels are not summed. In most cases, explosives and sonar are not used within the same activities and therefore are unlikely to affect the same animals over the same time period. Furthermore, two received sounds with different frequency content may not sum physiologically to produce an effect on the animal's hearing. Please see <i>Determination of Acoustic Effects on Marine Mammals and Sea Turtles for the Atlantic Fleet Training and Testing Environmental Impact Statement/Overseas Environmental Impact Statement</i> technical report (Naval Undersea Warfare Center 2012) which is on the project web site ( <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> ) for additional explanation.

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
F01-06	It also did not explain how the various thresholds for those different source types would be prioritized and applied. In such cases with multiple source types, a simple summation of sound exposure levels may not necessarily estimate takes accurately.	Events involving multiple source types (e.g., acoustic vs. explosive) are treated as separate events and the sound exposure levels are not summed. Furthermore, in most cases, explosives and sonar are not used within the same activities and therefore are unlikely to affect the same animals over the same time period. Energy is summed for multiple exposures of similar source types. For sonars, including use of multiple systems within any scenario, energy is accumulated within the following four frequency bands: low-frequency, mid-frequency, high-frequency, and very high-frequency. After the energy has been summed within each frequency band, the band with the greatest amount of energy is used to evaluate the onset of PTS or TTS. For explosives, including use of multiple explosives in a single scenario, energy is summed across the entire frequency band. Please see the <i>Determination of Acoustic Effects on Marine Mammals and Sea Turtles for the Atlantic Fleet Training and Testing Environmental Impact Statement/Overseas Environmental Impact Statement</i> technical report (Naval Undersea Warfare Center 2012) which is on the project web site ( <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> ) for additional explanation.
F01-07	In addition, the Navy used three different types of propagation models: the Comprehensive Acoustic System Simulation/ Gaussian Ray Bundle model for acoustic sources, Reflection and Refraction in Multilayered Ocean/Ocean Bottoms with Shear Wave Effects model for explosive sources, and the Range-Dependent Acoustic Model for non-explosive impulsive sources. The DEIS and supporting technical documents did not provide (1) information regarding how the Navy integrated propagation of sound from those three models into its effects model and (2) details regarding how sound exposure levels would be summed.	Events involving multiple source types (e.g., acoustic vs. explosive) are treated as separate events and the sound exposure levels are not summed. Furthermore, in most cases, explosives and sonar are not used within the same activities and therefore are unlikely to affect the same animals over the same time period. Energy is summed for multiple exposures of similar source types. For sonars, including use of multiple systems within any scenario, energy is accumulated within the following four frequency bands: low-frequency, mid-frequency, high-frequency, and very high-frequency. After the energy has been summed within each frequency band, the band with the greatest amount of energy is used to evaluate the onset of PTS or TTS. For explosives, including use of multiple explosives in a single scenario, energy is summed across the entire frequency band. Please see the <i>Determination of Acoustic Effects on Marine Mammals and Sea Turtles for the Atlantic Fleet Training and Testing Environmental Impact Statement/Overseas Environmental Impact Statement</i> technical report (Naval Undersea Warfare Center 2012) which is on the project web site ( <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> ) for additional explanation.

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
F01-08	The Marine Mammal Commission recommends that the Navy provide detailed information regarding how it determined marine mammal takes that occur when multiple types (i.e., acoustic, explosive, and non-explosive impulsive) of sound producing sources of varying frequencies (i.e., low, mid, and high) are used simultaneously;	Events involving multiple source types (e.g., acoustic vs. explosive) are treated as separate events and the sound exposure levels are not summed. Furthermore, in most cases, explosives and sonar are not used within the same activities and therefore are unlikely to affect the same animals over the same time period. Energy is summed for multiple exposures of similar source types. For sonars, including use of multiple systems within any scenario, energy is accumulated within the following four frequency bands: low-frequency, mid-frequency, high-frequency, and very high-frequency. After the energy has been summed within each frequency band, the band with the greatest amount of energy is used to evaluate the onset of PTS or TTS. For explosives, including use of multiple explosives in a single scenario, energy is summed across the entire frequency band. Please see <i>Determination of Acoustic Effects on Marine Mammals and Sea Turtles for the Atlantic Fleet Training and Testing Environmental Impact Statement/Overseas Environmental Impact Statement</i> technical report (Naval Undersea Warfare Center 2012) which is on the project web site ( <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> ) for additional explanation.
F01-09	The Navy's method for determining those strike probabilities was based on simple probability calculations. For example, it used a Poisson model to estimate the probability of ship strikes based on the historical rate of ship strikes. Although the use of the Poisson model is not unreasonable for modeling the occurrence of rare events, such as a ship striking a marine mammal, the assumption that the encounter rate will remain the same is questionable if the Navy increases the number of training and testing activities or if the abundance and distribution of marine mammals change. Such an approach may be appropriate for the no action alternative but is clearly deficient for assessing impacts of alternatives 1 and 2.	While the number of training and testing activities is likely to increase, it is not expected to result in an appreciable increase in vessel use or transits since multiple activities usually occur from the same vessel. The Navy is not proposing substantive changes in the locations where vessels have been used over the last decade. The rate at which strikes are expected to occur should remain the same.
F01-10	The Marine Mammal Commission recommends that the Navy use its spatially and temporally dynamic simulation models to estimate strike probabilities for specific activities (i.e., movements of vessels, torpedoes, unmanned underwater vehicles and expended munitions, ordnance, and other devices) rather than using simple probability calculations;	The recommendation of the Marine Mammal Commission to use a dynamic simulation model to estimate strike probability was considered, but the Navy found that use of historical data was more appropriate for the analysis. The strike probability analysis completed in this EIS/OEIS is based upon actual data collected from historical use of vessels, in-water devices, and military expended materials and the likelihood that these items may even have the potential to strike an animal. These data account for real world variables over the course of many years and any model would be expected to be less accurate than the use of actual data.

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
F01-11	The Marine Mammal Commission recommends that the Navy provide the predicted average and maximum ranges for all criteria (i.e., behavioral response, TTS, PTS, onset slight lung injury, onset slight gastrointestinal injury, and onset mortality), for all activities (i.e., based on the activity category and representative source bins), and all functional hearing groups of marine mammals;	Ranges to effects for all criteria and functional hearing groups are provided for representative active sonars (Section 3.4.3.1.8.1, Range to Effects) and explosives (Section 3.4.3.1.9.1, Range to Effects). The representative sources include the most powerful active sonar source and the largest proposed charge weight analyzed. The Navy needs to conduct training and testing in a variety of environments having variable acoustic propagation conditions. These variations in acoustic propagation conditions are considered in the Navy's acoustic modeling and the quantitative analysis of acoustic impacts; average ranges to effect are provided in the EIS/OEIS to show the reader typical zones of impact around representative sources.
F01-12	In contrast, the Navy uses visual, passive acoustic, and active acoustic monitoring during Surveillance Towed Array Sensor System Low Frequency Active (SURTASS LFA) sonar activities to augment its mitigation efforts over large areas. It is not clear why the Navy is not proposing to use those same monitoring methods for the other activities described in the DEIS.	Mitigation measures were developed on a case-by-case basis based on predicted potential impacts; therefore, the use of acoustic monitoring is not always warranted, nor practicable from an operational standpoint (Section 5.3.2.1, Acoustic Stressors). Some events do use passive acoustic monitoring as part of the mitigation when practicable, including improved extended echo ranging sonobuoys, explosive sonobuoys using 0.6–2.5 pound net explosive weight, explosive torpedo testing, and sinking exercises. The active sonar system used by SURTASS LFA is built into the system's vertical array and can only be employed in this fashion from a slow-moving platform. It is not possible to employ this system on the types of platforms analyzed in the AFTT EIS/OEIS because it cannot be installed on other ship classes.
F01-13	The Marine Mammal Commission recommends that the Navy use passive and active acoustics, whenever practicable, to supplement visual monitoring during the implementation of its mitigation measures for all activities that generate sound;	Passive acoustic monitoring is already and will continue to be implemented with several activities (e.g., Improved Extended Echo Ranging sonobuoys and torpedo [explosive] testing). Information on mitigation measures can be found in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS. The mitigation measures listed in the Final EIS/OEIS are the result of the consultation with NMFS.



Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
F01-14	In addition, the Navy proposes that, if feasible, it will cease acoustic activities (i.e., active sonar transmissions) and explosive activities (i.e., detonations that do not use time-delay firing devices) when a marine mammal is detected within the mitigation zone. Those activities would resume when the animal is "thought to have exited" the mitigation zone. The meaning of "thought to have exited" is not clear, and a more definitive criterion is needed to clarify when activities might be resumed.	Clarification of what is meant by "thought to have exited" (based on animal course and speed) as well as information on post-sighting activity recommencement criteria has been added to Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) for each activity.
F01-15	The Marine Mammal Commission recommends that the Navy cease the use of its sound sources (including explosive activities that do not use time-delay firing devices) and not reinitiate them for periods at least as long as the maximum dive times of the species observed (if identified to species) or likely to be encountered (if species identification is uncertain), after the sighting of one or more marine mammals within or about to enter a mitigation zone;	Dive behavior varies across species. As described in the <i>Dive Distribution and Group Size Parameters for Marine Species Occurring in Navy Training and Testing Areas in the North Atlantic and North Pacific Oceans</i> technical report, a 30-min. waiting period accounts for the dive capabilities typical of most species. Recommencement wait periods longer than 30 min. after sighting an animal would be impracticable to implement and would decrease realism of activities. For activities involving platforms restricted by fuel or other constraints (e.g., helicopters), the wait times have been adjusted based on operational need and practicability of implementation. Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) discusses effectiveness of each wait time for each activity.  Lastly, species-specific identification of marine mammals is not a Lookout requirement; therefore, a single activity-specific waiting time is needed for all species.
F01-16	The Marine Mammal Commission recommends that the Navy adjust the size of the mitigation zone for mine neutralization events using the average swim speed of the fastest swimming marine mammal occurring in the area where time-delay firing devices would be used to detonate explosives;	The principles of AFTT time delay firing device mitigation are similar to those contained within the 2011 VACAPES Letter of Authorization. For time delay activities, the mitigation zone is 1,000 yd. for all charge sizes (5, 10, and 20 lb. charges) and for a maximum time-delay of 10 min. The mitigation zone takes into account a portion of the distance that a marine mammal could potentially travel during the time delay. However, the mitigation zone was set at 1,000 yd. because that is the maximum distance that Lookouts in two small boats can realistically observe. The use of more than two boats for observation during this activity presents an unacceptable impact to readiness due to limited personnel resources. If a swim speed of 3 knots (102 yd./min.) (a nominal average for a delphinid in this area) is considered, the 1,000-yd. mitigation zone results in coverage of the potential range to <u>mortality</u> for all charges, including up to a 9-min. time-delay. Furthermore, the mitigation zone covers the potential range to <u>injury</u> for 5 lb. charges, including up to a 6-min. time-

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
		<p>delay, and for 10 lb. and 20 lb. charges, including up to a 5-min. time-delay. The 3 knot swim speed, therefore, was a consideration, but not the only determining factor in development of the time delay mitigation zones; therefore, considering different swim speeds would not result in a change to or expansion of the mitigation zone size for time delay activities. The Navy asserts that the 1,000-yard time delay zone is both practical and protective. The proposed AFTT mitigation zone covers the entire predicted maximum range to PTS as well as a portion of the estimated swim speed distance.</p>
F01-17	<p>The Marine Mammal Commission recommends that the Navy revise its DEIS by (1) including in its cumulative impacts analysis all potential risk factors, whether they are deemed individually significant or negligible</p>	<p>As stated in Section 4.2.2 (Identify Appropriate Level of Analysis for Each Resource), in accordance with Council on Environmental Quality guidance, the cumulative impacts analysis focused on impacts that are "truly meaningful." This was accomplished by reviewing the direct and indirect impacts that could occur on each resource under each alternative. Key factors considered were the current status and sensitivity of the resource and the intensity, duration, and spatial extent of the impacts of each potential stressor. In general, long-term rather than short-term impacts and widespread rather than localized impacts were considered more likely to contribute to cumulative impacts. Those impacts to a resource that were considered to be negligible were not considered further in the analysis. The level of analysis for each resource was commensurate with the intensity of the impacts identified in Chapter 3 (Affected Environment and Environmental Consequences).</p>
F01-18	<p>The Marine Mammal Commission recommends that the Navy revise its DEIS by... (2) describing the specific details needed for the reader to evaluate the utility of the Navy's conceptual framework for its cumulative impacts analysis.</p>	<p>As stated in Section 4.2.2 (Identify Appropriate Level of Analysis for Each Resource), in accordance with Council on Environmental Quality guidance, the cumulative impacts analysis focused on impacts that are "truly meaningful." This was accomplished by reviewing the direct and indirect impacts that could occur on each resource under each alternative. Key factors considered were the current status and sensitivity of the resource and the intensity, duration, and spatial extent of the impacts of each potential stressor. In general, long-term rather than short-term impacts and widespread rather than localized impacts were considered more likely to contribute to cumulative impacts. Those impacts to a resource that were considered to be negligible were not considered further in the analysis. The level of analysis for each resource was commensurate with the intensity of the impacts identified in Chapter 3 (Affected Environment and Environmental Consequences).</p>

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
F02	We suggest that the final EIS contain the acknowledgement that Navy must comply with the Clean Water Act and Rivers and Harbors Act, as stated in the draft EIS. With that acknowledgement, we believe that our business line interests such as, but not limited to dredged material placement areas, sand borrow areas, navigational channel configuration and maintenance, activity on or connected to the Outer Continental Shelf (OCS) including wind energy and electrical transmission, danger zones, and similar operational or regulatory matters should be minimally affected by direct or indirect effects of the proposed action.	With respect to Navy's compliance with the Clean Water Act and Rivers and Harbors Act, text in the Final EIS/OEIS in Section 3.0.1.1 (Federal Statutes) is consistent with the Draft EIS/OEIS.
F03	The GMFMC proposes the establishment of a one kilometer buffer zone around all known hardbottom and artificial reef habitats when conducting any exercises during which explosive ordnance will be expended.	Mitigation measures related to hard bottom and artificial reef habitats can be found in Section 5.3.2.1.1 (Shallow Coral Reefs, Hard Bottom Habitat, Artificial Reefs, and Shipwrecks Within Entire AFTT Study Area), which includes a 350-yd. (320-m) radius mitigation zone around known locations. For activities where explosions may occur on or near the bottom, the impact area for the largest mine (650-lb. charge) is estimated to be 0.001375 km <sup>2</sup> . This is more than two orders of magnitude smaller than the 0.321536-km <sup>2</sup> (conversion of the 320-m radius into a circular area) mitigation zone that is being avoided. Since the majority of activities where explosions may occur on or near the bottom would involve explosive charges much smaller than 650 lb. (for Preferred Alternative, see Tables 3.3-5 and 3.3-6), the current mitigation zone sufficiently reduces potential impacts on both the seafloor habitats and living resources that may occur there. These mitigation measures have been developed in coordination with NMFS through consultation on Essential Fish Habitat.
F04	We have reviewed your request and have concluded that your proposed action is located in navigable waters of the U.S. The U.S. Army Corps of Engineers regulates the placement of structures and/or work performed in/or affecting navigable waters of the U.S. under Section 10 of the Rivers and Harbors Act of 1899. The Corps also regulates the discharge of dredged and/or fill material into waters of the U.S., including navigable waters, under Section 404 of the Clean Water Act. Therefore, if your proposed action includes work and/or structures or the discharge of dredged and/or fill material into a navigable water of the U.S. a Department of the Army permit may be required.	The Navy will obtain appropriate permits as required.

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
F05	NASA Kennedy Space Center has no comments for any of the proposed alternatives.	Thank you for your review.
F06	Because the study area affects several regions of the Federal Aviation Administration (FAA), we coordinated with the FAA Office of the Environment and Energy, located in Washington, DC. After reviewing the information, they determined that no reply was necessary. The FAA, New England Region, has no further comments.	Thank you for your review.
F07-01	As discussed in DEIS sections 2.2.2 (Amphibious Warfare) and 2.2.8 (Naval Special Warfare), training may include shore assaults and boat-to-shore gunnery activities. Depending on specific timing and location, these activities could adversely affect sea turtles (nesting behavior, nests, and hatchlings), shorebirds (including wintering populations of the threatened piping plover), manatees, and coastal habitat. However, the DEIS does not provide enough details about these activities for the Department to determine whether our concern is warranted, and we recommend addressing such potential impacts in the Final Environmental Impact Statement (FEIS). Although the Navy examined potential acoustic, electromagnetic, physical disturbance or strikes, entanglement, and ingestion impacts of the proposed activities, the analyses and criteria applied in the DEIS are primarily focused on in-water species and not those occurring above the mean high water line.	Additional descriptions of amphibious warfare and naval special warfare can be found in Appendix A (Navy Activities Descriptions). The Study Area only includes areas up to the mean high water line; areas landward of that are not a part of the Study Area (Section 2.1, Description of the Atlantic Fleet Training and Testing Study Area). The Navy consulted with U.S. Fish and Wildlife Service as appropriate.
F07-02	To avoid impacts to migratory shorebirds and seabirds, the Department recommends that the Navy avoid construction and training activities during their breeding/nesting season near known nesting sites.	The Navy consulted with U.S. Fish and Wildlife Service as appropriate and will comply with the mitigation measures resulting from consultation. Section 3.6 (Birds) analyzes birds. Section 5.3.3.4 (Birds) discusses specific measures implemented within defined mitigation areas for birds.
F07-03	Similarly, we recommend adjusting the timing of activities to avoid disturbances in the vicinity of historically significant onshore and offshore foraging sites for flocks of migrating birds and in the vicinity of winter onshore foraging sites for the piping plover.	The Navy consulted with U.S. Fish and Wildlife Service as appropriate and will comply with the mitigation measures resulting from consultation. Section 3.6 (Birds) analyzes birds. Section 5.3.3.4 (Birds) discusses specific measures implemented within defined mitigation areas for birds.
F07-04	As required under regulations for the Endangered Species Act (Act), the Navy will need to initiate formal consultation with the Department for the effects of the proposed action on the manatee. The Department's lead office for manatee consultations and recovery is the North Florida Ecological Services Field Office.	The Navy has coordinated with the North Florida Ecological Services Field Office. Based on the analysis in the EIS/OEIS and the implementation of mitigation measures, all "may affect" determinations are "not likely to adversely affect." Therefore, the Navy has completed an informal consultation with U.S. Fish and Wildlife Service for the manatee and will comply with the mitigation measures resulting from consultation.

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
		Section 5.3.3.1.2 (West Indian Manatee) discusses specific measures implemented within defined mitigation areas for manatees.
F07-05	Sea Turtles: The Navy should initiate formal consultation with the NMFS; however, we request that the Navy include the Department on all consultation correspondence with NMFS.	The Navy has consulted with NMFS for sea turtles and will include the Department of Interior, Office of Environmental Policy and Compliance, on consultation correspondence related to sea turtles.
F07-06	As noted in our General Comments above, we do not anticipate adverse effects to resources under our jurisdiction from the proposed activities, but the description of Amphibious Warfare and Naval Special Warfare activities in the DEIS lacks sufficient detail to support specific concurrence with a determination that these are not likely to adversely affect nesting sea turtles or hatchlings. We request the Navy to provide further details to support the “not likely to adversely affect” and “no effect” findings relative to sea turtles on nesting beaches.	Section 2.1 (Description of the Atlantic Fleet Training and Testing Study Area) describes the Study Area and states that “land-based portions of the range complexes are not a part of the Study Area.” The Study Area begins at the mean high-water line and extends seaward. Therefore, land based impacts on sea turtles were not addressed in this EIS/OEIS.
F07-07	Accordingly, the National Park Service (NPS) believes the AFTT EIS/OEIS should specifically reference national park units and other protected federal lands on all associated maps and to address potential impacts to park resources in Chapter 3 Affected Environment and Environmental Consequences.	Information on Marine Protected Areas can be found in Section 6.1.2 (Marine Protected Areas).
F07-08	EIS/OEIS describes all three alternatives as having the “same” impact on natural resources and other resource areas. Specifically, Table ES-1 “Summary of Environmental Impacts for the No Action Alternative, Alternative 1, and Alternative 2” on pages ES-8 to ES-10 concludes that impacts on marine mammals, sea turtles, birds, vegetation, and other resources “would be the same as those described in the No Action Alternative.” However, the selection of Alternative 2 (i.e., the Preferred Alternative) “consists of all activities that would occur under Alternative 1 plus the establishment of new range capabilities, as well as modifications of existing capabilities; adjustments to type and tempo of training and testing; and establishment of additional locations to conduct activities within the Study Area. This alternative allows for additional range enhancements and infrastructure requirements...” (page 2-76). It would also “increase number of events conducted overall, with a 10 percent increase in the tempo of all proposed Naval Air Systems Command testing activities. Increase flexibility in conducting all at-sea explosive testing in either location identified.” (page 2-78). Specifically, Alternative 2 would allow	The language was revised to indicate that though the number of individual impacts may increase under Alternatives 1 and 2, the types of impacts would be the same as the No Action Alternative.

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
	for mine warfare testing and training. When combined with other activities authorized under Alternative 2, there may be a greater overall impact on endangered sea turtle populations than the No Action Alternative. As such, we encourage the Navy to consider including additional analysis to better address how the Alternative 2, the Preferred Alternative, and Alternative 1 will have the “same” impact as the No Action Alternative on sea turtles and other resource categories outlined on Table ES-1.	
F07-09	To reduce any confusion regarding the proposed action, we strongly encourage the clear identification of Alternative 2 as the Preferred Alternative.	The Preferred Alternative was identified in the Draft EIS/OEIS and is identified more prominently in the Final EIS/OEIS.
F07-10	We encourage the Navy to consider forming a monitoring partnership with specific NPS units to share information and to closely study the effects of the Navy's testing and training program.	The Navy's approach to monitoring can be found in Section 5.5 (Monitoring and Reporting).
F07-11	The Navy may wish to consider supporting (with funding or otherwise) NPS sea turtle monitoring programs as well as other ongoing scientific research underway by various university partners.	The Navy's approach to monitoring can be found in Section 5.5 (Monitoring and Reporting). Monitoring reports can be found on the NMFS Office of Protected Resources webpage ( <a href="http://www.nmfs.noaa.gov/pr">www.nmfs.noaa.gov/pr</a> ).
F07-12	In the wake of the Deepwater Horizon (DWH), Mississippi Canyon C252 oil spill incident, it may be necessary to re-evaluate the biological impacts of the proposed action on Gulf Islands National Seashore. What may have previously been a temporary disruption or short-term minor displacement of certain species may now be a more significant impact as a result of the oil spill. Unfortunately, it may be some time before the long-term biological effects of the spill are fully determined. In the case of benthic invertebrates, pelagic fish, mollusks, crustaceans, and other marine species, suitable stocks for recruitment and recolonization may have been jeopardized by the incident. Consequently, recovery times for species abundance, diversity, and biomass should be expected to increase substantially. At a minimum, the cumulative impacts evaluation section of the EIS/OEIS needs to now consider the collective impacts of any proposed operations to near or off shore areas in proximity to the barrier islands (1 mile or less) in conjunction with the DWH oil spill.	The Affected Environment section of each biological resource subchapter discusses general threats, which include oil spills. The <i>Deepwater Horizon</i> spill was considered as part of the current baseline of the Affected Environment where relevant. Section 4.3.10.4 (Major Pollution Events) describes the <i>Deepwater Horizon</i> spill in terms of cumulative impacts.
F07-13	Given the disruptions to many marine and coastal species such as shorebirds and sea turtles resulting from oil spill response activities, it is more important than ever to implement seasonal timing of project activities. As such, the park encourages caution for other marine	In consultation with NMFS and U.S. Fish and Wildlife Service, the Navy has developed a suite of mitigation measures that are practicable to implement and that allow training and testing activities to meet their readiness requirements. Through careful exploration of all mitigation

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
	areas in close proximity (1 mile radius or greater) to the barrier islands during the sensitive wildlife nesting period of March – October.	measures to determine which were the most effective, the Navy chose the proposed measures, which are designed to avoid or reduce potential impacts on marine resources. Additional discussion of mitigation measures, including temporal restrictions specific to sea turtles and birds, can be found in Section 5.3.3.3 (Reptiles) and Section 5.3.3.4 (Birds).
F07-14	Finally, we wish to inform you that commercial ferries in Mississippi operate between Gulfport and Ship Island – East and West Ship Islands are included within the jurisdictional boundaries of the national park unit.	Analysis in Chapter 3.11 (Socioeconomic Resources) addresses the accessibility of ocean and airspace. Section 3.11.3.1 (Accessibility) concludes there would be no impacts on commercial and recreational activities, including commercial ferries, when Navy training and testing activities temporarily change access to the ocean or airspace in the Study Area.
F07-15	There appears to be no analysis of the frequency, duration, or intensity of piping plover exposure to aircraft noise for aircraft in transit to offshore training areas.	The Navy has consulted with the U.S. Fish and Wildlife Service and developed mitigation to address this issue. Section 5.3.3.4 (Birds) discusses specific measures implemented within defined mitigation areas for piping plovers.
F07-16	What data support the “may affect, not likely to adversely affect” determination for piping plovers under the No Action Alternative?	Please refer to Section 3.6.3.1.5 (Impacts from Aircraft and Vessel Noise), where the potential impacts of the No Action Alternative on the piping plover are described. Short-term behavioral responses such as startle responses, head turning, or flight responses would be expected. Repeated exposures would be limited due to the transient nature of aircraft use and regular movement of seabirds. Furthermore, Section 5.3.3.4 (Birds) discusses specific measures implemented within defined mitigation areas for piping plovers.
F07-17	In addition, the Draft EIS contains a limited discussion of the critical habitat for piping plover. Specifically, piping plover critical habitat is mentioned in one sentence: “Critical habitat for wintering piping plovers is designated in the Marquesas Keys.” However, there are many other locations with piping plover critical habitat (See second paragraph in section 3.6.2.1 beginning on page 3.6-13).	A full description of piping plover critical habitat can be found in Section 3.6.2.6 (Piping Plover). The critical habitat area in the Marquesas Keys is the only piping plover critical habitat with potential for overlap with aircraft noise originating from airfields. For all other piping plover critical habitat areas, aircraft noise would occur farther offshore.
F07-18	It is unclear what analysis supports the conclusion that “Under the Migratory Bird Treaty Act regulations applicable to military readiness activities (50 C.F.R. Part 21), the stressors introduced during training and testing activities would not result in a significant adverse effect on migratory bird populations.” Is this a regulatory exemption from impacts under the MBTA, or were stressors analyzed for effects? If stressors were analyzed, where is this analysis? This should be	As discussed in Section 3.6.1.3 (Migratory Bird Treaty Act Species), Migratory Bird Treaty Act species are not analyzed individually, but rather are grouped by taxonomic or behavioral similarities based on the stressor being analyzed. The analysis conducted on groups of birds was then used to make a Migratory Bird Treaty Act determination for each stressor by alternative. Using the analysis for each individual stressor, the Navy determined training and testing activities would not result in an adverse effect on migratory bird populations (Section 3.6.4.3, Migratory Bird

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
	provided in the Final EIS/OEIS.	Treaty Act Determinations).
F07-19	We would like to work with the Navy to identify measures such as increased aircraft operations buffers, flight operations rules, or other appropriate measures to avoid adverse effects to park resources, and we may seek other mitigation for adverse effects to park resources when impacts cannot be avoided.	The Navy does not anticipate adverse effects from the Proposed Action, including park resources. Information on Marine Protected Areas can be found in Section 6.1.2 (Marine Protected Areas) of the Draft and Final EIS/OEIS. Mitigation measures can be found in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Draft and Final EIS/OEIS. The Navy welcomes opportunities to discuss studies of this nature.
F07-20	Because the Dry Tortugas National Park and the associated Research Natural Area are intended to preserve and protect the marine resources in these areas, we would like to work with the Navy to monitor the acoustic impacts to the Park to potentially identify measures that would avoid and minimize potential effects to marine fauna.	Information on Marine Protected Areas can be found in Section 6.1.2 (Marine Protected Areas). The Tortugas Military Operations Area is an air exclusion zone established to protect Fort Jefferson and Dry Tortugas National Park and is discussed in more detail in Section 3.10.2.3.2 (Tortugas Military Operations Area). Furthermore, the Navy's approach to monitoring can be found in Section 5.5 (Monitoring and Reporting). The Navy welcomes opportunities to discuss studies of this nature.
F07-21	The South Florida National Parks provide important stopover habitat for these migrating birds. The Department would like to work with the Navy and other interested parties to help identify practicable measures to minimize risk to migrating birds and bats such as seasonal flight restrictions, altitudinal restrictions, radar monitoring of bird aggregations, or other such measures.	The Navy welcomes opportunities to discuss studies of this nature.
F07-22	We are concerned about the use of chaff in areas frequented by migratory birds and bats. While the potential effects of chaff on birds and bats do not appear to be well-known, a Government Accountability Office (GAO) report regarding the use of chaff (GAO 1998) recommended an examination of the respirability of fibrous particles in avian species. We are not aware of results of any such studies, but would like to work with the Navy to develop improved understanding of the potential effects of chaff on fish and wildlife and their habitats in the parks, including marine species and migrant birds and bats.	Potential effects from chaff were analyzed in Section 3.6.3.4 (Ingestion Stressors – Birds) using the best available scientific literature and studies. The Navy welcomes potential opportunities to cooperate in a study of this nature.
F07-23	The GAO report also notes that, "Initiatives between DOD and DOI are helping to identify and minimize the effects of chaff on public lands. The Fish and Wildlife Service and the Bureau of Land Management have signed agreements with the individual military services to control chaff use over wildlife refuges, Native Americans' reservations, and public lands." NPS would like to explore the	Given how and where chaff is used (beyond 3 nm offshore), impacts to south Florida parks are not anticipated. Location of chaff use can be found in the activity tables at the end of Chapter 2 (Description of Proposed Action and Alternatives) and Appendix A (Navy Activities Descriptions - A.1.6). Pursuit of a similar agreement as described in the



Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
	potential of developing a similar agreement for the south Florida parks.	comment would not be necessary for the Navy.
F07-24	While we do not have evidence of chaff resulting in degradation of parklands or waters, it is likely that chaff occurs on NPS lands and waters, potentially including designated Wilderness Areas. We would like to work with the Navy to assess potential impacts and identify measures that would minimize the occurrence of chaff in park property. Similarly, there appears to be potential for other military materials and debris resulting from training activities to occur in park waters, and we would like to work with the Navy to minimize the occurrence of military debris because it detracts from the near-pristine natural marine communities that Dry Tortugas National Park was intended to protect and maintain.	Potential impacts from chaff on sediment and water quality are discussed in Section 3.1.3.4 (Other Materials), which concludes there would be no chemical alteration of water and sediment from decomposing chaff fibers. A discussion on Navy activities in relation to Marine Protected Areas can be found in Section 6.1.2 (Marine Protected Areas). The Navy does not anticipate any increase in the amount of military materials expended in park waters.
F08	EPA believes that the draft EIS/OEIS provides an adequate discussion of the potential environmental impacts and we have not identified any potential environmental impacts requiring substantive changes. EPA has rated the draft EIS as LO- "Lack of Objections." A summary of EPA's rating is enclosed.	Thank you for your comment.
F09	Specifically, this office is commenting about section 3.0.1, entitled Regulatory Framework. This section discloses the different regulatory laws, rules, and or policies which exist that may define environmental consequence. It appears that the EIS omits two potential regulatory procedures that may enumerate environmental consequences. The Army Corps of Engineers has responsibility under section 404 of the Clean Water Act (CWA) to regulate the discharge of fill material in jurisdictional waters and, in this case, out to three nautical miles as defined in 33 CFR 328.4. Secondly, the Corps has regulatory responsibility under Section 10 of the Rivers and Harbors Act (RHA) of 1899. This Act requires Corps permits for work or structures, including structures on the OCS seabed, in or affecting navigable waters. The Corps evaluates permits for OCS structures with respect to national security and navigational interest. The type of Department of Army (DA) authorization required (i.e., general or individual permit) will be determined by the location, type, and extent of jurisdictional area impacted by the project, and by the project design and construction limits. It is unclear at this point whether the described activities would be regulated by section 404 of the CWA or section 10 of the RHA.	Section 3.0.1 was meant to include only those regulatory laws, rules, and policies applicable to the Proposed Action. The Rivers and Harbors Act discussion was unintentionally omitted and has been added in the Final EIS/OEIS. The Proposed Action does not involve discharge of fill material into waters of the United States. If any regulated structures in navigable waters of the United States are necessary in association with any of the analyzed training or testing activities, the Navy will obtain appropriate permits as required by Section 10 of the Rivers and Harbors Act prior to commencement of the regulated activities.

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
S01-01	<p>Florida understands the U.S. Department of the Navy's (Navy) reasoning for combining the six separate environmental impact statements to evaluate and assess the impacts of similar activities throughout the Atlantic Ocean and Gulf of Mexico, and the AFTT DEIS/OEIS provides a good description of the types and number of activities proposed for each operating area. The extremely large geographic area and diverse habitats and species covered by the document, however, often result in generic and superficial descriptions and analyses, especially of impacts to non-protected species and habitats. For example, it appears that site-specific information collected and analyzed in the JAX OPAREA USWTR Bottom Mapping and Habitat Characterization, Jacksonville, Florida – Final Cruise Report (December 31, 2010) was not used in the habitat descriptions provided in the AFTT DEIS/OEIS. The DEP, therefore, recommends that the Navy refrain from combining the analyses for such broad and diverse areas in the future or, at a minimum, tier individual area-specific NEPA analyses off a broader document, such as the AFTT DEIS/OEIS.</p>	<p>Sections 3.3.2.5 (Soft Bottoms) and 3.3.2.6 (Hard Bottoms) of the Draft and Final EIS/OEIS cite the <i>JAX OPAREA USWTR Bottom Mapping and Habitat Characterization, Florida. Final Cruise Report</i>. The Navy has taken a hard look at potential environmental consequences of the Proposed Action in the entire Study Area. Combining all the Navy activities into one document allows the Navy to assess all its activities in a more comprehensive manner. The rigorous analysis provides sufficient information for careful agency decision making. The conclusions presented in the EIS/OEIS are fully supported in the analysis. Furthermore, the JAX OPAREA USWTR Bottom Mapping and Habitat Characterization, Jacksonville, Florida – Final Cruise Report (December 31, 2010) data were used and cited within the document. Section 3.3.2.6 (Hard Bottoms) describes and compares the Navy data to the Southeast Area Monitoring and Assessment Program (SEAMAP)—South Atlantic data.</p>
S01-02	<p>Upon receipt of the AFTT DEIS/OEIS, DEP staff reviewed the project website and found that a benthic habitat survey had been performed and results were available in the JAX OPAREA USWTR Bottom Mapping and Habitat Characterization, Jacksonville, Florida – Final Cruise Report dated December 31, 2010. While staff would have preferred receiving the results of the study soon after its completion (thus allowing more time to review the detailed information), DEP appreciates the Navy's efforts to collect the necessary benthic data for the USWTR area. The DEP requests additional time within which to review all of the video and still photography collected during the study, as well as an opportunity to collaborate with the Navy to determine the best location for cable routes and sonar nodes in relation to benthic resources, artificial reefs, fisheries habitat, etc. before construction begins. This cooperative consultation with the Navy will also allow the state to better understand cable installation methodologies and the effects of laying an estimated 600 NM of cable.</p>	<p>This comment is outside of the scope of this EIS/OEIS, as the construction of the Undersea Warfare Training Range (USWTR) is not part of this Proposed Action. Please see Chapters 1 (Purpose and Need) and 2 (Description of Proposed Action and Alternatives) of the Final EIS/OEIS for a clear definition of the scope of this project. Construction of the Undersea Warfare Training Range (USWTR) is not part of this Proposed Action. Furthermore, the Navy has provided the Florida Department of Environmental Protection raw data from the Undersea Warfare Training Range bottom mapping effort since this comment was made.</p>

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
S01-03	Section 5 (MITIGATION MEASURES) of the Atlantic Fleet Training and Testing Essential Fish Habitat Assessment – Final Report dated April 2012 (on the project website) does not appear to recognize that the installation, use and removal of seafloor devices – as proposed in the USWTR project – can negatively impact corals and other live-bottom habitats. Florida continues to recommend avoidance of the North Florida Marine Protected Area offshore Jacksonville and all hard/livebottom habitats for any bottom-disturbing activities being conducted by the Navy, since the impacts on hard/live-bottom habitats are expected to be longterm (see AFTT DEIS/OEIS, Page 4-23).	This comment is outside the scope of this EIS/OEIS, as the construction of the Undersea Warfare Training Range (USWTR) is not part of this Proposed Action. Please see Chapters 1 (Purpose and Need) and 2 (Description of Proposed Action and Alternatives) of the Final EIS/OEIS for a clear definition of the scope of this project. The AFTT Essential Fish Habitat Assessment analyzed the use of the range once it is built.
S01-04	The DEP Bureau of Beaches and Coastal Systems (BBCS) advises that its only concern with the proposed activities is the increased potential for ordnance (both exploded and unexploded) to remain in sand borrow areas identified for beach restoration and nourishment. Staff indicates that this situation occurred during the Eglin Air Force Base beach restoration project in 2010. There, the dredge contractor had to cease operations while the area was cleared of ordnance and modify its equipment to avoid recovering any exploded ordnance remnants, resulting in unexpected additional project costs. Other states along the Atlantic coast (e.g., New Jersey, Delaware, Virginia and Maryland) have experienced even more problematic situations, including placement of dredged ordnance on the beach at the risk of public safety.	As discussed in Section 3.11 (Socioeconomic Resources), the Navy would avoid conducting training and testing activities in designated areas of mineral extraction. This precautionary measure would minimize potential impacts on beach restoration and nourishment activities.
S01-05	Section 161.144, F.S., charges the DEP with carefully managing beach-quality sand for the system-wide benefit of the state's beaches. The BBCS requests that sand borrow areas be avoided for exercises involving expendable munitions testing and training. Borrow areas are located primarily within state waters, except for areas off Duval and Brevard Counties, where offshore areas provide sand for the beaches of those counties and Patrick Air Force Base. The BBCS offers its assistance to the Navy in identifying sand borrow areas, as plans are developed for future AFTT and beach restoration activities.	The Navy will forward this item to the appropriate compatible use point of contact. The activities the Navy conducts occur over a wide geographical area, and the impacts on these areas are negligible.

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
S01-06	The EIS/OEIS should reference any known monitoring data or monitoring plans that may exist for the project areas. To ensure consistency with the Florida Coastal Management Program, staff recommends that the EIS/OEIS also include an analysis of environmental consequences to state-protected species, as well as plans for minimizing and mitigating impacts to the species and their habitats.	The Navy has taken a hard look at potential environmental consequences of the Proposed Action to all resources in the Study Area. The analysis in this EIS/OEIS is supported by the best available science, as described in Section 3.0.5 (Overall Approach to Analysis). State-protected species are not required to be called out individually within the analysis, and instead are included in the overall analysis of groups of species, characterized by distribution, body type, or behavior relevant to the stressor being evaluated. However, species listed under the ESA are analyzed individually and are consulted on under Section 7 of the ESA with NMFS or U.S. Fish and Wildlife Service, as appropriate. Federally listed birds have been addressed in the EIS/OEIS (Table 3.6-1) and are part of the consultation with U.S. Fish and Wildlife Service.
S01-07	Although mitigation measures proposed by the Navy should decrease the probability of lethal encounters with North Atlantic right whales, concerns remain that the proposed activities may result in an increased risk of vessel related injury or mortality. To address the issue, the Navy intends to submit applications to the National Marine Fisheries Service (NMFS) for Marine Mammal Protection Act authorizations on a five-year basis. The data and information submitted with each application should include cumulative impacts analyses based on information available at that time. The FWC recommends that the Navy collaborate with the NMFS to develop an adaptive management approach for addressing increased risks – based on specific whale population metrics – to detect and understand risk trends and support effective mitigation.	The Navy has consulted with NMFS under the MMPA and ESA with respect to impacts on federally listed species. The MMPA and ESA allow for adaptive management and are part of the consultation process. Information on monitoring can be found in Section 5.5 (Monitoring and Reporting) of this EIS/OEIS.
S01-08	While the West Indian manatee mitigation measures referenced on Page 5-57 of the AFTT DEIS/OEIS appear to apply only to the basin and channels at Naval Station Mayport, a wide variety of training and testing activities in inshore and nearshore environments may potentially result in adverse impacts to manatees. The FWC, therefore, recommends the EIS/OEIS include all potential mitigation areas/activities and their offsetting measures for manatees. Please note that boat speed zones, such as boating safety zones, exist in many other areas of Florida and in ports other than the Naval Station Mayport vicinity. Such boating speed and safety zones may compliment Manatee Protection Zones, but may also occur in areas where manatee-specific zones do not exist but that are highly utilized by manatees. FWC staff requests that the Navy comply with all	Naval Station Mayport basin and channel are the only locations where manatee protection zones and speed restrictions have been designated within the AFTT Study Area. Within and outside of manatee protection zones, ships will maintain a Lookout and will avoid approaching manatees within a 200-yd. (183-m) mitigation zone, as described in Section 5.3.2.2.1.1, Vessels. Pursuant to the Mayport Integrated Natural Resources Management Plan, the Naval Station Mayport provides training to Harbor Ops personnel to report manatee observations to other vessels in the basin and post signs at select locations alerting personnel of the potential presence of manatees and how to report sightings. In addition, activity-specific mitigation measures outlined in Section 5.3.1 (Lookout Procedural Measures) and Section 5.3.2 (Mitigation Zone Procedural Measures), including those outlined for pier-side sonar testing,

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
	posted speed zones while traversing inshore and nearshore areas of Florida. In addition, the FWC recommends that: all offsetting measures for pier-side sonar testing, as suggested for Port Canaveral, be utilized at Mayport; manatee observer locations be specified for planned activities; the latest versions of the “Lookout Training Handbook” and “Marine Species Awareness Training” program be included as appendices in the EIS/OEIS; and lookouts also be utilized during vessel docking and departures, particularly at Mayport and Canaveral.	<p>apply to all marine mammals and are implemented anywhere the activity takes place. After consultation with U.S Fish and Wildlife Service with respect to the manatee, and analysis presented in Section 3.4.3 (Environmental Consequences), no additional mitigation measures were recommended for the Mayport, Florida location. All recommended mitigation areas specific to manatees are described in Section 5.3.3.1.2, West Indian Manatee.</p> <p>Manatee observer locations are unique to each activity, and observers would be located in aircraft, on vessels, or on piers, depending on which assets are involved and where the activity is being conducted. The <i>Lookout Training Handbook</i> and the Marine Species Awareness Training can be downloaded from <a href="https://portal.navfac.navy.mil/portal/page/portal/navfac/navfac_ww_pp/navfac_hq_pp/navfac_environmental/documents/atlantic%20documents,pacific%20documents">https://portal.navfac.navy.mil/portal/page/portal/navfac/navfac_ww_pp/navfac_hq_pp/navfac_environmental/documents/atlantic%20documents,pacific%20documents</a>.</p>
S01-09	The FWC also requests that a number of state-listed bird species and the Atlantic sturgeon and Gulf sturgeon, all of which potentially inhabit the project study areas, be addressed in the EIS/OEIS.	The Navy has addressed the Atlantic and Gulf sturgeon (Table 3.9-1) in the EIS/OEIS and has included these federally listed species in its consultation with NMFS. Federally listed birds have also been addressed in the EIS/OEIS (Table 3.6-1) and are part of the consultation with U.S. Fish and Wildlife Service.
S01-10	Page 3.3-31 – The first full paragraph states that: “The majority of military expended materials that settle on hard bottoms or artificial substrates, while covering the seafloor, will still serve the same habitat function as the substrate it is covering by providing a hard surface on which organisms can attach.” For natural hard bottom substrate, expended materials may serve a similar, but not the same, habitat function. This comment is also applicable to the similar discussion found in the AFTT Essential Fish Habitat Assessment – Final Report (Page 4-50).	The Final EIS/OEIS has been updated with this information.
S01-11	Page 4-11 – The Programmatic Environmental Impact Statement for Geological and Geophysical Exploration on the Mid- and South Atlantic Outer Continental Shelf is now beyond the scoping stage. A draft EIS was released in March 2012.	This statement has been updated in the Final EIS/OEIS.
S02-01	The Navy must submit a JPA to VMRC for review and approval, to ensure project consistency with the subaqueous lands management enforceable policy of the VCP.	The Navy prepared a Coastal Zone Management Act consistency determination for Virginia to ensure consistency with the subaqueous lands management enforceable policy of Virginia’s Coastal Zone Management Program and received concurrence from the Virginia

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
		Department of Environmental Quality on the consistency determination submitted. Effects on subaqueous lands in the coastal zone would be temporary, localized, and would not measurably affect the environment. The Navy would reduce potential impacts on coastal zone uses and resources through adherence to standard operating procedures and the implementation of environmental mitigation measures. In accordance with the consistency determination submitted to the Virginia Department of Environmental Quality, the Navy will be consistent to the maximum extent practicable with the Subaqueous Lands Management enforceable policy.
S02-02	The Navy should take all reasonable precautions to limit emissions of VOCs and NOx, principally by controlling or limiting the burning of fossil fuels.	Air emissions are addressed in Section 3.2 (Air Quality). All reasonably foreseeable direct and indirect emissions in nonattainment and maintenance areas do not equal or exceed applicable <i>de minimis</i> levels.
S02-03	VMRC recommends that time-of-year restrictions for activities, in near-shore waters, during known spawning migrations of any of the aforementioned species should receive careful consideration.	As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. After consultation with NMFS with respect to ESA-listed fish species, and analysis presented in Section 3.9.3 (Environmental Consequences), no time-of-year restrictions were recommended.
S02-04	Due to the legal status of species documented to be present in the project area, OCR recommends coordination with the Virginia Department of Game and Inland Fisheries (DGIF), the USFWS and the National Marine Fisheries Service (NMFS) for information regarding the possible impacts to these protected species and to ensure compliance with protected species legislation.	The Navy has consulted with U.S. Fish and Wildlife Service and the National Marine Fisheries Service with respect to impacts on federally listed species within the Study Area.
S02-05	The Navy must continue to consult directly with DHR, as necessary, pursuant to Section 106 of the National Historic Preservation Act (as amended) and its implementing regulations codified at 36 CFR Part 800	Consultation with the appropriate State Historic Preservation Offices, the Advisory Council on Historic Preservation, Native American tribes, and the public and state and federal agencies as required by Section 106 of the National Historic Preservation Act and by government-to-government consultation required by Executive Order (EO) 13007 has occurred.
S02-06	The DEQ Division of Land Protection and Revitalization (DLPR) recommends that, should any on-shore sites in Virginia be impacted, the Navy should conduct an environmental investigation to identify any solid or hazardous waste sites or issues related to related on-	Thank you for your comment. The Proposed Action does not involve solid or hazardous waste sites or issues related to on-shore activities.

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
	shore activities related to the training operations.	
S02-07	<p>DEQ-DLPR recommends that the Navy access and analyze the data in DEQ's web-based databases to determine if Navy activities would affect or be affected by any sites identified in the databases. The databases include:</p> <p>Permitted Solid Waste Management Facilities;</p> <p>Virginia Environmental Geographic Information Systems (Solid Waste, Voluntary Remediation Program, and Petroleum Release sites);</p> <p>Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Facilities; and</p> <p>Hazardous Waste Facilities.</p>	None of these sites fall within the boundaries of this at-sea Study Area.
S02-08	DEQ encourages the implementation of pollution prevention principles, including the reduction, reuse, and recycling of all solid wastes generated. All generation of hazardous wastes should be minimized and handled appropriately.	Concur.
S02-09	Soil that is suspected of contamination or wastes that are generated as a result of training and testing activities in Virginia must be tested and disposed of in accordance with applicable federal, state, and local laws and regulations.	The Proposed Action does not include training and testing activities that would result in contaminated soil or generation of wastes. The training and testing activities are described as "at-sea" since activities would not be conducted on land.
S03-01	As for specific applicable standards for the proposed federal testing and training activity, I would direct your attention to the following sections within Section 1160 of the Ocean SAMP that the EIS should address as part of any consistency determination to be filed with the RICRMC.	The Navy has prepared a Coastal Zone Management Act consistency determination to ensure consistency with the enforceable policies of the Rhode Island Coastal Zone Management Program. The Navy determined Section 1160 of the Ocean SAMP was not applicable to the Navy's Proposed Action because it does not include offshore development or significant long-term impacts to Rhode Island commercial or recreational fisheries. Rhode Island concurred with the Navy's coastal consistency determination.
S03-02	Accordingly, it's unclear as to whether the Navy has already prepared or will be preparing consistency determinations for the State of Rhode Island, or other states for that matter. In either case I would expect that the Navy will review the Ocean SAMP and address the sections noted above prior to filing a consistency determination with the RICRMC.	The text has been revised for the Final EIS/OEIS. The Navy reviewed Rhode Island's Ocean SAMP and included it under its federal consistency review. Coordination with all applicable states and territories, including Rhode Island, under the Coastal Zone Management Act occurred between the release of the Draft and Final EIS/OEIS. Rhode Island concurred with the Navy's coastal consistency determination.

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
S04	We do not anticipate significant long term environmental impacts from this project as long as construction and waste disposal activities associated with it are completed in accordance with applicable local, state, and federal environmental permits and regulations. We recommend that the applicant take necessary steps to insure that best management practices are utilized to control runoff from construction sites to prevent detrimental impact to surface and ground water.	Thank you for your comment. The Proposed Action does not involve construction or waste disposal.
S05-01	Furthermore, in accordance with §28.2-1203 of the Code, permits from the Habitat Management Division of the VMRC may be necessary for certain training or testing activities that are to occur over, or that may otherwise impact, the identified State-owned submerged bottomlands. Without identifying all of the potential training activities that could occur, specific activities that will result in the filling or encroachment over State-owned submerged bottomlands will require a VMRC permit.	The Navy prepared a Coastal Zone Management Act consistency determination for Virginia to detail consistency with the subaqueous lands management enforceable policy of Virginia's Coastal Zone Management Program. Effects on subaqueous lands in the coastal zone would be temporary, localized, and would not measurably affect the environment. The Navy will obtain appropriate permits as required.
S05-02	In addition, activities that will result in the disturbance to identified areas of submerged aquatic vegetation (SAV) or the abandonment of vessels, structures, or materials out over the State's submerged bottomlands will also require a VMRC permit.	The Navy will obtain appropriate permits as required.
S06	We have conducted a review of the project and are aware of no historic resources which would be affected by the project. Therefore, we have no comment on the project as proposed.	Thank you for your review.
S07	"In conjunction with the AFTT EIS/OIS process, the Navy will complete a consistency determination or negative determination for each state and territory under the federal consistency review process." That process, as required under 15 CFR Part 930.39, presents an appropriate opportunity to furnish us with additional information concerning proposed actions that will affect or take place in Long Island Sound. We look forward to reviewing your consistency determination.	The Navy has prepared a Coastal Zone Management Act consistency determination to ensure consistency with the enforceable policies of the Coastal Zone Management Program. On 26 February 2013, Connecticut provided its concurrence with the Navy's determination that the Proposed Action is consistent with Connecticut's Coastal Management Program.
S08	The Delaware Department of Natural Resource and Environmental Control (DNREC) previously offered comments for consideration during the 2010 scoping process. The comments focused primarily on the need for baseline assessments of benthic and biological resources in order to determine potential impacts; the importance of	The Navy used the best available science in determining the baseline conditions. As found in Section 3.11.2.2 (Mineral Extraction), sand resources have been considered in the analysis and have addressed the concerns raised during the scoping period. The large marine ecosystem classification system used in this EIS/OEIS was advocated by the



Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
	not interfering with offshore sand resources potentially available to coastal states; and the need for regional marine spatial planning in order to avoid negatively impacting the renewable resource potential of the Mid-Atlantic.	Council on Environmental Quality's Interagency Ocean Policy Task Force as a marine spatial framework for regional coordination and planning in the United States.
S09	<i>Duplicate to comments S11-01, S11-02, and S11-03.</i>	<i>See responses to comments S11-01, S11-02, and S11-03.</i>
S10-01	We urge the Navy to incorporate the revised Southeast U.S. right whale critical calving habitat boundaries into the AFTT mitigation plan and final EIS. Expanding the Mitigation Area to encompass the entire NMFS designated calving habitat is the most effective way to reduce adverse impacts to right whales.	As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS, the Navy evaluated a larger mitigation area to address North Atlantic right whale calving habitat concerns; however, an expanded mitigation area is not being recommended due to the unacceptable impacts it would have with regard to personnel safety, practicality of implementation, and impact on effectiveness of the military readiness activities that occur in that area, Section 5.3.3.1.1.1 (North Atlantic Right Whale Southeast Calving Habitat) describes the recommended measures.
S10-02	The Navy is currently funding right whale surveys and passive acoustic monitoring in the proposed Undersea Warfare Training Range (USWTR) offshore of Jacksonville, FL to address this question. We applaud the Navy for supporting this important research. While a brief summary of aerial survey results is provided in the AFTT DEIS, results of passive acoustic monitoring are not provided. We request that the Navy make this information available. If this or other research demonstrates that right whales frequently inhabit waters greater than 30 nmi from shore, protective measures should be implemented in those areas also.	All monitoring reports are available on the Navy's marine species monitoring web site ( <a href="http://www.navy-marine-species-monitoring.us/">http://www.navy-marine-species-monitoring.us/</a> ).  Outside of mitigation areas, the mitigation measures identified throughout Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) will apply to marine mammals (including the North Atlantic right whale) year round and will be applied regardless of the location of the activity.
S10-03	We request the Navy provide estimates of vessel abundance and distribution that are expected to occur within the revised NMFS critical habitat boundaries from November 15 to April 15 under each Alternative. Such information is required to assess whether this risk of vessel collisions would increase under Alternatives 1 and 2.	Vessel abundance and distribution is not expected to appreciably change, as discussed in Chapter 3 (Affected Environment and Environmental Consequences). For additional detail on ship strikes and right whales, refer to Section 3.4.3.3.1 (Impacts from Vessels) and Section 3.4.3.3.2 (Impacts from In-Water Devices).  Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS provides mitigation measures for the North Atlantic right whale. These measures were developed in coordination with NMFS.
S10-04	While these measures reduce the probability of collisions, the measures are not sufficient to minimize adverse impacts for the	The mitigation measures listed in the Final EIS/OEIS and the Biological Opinion are the result of the consultation with NMFS and U.S. Fish and

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
	<p>following reasons: 1) Most of the proposed vessel mitigation measures would only apply within the Mitigation Area, which as stated above, does not encompass the actual area frequently used by right whales. 2) Visual detection methods, while prudent, cannot be relied upon to reliably detect right whales. Right whales are often below the surface of the water and undetectable by visual means. The probability of detecting whales is further reduced in rough seas, inclement weather and at night. 3) "Slowest speed" and "speed reductions" are not defined in the DEIS. Previous studies have indicated that the probability of whale mortality and serious injury are increased at speeds of 10 knots or greater (Laist et al. 2001, Pace and Silber 2007, Vanderlaan and Taggart 2007). The DEIS states that large Navy vessels generally travel at speeds greater than 10 knots. We cannot assess the effectiveness of proposed speed reduction measures because the DEIS does not quantify the amount or distribution of traffic that will occur at speeds less than or greater than 10 knots under each alternative. To minimize adverse vessel impacts to right whales we recommend that Navy vessels 65 feet or greater in length travel at speeds of 10 knots or less when transiting through revised NMFS critical habitat zone from November 15 to April 15. We also recommend that training and testing activities requiring higher vessel speeds should be conducted outside of the NMFS critical habitat when feasible. If Navy vessels are unable to operate at speeds 10 knots or less in the NMFS critical calving grounds, we recommend that the Navy change its assessment of vessel operations to read "may affect and is likely to adversely affect" right whales for each Alternative, as is stated for other species of baleen whales examined in the DEIS.</p>	<p>Wildlife Service. Information on mitigation measures considered but eliminated can be found in Section 5.3.4 (Mitigation Measures Considered but Eliminated) of the Draft and Final EIS/OEIS. Mitigation measures are proposed for vessels in all areas where vessels may operate during training or testing activities. For example, as described in Section 5.3.1.2.3.1 (Vessels), while underway, surface ships will have a minimum of one Lookout.</p>
S10-05	<p>Despite these measures, the Navy acknowledges that the increased explosive ordnance training proposed in Alternatives 1 and 2 "may affect and is likely to adversely affect" right whales. This assessment seems reasonable given the large increase in proposed ordnance detonations. However, the DEIS does not quantify the amount and distribution of proposed ordnance detonations that will likely occur within the calving habitat. We request that the Navy estimate the types, amounts and distribution of ordnance detonations that will occur within 30 nmi of the Southeast U.S. coast from November 15 to April 15 under each Alternative. Such information is required to assess impacts to right whales and the calving habitat under</p>	<p>Mitigation measures for the North Atlantic right whale mitigation area are described in Section 5.3.3.1 (Marine Mammal Habitats) of the Draft and Final EIS/OEIS. As stated, the Navy will not conduct the following activities between 15 November and 15 April within the mitigation area:</p> <ul style="list-style-type: none"> <li>Low-frequency active sonar</li> <li>High-frequency and non-hull-mounted mid-frequency active sonar (excluding helicopter dipping)</li> <li>Missile activities (explosive and non-explosive)</li> <li>Bombing exercises (explosive and non-explosive)</li> <li>Underwater detonations</li> </ul>

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
	Alternatives 1 and 2.	Improved extended echo ranging sonobuoy exercises Torpedo exercises (explosive) Small-, medium-, and large-caliber gunnery exercises These mitigation measures were developed in coordination with NMFS during the MMPA permitting and ESA consultation processes.
S10-06	We support the Navy's proposal to restrict ordnance detonations within the Mitigation Area. This approach is the simplest way to avoid adverse impacts to right whales and the calving habitat. However, as stated above, the proposed Mitigation Area does not encompass the actual area frequently used by right whales. We recommend that the Navy increase the size of the Mitigation Area to encompass the NMFS critical calving habitat and avoid testing and training with explosive ordnance within the calving habitat from November 15 to April 15.	The mitigation measures listed in the Final EIS/OEIS and the Biological Opinion are the result of the consultation with NMFS and U.S. Fish and Wildlife Service. Outside of mitigation areas (which encompasses the established North Atlantic right whale critical habitat), the mitigation measures identified throughout Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) will apply to marine mammals (including the North Atlantic right whale) year round and will be applied regardless of the location of the activity.
S10-07	We support the Navy's use of Mitigation Zones in locations where densities of right whales and other marine mammals are expected to be low. However, we do not support Mitigation Zones as the primary means of mitigating adverse impacts within the calving habitat.	Thank you for your comment.
S10-08	Accordingly the Navy acknowledges that active sonar training and testing "may affect and is likely to adversely affect" right whales. The Navy's assessment seems reasonable. However, we are unable to fully assess the impacts of the Alternatives because the DEIS does not quantify the extent to which active sonar will be used within the right whale calving habitat. Accordingly, we request that the Navy provide estimates of the following under each Alternative: 1) The type, amount and distribution of active sonar training and testing that will occur within the NMFS critical calving habitat from November 15 to April 15 annually 2) The extent to which active sonar noise will likely propagate into/throughout the NMFS critical habitat, and 3) The extent to which active sonar sound may raise ambient noise levels within the NMFS critical habitat.	The timing of training cycles and testing needs varies based on deployment requirements to meet current and emerging threats. Due to the variability, the EIS/OEIS is structured to provide flexibility in training and testing locations. See Tables 2.8-1, 2.8-2, and 2.8-3 for information on the number of proposed activities and their location. In addition, information regarding the exact location of sonar usage is classified. Moreover, the Navy has already implemented restrictions in the mitigation zone, which encompasses the critical habitat, including the following: Low-frequency active sonar High-frequency and non-hull-mounted mid-frequency active sonar (excluding helicopter dipping) Missile activities (explosive and non-explosive) Bombing exercises (explosive and non-explosive) Underwater detonations Improved extended echo ranging sonobuoy exercises Torpedo exercises (explosive)

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
		Small-, medium-, and large-caliber gunnery exercises These mitigation measures were developed in coordination with NMFS during the MMPA permitting and ESA consultation processes.
S10-09	Given the potential cumulative impacts of active sonar noise on right whales and the calving habitat, we recommend that the Navy proceed conservatively and limit active sonar testing and training in all coastal waters within the NMFS critical habitat of Georgia, South Carolina and northeast Florida from November 15 to April 15.	Cumulative impacts have been assessed in Chapter 4. Information on mitigation measures can be found in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Draft and Final EIS/OEIS. The mitigation measures listed in the Final EIS/OEIS are the result of the consultation with NMFS.
S10-10	<p>However, the portion of training and testing activities that will occur in relation to the USWTR is not stated in the DEIS. We remain concerned that training and testing in the USWTR will have cumulative adverse impacts on right whales and their habitat for the following reasons:</p> <ol style="list-style-type: none"> <li>1) The USWTR is located in close proximity to the NMFS critical calving habitat (approximately 20 nmi eastward),</li> <li>2) The USWTR would concentrate vessel operations and active sonar in close proximity to the calving habitat,</li> <li>3) Sound from the most powerful active sonar systems is predicted to travel great distances (up to 100 nmi), and</li> <li>4) Right whales residing in the calving habitat would be exposed to active sonar noise for months at a time.</li> </ol> <p>Accordingly, we request that the Navy provide estimates of the following under each Alternative:</p> <ol style="list-style-type: none"> <li>1) The type, amount and distribution of vessel traffic predicted to occur within the USWTR from November 15 to April 15 annually,</li> <li>2) The number of vessel transits that will likely occur between the USWTR and Southeast U.S. Navy ports (i.e., Port Canaveral, FL; Mayport, FL; Kings Bay, GA; Charleston, SC) from November 15 to April 15 annually,</li> <li>3) The amount of active sonar training and testing that will occur within the USWTR from November 15 to April 15,</li> <li>4) The extent to which active sonar will likely propagate from the USWTR and into the adjacent NMFS right whale calving habitat, and</li> <li>5) Whether active sonar emitted from the USWTR will raise ambient noise levels within the adjacent calving habitat.</li> </ol>	See page A-77 for details regarding activities in the Undersea Warfare Training Range (USWTR). Activities on USWTR will occur year-round and are estimated to be evenly distributed throughout the year. The Navy vessel traffic in and out of the listed ports will not change from current levels as activities occurring on the USWTR range already take place in this area, just not currently on an instrumented range. Acoustic modeling accounted for the levels that would propagate into the adjacent right whale critical habitat. Active sonar activity is relatively short in duration and is not shown to measurably increase ambient noise levels.

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
S10-11	As we have stated previously, we also recommend that the Navy conduct a study to validate the Acoustic Effects Model in-situ in Southeast U.S. littoral waters. In such a study, representative sonar systems should be operated within the USWTR and other areas where active sonar training and testing will be concentrated. Received levels should be measured simultaneously at various ranges and locations within the right whale calving habitat. Results of such a model verification study, combined with improved marine mammal density estimates, should be used to corroborate the Acoustic Effect Model results. Long-term passive acoustic monitoring should also be implemented within and adjacent to the USWTR to determine what, if any, impacts active sonar may have on the acoustic characteristics of the calving habitat. Adaptive management triggers (e.g., reductions in active sonar duty cycle, cessation of training when whales are present) should be incorporated into the mitigation plan, thereby allowing impacts from active sonar to be mitigated in the event that adverse impacts are documented after project implementation.	<p>The acoustic propagation models have been validated and approved by the Oceanographic and Atmospheric Master Library. These models are the same used for Navy's tactical decision aids.</p> <p>Long-term passive acoustic monitoring has been occurring in the JAX OPAREA, and the results of the monitoring are presented on the NMFS Office of Protected Resources web site and the Navy's Marine Species Monitoring web site (<a href="http://www.navymarinespeciesmonitoring.us/">http://www.navymarinespeciesmonitoring.us/</a>). Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS includes information on the Navy's approach to monitoring (Section 5.5.1). As described in Chapter 5, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.</p>
S11-01	The 2010 North Carolina Coastal Habitat Protection Plan (CHPP) defines hard bottom habitat as "exposed areas of rock or consolidated sediments, distinguished from surrounding unconsolidated sediments, which may or may not be characterized by a thin veneer of live or dead biota, generally located in the ocean rather than in the estuarine system". The CHPP explains that live hard bottom does not require "stoney bottom, bedrock, or rubble" as described in section 3.3.2.6 but instead low-relief hard bottom can occur on compacted mud bottom and be intermittently covered with a thin layer of sand (Deaton et al. 2010). This could explain why it appears that mapped live hard bottom may be confused with soft sediment. Please update section 3.3.2.6 accordingly.	The Navy concurs that hard bottom does not have to be composed of stony bottom, bedrock, or rubble, but may instead be made up of compacted sediments such as clay. The text has been updated accordingly. However, the issue of hard bottom being overestimated in the SEAMAP data remains. During the Navy's mapping of the Undersea Warfare Training Range (USWTR) off the coast of northeast Florida, the backscatter from the multibeam sonar and a sub-bottom profiler were used to determine sediment composition and thickness, and followed up with video transects and benthic cores to validate the results. Accordingly, many of the areas denoted as hard bottom in the SEAMAP data actually turned out to be unconsolidated sediments, as noted in the EIS/OEIS.
S11-02	The CHPP also describes the efforts of Moser and Taylor {1995} to collect near-shore hard bottom locations and provides maps that include this data and SEAMAP data. Please add this data to the other mentioned data sources as a part of the mapped live hardbottom in the Protective Measures Assessment Protocol (section 5.3.3.3) which will provide a buffer around hard bottom for certain activities.	These data were added as part of the data sources included in the Navy's Protective Measures Assessment Protocol.

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
S11-03	Research on impacts of acoustic stressors to hearing specialists and the impacts of electromagnetic devices on the fish identified that can detect electromagnetic properties would be very valuable to the decision making process regarding these activities in the future. DMF encourages increased research and monitoring for impacts to fish species.	Thank you for your comment.
S11-04	Specifically, DPR is concerned about the Endangered Species Act determinations of "may effect, likely to affect" for the loggerhead ( <i>Caretta caretta</i> ) and green sea turtles ( <i>Chelonia mydas</i> ), which are designated as 'Threatened' by the U.S. Fish and Wildlife Service. These species are known to nest along Bear Island, and Hammocks Beach State Park has an ongoing monitoring program in place. DPR respectfully requests the implementation of mitigation measures (i.e., spotter planes) to help avoid or reduce potential impacts to these rare species.	As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. In addition to activity-specific mitigation measures outlined in Section 5.3.1 (Lookout Procedural Measures) and Section 5.3.2 (Mitigation Zone Procedural Measures), Section 5.3.3.1.2 (Sea Turtle Habitat off North Carolina) includes information on Navy's mitigation areas specific to sea turtles in this region.
S11-05	We also respectfully request the implementation of noise mitigation measures to minimize adverse impacts to Park staff and visitors.	Socioeconomic issues associated with the Proposed Action in the Key West Range Complex are addressed Sections 3.11.3 (Environmental Consequences). Section 3.11.3.2 (Acoustic Stressors) states the public might intermittently hear noise from ships or aircraft overflights if they are in the general vicinity of a training or testing activity. Because activities producing airborne noise are normally short-term and temporary, the EIS/OEIS concludes that airborne noise impacts on tourism and recreational activity would be negligible.
S11-06	To limit unintended impacts to nesting sea turtles on North Carolina beaches, we request near shore, in-water activities adhere to the May 1 - November 15 sea turtle nesting moratorium.	As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. In addition to activity-specific mitigation measures outlined in Section 5.3.1 (Lookout Procedural Measures) and Section 5.3.2 (Mitigation Zone Procedural Measures), Section 5.3.3.1.2 (Sea Turtle Habitat off North Carolina) includes information on Navy's mitigation areas specific to sea turtles in this region.
S11-07	Section 3.11.3.1.14 (Environmental Consequences for Commercial and Recreational Fishing) briefly concludes that naval operations would not lead to a noticeable change from historic use. Therefore,	As stated in Section 3.11.3.1.1.4 (Commercial and Recreational Fishing), the Navy strives to conduct its operations in a manner compatible with commercial and recreational ocean users by minimizing temporary

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
	the Navy concluded that commercial and recreational fishing would not be noticeably affected by Navy activities requiring area restrictions. However, the DEIS/OEIS is apparently silent on whether existing Naval operations have had explicit instances of adverse effects on commercial and recreational fishing activities. DCM encourages the Navy to include an affirmative statement on whether existing naval operations have or have not had adverse effects on commercial and recreational fishing activities.	access restrictions. Because the Navy uses Notices to Mariners to allow commercial and recreational fishing boats to adjust their routes to avoid temporary restricted areas and given the size of the Study Area, opportunities for Navy activities to interfere with commercial and recreational fishing are minimal.
S11-08	DCM also encourages the Navy to incorporate a mitigation measure(s) to conduct its training and testing activities in such a manner that adverse effects to commercial and recreational fishing would be avoided.	As stated in Section 3.11.3.1.1.4 (Commercial and Recreational Fishing), the Navy strives to conduct its operations in a manner compatible with commercial and recreational ocean users by minimizing temporary access restrictions. Because the Navy uses Notices to Mariners to allow commercial and recreational fishing boats to adjust their routes to avoid temporary restricted areas and given the size of the Study Area, opportunities for Navy activities to interfere with commercial and recreational fishing are minimal.
S11-09	Nevertheless, we encourage the Navy to condition training and testing activities to avoid the discharge of any hazardous debris or toxic substances that could adversely affect sand and gravel burrow sites.	The Proposed Action does not involve the discharge of hazardous debris or toxic substances that could adversely affect sand and gravel borrow sites. Impacts on sediments and water quality were discussed in Section 3.1 (Sediments and Water Quality) of the EIS/OEIS. As discussed in Section 3.11 (Socioeconomic Resources), the Navy would avoid conducting training and testing activities in designated areas of mineral extraction. This precautionary measure would minimize potential impacts on sand and gravel borrow sites.
S12-01	Historic Preservation Office (SHPO): HPO has reviewed the DEIS concerning its potential to affect historic and archaeological resources. Based on the information submitted, it appears that the proposed undertaking will require consultation under Section 106 of the National Historic Preservation Act for the identification, evaluation and treatment of historic properties within the project's area of potential effects. As a result, the HPO looks forward to further consultation with the United States Department of the Navy pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, and it's implementing regulations, 36 CFR §800.	The Navy consulted with the New Jersey State Historic Preservation Office pursuant to Section 106 of the National Historic Preservation Act and New Jersey concurred with the finding that the project will not adversely affect historic properties.
S12-02	If the Department of the Navy is ultimately granted permission to utilize active sonar in New Jersey waters or nearby waters, it is strongly recommended that a minimum of two dedicated, and three	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
	<p>non-dedicated, marine mammal lookouts be posted at all times when active sonar is being used, and that such lookouts be provided with binoculars, night vision goggles, and infrared sensors; a 35 minute time period be used to scan the area for cetaceans, due to the long periods of time during which some cetaceans can remain submerged, before engaging active sonar; and the use of active sonar should be terminated when marine mammals are spotted within 2,000 meters. In addition, the use of passive sonar to listen for whales and ensure that they are not within the testing area prior to switching on active sonar is recommended as well as aerial monitoring for at least sixty minutes before sonar use if such use occurs during periods when North Atlantic right whales may be migrating through the area. We highly recommend that the use of active sonar be minimized during February-April and September-December, when endangered marine mammals (including the critically endangered North Atlantic right whale) transit through the area during their migration. We also recommend minimizing active sonar use during June-August when bottlenose dolphins are known to give birth and nurse their young in NJ waters. The Department of the Navy must also accept responsibility for responding to any strandings and/or rescues of marine species which may be associated with use of active sonar.</p>	<p>analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy believes that the proposed training and testing will not pose a significant risk to whales, fish, or other wildlife given that these same activities have been conducted for decades in other range complexes with no indications of broad-scale impacts that are either injurious to or of significant biological impact on marine mammals, fish, or other wildlife at those locations. Please see the recent results supporting this as presented in training range monitoring reports available at NMFS Office of Protected Resources web site and the Navy's Marine Species Monitoring web site (<a href="http://www.navy-marine-species-monitoring.us/">http://www.navy-marine-species-monitoring.us/</a>). Please see the project web site (<a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a>) for the <i>Marine Mammal Stranding Report</i>, which has a full review of the scientific record concerning marine mammal strandings and sonar use. An integrated monitoring plan for the activities in the AFTT Study Area is also planned as presented in Section 5.5.1.1 (Integrated Comprehensive Monitoring Program) of the Final EIS/OEIS. The Navy will continue to implement the monitoring and research programs where training and testing has been occurring to determine if there are potential impacts as a result of those activities and will do so in the AFTT Study Area associated with future training and testing occurring there. The Navy will continue to be a leader in funding of research to better understand the potential impacts of Navy training and testing activities and to operate with the least possible impacts while meeting training and testing requirements.</p>



Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
S12-03	Other impacts to marine mammals from testing and training activities include injury or mortality from vessel strikes, the use of electromagnetic devices, entanglement in training/testing equipment, and ingestion of munitions and other military expended material. It is highly recommended that vessel speeds are reduced to 10 knots within the mid-Atlantic management area, and that speeds are reduced even further when marine mammals are observed.	As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. The analysis of reduced vessel speeds can be found in Section 5.3.4.1.5 (Reducing Vessel Speeds). There is no evidence that injury or mortality has occurred as a result of electromagnetic devices, entanglement in training/testing equipment, or ingestion of munitions and other military expended material, and no references were provided to support this claim.
S12-04	We highly recommend minimizing testing and training activities, including the use of active sonar, explosives, pile driving, air guns, and weapons firing, during the months of May through September, when sea turtles are known to be present in these locations and along the coast.	As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. After consultation with NMFS with respect to ESA-listed sea turtles, and analysis presented in Section 3.5.3 (Environmental Consequences), no time-of-year restrictions were recommended off the coast of New Jersey. Section 5.3.3.3.1 (Sea Turtles) describes the recommended measures.
S12-05	Other impacts from testing and training activities on sea turtles include injury or mortality from vessel strikes, the use of electromagnetic devices, entanglement in training/testing equipment, and ingestion of munitions and other military expended material. It is highly recommended that vessel speeds are reduced to 10 knots within the mid-Atlantic management area, and that speeds are reduced even further when sea turtles are observed.	As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. The analysis of reduced vessel speeds can be found in Section 5.3.4.1.5 (Reducing Vessel Speeds). There is no evidence that injury or mortality has occurred as a result of electromagnetic devices, entanglement in training/testing equipment, or ingestion of munitions and other military expended material, and no references were provided to support this claim.
S12-06	It is possible that increased traffic coupled with behavioral changes due to training and testing activities may place Atlantic sturgeon at increased risk from ship strikes. Activities such as equipment/structures on the sea floor could also potentially impact	A thorough analysis of impacts on Atlantic sturgeon by vessels and seafloor devices is in Sections 3.9.3.3.1 (Impacts from Vessel and In-Water Device Strikes) and 3.9.3.3.3 (Impacts from Seafloor Devices) of the EIS/OEIS. The Navy's may affect, not likely to adversely affect

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
	this demersal species, along with Shortnose sturgeon (Federally Endangered) that on occasion migrates into ocean waters.	conclusions are fully supported in the analysis. The Navy has consulted with NMFS.
S12-07	We also recommend that the Department of Navy review and take into consideration bird hotspots as identified in the state baseline study: <a href="http://www.nj.gov/dep/dsr/oceanwindlindex.htm">http://www.nj.gov/dep/dsr/oceanwindlindex.htm</a> when conducting training and testing activities off NJ waters.	Species-specific analysis for birds was not possible due to the number of species present in the Study Area. Instead, species were grouped by taxonomic or behavioral similarities based on the stressor being analyzed. Therefore, all birds were already taken into consideration in the analysis. The New Jersey state baseline study didn't really identify hotspots but rather showed modeled density within the Study Area. These densities proved to be extremely variable from year to year, so it was difficult to take any particular areas into account in the analysis in a meaningful way. In addition, very few activities would occur within 20 nm from New Jersey's shore. Under the Migratory Bird Treaty Act regulations applicable to military readiness activities (50 C.F.R. Part 21), the stressors introduced during training and testing activities would not result in a significant adverse effect on migratory bird populations. After consultation with U.S. Fish and Wildlife Service with respect to ESA-listed birds, and analysis presented in Section 3.6.3 (Environmental Consequences), no mitigation areas were recommended off the coast of New Jersey.
S12-08	Any activity that could lead to a "take" of a State or federally listed endangered or threatened species is discouraged, and the use of alternative technologies to midfrequency active sonar should be strongly considered.	Thank you for your comment.
S13-01	Accordingly, the VPA supports the No Action Alternative and Alternatives 1 and 2 currently presented by the U.S. Navy, provided the proposed boundary, activity and infrastructure expansions discussed in these alternatives will not impact or restrict maritime commerce or commercial navigation within the federal channels into the Chesapeake Bay, Hampton Roads, and the Port of Virginia.	Analysis of the impacts on commercial and recreational activities is in Section 3.11 (Socioeconomic Resources). The Navy is not proposing to add any new restricted areas and proposes to continue the same type of temporary area closures that have occurred for decades.
S13-02	We respectfully recommend that the project team coordinate with and seek comments the U. S. Department of Interior, Bureau of Ocean Energy Management with regard to the proposed Wind Energy Areas slated for lease along the Atlantic Coast, if this has not already occurred.	The Draft EIS/OEIS was submitted to the Department of the Interior, Bureau of Ocean Energy Management for review and comment.
S13-03	In addition, we recommend that the project team also coordinate and solicit input from the U.S. Coast Guard and consider the findings of the USCG Port Route Access Study into its selection of the preferred	As an important stakeholder, the U.S. Coast Guard was notified of the availability of the Draft EIS/OEIS. As noted in Section 3.11.3.1.1.3 (Commercial Transportation and Shipping), the Navy concludes that the

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
	alternative.	impacts would be negligible due to advance public notification (Notices to Airmen and Notices to Mariners) and the short-term duration of military activities.
S14-01	The Maryland Department of the Environment commented: Any solid waste including construction, demolition and land clearing debris, generated from the subject project, must be properly disposed of at a permitted solid waste acceptance facility, or recycled if possible.	Thank you for your comment. The Proposed Action does not include generation of solid waste. Please see Chapter 2 (Description of Proposed Action and Alternatives) of the EIS/OEIS for a clear definition of the scope of this project.
S14-02	This Department, Planning, commented that the Navy should coordinate with the Maryland Historical Trust regarding protection of undersea or underwater historic or archeological resources. The Maryland Historical Trust commented, as noted in the EA, the Navy will work with the Maryland Historical Trust/MDSHPO to complete the Section 106 of proposed actions that could affect historic and archeological properties in Maryland.	The Navy consulted with the Maryland State Historic Preservation Office pursuant to Section 106 of the National Historic Preservation Act which concurred with the finding of no historic properties affected for Maryland waters.
S14-03	The No Action Alternative is preferred for the following reasons: As noted throughout the Draft EIS/OEIS, marine mammals and turtles are particularly vulnerable to the proposed Navy activities, especially the use of active sonar and explosives. Some of these creatures are already rare, threatened or endangered. The scope of the proposed activities, especially the alternatives that expand the number of events, intensity and areas of impact, will likely cause unacceptable impacts since the migration, foraging and mating patterns of marine mammals and turtles may be disrupted.	The conclusions reached in the EIS/OEIS are fully supported by the science and the analysis, which has been refined through the ESA and MMPA consultations with NMFS. The Proposed Action was also the subject of an Essential Fish Habitat Assessment and associated consultation with NMFS. The Navy used the best available data (including data on animal density, distribution, and occurrence) to support its impact analyses in the Draft and Final EIS/OEIS. The analysis supports that the proposed training and testing will not pose a significant risk to habitats, whales, fish, and other wildlife given that these same activities have been conducted for many years in other range complexes with no indications of broad-scale impacts that are either injurious to or of significant biological impact on habitats, marine mammals, fish, or wildlife at those locations. Please see the recent results supporting this, as presented in training ranges monitoring reports available at the NMFS Office of Protected Resources web site ( <a href="http://www.nmfs.noaa.gov/pr">www.nmfs.noaa.gov/pr</a> ). The selection of an alternative by the decision maker will be based on a review of all relevant facts, impact analyses, comments received via the EIS/OEIS public participation process, and the requirements of the Navy to fulfill its mission.
S14-04	The No Action Alternative is preferred for the following reasons: There are significant data and information gaps regarding marine mammal, turtle and benthic habitat density and distribution in the Mid-Atlantic region. This lack of information precludes an accurate analysis of the	The conclusions reached in the EIS/OEIS are fully supported by the science and the analysis, which has been refined through the ESA and MMPA consultations with NMFS. The Proposed Action was also the subject of an Essential Fish Habitat Assessment and associated

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
	potential impacts of the proposed training and testing.	consultation with NMFS. The Navy used the best available data (including data on animal density, distribution, and occurrence) to support its impact analyses in the Draft and Final EIS/OEIS. The analysis supports that the proposed training and testing will not pose a significant risk to habitats, whales, fish, and other wildlife given that these same activities have been conducted for many years in other range complexes with no indications of broad-scale impacts that are either injurious or of significant biological impact on habitats, marine mammals, fish, or wildlife at those locations. Please see the recent results supporting this as presented in training ranges monitoring reports available at the NMFS Office of Protected Resources web site ( <a href="http://www.nmfs.noaa.gov/pr">www.nmfs.noaa.gov/pr</a> ). The selection of an alternative by the decision maker will be based on a review of all relevant facts, impact analyses, comments received via the EIS/OEIS public participation process, and the requirements of the Navy to fulfill its mission.
S14-05	The No Action Alternative is preferred for the following reasons: The proposed Navy training and testing activities pose additional restrictions to an already busy Mid-Atlantic region and are likely not compatible with existing coastal uses. The proposed activities will add to potential coastal use conflicts and potentially diminish the value of key regional assets, such as the Ports of Baltimore and Norfolk, ocean-related tourism, commercial fishing and recreation, and the Wallops Flight Facility. Additional constraints due to expanded Navy training and testing may drive up shipping times and costs thereby reducing commercial competitiveness.	While the number of training and testing activities is likely to increase, since multiple activities usually occur from the same vessel, the increased number of activities is not expected to result in an increase in vessel use or transits. The Navy is not proposing appreciable changes in the locations and frequency at which vessels have been used over the last decade, and increased activities will not result in any impacts on commercial shipping. The selection of an alternative by the decision maker will be based on a review of all relevant facts, impact analyses, comments received via the EIS/OEIS public participation process, and the requirements of the Navy in order to fulfill its mission.
S14-06	The No Action Alternative is preferred for the following reasons: We encourage the U.S. Navy to actively engage in the regional ocean planning process as called for in the President's National Ocean Policy Executive Order.	The Department of Defense has been, and will continue to be, actively involved in the National Ocean Policy process. The selection of an alternative by the decision maker will be based on a review of all relevant facts, impact analyses, comments received via the EIS/OEIS public participation process, and the requirements of the Navy to fulfill its mission.
S14-07	The proposed activities are subject to Federal Consistency under the Coastal Zone Management Act. Please consider measures that will make the proposed training and testing activities consistent to the maximum extent practical with relevant enforceable policies.	The Navy has prepared a Coastal Zone Management Act consistency determination to ensure consistency with the enforceable policies of the Coastal Zone Management Program. Maryland provided concurrence with the Navy's coastal consistency determination.
L01	The City of Norfolk is fully supportive of the Navy's proposed action as described in the draft EIS.	Thank you for your comment.

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
L02	The City of Virginia Beach is fully supportive of the Navy's proposed action as described in the draft EIS.	Thank you for your comment.
L03-01	Number of Takeoffs and Landings at NAS-KW: According to page 2-79 of the Draft EIS/OEIS, the number of Air Combat Maneuver (ACM) events in the Key West Range Complex ranges from 5,700 events for No Action to 6,840 events for Alternative 2. According to page 3.0-27, the number of events including aircraft movement in the Key West Range Complex (including but not limited to ACM, FLAREX, and CHAFFEX events) ranges from 9,646 events for No Action to 10,881 events for Alternative 2. Given that multiple aircraft may be involved in one event, and that multiple events may be completed during a single flight, and that the takeoffs and landings may occur at NAS-KW, aircraft carriers, or other locations; it is not clear how the number of events translates into the number of takeoffs and landings at NAS-KW. Provide the number of takeoffs and landings at NAS-KW under each alternative, including the current NAS-KW baseline.	Take-offs and landings from Naval Air Station Key West are outside the scope of this EIS/OEIS. Please see Section 2.1 (Description of the Atlantic Fleet Training and Testing Study Area) and Section 2.4 (Proposed Activities) of the EIS/OEIS for a clear definition of the scope of this project. Take-offs and landings from Naval Air Station Key West will be addressed under the Naval Air Station Key West Airfield Operations EIS (currently in draft). Training cycles and testing needs are expected to vary due to current and emerging threats. Due to changing needs, the EIS/OEIS is structured to provide flexibility in training and testing locations. See Tables 2.8-1, 2.8-2, and 2.8-3 for information on the number of proposed activities and their locations.
L03-02	Effect of F-35 and F/A-18E/F Super Hornet on Socioeconomic Resources: At the Key West Range Complex, the difference in Air Combat Maneuver (ACM) events between the No Action and Preferred Alternative is described as an increase in the number of events (20% increase). But the EIS/OEIS does not appear to evaluate the change in the types of aircraft used. According to page A-2, Air Combat Maneuver (ACM) events will be conducted using F-35, F/A-18, and F-5 aircraft. Provide an analysis of the effects of the introduction of F-35 takeoffs and landings at NAS-KW on local socioeconomic resources including but not limited to noise effects on the surrounding community and tourism. Also, in the Navy's 2003 Final Environmental Impact Statement for the Introduction of the F/A-18E/F Super Hornet Airport to the East Coast of the United States, the impacts resulting from F/A-18E/F Super Hornet operations at NAS-KW were not discussed. Therefore, the No Action baseline in the AFTT Draft EIS/OEIS should not include the F/A-18E/F Super Hornet. Provide an analysis of the effects of F/A-18E/F Super Hornet takeoffs and landings at NAS-KW on local socioeconomic resources including but not limited to noise effects on the surrounding community and tourism.	Take-offs and landings from Naval Air Station Key West are outside the scope of this EIS/OEIS. Please see Section 2.1 (Description of the Atlantic Fleet Training and Testing Study Area) and Section 2.4 (Proposed Activities) of the EIS/OEIS for a clear definition of the scope of this project. Take-offs and landings from Naval Air Station Key West will be addressed under the Naval Air Station Key West Airfield Operations EIS (currently in draft). Socioeconomic issues associated with the Proposed Action in the Key West Range Complex have been addressed in Section 3.11.3 (Socioeconomic Resources – Environmental Consequences).

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
L03-03	Number of F-35 Takeoffs and Landings at NAS-KW: According to page 2-71, the F-35 is projected to make up about one-third of the Navy's strike fighter inventory by 2020. According to page A-2, Air Combat Maneuver (ACM) events would be conducted using F-35 and other aircraft. According to page 3.0-27, the number of events including aircraft movement in the Key West Range Complex (including but not limited to ACM, FLAREX, and CHAFFEX events) ranges from 9,646 for No Action to 10,881 events for Alternative 2. In the Key West Range Complex for each alternative, how many of the events involving aircraft would include F-35 aircraft, and how many F-35 takeoffs and landings would occur at NAS-KW.	Take-offs and landings from Naval Air Station Key West are outside the scope of this EIS/OEIS. Please see Section 2.1 (Description of the Atlantic Fleet Training and Testing Study Area) and Section 2.4 (Proposed Activities) of the EIS/OEIS for a clear definition of the scope of this project. Take-offs and landings from Naval Air Station Key West will be addressed under the Naval Air Station Key West Airfield Operations EIS (currently in draft). Training cycles and testing needs are expected to vary due to current and emerging threats. Due to changing needs, the AFTT EIS/OEIS is structured to provide flexibility in training and testing locations. See Tables 2.8-1, 2.8-2, and 2.8-3 for information on the number of proposed activities and their locations.
L03-04	Timing of increases at NAS-KW: According to pages 2-76, 2-79, and 3.5-93, the number of Air Combat Maneuver (ACM) events in the Key West Range Complex under the Preferred Alternative would increase from 5,700 to 6,840 events/yr, a 20% increase, in support of proposed increase in utilization of NAS-KW. Describe when the increase in takeoffs and landings would occur, including the time of day that the increased flights would occur (morning, day, evening, night), the days of the week that the increased flights would occur (weekdays, weekends), and the seasons that the increased flights would occur.	Take-offs and landings from Naval Air Station Key West are outside the scope of this EIS/OEIS. Please see Section 2.1 (Description of the Atlantic Fleet Training and Testing Study Area) and Section 2.4 (Proposed Activities) of the EIS/OEIS for a clear definition of the scope of this project. Take-offs and landings from Naval Air Station Key West will be addressed under the Naval Air Station Key West Airfield Operations EIS (currently in draft stage). Training cycles and testing needs are expected to vary due to current and emerging threats. Due to changing needs, the AFTT EIS/OEIS is structured to provide flexibility in training and testing locations. See Tables 2.8-1, 2.8-2, and 2.8-3 for information on the number of proposed activities and their location.
L03-05	Amount of Activity Perceptible to Public: In the Key West Range Complex for each alternative, quantify how much activity (including but not limited to aircraft overflights, ACMs, flares, chaff, air to air missile explosions, CSSQT gunnery, sonobuoy explosions, mine neutralization EOD explosions, etc.) would be visible or audible to the public on the land, and how much activity would be visible or audible to the public offshore (including recreational and commercial mariners). This should include, but not be limited to, any nighttime use of flares, mine neutralization EOD activities on Demolition Key, and whether Navy activities could affect navigational aides such as GPS used by the public. It should also include an estimate of the greatest distance at which explosions (air to air missile explosions, CSSQT high explosive large caliber rounds, sonobuoy explosions, mine neutralization EOD explosions) and gunnery firing (medium-caliber and high-caliber rounds) can be seen or heard.	Socioeconomic issues associated with the Proposed Action in the Key West Range Complex are addressed Sections 3.11.3 (Socioeconomic Resources – Environmental Consequences). Section 3.11.3.2 (Acoustic Stressors) states that the public might intermittently hear noise from ships or aircraft overflights if they are in the general vicinity of a training or testing event. Training cycles and testing needs are expected to vary due to current and emerging threats. Due to changing needs, the EIS/OEIS is structured to provide flexibility in training and testing locations.

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
L03-06	Quantify Restrictions to the Public: In the Key West Range Complex for each alternative, quantify any additional restrictions (areal extent, frequency of closure, type of access) to the public including commercial or recreational fishermen, aviators, divers, boaters, etc, due to the increase in ACMs, GUNEX A-A, MISSILEX A-A, mine neutralization EOD, sonobuoy lot acceptance tests, CSSQT events, special warfare, or other proposed activities.	Many Navy at-sea training and testing ranges are accessible to the public for recreational and commercial purposes. The Navy acknowledges that during specific exercises, its training and testing could briefly limit (usually for a matter of hours) public access to a very limited portion of coastal and ocean areas to ensure public safety. Socioeconomic Resources (Section 3.11) addresses the availability of access on the ocean and in the air, specifically; Section 3.11.3.1 (Accessibility) concludes there would be no impacts on commercial and recreational activities when Navy training and testing activities temporarily change access to the ocean or airspace in the Study Area. Training cycles and testing needs are expected to vary due to current and emerging threats. Due to changing needs, the EIS/OEIS is structured to provide flexibility in training and testing locations.
L03-07	Public Health and Safety: Page 3.12-12 (for Alternative 1 and page 3.12-13 for Alternative 2) states there will be an "increase" in active sonar testing activities and an "increase" in testing activities involving underwater explosions in the Key West OPAREA and other places, and states that Alternatives 1 and 2 would "adjust locations and tempo" of the testing. But the term "increase" is an understatement for the Key West Range Complex because there would be entirely new activities including exploding sonobuoy lot acceptance tests, CSSQT large caliber high explosive projectiles, mine neutralization EOD charges, high explosive air-to-air missiles, etc. Provide a public health and safety analysis specifically for these completely new activities in the Key West Range Complex. In addition to explosives and projectiles, include an assessment of unexploded ordnance.	See the Alternative Development section (Section 2.5). All activities listed in Tables 2.8-1, 2.8-2, and 2.8-3 have been thoroughly analyzed in Chapter 3 (Affected Environment and Environmental Consequences) including an analysis of those activities with respect to Public Health and Safety (Section 3.12). The analysis of Public Health and Safety addresses all activities for all three alternatives and includes explosives, projectiles, and unexploded ordnance. Standard operating procedures specified in Section 3.12 would be implemented to ensure public safety.
L03-08	Other Branches of the Military: The Draft EIS/OEIS refers to Navy activities, but does not mention other branches of the military. This is in contrast to the 2009 Final EA/OEA for the Key West Range Complex, which quantifies activities not just by the Navy, but also by the Air Force and Air National Guard. Clarify whether the numbers of events in the AFTT Draft EIS/OEIS are for the Navy only, or if they also include other branches of the military. Provide total numbers for the Key West Range Complex regardless of the branch of military.	The Proposed Action involves only Department of the Navy activities and is described in Chapter 2 (Description of Proposed Action and Alternatives). Section 4.3.4 (Other Military Actions) provides an analysis of the other military activities in terms of cumulative impacts. Training cycles and testing needs are expected to vary due to current and emerging threats. Due to changing needs, the EIS/OEIS is structured to provide flexibility in training and testing locations. See Tables 2.8-1, 2.8-2, and 2.8-3 for information on the number of proposed activities and their locations.
L03-09	Avoidance Analysis for Explosions: The Preferred Alternative proposes explosions in the Key West Range Complex. Explosions are	Explosions in the Key West Range Complex are addressed in Sections 3.3 (Marine Habitats) and 3.8 (Marine Invertebrates) for impacts

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
	not in the current baseline, so this would be a completely new type of activity in the area. The explosions would be associated with air to air missile exercises, mine neutralization EOD, sonobuoy lot acceptance tests, and CSSQT events. Given the environmentally sensitive nature of the area (particularly the only living coral reef tract in the continental United States), it is not appropriate to initiate a new activity such as explosions without a site-specific analysis of the environmental consequences. Please provide that site-specific analysis. Further, provide an avoidance analysis to evaluate if the environmental impacts can be avoided or minimized by performing the explosions in a different range complex.	on coral reefs. Mitigation measures related to the use of explosives can be found in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring). Specifically, mitigation zones for coral reefs and other seafloor habitats are presented in Section 5.3.3 (Mitigation Areas). Measures specific to the Florida Keys National Marine Sanctuary are discussed in Section 6.1.2 (Marine Protected Areas).
L03-10	Avoidance Analysis for Military Expended Materials: The Preferred Alternative proposes a new type of military expended material in the Key West Range Complex: debris from 1,512 explosive sonobuoys and 3,120 non-explosive sonobuoys per year. Given the environmentally sensitive nature of the Keys (particularly the only living coral reef tract in the continental United States), it is not appropriate to dispose of a new type of debris without a site-specific analysis of the environmental consequences. Please provide that site-specific analysis. Further, provide an avoidance analysis to evaluate if the environmental impacts can be avoided or minimized by performing the sonobuoy testing in a different range complex.	Potential impacts on marine habitats and marine invertebrates from military expended materials are addressed in Sections 3.3.3.2 (Physical Disturbance and Strike Stressors – Marine Habitats) and 3.8.3.3 (Physical Disturbance and Strike Stressors – Marine Invertebrates) respectively. This analysis takes into consideration the current status of the resource. Alternative training and testing locations (Section 2.5.1.1 Alternative Training and Testing Locations) were eliminated from further consideration because they failed to meet the Navy's Purpose and Need (Section 1.4).
L03-11	Expansion of Areas within the Key West Range Complex: Page 2-67 states that the Preferred Alternative will "Expand areas within the VACAPES, Navy Cherry Point, JAX, and Key West Range Complexes where anti-air warfare events, such as air combat maneuvers and gunnery and missile exercises, would be conducted in order to allow for greater operational flexibility." Describe how areas within the Key West Range Complex would be expanded and provide associated maps showing baseline and proposed areas.	The extent of the Key West Range Complex and OPAREA has not changed. Due to changing needs, the EIS/OEIS is structured to provide flexibility in training and testing locations within or across range complexes. Training cycles and testing needs are expected to vary due to current and emerging threats. See Tables 2.8-1, 2.8-2, and 2.8-3 for information on the number of proposed activities and their locations.
L03-12	Shift Operations Farther Offshore: Some parts of the Key West OPAREA and Special Use Airspace are close to the islands of the Florida Keys, and parts of the Special Use Airspace are above areas frequently used by the public (e.g., W-174 is above the route often taken between Key West and the Dry Tortugas). Provide an avoidance and minimization analysis for shifting Navy activities farther offshore to offset the proposed increase in activities in the Key West Range Complex.	The use and control of airspace is dictated by the Federal Aviation Administration National Airspace System and seeks to ensure the safe, orderly, and efficient flow of commercial, private, and military aircraft. Special Use Airspace has defined dimensions where activities must be confined because of their nature or where limitations may be imposed upon aircraft operations that are not part of those activities (Federal Aviation Administration Order 7400.8). Shifting this airspace would have impacts to the other segments of the aviation community, such as



Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
		commercial jet routes. Moving the airspace farther offshore would also reduce the amount of training that could be accomplished during a single take-off and landing due to increased fuel consumption. Air combat maneuvers in the Key West Range Complex have been revised and are no longer proposed to increase. Section 2.5.1.1 (Alternative Training and Testing Locations) of the EIS/OEIS discusses how and why the Navy developed the geographic locations of its activities.
L03-13	FKNMS Prohibitions: Florida Keys National Marine Sanctuary (FKNMS) general prohibitions include, but are not limited to, removal or injury of coral or live rock, alteration of the seabed, and discharge or deposit of most materials. Page 6-12 states that prohibitions (for the FKNMS) do not apply to existing classes of DoD military activities conducted prior to the effective date of Sanctuary regulations as identified in the EIS and Management Plan for the Sanctuary (15 C.F.R. § 922.163(d)(l)), and that new military activities in the Sanctuary are allowed and may be exempted from the prohibitions summarized after consultation between the Director and the Navy. Further clarify what activities would occur within the FKNMS, and specifically identify those activities that would violate FKNMS general prohibitions if the Navy were not exempt.	The Proposed Action will not violate the prohibitions of the Florida Keys National Marine Sanctuary. Section 6.1.2.5.4 (Florida Keys National Marine Sanctuary) has been revised to more clearly specify the following: (1) platforms, sources, or items that are part of Navy activities may be used within the Florida Keys National Marine Sanctuary because they were specifically exempted, (2) platforms, sources, or items that are part of Navy activities may be used within the Florida Keys National Marine Sanctuary because they are not likely to destroy, cause the loss of, or injure sanctuary resources, and (3) platforms, sources, or items that are part of Navy activities, but that are not planned to be used within the Florida Keys National Marine Sanctuary (including a 2.7 nm buffer) as part of the Proposed Action.
L03-14	Sonar Within FKNMS: Page A-200 indicates Special Warfare, which may include Submarine sonars, Doppler sonar, and underwater communications, will be conducted in the Key West Range Complex. Page 5-72 states the Navy will not conduct low-frequency, hull-mounted or non-hull mounted mid-frequency, or high-frequency active sonar within FKNMS. For each alternative, quantify the amount, if any, of sonar that would be used within the FKNMS, including but not limited to sonar associated with Special Warfare.	Chapter 6 (Additional Regulatory Considerations) was updated to more clearly reflect which activities occur in the Florida Keys National Marine Sanctuary (Section 6.1.2.5.4). Those activities that could occur do not result in impacts on sanctuary resources. Training cycles and testing needs are expected to vary due to current and emerging threats. Due to changing needs, the EIS/OEIS is structured to provide flexibility in training and testing locations. See Tables 2.8-1, 2.8-2, and 2.8-3 in the EIS/OEIS for information the number of proposed activities and their locations. Specific information about sonar usage is classified for national security purposes.
L03-15	Activities Outside the OPAREA and SUAs: In the vicinity of the Key West Range Complex, quantify and describe any activities that may occur outside W-174 A/B/C/E/F/G, W-465 A/B, Bonefish ATCAA, or the Key West OPAREA. This should include activities that will occur between NAS-KW and the Key West OPAREA, special use airspace W-174 A/B/C/E/F/G, W-465 A/B, and Bonefish A TCAA. This should include, but not be limited to, number of overflights by each aircraft type, types and amount of exercises, amount of any supersonic	Take-offs and landings from Naval Air Station Key West are outside the scope of this EIS/OEIS. Please see Section 2.1 (Description of the Atlantic Fleet Training and Testing Study Area) and Section 2.4 (Proposed Activities) of the EIS/OEIS for a clear definition of the scope of this project. Take-offs and landings from Naval Air Station Key West will be addressed under the Naval Air Station Key West Airfield Operations EIS. Training cycles and testing needs are expected to vary due to current and emerging threats. Due to changing needs, the EIS/OEIS is

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
	overflights, and number and type of vessel movements.	structured to provide flexibility in training and testing locations. See Tables 2.8-1, 2.8-2, and 2.8-3 in the EIS/OEIS for information on the number of proposed activities and their locations.
L03-16	Exploding Sonobuoy Lot Acceptance Tests: For the Key West Range Complex, page 2-91 states that sonobuoy lot acceptance tests will increase from 0 (0 events) under No Action to 1,512/yr (39 events/yr) under the Preferred Alternative, and 1,512 sonobuoys will use high explosives. But in Appendix A.2.4.3 page A-101 it states that the assumption used for the analysis is an average of 80 non-explosive sonobuoys per event. If the analysis was based on nonexplosive sonobuoys, but many sonobuoys in the Key West Range Complex will be explosive, provide a separate analysis for environmental effects of explosive sonobuoys in the Key West Range Complex.	The sonobuoy lot acceptance test includes the use of both explosive and non-explosive sonobuoys. The number of explosive sonobuoys is listed in Table 2.8-2 of the EIS/OEIS. The number of both non-explosive and explosive sonobuoys is detailed in Appendix A (Navy Activities Descriptions, specifically, Section A.2.4.3). Both are included in the analysis.
L03-17	Events Including Vessel Movement: Clarify the number of Events Including Vessel Movement in the Key West Target Range. Page 3.0-97 indicates that the number of events including vessel movement (training+ testing) is 12+52=64 events for the Preferred Alternative. On Tables 2.8-1 to 2.8-3, the total appears to be 58 events, so 6 events are unaccounted for. Identify those 6 events and/or reconcile the totals.	Numbers have been reviewed and updated based on changes to the activities. See Tables 2.8-1, 2.8-2, and 2.8-3 and Section 3.0.5.3.3.1 (Vessels) for updated numbers.
L03-18	Bird Nesting Areas: On page 3.6-52 for Alternative 2, it states "Although noise due to aircraft and vessels would increase over Alternative 1, the types of impacts on Bermuda petrels, piping plovers, and roseate terns, as well as to piping plover critical habitat, would not differ substantially from those under Alternative 1." The text states the "types" of impacts would not increase, but quantify the amount of increase (in the Preferred Alternative compared to No Action), in particular for the Florida Keys including but not limited to the Dry Tortugas and Marquesas Keys. For example, quantify the increased number of sonic booms and explosions that would be audible at bird nesting areas in the Florida Keys.	Training cycles and testing needs are expected to vary due to current and emerging threats. Due to changing needs, the EIS/OEIS is structured to provide flexibility in training and testing locations. See Tables 2.8-1, 2.8-2, and 2.8-3 for information the number of proposed activities and their locations.
L03-19	Annual Events: Page 2-79, Tables 2.8-1 through -3 and many other places in the Draft EIS/OEIS indicate the number of testing and training activities per year. Clarify if this is a yearly maximum or a yearly average. Also, Page 3.0-67, page 3.0-97, page 3.0-112, and many other tables identify the number of explosions, events, missiles, etc., but do not indicate whether this is the yearly total or a total	Tables 2.8-1, 2.8-2, and 2.8-3 represent the number of annual events the Navy anticipates it will conduct, unless otherwise noted. The language was added to the titles of tables in Section 3.0, Introduction (to clarify that the totals represent annual numbers).

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
	number.	
L03-20	Comparative Analysis: Table ES-1 states that impacts for Alternatives 1 and 2 are "the same" as the No Action Alternative. Explain how impacts can be "the same" when the data in the tables in Chapter 3 show more impacts for Alternatives 1 and 2.	The language was revised to indicate that the types of impacts would be the same but the numbers would increase.
L03-21	Other Waste Disposal: The EIS/OEIS describes the amount of military expended materials (projectiles, sonobuoys, parachutes, flares, chaff, etc.). Given the increase in aircraft and vessel activities, will the Preferred Alternative result in other waste disposal at sea such as garbage and waste water? If so, explain the types and amount in the Key West Range Complex.	The Proposed Action does not include any waste disposal at sea. Please see Section 2.4 (Proposed Activities) of the EIS/OEIS for a clear definition of the scope of this project.
L03-22	Ballast Water and Invasive Species: Page 3.0-97 indicates the Preferred Alternative for the Key West Range Complex would include an increase in Events Including Vessel Movement from 2 per year to 64 per year. Given the increase in vessel events, will the Preferred Alternative result in additional ballast water being disposed? If so, explain the precautions the Navy will take in the Key West Range Complex to reduce the likelihood of spreading invasive, exotic, or nuisance species through ballast water.	Please see Section 2.4 (Proposed Activities) of the EIS/OEIS for a clear definition of the scope of this project. Best management practices and Navy policy dictate how ballast water is handled. Ballast water discharge is not a component of the training and testing activities analyzed under this EIS/OEIS. Analysis presented in the EIS/OEIS is limited to the training and testing activities and reasonable outcomes of such activities. Ballast water discharge is not a component of the training and testing activities analyzed under this EIS/OEIS. The spread of invasive, exotic, or nuisance species is neither reasonably foreseeable nor anticipated. While the number of training and testing activities is likely to increase, since multiple activities usually occur from the same vessel, the increased number of activities is not expected to result in an increase in ballast water discharge.
L03-23	Contamination Potential: Will the Preferred Alternative result in additional risk of fuel leaks, waste water leaks, or other accidents that could release contamination? If so, explain the precautions the Navy will take in the Key West Range Complex to minimize that risk.	The analysis presented in the EIS/OEIS is limited to the activities and reasonable outcomes of such activities. Accidents involving fuel leaks, waste water leaks, and other contaminant releases are not reasonably foreseeable, nor anticipated. The impact of such occurrences is not addressed or analyzed. The Navy has plans and procedures for preventing, reporting, and responding to contaminant releases. While the number of training and testing activities is likely to increase, since multiple activities usually occur from the same vessel, the increased number of activities is not expected to result in an increase in vessel use or transits.
L03-24	Sediment and Water Quality: Section 3.1.4 (pages 3.1-80 to -81) states that chemical, physical, or biological changes to sediment or water quality would be measurable but below applicable standards,	The EIS/OEIS presents a thorough description and analysis in Section 3.1 (Sediments and Water Quality) of amounts and types of specific training materials as well as chemical composition and

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
	regulations, and guidelines, and would be within existing conditions or designated uses. This conclusion appears to be drawn from qualitative statements such as the volume of materials is relatively small, dilution in the oceans is a substantial factor, most expended components are subject to a variety of processes that render them benign, etc. Sediment and water quality are very important issues in the fragile marine environment of the Florida Keys. For the Key West Range Complex, provide supporting data for the conclusion and identify what mitigation measures the Navy will implement to minimize degradation of sediment and water quality.	breakdown processes of expended materials. Based on the best available science, no individual expended materials would result in water or sediment toxicity surrounding expended items. Please see Section 3.1.3.3 (Chemicals Other than Explosives) which provides this information. The Navy has taken a hard look through its analysis and has considered the best available data in supporting its conclusions.
L03-25	Maritime Security Operations: Page A-18 indicates that Anti-Surface Warfare Maritime Security Operations (including but not limited to small-arms fire and anti-swimmer grenades) may occur in all OPAREAs and littoral areas proximate to homeports. Page 2-81 does not indicate that any MSO activities will occur in the Key West OPAREA. Clarify that no MSO will occur in the Key West Range Complex, or define the amount and locations of MSO in the Key West Range Complex.	Locations identified within Tables 2.8-1 through 2.8-3 represent areas where events are typically scheduled to be conducted. Events could occur outside of the specifically identified areas if environmental conditions are not favorable on a range, the range is unavailable due to other units training or testing, it poses a risk to civilian or commercial users, or to meet fleet readiness requirements. However, Key West is not considered a home port in this context.
L03-26	Intelligence, Surveillance, and Reconnaissance Test: Page A -84 indicates that Intelligence, Surveillance, and Reconnaissance Test is proposed in the AFTT Study Area. Describe the amount of this activity that is proposed within or proximal the Key West Range Complex.	Testing needs are expected to vary due to current and emerging threats and the locations of the tests are expected to vary based on availability of air and sea space. Due to changing needs, the EIS/OEIS is structured to provide flexibility in testing locations. The actual amount of activity anticipated to occur in the Key West Range Complex, if any, is uncertain at this time.
L03-27	Other Class Ship Sea Trials- Propulsion Testing: Page 2-94 and A-131 indicates that Other Class Ship Sea Trials- Propulsion Testing (including full power and endurance runs) is proposed in the AFTT Study Area. Describe the amount of this activity that is proposed within or proximal the Key West Range Complex.	Testing needs are expected to vary due to current and emerging threats and the locations of the tests are expected to vary based on availability of air and sea space. Due to changing needs, the EIS/OEIS is structured to provide flexibility in testing locations. The actual amount of activity anticipated to occur in the Key West Range Complex, if any, is uncertain at this time.
L03-28	Surface Warfare Mission Package Testing: Pages A-134 through A-136 indicate that Surface Warfare Mission Package Testing- Gun Testing Small-Caliber, Medium-Caliber, and Large Caliber is proposed in the AFTT Study Area. Describe the amount of this activity that is proposed within or proximal the Key West Range Complex.	Testing needs are expected to vary due to current and emerging threats and the locations of the tests are expected to vary based on availability of air and sea space. Due to changing needs, the EIS/OEIS is structured to provide flexibility in testing locations. The actual amount of activity anticipated to occur in the Key West Range Complex, if any, is uncertain at this time.

Table E-3: Responses to Comments from Agencies (Continued)

Comment Identifier	Comment	Navy Response
L03-29	Anti-Surface Warfare (ASUW) I Anti-Submarine Warfare (ASW) Testing: Page 2-98 indicates that Anti-Surface Warfare (ASUW) I Anti-Submarine Warfare (ASW) Testing, including Missile Testing, Kinetic Energy Weapons Testing, Torpedo (Explosive) Testing, and Countermeasure Testing - Acoustic System Testing, is proposed in the AFTT Study Area. Describe the amount of this activity that is proposed within or proximal the Key West Range Complex.	Testing needs are expected to vary due to current and emerging threats and the locations of the tests are expected to vary based on the availability of air and sea space. Due to changing needs, the EIS/OEIS is structured to provide flexibility in testing locations. The actual amount of activity anticipated to occur in the Key West Range Complex, if any, is uncertain at this time.
L03-30	Hydrodynamic Testing: Page 2-99 indicates that Hydrodynamic Testing is proposed in the AFTT Study Area. Describe the amount of this activity that is proposed within or proximal the Key West Range Complex.	Testing needs are expected to vary due to current and emerging threats and the locations of the tests are expected to vary based on the availability of air and sea space. Due to changing needs, the EIS/OEIS is structured to provide flexibility testing locations. The actual amount of activity anticipated to occur in the Key West Range Complex, if any, is uncertain at this time.
L03-31	Number of Missiles: On page 3.0-115, Table 3.0-71, the number of missiles for Key West under the Testing columns are blank. Provide a completed table.	Table 3.0-71 has been revised and completed.
L03-32	Number of Flares and Chaff: The Draft EIS/OEIS for the AFTT indicates that the baseline number of flares in the Key West Range Complex is 4,500 and the baseline number of chaff canisters is 30,000. These numbers differ substantially from the 2009 EA/OEA for the Key West Range Complex, which states the baseline number of flares in the Key West Range Complex is 23,642 and the baseline number of chaff canisters is 48,243. For each alternative, clarify number of flares and chaff canisters proposed for the Key West Range Complex.	The numbers of chaff and flares used in the Key West Range Complex annually can be found in Tables 3.0-92 and 3.0-93. The EIS/OEIS only includes training and testing activities as described in Section 2.4 (Proposed Activities) and Tables 2.8-1, 2.8-2, and 2.8-3. Other activities originating at Naval Air Station Key West are not included as part of this Proposed Action and are being addressed in the Naval Air Station Key West Airfield Operations EIS.
L03-33	Hurricane Evacuation: Our citizens are under a State mandate to evacuate the Florida Keys within 24 hours in the event of an approaching hurricane. Our ability to do so requires Monroe County and its municipalities to limit growth and development each year. The State's traffic models include the evacuation of military personnel. Therefore, to the extent, Alternative 1 or Alternative 2 of the Draft EIS/OEIS would increase personnel in the Keys, the ability to evacuate our citizens and military personnel in a safe and timely manner will be affected. The Draft EIS/OEIS does not indicate the anticipated increase in local military personnel associated with Alternative 1 or 2. Assess the impact of the alternatives on this critical public safety issue.	The Proposed Action does not involve an increase in personnel, and therefore personnel increases were not analyzed in the EIS/OEIS. Please see Section 2.1 (Description of the Atlantic Fleet Training and Testing Study Area) and Section 2.4 (Proposed Activities) of the EIS/OEIS for a clear definition of the scope of this project.

Table E-4 contains comments from non-governmental organizations (O) received during the public comment period and the Navy's response. Responses to these comments were prepared and reviewed for scientific and technical accuracy and completeness. Comments appear as they were submitted and have not been altered.

**Table E-4: Responses to Comments from Organizations**

Comment Identifier	Comment	Navy Response
O01-01	The study area does not geographically overlap any current dredging operations, dredged material containment facilities, or mitigation projects that MES/MPA may be involved with. Please note that MPA is currently permitted to place dredged material in the Norfolk Ocean Disposal Site (NODS), located in the Virginia Capes Range Complex. Although MPA is not actively conducting dredged material placement at this site at this time, MPA should be made aware of any activities that would impact their ability to safely complete dredged material placement at this site.	Thank you for your comment.
O01-02	MES recommends that the Navy consult with the Maryland Pilots Association regarding whether the project will affect Maryland Pilots association's activities in the study area, if applicable. Based on the contents of this DEIS/OEIS, it is unclear whether this correspondence has occurred.	The Navy made significant efforts to notify the public to ensure maximum public participation as noted in Chapter 8 (Public Involvement and Distribution) but did not specifically notify the Maryland Pilots Association. As noted in Section 3.11.3.1.1.3 (Commercial Transportation and Shipping), the Navy concludes that the impacts would be negligible due to advance public notification (Notices to Mariners) and the primarily short-term duration of military activities.
O01-03	The map of the OPAREAS (Figure 3.11-3) shows several Range Complexes to overlap commercially used waterways in the Mid-Atlantic area. Section 3.11.2.3 of the DEIS/OEIS concludes that military and civilian uses of offshore areas are compatible as demonstrated by current conditions: "U.S. Navy vessels and aircraft that conduct activities not compatible with commercial or recreational transportation (e.g., weapons firing) typically occur in operating areas (OPAREAs) away from commercially used waterways and inside Special Use Airspace, as described in Section 3.11.2.3.2 (Air Transportation) as well as in transit and on testing ranges", and further, "Activities are communicated to vessel and aircraft operators by use of Notices to Mariners issued by the U.S. Coast Guard and Notices to Airmen issued by the Federal Aviation Administration." However, MES recommends coordination with MPA [Maryland Port Authority] on this issue to confirm that there will be no financial loss to the Port of Baltimore or associated industry due to circumstances in the study area.	The ship underway time is not expected to change appreciably from current activities. Socioeconomic impacts are addressed in Section 3.11.3.1 (Accessibility), which includes an analysis of impacts on commercial and recreational activities. The analysis concludes that there would be no impacts because the proposed activities would not be in the transit lanes or interfere with commercial shipping traffic.  The Draft EIS/OEIS was submitted to each state adjacent to the Study Area for review and comment.

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
O02-01	We always appreciate the opportunity to review and comment on proposed activities of the US Navy, although we find that the concurrent issuance and simultaneous closure of the public comment period for the Hawaii-Southern California Testing and Training (HSTT) and the Atlantic Fleet Training and Testing (AFTT) DEIS places a significant and we believe unreasonable burden on the resources of those of us who have made it our work to review, comment, and inform the public about how their tax dollars are spent.	The Navy has complied with all NEPA notification requirements under 40 C.F.R. Part 1506. NEPA regulations require that agencies not allow less than 45 days for comments on a Draft EIS/OEIS. Please note that public comments are very important to the NEPA process. The Navy included an extra 15 days for review of this document for an extended comment period of 60 days total. The Navy made significant efforts to notify the public to ensure maximum public participation as noted in Chapter 8 (Public Involvement and Distribution).
O02-02	One of the arguments used in the DEIS to justify the high take levels is the comparison implied throughout the entire "Affected Environment" Sections 3 as well as in the executive summaries that commercial fisheries interactions through entanglements and by-catch exact much higher impacts on marine mammals, fish, invertebrates, and turtles than the proposed military actions as to render the military actions insignificant. This is a hollow argument; while the take numbers may indicate that the military actions are the "lesser of two evils," it does not justify any of the deliberate carnage of marine life by the Navy.	The discussion of interaction with commercial fisheries is included in the description of the baseline as an essential component used to inform a complete discussion on the status and threats to species. The Navy activities are compared against this baseline.
O02-03	While the evaluations reveal a new candor, the proposed alternatives don't express responsiveness to the estimated impacts.	The alternatives carried forward meet the Navy's purpose and need (Section 1.4, Purpose and Need) to ensure that it can fulfill its obligation under Title 10. See Section 2.5 (Alternatives Development) for more detailed information on the development of alternatives. The Navy complied with NEPA requirements in the development and consideration of alternatives. This EIS/OEIS analyzes the chosen alternatives in Section 2.5.2 (Alternatives Carried Forward) and explains why the Navy has eliminated other alternatives in Section 2.5.1 (Alternatives Eliminated from Further Consideration). The selection of an alternative by the decision maker will be based on a review of all relevant facts, impact analyses, comments received via the EIS/OEIS public participation process, and the requirements of the Navy in order to fulfill its mission. Further, the USEPA reviewed the EIS/OEIS and stated "the draft EIS/OEIS provides an adequate discussion of the potential environmental impacts and we have not identified any potential environmental impacts requiring substantive changes. EPA has rated the draft EIS as LO- "Lack of Objections.""

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
O02-04	While the evaluations reveal a new candor, the proposed alternatives don't ...reflect anthropogenic impacts that we know about, that are increasingly becoming evident, but are just recently entering into of the literature.	The EIS/OEIS uses best available science as described in Section 3.0.5 (Overall Approach to Analysis).
O02-05	For example: while the synergistic and cumulative impacts of human activities are beginning to make way into the Environmental Impact Statement discussions, so far there is no metric examining the intermediate and long term health effects induced by our ever increasing agonistic activities on marine life.	The Navy used the best available science and a comprehensive review of past, present and reasonably foreseeable actions to develop a robust Cumulative Impacts analysis (Chapter 4).
O02-06	In this context we should not be doing a comparative analysis on whether fishing, shipping, or Naval warfare training has a greater impact on marine habitat, rather we need to examine how the additional disruptions further compromise an already stressed environment.	The discussion of general threats to resources is included in the description of the baseline as an essential component used to inform a complete discussion on the status and threats to species. The Navy activities are compared against this baseline. The Navy used the best available science and a comprehensive review of past, present, and reasonably foreseeable actions to develop a robust Cumulative Impacts analysis (Chapter 4).
O02-07	If more "biological bandwidth" is required to assure our national security and health of our marine food supply, the Navy is in the best place to promote less impactful marine technologies, and enforce regulations that decrease unlawful commercial and industrial impacts on the habitat.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. Enforcing regulations that decrease unlawful commercial and industrial impacts on the habitat is not part of the Navy's mission as described in Title 10.
O02-08	What I find extremely troubling is that with all of the facts, models, and assumptions presented in the documents that the Navy is not paying heed to what they have concluded: that millions of marine mammals and countless fish and marine invertebrates will be maimed, poisoned, or killed by the proposed actions.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. Though the intensity of training and testing will increase, the events are of relatively short duration. Based on the analysis of potential impacts (Chapter 3, Affected Environment and Environmental Consequences) and associated mitigation measures (Chapter 5, Standard Operating Procedures, Mitigation, and Monitoring), the Navy does not anticipate



**Table E-4: Responses to Comments from Organizations (Continued)**

<b>Comment Identifier</b>	<b>Comment</b>	<b>Navy Response</b>
		long-term, population level impacts on marine animals.
O02-09	They have not considered that over the intermediate to long term the practices of the US Navy proposed in the HSTT and AFTT DEIS's will contribute significantly to the collapse of marine ecosystems.	The Navy used the best available and most applicable science to analyze potential environmental impacts on every resource. The Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. In addition, the Navy has been conducting these types of activities for decades, and there is no evidence to support this comment.
O02-10	And they have not conceded that these environmental compromises will have a significantly deeper negative impact on global security.	The Navy is committed to protecting the marine environment during the conduct of its training and testing activities. The EIS/OEIS reviewed potential environmental consequences (Chapter 3, Affected Environment and Environmental Consequences) of the Proposed Action and alternatives, and provides sufficient information for careful agency decision making.
O03	The Hampton Roads Military and Federal Facilities Alliance is fully supportive of the Navy's proposed action as described in the draft EIS.	Thank you for your comment.
O04-01	Unfortunately, we do not consider the mitigation measures described in this DEIS to be sufficiently strong or adequate....we concur with NRDC that the DEIS itself should identify such measures as alternatives to be considered.	As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and the permitting process with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of this Final EIS/OEIS. The alternatives carried forward meet the Navy's purpose and need to ensure that it can fulfill its obligation under Title 10. See Section 2.5 (Alternatives Development) for more detailed information on the development of alternatives.
O04-02	In addition to our own review, we have reviewed and endorsed the comments on this DEIS submitted by the National Resources Defense Fund (NRDC). We agree with their conclusion that this DEIS must be revised as necessary to comply with NEPA requirements, including development of alternatives that incorporate spatial and temporal measures.	The alternatives carried forward meet the Navy's purpose and need (Section 1.4, Purpose and Need) to ensure that it can fulfill its obligation under Title 10. See Section 2.5 (Alternatives Development) for more detailed information on the development of alternatives. The Navy complied with NEPA requirements in the development and consideration of alternatives. This EIS/OEIS analyzes all alternatives in Section 2.5.2 (Alternatives Carried Forward) and explains why the Navy has eliminated other alternatives in Section 2.5.1 (Alternatives Eliminated from Further Consideration). The selection of an alternative by the decision maker will

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
		be based on a review of all relevant facts, impact analyses, comments received via the EIS/OEIS public participation process, and the requirements of the Navy in order to fulfill its mission. Further, the USEPA reviewed the EIS/OEIS and stated "the draft EIS/OEIS provides an adequate discussion of the potential environmental impacts and we have not identified any potential environmental impacts requiring substantive changes. EPA has rated the draft EIS as LO- 'Lack of Objections.'"
O04-03	Use coastal and marine spatial planning tools to develop and implement spatial and temporal mitigation measures to avoid or reduce impacts from the activities described in this DEIS.	Coastal and marine spatial planning tools are under development by NMFS under an executive order. The Department of Defense has been and will continue to be actively involved in the National Ocean Policy process. The mitigation measures listed in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS are the result of consultation with NMFS and U.S. Fish and Wildlife Service. The Navy proposes to implement both area-specific mitigations and activity-specific mitigations. For a discussion of area-specific mitigations, please see Section 5.3.3 (Mitigation Areas) of the Draft and Final EIS/OEIS. To supplement the Navy's proposed mitigation areas, activity-specific procedural mitigation measures (Section 5.3.1, Lookout Procedural Measures and Section 5.3.2, Mitigation Zone Procedural Measures) will apply year round at each activity location. The balance between procedural measures and mitigation area measures provide a way for the Navy to mitigate potential impacts while maintaining its military readiness objectives. Refer to Chapter 4 (Cumulative Impacts) for a discussion of the additive effects of all projects in the Study Area.
O04-04	Although there are many species potentially impacted by the training and testing activities, a relatively small number of species account for the majority of potential "exposures," and implementing temporal or spatial measures based on seasonal population densities for key species may result in significant reductions in exposures.	In general, wide-scale spatial and temporal limitations would adversely impact the ability of the Navy to carry out the Proposed Action and may not significantly reduce modeled takes. The balance between procedural measures and mitigation area measures provide a way for the Navy to mitigate potential impacts while maintaining its military readiness objectives (Section 5.3.1, Lookout Procedural Measures; Section 5.3.2, Mitigation Zone Procedural Measures; and Section 5.3.3, Mitigation Areas discuss proposed mitigation in the Draft and Final EIS/OEIS). The procedural mitigation measures will apply year round at each activity location. Furthermore, marine mammals are patchily distributed within the ocean, including in the AFTT Study Area. Variability in animal presence within relatively small ocean sub-areas is often strongly correlated with daily, weekly, seasonal, and even decadal changes in prey availability, with prey availability being driven by changes in both local and basin-

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
		wide oceanographic conditions. Any specific area of high animal density at a given time may have low animal density the following day, week, or year, depending on the biotic and abiotic factors affecting the prey distribution. Finally, it must be acknowledged that these activities have been conducted without incident for decades in the range complexes and testing ranges with the Study Area.
O04-05	Other temporal and spatial mitigation measures should include avoidance of some or all portions of areas currently designated as critical habitat, National Marine Sanctuaries, or other marine protected areas.	The Navy will conduct mitigation in several areas, as described in Section 5.3.3 (Mitigation Areas) of the Draft and Final EIS/OEIS. For example, Section 5.3.3.1.1.2 (North Atlantic Right Whale Northeast Foraging Habitat) outlines measures the Navy will implement within the defined mitigation area. Outside of the mitigation areas described, the mitigation measures identified throughout Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) will apply year round at each activity location. As described in Section 5.3.4.2.9 (Avoiding Marine Protected Areas in the Study Area), due to the nature of the Proposed Action, supplemental mitigation specific to marine protected areas, including national marine sanctuaries, is not warranted. Please refer to Section 6.1.2 (Marine Protected Areas) for additional information.
O04-06	Mitigation measures should be consistent with "strategic stocks" designations under the MMP A and recovery plans under the ESA.	NMFS uses stock assessment reports as a tool for managing marine mammal stocks in U.S. waters. The Navy has and will continue to consult with NMFS to ensure that its Proposed Action and mitigation measures are consistent with all requirements of the MMPA and ESA. The mitigation measures listed in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS and the forthcoming Record of Decision are the result of the consultation with NMFS and U.S. Fish and Wildlife Service. Mitigation under MMPA will be coordinated through the Letters of Authorization from NMFS. Mitigation under ESA will be coordinated through the ESA consultation between the Navy and NMFS and U.S. Fish and Wildlife Service. Marine mammal mitigation measures are generally not species specific and will apply to all marine mammal species equally (with limited exceptions, e.g., mitigation areas).
O04-07	REVISE THE DEIS TO SHOW COMBINED IMPACTS ON EACH SPECIES, INCLUDING IMPACTS RELATIVE TO POPULATION SIZES	There is not a reliable methodology available to predict the number of individual animals that may be impacted. The EIS/OEIS discusses the fact that individual animals may be impacted multiple times over the course of a year (Section 3.4.3.1.2.6, Repeated Exposures), and the conclusions that there will not be impacts on a population's health are fully supported by the best available science.

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
O04-08	<p>Abandon the SINKEK program of sinking obsolete ships in our waters. SINKEK is a wasteful and environmentally threatening practice of sinking ships that still contain remnant amounts of PCBs even after meeting what we consider to be inadequate cleanup standards required by the EPA. The use of SINKEK involves sinking a large, unarmed, stationary vessel incapable of attempting evasive maneuvers or employing electronic countermeasures. This type of training exercise also fails to meet the requirement for realism, and should be eliminated on those grounds.</p>	<p>The sinking exercise is an essential component of the suite of training activities to ensure that Sailors and Marines are ready to deploy in real-world operations. As stated in Section 1.4.2 (Fleet Readiness Training Plan), the Fleet Readiness Training Plan outlines the training activities required for military readiness that prepares Navy personnel for any conflict or operation. The Navy's building-block approach to training is cyclical and qualifies its personnel to perform their assigned missions. The value of a sinking exercise goes beyond engaging a maneuvering target, and the lessons learned are passed to other members of the fleet. Sinking exercises are also used to complete realistic survivability or lethality testing. This testing is required by Title 10, Section 2366 for major system or munitions programs. Environmental preparation of sinking exercise vessels is done in accordance with USEPA permits and additional guidance.</p>
O04-09	<p>This DEIS rules out several potential mitigation measures because they would make a training practice "unrealistic." The use of SINKEK involves sinking a large, unarmed, stationary vessel incapable of attempting evasive maneuvers or employing electronic countermeasures. This type of training exercise also fails to meet the requirement for realism, and should be eliminated on those grounds. SINKEK has provided a small percentage of trainees the experience of watching live weapons send very large ships to the bottom of the ocean. That experience passes with time, while the ship that was sunk permanently joins what has become the underwater equivalent of an elephant's graveyard on our seabed. Surely this is not an acceptable environmental legacy for the Navy, and we urge that you abandon the use of SINKEK.</p>	<p>The sinking exercise is an essential component of the suite of training activities to ensure that Sailors and Marines are ready to deploy in real-world operations. As stated in Section 1.4.2 (Fleet Readiness Training Plan), the Fleet Readiness Training Plan outlines the training activities required for military readiness that prepares Navy personnel for any conflict or operation. The Navy's building-block approach to training is cyclical and qualifies its personnel to perform their assigned missions. The value of a sinking exercise goes beyond engaging a maneuvering target and the lessons learned are passed to other members of the fleet. Sinking exercises are also used to complete realistic survivability or lethality testing. This testing is required by Title 10, Section 2366 for major system or munitions programs. Environmental preparation of sinking exercise vessels is done in accordance with USEPA permits and additional guidance.</p>
O04-10	<p>We recommend the following: Reconsider mitigation measures offered at scoping meetings or through public comments....the decision as to whether or not a proposed mitigation measure would "have an unacceptable impact on the proposed training and testing activities" should include consideration of the public's perceptions of unacceptable impacts on the resources at risk.</p>	<p>Comments received during the scoping period and Draft EIS/OEIS comment period were considered in the development of the Draft and Final EIS/OEIS. The Navy values public involvement and considers public input during the evaluation process. All mitigation measures are designed to reduce or avoid potential impacts on marine resources, taking into account national security interests, the best available science, and regulatory requirements (including the MMPA and ESA). Additional information on the development of mitigation measures can be found in Section 5.2.2 (Overview of Mitigation Approach).</p>

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
O04-11	What we have found, however, is cause for alarm in the ... reliance on visual detection methods that would be ineffective for some of the populations most at risk.	The Navy acknowledges the limitations of visual shipboard monitoring and uses aerial monitoring and passive acoustic monitoring for multi-faceted monitoring where practical. The EIS/OEIS, Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring), presents the U.S. Navy's mitigation measures, outlining steps that would be implemented to protect marine mammals and federally listed species during training and testing events. In general, there are usually more ships and more observers present on Navy ships and additional aerial assets engaged in exercise events than used during trackline detection during a survey, thereby increasing the potential to detect marine mammals during a Navy activity. Section 3.4.3.1.5.4 (Model Assumptions and Limitations) in the Final EIS/OEIS provides a more robust discussion on marine mammal sightability and the inclusion of implementing mitigation measures to reduce the effects of sound exposures on marine mammals. Section 3.4.3 (Environmental Consequences – Marine Mammals) was revised to account for the Navy's mitigation measures and marine mammal behavioral responses to sound in the water to more accurately reflect the predicted potential effects on marine mammals. In addition, for species-specific take requests permitted under MMPA for activities covered by the AFTT EIS/OEIS, please see the complete Letter of Authorization at the NMFS website: <a href="http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications">http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications</a>
O05-01	We are saddened to hear that they Navy is considering conducting exercises involving the use of live explosives and high-intensity sonar. Do you feel that it is really necessary to conduct this testing that will affect such a volume of marine life? It would be a great pity to see so much of the conservation work the USA has undertaken towards its marine environment over the last number of years being undermined by these proposed exercises. These conservation initiatives deserve to be applauded and have made the USA one of the leaders in marine conservation. To conduct these exercises flies in the face of all the good work and progress that has been achieved to date.	Thank you for your comment.
O05-02	There is also the issue of sound channels in the oceans that can carry sounds over vast distances, so not only local populations may be affected but also populations in areas seemingly far removed from the testing activities. As these activities could potentially affect endangered species on both the high seas and possibly in the territorial waters of other nations we believe that any other nations	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine populations or stocks of marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS and this analysis included the use of a range-dependent acoustic propagation model. Also,

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
	that could potentially be affected should be fully consulted, and the findings of any such consultations made public, prior to any decision being made on whether these activities should progress to the next stage.	as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The EIS/OEIS is prepared by the Department of the Navy in compliance with the National Environmental Policy Act (NEPA), the Council on Environmental Quality, the Department of the Navy procedures for implementing NEPA, and Executive Order 12114 ( <i>Environmental Effects Abroad of Major Federal Actions</i> ). The selection of an alternative by the decision maker will be based on a review of all relevant facts, impact analyses, comments received via the EIS/OEIS public participation process, and the requirements of the Navy in order to fulfill its mission.
O06-01	Scientists who have dedicated most of their professional careers to studying these mammals do not know their location at any given point and time. Those individuals involved in “underwater sonar/explosive testing” hardly could know!	The Navy used the best available science to develop its analysis and appropriate mitigation measures. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate encompasses the capacity of what could occur to ensure Navy’s permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Though the intensity of training and testing will increase, the events are of relatively short duration and therefore long-term population level impacts are not anticipated.
O06-02	Not only does any sonar testing interrupt communications between particular species but it also disturbs feeding sources for marine life as well as destroy Critical Habitat they need to survive.	Potential impacts from sonar on marine species and critical habitat are analyzed in the applicable chapters from Chapter 3.4 (Marine Mammals) through 3.9 (Fish) in the respective Environmental Consequences sections. Analyses in these sections show that any potential impacts would be short-term and transient, therefore not resulting in the types of impacts the commenter infers.
O06-03	And one has to remember that the fishing industry makes their living on the seas and brings valuable foods to the nation’s tables.	The Navy shares your concern for marine life and those dependent on it. Socioeconomic impacts are thoroughly addressed in Section 3.11.3.1 (Accessibility), which concludes that there would be no impacts on commercial and recreational activities, including the fishing industry.

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
O06-04	Only in the late 1960s was the dumping by the US military of thousands of canisters of chemical weapons into the waters of the East Coast halted. Records show that the military disposed of WMDs for decades, from 1944 to 1970. Off the coast of New Jersey, even extending to the 350 Nautical Mile Limit, the military dumped containers of mustard gas and nerve gas, off Virginia and South Carolina canisters of arsenic trichloride, white phosphorus, mustard gas and lewisite, and off Florida containers of nerve gas and lewisite. When in 1987 hundred of dolphins washed ashore in Virginia and New Jersey beaches with burns similar to mustard gas exposure, a marine mammal specialist believed chemical weapons dumped in the ocean by the US Army killed these animals. It is a real possibility that any sonar and bomb exploding activity will speed up the breakdown of those aged containers and cause leakage.	The Proposed Action does not involve dumping of chemical weapons or include activities that would be expected to disperse toxic chemicals. Sonar will not cause any leakage, and the potential of an explosive detonation rupturing containers is extremely unlikely.
O06-05	Not only will any dispersal of such toxic chemical cause great harm to marine life, it may also cause major injury, such as severe spastic paralysis and even death if the respiratory muscles become paralyzed in those human workers.	The Proposed Action does not involve dumping of chemical weapons or include activities that would be expected to disperse toxic chemicals. The Proposed Action in the EIS/OEIS includes only training and testing activities and does not include information on military disposal of weapons.
O07-01	The EIS should include an overlay map of Key West OPAREA, W174 and its subdivisions, and W465 and its subdivisions to clearly display any overlap with Florida Keys National Marine Sanctuary (FKNMS), Key West National Wildlife Refuge (KWNWR) or Dry Tortugas National Park (DTNP).	Marine Protected Areas are discussed in Section 6.1.2 (Marine Protected Areas).
O07-02	Last Stand believes that any new live explosive or non explosive training and testing activity is incompatible with the purpose of the sanctuary, refuge and park. The plan should specifically state that these areas will be avoided for these new activities.	The Navy evaluated all areas for consistency with site-specific regulations, including compliance with all National Marine Sanctuary Program Regulations. Information related to the Proposed Action and marine protected areas can be found in Section 6.1.2 (Marine Protected Areas). For example, as discussed in Table 6.1-2, activities other than aircraft overflights are not expected to occur in the Key West National Wildlife Refuge; therefore, due to the nature of the proposed activities, avoidance of this area is not warranted. Discussion specific to the Florida Keys National Marine Sanctuary is provided in Section 6.1.2.5.4 (Florida Keys National Marine Sanctuary).
O07-03	Non-explosive Gunnery Exercise (Air to Air) Medium Caliber Alternatives 1 and 2 plan an increase from 36,000 rounds / year to 56,000 rounds / year. Please provide in the EIS quantities of	As discussed in Chapter 6 (Additional Regulatory Considerations), proposed training and testing activities are not expected to occur within or in the vicinity of the Dry Tortugas National Park. The only activities that

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
	projectiles that may fall within FKNMS, KWNWR or DTNP.	are proposed over the Key West National Wildlife Refuge are high altitude aircraft overflights, which are not likely to harm the area's protected natural resources. To ensure compliance with regulations of the Florida Keys National Marine Sanctuary Program, the Navy may conduct activities that are not prohibited according to sanctuary regulations and would not cause potential destruction, loss of, or injury to sanctuary resources. The Navy does not intend to conduct activities within the Florida Keys National Marine Sanctuary or within 2.7 nautical miles of the sanctuary that would require consultation.
O07-04	Mine neutralization explosive ordnance disposal Alternatives 1 and 2 plan an increase of 12 charges per year of 6-10 lb, 11-20lb or 21-60 lb live explosives will occur in Demo Key. The EIS should provide a location of Demo Key.	This area was misidentified in Appendix A (Navy Activities Descriptions). The locations should be: UNDET Test Site H, UNDET Box, EA-1. This has been corrected in the Final EIS/OEIS, and these areas have been added to the maps where appropriate.
O07-05	Although the number of explosions per year seems small, this activity is inconsistent with the purposes of FKNMS, KWNWR and DTNP and alternative locations should be used if in fact Demo Key is located within or in close proximity to these areas.	This area was misidentified in Appendix A (Navy Activities Descriptions). The locations should be: UNDET Test Site H, UNDET Box, EA-1. This has been corrected in the Final EIS/OEIS, and these areas have been added to the maps where appropriate. Information related to the Proposed Action and Marine Protected Areas can be found in Section 6.1.2 (Marine Protected Areas), which discusses management policies specific to military activities.
O07-06	Since the use of sonobouys is evaluated for potential harm to marine mammals, sea turtles and other marine reptiles and fish, the testing plan should provide that none of these tests will be conducted within FKNMS, KWNWR and DTNP.	The Navy evaluated all areas for consistency with site-specific regulations, including compliance with all National Marine Sanctuary Program Regulations. Information related to the Proposed Action and marine protected areas can be found in Section 6.1.2 (Marine Protected Areas). For example, as discussed in Table 6.1-2, activities other than aircraft overflights are not expected to occur in the Key West National Wildlife Refuge; therefore, due to the nature of the proposed activities, avoidance of this area is not warranted. Discussion specific to the Florida Keys National Marine Sanctuary is provided in Section 6.1.2.5.4 (Florida Keys National Marine Sanctuary).
O07-07	The testing plan should also provide for an absolute safety margin outside the boundaries of FKNMS, KWNWR and DTNP of the extended echo range sonobouy.	The Navy evaluated all areas for consistency with site-specific regulations, including compliance with all National Marine Sanctuary Program Regulations. Information related to the Proposed Action and marine protected areas can be found in Section 6.1.2 (Marine Protected Areas). For example, as discussed in Table 6.1-2, activities other than aircraft overflights are not expected to occur in the Key West National Wildlife Refuge; therefore, due to the nature of the proposed activities, avoidance of this area is not warranted. Discussion specific to the Florida



Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
		Keys National Marine Sanctuary is provided in Section 6.1.2.5.4 (Florida Keys National Marine Sanctuary).
O07-08	Combat system ship qualification trial – surface warfare Alternatives 1 and 2 plan for an increase from 0 to 3 events per year with 561 non-explosive large caliber rounds, 339 high explosive large-caliber rounds, 6,000 non-explosive medium caliber rounds and 3 non-explosive missiles. The EIS should confirm that all these events will occur in Key West OPAREA and none of the projectiles or munitions fragments will fall in FKNMS, KWNWR or DTNP.	As discussed in Chapter 6 (Additional Regulatory Considerations), proposed training and testing activities are not expected to occur within or in the vicinity of the Dry Tortugas National Park. The only activities that are proposed over the Key West National Wildlife Refuge are high altitude aircraft overflights, which are not likely to harm the area's protected natural resources. To ensure compliance with regulations of the Florida Keys National Marine Sanctuary Program, the Navy may conduct activities that are not prohibited according to sanctuary regulations and would not cause potential destruction, loss of, or injury to sanctuary resources. The Navy does not intend to conduct activities within the Florida Keys National Marine Sanctuary or within 2.7 nautical miles of the sanctuary that would require consultation.
O07-09	Last Stand is very concerned for the impacts on affordable housing stock in Key West and areas in close proximity to NAS Key West that will be caused by an increased number of enlisted and civilian personnel. Currently over 50% of NAS KW enlisted personnel are housed off-base. NAS KW is selling 157 units of housing built specifically for enlisted personnel. Rental supply in Key West and the Lower Keys at HUD established Fair Market Rent is scarce and quickly rented when available. The EIS should address the housing impacts that will accompany an increase in personnel associated with Alternatives 1 and 2.	The Proposed Action does not involve an increase in personnel, and therefore personnel increases were not analyzed in the EIS/OEIS. Please see Section 2.1 (Description of the Atlantic Fleet Training and Testing Study Area) and Section 2.4 (Proposed Activities) of the EIS/OEIS for a clear definition of the scope of this project.
O08	To whom it may concern, Our organization, Ocean Defender is humbly asking you to STOP all sonar testing on cetaceans. Our oceans are suffering, our ocean creatures are suffering. It's time we put an END to all this atrocities we have been committing against the OCEAN and all its creatures. Overfishing, ocean acidification, nuclear waste, tsunami TRASH in our oceans. How far will YOU go and for what? It is not enough what the OCEAN is going through right now, you have to continue to inflict PAIN AND DEATH in to our OCEAN WATERS? 90% of all our ocean creatures are GONE, why do you want to KEEP KILLING THEM when you are supposed to PROTECT THEM? We are 70,000 people asking you to reconsider sonar testing. Please STOP! Aloha Oriana Kalama CEO/Founder Ocean Defender	Thank you for participating in the NEPA process.

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
O09-01	Our overriding concern is the Navy's failure to protect biologically important areas for marine mammals within the Atlantic Fleet Training and Testing ("AFTT") Study Area.	<p>As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of a number of potential mitigation measures. The Navy has undertaken consultation with NMFS for the proposed and ongoing activities in the Study Area. The Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Through careful exploration of all mitigation measures to determine which were the most effective, the Navy chose the measures to mitigate potential impacts to marine mammals while still being able to meet its operational needs to train for real-world conditions. The Navy's specific mitigation measures are outlined in the following sections: Section 5.3.1 (Lookout Procedural Measures), Section 5.3.2 (Mitigation Zone Procedural Measures), and Section 5.3.3 (Mitigation Areas). Specifically, Section 5.3.3.1 (Marine Mammal Habitats) addresses important habitat areas.</p> <p>Navy considers biologically important areas (BIAs) whenever appropriate. For instance, as part of the ESA and MMPA processes, NMFS requested the Navy to consider some specific preliminary draft biologically important areas as part of its mitigation analysis. As a result of the Navy's Biological Assessment and Operational Assessment, the Navy recommends extending the boundary of the eastern Gulf of Mexico planning awareness area to further protect a population of Bryde's whale that has been exclusively observed in that area year-round. Additional information can be found in Section 5.3.3.1.3.1, Planning Awareness Areas. If additional biologically important areas are identified by NMFS after the Navy's Record of Decision, the Navy and NMFS will use the Adaptive Management process to assess whether any additional mitigation should be considered in those areas.</p>
O09-02	The Navy's failure is particularly troubling in light of the emerging scientific consensus about biologically important areas in the AFTT Study Area. For the last year and a half, the National Oceanic and Atmospheric Administration ("NOAA") has been guiding the work of two working groups to improve the tools available to agencies, including the Navy, to evaluate and mitigate the impacts of anthropogenic noise on marine mammals. The Working Groups' draft products were recently released and one key product of this effort was the Cetacean Density and Distribution Mapping Working Group's (CetMap) identification of marine mammal "hot spots" in the AFTT Study Area – biologically important areas for marine mammals as	The Navy has and will continue to support the Cetacean and Sound Mapping project, including providing representation on the Cetacean Density and Distribution Mapping Working Group (CetMap). This working group has two objectives: First, to create regional cetacean density and distribution maps that are time- and species-specific, using survey data and models that estimate density using predictive environmental factors. With the exception of the Atlantic and Gulf of Mexico, the Navy has considered this information as part of the impact and mitigation assessment process. For the Atlantic and Gulf of Mexico, the Navy OPAREA Density Estimates on the Spatial Decision Support System for the Strategic Environmental Research and Development Program

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
	<p>evidenced by increases in density and distribution or modeled based on important habitat. Because CetMap's products were not released prior to the completion of the DEIS, the information was not incorporated into the Navy's analysis through the development of reasonable alternatives or examined as possible mitigation measures based on limiting or excluding training and testing activities in these hot spots. The fact that the Navy must analyze this new information and determine how it will impact its development of alternatives and mitigation measures</p>	<p>(available at <a href="http://seamap.env.duke.edu/serdp_map.php">http://seamap.env.duke.edu/serdp_map.php</a>), are still considered the best available data (Read and Halpin 2010<sup>1</sup>). As of August 2013, CetMap had not released final updated density data products for the Atlantic and Gulf of Mexico.</p> <p>Second, and separately, to augment the more quantitative density mapping and provide additional context for impact analyses, the CetMap also identifies areas of specific importance for cetaceans, such as reproductive areas, feeding areas, migratory corridors, and areas in which small or resident populations are concentrated, otherwise referred to as "biologically important areas". The working group determined that "hot spots" is not an appropriate term and chose to call them Biologically Important Areas. Biologically important areas information was based largely on observational data of animals exhibiting biologically important behaviors. The biologically important areas were only characterized for species, areas, and seasons where there were enough data to support the biologically important areas identification within the U.S. Exclusive Economic Zone. Most of these assessments are not based on CetMap density work products but on published and often unpublished data held by individual researchers. They only characterized the observational data available and did not use density or habitat-based models to determine the biologically important areas.</p> <p>Biologically important areas are not being designated by CetMap for the purpose of identifying areas off limit to human activities like sonar. Instead, information is being collected to provide additional context within which to examine potential interactions between cetaceans and human activities. This information can assist resource managers with planning, analyses, and decisions regarding how to reduce adverse impacts to cetaceans resulting from human activities.</p> <p>Some preliminary draft results are currently being released on <a href="http://cet sound.noaa.gov/important.html">http://cet sound.noaa.gov/important.html</a>. The CetMap Working Group is also undertaking external review of the documents by subject matter experts outside National Oceanic and Atmospheric Administration and is preparing a collection of manuscripts focused on the biologically important areas that will be submitted to a scientific journal for external peer review by subject matter experts.</p> <p>The Navy also recommended to NMFS that a formal expert elicitation on biologically important areas results be conducted, including data review by a larger body of marine scientists and stakeholders.</p>

Table E-4: Responses to Comments from Organizations (Continued)

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		<p>When appropriate, NMFS provides draft CetMap information for Navy consideration. As part of the ESA and MMPA processes, NMFS requested the Navy to consider some specific preliminary draft areas as part of its mitigation analysis. As a result of the Navy's Biological Assessment and Operational Assessment, the Navy recommends extending the boundary of the eastern Gulf of Mexico planning awareness area to further protect a population of Bryde's whale that has been exclusively observed in that area year-round. Additional information can be found in Section 5.3.3.1.3.1, Planning Awareness Areas. If additional biologically important areas are identified by NMFS after the Navy's Record of Decision, the Navy and NMFS will use the Adaptive Management process to assess whether any additional mitigation should be considered in those areas.</p> <p><sup>1</sup> Read, A. J. and P. Halpin. 2010. Predictive Spatial Analysis of Marine Mammal Habitats. Final Report. SERDP Project SI-1390. January 2010. 292 pp.</p>
O09-03	<p>NEPA requires the Navy to employ rigorous standards of environmental review, including a full explanation of potential impacts, a comprehensive analysis of all reasonable alternatives, a fair and objective accounting of cumulative impacts, and a thorough description of measures to mitigate harm. Unfortunately, the DEIS released by the Navy falls far short of these mandates and fails to satisfy the Navy's legal obligations under NEPA.</p>	<p>The Navy complies with all applicable environmental laws, including NEPA. As such, the Navy has developed this EIS/OEIS to meet the requirements of these laws. Please see Chapter 2 (Description of Proposed Action and Alternatives) which includes selection criteria and alternatives considered but eliminated (Section 2.5.1 Alternatives Eliminated from Consideration). Please see Chapter 3 (Affected Environment and Environmental Consequences) for the description of the affected environment and environmental consequences of the Navy's Proposed Action. Chapter 4 contains a comprehensive cumulative impacts analysis. Information on mitigation measures can be found in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS. Please see <i>Criteria and Thresholds for U.S. Navy Acoustic and Explosive Effects Analysis</i> technical report on the project web site for a discussion of the acoustic impact modeling approach, which addresses the scientifically established criteria for injury, mortality, and harassment under the MMPA. Further, the USEPA reviewed the EIS/OEIS and stated "the draft EIS/OEIS provides an adequate discussion of the potential environmental impacts and we have not identified any potential environmental impacts requiring substantive changes. EPA has rated the draft EIS as LO- 'Lack of Objections.'"</p>

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
O09-04	While the Navy has made progress in assessing the impacts its activities have on the environment, it continues to underestimate harm by disregarding a great deal of relevant information and using approaches that are the opposite of precautionary when factoring uncertainty. As discussed in Appendix C, in revising its DEIS, the Navy must adjust its thresholds for impact and modeling by incorporating the considerable scientific record showing that impacts are even greater than the Navy estimates.	The criteria and thresholds for determining potential effects to marine species used in the AFTT EIS/OEIS and related consultation documents were carefully revised from those used in previous Navy EISs based on best available science, which included lowering the thresholds over much of the hearing range of many species of marine mammals. This included revising the permanent threshold shift threshold for all marine mammal species based on best available science.
O09-05	Neither alternative presents an option that would significantly reduce the predicted harm to the marine environment and wildlife. For example, both of the Navy's alternatives result in the exact same number of marine mammal takes from training with sonar – over 2 million per year. For training then, the DEIS offers no alternative for a decision maker wishing to reduce the harm to marine mammals.  It is obvious that the Navy's alternatives were not selected to "inform decision-makers and the public" of how it could "avoid or minimize adverse impacts or enhance the quality of the human environment." 40 C.F.R. § 1502.1. While the Navy purportedly presents two reasonable alternatives, it leaves no room for decision makers to choose anything but its preferred alternative, which "is contingent upon [and allows for] potential budget increases, strategic <i>necessity</i> , and future training and testing <i>requirements</i> ." DEIS at ES-6; 2-76 (emphasis added). A decision maker that wishes to meet the Navy's needs is compelled to choose the preferred alternative.	The differences between Alternatives 1 and 2 are detailed in Sections 2.7 (Alternative 1: Expansion of the Study Area Plus Adjustments to the Baseline and Additional Weapons, Platforms, and Systems) and 2.8 (Alternative 2: Includes Alternative 1 Plus Increased Tempo of Training and Testing Activities) of the Final EIS/OEIS. The Navy developed the alternatives considered in this EIS/OEIS after careful assessment of the Navy's training and testing requirements by subject matter experts, including military units and commands that perform the training and testing, and Navy environmental managers and scientists. A significant reduction in training and testing activities would fail to meet the Purpose and Need and would not allow the Navy to meet its obligations under Title 10 of the United States Code. Refer to Section 2.5 (Alternatives Development) of the Final EIS/OEIS for an explanation of the development of alternatives.
O09-06	Both alternatives inflict an unprecedented amount of harm on marine life. Neither alternative was developed with an eye to minimizing adverse environmental impacts, but instead reflect differences entirely unrelated to the proposed action's environmental impacts. Such differences – in capabilities, tempo, and locations – are entirely based on operational needs, not on factors related to environmental impacts. As such, they fail to provide the public and decision makers with any options for significantly limiting the impact to marine wildlife. The development of alternatives in this manner violates NEPA, reflecting a classic <i>post hoc</i> rationalization for a decision unlawfully made <i>before</i> environmental impacts and reasonable alternatives were considered.	The EIS/OEIS reviewed potential environmental consequences (Chapter 3, Affected Environment and Environmental Consequences) of the Proposed Action and alternatives, and provides sufficient information for careful agency decision making. Navy attempted to establish alternatives based on geographical alternatives (Section 2.5.1, Alternatives Eliminated From Further Consideration and Section 5.2.2.1, Lessons Learned from Previous Environmental Impact Statements/Overseas Environmental Impact Statements) and this approach proved to not be feasible. The Navy is not obligated by NEPA to consider alternatives that are not feasible. Therefore, the only reasonable alternatives for the Navy to consider to meet Navy's purpose and need must differ in training tempo, capabilities, and locations. The alternatives carried forward meet the Navy's purpose and need to ensure that it can fulfill its obligation under Title 10. The selection of an

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
		<p>alternative by the decision maker will be based on a review of all relevant facts, impact analyses, comments received via the EIS/OEIS public participation process, and the requirements of the Navy in order to fulfill its mission.</p> <p>The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. Most impacts from the Proposed Action are expected to be brief and recoverable. Long-term impacts to a small number of individuals are not expected to have long-term population consequences.</p>
O09-07	<p>In 2010, the National Oceanic Atmospheric Administration (“NOAA”) completed a review of the Navy’s sonar mitigation. It concluded that “ongoing mitigation efforts, in our view, must do more” to address uncertainties and protect marine mammals. Nonetheless, the Navy’s DEIS proposes the same mitigation scheme that NOAA found lacking. While NOAA emphasized the importance of habitat identification and avoidance, stating that “[p]rotecting important marine mammal habitat is generally recognized to be the most effective mitigation measure currently available,” the Navy makes no provision for protecting areas in the AFTT Study Area in addition to the limited areas for North Atlantic right whales and West Indian manatees.</p>	<p>As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Through careful exploration of all mitigation measures to determine which were the most effective, the Navy has chosen the measures to mitigate potential impacts on marine mammals while still being able to meet its operational needs to train for real-world conditions. Specific mitigation measures are outlined in the following sections: Section 5.3.1 (Lookout Procedural Measures), Section 5.3.2 (Mitigation Zone Procedural Measures), and Section 5.3.3 (Mitigation Areas). Specifically, Section 5.3.3.1 (Marine Mammal Habitats) addresses important habitat areas.</p>
O09-08	<p>As noted, NOAA recently completed a series of workshops designed to learn more about marine mammal “hot spots.” The results of these workshops are now available and the Navy must assess the information and develop mitigation measures based on protecting important marine mammal habitat. To offer full protection to the marine mammals found in these “hot spots,” the Navy should develop mitigation measures that bar the use of sonar in the areas and provide a buffer for them that limits the received level of sound. At a minimum, the Navy should establish cautionary areas in these habitats.</p>	<p>The Navy has and will continue to support the Cetacean and Sound Mapping project, including providing representation on the Cetacean Density and Distribution Mapping Working Group (CetMap). This working group has two objectives: First, to create regional cetacean density and distribution maps that are time- and species-specific, using survey data and models that estimate density using predictive environmental factors. With the exception of the Atlantic and Gulf of Mexico, the Navy has considered this information as part of the impact and mitigation assessment process. For the Atlantic and Gulf of Mexico, the Navy OPAREA Density Estimates on the Spatial Decision Support System for the Strategic Environmental Research and Development Program (available at <a href="http://seamap.env.duke.edu/serdp/serdp_map.php">http://seamap.env.duke.edu/serdp/serdp_map.php</a>), are still considered the best available data (Read and Halpin 2010<sup>1</sup>). As of August 2013, CetMap had not released final updated density data products for the Atlantic and Gulf of Mexico.</p>

Table E-4: Responses to Comments from Organizations (Continued)

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		<p>Second, and separately, to augment the more quantitative density mapping and provide additional context for impact analyses, the CetMap is also identifying areas of specific importance for cetaceans, such as reproductive areas, feeding areas, migratory corridors, and areas in which small or resident populations are concentrated, otherwise referred to as "biologically important areas". The working group determined that "hot spots" is not an appropriate term and chose to call them Biologically Important Areas. Biologically important areas information was based largely on observational data of animals exhibiting biologically important behaviors. The biologically important areas were only characterized for species, areas, and seasons where there were enough data to support the biologically important areas identification within the U.S. Exclusive Economic Zone. Most of these assessments are not based on CetMap density work products but on published and often unpublished data held by individual researchers. They only characterized the observational data available and did not use density or habitat-based models to determine the biologically important areas.</p> <p>Biologically important areas are not being designated by CetMap for the purpose of identifying areas off limit to human activities like sonar. Instead, information is being collected to provide additional context within which to examine potential interactions between cetaceans and human activities. This information can assist resource managers with planning, analyses, and decisions regarding how to reduce adverse impacts to cetaceans resulting from human activities.</p> <p>Some preliminary, draft results are currently being released on <a href="http://cetsound.noaa.gov/important.html">http://cetsound.noaa.gov/important.html</a>. The CetMap Working Group is also undertaking external review of the documents by subject matter experts outside National Oceanic and Atmospheric Administration and is preparing a collection of manuscripts focused on the biologically important areas that will be submitted to a scientific journal for external peer review by subject matter experts.</p> <p>The Navy also recommended to NMFS that a formal expert elicitation on biologically important areas results be conducted, including data review by a larger body of marine scientists and stakeholders.</p> <p>When appropriate, NMFS provides draft CetMap information for Navy consideration. As part of the ESA and MMPA processes, NMFS requested the Navy to consider some specific preliminary draft areas as part of its mitigation analysis. As a result of the Navy's Biological Assessment and Operational Assessment, the Navy recommends</p>

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
		<p>extending the boundary of the eastern Gulf of Mexico planning awareness area to further protect a population of Bryde's whale that has been exclusively observed in that area year-round. Additional information can be found in Section 5.3.3.1.3.1, Planning Awareness Areas. If additional biologically important areas are identified by NMFS after the Navy's Record of Decision, the Navy and NMFS will use the Adaptive Management process to assess whether any additional mitigation should be considered in those areas.</p> <p><sup>1</sup> Read, A. J. and P. Halpin. 2010. Predictive Spatial Analysis of Marine Mammal Habitats. Final Report. SERDP Project SI-1390. January 2010. 292 pp.</p>
O09-09	<p>But as NMFS has made clear, North Atlantic right whales cannot afford to be seriously harmed if their survival is to be assured. While the Navy has proposed certain mitigation measure for the species, it withdraws others (e.g., requiring permission from fleet forces command prior to any training in right whale foraging habitat) and fails to offer strong enough measures that will guarantee that threats to right whales from sonar and ship strikes will be minimized.</p>	<p>Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) provides an analysis of mitigation effectiveness to explain and analyze changes in mitigation measures. As stated in the effectiveness assessment in Section 5.3.3.1.1.2 (North Atlantic Right Whale Northeast Foraging Habitat) of the Final EIS/OEIS, low-frequency and hull-mounted active sonar training and helicopter dipping activities are not expected to be conducted within the defined mitigation area as part of the Proposed Action. Therefore, the requirement to submit written requests for these activities is no longer needed. In coordination with NMFS, the Navy has developed a suite of specialized mitigation measures specifically designed to avoid or reduce potential impacts on the North Atlantic right whale. Furthermore, the Navy has invested a significant amount of funding and support for North Atlantic right whale conservation efforts. For example, the Navy was integral in the development of the Early Warning System, a reporting program for sightings that helps prevent harmful interactions between North Atlantic right whales and both Navy and non-Navy vessels. The Navy also actively participates in species recovery efforts through scientific research, including aerial and line transect surveys.</p>
O09-10	<p>The fundamental purpose of an EIS is to force the decision-maker to take a "hard look" at a particular action – at the agency's need for it, at the environmental consequences it will have, and at more environmentally benign alternatives that may substitute for it – before the decision to proceed is made. 40 C.F.R. §§ 1500.1(b), 1502.1; Baltimore Gas &amp; Electric v. NRDC, 462 U.S. 87, 97 (1983). This "hard look" requires agencies to obtain high quality information and accurate scientific analysis. 40 C.F.R. § 1500.1(b). "General statements about possible effects and some risk do not constitute a</p>	<p>The EIS/OEIS has taken a "hard look" at potential environmental consequences of the Proposed Action and alternatives, and provides sufficient information for careful agency decision making. The Navy considered the best available science in preparation of this EIS/OEIS and consulted with NMFS as the regulator and a cooperating agency with regard to the Proposed Action, the potential environmental impacts, and any resultant mitigation measures as conditions of anticipated authorizations under the MMPA or reasonable and prudent measures resulting from issuance of a Biological Opinion under ESA.</p>



Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
	hard look absent a justification regarding why more definitive information could not be provided.” Klamath-Siskiyou Wilderness Center v. Bureau of Land Management, 387 F.3d 989, 994 (9th Cir. 2004) (quoting Neighbors of Cuddy Mountain v. United States Forest Service, 137 F.3d 1372, 1380 (9th Cir. 1998)). The law is clear that the EIS must be a pre-decisional, objective, rigorous, and neutral document, not a work of advocacy to justify an outcome that has been foreordained.	
O09-11	In nearly every respect, despite the length and information provided, the Navy’s DEIS fails to meet the high standards of rigor and objectivity required under NEPA. The Navy has failed to conduct the “hard look” necessary to thoroughly examine the many environmental consequences of its proposed action.	The EIS/OEIS reviewed potential environmental consequences (Chapter 3, Affected Environment and Environmental Consequences) of the Proposed Action, and provides sufficient information for careful agency decision making. Further, the USEPA reviewed the EIS/OEIS and stated “the draft EIS/OEIS provides an adequate discussion of the potential environmental impacts and we have not identified any potential environmental impacts requiring substantive changes. EPA has rated the draft EIS as LO- ‘Lack of Objections.’”
O09-12	The Navy’s DEIS does not properly analyze environmental impacts. Despite the unprecedented level of harm the Navy predicts, its analysis nonetheless understates the potential effects of its training and testing activities on marine wildlife and fails to acknowledge risks posed to a wide range of marine species from its activities. The DEIS concludes that no “marine mammal strandings or mortality will result from the operation of sonar or other acoustic sources during Navy exercises within the Study Area.” DEIS at 3.4-143. The Navy reaches this conclusion despite acknowledging the importance of sound to marine mammal existence and the hundreds of thousands of instances of hearing loss its activities will inflict on marine mammals. For example, the Navy states that “it is likely that a relationship between the duration, magnitude, and frequency range of hearing loss could have consequences to biologically important activities (e.g., intraspecific communication, foraging, and predator detection) that affect survivability and reproduction.” DEIS at 3.4-83. The Navy’s statements are clearly contradictory; on the one hand the Navy states that a connection between survivability and hearing loss is likely, which must be placed in the context of its prediction of 2.3 million instances of temporary hearing loss, while on the other it concludes that no mortality will result from the use of sonar. The Navy’s conclusions are unsupported by its own analysis.	The Draft EIS/OEIS used the most current, relevant scientific information, in many cases in coordination with the NMFS, to develop the analysis on sonar training and testing and potential impacts on marine mammals. There is no research that indicates a temporary hearing loss over a narrow band of an animal’s overall hearing range may have long-term consequences for the individual. Furthermore, the estimated effects (found in Tables 3.4-14 through 3.4-17 and Tables 3.4-22 through 3.4-29 of the EIS/OEIS) are overestimates for numerous reasons as described in Section 3.4.3.1.5.4 (Model Assumptions and Limitations) in the EIS/OEIS.

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
O09-13	In this case, the Navy's assessment of impacts is consistently undermined by its failure to meet these fundamental responsibilities of scientific integrity, methodology, investigation, and disclosure. As set forth in greater detail in Appendix C and the attached critique by Dr. Bain, the DEIS disregards a great deal of relevant information adverse to the Navy's interests, uses approaches and methods that would not be acceptable to the scientific community, and ignores whole categories of impacts. In short, it leaves the public with an analysis of harm—behavioral, auditory, and physiological—that is at odds with established scientific authority and practice. The Navy must revise its acoustic impacts analysis, including its thresholds and risk function, to comply with NEPA.	The marine mammal acoustical analysis is based on the use of the best available and applicable science (Section 3.4, Marine Mammals, and the technical reports available at <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> , specifically, <i>Criteria and Thresholds for U.S. Navy Acoustic and Explosive Effects Analysis and Determination of Acoustic Effects on Marine Mammals and Sea Turtles</i> ). The Navy reviewed and considered all literature cited in Appendix C and has been thorough in its use of all relevant information. The analysis is in full compliance with NEPA. The Navy predicted impacts due to acoustic and explosive stressors using conservative assumptions, as described in Section 3.4.3.1.5.4 (Model Assumptions and Limitations) and Section 3.4.3.1.9.3 (Predicted Impacts) for explosives.
O09-14	First, the Navy fails to adequately assess the impact of stress on marine mammals, a serious problem for animals exposed even to moderate levels of sound for extended periods.... <sup>9</sup> DEIS at 3.4-84 to 85. As the Navy has previously observed, stress from ocean noise—alone or in combination with other stressors, such as biotoxins—may weaken a cetacean's immune system, making it "more vulnerable to parasites and diseases that normally would not be fatal." <sup>10</sup> Moreover, according to studies on terrestrial mammals, chronic noise can interfere with brain development, increase the risk of myocardial infarctions, depress reproductive rates, and cause malformations and other defects in young—all at moderate levels of exposure. <sup>11</sup> Because physiological stress responses are highly conservative across species, it is reasonable to assume that marine mammals would be subject to the same effects and recent research is bearing this out. A study of North Atlantic right whales produced evidence showing that exposures to low-frequency ship noise may be associated with chronic stress in whales. <sup>12</sup> For the Navy, such studies should be particularly relevant when assessing impacts on those marine mammal populations that are subjected to stress inducing impacts from training and testing activities on a regular basis. Nonetheless, despite the potential for stress in marine mammals and the significant consequences that can flow from it, the Navy unjustifiably assumes that such effects would be minimal. (Citations omitted)	The Navy reviewed and considered all of the literature and has been thorough in its use of all relevant information. Stress on marine mammals is addressed as part of the behavioral response function (Sections 3.4.3.1.2.4, Physiological Stress and 3.4.3.1.4.5, Behavioral Responses). Since the impact from noise exposure and the Navy training and testing events in general should be transitory given the movement of the participants, any stress responses should be short in duration and have less than biologically significant consequences. Impacts from vessel noise are discussed in Section 3.4.3.1.13 (Impacts from Vessel Noise). As discussed in Section 3.0.5.3.1.6 (Vessel Noise), Navy vessels contribute a very small portion of overall vessel broadband noise.
O09-15	Second, in the course of its training activities, the Navy would release a host of toxic chemicals, hazardous materials and waste into the	This statement is inaccurate. Chapter 3.1 (Sediments and Water Quality) did not state 11 million pounds of potentially toxic metals would be

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
	marine environment that could pose a threat to marine mammals over the life of the range. For example, under its preferred alternative, the Navy plans to abandon over 11 million pounds of potentially toxic metals in AFTT Study Area waters. DEIS at 3.1-61.	abandoned. The chapter concludes that chemical, physical, or biological changes to sediment or water quality would be measurable but below applicable standards, regulations, and guidelines, and would be within existing conditions or designated uses. Neither state nor federal standards or guidelines would be violated.
O09-16	DEIS fails to adequately consider the cumulative impacts of these toxins on marine mammals from past, current, and proposed training exercises. Careful study is needed into the way toxins might disperse and circulate within the area and how they may affect marine wildlife.	The potential for indirect impacts from changes to sediments and water quality was addressed in Section 3.4.3.6 (Secondary Stressors – Marine Mammals). Chapter 4 (Cumulative Impacts) addresses all truly meaningful past, present, and reasonably foreseeable impacts (Section 4.4.4, Sediments and Water Quality), which concludes that the incremental contribution of the alternatives to long-term cumulative impacts would be negligible.
O09-17	The Navy's assumption that expended materials and toxics would dissipate or become buried in sediment leads to a blithe conclusion that releases of hazardous material would have no adverse effects. Given the amount of both hazardous and nonhazardous materials, this discussion is inadequate under NEPA.	The EIS/OEIS presents a thorough description and analysis in Section 3.1 (Sediments and Water Quality) of amounts and types of specific training materials as well as chemical composition and breakdown processes of expended materials. Based on the best available science, no individual expended materials would result in water or sediment toxicity surrounding the expended item. The Navy has taken a hard look through its analysis and has considered the best available data in supporting its conclusions.
O09-18	Acknowledging that entanglement is a serious issue for marine mammals (e.g., "Juvenile humpback whales and North Atlantic right whales in the western North Atlantic were found to have a higher rate of entanglement and be more at risk of serious injury when entangled than mature animals." DEIS at 3.4-247), the DEIS nonetheless dismisses the threat posed by abandoning 31,000 parachutes, claiming without support that a marine mammal that did become entangled could easily become free. DEIS at 252.	The Conceptual Framework for addressing entanglement issues is found in Section 3.0.5.7.4 (Conceptual Framework for Assessing Effects from Entanglement) which describes the approach to analysis with respect to entanglement. Furthermore, Section 3.4.3.4.5 (Impacts from Parachutes) clearly explains that marine mammals could easily free themselves because of the very lightweight fabric of the parachutes, and that there is no evidence of a marine mammal ever becoming entangled in a parachute.
O09-19	Third, the Navy fails to consider the risk of ship collisions with large cetaceans, as exacerbated by the use of active acoustics. For example, right whales have been shown to engage in dramatic surfacing behavior, increasing their vulnerability to ship strikes, on exposure to mid-frequency alarms above 133 dB re 1 µPa (SPL)—a level of sound that can occur many tens of miles away from the sonar systems slated for the range. (Nowacek et al., North Atlantic Right Whales, 271 Proceedings of the Royal Society of London, Part B: Biological Sciences at 227.)	Ship strikes are discussed in the EIS/OEIS, Section 3.4.3.3.1 (Impacts from Vessels). Results of the research by Nowacek et al. (2004) where right whales reacted to an "alert stimuli," used a sound source that has limited correlation to mid-frequency active sonar (Section 3.4.3.3.1, Impacts from Vessels). Results of that study were, however, used to develop the risk function from which the quantification of predicted exposures was derived.

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
O09-20	And while the Navy analyzes the threat of ship strikes generally (DEIS at 3.4-231 to 240), it uses a basic probability calculation as opposed to the kind of modeling for take that it uses for other impacts (e.g., acoustic sources), which can underestimate the impact from ship strikes.	The use of a dynamic simulation model to estimate strike probability was considered, but the Navy found that use of historical data was more appropriate for the analysis. The strike probability analysis completed in this EIS/OEIS is based upon actual data collected from historical use of vessels. These data account for real world variables and any model would be expected to be less accurate than the use of actual data.
O09-21	Finally, the Navy draws unsupported conclusions about the threat of collisions for the most vulnerable species, like the North Atlantic right whale. While noting that “[v]essel strikes are considered a primary threat to North Atlantic right whale survival” (DEIS at 3.4-234) and that the species is particularly susceptible to ship strike, with one in five strikes in the Study Area attributed to right whales (DEIS at 3.4- 233), the Navy nonetheless states that it “does not anticipate it will strike a North Atlantic right whale because of the extensive measures in place to reduce the risk of a strike to that species.” DEIS at 3.4-237. This statement defies common sense; protective measures have been in place for years to lessen the risk of collision with right whales, yet the species continues to be struck. The Navy cannot rely on protective measures that offer only incomplete protection to conclude that it will not strike a North Atlantic right whale.	The Navy acknowledges the threat that vessels pose to right whales and therefore has develop a unique suite of mitigation measures. For years, the Navy has successfully been employing these Navy-specific mitigation measures designed to avoid ship strikes to right whales.
O09-22	Fourth, the Navy does not adequately analyze the potential for and impact of oil spills. As evidenced by the 1989 <i>Exxon Valdez</i> oil spill and the 2010 BP <i>Deepwater Horizon</i> disaster, there is a risk of an oil spill in areas where oil is produced and transported, such as areas within the Gulf of Mexico. This risk is exacerbated by increasing the tempo and intensity of Navy training, which will involve more vessels, more transits, and longer missions throughout the AFTT Study Area. In light of this history and the extraordinarily valuable and sensitive natural resources that occur in the Gulf of Mexico, the Navy must evaluate its spill response plan and station salvage equipment accordingly.	The analysis presented in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS is limited to the activities and reasonable outcomes of such activities. Impacts from oil spills, like <i>Deepwater Horizon</i> , are considered as part of the baseline information for applicable resources. As accidents involving other vessels and oil spills are not reasonably foreseeable, nor anticipated, as part of the Proposed Action, the impact of such occurrences is not addressed or analyzed in Chapter 3. Oil spills are analyzed in Chapter 4 (Cumulative Impacts) with respect to past, present, and reasonably foreseeable future actions. The Navy has plans and procedures for preventing, reporting, and responding to oil spills. While the number of training and testing activities is likely to increase, since multiple activities usually occur from the same vessel, the increased number of activities is not expected to result in an increase in vessel use or transits.
O09-23	Finally, the Navy's analysis cannot be limited only to direct effects, i.e., effects that occur at the same time and place as the training exercises that would be authorized. 40 C.F.R. § 1508.8(a). It must also take into account the activity's indirect effects, which, though	The approach to direct and indirect impacts is discussed in Section 3.0.5.4 (Resource-Specific Impacts Analysis for Individual Stressors) and Section 3.0.5.7 (Biological Resource Methods). The potential for indirect effects on marine mammals has been considered in

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
	reasonably foreseeable (as the DEIS acknowledges), may occur later in time or are further removed. 40 C.F.R. § 1508.8(b). This requirement is particularly critical in the present case given the potential for sonar exercises to cause significant long-term impacts not clearly observable in the short or immediate term (a serious problem, as the National Research Council has observed)	Section 3.4 (Marine Mammals) and it is thereby acknowledged that direct acoustic harassment of an individual can lead to other, indirect effects. The likely existence of such effects is accounted for in the estimation of “take” and they are otherwise not predictable or amenable to quantification. In addition, as described in this analysis, the training activities being analyzed have been performed for decades in the training ranges along the Atlantic and Gulf coasts with no indications of broad-scale impacts that are either injurious or of significant biological impact on marine mammals at those locations. The Navy’s analysis indicates and this history indicates there is little relative risk to marine mammal populations from sonar training exercises as proposed in the EIS/OEIS.
O09-24	The Navy limits its analysis of the effects of mid-frequency active sonar on sea turtles on the grounds that their best hearing range appears to occur below 1 kHz. DEIS at 3.5-6 to 7; 3.5-55. Nevertheless, even with this limitation, the Navy predicts almost 40,000 instances of temporary hearing loss for sea turtles, 26 instances of lung damage, and 21 deaths each year from acoustic sources, like sonar and explosives. DEIS at 3.5-57; 3.5-69 to 70. For their Unmanned Underwater Vehicle Demonstrations using sonar and various ship shock trials, the Navy estimates over 2,000 instances of temporary hearing loss for sea turtles, 15 instances of permanent hearing loss, 354 instances of lung damage, and 83 deaths every five years. DEIS at 3.5-58; 3.5-71. Given the endangered status of sea turtles, there is little room for error in assessing impacts. While predicting death and permanent injury to members of these species and acknowledging a complete lack of density data for the species in open ocean conditions, the Navy nonetheless concludes that “impacts are not expected to decrease the overall fitness or result in longterm population-level impacts of any given population..” DEIS at 3.5-138. Yet such conclusions are made without analyzing the impacts against the specific status of each species, even while acknowledging that many of the species have decreasing long-term population trends (e.g., hawksbill sea turtles at DEIS 3.5-13) and that studies indicate that many populations in the AFTT Study Area may be genetically distinct and require independent management (e.g., green sea turtles at DEIS 3.5-7). The Navy must rigorously analyze predicted impacts against the status of the species in the AFTT Study Area before concluding that no population-level impacts are expected.	The Navy conducted a rigorous analysis of the potential impacts from sonar activities (Section 3.5.3.1, Acoustic Stressors) and repeated exposures to individual sea turtles are addressed in Section 3.5.3.1.2.6 (Repeated Exposures). As presented in Section 3.5.3.1.7 (Impacts from Sonar and Other Active Acoustic Sources), current best available science and all available indications are that sea turtles are not likely able to hear mid-frequency sonar. The approach to analysis (Section 3.0.5.4, Resource-Specific Impacts Analysis for Individual Stressors) states the analysis begins with individual organisms and their habitats, and then addresses populations, species, communities, and representative ecosystem characteristics, as appropriate. The conclusions reached in the EIS/OEIS are fully supported by the science and the analysis, which has been refined through the ESA consultation with NMFS.  Additionally, it should be noted that the predicted number of acoustic impacts to turtles are large overestimates due to inadvertent adjustment of the turtle onset PTS and TTS thresholds. Because there are no published data on PTS or TTS in turtles, the turtle criteria for PTS and TTS are based on the PTS and TTS criteria for mid- and low-frequency cetaceans. When cetacean criteria were weighted to correlate with Type II frequency weighting, the turtle threshold was inadvertently lowered by 17 dB, even though Type II weighting is not applied to sea turtle hearing. This resulted in an increased number of model-predicted turtle impacts, although the actual impacts are expected to be substantially lower.

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
O09-25	Although the Navy acknowledges that “[t]here is little published literature on the hearing abilities of birds underwater...[and] no measurements of the underwater hearing of any diving birds” (DEIS at 3.6-10), it then inexplicably concludes that “any sound exposures would be minimal and are unlikely to have a long-term impact on an individual or a population.” DEIS at 3.6-34. Such reasoning does not bear up to any serious scrutiny. See, e.g., the entirely unsupported assertion that “[s]eabirds would avoid any additional exposures during a foraging dive when they surface” (DEIS at 3.6-34).	In the absence of scientific studies, reliance on professional judgment is required. Statements on the behavior of animals contained in the EIS/OEIS are based on the best available science. The Navy consulted with the U.S. Fish and Wildlife Service as appropriate.
O09-26	Seabirds occur in the AFTT Study Area, dive underwater (in some cases to depths of hundreds of feet), and are sensitive to the frequencies used by the Navy’s acoustic sources. They must receive further analysis in the DEIS, both for the direct impacts they may suffer on exposure to the Navy’s acoustic sources and for the impacts they may incur indirectly through depletion of prey species and hard bottom habitat. 40 C.F.R. § 1502.16(a), (b).	A thorough analysis of acoustic impacts on seabirds appears in Section 3.6.3.1 (Acoustic Stressors) which is based on the best available science. This section addressed deep diving birds. The EIS/OEIS concludes that there would be no long-term impacts from sonar to marine habitats (Section 3.3, Marine Habitats) or fish (Section 3.9, Fish), and therefore no indirect impacts are expected for seabirds.
O09-27	In its DEIS, the Navy discusses many of the unknowns regarding impacts from training and testing on fish (e.g., “While statistically significant losses were documented in the two groups impacted, the researchers only tested that particular sound level once, so it is not known if this increased mortality was due to the level of the test signal or to other unknown factors.” DEIS at 3.9-61-62), while also acknowledging that acoustic and explosive stressors can cause a range of impacts including behavior responses, hearing loss, physical injury, or death to fish near the activity. DEIS at 3.9. Nonetheless, the DEIS concludes that that its training activities – including both the use of midfrequency active sonar and underwater detonations – would have no significant impact on fish, fisheries and essential fish habitat. The Navy’s conclusion not only contradicts the available scientific literature on noise but also ignores the valid concerns of fishermen.	While the EIS/OEIS concludes there will be impacts from the Proposed Action to fish, those impacts do not translate into impacts on socioeconomic resources. Impacts analyzed in the EIS/OEIS consider the individual and the population. Impacts on single individuals do not translate to impacts on the entire population or the resource as a whole. The conclusions presented in the EIS/OEIS are fully supported in the analysis.
O09-28	For example, fisherman concerned with declining catch rates wrote letters opposing the Navy’s proposal to build an Undersea Warfare Training Range off the coast of North Carolina in 2005. Those fishermen reported sharp declines in catch rates in the vicinity of Navy exercises.	Concerns of commercial fisherman were addressed in the EIS/OEIS (Section 3.11.3, Environmental Consequences – Socioeconomic Resources). Favored fishing areas change over time with fluctuations in fish populations and communities, preferred target species, or fishing modes and styles. Declines in fishing rates can be attributed to several factors both natural and anthropogenic. Section 3.9 (Fish) concludes that no long-term impacts on fish populations are anticipated, therefore, Section 3.11 (Socioeconomic Resources) correctly concludes that there

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
		would be no indirect impacts on commercial and recreational fishing.
O09-29	In their comments on the Navy's Draft Environmental Impact Statement for the proposed Undersea Warfare Training Range off the coast of North Carolina, several fishermen and groups of fishermen independently reported witnessing sharp declines in catch rates of various species when in the vicinity of Navy exercises. These reports are also indicative of behavioral changes –such as a spatial redistribution of fish within the water column – that could similarly affect the fisheries in the AFTT Study Area.	Concerns of commercial fisherman were addressed in the EIS/OEIS (Section 3.11.3, Environmental Consequences – Socioeconomic Resources). Favored fishing areas change over time with fluctuations in fish populations and communities, preferred target species, or fishing modes and styles. Declines in fishing rates can be attributed to several factors both natural and anthropogenic. Section 3.9 (Fish) concludes that no long-term impacts on fish populations are anticipated, therefore, Section 3.11 (Socioeconomic Resources) correctly concludes that there would be no indirect impacts on commercial and recreational fishing.
O09-30	The Navy's conclusion that underwater noise will not result in "a decrease in overall fitness of any given population" ignores the scientific literature. A number of studies, including one on non-impulsive noise, show that intense sound can kill eggs, larvae, and fry outright or retard their growth in ways that may hinder their survival later.	The approach to analysis (Section 3.0.5.4, Resource-Specific Impacts Analysis for Individual Stressors) states the analysis begins with individual organisms and their habitats, and then addresses populations, species, communities, and representative ecosystem characteristics, as appropriate. Impacts on a resource, not listed as a federally protected species, are not based on impacts on individuals, but rather to the entire population. Section 3.9.3.1.2 (Impacts from Sonar and Other Non-Impulsive Acoustic Sources) and Section 3.9.3.1.3 (Impacts from Explosives and Other Impulsive Acoustic Sources) address potential impacts from all acoustic sources on fish, including non-impulsive noise and swimmer defense airguns. The conclusions reached in the EIS/OEIS are based on the best available science and are fully supported by the science and the analysis.
O09-31	Although the Navy acknowledges studies showing that eggs and larvae are more susceptible to sound, it tries to distinguish them by stating that they "were laboratory studies, however, and have not been verified in the field." DEIS at 3.9-63. However, federal law does not allow the Navy to ignore the valid scientific studies that have already been conducted simply because they are contrary to its interest.	The approach to analysis (Section 3.0.5.4, Resource-Specific Impacts Analysis for Individual Stressors) states the analysis begins with individual organisms and their habitats, and then addresses populations, species, communities, and representative ecosystem characteristics, as appropriate. Impacts on a resource are not based on impacts on individuals, but rather to the entire population. Section 3.9.3.1.1.1 (Direct Injury) contains a detailed discussion of potential direct injury that may result from non-impulsive acoustic sources, as well as explosions and other impulsive acoustic sources. Studies involving larvae are presented and discussed. Furthermore, Section 3.9.3.1.2 (Impacts from Sonar and Other Non-Impulsive Acoustic Sources) and Section 3.9.3.1.3 (Impacts from Explosives and Other Impulsive Acoustic Sources) address potential impacts from all Navy acoustic sources on fish. The conclusions reached in the EIS/OEIS are based on the best available science and are fully supported by the science and the analysis.

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
O09-32	There are a variety of live-fire training exercises, some of which involve underwater explosions of torpedoes and other ordnance that will take place in the AFTT Study Area. Given the variety of fish and fisheries inhabiting these waters, the Navy's failure to analyze these effects in significant detail is stunning.	The EIS/OEIS has taken a hard look at impacts on fish in Section 3.9.3 (Environmental Consequences – Fish) which was based on the best available science. This section conducted a rigorous analysis of training exercises using high explosive ordnance, including underwater explosions and ordnance.
O09-33	The Navy arbitrarily dismisses the potential for adverse impacts on fish. The Navy also capriciously dismisses the notion that fisheries in the area would suffer economic loss, even though – judging by the comments from North Carolina fishermen in 2005 – its training activities appear to have disrupted fishing in the past. Just like the training proposed in North Carolina, the available evidence here underscores the need for a more serious and informed analysis than the Navy currently provides.	The EIS/OEIS has taken a hard look at impacts on fish in Section 3.9.3 (Environmental Consequences – Fish) which was based on the best available science. Socioeconomic Resources (Section 3.11.3) adequately addresses concern of economic loss from the Proposed Action. Concerns of commercial fisherman were addressed in the EIS/OEIS (Section 3.11.3, Environmental Consequences – Socioeconomic Resources). Favored fishing areas change over time with fluctuations in fish populations and communities, preferred target species, or fishing modes and styles. Declines in fishing rates can be attributed to several factors both natural and anthropogenic. Section 3.9 (Fish) concludes that no long-term impacts on fish populations are anticipated, therefore, Section 3.11 (Socioeconomic Resources) correctly concludes that there would be no indirect impacts on commercial and recreational fishing.
O09-34	To comply with the requirements of NEPA, the Navy should rigorously analyze the potential for behavioral, auditory, and physiological impacts on fish, including the potential for population-level effects, using models of fish distribution and population structure and conservatively estimating areas of impact from the available literature. 40 C.F.R. § 1502.22.	The analysis of the potential impacts on fish is found in Section 3.9.3 (Environmental Consequences – Fish). Impacts from acoustic stressors appear in Section 3.9.3.1 (Acoustic Stressors – Fish). The Navy used the best available science for the analysis of impacts on fish, and fully complies with the requirements of NEPA.
O09-35	The Navy must also meaningfully assess the economic consequences of reduced catch rates on commercial and recreational fisheries (as well as on marine mammal foraging) in the AFTT Study Area.	As stated in the approach to analysis (Section 3.0.5, Overall Approach to Analysis), indirect impacts result when a direct impact on one resource induces an impact on another resource (referred to as a secondary stressor). If there is no direct impact on a resource, then indirect impacts are not foreseeable. Section 3.9 (Fish) concludes that no long-term impacts on fish populations. The analysis in Marine Mammals (Section 3.4) and Socioeconomic Resources (Section 3.11) screened for any impacts on other resources that might create secondary impacts. Because the EIS/OEIS concludes that there would be no impacts on fish populations, reduced catch rates and prey base were not addressed for Marine Mammals (Section 3.4) or Socioeconomic Resources (Section 3.11).



Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
O09-36	It should also consider avoiding essential fish habitat, spawning grounds and other areas of important habitat for fish species, especially hearing specialists. Notably, as with marine mammals, the Navy does not consider exclusion of important fish habitat or fisheries in the AFTT Study Area.	Information on mitigation measures can be found in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS. Section 5.3.3.2 (Seafloor Resources) includes a description of measures the Navy implements in specified mitigation areas, including important habitat for fish species such as shallow coral reefs, hard bottom, artificial reefs, and shipwrecks. The mitigation measures listed in the Final EIS/OEIS are the result of consultation with NMFS with respect to essential fish habitat, and analysis presented in the AFTT Essential Fish Habitat Assessment.
O09-37	<p>This mitigation scheme disregards the best available science on the significant limits of visual monitoring. Visual detection rates for marine mammals generally approach only 5 percent. Moreover, the species perhaps most vulnerable to sonar-related injuries, beaked whales, are among the most difficult to detect because of their small size and diving behavior. It has been estimated that in anything stronger than a light breeze, only one in fifty beaked whales surfacing in the direct track line of a ship would be sighted; as the distance approaches 1 kilometer, that number drops to zero.<sup>33</sup> Many other whales are also hard to detect, especially depending on seasonality, geography, and behaviors. For example, right whales are also notoriously hard to detect, and the Navy plans to train in critical habitat for the highly endangered North Atlantic right whale. Right whales are uniquely vulnerable to ship strikes because they often hover on or near the surface of the water. Due to their dark coloration and lack of a dorsal fin, however, they are difficult to detect. The Navy's reliance on visual observation as the mainstay of its mitigation plan is therefore profoundly misplaced.</p> <p>(Citations omitted)</p>	<p>As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Section 5.3.1.2.4.1 (Detection Probabilities of Marine Mammals in the Study Area) has a detailed discussion of available literature on the sightability of marine mammals, based on the average <math>g(0)</math> values presented in Table 5.3-1, which are estimated to range from 0.2 for beaked whales (aerial surveys) up to 0.95 for blue whales (vessel surveys). Specifically, North Atlantic right whales have an average <math>g(0)</math> value of 0.65 for vessel surveys. Section 5.3.3.1 (Marine Mammal Habitats) outlines specific measures that will be employed within North Atlantic right whale mitigation areas, and specifies which activities will not be conducted in these areas.</p> <p>Section 3.4.3.1.5.6 (Implementing Mitigation to Reduce Sound Exposures) contains a detailed discussion comparing typical marine mammal surveys to Navy training and testing activities. In particular, this section discusses why the Barlow and Gisiner (2006) paper, which provides a description of typical marine mammal survey methods from ship and aircraft and then provides "a crude estimate" of the difference in detection of beaked whales between trained marine mammal observers and seismic survey mitigation, is not informative with regard to Navy mitigation procedures.</p>
O09-38	In this light, the Navy's claims that it cannot implement more protective mitigation measures ring false. DEIS at 5-66 to 73. Although the Navy goes to some pain to describe "mitigation measures considered but eliminated" —primarily because of "unacceptable impacts on the proposed activity"—its previous adoption of the same measures belies its argument. Clearly the Navy has done more to mitigate the harmful effects of sonar in previous	The measures that Natural Resources Defense Council refer to have not been in place since January 2009, are not included in the current permits. Section 5.3.4 (Mitigation Measures Considered but Eliminated) includes a complete list of mitigation measures that the Navy has considered but eliminated because the measures are ineffective at reducing environmental impacts, currently have an unacceptable operational impact, or are expected to have an unacceptable operational impact in

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
	exercises than what it proposes for the AFTT activities. It can, and must, do more to mitigate the harm on marine wildlife.	the future. As described in Section 5.3.4 (Mitigation Measures Considered but Eliminated), it is critical that the Navy be able to conduct anti-submarine warfare training in a variety of environmental and bathymetric conditions, including in the vicinity of canyons and during periods of low visibility. The Navy continuously collects information on the effectiveness of mitigation measures and their impact on military readiness. This accumulation of information helped shaped the Navy's operational assessments throughout Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Draft and Final EIS/OEIS. As part of the mitigation evaluation process, the Navy did not recommend continuing to implement mitigation measures that were causing unacceptable operational impacts, including interfering with the Navy's ability to meet all or part of its military readiness requirements.
O09-39	<p>One of NOAA's Working Groups, CetMap, is identifying marine mammal "hot spots" in the AFTT Study Area – biologically important areas for marine mammals as evidenced by increases in density and distribution or modeled based on important habitat features.</p> <p>Cet Map's identification of these areas should form a basis for creating protection zones where training activities could be barred or limited.</p>	<p>The Navy has and will continue to support the Cetacean and Sound Mapping project, including providing representation on the Cetacean Density and Distribution Mapping Working Group (CetMap). This working group has two objectives: First, to create regional cetacean density and distribution maps that are time- and species-specific, using survey data and models that estimate density using predictive environmental factors. With the exception of the Atlantic and Gulf of Mexico, the Navy considered this information as part of the impact and mitigation assessment process. For the Atlantic and Gulf of Mexico, the Navy OPAREA Density Estimates on the Spatial Decision Support System for the Strategic Environmental Research and Development Program (available at <a href="http://seamap.env.duke.edu/serdp_map.php">http://seamap.env.duke.edu/serdp_map.php</a>), are still considered the best available data (Read and Halpin 2010<sup>1</sup>). As of August 2013, CetMap had not released final updated density data products for the Atlantic and Gulf of Mexico.</p> <p>Second, and separately, to augment the more quantitative density mapping and provide additional context for impact analyses, the CetMap is also identifying areas of specific importance for cetaceans, such as reproductive areas, feeding areas, migratory corridors, and areas in which small or resident populations are concentrated, otherwise referred to as "biologically important areas". The working group determined that "hot spots" is not an appropriate term and chose to call them Biologically Important Areas. Biologically important areas information was based largely on observational data of animals exhibiting biologically important behaviors. The biologically important areas were only characterized for species, areas, and seasons where there were enough data to support</p>

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
		<p>the biologically important areas identification within the U.S. Exclusive Economic Zone. Most of these assessments are not based on CetMap density work products but on published and often unpublished data held by individual researchers. They only characterized the observational data available and did not use density or habitat-based models to determine the biologically important areas.</p> <p>Biologically important areas are not being designated by CetMap for the purpose of identifying areas off limit to human activities like sonar. Instead, information is being collected to provide additional context within which to examine potential interactions between cetaceans and human activities. This information can assist resource managers with planning, analyses, and decisions regarding how to reduce adverse impacts to cetaceans resulting from human activities.</p> <p>Some preliminary, draft results are currently being released on <a href="http://cetsound.noaa.gov/important.html">http://cetsound.noaa.gov/important.html</a>. The CetMap Working Group is also undertaking external review of the documents by subject matter experts outside National Oceanic and Atmospheric Administration and is preparing a collection of manuscripts focused on the biologically important areas that will be submitted to a scientific journal for external peer review by subject matter experts.</p> <p>The Navy also recommended to NMFS that a formal expert elicitation on biologically important areas results be conducted, including data review by a larger body of marine scientists and stakeholders.</p> <p>When appropriate, NMFS provides draft CetMap information for Navy consideration. As part of the ESA and MMPA processes, NMFS requested the Navy to consider some specific preliminary draft areas as part of its mitigation analysis. As a result of the Navy's Biological Assessment and Operational Assessment, the Navy recommends extending the boundary of the eastern Gulf of Mexico planning awareness area to further protect a population of Bryde's whale that has been exclusively observed in that area year-round. Additional information can be found in Section 5.3.3.1.3.1, Planning Awareness Areas. If additional biologically important areas are identified by NMFS after the Navy's Record of Decision, the Navy and NMFS will use the Adaptive Management process to assess whether any additional mitigation should be considered in those areas.</p> <p><sup>1</sup> Read, A. J. and P. Halpin. 2010. Predictive Spatial Analysis of Marine Mammal Habitats. Final Report. SERDP Project SI-1390. January 2010. 292 pp.</p>

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
O09-40	<p>The following biologically important areas – all in the Gulf of Mexico – are but a sample of the kind of areas that should be analyzed by the Navy for the development of protection zones as informed by the results of CetMap:</p> <p>1) Mississippi Canyon.— It is well established, on the basis of historic whaling records, mark-recapture data, and extensive surveys including by GulfCet II and the Sperm Whale Seismic Study, that this area constitutes important habitat for the Gulf's small, biologically distinct population of sperm whales, most likely due to the input of a nutrient-rich, freshwater plume from the Mississippi Delta.<sup>36</sup> Nearly all sightings of females and mother-calf groups have occurred there, strongly suggesting that it functions as a nursery ground.<sup>37</sup></p> <p>2) DeSoto Canyon.— The DeSoto Canyon represents important habitat for Bryde's whales, the most commonly occurring baleen whale in the Gulf of Mexico, as well as habitat for sperm whale and other cetaceans. Nearly all known sightings of Bryde's whales have occurred in the canyon.<sup>38</sup> The stock size is estimated as well under 50 animals, leaving it extremely vulnerable to human disturbance, particularly if it constitutes a resident population as several studies have suggested.<sup>39</sup></p> <p>3) Coastal waters landward of the 20m isobath.— The coastal ecotype of bottlenose dolphin comprises more than 30 identified stocks across the Northern Gulf, many of which have best population estimates well below 100 individual animals; and manatees are an ESA-listed species whose habitat choices are highly correlated to the absence of predominantly low-frequency sound.<sup>40</sup> Bottlenose dolphins have seen three major mortality spikes since early 2010.<sup>41</sup> These waters provide habitat for both species.</p> <p>4) West of the Florida Keys and Tortugas.— This area, which lies along the continental slope west of the islands, constitutes an area of consistent sperm whale concentration in the Eastern Gulf.<sup>42</sup> (Citations omitted)</p>	<p>The Navy has and will continue to support the Cetacean and Sound Mapping project, including providing representation on the Cetacean Density and Distribution Mapping Working Group (CetMap). This working group has two objectives: First, to create regional cetacean density and distribution maps that are time- and species-specific, using survey data and models that estimate density using predictive environmental factors. With the exception of the Atlantic and Gulf of Mexico, the Navy considered this information as part of the impact and mitigation assessment process. For the Atlantic and Gulf of Mexico, the Navy OPAREA Density Estimates on the Spatial Decision Support System for the Strategic Environmental Research and Development Program (available at <a href="http://seamap.env.duke.edu/serdp_map.php">http://seamap.env.duke.edu/serdp_map.php</a>), are still considered the best available data (Read and Halpin 2010<sup>1</sup>). As of August 2013, CetMap had not released final updated density data products for the Atlantic and Gulf of Mexico.</p> <p>Second, and separately, to augment the more quantitative density mapping and provide additional context for impact analyses, the CetMap is also identifying areas of specific importance for cetaceans, such as reproductive areas, feeding areas, migratory corridors, and areas in which small or resident populations are concentrated, otherwise referred to as "biologically important areas". The working group determined that "hot spots" is not an appropriate term and chose to call them Biologically Important Areas. Biologically important areas information was based largely on observational data of animals exhibiting biologically important behaviors. The biologically important areas were only characterized for species, areas, and seasons where there were enough data to support the biologically important areas identification within the U.S. Exclusive Economic Zone. Most of these assessments are not based on CetMap density work products but on published and often unpublished data held by individual researchers. They only characterized the observational data available and did not use density or habitat-based models to determine the biologically important areas.</p> <p>Biologically important areas are not being designated by CetMap for the purpose of identifying areas off limit to human activities like sonar. Instead, information is being collected to provide additional context within which to examine potential interactions between cetaceans and human activities. This information can assist resource managers with planning, analyses, and decisions regarding how to reduce adverse impacts to cetaceans resulting from human activities.</p>

Table E-4: Responses to Comments from Organizations (Continued)

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		<p>Some preliminary, draft results are currently being released on <a href="http://cetsound.noaa.gov/important.html">http://cetsound.noaa.gov/important.html</a>. The CetMap Working Group is also undertaking external review of the documents by subject matter experts outside National Oceanic and Atmospheric Administration and is preparing a collection of manuscripts focused on the Important Areas that will be submitted to a scientific journal for external peer-review by subject matter experts.</p> <p>The Navy also recommended to NMFS that a formal expert elicitation on biologically important areas results be conducted, including data review by a larger body of marine scientists and stakeholders.</p> <p>When appropriate, NMFS provides draft CetMap information for Navy consideration. As part of the ESA and MMPA processes, NMFS requested the Navy to consider some specific preliminary draft areas as part of its mitigation analysis. As a result of the Navy's Biological Assessment and Operational Assessment, the Navy recommends extending the boundary of the eastern Gulf of Mexico planning awareness area to further protect a population of Bryde's whale that has been exclusively observed in that area year-round. Additional information can be found in Section 5.3.3.1.3.1, Planning Awareness Areas. If additional biologically important areas are identified by NMFS after the Navy's Record of Decision, the Navy and NMFS will use the Adaptive Management process to assess whether any additional mitigation should be considered in those areas.</p> <p><sup>1</sup> Read, A. J. and P. Halpin. 2010. Predictive Spatial Analysis of Marine Mammal Habitats. Final Report. SERDP Project SI-1390. January 2010. 292 pp.</p>
O09-41	<p>The DEIS fails to set forth any mitigation measures concerning the massive amount of discarded debris and expended materials associated with its proposed activities in the AFTT Study Area. The Navy claims that ocean currents will rapidly disperse the expended materials and thus no mitigation is required. "In NEPA's demand that an agency prepare a detailed statement on 'any adverse environmental effects which cannot be avoided should the proposal be implemented,' is an understanding that the EIS will discuss the extent to which adverse effects can be avoided." Robertson, 490 U.S. at 352-53. The Navy's "all-or-nothing approach" is not a sufficient discussion of how the adverse impacts of expended material can be avoided. By failing to explore mitigation measures for expended</p>	<p>The Navy conducted a full analysis of the potential impacts of military expended materials on marine resources and has proposed several mitigation measures to help avoid or reduce those impacts. The analysis is contained throughout Chapter 3 (Affected Environment and Environmental Consequences) of the Draft and Final EIS/OEIS (e.g., Section 3.3.3.2.1, Impacts from Military Expended Materials discusses marine habitats). For example, military expended materials related to training exercises under a worst-case scenario under Alternatives 1 and 2 would not impact more than 0.00009 percent of the available soft bottom habitat annually within any of the range complexes. The Navy has standard operation procedures in place to reduce the amount of military expended materials (Section 5.1.4.2, Weapons Firing Range Clearance),</p>

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
	materials, the Navy does not even attempt to avoid, minimize, rectify, reduce, or compensate for its dumping of debris – all of which are options included in the CEQ regulation's definition of "mitigation." 40 C.F.R. § 1508.20.	including recovering targets and associated parachutes to the maximum extent practical. In addition, the Navy has developed mitigation areas (Section 5.3.3.2, Seafloor Resources) to avoid and reduce potential impacts of military expended materials on seafloor habitats, including coral and hard bottom habitats.
O09-42	<p>In addition to considering protection zones and mitigation for expended materials, the Navy should adopt the following measures:</p> <ol style="list-style-type: none"> <li>1) Seasonal avoidance of marine mammal feeding grounds, calving grounds, and migration corridors;</li> <li>2) Avoidance of, or extra protections in, marine protected areas;</li> <li>3) Avoidance of bathymetry likely to be associated with high-value habitat for species of particular concern, including submarine canyons and large seamounts, or bathymetry whose use poses higher risk to marine species;</li> <li>4) Avoidance of fronts and other major oceanographic features, such as areas with marked differentials in sea surface temperatures, which have the potential to attract offshore concentration of animals, including beaked whales;</li> <li>5) Avoidance of areas with higher modeled takes or with high-value habitat for particular species;</li> <li>6) Concentration of exercises to the maximum extent practicable in abyssal waters and in surveyed offshore habitat of low value to species;</li> <li>7) Use of sonar and other active acoustic systems at the lowest practicable source level, with clear standards and reporting requirements for different testing and training scenarios;</li> <li>8) Expansion of the marine species "safety zone" to a 4km shutdown, reflecting international best practice, or 2 km, reflecting the standard prescribed by the California Coastal Commission;<sup>44</sup></li> <li>9) Suspension of relocation of exercises when beaked whales or significant aggregations of other species are detected by any means within the orbit circle of an aerial monitor or near the vicinity of an exercise;</li> <li>10) Use of simulated geography (and other work-arounds) to reduce or eliminate chokepoint exercises in near-coastal environments, particularly within canyons and channels, and use of other important</li> </ol>	<p>In cooperation with NMFS, the Navy has developed a suite of mitigation measures that provide protection for marine species, are practicable to implement, and allow training and testing activities to meet their readiness requirements.</p> <ol style="list-style-type: none"> <li>1) The balance between procedural measures and mitigation area measures provide a way for the Navy to mitigate potential impacts while maintaining its military readiness objectives. Section 5.3.4.1.11 (Avoiding Marine Species Habitats in the Study Area) discusses seasonal restrictions. The Navy has proposed several seasonal measures, as discussed in Section 5.3.3 (Mitigation Areas). Many measures that were originally developed specifically for the North Atlantic right whale will subsequently provide avoidance or reduction of potential impacts on all marine mammals within those mitigation areas during the proposed time periods.</li> <li>2) As described in Section 5.3.4.2.1.12 (Avoiding Marine Protected Areas), avoiding all marine protected areas for the purpose of mitigation would result in an unacceptable impact on readiness; increase safety risks to personnel; be impractical with regard to implementation; and would not be warranted based on the Chapter 3 (Affected Environment and Environmental Consequences) environmental analyses for biological resources, and Section 6.1.2 (Marine Protected Areas) discussions. Section 6.1.2 (Marine Protected Areas) discusses the marine protected areas contained within the Study Area, and which activities may occur within each area.</li> <li>3) Section 5.3.4.1.7 (Avoiding Locations Based on Bathymetry and Environmental Conditions) discusses habit avoidance.</li> <li>4) Section 5.3.4.1.7 (Avoiding Locations Based on Bathymetry and Environmental Conditions) discusses habitat avoidance. As discussed throughout Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring), Lookouts will be employed to visually observe for marine mammals in all types of oceanographic conditions.</li> <li>5) Section 5.3.4.1.11 (Avoiding Marine Species Habitats in the Study Area) discusses marine species habitats with respect to modeled takes.</li> </ol>

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
	<p>habitat;</p> <p>11) Avoidance or reduction of training during months with historically significant surface ducting conditions, and use of power-downs during significant surface ducting conditions at other times;</p> <p>12) Use of additional power-downs when significant surface ducting conditions coincide with other conditions that elevate risk, such as during exercises involving the use of multiple systems or in beaked whale habitat;</p> <p>13) Planning of ship tracks to avoid embayments and provide escape routes for marine animals;</p> <p>14) Suspension or postponement of chokepoint exercises during surface ducting conditions and scheduling of such exercises during daylight hours;</p> <p>15) Use of dedicated aerial monitors during chokepoint exercises, major exercises, and near-coastal exercises;</p> <p>16) Use of dedicated passive acoustic monitoring to detect vocalizing species, through established and portable range instrumentation and the use of hydrophone arrays off instrumented ranges;</p> <p>17) Modification of sonobuoys for passive acoustic detection of vocalizing species;</p> <p>18) Suspension or reduction of exercises outside daylight hours and during periods of low visibility;</p> <p>19) Use of aerial surveys and ship-based surveys before, during, and after major exercises;</p> <p>20) Use of all available range assets for marine mammal monitoring;</p> <p>21) Use of third-party monitors for marine mammal detection;</p> <p>22) Application of mitigation prescribed by state regulators, by the courts, by other navies or research centers, or by the U.S. Navy in the past or in other contexts;</p> <p>23) Avoidance of fish spawning grounds and of important habitat for fish species potentially vulnerable to significant behavioral change, such as widescale displacement within the water column or changes in breeding behavior;</p> <p>24) Evaluating before each major exercise whether reductions in sonar use are possible, given the readiness status of the strike groups involved;</p>	<p>6) Section 5.3.4.1.6 (Limiting Activities to a Few Specific Locations) discusses limiting activities to abyssal waters and offshore habitats.</p> <p>7) The Navy concurs; Section 5.3.4.1.3 (Reducing Sonar Source Levels and Total Number of Hours) discusses how the Navy uses active sonar at the lowest practicable source level consistent with mission requirements. Section 5.5 (Monitoring and Reporting) discusses the Navy's reporting requirements, which will be coordinated through NMFS during the permitting process.</p> <p>8) Section 5.3.4.1.13 (Increasing the Size of Observed Mitigation Zones) discusses mitigation zone expansion. There is no internationally recognized best practice with regard to mitigation zone distance. The mitigation zones discussed throughout the Draft and Final EIS/OEIS were developed using the latest best available science, are consistent with regulatory requirements and criteria, and are tailored to the Proposed Action; therefore, adopting other mitigation zones would neither be a practical nor effective mitigation scheme for the Proposed Action.</p> <p>9) Mitigation will be implemented within the mitigation zone for all marine mammals regardless of species. Passive acoustic monitoring will be used to inform visual observations because resources are not available for the Navy to locate vocalizing animals through passive acoustics during training and testing activities. Mitigation specific to beaked whales and "significant aggregations" are not necessary because the mitigation will be implemented for all species and any number of animals observed.</p> <p>10) Section 5.3.4.1.2 (Replacing Training and Testing with Simulated Activities) discusses simulated activities.</p> <p>11) Section 5.3.4.1.9 (Avoiding or Reducing Active Sonar During Strong Surface Ducts) discusses surface ducts.</p> <p>12) Section 5.3.4.1.3 (Reducing Sonar Source Levels and Total Number of Hours) discusses sonar levels and hours, and Section 5.3.4.1.9 (Avoiding or Reducing Active Sonar During Strong Surface Ducts) discusses surface ducts. Mitigation measures are implemented equally in all locations where the activity occurs. Chapter 3.4 (Marine Mammals) and the <i>Navy Marine Species Density Database</i> technical report provide information on beaked whale habitat within the Study Area. Beaked whales inhabit all portions of the Study Area except the West Greenland Shelf Large Marine Ecosystem. Otherwise limiting active sonar activities to the West Greenland Shelf or implementing additional power-downs throughout the remainder of the Study Area would cause an</p>

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
	<p>25) Dedicated research and development of technology to reduce impacts of active acoustic sources on marine mammals;</p> <p>26) Establishment of a plan and a timetable for maximizing synthetic training in order to reduce the use of active sonar training;</p> <p>27) Prescription of specific mitigation requirements for individual classes (or sub-classes) of testing and training activities, in order to maximize mitigation given varying sets of operational needs; and</p> <p>28) Timely, regular reporting to NOAA, state coastal management authorities, and the public to describe and verify use of mitigation measures during testing and training activities.</p> <p>While the Navy considers, and summarily dismisses, many of these measures in its DEIS, it fails to do so in a manner permitted by NEPA and we note that similar or additional measures may be required under the Marine Mammal Protection Act, Endangered Species Act, and other statutes.</p>	<p>unacceptable impact on readiness.</p> <p>13) Section 5.3.4.1.6 (Limiting Activities to a Few Specific Locations) discusses limiting the location of activities.</p> <p>14) Section 5.3.4.1.8 (Avoiding or Reducing Active Sonar at Night and During Periods of Low Visibility) and Section 5.3.4.1.9 (Avoiding or Reducing Active Sonar During Strong Surface Ducts) discuss activities conducted during varying environmental conditions.</p> <p>15) Section 5.3.4.1.12 (Increasing Visual and Passive Acoustic Observations) discusses visual observations.</p> <p>16) Section 5.3.4.1.12 (Increasing Visual and Passive Acoustic Observations) discusses passive acoustic observations.</p> <p>17) Section 5.3.4.1.12 (Increasing Visual and Passive Acoustic Observations) discusses passive acoustic observations. As described throughout Chapter 5, Passive acoustic monitoring will be conducted with Navy assets, such as sonobuoys, when practicable.</p> <p>18) Section 5.3.4.1.8 (Avoiding or Reducing Active Sonar at Night and During Periods of Low Visibility) discusses activities conducted during varying environmental conditions.</p> <p>19) As described throughout Chapter 5, visual observation (aerial and vessel-based) would be conducted in association with Navy activities. Section 5.3.4.1.12 (Increasing Visual and Passive Acoustic Observations) discusses visual observations.</p> <p>20) Section 5.3.4.1.12 (Increasing Visual and Passive Acoustic Observations) discusses visual observations. For additional information on the Navy's marine mammal monitoring efforts, see <a href="http://www.navymarinespeciesmonitoring.us/">http://www.navymarinespeciesmonitoring.us/</a>.</p> <p>21) Section 5.3.4.1.14 (Conducting Observations Using Third-Party Observers) discusses third-party observers.</p> <p>22) Section 5.3.4.1.15 (Adopting Mitigation Measures of Foreign Navies) discusses foreign navies. Mitigation is developed in cooperation with NMFS and was refined through the MMPA and ESA consultation processes. Evaluation of past and present Navy mitigation measures is included throughout Chapter 5; most measures originated through past environmental analyses and associated consultations with regulators.</p> <p>23) Section 5.3.4.1.11 (Avoiding Marine Species Habitats) discusses habitat avoidance. Section 3.9 (Fish) provides the effects determinations</p>



Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
		<p>on fish in the Final EIS/OEIS.</p> <p>24) Section 5.3.4.1.3 (Reducing Sonar Source Levels and Total Number of Hours) discusses how the Navy uses active sonar at the lowest practicable source level and number of hours consistent with mission requirements.</p> <p>25) The Navy provides a significant amount of funding and support to marine research. Navy scientists work cooperatively with other government researchers and scientists, universities, industry, and nongovernmental conservation organizations in collecting, evaluating, and modeling information on marine resources. Details on the Navy's involvement with future research will be worked out through the Navy and NMFS adaptive management process, which regularly considers and evaluates the development and use of new science and technologies for Navy applications.</p> <p>26) Section 5.3.4.1.2 (Replacing Training and Testing with Simulated Activities) discusses simulated activities.</p> <p>27) The Navy has developed mitigation by activity type to reduce potential impacts from the Proposed Action while not causing an unacceptable impact on readiness. Chapter 5 discusses these measures.</p> <p>28) Navy reporting requirements, including exercise and monitoring reporting, are described in Section 5.5, Monitoring and Reporting. Section 5.3.4.1.16 (Increasing Reporting Requirements) provides additional discussion.</p> <p>Comment noted. The Navy worked cooperatively to finalize mitigation measures through the permitting and consultation processes for MMPA, ESA, and Essential Fish Habitat. The final mitigation measures are those determined to both minimize impacts and allow the Navy to meet its military readiness requirements. The mitigation measures mentioned do not provide any additional protection for marine species beyond what is currently implemented.</p>
O09-43	<p>The Navy's cumulative impact analysis fails to meet these basic requirements. Nowhere in its cumulative impact analysis does the Navy consider—let alone reach the conclusion—that the sum of the various environmental impacts that are enumerated will be limited. DEIS at 4-1 to 44. The Navy's analysis cannot provide such support because the Navy fails to explain what the sum of these impacts is expected to be. NEPA requires more than just a recital of possible impacts: it requires the Navy to actually analyze the overall impact of</p>	<p>The Navy used the best available science and a comprehensive review of past, present and reasonably foreseeable actions to develop a robust Cumulative Impacts analysis (Chapter 4, Cumulative Impacts). As required under NEPA, the level and scope of the analysis are commensurate with the potential impacts of the action as reflected in the resource-specific discussions in Chapter 3 (Affected Environment and Environmental Consequences). The EIS/OEIS considered its activities alongside those of other activities in the region whose impacts are "truly</p>

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
	the accumulation of individual impacts. Grand Canyon Trust, 290 F. 3d at 345. The DEIS fails to make this analysis.	meaningful" to the analysis.
O09-44	The Navy apparently believes it is enough to find that cumulative impacts will be "significant" and that, defying logic, impacts from its proposed activities will be relatively low when compared to other actions to support its conclusion that further analysis is not warranted. Yet most well-informed laypeople know that human activities have a significant impact on the marine environment, contributing to population declines, extinctions, and challenges to recovery. The Navy's recitation that it is hard out there for struggling species, offers no insight as to how impacts from its proposed activities should be placed in perspective when assessing cumulative threats to marine wildlife. To the extent that the Navy does offer perspective, it is to claim, without any support, that the relative contribution of its activities is low when compared to other threats. Such assertions are patently absurd given the amount of take – nearly 19 million instances of marine mammal take over 5 years, including over 2 million instances of temporary hearing loss – projected to result from the Navy's activities.	The Navy used the best available science and a comprehensive review of past, present and reasonably foreseeable actions to develop a robust Cumulative Impacts analysis (Chapter 4, Cumulative Impacts). As required under NEPA, the level and scope of the analysis are commensurate with the potential impacts of the action as reflected in the resource-specific discussions in Chapter 3 (Affected Environment and Environmental Consequences). The EIS/OEIS considered its activities alongside those of other activities in the region whose impacts are "truly meaningful" to the analysis. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis.
O09-45	The Navy must also consider the full effects of its sonar training. It simply assumes that all behavioral impacts are short-term in nature and cannot affect individuals or populations through repeated activity—even though the anticipated takes of its preferred alternative would affect the same populations year after year. While the DEIS's analysis focuses on impacts over 5 years, naval training and testing will undoubtedly continue in the AFTT Study Area for the foreseeable future. At current rates, which is a conservative estimate given increases in training and testing activities over the last decade, the marine mammal populations of the AFTT Study Area will suffer nearly 100 million takes over the next 25 years.	The Navy used the best available science and a comprehensive review of past, present and reasonably foreseeable actions to develop a robust Cumulative Impacts analysis (Chapter 4, Cumulative Impacts). As required under NEPA, the level and scope of the analysis are commensurate with the potential impacts of the action as reflected in the resource-specific discussions in Chapter 3 (Affected Environment and Environmental Consequences). The EIS/OEIS considered its activities alongside those of other activities in the region whose impacts are "truly meaningful" to the analysis. The scope of the EIS/OEIS only extends to 2019, at which time, further NEPA analysis will be conducted for the permitting process. At that time, the needs of the Navy's training and testing communities will be re-evaluated.

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
O09-46	Nor does the Navy consider the potential for acute synergistic effects from sonar training. Although the DEIS discusses the potential for ship strike in the training area (DEIS 4-27 for marine mammals), it does not consider the greater susceptibility to vessel strike of animals that have been temporarily harassed or disoriented by certain noise sources. The absence of analysis is particularly glaring in light of the Haro Strait incident, in which killer whales and other marine mammals were observed fleeing away from the sonar vessel at high speeds. Neither does the Navy consider the synergistic effects of noise with other stressors in producing or magnifying a stress response. For these reasons alone, the Navy should have concluded that the cumulative and synergistic impacts from sonar training are significant and focused its efforts to analyze and develop mitigation measures to avoid those impacts.	Based on the page numbers described, this comment seems to have been made on the Atlantic Fleet Active Sonar Training EIS/OEIS document and not the Atlantic Fleet Training and Testing (AFTT) EIS/OEIS. Although the Navy acknowledges that acute synergistic effects are not well-studied and can only be accounted for qualitatively, a section for each resource exists that discusses this particular issue. For marine mammals, it is Section 3.4.4.1 (Combined Impact of All Stressors).
O09-47	The Navy acknowledges that the AFTT Study Area is crowded with human and military activities, many of which introduce noise, chemical pollution, debris, and vessel traffic into the habitat of protected species. DEIS at 4-4 to 21. Yet it inexplicably fails to conclude what the cumulative effects will be for the environment other than saying the impacts will be "significant."	This comment seems to have been made on the Atlantic Fleet Active Sonar Training EIS/OEIS and not the Atlantic Fleet Training and Testing (AFTT) EIS/OEIS. The Navy used the best available science and a comprehensive review of past, present and reasonably foreseeable actions to develop a robust cumulative impacts analysis in Chapter 4 (Cumulative Impacts). As required under NEPA, the level and scope of the analysis are commensurate with the potential impacts of the action as reflected in the resource-specific discussions in Chapter 3 (Affected Environment and Environmental Consequences). The EIS/OEIS considered its activities alongside those of other activities in the region whose impacts are "truly meaningful" to the analysis.
O09-48	To comply with NEPA, an EIS must "inform decision-makers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment." 40 C.F.R. § 1502.1. The regulation itself describes the requirement as "the heart of the environmental impact statement." Id. at § 1502.14. Courts similarly portray the alternatives requirement as the "linchpin" of the EIS. <i>Monroe County Conservation Council v. Volpe</i> , 472 F.2d 693 (2d Cir. 1972). The agency must therefore "[r]igorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated." 40 C.F.R. § 1502.14(a). The agency must also state how the alternatives considered in the DEIS and decisions based on the DEIS will or will not achieve the	The alternatives carried forward meet the Navy's purpose and need (Section 1.4, Purpose and Need) to ensure that it can fulfill its obligation under Title 10. See Section 2.5 (Alternatives Development) for more detailed information on the development of alternatives. The Navy complied with NEPA requirements in the development and consideration of alternatives. This EIS/OEIS analyzes all alternatives in Section 2.5.2 (Alternatives Carried Forward) and explains why the Navy has eliminated other alternatives in Section 2.5.1 (Alternatives Eliminated from Further Consideration). The selection of an alternative by the decision maker will be based on a review of all relevant facts, impact analyses, comments received via the EIS/OEIS public participation process, and the requirements of the Navy in order to fulfill its mission. Further, the USEPA reviewed the EIS/OEIS and stated "the draft EIS/OEIS provides

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
	requirements of sections 101 and 102(1) of NEPA and other environmental laws and policies. See 40 C.F.R. § 1502.2(d). Consideration of alternatives is required by (and must conform to the independent terms of) both sections 102(2)(C) and 102(2)(E) of NEPA. Here, the Navy's alternatives analysis misses the mark.	an adequate discussion of the potential environmental impacts and we have not identified any potential environmental impacts requiring substantive changes. EPA has rated the draft EIS as LO- 'Lack of Objections.'
O09-49	These alternatives do not provide decision makers with a range of genuine choices and are a stark departure from the Atlantic Fleet's previous EIS. While the purpose of the alternatives analysis is to "consider the likely environmental impacts of the preferred course of action as well as reasonable alternatives," which "facilities informed decisionmaking by agencies and allows the political process to check those decisions," New Mexico ex rel. Richardson v. BLM, 565 F.3d 683, 703-704 (10th Cir. N.M. 2009), the DEIS falls short of this goal. The Navy's alternatives amount to a presentation of only one true course of action: potential training and testing in all areas at all times.	The alternatives carried forward meet the Navy's purpose and need (Section 1.4, Purpose and Need) to ensure that it can fulfill its obligation under Title 10. See Section 2.5 (Alternatives Development) for more detailed information on the development of alternatives. The Navy complied with NEPA requirements in the development and consideration of alternatives. This EIS/OEIS analyzes all alternatives in Section 2.5.2 (Alternatives Carried Forward) and explains why the Navy has eliminated other alternatives in Section 2.5.1 (Alternatives Eliminated from Further Consideration). The selection of an alternative by the decision maker will be based on a review of all relevant facts, impact analyses, comments received via the EIS/OEIS public participation process, and the requirements of the Navy in order to fulfill its mission.
O09-50	The Navy claims it "considers potential environmental impacts" while executing its responsibilities under federal law, including NEPA. DEIS at 1-1. But the Navy's alternatives were not selected to "inform decision-makers and the public" of how the Navy could "avoid or minimize adverse impacts or enhance the quality of the human environment." 40 C.F.R. § 1502.1. Instead, as discussed in the DEIS and below, the Navy chose alternatives based on factors unrelated to the proposed action's environmental impacts.	The alternatives carried forward meet the Navy's purpose and need (Section 1.4, Purpose and Need) to ensure that it can fulfill its obligation under Title 10. See Section 2.5 (Alternatives Development) for more detailed information on the development of alternatives. The Navy complied with NEPA requirements in the development and consideration of alternatives. This EIS/OEIS analyzes all alternatives in Section 2.5.2 (Alternatives Carried Forward) and explains why the Navy has eliminated other alternatives in Section 2.5.1 (Alternatives Eliminated from Further Consideration). The selection of an alternative by the decision maker will be based on a review of all relevant facts, impact analyses, comments received via the EIS/OEIS public participation process, and the requirements of the Navy in order to fulfill its mission.

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
O09-51	At no point in the DEIS does the Navy discuss how the alternatives pose different environmental choices for the public and decisionmakers. The DEIS fails entirely to comply with NEPA's regulations, requiring the Navy to "present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public." 40 C.F.R. § 1502.14. The Navy fails to sharply define the environmental issues applicable to each alternative and include these differences in a comparison of alternatives. There is simply no comparison of the risks and benefits of each alternative site showing what is and is not known and what species and habitats would be most at risk from each alternative.	The alternatives carried forward meet the Navy's purpose and need (Section 1.4, Purpose and Need) to ensure that it can fulfill its obligation under Title 10. See Section 2.5 (Alternatives Development) for more detailed information on the development of alternatives. The Navy complied with NEPA requirements in the development and consideration of alternatives. This EIS/OEIS analyzes all alternatives in Section 2.5.2 (Alternatives Carried Forward) and explains why the Navy has eliminated other alternatives in Section 2.5.1 (Alternatives Eliminated from Further Consideration).
O09-52	The two alternatives that meet the Navy's purpose and needs present no options for a decisionmaker wishing to reduce harms to the environment or for the public to hold decisionmakers accountable for their choices based on environmental impacts. For example, a decisionmaker wishing to choose the alternative that does less harm to sea turtles has nowhere to turn. Similarly, both of the Navy's alternatives result in the exact same impact to marine mammals from training with sonar – over 2 million takes per year. Violating NEPA's regulations, there is no presentation of an alternative that details a way forward that "avoid[s] or minimize[s] adverse impacts or enhance[s] the quality of the human environment." Id.	The alternatives carried forward meet the Navy's purpose and need (Section 1.4, Purpose and Need) to ensure that it can fulfill its obligation under Title 10. See Section 2.5 (Alternatives Development) for more detailed information on the development of alternatives. The Navy complied with NEPA requirements in the development and consideration of alternatives. This EIS/OEIS analyzes all alternatives in Section 2.5.2 (Alternatives Carried Forward) and explains why the Navy has eliminated other alternatives in Section 2.5.1 (Alternatives Eliminated from Further Consideration). The selection of an alternative by the decision maker will be based on a review of all relevant facts, impact analyses, comments received via the EIS/OEIS public participation process, and the requirements of the Navy in order to fulfill its mission.
O09-53	Several alternatives were recommended to the Navy during the scoping process that addressed this absence of environmental impact-based alternatives. However, the DEIS improperly dismisses all these suggestions. "While NEPA 'does not require agencies to analyze the environmental consequences of alternatives it has in good faith rejected as too remote, speculative, or impractical or ineffective,' it does require the development of 'information sufficient to permit a reasoned choice of alternatives as far as environmental aspects are concerned.'" New Mexico ex rel. Richardson v. BLM, 565 F.3d 683, 708-709 (10th Cir. 2009) quoting Colorado Envtl. Coalition v. Dombeck, 185 F.3d 1162, 1174 (10th Cir. 1999).	The alternatives carried forward meet the Navy's purpose and need (Section 1.4, Purpose and Need) to ensure that it can fulfill its obligation under Title 10. See Section 2.5 (Alternatives Development) for more detailed information on the development of alternatives. The Navy complied with NEPA requirements in the development and consideration of alternatives. This EIS/OEIS analyzes all alternatives in Section 2.5.2 (Alternatives Carried Forward) and explains why the Navy has eliminated other alternatives in Section 2.5.1 (Alternatives Eliminated from Further Consideration). The selection of an alternative by the decision maker will be based on a review of all relevant facts, impact analyses, and comments received via the EIS/OEIS public participation process.

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
O09-54	<p>"The primary purpose of the impact statement is to compel federal agencies to give serious weight to environmental factors in making discretionary choices." I-291 Why? Ass'n v. Burns, 372 F.Supp. 233, 247 (D. Conn. 1974). If an agency is permitted to consider and compare the environmental impacts of its proposed action with only equally convenient alternatives—and permitted to omit from such analysis any alternatives that are less convenient, no matter that they might result in significant environmental benefits—this purpose would be thwarted and the alternatives analysis loses its purpose entirely. An agency must discuss all reasonable alternatives—those that will accomplish the purpose and need of the agency and are practical and feasible—not simply those it finds most expedient. 40 C.F.R. § 1502.14. By improperly disregarding many alternatives, the Navy has failed to discuss all reasonable alternatives.</p>	<p>The alternatives carried forward meet the Navy's purpose and need (Section 1.4, Purpose and Need) to ensure that it can fulfill its obligation under Title 10. See Section 2.5 (Alternatives Development) for more detailed information on the development of alternatives. The Navy complied with NEPA requirements in the development and consideration of alternatives. This EIS/OEIS analyzes all alternatives in Section 2.5.2 (Alternatives Carried Forward) and explains why the Navy has eliminated other alternatives in Section 2.5.1 (Alternatives Eliminated from Further Consideration). The selection of an alternative by the decision maker will be based on a review of all relevant facts, impact analyses, comments received via the EIS/OEIS public participation process, and the requirements of the Navy in order to fulfill its mission.</p>
O09-55	<p>The Navy's analysis is devoid of geographic alternatives and even minor seasonal restrictions. This omission is inappropriate in light of the strong consensus—at NOAA and in the scientific community—that spatial-temporal avoidance of high-value habitat represents the best available means to reduce the impacts of mid-frequency active sonar and certain other types of ocean noise on marine life.<sup>49</sup> Protected areas should ordinarily be identified during the planning stage based on biological and oceanographic factors, rather than merely on the confirmed presence of marine animals in real time; and, indeed, the Naval Facilities Engineering Command, Atlantic undertook just such an analysis in the Navy's previous EIS for Atlantic Fleet Active Sonar Training. The Navy's detailed planning for certain training and testing exercises, particularly major exercises, provide an ideal opportunity to develop reasonable alternatives for the timing and siting of such activities based on biological and oceanographic factors.</p>	<p>As described throughout Chapter 2 (Description of Proposed Action and Alternatives), geographic and seasonal flexibility is required to support evolving Navy training and testing requirements, which are linked to real-world events. As described in Section 5.2.2.1 (Lessons Learned from Previous Environmental Impact Statements/Overseas Environmental Impact Statements) of the Draft EIS/OEIS, the Atlantic Fleet Active Sonar Training EIS/OEIS analysis determined that geographically restricting sonar training in areas of increased awareness did not result in a statistically significant decrease in the predicted effects on marine mammals (i.e., geographical avoidance would not necessarily result in a reduction of potential impacts). The Navy determined that large geographic restrictions and alternative-specific mitigations would not be practicable or an effective mitigation scheme for the AFTT EIS/OEIS. The Navy proposes mitigation measures (a portion of which will include specific mitigation areas, as described in Section 5.3.3, Mitigation Areas) on a case-by-case basis that would apply to all locations where a specified activity occurs. The balance between procedural measures and mitigation area measures provide a way for the Navy to mitigate potential impacts while maintaining its military readiness objectives. The proposed mitigation measures were developed in coordination with NMFS to avoid or reduce potential impacts on a particular resource.</p>

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
O09-56	Despite this recognition, the Navy fails to identify other areas and develop an alternative based on avoiding a handful of biologically important areas. Instead, all of the alternatives propose year-round, unrestricted use without regard to seasonal variations in marine mammal and fish abundance. This is true despite the well-documented seasonal migrations of numerous endangered species and the identification of biologically important areas.	As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. The Navy proposes mitigation measures (a portion of which will include specific mitigation areas, as described in Section 5.3.3, Mitigation Areas) on a case-by-case basis that would apply to all locations where the activity occurs. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of this Final EIS/OEIS. The Navy needs to ensure it has the ability to train and test in areas that are environmentally similar to where current threats operate, as well as areas that may arise in the future. Limiting where naval forces can train and test will eliminate this critical option of training flexibility to respond to future crises.
O09-57	The DEIS fails to include a range of mitigation measures among its alternatives. Many such measures have been employed by the U.S. Navy in other contexts, as discussed in Section IV; and there are many others that should be considered. Such measures are reasonable means of reducing harm to marine life and other resources on the proposed range, and their omission from the alternatives analysis renders that discussion inadequate. For instance, while safety zones are no substitute for geographic mitigation (which, as noted above, is the most effective means of reducing impacts on marine mammals), they do provide a form of last-recourse protection for any animals that are spotted near the array. The Navy must analyze safety zone enhancements outside critical points of its training and consider modifications in the safety zone provisions.	As described throughout Chapter 2 (Description of Proposed Action and Alternatives), geographic and seasonal flexibility is required to support evolving Navy training and testing requirements, which are linked to real-world events. As described in Section 5.2.2.1 (Lessons Learned from Previous Environmental Impact Statements/Overseas Environmental Impact Statements) of the Draft EIS/OEIS, the Atlantic Fleet Active Sonar Training EIS/OEIS analysis determined that geographically restricting sonar training in areas of increased awareness did not result in a statistically significant decrease in the predicted effects on marine mammals (i.e., geographical avoidance would not necessarily result in a reduction of potential impacts). The Navy determined that large geographic restrictions and alternative-specific mitigations would not be a practicable or effective mitigation scheme for the AFTT EIS/OEIS. By not including ties to specific alternatives, the Navy has greater flexibility for what can be considered for implementation. The Navy proposes mitigation measures (a portion of which will include specific mitigation areas, as described in Section 5.3.3, Mitigation Areas) on a case-by-case basis that would apply to all locations where the activity occurs. The proposed mitigation measures were developed in coordination with NMFS to avoid or reduce potential impact on a particular resource. Visual observations remain a NMFS- and U.S. Fish and Wildlife Service-approved method for mitigating potential impacts from the Proposed Action. Section 5.3.4.1.13 (Increasing the Size of Observed Mitigation Zones) discusses mitigation zone expansion.

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
O09-58	Given the Navy's <i>de facto</i> use of a wider safety zone in past exercises, it should consider how to provide for safety zone enhancements outside critical points of its training.	The measures the Natural Resources Defense Council refer to have not been in place since January 2009, are not included in the current permits, do not further reduce the potential for injury or mortality over mitigation employed for the past five years or what is included in the Draft and Final EIS/OEIS, and are impractical to implement. As described in Section 5.3.2 (Mitigation Zone Procedural Measures), the Navy updated the acoustic propagation modeling for the AFTT Draft EIS/OEIS, which in some cases increased the ranges to effects compared to those from previous models. Due to the ineffectiveness and the unacceptable operational impacts associated with mitigating such large areas, the Navy is unable to mitigate for onset of temporary threshold shifts for every activity. The Navy developed each proposed mitigation zone to avoid or reduce the potential for onset of the lowest level of injury (permanent threshold shift) out to the predicted maximum range. Section 5.3.4.1.13 (Increasing the Size of Observed Mitigation Zones) discusses mitigation zone expansion.
O09-59	While we appreciate the Navy's plan to use range sensors and other passive acoustic platforms in limited instances, such efforts must be expanded. The Navy has failed to set forth an action plan and timeline in its EIS (and as part of its adaptive management under its current incidental take permits) to bring these sensors and platforms on line for purposes of more meaningful mitigation.	The technology does not currently exist to use passive acoustics in an expanded role to conduct effective mitigation. The Navy is actively pursuing advancement of this technology and is evaluating the ability to implement the technology and application of science effectively. Given the uncertainties involved with technological development, a timeline is not available at this time. If that technology becomes available, the Navy would re-examine this option.
O09-60	The Navy's statement of purpose and need contains no language that would justify the limited set of alternatives that the Navy considers (or the alternative it ultimately prefers). Yet it is a fundamental requirement of NEPA that agencies preparing an EIS specify their project's "purpose and need" in terms that do not exclude full consideration of reasonable alternatives. 40 C.F.R. § 1502.13; <i>City of Carmel-by-the-Sea v. United States Dep't of Transp.</i> , 123 F.3d 1142, 1155 (9th Cir. 1997) (citing <i>Citizens Against Burlington, Inc. v. Busey</i> , 938 F.2d 190, 196 (D.C. Cir. 1991)). "The existence of a viable but unexamined alternative renders an environmental impact statement inadequate," <i>Idaho Conservation League v. Mumma</i> , 956 F.2d 1508, 1519 (9th Cir. 1992), and an EIS errs when it accepts "as a given" parameters that it should have studied and weighed. <i>Simmons v. U.S. Army Corps of Eng'rs</i> , 120 F.3d 664, 667 (7th Cir. 1997). In sum, the DEIS shortchanges or omits from its analysis reasonable alternatives	The range of alternatives presented in the EIS/OEIS includes reasonable alternatives. To be reasonable, an alternative must meet the stated purpose of and need for the Proposed Action. The purpose of the Proposed Action is to conduct training and testing activities to ensure that the Navy meets its mission, achieved in part by conducting training and testing within the Study Area. The alternatives carried forward meet the Navy's purpose and need (Section 1.4, Purpose and Need) to ensure that it can fulfill its obligation under Title 10. See Section 2.5 (Alternatives Development) for more detailed information on the development of alternatives. The Navy complied with NEPA requirements in the development and consideration of alternatives. This EIS/OEIS analyzes all alternatives in Section 2.5.2 (Alternatives Carried Forward) and explains why the Navy has eliminated other alternatives in Section 2.5.1 (Alternatives Eliminated from Further Consideration). The selection of an alternative by the decision maker will be based on a review of all relevant



Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
	that might achieve the Navy's core aim of testing and training while minimizing environmental harm.	facts, impact analyses, comments received via the EIS/OEIS public participation process, and the requirements of the Navy in order to fulfill its mission.
O09-61	...the DEIS does not adequately consider the effects on wildlife viewing and other wildlife-dependent recreational interests. The DEIS makes no mention of the value lost from the harm to marine mammals that attract a number of our organizational members and members of the public to the potentially affected areas of the Eastern United States and Gulf of Mexico.	As stated in the approach to analysis (Section 3.0.5, Overall Approach to Analysis), indirect impacts result when a direct impact on one resource induces an impact on another resource (referred to as a secondary stressor). If there is no direct impact on a resource, then indirect impacts are not foreseeable. Section 3.9 (Fish) concludes that no long-term impacts on fish populations. The analysis in Marine Mammals (Section 3.4) and Socioeconomic Resources (Section 3.11) screened for any impacts on other resources that might create secondary impacts. Because the EIS/OEIS concludes that there would be no impacts on fish populations, reduced catch rates and prey base were not addressed for Marine Mammals (Section 3.4) or Socioeconomic Resources (Section 3.11). The biological resources sections (Sections 3.4 through 3.9) determined there would be no long-term impacts on populations, therefore not reaching the level of "harm" as to impact tourism activities.
O09-62	Nor does it address the potential economic value lost from decreased tourism (e.g., whale watching, cruise ships, etc.), particularly those areas centered on observing whales and other marine mammals in their natural habitats.	As stated in the approach to analysis (Section 3.0.5, Overall Approach to Analysis), indirect impacts result when a direct impact on one resource induces an impact on another resource (referred to as a secondary stressor). If there is no direct impact on a resource, then indirect impacts are not foreseeable. The Socioeconomic Resources (Section 3.11) analysis screened for any impacts on other resources that might create secondary impacts. The biological resources sections (Sections 3.4 through 3.9) determined there would be no long-term impacts on populations, therefore not reaching the level of "harm" as to impact tourism activities.
O09-63	For meaningful public input, the Navy must describe source levels, frequency ranges, duty cycles, and other technical parameters relevant to determining potential impacts on marine life. The DEIS provides some of this information, but it fails to disclose sufficient information about active sonobuoys, acoustic device countermeasures, training targets, or range sources that would be used during the exercises. And the DEIS gives no indication of platform speed, pulse length, repetition rate, beam widths, or operating depths—that is, most of the data that the Navy used in modeling acoustic impacts.	This information is classified to protect national security.

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
O09-64	The Navy—despite repeated requests—has not released or offered to release CASS/GRAB or any of the other modeling systems or functions it used to develop the biological risk function or calculate acoustic harassment and injury.	The CASS/GRAB program is classified and not available for public release; however, approximate results can be obtained using other mathematical models commonly available to those with the technical expertise to utilize those tools. See the <i>Criteria and Thresholds for U.S. Navy Acoustic and Explosive Effects Analysis</i> technical report and the <i>Determination of Acoustic Effects on Marine Mammals and Sea Turtles</i> technical report which can be found at <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> , for details on the development of the Navy Acoustic Effects Model and Criteria.
O09-65	In addition, the Navy has also ignored repeated Freedom of Information Act requests regarding information and reports cited in the DEIS.	After conducting a review of Freedom of Information Act records, the Navy identified six Freedom of Information Act requests from National Resources Defense Council that may have potentially included requests about CASS/GRAB or other modeling systems based on the Freedom of Information Act subject names and the year the Freedom of Information Act request letter was submitted. Five of the six Freedom of Information Act requests were granted in full and the remaining request received a Freedom of Information Act determination type of "other reasons."
O09-66	These models, reports, and requests for information must be made available to the public, including the independent scientific community, for public comment to be meaningful under NEPA and the Administrative Procedure Act. 40 C.F.R. §§ 1502.9(a), 1503.1(a) (NEPA); 5 U.S.C. § 706(2)(D) (APA). In addition, guidelines adopted under the Data (or Information) Quality Act also require their disclosure. The Office of Management and Budget's guidelines require agencies to provide a "high degree of transparency" precisely "to facilitate reproducibility of such information by qualified third parties" (67 Fed. Reg. 8452, 8460 (Feb. 22, 2002)); and the Defense Department's own data quality guidelines mandate that "influential" scientific material be made reproducible as well.	This information has been evolving in response to new data and will be subject to independent peer review for conferences or journal submissions. The EIS/OEIS provides all source levels, frequency ranges, duty cycles, and other technical parameters relevant to determining potential impact on marine life unless this information was classified (Table 2.3-2 in Chapter 2, Description of Proposed Action and Alternatives). Supporting technical reports have been provided to the public via the project web site ( <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> ).
O09-67	A number of other statutes and conventions are implicated by the proposed activities. Among those that must be disclosed and addressed during the NEPA process are the following:  (1) The Marine Mammal Protection Act ("MMPA"), 16 U.S.C. § 1361 et seq., which requires the Navy to obtain a permit or other authorization from NMFS or the U.S. Fish and Wildlife Service prior to any "take" of marine mammals. The Navy must apply for an incidental take permit under the MMPA, and NRDC will submit comments regarding the Navy's application to NMFS at the appropriate time.	The Navy has addressed all of these statutes and conventions. Please see Section 3.0.1 (Regulatory Framework) for a complete list of Federal Statutes and Executive Orders addressed in Chapter 3 (Affected Environment and Environmental Consequences) and Chapter 6 (Additional Regulatory Considerations). The Clean Water Act was addressed in Section 3.1 (Sediments and Water Quality) and the Clean Air Act was addressed in Section 3.2 (Air Quality). As part of this process, the Navy has consulted under the Marine Mammal Protection Act, Endangered Species Act, and Magnuson-Stevens Fishery Conservation and Management Act. The Proposed Action did not warrant

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
	<p>(2) The Endangered Species Act, 16 U.S.C. § 1531 et seq., which requires the Navy to enter into formal consultation with NMFS or the U.S. Fish and Wildlife Service, and receive a legally valid Incidental Take Permit, prior to its “take” of any endangered or threatened marine mammals or other species, including fish, sea turtles, and birds, or its “adverse modification” of critical habitat. See, e.g., 1536(a)(2); <i>Romero-Barcelo v. Brown</i>, 643 F.2d 835 (1st Cir. 1981), rev’d on other grounds, <i>Weinberger v. Romero-Barcelo</i>, 456 U.S. 304, 313 (1982). Given the scope and significance of the actions and effects it proposes, the Navy must engage in formal consultation with NMFS and the U.S. Fish and Wildlife Service over the numerous endangered and threatened species that will be harmed from its activities.</p> <p>(3) The Coastal Zone Management Act, and in particular its federal consistency requirements, 16 U.S.C. § 1456(c)(1)(A), which mandate that activities that affect the natural resources of the coastal zone—whether they are located “within or outside the coastal zone”—be carried out “in a manner which is consistent to the maximum extent practicable with the enforceable policies of approved State management programs.” The Navy must fulfill its CZMA commitments along the U.S. Atlantic Coast and in the Gulf of Mexico.</p> <p>(4) The Magnuson-Stevens Fisheries Conservation and Management Act, 16 U.S.C. § 1801 et seq. (“MSA”), which requires federal agencies to “consult with the Secretary [of Commerce] with respect to any action authorized, funded, or undertaken, or proposed to be authorized, funded, or undertaken” that “may adversely affect any essential fish habitat” identified under that Act. 16 U.S.C. § 1855 (b)(2). In turn, the MSA defines essential fish habitat as “those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity.” 16 U.S.C. § 1802 (10). The AFTT Study Area contains such habitat. As discussed at length above, anti-submarine warfare exercises alone have the significant potential to adversely affect at least the waters, and possibly the substrate, on which fish in these areas depend. Under the MSA, a thorough consultation is required.</p> <p>(5) The Marine Protection, Research and Sanctuaries Act, 33 U.S.C. § 1401 et seq., which requires federal agencies to consult with the Secretary of Commerce if their actions are “likely to destroy, cause the loss of, or injure any sanctuary resource.” 16 U.S.C. § 1434(d)(1).</p>	<p>consultation under the Marine Protection, Research and Sanctuaries Act or the Migratory Bird Treaty Act. The Navy has submitted consistency determinations to 20 states/territories in compliance with the Coastal Zone Management Act. Chapter 6 (Additional Regulatory Considerations) has thoroughly addressed Marine Protected Areas (Section 6.1.2) under Executive Order 13158.</p>

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
	<p>Since the Navy's exercises would cause injury and mortality of species, consultation is clearly required if sonar use takes place either within or in the vicinity of the sanctuary or otherwise affects its resources. Since sonar may impact sanctuary resources even when operated outside its bounds, the Navy should indicate how close it presently operates, or foreseeably plans to operate, to such sanctuary and consult with the Secretary of Commerce as required. In addition, the Sanctuaries Act is intended to "prevent or strictly limit the dumping into ocean waters of any material that would adversely affect human health, welfare, or amenities, or the marine environment, ecological systems, or economic potentialities" (33 U.S.C. § 1401(b)), and prohibits all persons, including Federal agencies, from dumping materials into ocean waters, except as authorized by the Environmental Protection Agency. 33 U.S.C. §§ 1411, 1412(a). The Navy has not indicated its intent to seek a permit under the statute.</p> <p>(6) The Migratory Bird Treaty Act, 16 U.S.C. § 703 et seq. ("MBTA"), which makes it illegal for any person, including any agency of the Federal government, "by any means or in any manner, to pursue, hunt, take, capture, [or] kill" any migratory birds except as permitted by regulation. 16 U.S.C. § 703. After the District Court for the D.C. Circuit held that naval training exercises that incidentally take migratory birds without a permit violate the MBTA, (see <i>Center for Biological Diversity v. Pirie</i>, 191 F. Supp. 2d 161 (D.D.C. 2002) (later vacated as moot)), Congress exempted some military readiness activities from the MBTA but also placed a duty on the Defense Department to minimize harms to seabirds. Under the new law, the Secretary of Defense, "shall, in consultation with the Secretary of the Interior, identify measures-- (1) to minimize and mitigate, to the extent practicable, any adverse impacts of authorized military readiness activities on affected species of migratory birds; and (2) to monitor the impacts of such military readiness activities on affected species of migratory birds." Pub.L. 107-314, § 315 (Dec. 2, 2002). As the Navy acknowledges, many migratory birds occur within the AFTT Study Area. The Navy must therefore consult with the Secretary of the Interior regarding measures to minimize and monitor the effects of the proposed range on migratory birds, as required.</p> <p>(7) Executive Order 13158, which sets forth protections for marine protected areas ("MPAs") nationwide. The Executive Order defines MPAs broadly to include "any area of the marine environment that has</p>	

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
	<p>been reserved by Federal, State, territorial, tribal, or local laws or regulations to provide lasting protection for part or all of the natural and cultural resources therein." E.O. 13158 (May 26, 2000). It then requires that "[e]ach Federal agency whose actions affect the natural or cultural resources that are protected by an MPA shall identify such actions," and that, "[t]o the extent permitted by law and to the maximum extent practicable, each Federal agency, in taking such actions, shall avoid harm to the natural and cultural resources that are protected by an MPA." Id. The Navy must therefore consider and, to the maximum extent practicable, must avoid harm to the resources of all federally- and state-designated marine protected areas.</p> <p>The proposed activities also implicate the Clean Air Act and Clean Water Act as well as other statutes protecting the public health. The Navy must comply with these and other laws.</p>	
O09-68	<p>NEPA requires agencies to assess possible conflicts that their projects might have with the objectives of federal, regional, state, and local land-use plans, policies, and controls. 40 C.F.R. § 1502.16(c). The Navy's training and testing activities may affect resources in the coastal zone and within other state and local jurisdictions, in conflict with the purpose and intent of those areas. The consistency of Navy operations with these land-use policies must receive more thorough consideration.</p>	<p>The Navy has prepared Coastal Zone Management Act consistency determinations to ensure consistency with the enforceable policies of the applicable Coastal Zone Management Programs. In addition, the Draft EIS/OEIS was submitted to each state and territory adjacent to the Study Area for comment.</p>
O09-69	<p>In issuing a revised DEIS the Navy should (1) reduce its thresholds or risk function for marine mammal injury, hearing loss, and significant behavioral change, in accordance with the available science; (2) address the considerable scientific record that has developed around sonar and whale injury and mortality; and (3) revise its impact assessment model to take account of complex sound fields, synergistic effects from multiple sound sources, and the presence of vulnerable populations in the AFTT Study Area.</p>	<p>The criteria and thresholds for determining potential effects on marine species used in the AFTT EIS/OEIS and related consultation documents were carefully revised based on best available data, which included lowering the thresholds over much of the hearing range of many species of marine mammals. Species which show a sensitivity to sound, such as harbor porpoises and beaked whales, received a lower threshold for predicting behavioral reactions than other marine mammal species. There is no available science that provides a mechanism for sonar to directly cause mortality or injury (other than permanent threshold shift which is assessed) to any species of marine mammal. The Navy's acoustic analysis, which includes the Navy Acoustic Effects Model, accounts for all sound sources within a given training or testing activity.</p>

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
O09-70	The Navy sets the threshold for permanent threshold shift ("PTS"), which is the highest threshold for direct physical injury, at 198 dB re 1 $\mu\text{Pa}^2$ s for all mysticetes, dolphins, beaked whales, and medium- and large-toothed whales; 172 dB re 1 $\mu\text{Pa}^2$ s for harbor porpoise and Kogia spp.; and 197 dB re 1 $\mu\text{Pa}^2$ s for harbor, bearded, hooded, common, spotted, ringed, harp, ribbon, and gray seals and West Indian manatee. DEIS at 3.4-105. These thresholds are inconsistent with the scientific literature.	The criteria and thresholds for determining potential effects on marine species used in the AFTT EIS/OEIS and related consultation documents were carefully revised based on best available data. See the <i>Criteria and Thresholds for U.S. Navy Acoustic and Explosive Effects Analysis</i> technical report, which can be found at <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> .
O09-71	In addition, the DEIS goes to great pains to create uncertainty about published research on bubble growth in marine mammals, which separately indicates the potential for injury and death at levels far lower than what the Navy proposes. DEIS at 3.4-79 to 81. According to the best available scientific evidence, as represented by multiple papers in flagship journals such as <i>Nature</i> and <i>Veterinary Pathology</i> , gas bubble growth is the causal mechanism most consistent with the observed injuries; in addition, it was singularly and explicitly highlighted as plausible by an expert panel convened by the Marine Mammal Commission, in which the Navy participated. Nonetheless, the Navy fails to evaluate the impacts from this potential avenue of injury. NEPA requires agencies to evaluate all "reasonably foreseeable" impacts, which, by definition, include "impacts which have catastrophic consequences, even if their probability of occurrence is low, provided that the analysis of the impacts is supported by credible scientific evidence, is not based on pure conjecture, and is within the rule of reason." 40 C.F.R. § 1502.22. The scientific literature supporting bubble growth rises far above this standard, and the Navy's failure to incorporate it into its impact model is arbitrary and capricious. Thus, the Navy's refusal to consider these impacts is insupportable under NEPA. 40 C.F.R. §§ 1502.22, 1502.24.	Based on best available science, bubble growth under realistic conditions is highly unlikely. Please see Section 3.4.3.1.2.1 (Direct Injury) in the EIS/OEIS for further explanation.
O09-72	The DEIS sets its threshold for temporary hearing loss and behavioral effects, or "temporary threshold shift" ("TTS"), at 178 dB re 1 $\mu\text{Pa}^2$ s for all mysticetes, dolphins, beaked whales, and medium- and large-toothed whales; 152 dB re 1 $\mu\text{Pa}^2$ s for harbor porpoise and Kogia spp.; and 183 dB re 1 $\mu\text{Pa}^2$ s for harbor, bearded, hooded, common, spotted, ringed, harp, ribbon, and gray seals and West Indian manatee. DEIS at 3.4-105. It bases its cetacean threshold primarily on a synthesis of studies on two species of cetaceans, bottlenose	The criteria and thresholds for determining potential effects on marine species used in the AFTT EIS/OEIS and related consultation documents were carefully revised based on best available data. See the <i>Criteria and Thresholds for U.S. Navy Acoustic and Explosive Effects Analysis</i> technical report, which can be found at <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> .

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
	dolphins and beluga whales, conducted by the Navy's SPAWAR laboratory in San Diego and, to a lesser extent, by researchers at the University of Hawaii. DEIS at 3.4-106. Notably, the Navy's extrapolation of data from bottlenose dolphins and belugas to all cetaceans other than harbor porpoises and Kogia is not justifiable. Given the close association between acoustic sensitivity and threshold shift, such an approach must presume that belugas and bottlenose dolphins have the best hearing sensitivity in the mid-frequencies of any cetacean. However, killer whales are more sensitive over part of the mid-frequency range than are the two species in the SPAWAR and Hawaii studies. Furthermore, it is likely that the animals in the studies do not represent the full range of variation even within their own species, particularly given their age and situation: the SPAWAR animals, for example, have been housed for years in a noisy bay	
O09-73	There are many glaring problems with the Navy's adoption of an acoustic risk function to estimate the probability of behavioral effects. Dr. Bain sets forth a detailed critique, which is attached to this letter. Several problems are discussed below. Once again, the Navy relies on studies of temporary threshold shift in captive animals for its primary source of data. DEIS 3.4-110. Marine mammal scientists have long recognized the deficiencies of using captive subjects in behavioral experiments, and to blindly rely on this material, to the exclusion of copious data on animals in the wild, is not supportable by any standard of scientific inquiry. Cf. 40 C.F.R. § 1502.22.	The Navy and NMFS relied upon best available science to derive the behavioral response function. The data used was based on one captive animal study and two studies that involved observations of wild animals exposed to sonar or sonar-like signals.
O09-74	In addition, the Navy appears to have misused data garnered from the Haro Strait incident—one of only three data sets it considers—by including only those levels of sound received by the "J" pod of killer whales when the USS Shoup was at its closest approach. DEIS at 3.4-89; 3.4-110. These numbers represent the maximum level at which the pod was harassed; in fact, the whales were reported to have broken off their foraging and to have engaged in significant avoidance behavior at far greater distances from the ship, where received levels would have been orders of magnitude lower. <sup>96</sup> Not surprisingly, then, the Navy's results are inconsistent with other studies of the effects of various noise sources, including mid-frequency sonar, on killer whales. We must insist, again, that the Navy provide the public with its propagation analysis for the Haro	The killer whales of J-pod were exposed to multiple stimuli, and it is impossible to assess a precise sound level at which the animals reacted due to all the other stimuli such as the presence of whale watching vessels. Furthermore, the Navy did use the estimated received levels from the Haro Strait/USS <i>Shoup</i> incident in the development of the behavioral response function.

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
	Strait event.	
O09-75	The Navy also fails to include data from the July 2004 Hanalei Bay event, in which 150-200 melon-headed whales were embayed for more than 24 hours during the Navy's Rim of the Pacific exercise. According to the Navy's analysis, predicted mean received levels (from mid-frequency sonar) inside and at the mouth of Hanalei Bay ranged from 137.9 dB to 149.2 dB. The Navy has from the beginning denied any connection between its major international exercise and the mass stranding. However, the Navy's specious reasoning is at odds with the stranding behavior observed during the event and with NMFS' report on the matter, which ruled out every other known potential factor and concluded that sonar was the "plausible if not likely" cause. The Navy's failure to incorporate these numbers into its methodology as another data set is unjustifiable.	Please see the <i>Marine Mammal Stranding Report</i> on the project web site ( <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> ) for further discussion of stranding events including the 2004 Hanalei Bay event.
O09-76	The Navy also fails to incorporate data on harbor porpoises and beaked whales when setting its thresholds. For both harbor porpoises and beaked whales, the Navy uses lower thresholds to determine behavioral impacts (120 dB and 140 dB, respectively) but fails to also incorporate that data when determining thresholds for other species. While these animals may reflect a particular sensitivity to noise, the DEIS fails to explain why this data cannot be incorporated in some way when determining thresholds for other species. By failing to incorporate this data into its modeling, the Navy unjustifiably ignores relevant information.	Both beaked whales and harbor porpoises have been shown to be particularly sensitive to sound and therefore have been assigned a lower threshold. The Navy will assess data on additional species as it becomes available and work with NMFS to assign the most appropriate thresholds for predicting significant behavioral effects.
O09-77	Furthermore, the risk function should have taken into account the social ecology of some marine mammal species. For species that travel in tight-knit groups, an effect on certain individuals can adversely influence the behavior of the whole. (Pilot whales, for example, are prone to mass strand for precisely this reason; the plight of the 200 melon-headed whales in Hanalei Bay, and of the "J" pod of killer whales in Haro Strait, and the most recent stranding of melon-headed whales in the Philippines may be pertinent examples.) Should those individuals fall on the more sensitive end of the spectrum, the entire group or pod can suffer significant harm at levels below what the Navy would take as the mean. In developing its "K" parameter, the Navy must take account of such potential indirect effects. 40 C.F.R. § 1502.16(b).	As explained in the EIS/OEIS, the acoustic effects model does not operate on the basis of an individual animal but quantifies potential effects that NMFS may classify as takes based on the summation of fractional marine mammal densities. The acoustic effects model is run multiple times and the average of the results is used to report the number of potential acoustic effects. This method provides a good estimate of potential effects when considering multiple scenarios over a wide area and multiple years. Additionally, the behavioral response function includes observations of the J-pod in Haro Strait.



Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
O09-78	We must also note that the Navy's exclusive reliance on sound pressure levels ("SPLs") in setting a behavioral threshold is misplaced. The discussion in the DEIS speaks repeatedly of uncertainty in defining the risk function and recapitulates, in its summary of the earlier methodology, the benefits implicit in the use of a criterion that takes duration into account. It is therefore appropriate for the Navy to set dual thresholds for behavioral effects, one based on SPLs and one based on energy flux density levels ("ELs").	There are multiple acoustic metrics that could be used to determine potential behavioral reactions, although the Navy and NMFS currently believe, based on the best available science, that sound pressure level is the most appropriate metric to use within a behavioral response function.
O09-79	In addition, the Navy's threshold is applied in such a way as to preclude any assessment of long-term behavioral impacts on marine mammals. It does not account, to any degree, for the problem of repetition: the way that apparently insignificant impacts, such as subtle changes in dive times or vocalization patterns, can become significant if experienced repeatedly or over time.	The potential for repeated exposures was addressed in Section 3.0.5.7.1.7 (Long-Term Consequences to the Individual and the Population) and in Section 3.4.3.1.2.6 (Repeated Exposures) of both the Draft EIS/OEIS and the Final EIS/OEIS. These sections discuss the available literature on potential responses of animals, including marine mammals, from repeated exposure to sound sources.
O09-80	Finally, while the Navy has set a specific threshold for beaked whales (140 dB) based on the Tyack et al. study, it fails to incorporate additional data on beaked whales indicating that the threshold should be even lower.	Based on the best available science 140 dB re 1µPa (root mean square) is a conservative threshold for predicting potential behavioral effects on beaked whales from sonar signals. See the <i>Criteria and Thresholds for U.S. Navy Acoustic and Explosive Effects Analysis</i> technical report, which can be found at <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> .
O09-81	<p>The Navy bases its calculation of marine mammal impacts on a series of models that determine received levels of sound within a limited distance of a sonar array and then estimate the number of animals that would therefore suffer injury or disruption. It is difficult to fully gauge the accuracy and rigor of these models with the limited information that the DEIS provides; but even from the description presented here, it is clear that they are deeply flawed. Among the non-conservative assumptions that are implicit in the model:</p> <p>(1) As discussed above, the thresholds established for injury and behavioral effects are inconsistent with the available data and are based, in part, on assumptions not acceptable within the field;</p> <p>(2) The Navy does not properly account for reasonably foreseeable reverberation effects (as in the Haro Strait stranding incident), giving no indication that its modeling sufficiently represents areas in which the risk of reverberation is greatest;</p> <p>(3) The model fails to consider the possible synergistic effects of using multiple sources, such as ship-based sonars, in the same exercise, which can significantly alter the sound field. It also fails to</p>	This comment is inaccurate. The methodology used is based on the best available science. See Section 3.4.3.1.6 (Quantitative Analysis) in the EIS/OEIS. See the <i>Determination of Acoustic Effects on Marine Mammals and Sea Turtles</i> technical report and <i>Criteria and Thresholds for U.S. Navy Acoustic and Explosive Effects Analysis</i> technical report which are on the project web site ( <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> ).

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
	<p>consider the combined effects of multiple exercises, which, as NMFS indicates, may have played a role in the 2004 Hanalei Bay strandings;</p> <p>(4) In assuming animals are evenly distributed, the model fails to consider the magnifying effects of social structure, whereby impacts on a single animal within a pod, herd, or other unit may affect the entire group; and</p> <p>(5) The model, in assuming that every whale encountered during subsequent exercises is essentially a new whale, does not address cumulative impacts on the breeding, feeding, and other activities of species and stocks. Before issuing a new DEIS, the Navy must revise its flawed modeling systems and make them available to the public.</p>	
O09-82	<p>Rather than using a fixed received level threshold for whether a take is likely to occur from exposure to mid-frequency sonar, the Navy proposed a method for incorporating individual variation. Risk is predicted as a function of three parameters: 1) a basement value below which takes are unlikely to occur; 2) the level at which 50% of individuals would be taken; and 3) a sharpness parameter intended to reflect the range of individual variation. This paper reviews whether the parameters employed are based on the best available science, the implications of uncertainty in the values, and biases and limitations in the model. Data were incorrectly interpreted when calculating parameter values, resulting in a model that underestimates takes.</p>	<p>The analytical method used in this EIS/OEIS was developed in close coordination with NMFS. This represents the best available and most applicable science with regard to analysis of effects on marine mammals from mid- and high-frequency active sound sources. While recognizing there is incomplete and unavailable information with regard to behavioral impacts on marine mammals (Section 3.4.3.1.2.5, Behavioral Reactions), the risk function curve extends to a sound pressure level of 120 dB re 1µPa specifically to encompass uncertainty and the potential for behavioral reactions in marine mammal species that may be affected by sounds perceived at levels just above ambient.</p>
O09-83	<p>Errors included failure to recognize the difference between the mathematical basement plugged into the model, and the biological basement value, where the likelihood of observed and predicted takes becomes non-negligible; using the level where the probability of take was near 100% for the level where the probability of take was 50%; and extrapolating values derived from laboratory experiments that were conducted on trained animals to wild animals without regard for the implications of training; and ignoring other available data, resulting in a further underestimation of takes.</p>	<p>NMFS, as a cooperating agency and in its role as the MMPA regulator, reviewed all available applicable data and determined there were specific data from three data sets that should be used to develop the criteria. NMFS then applied the risk function to predict exposures that resulted in exposures that NMFS may classify as harassment. (This is described in the Final EIS/OEIS in Section 3.4.3.1.4.5, Behavioral Responses.) NMFS developed two risk curves based on the Feller adaptive risk function, one for odontocetes and pinnipeds and one for mysticetes, with input parameters of B=120 dB, K=45, 99 percent point=195 dB, 50 percent point=165 dB.</p>
O09-84	<p>In addition, uncertainty, whether due to inter-specific variation or parameter values based on data with broad confidence intervals, results in the model being biased to underestimate takes.</p>	<p>The commenter provides no specifics on why the takes would be underestimated. There is much conservativeness (overestimation) built into the modeling process (see the <i>Determination of Acoustic Effects on Marine Mammals and Sea Turtles for the Atlantic Fleet Training and</i></p>

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
		<i>Testing Environmental Impact Statement/Overseas Environmental Impact Statement</i> technical report available on the project web site <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> ). Additionally, NMFS, as a cooperating agency and in its role as the MMPA regulator, reviewed all available applicable data and determined there were specific data from three data sets that should be used to develop the criteria. NMFS then applied the risk function to predict exposures that resulted in exposures that NMFS may classify as harassment. (This is described in the Final EIS/OEIS in Section 3.4.3.1.4.5, Behavioral Responses.) NMFS developed two risk curves based on the Feller adaptive risk function, one for odontocetes and pinnipeds and one for mysticetes, with input parameters of B=120dB, K=45, 99 percent point=195 dB, 50 percent point=165 dB.
O09-85	The model also has limitations. For example, it does not take into account social factors, and this is likely to result in the model underestimating takes. This analysis has important management implications.	Conservative assumptions have resulted in a likely overestimate of effects by the model, as discussed in Section 3.4.3.1.5.4 (Model Assumptions and Limitations) and Section 3.4.3.1.9.3 (Predicted Impacts) for explosives. Animal distribution in the model accounts for average group size.
O09-86	First, not only do takes occur at far greater distances than predicted by the Navy's risk model, the fact that larger areas are exposed to a given received level with increasing distance from the source further multiplies the number of takes. This implies takes of specific individuals will be of greater duration and be repeated more often, resulting in unexpectedly large cumulative effects. Second, corrections need to be made for bias, and corrections will need to be larger for species for which there are no data than for species for which there are poor data.	Modeling accounts for exposures NMFS may classify as takes at distances up to 180 kilometers as described in the Final EIS/OEIS section 3.4.3 (Environmental Consequences – Marine Mammals) and the <i>Determination of Acoustic Effects on Marine Mammals and Sea Turtles for the Atlantic Fleet Training and Testing Environmental Impact Statement/Overseas Environmental Impact Statement</i> technical report on the project web site ( <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> ). These clearly demonstrate the modeling was conducted over a wide range of bathymetry, sound velocity profiles, and bottom classes. Using these sound propagation characteristics, the risk function modeling resulted in less than 1 percent of the exposures that NMFS may classify as a take occurring between 120 dB and 140 dB (does not include harbor porpoises, for which a step function of 120 dB is applied). Risk function data sets and the parameters, such as the basement values, were chosen to account for uncertainties and for species for which there was less or no data regarding potential behavioral reactions. The area encompassed by this sound propagation, as determined by NMFS for exposures that may constitute harassment, avoids a bias toward underestimation because the risk function parameters were designed with this in mind.

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
O09-87	Third, the greater range at which takes would occur requires more careful consideration of habitat-specific risks and fundamentally different approaches to mitigation.	Section 5.3.4 (Mitigation Measures Considered but Eliminated) of the Final EIS/OEIS evaluates alternative or additional mitigations, specifically, as they relate to potential mitigation approaches. The examples of the fundamentally different approaches noted in the comment were addressed in this section of the Final EIS/OEIS. In addition, NMFS has identified general goals of mitigation measures. These goals include avoidance of death or injury, a reduction in the number of marine mammals exposed to received levels when these are expected to result in takes, a reduction in the number of times marine mammals are exposed when these are expected to result in takes, a reduction in the intensity of exposures that are expected to result in takes, and a reduction in adverse effects on marine mammal habitat. As discussed below, NMFS and Navy have identified mitigation measures that are practicable and reasonably effective. For example, the safety zones reduce the likelihood of physiological harm, the number of marine mammals exposed, and the intensity of those exposures. In Section 5.3 (Mitigation Assessment), the Navy has determined that mitigation measures will likely prevent animals from being exposed to the loudest sonar sounds or explosive effects that could potentially result in temporary threshold shift or permanent threshold shift and more intense behavioral reactions. Mitigation measures that are practicable involve those that reduce direct physiological effects within the TTS and PTS thresholds.
O09-88	The population effects of Level A takes on populations are relatively easy to assess, as individuals that are killed are obviously removed from the population, and those that are injured are more likely to die whenever the population is next exposed to stress.	This comment is a mischaracterization of the analysis presented in the EIS/OEIS. Navy does not anticipate any mortality from its activities. Though the model estimates the potential for mortality based on very conservative criteria, with the implementation of proven mitigation and decades of historical information from conducting training and testing in the Study Area, mortalities are highly unlikely. Additionally, there is no evidence that the type of injuries that could potentially occur (fully recoverable or limited permanent threshold shift) has resulted or will result in follow-on mortality.
O09-89	Temporary Threshold Shifts in captive marine mammals are commonly used as an index of physical harm (e.g., Nachtigall et al. 2003, Finneran et al. 2002 and 2005, Kastak et al. 2005). Limiting experimental noise exposure to levels that cause temporary effects alleviates ethical concerns about deliberately causing permanent injury. However, repeated exposure to noise that causes temporary	The commenter has mischaracterized the cited studies, which did not index harm. Most of the sound sources analyzed are of short duration; it is unlikely that an animal would be chronically exposed to any proposed sound source resulting in repeated TTS.

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
	threshold shifts can lead to permanent hearing loss. In fact, chronic exposure to levels of noise too low to cause temporary threshold shifts can cause permanent hearing loss.	
O09-90	Changes in behavior resulting from noise exposure could result in indirect injury in the wild. A variety of mechanisms for Level B harassment to potentially lead to Level A takes have been identified.	In prior rulemakings, NMFS established that exposures resulting in Level A and B harassment cannot be considered to overlap, otherwise the regulatory distinction between the two criteria would be lost, and the required quantification of takes would be ambiguous. To facilitate the regulatory process, the Final EIS/OEIS maintained a clear and distinct division between Level A and Level B Harassment as required by NMFS.
O09-91	<p>Studies of captive marine mammals provide an excellent setting for identifying direct effects of sound. E.g., one of the datasets employed by the Navy consists of studies relating short-term exposure of bottlenose dolphins and belugas to high levels of noise to Temporary Threshold Shifts. The Navy (Dept. Navy 2008b, p 3-7) noted aggressive behavior toward the test apparatus, suggesting stress was another consequence of the test (see also Romano et al. 2004). Such effects would be unconditional results of noise exposure. However, extrapolation of the level at which aggression was observed to the level at which behaviorally mediated effects might occur in the wild is problematic, as this depends on how well trained the subjects were. For example, the Navy has been a leader in training dolphins and other marine mammals to cooperate with husbandry procedures.</p> <p>Tasks like taking blood, stomach lavage, endoscopic examination, collection of feces, urine, milk, semen and skin samples, etc. once required removing individuals from the water and using several people to restrain them. With training, painful and uncomfortable procedures can be accomplished without restraint and with a reduction in stress that has significantly extended lifespans of captive marine mammals (Bain 1988).</p>	The Navy and NMFS relied upon best available science to derive the behavioral response function. The data used was based on one captive animal study and two studies that involved observations of wild animals exposed to sonar or sonar-like signals.
O09-92	Right whales exposed to alerting devices consistently responded when received levels were above 135 dB re 1 $\mu$ Pa. Due to the small sample size (six individuals), it is unclear whether this is close to the 50% risk, the 100% risk level, or both. These data do not allow identification of B, as lower exposure levels were not tested. In mysticetes exposed to a variety of sounds associated with the oil industry, typically 50% exhibited responses at 120 dB re 1 $\mu$ Pa. Thus right whales may be similar to killer whales.	Results of the research by Nowacek et al. (2004) indicated that right whales reacted to multiple "alert stimuli" which were developed specifically to elicit a response. These stimuli had a limited similarity to Navy sonar systems. In addition, Nowacek et al. was one of three primary references used to derive the risk function curve, which accounts for effects down to 120 dB sound pressure level.

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
O09-93	<p>The Navy incorrectly concludes that additional datasets are unavailable. In addition to the other killer whale datasets mentioned above, data illustrating the use of acoustic harassment and acoustic deterrent devices on harbor porpoises illustrate exclusion from foraging habitat (Laake et al. 1997, 1998 and 1999, Olesiuk et al. 2002). Data are also available showing exclusion of killer whales from foraging habitat (Morton and Symonds 2002), although additional analysis would be required to assess received levels involved. The devices which excluded both killer whales and harbor porpoises had a source level of 195 dB re 1 <math>\mu</math>Pa, a fundamental frequency of 10kHz, and were pulsed repeatedly for a period of about 2.5 seconds, followed by a period of silence of similar duration, before being repeated. Devices used only with harbor porpoises had a source level of 120-145 dB re 1 Pa, fundamental frequency of 10 kHz, a duration on the order of 300 msec, and were repeated every few seconds. Harbor porpoises, which the Navy treats as having a B+K value of 120 dB re <math>\mu</math>Pa (with A large enough to yield a step function) in the AFAST DEIS (Dept. Navy 2008a), 45 dB lower than the average value used in the HRC SDEIS, may be representative of how the majority of cetacean species, which are shy around vessels and hence poorly known, would respond to mid-frequency sonar. Even if harbor porpoises were given equal weight with the three species used to calculate B+K, including them in the average would put the average value at 154 dB re 1 <math>\mu</math>Pa instead of 165 dB re 1 <math>\mu</math>Pa.</p>	<p>The data sources these comments present as requiring such consideration involve contexts that are neither applicable to the Proposed Action nor the sound exposures resulting from those actions. For instance, the comments' citation to Lasseau et al. involve disturbance to a small pod of dolphins exposed to 8,500 whale-watching opportunities annually. This is nothing like the type or frequency of action that is proposed by the Navy for the Hawaii Range Complex. In a similar manner, the example from noise used in drive fisheries is not applicable to Navy training. Navy training involving the use of active sonar typically occurs in situations where the ships are located miles apart, the sound is intermittent, and the training does not involve surrounding the marine mammals at close proximity. Furthermore, suggestions that effects from acoustic harassment devices and acoustic deterrent devices, which are relatively continuous, high-frequency sound sources (unlike mid-frequency active sonar) and are specifically designed to exclude marine mammals from habitat, are also fundamentally different from the use of mid-frequency active sonar. Finally, reactions to airguns used in seismic research or other activities associated with the oil industry are also not applicable to mid-frequency active sonar, since the sound or noise source, its frequency, source level, and manner of use is fundamentally different.</p>
O09-94	<p>An important property of the model is that the biologically observed basement value is different than the mathematical basement value. The Navy proposes using 120 dB re 1 <math>\mu</math>Pa as the basement value. They indicate the selection of this value is because it was commonly found in noise exposure studies.</p>	<p>The 120 dB level is taken as the estimated received level below which the risk of significant change in a biologically important behavior approaches zero for the risk assessment of sonar and other active acoustic sources. This level is based on a broad overview of the levels at which multiple species have been reported responding to a variety of sound sources, was recommended by a scientific panel, and has been used in other publications. The Navy recognizes that for actual risk of changes in behavior to be zero, the signal-to-noise ratio at the animal must also be zero.</p>
O09-95	<p>For example, many looked at changes in migration routes resulting from noise exposure, and found that 50% of migrating whales changed course to remain outside the 120 dB re 1 <math>\mu</math>Pa contour (Malme et al. 1983, 1984). These results might be interpreted in several ways. They could be seen as minor changes in behavior,</p>	<p>The sound source in the Malme studies, which elicited these observed responses, was low-frequency continuous industrial noise. The current NMFS threshold for a continuous source is 120 dB re 1 <math>\mu</math>Pa SPL rms (Sound Pressure Level root mean square), which is used in this analysis to assess impacts due to vibratory pile driving. Furthermore, Malme also</p>

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
	resulting in a slight increase in energy expenditure. Under this interpretation, they would not qualify as changes in a significant behavior, and are irrelevant to setting the basement value. They could be interpreted as interfering with migration, even though the whales did not stop and turn around, and hence 120 dB would make an appropriate B+K value rather than B value. Third, the change in course could have been accompanied by a stress response, in which case the received level at which the course change was initiated rather than the highest level received (120 dB re 1 $\mu$ Pa) could be taken as the biological basement value.	found that the context was potentially more important than the received level. When the sound source was placed out of the whales' migration path, they proceeded with no evident disturbance. Only when the sound source was directly in their migration corridor did the whales avoid the sound source at 120 dB SPL rms.
O09-96	Take numbers are based on Alternative 3 in the Hawaii Range Complex SDEIS (Dept. Navy 2008b), which in turn is based on the No Action Alternative, Table 3.3.1-1. Where the number of takes approaches the size of the population, the actual number of takes will be smaller than shown in the table. However, individuals will be taken multiple times and the duration of takes will be longer than if the calculated number of takes were small. Presumably, longer and more frequent takes of individuals will have more impact on the population than takes due to single exposures.	The vast majority of these Level B takes are short term behavioral responses to relatively short term activities. The population level impacts are fully discussed in the EIS/OEIS. See Sections 3.0 (Introduction) and 3.4 (Marine Mammals) for the overall discussion, and Sections 3.0.5.7.1 (Conceptual Framework for Assessing Effects from Sound-Producing Activities) and 3.4.3 (Environmental Consequences – Marine Mammals) for specifics.
O10	Please consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. Please re-think your plans and incorporate additional protective measures. Thank you very much. Paula Kislak, DVM President, Humane Society Veterinary Medical Association	The Navy shares your concern for marine life. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.
O11	While the Airport supports military training, the Airport is concerned about the continued impacts on general aviation (the livelihood for many small airports) and further expansion of restricted airspace. The Airport is not in favor of seeing Military Operating Areas expand and based on the draft EIS and conversation with Open House staff, the Airport is reading and hearing, respectively, that airspace will not be affected by the Proposed Action of the Atlantic Fleet Training and	Thank you for your comment. The Draft EIS/OEIS was submitted to the Federal Aviation Administration for review and comment.

Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
	Testing.	
O12-01	Your analysis fails to present and analyze reasonable alternatives that would significantly reduce the unprecedented level of harm to marine life.	The alternatives carried forward meet the Navy's purpose and need (Section 1.4, Purpose and Need) to ensure that it can fulfill its obligation under Title 10. See Section 2.5 (Alternatives Development) for more detailed information on the development of alternatives. The Navy complied with NEPA requirements in the development and consideration of alternatives. This EIS/OEIS analyzes all alternatives in Section 2.5.2 (Alternatives Carried Forward) and explains why the Navy has eliminated other alternatives in Section 2.5.1 (Alternatives Eliminated from Further Consideration). The selection of an alternative by the decision maker will be based on a review of all relevant facts, impact analyses, comments received via the EIS/OEIS public participation process, and the requirements of the Navy in order to fulfill its mission. Further, the USEPA reviewed the EIS/OEIS and stated "the draft EIS/OEIS provides an adequate discussion of the potential environmental impacts and we have not identified any potential environmental impacts requiring substantive changes. EPA has rated the draft EIS as LO- 'Lack of Objections.'"
O12-02	The mitigation scheme that the Navy principally relies on centered on the ability of lookouts to detect whales and dolphins will not result in an appreciable decrease in marine mammal injuries. Federal courts have found this same scheme inadequate and ineffective for good reason: it is largely useless in conditions (common at sea) that impair visual surveillance, it is unsuitable for detecting cryptic and deep-diving species that spend little time at the surface, and, even if it were fully effective at detecting whales and dolphins, would only protect species from the most serious injuries.	As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.
O12-03	I call on the Navy to identify and set aside areas of high marine mammal density acknowledged to be the most effective means of reducing marine mammal injury.	As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.
O13	"Stop the killing of 1,800 whales and dolphins and the deafening of 15,900 more by ceasing the operation of the Navy's underwater sound system in the Hawaiian Islands, the California and Atlantic Coasts, and the Gulf of Mexico."	Below is a summary of the facts and analyses related to the AFTT EIS/OEIS: <ul style="list-style-type: none"> <li>The Navy employs extensive mitigation measures during training and testing activities, which the Navy believes significantly minimize</li> </ul>



Table E-4: Responses to Comments from Organizations (Continued)

Comment Identifier	Comment	Navy Response
		<p>the risk to marine mammals.</p> <ul style="list-style-type: none"> <li>• During several decades of training and testing with explosives, only four marine mammals are known to have died during one training accident. Following this incident and in accordance with standard operating procedures, the Navy ceased all similar training, reviewed its mitigation measures, worked with regulators, and revised its mitigation measures.</li> <li>• There is evidence of fewer than 40 marine mammal stranding deaths worldwide connected to Navy sonar training, and no such incidents have occurred since 2006. There has never been a recorded marine mammal stranding in which Navy training or testing was a causal factor along the east coast, west coast, Gulf of Mexico, or Hawaii.</li> <li>• The modeling, which does not account for mitigation efforts, estimates there is a possibility marine mammals may be exposed to sound levels in certain frequencies that could result in a loss of hearing sensitivity. Through mitigation measures, actual numbers of marine mammals affected by Navy training and testing are expected to be much lower. See the Final EIS/OEIS for the refined analysis (refined in coordination with NMFS). The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. Additionally, loss of hearing sensitivity at certain frequencies does not mean marine mammals will become deaf—they will still be able to hear, hunt for food, and perform other normal activities.</li> </ul>

Table E-5 contains comments from private individuals (P) received during the public comment period and the Navy's response. Responses to these comments were prepared and reviewed for scientific and technical accuracy and completeness. Comments appear as they were submitted and have not been altered with the exception that expletives, addresses, and phone numbers have been removed, as necessary.

**Table E-5: Responses to Comments from Private Individuals**

Comment Identifier	Comment	Navy Response
P001	The proposed plan is indefensible from the point of view of putting at risk many thousands of marine mammals, who are considered by leading scientists to be sentient and self-aware. A similar proposal that involved the planned death of 2000 primates, many of endangered species, along with irreversible damage to tens of thousands of others would never even be considered. If indeed these exercises are important to our future security, it is imperative that measures be taken to minimize the impact on marine mammals. These measures could include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed.	As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy recommends in specific mitigation areas that are important to marine mammals.
P002	Please abandon your plans to perform training sessions in areas where whales and dolphins will be seriously injured or killed by passively being near your warships' training maneuvers. The inhabitants of this world do not exist for you to extinguish at you every whim. Respect them.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P003	<p>We are saddened to hear that the Navy is considering conducting exercises involving the use of live explosives and high-intensity sonar. Do you feel that it is really necessary to conduct this testing that will affect such a volume of marine life? It would be a great pity to see so much of the conservation work the USA has undertaken towards its marine environment over the last number of years being undermined by these proposed exercises. These conservation initiatives deserve to be applauded and have made the USA one of the leaders in marine conservation. To conduct these exercises flies in the face of all the good work and progress that has been achieved to date. There is also the issue of sound channels in the oceans that can carry sounds over vast distances, so not only local populations may be affected but also populations in areas seemingly far removed from the testing activities. As these activities could potentially affect endangered species on both the high seas and possibly in the territorial waters of other nations we believe that any other nations that could potentially be affected should be fully consulted, and the findings of any such consultations made public, prior to any decision being made on whether these activities should progress to the next stage. We would ask you to give serious consideration to just how necessary these proposed exercises are and where the benefits of them lie versus the destruction of marine life that so many dedicated citizens have worked tirelessly to preserve and enhance for both current and future generations. We look forward to hearing from you with your views on the above, if you have any queries please do not hesitate to contact us, yours, Aaron Dressin</p>	<p>Thank you for your comment.</p>
P004	<p>National Security is important; that's a given, but at what cost to our environment and the majestic ocean creatures that help keep it diverse. If we keep disregarding the world we live in, what will be left to protect?</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P005	Please do not do your training exercises in an Area that would hurt whales. Please do them elsewhere.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P006	To the Navy: Please do not carry through on your proposal to conduct training exercises all along the U.S. East Coast and in the rich marine environment off the coast of California and Hawaii, involving the use of live explosives and high-intensity sonar. I understand the need for protecting our country, but you can find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures. If testing plans as they stand happens, it will KILL 17,700 cetaceans. Without their hearing, dolphins will be unable to use their echolocation to hunt. Whales will not be able to communicate. It will make it impossible for all cetaceans to survive. Please rethink this! This operation should not be allowed to go through. The consequences are far too severe. Sincerely, Alexi Curington, Seattle, WA	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P007	The U.S. Navy is completely inconsiderate [EXPLETIVE DELETED] . They should know that we have already had several important sea animals die from the oil spill and more etc. Now they wanna do super explosions with what little life is even [EXPLETIVE DELETED] left in the ocean? I hate our army. I hate the people who don't give a [EXPLETIVE DELETED] about any other living creatures we SHARE this planet with. If I was in charge, i'd make my own prison to put idiots like that, away for life. This is another reason why i hate the american army. Got [EXPLETIVE DELETED] rednecks controlling everything, little rich kids	Thank you for participating in the NEPA process.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	don't know [EXPLETIVE DELETED].	
P008	It is utterly inconceivable to me how backward, inhumane and sociopathic the Americans can be when it comes to their defense forces. You cut the legs off live goats, train and kill dolphins and dogs and now you propose to wipe out millions of marine mammals for some testing. GET OVER YOURSELVES. This is not your planet to destroy. One day in history people will observe you and your actions and they will be horrified by how blinkered and backward a society you are. It is inconceivable to me that a government would even allow such a violent and destructive training practice to ensue. I will circulate this story on my blog, facebook and all over the internet if this really goes through. People in the world are waking up to you and your dastardly acts. This is an opportunity to do the right thing - DO IT. Amanda Evans	Thank you for participating in the NEPA process.
P009	Please do not endanger marine and aquatic life for any reason. The irreparable damage may be beyond the scope of our current understanding, but a loss of life (direct or through side effects) in such magnitude of any species is reprehensible, and I'm shocked that the US Navy would even consider such actions.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P010	Please do not do this sonar and explosive testing. There are much safer alternatives that will not harm the marine life. Our oceans are an important environmental resource and should not be put at unnecessary risk for either military or civilian testing.	The Navy shares your concern for marine life. The alternatives carried forward meet the Navy's purpose and need to ensure that it can fulfill its obligation under Title 10. See Section 2.5 (Alternatives Development) for more detailed information on the development of alternatives. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P011	I am alarmed that the US Navy would consider using explosives and high intensity sonar in areas where marine mammals such as dolphins and whales will be killed and injured. Surely there is some other way to conduct the testing that the Navy believes is necessary. Please do not continue with this testing. It is indefensible and wrong.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P012-01	Unlike the Canadian Department of Fisheries and Oceans (DFO), the National Marine Fisheries has no ocean noise standards against which to evaluate the U.S. Navy's EIS as a potential increase in the ocean background noise and its effects on the use of sound by various types of marine mammals. The DFO considered ocean noise as a component of the Eastern Scotian Shelf Integrated Management Plan (ESSIM). Since President Obama's proposed National Ocean Policy NOP) and its Strategic Action Plan (SAP) stress an ecosystem based approach to management (EBM) of spatial regions in the ocean, I feel that it is premature for NMFS to approve of the Navy's EIS until ocean noise standards are developed and the EBM approach is defined.	The Navy is an integral part of the National Ocean Policy. Additionally, the acoustic criteria used in this analysis were developed in cooperation with NMFS and are germane to the activities analyzed. The acoustical analysis is based on the use of the best available and applicable science (Section 3.4, Marine Mammals and the technical reports available at <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> , specifically, <i>Criteria and Thresholds for U.S. Navy Acoustic and Explosive Effects Analysis and Determination of Acoustic Effects on Marine Mammals and Sea Turtles</i> ).  Furthermore, throughout the AFTT EIS/OEIS, the Navy employed ecosystem-based techniques to the analysis by incorporating large marine ecosystems and open ocean areas as a way to describe where potential impacts may occur. In addition, the Navy prepared an <i>Ecosystem Technical Report for the AFTT EIS/OEIS</i> that is available at <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> .
P012-02	The Navy EIS needs to address how we move into the future under an ecosystems approach that employs adaptive management concepts as way to make the needed changes required to protect marine mammals and their supporting habitats (food resources; migration pathways; biotic and abiotic environmental preferences; etc.)	As indicated in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring), recommended measures are a result of the Navy's internal adaptive management process, and the assessment of planners, scientists, and the operational community. In accordance with the cooperating agency agreement with NMFS, mitigation and monitoring measures focus on the requirements for protection and management of marine resources. The Navy's Integrated

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		Comprehensive Monitoring Program is intended to coordinate monitoring efforts across all regions where the Navy operates and established a Scientific Advisory Group of leading marine mammal scientists to provide a “vision” for Navy monitoring across geographic regions as part of the annual adaptive management process.
P012-03	Even though the U.S. Navy supports research on marine mammals and may understand their distribution in space/time better than NMFS, I feel that the Navy's interaction with environmentalists leaves a lot to be desired. I was active in the Superfund and Safe Drinking Water Act cleanup at the Massachusetts Military Reservation (MMR) for over 20 years. The National Guard and Air Force/Department of the Army have a much better constituent outreach and engagement process than does the U.S. Navy.	NEPA provides a forum for public involvement in federal decision making. Several opportunities have been provided including scoping meetings, public meetings, and opportunities to comment on the Draft EIS/OEIS. A public web site ( <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> ) has been established to provide current information on the status of the EIS/OEIS and opportunities for public involvement.
P012-04	I don't see any indication in the EIS for the U.S. Navy to improve their interactions with the public in a meaningful way or adjust their training in significant ways to reduce the takes of marine mammals under the MMPA.	NEPA provides a forum for public involvement in federal decision making. Several opportunities have been provided including scoping meetings, public meetings, and opportunities to comment on the Draft EIS/OEIS. A public web site ( <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> ) has been established to provide current information on the status of the EIS/OEIS and opportunities for public involvement.
P012-05	The MMPA and ESA are underlain by an ecosystems approach concept and need to develop proactive measures to reduce takes of marine mammals from human activities.. I don't see this aspect being given enough attention in the EIS.	The Navy considered the best available science in preparation of this EIS/OEIS. Section 3.0.3 (Ecological Characterization of the Study Area) provides a breakdown of the biogeographic classifications that organize and describe the patterns and distributions of organisms and the biological and physical processes that influence this distribution. Additional ecosystem-related concepts, as well as a discussion of how Navy activities and potential stressors of the Proposed Action fit into the ecosystem, are presented in a separate detailed report titled the <i>Ecosystem Technical Report</i> for the Atlantic Fleet Training and Testing (AFTT) Draft Environmental Impact Statement (U.S. Department of the Navy 2012) which can be found on the project web site ( <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> ). The Navy has consulted with NMFS as the regulator and cooperating agency with regard to the Proposed Action and any resultant mitigation measures as conditions of anticipated authorizations under the MMPA or reasonable and prudent measures resulting from issuance of a Biological Opinion under ESA.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P012-06	Some type of adaptive management (AM) process is required to adjust the Navy training to accommodate these shifting baselines in the marine ecosystem. AM involves both scientific aspects (monitoring; modelling; filling in the data gaps and synthesis of data into information products useful to managers and the public) and a management component (public outreach and revising management plan based upon new scientific information).	As indicated in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring), recommended measures are a result of the Navy's internal adaptive management process, and the assessment of planners, scientists, and the operational community. In accordance with the cooperating agency agreement with NMFS, mitigation and monitoring measures focus on the requirements for protection and management of marine resources. The Navy's Integrated Comprehensive Monitoring Program is intended to coordinate monitoring efforts across all regions where the Navy operates and established a Scientific Advisory Group of leading marine mammal scientists to provide a "vision" for Navy monitoring across geographic regions as part of the annual adaptive management process.
P013	Please consider steps to reduce the harmful impacts to marine mammals when conducting your training activities on the east and western shore. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. You can continue doing the invaluable work you do to protect our country AND protect animals as well. The two can coexist.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy recommends in specific mitigation areas that are important to marine mammals.
P014	Don't kill & or deafen innocent animals for testing, find a better way. Dawn & Jeff Kirch	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.



Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P015	<p>The Navy's plans to test high frequency (et al.) sound equipment underwater will kill an estimated 1,800 cetaceans and deafen another 15,900 (a probable death sentence for beings which rely so heavily on echolocation) over the next five years alone. It is irresponsible and immoral of us to so casually discard the lives of so many intelligent beings, so close to extinction as it is, and especially so when the benefit to us is uncertain and of questionable importance to the security of our nation. It would be unconscionable to knowingly take steps which kill and maim these unique beings.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.</p>
P016	<p>I am urging you to consider steps to reduce the harmful impacts to marine mammals when conducting training exercises. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. Many animal welfare organizations, including The Humane Society of the United States, are happy to work together to come to the best, most humane solution for all. Please explore all options before sacrificing the precious species that call our oceans home. Thank you in advance for your compassion.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy recommends in specific mitigation areas that are important to marine mammals.</p>
P017	<p>Please stop the testing work you are doing in the oceans that is killing and deafening cetaceans. As human beings we owe more to this world than simply indiscriminately killing off species at our whim. Where is the character, understanding, and compassion for species other than our own? This is disgusting behavior and brings us all down to a truly sub-human level. STOP THIS UNWARRANTED SLAUGHTER OF THESE</p>	<p>Thank you for your comment.</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	GREAT CREATURES!	
P018	I understand the need for the Navy to run these exercises but, it is also so important and necessary to protect the mammals living peacefully in the ocean.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P019	Please rethink your current plan and instead, protect marine mammals from explosives and sonar. Killing marine mammals, having some get lung damage, or permanently or even temporarily deafening them is unconscionable. You can at least avoid areas of feeding or calving grounds and avoid migratory corridors. Please also use a "safety zone," finding where marine mammals are then testing at a safe distance so they won't be harmed. Please also use aerial and acoustic monitoring to make sure that what you are doing is not harming any of these wonderful creatures. Please do the intelligent and humane thing and act with every precaution possible. We trust you not only with our own lives, but the lives of creatures who share this planet earth with us.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P020	I am writing to you to question the necessity of the training exercises being planned which will use live explosives and high intensity sonar. Is it truly necessary to carry out these exercises for the benefit of our defense? These types of exercises have been known to have a major impact on marine life that so many have spent time trying to preserve and protect. Please reconsider these maneuvers---is it REALLY worth the destruction of many marine species???? I understand the importance of practice, but we must consider the effects imposed upon	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. The alternatives carried forward meet the Navy's purpose and need to ensure that it can fulfill its obligation under Title 10. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	other living creatures that have no bias against anyone--is this fair to subject them to pain and suffering in the name of practice. I appreciate your time and hope that you will find an alternate way to educate our Navy without harming our marine ecosystem. Sincerely, Deborah Seemayer-Iannotti	implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P021	Dear U.S. Navy, Please protect marine mammals from explosives and sonar!!!! We cannot do this! The negative environmental impact on marine life needs to be stopped!!!!!! Protect our planet and its inhabitants!	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P022	Please stop the testing on marine life with sonar and explosives. They are kind and gentle mammals and deserve to live a life of peace.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P023	We hope we are in time to be counted as opposing unnecessary sound/radar testing by the Navy which will harm the navigational abilities of whales and dolphins. While defense of our country is important, it must not be done at the cost of the lives of these innocent creatures. They are an important part of the total eco-system of the oceans. We have signed these petitions in the past, and are dismayed to learn we must do so again. At 9:00 pm on July 10th, there is not the time to cite the many studies which have proven this is lethal to marine mammals. Undoubtedly you have received copies of them. We are totally opposed to our tax money being used for this and our country's participation in this folly and despicable practice. Consider please, the continuation of	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	such unnecessary "testing", erodes the support for the Navy and the military in general in this family. There are other ways to accomplish the same objectives. In short, the answer is "NO" - We do not support the testing of lethal sound radar, which destroys the balance and hearing of sea mammals.	
P024	The military needs to immediately stop training using sonar for they are torturing and committing heinous crimes against all creatures living in the ocean.	Thank you for participating in the NEPA process.
P025	What a horrible thing!!! Please stop it!!!!	Thank you for participating in the NEPA process.
P026	I see no particular problems with this training. The Navy has to train to be prepared.	Thank you for your comment.
P027	The HSUS is joining other environmental and animal welfare groups to ask the Navy to consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. We are calling on the U.S. Navy to re-think its plans and to incorporate additional protective measures. --Mr Ken Cowing and Ms. Denise Wilson	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.
P028	I understand the need for protecting our country, but we can find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Also, as

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P029	The Navy must not harm or kill cetaceans. There is no valid excuse for doing so. The sonar exercises that have the potential to deafen marine mammals must stop immediately and permanently. The U.S. must protect cetaceans, not harm them. The U.S. must not sink to such depths of immorality. To cause so much pain and suffering and death to dolphins and whales is despicable and inexcusable. We must stop all these tests now.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P030	Please protect marine mammals from explosives and sonar. Please consider steps to reduce the harmful impacts to marine mammals.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P031	Almost everybody agrees that we need a robust and strong Navy to protect national security. And almost all of us agree that whales, dolphins, and porpoises deserve to live and to have a healthy ocean environment. But a recent proposal from the federal government tries to make Americans pick between these options, and it's a false choice. The U.S. Navy is proposing to conduct training exercises all along the U.S. East Coast and in the rich marine environment off the coast of California and Hawaii. These exercises would involve the use of live explosives and high-intensity sonar. According to its own Environmental Impact Statements, the Navy estimates that the planned exercises would kill up to 2,000 marine mammals, including a large number of animals from endangered species, such as right whales. Thousands of	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	others would suffer permanent lung damage. An additional 16,000 would be permanently deafened and 5 million would be temporarily deafened by the exercises. We understand the need for protecting our country, but we can find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, porpoises, sea turtles, sharks, and many other marine creatures. My family and I are asking the Navy today to protect marine mammals from explosives and sonar along the East Coast, and California/Hawaii!	testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P032	I am writing to voice my opposition to testing of underwater high-frequency, low-frequency, and high-power sound generating equipment. The damage to life in our oceans is impossible to measure, and once done cannot be undone. Future generations will look back and judge us - please consider your own place in history. In addition, this technology, while interesting, is of dubious practical use. The threat of underwater attack upon the US is a cold-war-era issue. Today's threats are very unlikely to be discovered by this kind of technology. Our nation's time, energy and money would be better spent elsewhere. Whales and dolphins are amazing creatures. Please stop killing them. Thank you.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Chapter 1 (Purpose and Need) provides information on the Navy's mission and the need for military readiness training and testing activities.
P033	STOP !	Thank you for participating in the NEPA process.
P034	PLEASE PLEASE protect marine life from explosives and sonar in Navy and all exercises. This is unnecessary.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P035	I can't believe this is acceptable behavior...to allow the Navy to deafen 15,900 whales and dolphins and kill 1,800 more!!! Stop the insanity! If this is true, I'm asking you to STOP...begging if its necessary. I expect a better example of myself, my country, and the armed services. This is	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	shameful.	Consequences) of the EIS/OEIS The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P036	As the Navy you are very near and dear to the American people. The American people are very near and dear to the wonderful Whales, Dolphins and all sea animals. Please do not hurt any of these beautiful creatures that adorn our Coastal oceans in California, Hawaii and the Eastern Coastline. Please take into account the life under the water will suffer and die needlessly with the Sonar testing you do. There has to be other alternatives for this type of testing. Please reconsider where and how the Navy does this testing. Our oceans are in enough trouble without this. The animals & fish that call the ocean their home deserve to live there without this man made horrific trauma to their bodies, hundreds will die, thousands will suffer. Please rethink please. Thank you.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P037	This is in protest of the planned Navy live explosives and high-intensity sonar exercises that will devastate marine life, in different parts of the ocean around America. I understand the need for practice but there must be some way to do dry runs of some sort that will not kill off or injure the already at risk marine life. I respectfully request that this option is reconsidered, and a way found to 'practice' in a way that eliminates the extensive harm this will bring to our unsuspecting fellow	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	creatures	potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.
P038	please stop this testing!!!!!!	Thank you for participating in the NEPA process.
P039	Stop killing our fish with bombs. Stop the war games in our oceans.	Thank you for participating in the NEPA process.
P040	I have learned that the Navy is proposing to conduct training exercises that would involve the use of live explosives and high-intensity sonar and would kill up to 2,000 marine mammals. Please reconsider and do not do these exercises. For what? So many creatures are risk to be killed, maimed and/or otherwise disabled. Do don't this please. Leave nature alone. Thanks, Doris Maat	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P041	Hello, I am a Florida citizen and business owner. It seems to me that you are not taking into account the serious damage this will due to whales, dolphins, and other sea life. I am dead set against this type of testing. We already have established the connection between military acoustic testing, etc. and strandings, and this will make the problem much, much worse. I ask that you reconsider your proposal. I also ask that you "turn downy the volume" in the sea. (CNN recently wrote and op/ed piece eloquently starting the reasons why this is important.) As a country, we should value our stewardship of the environment; please do your part and reconsider your plans so as to further and greatly mitigate any harm to our aquatic neighbors. Sincerely, Doug Maesk, Ft. Lauderdale, FL	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy believes that the proposed training and testing will not pose a significant risk to whales, fish, and other wildlife given that these same activities have been conducted for many years in other range complexes with no indications of broad-scale impacts that are either injurious or of significant biological impact on



Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		<p>marine mammals, fish, or wildlife at those locations. Please see the recent results supporting this as presented in training ranges monitoring reports available at available at NMFS Office of Protected Resources web site. Please see the project web site (<a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a>) for the <i>Marine Mammal Stranding Report</i> which has a full review of the scientific record concerning marine mammal strandings and sonar use. An integrated monitoring plan for the activities in the AFTT Study Area is also planned as presented in Section 5.5.1.1 (Integrated Comprehensive Monitoring Program) of the Final EIS/OEIS. The Navy will continue to implement the monitoring and research programs where training and testing has been occurring to determine if there are determinable impacts as a result of those activities and will do so in the AFTT Study Area associated with future training and testing occurring there. The Navy will continue to be a leader in funding of research to better understand the potential impacts of Navy training and testing activities and to operate with the least possible impacts while meeting training and testing requirements.</p>
P042	<p>We understand the need for protecting our country, but we can find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures. Please consider alternate means which will help protect these amazing animals. Thanks you.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.</p>
P043	<p>Don't do it! Protect our ocean creatures!</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P044	Dear US Navy, In consideration of all marine mammals, please severely limit your sonar testing in ocean waters. We won the Cold War long ago, and don't need to continue harassing the marine mammals just to pretend to protect us against the next to non-existent Chinese navy. Thanks for your consideration. Ed Madej	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Chapter 1 (Purpose and Need) provides information on the Navy's mission and the need for military readiness training and testing activities.
P045	Please do not kill marine mammals. Very disturbing to think of the US Navy undertaking such a thing. This action diminishes my respect for the US Navy, which otherwise is a fine awesome organization. Thank you.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P046	While Americans recognize the need to train armed forces, we also know that training can be conducted intelligently without causing harm to innocent and vulnerable marine life. If officials use their ingenuity and intelligence, they can plan exercises that do not cause harm to marine animals. In our efforts to protect ourselves from those who would cause war against us, we must not sink to their level by declaring war on innocent and vulnerable animals.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable,

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P047	When the US Navy is conducting training exercises along the eastern coast it must first take into consideration the wildlife living along the coast and plan accordingly. With the Navy's greatness should come compassion.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P048	The U.S. Navy is proposing to conduct training exercises all along the U.S. East Coast and in the rich marine environment off the coast of California and Hawaii. These exercises would involve the use of live explosives and high-intensity sonar. According to its own Environmental Impact Statements, the Navy estimates that the planned exercises would kill up to 2,000 marine mammals, including a large number of animals from endangered species, such as right whales. Thousands of others would suffer permanent lung damage. An additional 16,000 would be permanently deafened and 5 million would be temporarily deafened by the exercises. We understand the need for protecting our country, but we can find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures. PLEASE DON'T DO THIS!!!!!!!!!!!!!!	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P049	You are NOT fighting a Congressionally declared war. STOP TORTURING ANIMALS ANYWHERE, unless you are fighting a declared war! You DO NOT NEED to torture animals to maintain a state of readiness! Do your testing in deep water well away from concentrations of marine wildlife! Eleanor White	The alternatives carried forward meet the Navy's purpose and need to ensure that it can fulfill its obligation under Title 10. See Section 2.5 (Alternatives Development) for more detailed information on the development of alternatives.

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Comment Identifier	Comment	Navy Response
P050	<i>Duplicate comment to P049</i>	<i>See response to comment P049</i>
P051	The United States Navy must cease the decimation of the Atlantic Ocean through the use of sonic testing. Such testing is detrimental to ocean creatures, such as dolphins, and contributes to the devastation of our planet. Other methods must be used to implement change.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P052	The continued use of sonar weaponry testing by the U.S. Navy is just cruel and ignorant. You guys are obliterating the hearing of and KILLING our endangered, majestic marine life!!!! I understand you are trying to keep America safe, but PLEASE stop sacrificing our sea life. Have more respect for them. They have been here much longer than we have. It is our duty to set an example as a country who treats animals and the environment with kindness, respect, and dignity. The government continues to break my heart. Make me proud to be an American, and change this.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P053	I understand the need for protecting our country, but we can find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P054	You need to re-thing your testing ideas and consider the thousands of helpless mammals you are going to injure and kill. What about considering the environment and the animals in it that we continue to distory every single day. The Navy should go back to the drawing board and think about what impact its having on the world in which we live in; the world that is not going to exist for long if we continue are distructive human ways. As an American citizen who pays taxes, I strongly urge you to stop this and please reconsider the very harmfu actions you are about to take.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P055	I respectfully request that you take all prudent measures to protect the lives and health of marine mammals during sonar and explosive training and testing. Thank for your consideration of my request. Elizabeth Hall	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P056	Please consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	harmful or killed. Thank you for your time and consideration.	NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy recommends in specific mitigation areas that are important to marine mammals.
P057	The HSUS is joining other environmental and animal welfare groups to ask the Navy to consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P058	Dear Navy, Thank you for preparing an Environmental Impact Study. However, I have some doubt about its objectivity, or certainly its sense of responsibility. Please know that there is little doubt about the intelligence and independence of cetaceans in our oceans. If your sonar tests are damaging these beautiful animals, and I believe they are, please try to find another way to perform or field-test your equipment or your operations that will not harm them. Re-locate, or test in a special laboratory, but please discontinue operations that deafen or kill whales. Do not substitute convenience for responsibility. Thank you very much. Sincerely, Eric S. Mallin	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Use of simulation, as described in Section 2.5.1.3.1 (Simulated Training) of the Final EIS/OEIS, concludes today's simulation technology does not permit effective training and testing.
P059	I find the news of the Navy testing explosives and sonar to be both distressing and altogether horrifying. I cannot believe that our country would sacrifice and put in harm's way so many living things. These are not simply after-thoughts; they are living, breathing, feeling, thinking animals. They do not deserve this kind of careless and thoughtless mistreatment. Please reconsider for the sake of our oceans and these incredible animals we have fought so hard to protect over the years.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P060	I urge that you start paying attention to the life undersea. There are sensitive animals like whales and dolphins that will not cope with these sound testings. The underwater life is an important part of Planet Earth's setting. Without these creatures we have lost a lot of intelligence. Plunging into their environment is a serious thing. They are totally depending on the group holding together by sound signals. Let them have their space. We will all regret this later, if it happens :( Sincerely, Erika Chotai in Stockholm, Sweden. 10th of July 2012	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P061	Do NOT do this. Do not do this. Do not do this.	Thank you for participating in the NEPA process.
P062	Please, for heavens sake, stop these training exercises that would involve the use of live explosives and high-intensity sonar. I ask you to protect marine mammals.....please, please, please!	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P063	imagine yourself being strapped to the outside of a jet engine. On the ground, the noise is deafening, the vibration hurts every bone in your body, but then the takeoff is terrifying, soon you can't breathe, and once in the skies, you are virtually blind because your eyes are damaged from	Thank you for participating in the NEPA process.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	these extreme effects. You are already gasping with fear and pain, then dropped from the sky to land in the ocean, disoriented, in agony, in terror, struggling to breathe... Now, imagine increasing the numbers and magnitude of those effects by the hundreds until you and a couple of thousand of your friends, family, and neighbors are dying, caught up in a tide of what seems to be your own blood pouring from your ears and mouths and you wash up on a strange shoreline, your lives slowly draining out of you, then silently dying under a stinking sun. And you never for one moment understood what happened... Or why.	
P064	!!! stop it	Thank you for participating in the NEPA process.
P065	Our Earth is beautiful fascinating, and human being's existence relies completely on that of our planet. The Earth's delicate ecosystem can only exist because of all integral components contained within it. All parts of the ecosystem are needed to maintain homeostasis, human existence will cease to exist if we do not stop destroying the world we live in. War isn't necessary for coexistence among men, or any other life form. Destroying and permanently maiming such an enormous population, regardless of the species or form is just ignorant, we too will die with our planet. Stop being idiots. Put your weapons away. Stop killing.., us, our children, and our future.	Thank you for participating in the NEPA process.
P066	re: the use of high frequency underwater sound for testing in Hawaii, the California and Atlantic Coasts, and the Gulf of Mexico. According to your estimates it will deafen more than 15,900 whales and dolphins and kill 1,800 more over the next 5 years. Whales and dolphins depend on sound to navigate and live. Please start caring for the environment and quit killing the whales and dolphins. Works towards being a peaceful military. I am the daughter to to WWII vets. I would have rather had a father.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.



Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P067	I am writing to ask that the Navy to protect marine mammals from explosives and sonar along the east coast and California/Hawaii coasts! Please rethink your plans and incorporate additional protective measures. Thanks Ms. Florence Eaise	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P068	Please do not harm the marine life on the East Coast to perform military operations. There are other steps that can be taken without so much destruction of such important species that live and thrive in these waters.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P069	no more weapons - grow up already! why can't anyone find the profit incentive in doing something that benefits us instead of causing harm??	Thank you for participating in the NEPA process.
P070	Just because you can doesn't mean you should. Whoever thought it was okay to hurt these beautiful creatures should be ashamed of themselves.	Thank you for participating in the NEPA process.
P071	don't do that!	Thank you for participating in the NEPA process.
P072	Please protect marine mammals from explosives and sonar, Thanks in advance	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P073	This comment is to object to the underwater high frequency sound testing. Find another way to test these things that does not involve slaughtering sea mammals and who knows what else.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P074	Dear Sir or Madam, It is my understanding that your organization will cause great harm to sea animals on this program. As a loyal citizen of the United States of America, a taxpayer and Veteran, I ask that your organization immediately cease and desist from any and all actions that could possibly result in the harming of any sea life. There is a great cost associated with knowingly harming life. Thank you. Sincerely, Frederick Rose	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P075	I am deeply concerned over the sonar testing proposed off the east coast. The cost to marine mammals resulting from such testing is unthinkable, especially since there are other alternatives which would avoid this catastrophic massacre and permanent impairment to such a large number fellow inhabitants - all feeling, thinking creatures. This is unbearable. Don't let this happen, please!	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Also, as

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P076	plz do not do this its to cruel	Thank you for participating in the NEPA process.
P077	PLEASE, I beg you. End this harmful procedure to marine life. Your practices are NOT necessary!	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. Chapter 1 (Purpose and Need) provides information on the Navy's mission and the need for military readiness training and testing activities. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P078	killing lives and the planet just because of [EXPLETIVE DELETED] navy exercises?? Please, are you people totally crazy????? do you want to destroy the all planet once and for all??? disgusting!!! its because of people like you that we still have all this wars,deaths and destruction in the world! cant you learn how to be good? how to share with others? how to live life peacefully and respect all kinds of life??? i'm sorry, but i need the planet to live, who [EXPLETIVE DELETED] do you think you are to take away my right????????????? FROM THE OTHER SIDE OF THE WORLD, PORTUGAL	Thank you for participating in the NEPA process.
P079	U.S. Navy needs to re-think its plans and to incorporate additional protective measures. It is inhumane to harm the whales and other sea creatures. do what is right, please.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P080	I implore you to search your hearts and refrain from this harmful testing. I am sure that most of you are better than this, thus the chance for the public to comment. I am a proud USN vet from the 60s and would be even prouder of my service if you were to abandon these tests. Thank you for the opportunity to comment.	The Navy shares your concern for marine life. Chapter 1 (Purpose and Need) provides information on the Navy's mission and the need for military readiness training and testing activities. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P081	I am writing to ask you to stop the killing of 1,800 whales and dolphins and the deafening of 15,900 more by ceasing the operation of the Navy's underwater sound system in the Hawaiian Islands, the California and Atlantic Coasts, and the Gulf of Mexico. These numbers, from your own estimates, are unacceptable, and completely preventable. Whales and dolphins depend on sound to navigate and live, and our scientists and researchers are intelligent enough to offer humane alternatives.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P082	It is the Navy's desire to make sure there's no mitigation zone, to make sure there is safe navigation and to better understand marine species, to refine the methods, to detect and monitor the species before and during training/testing, to develop tools to model an estimate/potential effects of underwater sounds, to test alternative energy sources to come up with alternative energy, to develop new programs to safeguard marine protected species in all marine species. I'd like to add to the ESA that	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	<p>active sonar acoustic sources will adversely affect marine mammals. 25 to 36 species of marine mammals are in Hawaii and 67 of those are threatened/endangered. I would like to see you fulfill your desires in being a world leader in marine species research because so far the evidence is to the contrary and I have given a few but of the many many examples of this. Navy sonar is dangerous technology- it is continuous sound above 235 decibels of mid-frequency sonar that is comparable to a rocket blast off. Imagine that sound being magnified in a water dense environment – to me it seems unimaginable the sounds these animals must hear and the pain and the fear that they must endure.... it is truly unimaginable in my eyes. Conclusion In 2006 (July 10, 2006 National Geographic news Maryann Mott) under restraining order following the court case with NRDC the Navy agreed to use intense sonar sparingly, to add additional Whale spotters on every vessel during drills, to steer clear of a vast new protected area and to publicize a hotline for reporting marine mammal incidents related to international war games. Further, it was prevented from sonar use within 25 nautical miles of the new Northwestern Hawaiian Islands Marine National Monument. These Whales and Dolphins are magnificent and magical creatures of the ocean. I expect the government to take all necessary measures to protect these awesome animals and for you to fulfill these agreements that you have previously made. Truly take your place in this world to be the true world leaders in marine species research as you so claim. Show the other world leaders that you are beacons and true leaders and be the example that will light the way for a sustainable ocean and all of its inhabitants-especially the Whales and Dolphins and will defend that and fight for a mighty cause worth fighting for. And THIS should be your main reason why Navy sonar should not be done. Thank you so very much for your time and interest reading this lengthy proposal/comment. I am profoundly thankful as are the Dolphins and Whales as well.</p>	<p>with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. Additionally, the sound level comparison made is incorrect, see Section 3.0.4 (Acoustic and Explosives Primer).</p>
P083	<p>I am writing to ask you to protect marine mammals during your sonar exercises on the East Coast and in Hawaii, and anywhere else such exercises are conducted. I am asking you to consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed.	mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.
P084	Stop the killing of 1,800 whales and dolphins and the deafening of 15,900 more by ceasing the operation of the Navy's underwater sound system in the Hawaiian Islands, the California and Atlantic Coasts, and the Gulf of Mexico. There has got to be a better way to get this done without so much collateral damage. Please seek alternatives.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. Chapter 1 (Purpose and Need) provides information on the Navy's mission and the need for military readiness training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P085	As you begin Navy training exercises along the east coast and Hawaii and California seacoasts, PLEASE consider steps to reduce the harmful impacts to marine mammals. PLEASE protect marine mammals from effects caused by explosives and sonar. PLEASE avoid the most harmful activities in areas used as calving grounds or migratory corridors. PLEASE avoid seasonal high-use feeding areas. PLEASE create a larger "safety zone" around these exercises. PLEASE use aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. By taking these steps it would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. PLEASE re-think your training plans and incorporate additional protective measures.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy recommends in specific mitigation areas that are important to marine mammals.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P086	<p>The U.S. Navy CANNOT conduct their sonar training exercises along any coast of the U.S. It was projected that 2,000 marine mammals would be killed and it is absolutely unacceptable when too many of these species are nearly extinct. This is not a necessary exercise for the military, and frankly, is probably a waste of federal money. It is disgusting that we have overpopulated the globe and the U.S. will bulldoze its way to the top of the food chain. There is a reason we as a human species and all others exists in the world. We have gone too far in completely disregarding the fact that the existence of other species IS THE REASON WE STILL EXIST. Such a simple yet fundamental idea. Just as fisherman who have been banned from hunting whales, dolphins and seals even if it was an "indigenous tradition", the U.S. military should be banned from carrying out such exercises for training purposes. The human species as a whole needs to AVOID AT ALL COSTS intervening in the harm or extinction of all other species. We as the United States need to set that example for the rest of the world starting at the government level. There is too much of an abundance of information asserting the sonar practices of the U.S. Navy are detrimental to whales and dolphin species. We can no longer play the ignorance/denial card and must take responsibility for our actions. I am urging that the U.S. Navy take necessary preventative steps to avoid a mass tragedy of marine wildlife, by: avoiding areas used as calving grounds and migratory corridors; avoiding areas which are seasonal high-use feeding grounds; and using aerial and acoustic monitoring technologies to determine whether marine mammals are nearby and may be harmed.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures that the Navy recommends in specific mitigation areas that are important to marine mammals. The Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.</p>
P087	<p>Please take additional steps to protect marine mammals before performing military exercises involving high explosives and sonar off the eastern seaboard of the United States. We are the greatest force for good the world has ever seen. Let's not undermine our own moral leadership by causing the unnecessary suffering of millions of protected, sentient creatures like dolphins and whales. The US Navy has the expertise and the equipment to protect our country, while protecting helpless animals as well. Let's use it. Thank you.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P088	<p>Why are you wanting or planning to conduct testing on the last remains of ocean natural habitat left on the east and west coast. We know that in the past, whales have stranded and died in the wake of major military sonar exercises, with bleeding from the ears and other tissue damage attributed to sonar. These have included incidents of beaked whales dying in the Canary Islands following sonar exercises, the panicked flight of orcas and porpoises off Washington State in 2003, and dozens of whales (including pregnant females) from several species who died in North Carolina in 2005. These tragedies can be avoided to a very significant degree. We are saddened to hear that the Navy is considering conducting exercises involving the use of live explosives and high-intensity sonar. Do you feel that it is really necessary to conduct this testing that will affect such a volume of marine life? It would be a great pity to see so much of the conservation work the USA has undertaken towards its marine environment over the last number of years being undermined by these proposed exercises. These conservation initiatives deserve to be applauded and have made the USA one of the leaders in marine conservation. To conduct these exercises flies in the face of all the good work and progress that has been achieved to date. There is also the issue of sound channels in the oceans that can carry sounds over vast distances, so not only local populations may be affected but also populations in areas seemingly far removed from the testing activities. As these activities could potentially affect endangered species on both the high seas and possibly in the territorial waters of other nations we believe that any other nations that could potentially be affected should be fully consulted, and the findings of any such consultations made public, prior to any decision being made on whether these activities should progress to the next stage. We would ask you to give serious consideration to just how necessary these proposed exercises are and where the benefits of them lie versus the destruction of marine life that so many dedicated citizens have worked tirelessly to preserve and enhance for both current and future generations. Thanks Hanna Chitrik [ADDRESSED DELETED]</p>	Thank you for your comment.
P089	<p>The U.S. Navy is proposing to conduct training exercises all along the U.S. East Coast and in the rich marine environment off the coast of California and Hawaii. These exercises would involve the use of live explosives and high-intensity sonar. According to its own Environmental Impact Statements, the Navy estimates that the planned exercises would kill up to 2,000 marine mammals, including a large number of</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of</p>



Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	<p>animals from endangered species, such as right whales. Thousands of others would suffer permanent lung damage. An additional 16,000 would be permanently deafened and 5 million would be temporarily deafened by the exercises. We understand the need for protecting our country, but we can find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures. Please rethink your plans. There must be a way to protect these magnificent creatures from the terrible effects of sonar and explosives.</p>	<p>marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.</p>
P090	<p>The Navy has killed(taken)and is planning to kill(take)hundreds of thousands more marine mammals than Japan ever does, and yet Japan is seen as the bad guy while the irresponsible Navy does whatever it wants and it has got to stop. These are protected animals yet, Navy sees no problem in killing them. Ridiculous. and it must stop before Nation-wide protests will be formed and executed bringing to light the reality of Naval testing to the American public (which they apparently don't know about, due to extreme coverups and lies.)</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. The commenter's characterization of take is incorrect. Navy does not anticipate any mortality from its activities. Though the model estimates the potential for mortality based on very conservative criteria, with the implementation of proven mitigation and decades of historical information from conducting training and testing in the Study Area, mortalities are highly unlikely.</p>
P091	<p>I am writing to ask the Navy to consider steps to reduce the harmful impacts to marine mammals during planned exercises that involve the use of live explosives and high-intensity sonar. I learned these planned exercises would kill up to 2,000 marine mammals, including a large number of animals from endangered species, such as right whales. Thousands of others would suffer permanent lung damage. An additional 16,000 would be permanently deafened and 5 million would be temporarily deafened by the exercises. This is horrible!! Whales have stranded and died after major military sonar exercises. If the Navy could avoid the most harmful activities in areas used as calving grounds</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy believes that the proposed training and testing will not pose a significant risk to whales, fish, and other</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	<p>or migratory corridors; avoid seasonal high-use feeding areas; create a larger "safety zone" around the exercises; and use aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed, it could save their lives. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. Please do the right thing. Save all lives!</p>	<p>wildlife given that these same activities have been conducted for many years in other range complexes with no indications of broad-scale impacts that are either injurious or of significant biological impact on marine mammals, fish, or wildlife at those locations. Please see the recent results supporting this as presented in training ranges monitoring reports available at available at NMFS Office of Protected Resources web site. Please see the project web site (<a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a>) for the <i>Marine Mammal Stranding Report</i> which has a full review of the scientific record concerning marine mammal strandings and sonar use. An integrated monitoring plan for the activities in the AFTT Study Area is also planned as presented in Section 5.5.1.1 (Integrated Comprehensive Monitoring Program) of the Final EIS/OEIS. The Navy will continue to implement the monitoring and research programs where training and testing has been occurring to determine if there are determinable impacts as a result of those activities and will do so in the AFTT Study Area associated with future training and testing occurring there. The Navy will continue to be a leader in funding of research to better understand the potential impacts of Navy training and testing activities and to operate with the least possible impacts while meeting training and testing requirements.</p>
P092	<p>"These exercises would involve the use of live explosives and high-intensity sonar. According to its own Environmental Impact Statements, the Navy estimates that the planned exercises would kill up to 2,000 marine mammals, including a large number of animals from endangered species, such as right whales. Thousands of others would suffer permanent lung damage. An additional 16,000 would be permanently deafened and 5 million would be temporarily deafened by the exercises." This is not worth it. Please find other ways to practice or don't practice these drills.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. The Navy does not anticipate any mortality from its activities. Though the model estimates the potential for mortality based on very conservative criteria, with the implementation of proven mitigation and decades of historical information from conducting training and testing in the Study Area, mortalities are highly unlikely. Also, as described in Chapter 5 (Standard</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P093	<p>Almost everybody agrees that we need a robust and strong Navy to protect national security. And almost all of us agree that whales, dolphins, and porpoises deserve to live and to have a healthy ocean environment. But a recent proposal from the federal government tries to make Americans pick between these options, and it's a false choice. The U.S. Navy is proposing to conduct training exercises all along the U.S. East Coast and in the rich marine environment off the coast of California and Hawaii. These exercises would involve the use of live explosives and high-intensity sonar. According to its own Environmental Impact Statements, the Navy estimates that the planned exercises would kill up to 2,000 marine mammals, including a large number of animals from endangered species, such as right whales. Thousands of others would suffer permanent lung damage. An additional 16,000 would be permanently deafened and 5 million would be temporarily deafened by the exercises. We understand the need for protecting our country, but we can find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures. Please protect marine mammals from explosives and sonar along the East Coast and California/Hawaii. We know that in the past, whales have stranded and died in the wake of major military sonar exercises, with bleeding from the ears and other tissue damage attributed to sonar. These have included incidents of beaked whales dying in the Canary Islands following sonar exercises, the panicked flight of orcas and porpoises off Washington State in 2003, and dozens of whales (including pregnant females) from several species who died in North Carolina in 2005. These tragedies can be avoided to a very significant degree.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy believes that the proposed training and testing will not pose a significant risk to whales, fish, and other wildlife given that these same activities have been conducted for many years in other range complexes with no indications of broad-scale impacts that are either injurious or of significant biological impact on marine mammals, fish, or wildlife at those locations. Please see the recent results supporting this as presented in training ranges monitoring reports available at available at NMFS Office of Protected Resources web site. Please see the project web site (<a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a>) for the <i>Marine Mammal Stranding Report</i> which has a full review of the scientific record concerning marine mammal strandings and sonar use. An integrated monitoring plan for the activities in the AFTT Study Area is also planned as presented in Section 5.5.1.1 (Integrated Comprehensive Monitoring Program) of the Final EIS/OEIS. The Navy will continue to implement the monitoring and research programs where training and testing has been occurring to determine if there are determinable impacts as a result of those activities and will do so in the AFTT Study Area associated with future training and testing occurring there. The Navy will continue to be a leader in funding of research to better understand the potential impacts of Navy training and testing activities and to operate with the least possible impacts while meeting training and testing requirements.</p>
P094	<p>I am truly saddened to learn that the US Navy is planning to use live explosives and high intensity sonar that will affect the lives of 2000 marine animals. I have seen programs about marine mammals affected by navy exercises involving the use of explosives and that footage is highly disturbing as it highlights the effect such equipment has on marine</p>	<p>Thank you for your comment.</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	life. In addition, the US Navy is carrying out these exercises without any regard for the marine life that is being affected in other countries by the use of its sonar equipment. It is well documented that sound channels in the sea allow sound to travel over vast distances. Other countries deserve to be made aware and consulted about the US Navy's exercises. Please consider this matter seriously the Navy's actions impact upon lives of so many marine animals.	
P095	I object to blasting our ocean with sonar or exploding bombs or other dangerous training and testing activities. Marine life will be harmed and die and the government needs to stop this detrimental act on our natural resources.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P096	Please cancel planned under-water explosives/sonar exercises along the Eastern Seaboard and California and Hawaiian coasts to avoid harming and killing marine mammals. These exercises can be modified to avoid such destruction, and proceed later. In the past whales stranded and died in the wake of major military sonar exercises, bleeding from the ears and additional tissue damage, for example: Beaked whales died in the Canary Islands following sonar exercises. Panicked orcas and porpoises fled off Washington State in 2003. Dozens of whales (including pregnant females) from several species died in North Carolina in 2005. These tragedies can be avoided to a very significant degree. Please cancel the planned exercises and take steps to protect marine mammals, such as: Avoid the most harmful activities in areas used as calving grounds or migratory corridors and seasonal high-use feeding areas. Create a larger "safety zone" around the exercises using aerial or acoustic monitoring to determine whether marine mammals are nearby. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy believes that the proposed training and testing will not pose a significant risk to whales, fish, and other wildlife given that these same activities have been conducted for many years in other range complexes with no indications of broad-scale impacts that are either injurious or of significant biological impact on marine mammals, fish, or wildlife at those locations. Please see the recent results supporting this as presented in training ranges monitoring reports available at available at NMFS Office of Protected Resources web site. Please see the project web site ( <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> ) for the <i>Marine Mammal Stranding Report</i> which has a full review of the scientific record concerning marine mammal strandings and sonar use. An integrated monitoring plan for the activities in the AFTT Study Area is also planned as presented in Section 5.5.1.1 (Integrated Comprehensive

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		Monitoring Program) of the Final EIS/OEIS. The Navy will continue to implement the monitoring and research programs where training and testing has been occurring to determine if there are determinable impacts as a result of those activities and will do so in the AFTT Study Area associated with future training and testing occurring there. The Navy will continue to be a leader in funding of research to better understand the potential impacts of Navy training and testing activities and to operate with the least possible impacts while meeting training and testing requirements.
P097	please do not do this horrible testing that will rob whales and dolphins of their senses, without which they cannot live. nothing you can find out from these tests is worth the sacrifice of their lives. please please find your heart. thank you, holly gallo	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P098	The U.S. Navy is proposing to conduct training exercises all along the U.S. East Coast and in the rich marine environment off the coast of California and Hawaii. Using live explosives and high-intensity sonar will harm thousands of marine mammals! According to the Navy's own Environmental Impact Statements, damage estimates from these exercises would kill up to 2,000 marine mammals, including a large number of animals from endangered species, such as right whales. Thousands of others would suffer permanent lung damage. An additional 16,000 would be permanently deafened and 5 million would be temporarily deafened by the exercises. Please reconsider these practices! There is no excuse for killing countless marine animals!	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. The Navy does not anticipate any mortality from its activities. Though the model estimates the potential for mortality based on very conservative criteria, with the implementation of proven mitigation and decades of historical information from conducting training and testing in the Study Area, mortalities are highly unlikely. Also, as described in Chapter 5 (Standard

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P099	I urge the Navy to move its testing to less critical marine animal habitat. The use of sonar as planned will result in hearing impairment and loss to a significant number of marine animals including endangered turtles. The environmental review has highlighted the potential impact. The Navy, contrary to its assertions, has a history of ignoring and covering up the damage to marine animals caused by the use of sonar in testing. As a resident of the impacted coastal area, I don't want dead or deaf animals washing up on our beaches as a result of your testing. Test in a less sensitive location.	The Navy shares your desire to preserve marine life. The Navy believes that the proposed training and testing will not pose a significant risk to whales, fish, and other wildlife given that these same activities have been conducted for many years in other range complexes with no indications of broad-scale impacts that are either injurious or of significant biological impact on marine mammals, fish, or wildlife at those locations. Please see the recent results supporting this as presented in training ranges monitoring reports available at available at NMFS Office of Protected Resources web site. Please see the project web site ( <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> ) for the <i>Marine Mammal Stranding Report</i> which has a full review of the scientific record concerning marine mammal strandings and sonar use. An integrated monitoring plan for the activities in the AFTT Study Area is also planned as presented in Section 5.5.1.1 (Integrated Comprehensive Monitoring Program) of the Final EIS/OEIS. The Navy will continue to implement the monitoring and research programs where training and testing has been occurring to determine if there are determinable impacts as a result of those activities and will do so in the AFTT Study Area associated with future training and testing occurring there. The Navy will continue to be a leader in funding of research to better understand the potential impacts of Navy training and testing activities and to operate with the least possible impacts while meeting training and testing requirements.
P100	I am saddened to hear that the Navy is considering conducting exercises involving the use of live explosives and high-intensity sonar. Do you feel that it is really necessary to conduct this testing that will affect such a volume of marine life? It would be a great pity to see so much of the conservation work the USA has undertaken towards its marine environment over the last number of years being undermined by these proposed exercises. These conservation initiatives deserve to be applauded and have made the USA one of the leaders in marine conservation. To conduct these exercises flies in the face of all the good work and progress that has been achieved to date. There is also the issue of sound channels in the oceans that can carry sounds over vast distances, so not only local populations may be affected but also populations in areas seemingly far removed from the testing activities.	Thank you for your comment.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	<p>As these activities could potentially affect endangered species on both the high seas and possibly in the territorial waters of other nations we believe that any other nations that could potentially be affected should be fully consulted, and the findings of any such consultations made public, prior to any decision being made on whether these activities should progress to the next stage. We would ask you to give serious consideration to just how necessary these proposed exercises are and where the benefits of them lie versus the destruction of marine life that so many dedicated citizens have worked tirelessly to preserve and enhance for both current and future generations. I look forward to hearing from you with your views on the above, if you have any queries please do not hesitate to contact me.</p>	
P101	Stop!	Thank you for participating in the NEPA process.
P102	<p>We are saddened to hear that they Navy is considering conducting exercises involving the use of live explosives and high-intensity sonar. Do you feel that it is really necessary to conduct this testing that will affect such a volume of marine life? It would be a great pity to see so much of the conservation work the USA has undertaken towards its marine environment over the last number of years being undermined by these proposed exercises. These conservation initiatives deserve to be applauded and have made the USA one of the leaders in marine conservation. To conduct these exercises flies in the face of all the good work and progress that has been achieved to date. There is also the issue of sound channels in the oceans that can carry sounds over vast distances, so not only local populations may be affected but also populations in areas seemingly far removed from the testing activities. As these activities could potentially affect endangered species on both the high seas and possibly in the territorial waters of other nations we believe that any other nations that could potentially be affected should be fully consulted, and the findings of any such consultations made public, prior to any decision being made on whether these activities should progress to the next stage. We would ask you to give serious consideration to just how necessary these proposed exercises are and where the benefits of them lie versus the destruction of marine life that so many dedicated citizens have worked tirelessly to preserve and enhance for both current and future generations. Sincerely, J.Behrens</p>	Thank you for your comment.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P103	<p>"ScienceDaily (Mar. 16, 2011) — Scientists have long been aware of a link between naval sonar exercises and unusual mass strandings of beaked whales. Evidence of such a link triggered a series of lawsuits in which environmental groups sued the U.S. Navy to limit sonar exercises to reduce risk to whales. In 2008, this conflict rose to the level of the US Supreme Court which had to balance potential threat to whales from sonar against the military risk posed by naval forces inadequately trained to use sonar to detect enemy submarines. The court ruled that the Navy could continue training, but that it was essential for the Navy to develop better methods to protect the whales." Please halt the scheduled tests until the fatal repercussions on sea mammals has been eliminated. Thank you.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy believes that the proposed training and testing will not pose a significant risk to whales, fish, and other wildlife given that these same activities have been conducted for many years in other range complexes with no indications of broad-scale impacts that are either injurious or of significant biological impact on marine mammals, fish, or wildlife at those locations. Please see the recent results supporting this as presented in training ranges monitoring reports available at available at NMFS Office of Protected Resources web site. Please see the project web site (<a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a>) for the <i>Marine Mammal Stranding Report</i> which has a full review of the scientific record concerning marine mammal strandings and sonar use. An integrated monitoring plan for the activities in the AFTT Study Area is also planned as presented in Section 5.5.1.1 (Integrated Comprehensive Monitoring Program) of the Final EIS/OEIS. The Navy will continue to implement the monitoring and research programs where training and testing has been occurring to determine if there are determinable impacts as a result of those activities and will do so in the AFTT Study Area associated with future training and testing occurring there. The Navy will continue to be a leader in funding of research to better understand the potential impacts of Navy training and testing activities and to operate with the least possible impacts while meeting training and testing requirements.</p>
P104	<p>I am writing to ask you to please stop the high frequency tests that are harming whales and porpoises. They are intelligent, thinking, and feeling animals that deserve our respect and care not our abuse. Thank you for this opportunity to speak on their behalf. Sincerely, Jack Foreman</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar</p>



Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P105	On May 17, 2012, news reports that "Mass dolphin deaths in Peru caused by acoustic trauma" were announced by "...Dr. Carlos Yaipen Llanos of ORCA in Peru informed Hardy Jones of Blue Voice that acoustical trauma is the cause of the Mass Mortality Event (MME) that killed an estimated one thousand dolphins along the coast of northern Peru in March 2012..." [28]. This is another reason to begin to limit sonar, laser, radar, and electromagnetic weapons testing in the Atlantic, Pacific, and the Gulf of Mexico. I oppose the expansion of the U.S. NAVY expanding or adding new 5-Year Warfare testing ranges in the Pacific, Atlantic, and the Gulf of Mexico:	The Navy was not conducting sonar or explosives training activities within 500 miles of the Peruvian coast in the three months prior to the 2012 stranding event in Peru. Credible marine scientists do not believe the Peru stranding event resulted from acoustic trauma based on (1) the condition of the animals' ears, which clearly were not impacted by an acoustic event; (2) the timing of the strandings, which is not typical for strandings from acoustic trauma; and (3) the types of animals affected, which suggest the Peru strandings more likely occurred due to weather or biological factors such as toxic algae or disease. Experienced veterinary pathologists and other qualified experts should be consulted before people draw conclusions about the cause for strandings. The Navy will continue to assist the National Marine Fisheries Service and stranding networks as needed, and remains committed to protecting marine life while performing its national security mission.
P106-01	We began to experience extensive gear damage and down time as soon as we started fishing the 2011 squid season which occurs on the edge of the continental shelf. It was not until a fishing vessel caught a Navy target that we realized there were obstructions placed on the grounds.	The Navy shares your concern regarding impacts on fisheries and gear loss. The Navy provides up-to-date notification of Navy activity to fisherman and mariners through Notices to Mariners, or NOTMARs. Notices to Mariners are required for activity within waterways of each U.S. Coast Guard District, and are available on line at <a href="http://www.navcen.uscg.gov/">http://www.navcen.uscg.gov/</a> . Notices to Mariners are also broadcast on radio stations that broadcast marine information and Mariners may register for personal notifications when new local Notices to Mariners become available from each U.S. Coast Guard District. The Navy also communicates with organizations such as the Mid-Atlantic Fisheries Management Council to provide information and receive Council's recommendations and concerns regarding Navy activity.
P106-02	I was also informed that the Navy had requested US Coast Guard issue a "Notice to Mariners" pertaining to this operation. It should be noted that the fishing industry rarely receive "Notice to Mariners" unless there is a prior advisement of potential action of Naval Operations. In this case due to the obstructions being placed on fishing grounds, the Navy should have provided detailed location of the targets to the industry, to help reduce any loss or damage of fishing gear or Navy equipment. I strongly recommend the Navy notify "National Marine Fisheries Service" (NMFS) prior to this type of exercise. NMFS could easily send a "Permit Holder Letter" to advise the fisherman of this type of exercise.	The Navy issues Notices to Mariners and Notices to Airmen as part of its standard operating procedures. Notices to Mariners can be found on the U.S. Coast Guard web site ( <a href="http://www.navcen.uscg.gov/">http://www.navcen.uscg.gov/</a> ).

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P106-03	I also suggest that there be an opportunity for fisherman to be consulted by Naval personal as to which areas could be established with little loss to fishing operations and more protection of sensitive, expensive Naval equipment. This approach must be done region by region to best utilize fisherman expertise of specific areas.	NEPA provides a forum for public involvement in federal decision making. Several opportunities have been provided including scoping meetings, public meetings, and opportunities to comment on the Draft EIS/OEIS. The Navy has engaged the regional fishery management councils. Further, the Navy has involved the Fishery Management Councils in the development of the EIS/OEIS.
P106-04	The Navy must reconize the commercial fishing industry also provides this country a service by providing a high protein, sustainable food source.	The Navy shares your concern for marine life and those dependent on it. Socioeconomic impacts are thoroughly addressed in Section 3.11.3.1 (Accessibility), which concludes that there would be no impacts on commercial and recreational activities, including the fishing industry.
P107	Please do not use the explosives and sonar that will harm marine wildlife during your exercises.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P108	Please do not kill thousands of innocent whales and dolphins by increasing the Navy's sonar program! America does not need to do this. What possible reason does the Navy have for this additional killing of cetaceans??	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P109	STOP THIS MADNESS! The U.S. Navy is proposing to conduct training exercises all along the U.S. East Coast and in the rich marine environment off the coast of California and Hawaii. These exercises would involve the use of live explosives and high-intensity sonar. According to its own Environmental Impact Statements, the Navy	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	<p>estimates that the planned exercises would kill up to 2,000 marine mammals, including a large number of animals from endangered species, such as right whales. Thousands of others would suffer permanent lung damage. An additional 16,000 would be permanently deafened and 5 million would be temporarily deafened by the exercises. We understand the need for protecting our country, but we can find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures. I AM APPALLED BY THIS SO CALLED TRAINING/KILLING EXERCISE STOP THIS MADNESS! angelika davis, citizen and taxpayer of the USA</p>	<p>EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. The Navy does not anticipate any mortality from its activities. Though the model estimates the potential for mortality based on very conservative criteria, with the implementation of proven mitigation and decades of historical information from conducting training and testing in the Study Area, mortalities are highly unlikely. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.</p>
P110	<p>As a citizen of the United States, a California native and current resident, I join the Humane Society of the United States and other environmental and animal welfare groups in urging the Navy to please consider steps to reduce the harmful impacts to marine mammals of proposed training exercises all along the U.S. East Coast and in the rich marine environment off the coast of California and Hawaii. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. We would not want anyone setting off live explosives and high-intensity sonar in our homeland; let us not use these devices in their watery world. Thank you.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy recommends in specific mitigation areas that are important to marine mammals. The Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.</p>
P111	<p>Please stop the exercises!</p>	<p>Thank you for participating in the NEPA process.</p>
P112	<p>PLEASE protect wildlife! Please consider avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	<p>zone” around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed.</p>	<p>analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy recommends in specific mitigation areas that are important to marine mammals. The Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.</p>
P113	<p>It seems to me that there should be a more environmentally safe way of testing the sonar equipment. To knowingly damage marine mammals hearing from sonar testing is atrocious. The effect will be devastating to those mammals. Shameful.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.</p>
P114	<p>I have always been proud to be a NAVY family - please keep your faith in the Navy to consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger “safety zone” around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. Thank you</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy recommends in specific mitigation areas that are important to marine mammals. The Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		impacts to marine mammal species or stocks.
P115	WHY????	Thank you for participating in the NEPA process.
P116	<p>According to the Navy's own Environmental Impact Statements upwards of 2,000 marine mammals will be killed due to the exercises that are currently being planned along the U.S. East coast. Such exercises include live explosives and high intensity sonar. These 2,000 mammals include animals that are currently on the endangered species list. Now, what is the point of having an endangered species list if practices such as these are allowed to threaten their already fragile existence? Furthermore, to prevent more species from being placed on that list, practices such as the ones being planned by the Navy should not be permitted to take place. Other casualties would follow these practices as well. Such casualties include, permanent lung damage, permanent hearing loss, and millions facing temporary hearing loss. In the past whales have even been stranded and died that way in the aftermath of military sonar exercises. These animals should not have to have their homes invaded and their lives threatened to meet an unnecessary demand by the Navy. There are steps that the Navy could follow to reduce the harm that will come to marine mammals. Such steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger safety zone around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Those steps would allow for both the survival of thousands of marine mammals, and the advancement of Navy techniques. The idea that marine life cannot survive while military operations continue is an illusion. The two are not mutually exclusive.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy believes that the proposed training and testing will not pose a significant risk to whales, fish, and other wildlife given that these same activities have been conducted for many years in other range complexes with no indications of broad-scale impacts that are either injurious or of significant biological impact on marine mammals, fish, or wildlife at those locations. Please see the recent results supporting this as presented in training ranges monitoring reports available at available at NMFS Office of Protected Resources web site. Please see the project web site (<a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a>) for the <i>Marine Mammal Stranding Report</i> which has a full review of the scientific record concerning marine mammal strandings and sonar use. An integrated monitoring plan for the activities in the AFTT Study Area is also planned as presented in Section 5.5.1.1 (Integrated Comprehensive Monitoring Program) of the Final EIS/OEIS. The Navy will continue to implement the monitoring and research programs where training and testing has been occurring to determine if there are determinable impacts as a result of those activities and will do so in the AFTT Study Area associated with future training and testing occurring there. The Navy will continue to be a leader in funding of research to better understand the potential impacts of Navy training and testing activities and to operate with the least possible impacts while meeting training and testing requirements.</p>
P117	<p>Please do not hurt more sea mammals with your tests in the Atlantic &amp; Pacific. Too much damage has already occurred to these animals &amp; fish in the Gulf of Mexico. Please let's cherish what is left.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The Navy implements the most practical mitigation measures with the aim of achieving the least</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy recommends in specific mitigation areas that are important to marine mammals.
P118	Dont kill whales and use your head when you think more.	Thank you for participating in the NEPA process.
P119	Dear Navy, Please stop using ultra-sound equipment that can hurt Whales and Dolphins. It's really sad to hear that my tax dollars will be used for hurting innocent whales and dolphins. We should be protecting other smart creatures on the planet, not testing equipment that doesn't necessarily do any good anyways. I am very sad to learn about all of this. Please don't continue it. Thank you. Sincerely, Jarrett Gable Chicago, IL	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P120	We are saddened to hear that the Navy is considering conducting exercises involving the use of live explosives and high-intensity sonar. Do you feel that it is really necessary to conduct this testing that will affect such a volume of marine life? It would be a great pity to see so much of the conservation work the USA has undertaken towards its marine environment over the last number of years being undermined by these proposed exercises. These conservation initiatives deserve to be applauded and have made the USA one of the leaders in marine conservation. To conduct these exercises flies in the face of all the good work and progress that has been achieved to date. There is also the issue of sound channels in the oceans that can carry sounds over vast distances, so not only local populations may be affected but also populations in areas seemingly far removed from the testing activities.	Thank you for your comment.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	<p>As these activities could potentially affect endangered species on both the high seas and possibly in the territorial waters of other nations we believe that any other nations that could potentially be affected should be fully consulted, and the findings of any such consultations made public, prior to any decision being made on whether these activities should progress to the next stage. We would ask you to give serious consideration to just how necessary these proposed exercises are and where the benefits of them lie versus the destruction of marine life that so many dedicated citizens have worked tirelessly to preserve and enhance for both current and future generations.</p>	
P121	<p>i am definitely opposed to the us navy bombing america for alleged "training". the dead whales, dolphins and other marine life that wash up on our shores from this absurd ludicrous bombing of america are an outrage. the us navy does not need to bomb america to train its men. this is an example of the us navy going too far. it needs to stop this horror. we are sick of the dead bodies of the whales that hemorrhage from the huge sonar impact. it is like the bends. their brains explode. and the navy is so [EXPLETIVE DELETED] sneaky it has hidden the results of science that shows this is what happens. stop bombing america.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. The Navy believes that the proposed training and testing will not pose a significant risk to whales, fish, and other wildlife given that these same activities have been conducted for many years in other range complexes with no indications of broad-scale impacts that are either injurious or of significant biological impact on marine mammals, fish, or wildlife at those locations. Please see the recent results supporting this as presented in training ranges monitoring reports available at available at NMFS Office of Protected Resources web site. Please see the project web site (<a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a>) for the <i>Marine Mammal Stranding Report</i> which has a full review of the scientific record concerning marine mammal strandings and sonar use. An integrated monitoring plan for the activities in the AFTT Study Area is also planned as presented in Section 5.5.1.1 (Integrated Comprehensive Monitoring Program) of the Final EIS/OEIS. The Navy will continue to implement the monitoring and research programs where training and testing has been occurring to determine if there are determinable impacts as a result of those activities and will do so in the AFTT Study Area associated with future training and testing occurring there. The Navy will continue to be a leader in funding of</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		research to better understand the potential impacts of Navy training and testing activities and to operate with the least possible impacts while meeting training and testing requirements.
P122	What is this world coming to? What is your thinking, that marine life has to be destroyed for someones thought to better our security system. That really is sick....	Thank you for participating in the NEPA process.
P123	What, [EXPLETIVE DELETED], are you thinking about? Is it still time to destroy our environment? If you have got just a little bit of sense, you would recognize that you are making a enormous mistake!	Thank you for participating in the NEPA process.
P124	Please do not conduct this training which will, at a minimum, deafen almost 16000 cetaceans and kill nearly 1600 more. In the 21st century this is just not an acceptable practice. Please consider disbanding this testing and spend the money on a project less suited for the cold war, which has ended. I don't know what words to use to convince you not to do this cruel, cruel thing except Please. Please do not do this.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P125	My family has been involved in the military for many years, indeed we have ancestors who served on the Virginia Line in the Revolution. I fully understand the need to protect our waters, but that also means to be a proper steward of the bounty that God has afforded the world. While I can see that there is a need for limited testing of naval weaponry, to do so with a sense of impunity is flouting our responsibility of that stewardship, and besmirches the record of the U. S. Navy. We can test, but to a limited degree, and in limited locales that have a minimal effect on cetacean life. The oceans are huge. Remember that the concept of shipping in convoys during World War 2 was developed by	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.



Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	<p>mathematicians who recognized counterintuitively that if many ships steamed together, there was that much more oceanic vastness that ships were not in, and were therefore safer from detection and attack. So think, this concept is possible to apply in a way to cetacean protection. Find areas where whales and dolphins don't tend to congregate, breed, gestate, and give birth. Locate tracts of open sea that avoid their migratory routes. Add to the pride of our Naval Forces by instigating plans to protect our wildlife. Lead the world, not only in naval power, but in naval responsibility by showing how it can be done, and set an example for other countries and those who come after us. Set standards for ocean wildlife protection that speak to and enhance the heritage that John Paul Jones began. Stop it now.</p>	
P126	<p>This training program is both devastating and unnecessary. The projected mortality rates are staggering. The number of animals left deafened will slowly starve. The impacts of this kind of testing are well documented in numerous studies. These impacts are far ranging and are damaging and lethal to ocean life -- from fisheries to marine mammals to all kinds of flora and fauna in the ocean. The only responsible action is to not use this lethal technology.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.</p>
P127	<p>Subject: Testing activities off Ft. Lauderdale, Florida Please be advised that I am against testing and harming animals and the environment. Your destructive activities could cause temporary hearing loss in over 200,000 marine mammals. That could result in devastating effects, long term, for these animals. This is their home. Treat their home with respect. If you like your activities, go test your war toys in your own homes on your own families... if you believe that what you do is so good. Stay away from these defenseless animals. I speak for the animals that</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	have no voice regarding your dangerous activities.	training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P128	Please consider the damaging effects of your actions on our endangered wildlife, including our whales, and halt your negative behavior. Thank you.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P129	Please stop the killing of 1,800 whales and dolphins and the deafening of 15,900 more by ceasing the operation of the Navy's underwater sound system in the Hawaiian Islands, the California and Atlantic Coasts, and the Gulf of Mexico. This is an unacceptable level of "takes". Sincerely, Jennifer Vuillermet	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. The Navy does not anticipate any mortality from its activities. Though the model estimates the potential for mortality based on very conservative criteria, with the implementation of proven mitigation and decades of historical information from conducting training and testing in the Study Area, mortalities are highly unlikely. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P130	Whales, dolphins, and porpoises deserve to live and to have a healthy ocean environment. The U.S. Navy is proposing to conduct training	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	<p>exercises all along the U.S. East Coast and in the rich marine environment off the coast of California and Hawaii. These exercises would involve the use of live explosives and high-intensity sonar. According to its own Environmental Impact Statements, the Navy estimates that the planned exercises would kill up to 2,000 marine mammals, including a large number of animals from endangered species, such as right whales. Thousands of others would suffer permanent lung damage. An additional 16,000 would be permanently deafened and 5 million would be temporarily deafened by the exercises. I understand the need for protecting our country, but we can find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures. In the past, whales have stranded and died in the wake of major military sonar exercises, with bleeding from the ears and other tissue damage attributed to sonar. These have included incidents of beaked whales dying in the Canary Islands following sonar exercises, the panicked flight of orcas and porpoises off Washington State in 2003, and dozens of whales (including pregnant females) from several species who died in North Carolina in 2005. These tragedies can be avoided to a very significant degree. Consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. Re-think plans and incorporate additional protective measures.</p>	<p>of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy believes that the proposed training and testing will not pose a significant risk to whales, fish, and other wildlife given that these same activities have been conducted for many years in other range complexes with no indications of broad-scale impacts that are either injurious or of significant biological impact on marine mammals, fish, or wildlife at those locations. Please see the recent results supporting this as presented in training ranges monitoring reports available at available at NMFS Office of Protected Resources web site. Please see the project web site (<a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a>) for the <i>Marine Mammal Stranding Report</i> which has a full review of the scientific record concerning marine mammal strandings and sonar use. An integrated monitoring plan for the activities in the AFTT Study Area is also planned as presented in Section 5.5.1.1 (Integrated Comprehensive Monitoring Program) of the Final EIS/OEIS. The Navy will continue to implement the monitoring and research programs where training and testing has been occurring to determine if there are determinable impacts as a result of those activities and will do so in the AFTT Study Area associated with future training and testing occurring there. The Navy will continue to be a leader in funding of research to better understand the potential impacts of Navy training and testing activities and to operate with the least possible impacts while meeting training and testing requirements.</p>
P131	<p>Please respect Cetaceans by heeding research concerning their health and wellbeing and ocean sound pollution.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		Study Area with no documented proof of injuries to marine mammals.
P132	We understand the need for protecting our country, but we can find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures. Please protect marine mammals from explosives and sonar!!	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P133	The U.S. Navy is proposing to conduct training exercises in the rich marine environment along the East Coast. I am calling on the U.S. Navy to re-think its plans and to incorporate additional protective measures for marine wildlife. These exercises would involve the use of live explosives and high-intensity sonar. According to its own Environmental Impact Statements, the Navy estimates that the planned exercises would kill up to 2,000 marine mammals, including a large number of animals from endangered species, such as right whales. Thousands of others would suffer permanent lung damage. An additional 16,000 would be permanently deafened and 5 million would be temporarily deafened by the exercises. I understand the need for protecting our country, but we can find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures. We know that in the past, whales have stranded and died in the wake of major military sonar exercises, with bleeding from the ears and other tissue damage attributed to sonar. These have included incidents of beaked whales dying in the Canary Islands following sonar exercises, the panicked flight of orcas and porpoises off Washington State in 2003, and dozens of whales (including pregnant females) from several species who died in North Carolina in 2005. These tragedies can be avoided to a very significant degree. Please protect marine mammals from explosives and sonar on the East Coast by considering steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy believes that the proposed training and testing will not pose a significant risk to whales, fish, and other wildlife given that these same activities have been conducted for many years in other range complexes with no indications of broad-scale impacts that are either injurious or of significant biological impact on marine mammals, fish, or wildlife at those locations. Please see the recent results supporting this as presented in training ranges monitoring reports available at available at NMFS Office of Protected Resources web site. Please see the project web site ( <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> ) for the <i>Marine Mammal Stranding Report</i> which has a full review of the scientific record concerning marine mammal strandings and sonar use. An integrated monitoring plan for the activities in the AFTT Study Area is also planned as presented in Section 5.5.1.1 (Integrated Comprehensive Monitoring Program) of the Final EIS/OEIS. The Navy will continue to implement the monitoring and research programs where training and testing has been occurring to determine if there are determinable impacts as a result of those activities and will do so in the AFTT Study Area associated with future training and testing occurring there. The Navy will continue to be a leader in funding of research to better

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. Thank you.	understand the potential impacts of Navy training and testing activities and to operate with the least possible impacts while meeting training and testing requirements.
P134	PLEASE rework this plan to provide better protection for marine mammals! The current plan is predicted to cause deafness, stranding, and death to thousands of animals. I appreciate military protection, but not at the cost of killing any innocent animals just for training; please do not carry on exercises that would cause marine mammals to suffer and die. Instead, consider and adopt alternative suggestions that animal welfare organizations can recommend, and consider exercises that don't require the actual deployment of explosives and high intensity sonar that cause so much suffering. Thank you.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy believes that the proposed training and testing will not pose a significant risk to whales, fish, and other wildlife given that these same activities have been conducted for many years in other range complexes with no indications of broad-scale impacts that are either injurious or of significant biological impact on marine mammals, fish, or wildlife at those locations. Please see the recent results supporting this as presented in training ranges monitoring reports available at available at NMFS Office of Protected Resources web site. Please see the project web site ( <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> ) for the <i>Marine Mammal Stranding Report</i> which has a full review of the scientific record concerning marine mammal strandings and sonar use. An integrated monitoring plan for the activities in the AFTT Study Area is also planned as presented in Section 5.5.1.1 (Integrated Comprehensive Monitoring Program) of the Final EIS/OEIS. The Navy will continue to implement the monitoring and research programs where training and testing has been occurring to determine if there are determinable impacts as a result of those activities and will do so in the AFTT Study Area associated with future training and testing occurring there. The Navy will continue to be a leader in funding of research to better understand the potential impacts of Navy training and testing activities and to operate with the least possible impacts while meeting training and testing requirements.
P135	I respectfully ask you, the United States Navy, to rethink your training exercises. There MUST be a way that you can safeguard our Nation and safeguard those animals that have the right to live in these waters. We depend on them for a balanced world and ecosystem. I grieve to think of the pain and suffering these beautiful, amazing, intelligent	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	creatures will endure due to your training exercises. PLEASE revise your plans, and take into greater consideration the importance and worth of these creatures, and the responsibility we have as humans to make sure our actions don't cause undue, unnecessary, and uncaring harm to those we share the earth with. I have faith in your capabilities to make a different, more compassionate, and more sensible plan. Thank you.	(Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P136	Please do not begin testing that could disrupt our already fragile aquatic ecosystem. The consequences could be huge.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P137	I am against the new naval testing that will destruct our already fragile aquatic ecosystem.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P138	PLEASE DO NOT PROCEED WITH THIS PLAN. THERE MUST BE A BETTER WAY TO CONDUCT THESE TESTS JILL OLSON WILMETTE, IL	Thank you for participating in the NEPA process.
P139	Please implement any and all protective measures in the East Coast testing to be performed to protect our marine life. Our marine life is already threatened from too many sources and this precious resource MUST BE PROTECTED. As a former resident of the Outer Banks of North Carolina, I am well aware of the losses we have already experienced in marine life. I also remember quite well the 1970's when	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	our whales were in so much trouble from overharvesting. Their slow and steady comeback cannot be threatened by any sonar testing unless ALL biological protections are implemented and strictly enforced. Thank-you.	EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P140	PLEASE take steps to reduce the harmful impacts of testing to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. Please re-think training exercise and testing plans and incorporate additional protective measures. THANK YOU. Jill Nelson - Kansas City, KS	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy recommends in specific mitigation areas that are important to marine mammals. The Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P141	I just read about the Navy's plans to conduct sonar exercises and use explosives in the east coast area of the United States and the Californian/Hawaiian areas. I am very concerned that this will harm marine life and would like to ask the Navy to call it off. If not please protect marine mammals from the explosives and sonar in these areas. Please reduce the harmful impacts of sonar exercises to these creatures. Thank you	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P142	You can't be serious about the sonar testing being a good thing?! Really?! DON'T DO IT!!!!!!!	Thank you for participating in the NEPA process.
P143	Please consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed.	Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures that the Navy recommends in specific mitigation areas that are important to marine mammals.
P144	Please protect the future of our wildlife.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P145	<i>Duplicate to comment P144</i>	<i>See response to comment P144</i>
P146	Please do not deafen and kill marine life with your military practices. Why is it something you are not concerned with? Find a way to practice without hurting anything. We know you can do it with computer simulation - so why hurt our marine life? WHY?????????	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Regarding the use of simulation, as described in Section 2.5.1.3.1 (Simulated Training) of the Final EIS/OEIS, today's simulation technology does not permit effective training and testing.
P147	STOP USING SONAR AND WATER BOMBS!!! Do not use sonars they are killing wild life that are endangered! If our oceans die we will die as a	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All



Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	species as well! Stop killing marine life!!! These tests are UN-necessary!	of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P148	<p>We know that in the past, whales have stranded and died in the wake of major military sonar exercises, with bleeding from the ears and other tissue damage attributed to sonar. These have included incidents of beaked whales dying in the Canary Islands following sonar exercises, the panicked flight of orcas and porpoises off Washington State in 2003, and dozens of whales (including pregnant females) from several species who died in North Carolina in 2005. These tragedies can be avoided to a very significant degree. I join the HSUS and other environmental and animal welfare groups to ask the Navy to consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. We are calling on the U.S. Navy to re-think its plans and to incorporate additional protective measures.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy believes that the proposed training and testing will not pose a significant risk to whales, fish, and other wildlife given that these same activities have been conducted for many years in other range complexes with no indications of broad-scale impacts that are either injurious or of significant biological impact on marine mammals, fish, or wildlife at those locations. Please see the recent results supporting this as presented in training ranges monitoring reports available at available at NMFS Office of Protected Resources web site. Please see the project web site (<a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a>) for the <i>Marine Mammal Stranding Report</i> which has a full review of the scientific record concerning marine mammal strandings and sonar use. An integrated monitoring plan for the activities in the AFTT Study Area is also planned as presented in Section 5.5.1.1 (Integrated Comprehensive Monitoring Program) of the Final EIS/OEIS. The Navy will continue to implement the monitoring and research programs where training and testing has been occurring to determine if there are determinable impacts as a result of those activities and will do so in the AFTT Study Area associated with future training and testing occurring there. The Navy will continue to be a leader in funding of research to better understand the potential impacts of Navy training and testing activities and to operate with the least possible impacts while meeting training and testing requirements.</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P149	Please do not test if dolphins or manatees or sea turtles are present. I am a guide on the water and I think we all know how much so many people care about not harming these animals and being able to see them in our waters. Thank you - John Webb	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P150	The AFTT map shows an unacceptably massive testing range for weapons and high frequency sonar that includes all of the eastern seaboard and much of the deep sea off the coast, as well as most of the Gulf of Mexico. The fleet's testing plan would harm or kill huge numbers (many millions) of marine mammals and fish over the course of the next 5 years. The "take" would be indiscriminate in terms of species harmed, and the types of injuries sustained. In fact, it appears that the effects of the tests are unpredictable to a degree because of the level of experimentation involved in the weaponry and sonar. The Navy cannot be sure which species or how many of their kind will succumb in the 5 year take. The Atlantic Fleet has already been surprised by greater than expected numbers in the take during their EIS fact finding. What is to prevent the Atlantic Fleet from unexpectedly impairing species survival of many marine mammals and fish during testing and training? I believe that this plan places too many marine species in jeopardy. The AFTT plan should be severely restricted in area and duration to protect mass harm to Atlantic and Caribbean sea life in general. In particular, it must make greater effort to identify and protect areas that are important to the breeding and migration of endangered species.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P151	Page 3.1-79. Section 3.1.3.4.7.3, under the paragraph for Training Activities, the 4th line refers to Alternative 1, but it should refer to Alternative 2.	Thank you for your comment. This was corrected in the Final EIS/OEIS.
P152	Page 3.12-16. Section 3.12.3.3 states that if all military expended materials were located side by side in the Study Area, the footprint would be 0.185 square meters. That should be 0.185 square miles.	Thank you for your comment. This was corrected in the Final EIS/OEIS.
P153	How can the Navy even THINK about killing and maiming thousands of sea mammals in this way? First off, this is not necessary to do - and certainly not on this scale. Second, if you ruin the hearing of whales and	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	dolphins, how can they hunt? Find each other? Use their own finely tuned sonar to move through their ocean home? You are simply dooming them to a lingering, confusing death. Third, many of these animals, so intelligent we cannot even fathom the full extent of their intelligence, are critically endangered due to our human stupidity already. How can you justify taking more lives in this widespread, wanton manner? I urge you to desist at ONCE and give up this horrible idea. Thank you.	analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P154	Page A-2 states that Alternative 2 events in Key West Range Complex account for the proposed increase in Key West Range Complex Environmental Impact Statement (underway). Shouldn't that read: Alternative 2 events in Key West Range Complex account for the proposed increase in the Naval Air Station Key West Airfield Operations Environmental Impact Statement (underway)?	Thank you for your comment. This text has been removed in the Final EIS/OEIS.
P155	Page 2-2 last bullet states "Section 2.9 (Summary of Activities) provides a quantitative summary of the sonar hours, ordnance and munitions fired, and military expended materials." There is no Section 2.9 or summary of sonar hours.	Text has been revised to reflect the correct table number.
P156	It is sad that I have to take time out of my day to suggest that the United States Navy not do something that any reasonably healthy individual would not consider doing. I am a US Army veteran who understands a need for national security, but I draw the line at this type insensitive disregard for environmental destruction. Just quit.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P157	Hello, I would just like to voice my opposition to continued testing of underwater high-frequency, low-frequency, and high-power sound generating equipment. The damage to life in our our oceans is impossible to measure, and once done cannot be undone. Future generations will look back and judge us - please consider your own place in history. In addition, this technology, while interesting, is of dubious practical use. The threat of underwater attack upon the US is a cold-war-era issue. Today's threats are very unlikely to be discovered by this kind of technology. Our nation's time, energy and money would be better spent elsewhere.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. Chapter 1 (Purpose and Need) provides information on the Navy's mission and the need for military readiness training and testing activities. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P158	Don't commit murder.	Thank you for participating in the NEPA process.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P159	Please reconsider using training exercises that deafen and kill sea life!!	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P160	I am writing this comment to implore you to reconsider the decision to continue with the fleet training and testing which will impact the ocean wildlife. While the safety of our nation is a top priority, we should show that we have learned from past mistakes and pursue an alternative. Thank you.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P161	I understand that the U.S. Navy is proposing to conduct more training exercises all along the U.S. East Coast and in the rich marine environment off the coast of California and Hawaii, using live explosives and high-intensity sonar. According to your own Environmental Impact Statements, it is estimated that these exercises would kill up to 2,000 marine mammals, including a large number of animals from endangered species, such as right whales. Thousands of others would suffer permanent lung damage. An additional 16,000 would be permanently deafened and 5 million would be temporarily deafened by the exercises. National security issues can be addressed without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures. In the past, whales have stranded and died in the wake of major military sonar exercises, with bleeding from the ears and other tissue damage attributed to sonar. These have included incidents of beaked whales dying in the Canary Islands following sonar exercises, the panicked flight of orcas and porpoises off Washington State in 2003,	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy believes that the proposed training and testing will not pose a significant risk to whales, fish, and other wildlife given that these same activities have been conducted for many years in other range complexes with no indications of broad-scale impacts that are either injurious or of significant biological impact on marine mammals, fish, or wildlife at those locations. Please see the recent results supporting this as presented in training ranges monitoring reports available at available at NMFS Office of Protected Resources

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	and dozens of whales (including pregnant females) from several species who died in North Carolina in 2005. These tragedies can be avoided to a very significant degree. I am writing to ask the Navy to consider steps to reduce the harmful impacts to marine mammals, which include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger “safety zone” around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. I am urging you to re-think your plans and to incorporate additional protective measures.	web site. Please see the project web site ( <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> ) for the <i>Marine Mammal Stranding Report</i> which has a full review of the scientific record concerning marine mammal strandings and sonar use. An integrated monitoring plan for the activities in the AFTT Study Area is also planned as presented in Section 5.5.1.1 (Integrated Comprehensive Monitoring Program) of the Final EIS/OEIS. The Navy will continue to implement the monitoring and research programs where training and testing has been occurring to determine if there are determinable impacts as a result of those activities and will do so in the AFTT Study Area associated with future training and testing occurring there. The Navy will continue to be a leader in funding of research to better understand the potential impacts of Navy training and testing activities and to operate with the least possible impacts while meeting training and testing requirements.
P162	I understand the importance of protecting our country, but please rethink your plans, so that so many whales and dolphins are not brutally harmed in the process.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P163	Please protect marine animals against sonar and explosives... :(	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P164	It is known that the use of sonar and explosives in naval maneuvers threatened the lives of marine mammals and fish. Since many species of	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	marine mammals are threatened with extinction, I can not understand that use of sonar and explosives are required for these exercises. Don't inflict such damage to the habitat ocean for only a maneuver!	of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P165	Hello, I am concerned that upcoming explosives and sonar testing will kill sea life indiscriminately including endangered species. Please postpone the testing so that risk to the aquatic ecosystem can be assessed and safe alternatives explored. Thank you, Julia Becker	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P166	There are other thing that won't cause the harm your about and have done to the animals go wash a ship	Thank you for participating in the NEPA process.
P167	Please! Stop the use of sonar in our oceans! If we kill the life in the Ocean there will be no life to protect on earth!	Thank you for participating in the NEPA process.
P168	I do not feel safe in a country that chooses to annihilate innocent marine life. With thousands of marine animals that will lose their life in explosions with high intensity sonar, please take protective measures. I worry for the thousands more that are not killed instantly, but become deaf and die slow, terrifying deaths as ear tissue is destroyed and sonar communication becomes impossible... effectively intelligent marine life like dolphins and whales die alone and afraid. I believe national security is important, but I also believe in the 21st century with the great amount of intelligence and creativity the finest in the US Navy offer, we can find a better way. Please include protective measures. I know the US Navy is designed to protect US citizens such as myself, but I do not feel protected if the wildlife I love is destroyed. These actions hurt the reputation of the military and country I respect and admire. It becomes more difficult to defend that the US Navy is a force for good, when that force is used to harm. Please mitigate the harm these training actions will take and take protective measures supported by the Humane Society of the US as well as many environmental groups. Thank you so very much for your time and consideration!	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P169	<p>This comment is about the Navy Sonar Warfare Testing program in the Pacific. There is ever increasing evidence and clear indication that simply turning off sonar tests when marine mammals are visually spotted is not sufficient to protect them from serious injury and death resulting from these tests. This testing is devastating to vast numbers of marine mammals. Knowing this, I can only implore those reviewing this practice to immediately STOP these tests. They are injuring and killing precious and defenseless marine mammals. I refer you to NRDC article documenting this "staggering" and severe harm here: <a href="http://www.nrdc.org/wildlife/marine/sonar.asp">http://www.nrdc.org/wildlife/marine/sonar.asp</a> and here: <a href="http://switchboard.nrdc.org/blogs/zsmith/harm_of_staggering_proportions.html">http://switchboard.nrdc.org/blogs/zsmith/harm_of_staggering_proportions.html</a> The WASHINGTON POST stated that: (Associated Press) May 11, 2012 – "New Navy study says use of sonar, explosives may hurt more marine mammals than once thought "...HONOLULU-The U.S. Navy may hurt more dolphins and whales by using sonar and explosives in Hawaii and California under a more thorough analysis that reflects new research and covers naval activities in a wider area than previous studies..." "The Navy estimates its use of explosives and sonar may unintentionally cause more than 1,600 instances of hearing loss or other injury to marine mammals each year, according to a draft environmental impact statement that covers training and testing planned from 2014 to 2019. The Navy calculates the explosives could potentially kill more than 200 marine mammals a year" Please tell us how, with this brutally painful injury imminent and clearly KNOWN, the Navy can continue this destructive warfare testing? "Mass dolphin deaths in Peru caused by acoustic trauma" were announced by "...Dr. Carlos Yaipen Llanos of ORCA in Peru informed Hardy Jones of Blue Voice that acoustical trauma is the cause of the Mass Mortality Event (MME) that killed an estimated one thousand dolphins along the coast of northern Peru in March 2012..." Digital Journal News Report – "Mass Dolphin Deaths in Peru Caused by Acoustic Trauma" May 17, 2012 - Read more: <a href="http://www.digitaljournal.com/print/article/325075#ixzz1vnKmJkGL">http://www.digitaljournal.com/print/article/325075#ixzz1vnKmJkGL</a> <a href="http://www.digitaljournal.com/print/article/325075">http://www.digitaljournal.com/print/article/325075</a> This is another reason to begin to limit sonar, laser, radar, and electromagnetic weapons testing in the Atlantic, Pacific, and the Gulf of Mexico. Some more documentation here about the connection between tests and MARINE MAMMAL STRANDINGS ASSOCIATED WITH U.S. NAVY SONAR ACTIVITIES April 2012: <a href="http://hstteis.com/Portals/0/hstteis/SupportingTechnicalDocs/Marine%20Mammal_Stranding_Report_v02.pdf">http://hstteis.com/Portals/0/hstteis/SupportingTechnicalDocs/Marine%20Mammal_Stranding_Report_v02.pdf</a> Thank you for your attention and</p>	<p>The Navy shares your desire to preserve marine life. The Navy believes that the proposed training and testing will not pose a significant risk to whales, fish, and other wildlife given that these same activities have been conducted for many years in other range complexes with no indications of broad-scale impacts that are either injurious or of significant biological impact on marine mammals, fish, or wildlife at those locations. Please see the recent results supporting this as presented in training ranges monitoring reports available at available at NMFS Office of Protected Resources web site. Please see the project web site (<a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a>) for the <i>Marine Mammal Stranding Report</i> which has a full review of the scientific record concerning marine mammal strandings and sonar use. An integrated monitoring plan for the activities in the AFTT Study Area is also planned as presented in Section 5.5.1.1 (Integrated Comprehensive Monitoring Program) of the Final EIS/OEIS. The Navy will continue to implement the monitoring and research programs where training and testing has been occurring to determine if there are determinable impacts as a result of those activities and will do so in the AFTT Study Area associated with future training and testing occurring there. The Navy will continue to be a leader in funding of research to better understand the potential impacts of Navy training and testing activities and to operate with the least possible impacts while meeting training and testing requirements. The Navy was not conducting sonar or explosives training activities within 500 miles of the Peruvian coast in the three months prior to the 2012 stranding event in Peru. Credible marine scientists do not believe the Peru stranding event resulted from acoustic trauma based on (1) the condition of the animals' ears, which clearly were not impacted by an acoustic event; (2) the timing of the strandings, which is not typical for strandings from acoustic trauma; and (3) the types of animals affected, which suggest the Peru strandings more likely occurred due to weather or biological factors such as toxic algae or disease. Experienced veterinary pathologists and other qualified experts should be consulted before people draw conclusions about the cause for strandings. The Navy will continue to assist NMFS and stranding networks as needed, and remains committed to protecting marine life while it performs its national security mission.</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	serious consideration of this comment & grave matter.	
P170	<p>We are saddened to hear that the Navy is considering conducting exercises involving the use of live explosives and high-intensity sonar. Do you feel that it is really necessary to conduct this testing that will affect such a volume of marine life? It would be a great pity to see so much of the conservation work the USA has undertaken towards its marine environment over the last number of years being undermined by these proposed exercises. These conservation initiatives deserve to be applauded and have made the USA one of the leaders in marine conservation. To conduct these exercises flies in the face of all the good work and progress that has been achieved to date. There is also the issue of sound channels in the oceans that can carry sounds over vast distances, so not only local populations may be affected but also populations in areas seemingly far removed from the testing activities. As these activities could potentially affect endangered species on both the high seas and possibly in the territorial waters of other nations we believe that any other nations that could potentially be affected should be fully consulted, and the findings of any such consultations made public, prior to any decision being made on whether these activities should progress to the next stage. We would ask you to give serious consideration to just how necessary these proposed exercises are and where the benefits of them lie versus the destruction of marine life that so many dedicated citizens have worked tirelessly to preserve and enhance for both current and future generations. We look forward to hearing from you with your views on the above, if you have any queries please do not hesitate to contact us, Thanks, Justin Holt</p>	Thank you for your comment.
P171	<p>Please do not do this. 2,000 deaths of any animal cannot be justified. I know we need to keep our country safe but these beautiful creatures losing their lives would be too high of a price to pay.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy recommends in specific mitigation areas that are important to marine</p>



Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		mammals.
P172	I am asking you to please consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy recommends in specific mitigation areas that are important to marine mammals.
P173	Please look at what you can do to minimize the impact that your testing will have on marine life. I am shocked that by your own numbers, thousands of animals will be killed or harmed. This is simply cruel and unethical. You're a smart bunch of people; please use your intelligence to do a better job of protecting our fragile ecosystem and the animals that inhabit it. Thanks much.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P174	I am in disbelief that the sonar testing which would harm so many whales and dolphins is even being considered. No matter what your ability to empathize, please understand that it is not fair to do this. Please find an alternative.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P175	I ask you to stop the ongoing underwater testing that poses a risk to the world's whales including the endangered North Atlantic Right Whale and other sea life. How can you state "no expected impacts" when we don't	Thank you for participating in the NEPA process.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	know what whales hear. We do know that they navigate by sound. Your experiments are inhumane and should not continue. Thank you for adding my objection to this testing to the official record.	
P176	I respectfully call on the Navy to put safeguards in place before unleashing a deadly barrage certain to deafen, injure and kill countless whales, dolphins and other majestic marine mammals. The projected damage to these magnificent creatures, our national treasures, is staggering and appalling: over 5 million instances of temporary hearing loss, 16,000 instances of permanent hearing loss, almost 9,000 lung injuries, and over 1,800 deaths. The level of carnage reflected in these numbers is shocking, unconscionable and unacceptable. Please take common sense precautions, like keeping training out of key whale habitat, before launching this sonic assault. These common sense and humane precautions will NOT compromise the nation's military readiness, but it will save these extraordinary creatures of the sea from excruciating and unspeakable suffering or death. The ocean is their home - where they give birth, raise families, eat, sleep, play and socialize - let's keep it their "home-sweet-home." I call on the Navy to identify and set aside areas of high marine mammal density - acknowledged to be the most effective means of reducing marine mammal injury. The Navy should be seen as an effective steward of the ocean environment. The Navy should take positive steps forward to protect these magnanimous creatures by significantly reducing the level of harm that training and testing activities will inflict on marine life. Thank you for the opportunity to comment.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. The Navy does not anticipate any mortality from its activities. Though the model estimates the potential for mortality based on very conservative criteria, with the implementation of proven mitigation and decades of historical information from conducting training and testing in the Study Area, mortalities are highly unlikely. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P177	I'm deeply concerned about the death and harm to marine mammals from the sonar project. Please take steps to reduce the harmful impacts to marine mammals, such as avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy recommends in specific mitigation areas that are important to marine

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		mammals. The Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P178	I am completely against this. You people should be ashamed of yourself. You have no souls. Mother Nature [EXPLETIVE DELETED], and she will attack you first. I will no longer respect the Navy if you chose to kill innocent animals to train to kill innocent people.	Thank you for participating in the NEPA process.
P179	Stop testing and protect marine mammals life.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P180	We can all appreciate the many jobs the U.S. Navy performs, national security and education in particular. Proposed exercises are known to cause great harm to marine life. While we are protecting the U.S.A., it seems we would want to protect the health of our oceans. My hope is the Navy will take all steps possible to minimize damage. The health of our oceans aids in keeping our country strong. Please take every marine life safety step you can. Thank You for your consistent hard work, Kate	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P181	As a concerned voting citizen, I strongly wish to register my wishes that no, repeat NO, whales, dolphins or fish be injured, impacted or killed by any actions of the US Navy or other military groups. Thank you!!	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P182	The HSUS is joining other environmental and animal welfare groups to ask the Navy to consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. We are calling on the U.S. Navy to re-think its plans and to incorporate additional protective measures. Thank you, Kathy McRory	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.
P183	Please protect marine mammals off the east coast. We don't have to sacrifice the health of the animals and ecosystem for national security.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P184	This heartless and cruel we are better than that what gives you the right to take all these beautiful creatures away from our children and maybe for ever	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P185	I am writing to voice my opposition to continued testing of underwater high-frequency, low-frequency, and high-power sound generating equipment. The damage to life in our our oceans is impossible to measure, and once done cannot be undone, killing or deafening	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	hundreds of cetaceans. In addition, this technology, while interesting, is of dubious practical use. Today's threats are very unlikely to be discovered by this kind of technology. Our nation's time, energy and money would be better spent elsewhere.	Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.
P186	Are they NUTS? Whatever would they be doing that for? Why near our coast? Why at all?	Thank you for participating in the NEPA process.
P187	Please consider steps to reduce the harmful impacts of high-intensity sonar on marine mammals. Avoid activities in areas used as calving grounds or migratory corridors and consider creating a larger "safety zone" around the exercises, among other changes. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. We are calling on the U.S. Navy to re-think its plans and to incorporate additional protective measures.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.
P188	Consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy recommends in specific mitigation areas that are important to marine mammals.
P189	Please reconsider your training tactics along the east coast. Such exercises have been proven to cause great harm to the marine mammals living in the area.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.
P190	Please don't do any underwater testing in the oceans. Everything that lives there should have a peaceful life. You will be destroying marine mammals that can not escape the repercussions from testing bombs and other experiments.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.
P191	As a concerned citizen, I urge the Navy to act with responsibility and compassion, to perform its exercises in a manner that minimizes the horrific impact of sonar on whales and other sensitive marine life. Defense of our nation should not and must not come at the expense of some of the world's most vital and intelligent species - treasures that we cannot replace.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.
P192	My father was a tailgunner in the Korean conflict and was shot down, wounded in battle. My brother has the medal he was given and he carried shrapnel in his leg for the rest of his life. Perhaps in the last century, the kind of tests that the Navy contemplates might have made a difference. Perhaps when sonar was first being developed, the entire intellectual capacity of the U.S. military and the great thinkers in the Pentagon might have thought, at that time, that there was no other way to carry out these tests. As a proud daughter of a Naval veteran, I can	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	think of no other way to honor my father than to ask that useless torture and killing of thousands of whales and dolphins be prevented. Maybe this crude, harmful procedure would have been more appropriate in another era, in another century. But not now. We know better than this. We can do better than this. The entire might of the U.S. military, the safety of the entire United States does not depend on these tests. We know that is not the case. We can do better. American ingenuity depends on updating military strategies from the dusty battlefields of the last centuries. And so we can do better, and use that unique talent to bear on halting the slaughter and torture of innocent marine mammals. We deserve better; and so do they. Thank you, Kathy Braidhill daughter of James Viskovsky ("Ski") U.S. Navy veteran, Korean conflict	mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P193	Why is it ok for this gov'tment to do whatever they want, when they want. This is not money well spend.	Thank you for participating in the NEPA process.
P194	Please preserve our ocean wildlife!	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P195	I am commenting to ask the Navy to consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. I am calling on the U.S. Navy to re-think its plans and to incorporate additional protective measures.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy recommends in specific mitigation areas that are important to marine mammals.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P196	Please rethink your training exercises on the east coast, California and Hawaii. I know we need to protect our country, but why can't we protect marine life as well. Thank you, Keith	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P197	Why? Why? Why? Thats just ridiculous. Its not necessary. We have destroyed our planet and the wildlife and vegetation on it way too much already. The oceans and its inhabitants are not immune from our wicked ways either. It needs to stop or the planet will die, right along with us. What has already been done to this earth is a sin and cannot be fixed. There is no future for our children or their children. God help them. Just stop this nonsense now. Maybe the planet will last a little bit longer if we stop now. I can only hope... and pray to GOD! And dont you DARE tell me not to mention GOD either! Thats another story...	Thank you for participating in the NEPA process.
P198	I respectfully request that the Navy consider steps to reduce the harmful impacts to marine mammals as it considers conducting training exercises along the U.S. East Coast and off the coast of California and Hawaii. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. As the wife of a Navy veteran, I understand the need for protecting our country, but I also know the Navy can find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy recommends in specific mitigation areas that are important to marine mammals.
P199	Regarding the U.S. Navy's proposal to conduct training exercises along the U.S. East Coast involving the use of live explosives and high-intensity sonar. By your own estimates the exercises would kill up to 2,000 marine mammals, including a large number of animals from	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental



Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	<p>endangered species, such as right whales. Thousands of others would suffer permanent lung damage. An additional 16,000 would be permanently deafened and 5 million would be temporarily deafened by the exercises. If your statistics are correct these training exercises come at a high cost to marine life. It seems a pretty heartless thing to do if there are other methods available. I hope our U.S. Navy explores some less costly alternatives.</p>	<p>Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. The Navy does not anticipate any mortality from its activities. Though the model estimates the potential for mortality based on very conservative criteria, with the implementation of proven mitigation and decades of historical information from conducting training and testing in the Study Area, mortalities are highly unlikely. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy recommends in specific mitigation areas that are important to marine mammals.</p>
P200	<p>Please refrain from sonar practices all together or at the very least make every attempt possible to protect and preserve all marine life at every level. We should strive to be a leader in the world in preserving and enriching life. We teach by example and thus we must take care of all of life.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P201	just stop it already with the killing of everything in sight. These marine animals are not a threat. I truly believe we already have enough ways to kill people and things. If you can't do your research without hurting living things, then don't do it.	Thank you for participating in the NEPA process.
P202	Please actively take steps to reduce sonar and other technologies' harmful impacts to marine mammals. These steps include avoiding harmful activities in calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy recommends in specific mitigation areas that are important to marine mammals. The Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P203	please dont harm whales and dolphins	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P204	With all our technology, it seems to me that the Navy should be capable of conducting its training without wiping out huge swaths of local marine ecosystems. The oceans have taken enough abuse from humans. This testing must not go forward.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable,

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P205	Protect the innocent marine life!	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P206	I am saddened to hear that the U.S. Navy is proposing to conduct training exercises all along the U.S. East Coast and in the rich marine environment off the coast of California and Hawaii. These exercises would involve the use of live explosives and high-intensity sonar. According to its own Environmental Impact Statements, the Navy estimates that the planned exercises would kill up to 2,000 marine mammals, including a large number of animals from endangered species, such as right whales. Thousands of others would suffer permanent lung damage. An additional 16,000 would be permanently deafened and 5 million would be temporarily deafened by the exercises. I understand the need for protecting our country, but we can find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures. I urge you to please do just that.	Thank you for your comment.
P207	STOP!	Thank you for participating in the NEPA process.
P208	The Atlantic Fleet training is dreadful idea. It should not be carried out due to the extreme environmental harm it will cause. It would be terrible crime. The mankind should behave with humanity, otherwise fighting for it is useless. If we live in dreadful society with no respect to one another, including animals, vast amount of marine life as would be the case in this exercise, then we have lost everything. The army would be not only useless but actually does more damage than good.	Thank you for participating in the NEPA process.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P209	Please help protect marine mammals for the effects of sonar testing as recommended by the HSUS. Thank you.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P210	The cost of these exercises is much too great. We have already lost thousands of marine animals to the actions of humans: oil spills, netting, ship propellers, garbage, etc. Please reconsider.	Thank you for participating in the NEPA process.
P211	The war is over and there will never be another one...stop the needless killing of our dolphins, whales and other marine life. Test in the dead sea or a deep lake anywhere else but in our oceans!	The alternatives carried forward meet the Navy's purpose and need to ensure that it can fulfill its obligation under Title 10. See Section 2.5 (Alternatives Development) for more detailed information on the development of alternatives.
P212	Good afternoon: It has come to my attention that the U.S. Navy is planning to schedule several training exercises along the east coast, California, and Hawaii. While I understand the importance of these exercises and the larger national security framework, I hope that you will consider certain measures to protect sea life from the harmful practices. As a citizen who lives just a couple of miles from the Atlantic Ocean, I'm particularly sensitive to the negative effects that we have on sea creatures, and I hope that the Navy's use of sonar and explosive equipment can be used in such a manner that causes the least interference - and injury or death - to these magnificent creatures. Thank you for your consideration.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P213	No live explosives and sonar exercises, please! They kill thousands of animals that have right to live.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		injuries to marine mammals.
P214	Please work with the HSUS to do everything possible to minimize the loss of marine life. I understand the importance of protecting our country, but I also feel strongly about the loss of life for these creatures. If the Navy and the Humane Society can work together to prevent the loss of life for these creatures then, we would have a win, win situation. Thank you.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P215	Please do not do testing off the East coast that would cause stress or kill marine animals in these waters!	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P216	Please protect marine mammals from explosives and sonar	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P217	Please adjust your training exercises to protect marine mammals from explosives and sonar.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P218	Please don't do this, it harms too many creatures!	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P219	Please take all reasonable measures to ensure your impact on marine wildlife is minimized by exploring less dense areas and employing some of the recommendations provided by those concerned about the threats to whales and dolphins.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of this Final EIS/OEIS.
P220	I object to the Navy's plan for sonar and weapons testing that is projected to deafen, maim and kill hundreds or thousands of cetaceans, and to disrupt undersea life in general. Cetaceans are as intelligent as humans. Their language is even more complex than ours. They rely on hearing to orient, navigate and communicate. To deafen them with extremely loud sonar is unbelievably cruel, and immoral at its core. It is unacceptable in a civilized society. The cold war is over. The Navy needs to rethink its plans, and come up with ways of testing sonar and weapons systems that does not savage undersea life. We as a species tread too heavily on the Earth, and damage the natural world with almost everything we do. It must stop. We cannot continue making war on the natural systems that sustain us, and must not brutalize the other species, some of them intelligent, with which we share the planet. Please do not make me ashamed to be an American. It is surely possible for the Navy to fulfill its national defense mission without trashing the environment like a bull in a china shop. Stop. Think. Search your conscience. Come up with a more gentle plan.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P221	Please do not complete sonar training exercises -- especially the ones currently proposed along the U.S. East Coast and in the rich marine environment off the coast of California and Hawaii. Almost everybody agrees that we need a robust and strong Navy to protect national security. And almost all of us agree that whales, dolphins, and porpoises deserve to live and to have a healthy ocean environment. But a recent	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	proposal from the federal government tries to make Americans pick between these options, and it's a false choice. We understand the need for protecting our country, but we can find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures. Thank you for your time and attention.	EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P222	Please protect these wonderful creatures.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P223	Atlantic Fleet Training and Testing activities should be designed for MINIMAL impact on marine mammal species, especially acoustic impact. Marine mammals are federally protected animals, and many are critically endangered.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P224	Hello, I have recently learned about intended testing exercises to be conducted on both coasts which involve methods that harm, kill and/or interfere with irreplaceable marine life. Surely national security objectives, which everyone believes is a priority, does not have to involve the death or destruction of living creatures so critical to our ecosystem and so valuable to the American people. Thank you very much for your consideration. Respectfully, Lauren Williams	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P225	Please consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS,

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed.	the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.
P226	I urge in the strongest terms that the Navy not conduct acoustic activities that in any way harm whales and dolphins. If it's a matter of defending the country against the possibility of attack, find another way that does not impact these majestic creatures.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P227	Sirs and Madams: As the daughter and niece of military pilots, I support the Armed Forces and consider myself to be very patriotic. However, any sonar testing that harms one single whale is unacceptable to me. We are destroying our oceans and killing whales and marine life at a too rapid pace. I understand your need to test, but it cannot be at the expense of our precious whales. You must find a better way. Thank you.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P228	There has to be a better way to test this equipment. There is no reason to endanger helpless animals.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P229	Please do not continue to harm innocent sea life with your life-threatening behaviors. Lee Channing	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All



Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P230	Please be sure to protect the dolphins and whales before doing your testing. They should not have to deaf in order for you to test your sonar and explosives. Thank you!!	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P231	STOP SONAR TESTING IN HAWAII. YOU ARE KILLING WHALES AND OTHER SEA CREATURES. GO SOMEWHERE ELSE AND TEST! TEST THE WATERS OF YOUR HOME AREA.	Thank you for participating in the NEPA process. However this comment is outside the scope of this EIS/OEIS.
P232	To whom it may concern: It has come to my attention the U.S. Navy plans to conduct training exercises along the U.S. East Coast coastline as well the Pacific and Hawaiian coastlines utilizing live explosives and high intensity sonar. Please reconsider the harmful and fatal impacts these training exercises are going to have on marine mammals! There must be a way for the U.S. Navy to remain trained and ready to answer the call to defend our nation WITHOUT harming marine wildlife. As a hard working American tax payer please I strongly urge the U.S. Navy to use every precaution necessary to avoid harming marine wildlife by taking sonar and explosives testing to areas away from marine mammals calving grounds and migratory corridors. Also, please create a safe-zone to ward off marine mammals who may stray into proving grounds. This CAN be a win-win situation for the U.S. Navy and members of God's creation if steps and precautions are taken. Yours sincerely, Ms. Leslie Porter [ADDRESS REMOVED]	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy recommends in specific mitigation areas that are important to marine mammals. The Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P233	I am strongly opposed to the current, ongoing and potential undersea testing off the coasts of Hawaii, Southern California, and the Atlantic and Gulf states, from 2014 to 2019. I am appalled at the projected damage	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	to whale and dolphin populations, 33 million instances of "take" over five years, a vast increase over existing estimates of harm for the same regions. Surely the US navy, with all its resources, both human and technological, can create a system which is both more effective and does not cause destruction of our sea creatures and the oceans upon which all our lives depend.	analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P234	There is no pressing reason in the world, that the Navy NEEDS to do sonar testing in order to be a strong, good Navy. There is no reason in the world that whales and other sea creatures lives need to be threatened, risked or harmed in order for the Navy to do the very good job it all ready does. What is going to be left to protect when you are through with it all?	Thank you for participating in the NEPA process.
P235	Please stop your plans that will harmfully impact the dolphins and whales on the east coast, west coast and Hawaiiin coast. Thank you!!!	Thank you for participating in the NEPA process. The analysis and the science show that there is not a significant impact on marine species. Please see Chapters 1 (Purpose and Need) and 2 (Description of Proposed Action and Alternatives) of the Final EIS/OEIS for a clear definition of the scope of this project.
P236	I am commenting to ask the Navy to consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. I am calling on the U.S. Navy to re-think its plans and to incorporate additional protective measures.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		recommends in specific mitigation areas that are important to marine mammals.
P237	Please do everything possible within you power to protect marine mammals from the abuse of your training exercises. The ocean is their home and all living creatures merit our respect and compassion.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P238	protect marine mammals from explosives and sonar ! DO YOU HAVE TO KILL EVERYTHING? gulf of Mexico is destroyed the pacific is now nuclear waste so now you have to [EXPLETIVE DELETED]THE ATLANTIC TOO"?? WHAT THE [EXPLETIVE DELETED] IS WRONG WITH YOU PEOPLE? S T O P !	Thank you for participating in the NEPA process.
P239	We are saddened to hear that the Navy is considering conducting exercises involving the use of live explosives and high-intensity sonar. Do you feel that it is really necessary to conduct this testing that will affect such a volume of marine life? It would be a great pity to see so much of the conservation work the USA has undertaken towards its marine environment over the last number of years being undermined by these proposed exercises. These conservation initiatives deserve to be applauded and have made the USA one of the leaders in marine conservation. To conduct these exercises flies in the face of all the good work and progress that has been achieved to date. There is also the issue of sound channels in the oceans that can carry sounds over vast distances, so not only local populations may be affected but also populations in areas seemingly far removed from the testing activities. As these activities could potentially affect endangered species on both the high seas and possibly in the territorial waters of other nations we believe that any other nations that could potentially be affected should be fully consulted, and the findings of any such consultations made public, prior to any decision being made on whether these activities should progress to the next stage. We would ask you to give serious consideration to just how necessary these proposed exercises are and	Thank you for your comment.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	where the benefits of them lie versus the destruction of marine life that so many dedicated citizens have worked tirelessly to preserve and enhance for both current and future generations. Thank you for your time, The Wilkerson family	
P240	Please consider using a "virtual simulator" as opposed to live ammo to run your tests. I understand the maneuvers are needed, but I am sure we have the technology to avoid further damage to sea life, and the intelligence to understand the damage already done. The world and it's creatures are ours to care for, not destroy at whim. We do enough damage to each other. Think of the impact on the environment, the sea mammals and other sea life, and think of the generations to come; the consequences of our actions now, and how we treat the environment is quite poor. If you are not sure what I mean, then perhaps more research is needed before live explosives are used again on a regular basis. Thanks for your time. With Much Respect, Lise Guillet	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Use of simulation, as described in Section 2.5.1.3.1 (Simulated Training) of the Final EIS/OEIS, concludes today's simulation technology does not permit effective training and testing.
P241	I know this has to be done, but why not out further, where the water is deeper?	The alternatives carried forward meet the Navy's purpose and need to ensure that it can fulfill its obligation under Title 10. See Section 2.5 (Alternatives Development) for more detailed information on the development of alternatives.
P242	Don't kill millions of creatures in the sea with sonar. That would be cruel and outrageous. Act responsibly.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P243	Please take steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard

Table E-5: Responses to Comments from Private Individuals (Continued)

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	mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. It's 2012, implementing barbaric effects on the earth's animals and planet are not acceptable or necessary.	Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy recommends in specific mitigation areas that are important to marine mammals. The Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P244	I oppose the navy exercises that put whales, dolphins, and other sea animals at risk. To me, this is a simple issue. If the danger is real, cruel, and negatively impacts living animals and ecosystems, then nothing justifies carrying out the activity. Alternatives must be found. period. Thank you for considering my comment.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P245	We are saddened to hear that the Navy is considering conducting exercises involving the use of live explosives and high-intensity sonar. Do you feel that it is really necessary to conduct this testing that will affect such a volume of marine life? It would be a great pity to see so much of the conservation work the USA has undertaken towards its marine environment over the last number of years being undermined by these proposed exercises. These conservation initiatives deserve to be applauded and have made the USA one of the leaders in marine conservation. To conduct these exercises flies in the face of all the good work and progress that has been achieved to date. There is also the issue of sound channels in the oceans that can carry sounds over vast distances, so not only local populations may be affected but also populations in areas seemingly far removed from the testing activities. As these activities could potentially affect endangered species on both the high seas and possibly in the territorial waters of other nations we believe that any other nations that could potentially be affected should be fully consulted, and the findings of any such consultations made	Thank you for your comment.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	public, prior to any decision being made on whether these activities should progress to the next stage. We would ask you to give serious consideration to just how necessary these proposed exercises are and where the benefits of them lie versus the destruction of marine life that so many dedicated citizens have worked tirelessly to preserve and enhance for both current and future generations. We look forward to hearing from you with your views on the above, if you have any queries please do not hesitate to contact us, yours, Louise Lilja	
P246	Please do not implement testing procedures that threaten marine life in our seas.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P247	Against the sonar testing which will disturb, possibly deafen and kill wildlife such as dolphins and whales. Why not set this aside for now in favor of a longer term approach that would use some of the tax dollars which support military research to find a more wildlife-friendly technology to accomplish these tasks? Seems like that would be a great application of American Ingenuity -- maybe even create jobs. There are so many impacts that we humans have on the environment -- many can't just be prevented by making a single choice. That's why I ask you to make a choice today that will prevent torture and harm to helpless intelligent animals.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P248	I believe we must have better protection for the marine life during these exercises, or the exercises must not take place.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P249	(My voting address is in Massachusetts; I'm an ex-pat living in France.) Please stop the indiscriminate deafening and killing of marine mammals. There is no excuse — none whatsoever, not logistically, not tactically,	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	absolutely no justification — for the Navy to sully itself by such wanton destruction of sea life. Surely we can defend ourselves without resorting to this kind of violence. Surely the Navy can develop better technologies that will not result in such slaughter.	analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P250	I understand the need for protecting our country, but we can find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures. Please protect marine mammals from explosives and sonar.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P251	I beg of you to please consider some other way of testing this equipment that will be harmful to the delicate marine life that is under siege by so many other environmental hazards. Surely your scientists can find a method of testing that will not cause pain and death to our fellow creatures.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P252	We are saddened to hear that the Navy is considering conducting exercises involving the use of live explosives and high-intensity sonar. Do you feel that it is really necessary to conduct this testing that will affect such a volume of marine life? It would be a great pity to see so much of the conservation work the USA has undertaken towards its marine environment over the last number of years being undermined by these proposed exercises. These conservation initiatives deserve to be applauded and have made the USA one of the leaders in marine conservation. To conduct these exercises flies in the face of all the good work and progress that has been achieved to date. There is also the issue of sound channels in the oceans that can carry sounds over vast distances, so not only local populations may be affected but also populations in areas seemingly far removed from the testing activities. As these activities could potentially affect endangered species on both the high seas and possibly in the territorial waters of other nations we	Thank you for your comment.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	believe that any other nations that could potentially be affected should be fully consulted, and the findings of any such consultations made public, prior to any decision being made on whether these activities should progress to the next stage. We would ask you to give serious consideration to just how necessary these proposed exercises are and where the benefits of them lie versus the destruction of marine life that so many dedicated citizens have worked tirelessly to preserve and enhance for both current and future generations. We look forward to hearing from you with your views on the above, if you have any queries please do not hesitate to contact us, yours, Annette vd Berg.	
P253	Please do not conduct this testing, US Navy. Protect our wonderful marine wildlife!	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P254	Please do not kill living creatures in order to protect living creatures. Surely the intelligent human mind can come up with a better plan to perform your tests and not maim and kill the intelligent beings of the sea.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P255	The following letter has been sent and shared with us by our friend John Flynn, Founder and Conservation Director wildseas.org We are saddened to hear that the Navy is considering conducting exercises involving the use of live explosives and high-intensity sonar. Do you feel that it is really necessary to conduct this testing that will affect such a volume of marine life? It would be a great pity to see so much of the conservation work the USA has undertaken towards its marine environment over the last number of years being undermined by these proposed exercises. These conservation initiatives deserve to be applauded and have made the USA one of the leaders in marine conservation. To conduct these exercises flies in the face of all the good work and progress that has been achieved to date. There is also the	Thank you for your comment.



Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	issue of sound channels in the oceans that can carry sounds over vast distances, so not only local populations may be affected but also populations in areas seemingly far removed from the testing activities. As these activities could potentially affect endangered species on both the high seas and possibly in the territorial waters of other nations we believe that any other nations that could potentially be affected should be fully consulted, and the findings of any such consultations made public, prior to any decision being made on whether these activities should progress to the next stage. We would ask you to give serious consideration to just how necessary these proposed exercises are and where the benefits of them lie versus the destruction of marine life that so many dedicated citizens have worked tirelessly to preserve and enhance for both current and future generations. We look forward to hearing from you with your views on the above, if you have any queries please do not hesitate to contact us, yours, M.Novak	
P256	<i>Duplicate comment to P255</i>	<i>See response to comment to P255</i>
P257	<i>Duplicate comment to P255</i>	<i>See response to comment to P255</i>
P258	we are facing a major collapse of biodiversity in the world actually, great cetaceans are important for life on earth, they should be protected rather than killed	Thank you for participating in the NEPA process.
P259	The U.S. Navy is proposing to conduct training exercises all along the U.S. East Coast and off the coast of California and Hawaii. These exercises would involve the use of live explosives and high-intensity sonar. The Navy estimates that the planned exercises would kill up to 2,000 marine mammals. Thousands of others would suffer permanent lung damage. Also, according to its own Environmental Impact Statements, the Navy estimates approximately 16,000 would be permanently deafened and 5 million would be temporarily deafened by these exercises. Can't we find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures? Thank you for your attention.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area

Table E-5: Responses to Comments from Private Individuals (Continued)

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		with no documented proof of injuries to marine mammals. The Navy does not anticipate any mortality from its activities. Though the model estimates the potential for mortality based on very conservative criteria, with the implementation of proven mitigation and decades of historical information from conducting training and testing in the Study Area, mortalities are highly unlikely. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.
P260	To Whom It May Concern: I am writing in opposition to the Navy's plan to increase underwater testing of missiles and torpedos, among other training, from 2014 through 2019 across the mileage from Maine to Texas, in general, and the area of Port Everglades in Fort Lauderdale, Florida, in particular. While I do understand that testing and training is a necessity to keep our country strong and our military ahead of everyone else, to do this while causing pain, injury and suffering to several other species, should not be a by-product of our military readiness. These animals have no voice and no alternative but to be where the Navy is testing. We really don't know how excruciating the pain and suffering is of these animals, only what is supposition. How fortunate we humans are that we have a choice, for the most part, in what happens to us. I am urging the government to find a humane alternative to the underwater testing. Acknowledging and accepting a certain amount of collateral damage to another species that has no voice should not be an option. This is the 21st century and there has to be some way of accomplishing the testing and training without harming the animals who don't know what is happening and cannot get away because they are prisoners in their environment. Thank you for your consideration and attention to this very important matter.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P261	As a concerned citizen, I am urging the U.S. Navy to reconsider it's use of explosives and sonar along the East coast. Please consider the effects of this testing on the animals living in these waters and work to find better alternatives.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable,

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		mitigation measures during its training and testing activities.
P262	We need to protect nature, not destroy it. Please save these wonderful animals.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P263	Hello, I would just like to voice my opposition to continued testing of underwater high-frequency, low-frequency, and high-power sound generating equipment. The damage to life in our oceans is impossible to measure, and once done cannot be undone. In addition, this technology, while interesting, is of dubious practical use. The threat of underwater attack upon the US is a cold-war-era issue. Today's threats are very unlikely to be discovered by this kind of technology. Our nation's time, energy and money would be better spent elsewhere.	The Navy shares your concern for marine life. Section 2.5.1.3 (Simulated Training and Testing) discusses the need for sonar training and testing activities and the threats against which simulated activities would not be effective. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P264	I am appealing that you do not test explosives and sonars, I was made aware that some sea mammals are in the endangered species list. We need to protect these animals, it is a reflection on all human beings if we harm these beautiful creatures. Please treat the lives of these sentient beings with humane care and dignity. Thank You, Maria Vint	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P265	Please reconsider and do not conduct training exercises where there are so many sea animals to injure. There are ways to avoid harm by avoiding migratory routes, calving areas, using safety zones, and monitoring sea life activity in the area. We do not want to hear that whales, porpoises, or other animals are dying.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with

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		NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy recommends in specific mitigation areas that are important to marine mammals. The Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P266	These are sentient creatures who have souls - the caretakers of the sea. We don't need to practice our war tactics on them. If men weren't so greedy they wouldn't make money going to war and this would be a non-issue. Stop killing everything on the planet!	Thank you for participating in the NEPA process
P267	This is absolutely ridiculous...what are you thinking? These are innocent, harmless, loving beings created by God! No one has a right to destroy what God has created for all our good. This is completely unnecessary, ever! Please stop, NOW! TY.	Thank you for participating in the NEPA process
P268	Animals should be protected, not murdered. Stop this cruel training exercises.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P269	I support the efforts of the Humane Society of the US, who have joined other environmental and animal welfare groups to ask the Navy to consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. Please consider incorporating these additional measures in order to save marine life. Thank you, Martie Roberts	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.
P270	It is beyond cruelty that the U.S. Navy plans to conduct exercises that	The Navy shares your concern for marine life. The analysis and the

Table E-5: Responses to Comments from Private Individuals (Continued)

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	will hurt marine mammals! Please consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. Cordially, Maru Angarita	science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy recommends in specific mitigation areas that are important to marine mammals.
P271	Dear Sirs: My husband was in the Navy, so I really don't have anything against the military. But, please do not harm the beautiful creatures that live in the waters around us. Please find a less harmful way to test your equipment. Thank you for your time and consideration in this matter. Sincerely, Mary De Mars	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P272	Please stop this madness. There are other ways of testing, please don't kill marine mammals.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. Section 2.5.1.3 (Simulated Training and Testing) discusses the need for sonar training and testing activities and the threats against which simulated activities would not be effective. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.

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P273	I just wanted to remind you that dolphins and whales are sentient beings. That means they can think and analyze and have emotions and feel pain. Some carry thousands of years of history in their songs, which change each year to incorporate new experiences. We must preserve and defend these creatures, not torture and kill them for a military advantage that we already have 10 times over. Please find another way to kill humans that doesn't involve marine mammals, which are protected in most places in the world.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P274	Please stop your sonar trainings!they are killing many creatures in the ocean!! you must understand that life is precious.. you do what ever you want, you must understand that you are not the only living thing in this planet so stop!. you got to find another way, its not fair for other living creatures to pay for you your cause!!	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P275	Re: Military training off the east and west coasts: Dear Sir or Ma'am, Please consider taking steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow your important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. Thank you for your thoughtful consideration, Mary Garrett	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P276	You've already done more damage to life on this planet than is acceptable by any standard of decency and no excuse is good enough to justify this. (CHEMTRAILS ARE BAD ENOUGH) The earth, its oceans, and the life they support are not your personal possessions to destroy wantonly. These things belong to all life on earth and are not meant merely for military war games. Expanding and initiating warfare testing in more areas of the Pacific, the Atlantic, and the Gulf of Mexico, is nothing less than criminal behavior and will spell disaster for millions of marine mammals, and fish, and their habitats. I do not elect to be the guinea pig for your experiments or to have the oceans used for massive warfare testing. NO NO NO, ENOUGH! STOP NOW! FIND SOME	Thank you for participating in the NEPA process.

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Comment Identifier	Comment	Navy Response
	OTHER WAY TO TRAIN AND STAY [EXPLETIVE DELETED] OUT OF OUR FRAGILE ENVIRONMENT.	
P277	<p>Our marine mammals are already in severe stress from factors such as pollution, ocean warming, overfishing and harmful fishing practices, collision with ocean-going vessels, etc. To deliberately increase sonar use, which we know negatively affects and even kills marine mammals, is unconscionable. We are killing off our ocean inhabitants before we even know all of the positive benefits they could provide to mankind. Please consider DECREASING sonar use in ocean habitats where marine mammals are known to inhabit. To do otherwise will hasten the day when our oceans become dead zones devoid of life. Few studies have been done to truly ascertain what will happen to the human race when the circle of life becomes so disrupted that entire species disappear forever from planet earth. This is already happening. Each year more species become extinct and others become marginalized and/or forever altered. No government, including our own, has the right to deprive future generations of the bounty and diversity of the ocean in the name of upholding security or any other perceived benefit. It is simply immoral to heedlessly destroy and damage other life forms to the extent that they cannot rebound as a species. The United States is answerable to future generations for the harm we do in pursuit of our goals--and we are answerable to other nations who, like us, depend on ocean resources for survival. There surely must be ways to mitigate and prevent sonar-caused impacts to marine mammals. We need to refocus our energies on finding and implementing these ways and pull back from ocean sonar use that is currently so damaging. Thank you for your consideration.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.</p>
P278	<p>my name is marylou schmidt and i would like to know why the navy is doing the underwater testing that is killing and deafening thousand of whales and dolphins. in my opinion the testing is not worth the lives of these beautiful creatures. i am of the Wiccan faith and these animals are very sacred to me.i strongly request that the navy stop these test.like i stated before the tests in my opinion are not worth the lives of these very intelligent and gentle creatures. is there a telephone number i can call to talk to someone about the testing? i will give you mine. this is so important to me that you quit the testing. the navy has already done enough harm to the dolphins in the past. my cell phone no. is [NUMBER REMOVED]. again i ask PLEASE STOP THE</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	TESTING!!!!!!!!!!!!!!!!!!!!!!marylou schmidt	
P279	I am against the useless killing of marine mammals (or any other marine life) for the purpose of military testing and urge those that are able to stop this bararism at once.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.
P280	Hello, Protecting our nation can be done without loss to wildlife and the natural balance that we all need to survive. Please stop current plans to test explosives. Our family is in agreement with the Humane Society: The HSUS is joining other environmental and animal welfare groups to ask the Navy to consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.
P281	I concur with John Flynn: I too am saddened to hear that the Navy is considering conducting exercises involving the use of live explosives and high-intensity sonar. Do you feel that it is really necessary to conduct this testing that will affect such a volume of marine life? It would be a great pity to see so much of the conservation work the USA has undertaken towards its marine environment over the last number of years being undermined by these proposed exercises. These conservation initiatives deserve to be applauded and have made the USA one of the leaders in marine conservation. To conduct these exercises flies in the face of all the good work and progress that has been achieved to date. There is also the issue of sound channels in the oceans that can carry sounds over vast distances, so not only local populations may be affected but also populations in areas seemingly far	Thank you for your comment.



Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	removed from the testing activities. As these activities could potentially affect endangered species on both the high seas and possibly in the territorial waters of other nations we believe that any other nations that could potentially be affected should be fully consulted, and the findings of any such consultations made public, prior to any decision being made on whether these activities should progress to the next stage. Please give serious consideration to just how necessary these proposed exercises are and where the benefits of them lie versus the destruction of marine life that so many dedicated citizens have worked tirelessly to preserve and enhance for both current and future generations. I look forward to hearing from you with your views on the above. Sincerely Yours, Maureen Engh	
P282	NO SONAR USE IN OUR OCEANS! YOUR AGENDA IN NOT AS IMPORTANT AS THE LIFE YOU ARE HARMING AND ENDING. FIND ANOTHER WAY TO ACCOMPLISH WHAT YOU ARE TRYING TO ACCOMPLISH.	Thank you for participating in the NEPA process.
P283	stop destroying other species in the name of war. STOP.	Thank you for participating in the NEPA process.
P284	Dear Sir/Madam; Thank you for the opportunity to comment on the Atlantic Fleet Training and Testing EIS/OEIS. I do not believe the proposed project activities appropriately consider the the environmental impacts upon marine mammals (and all marine lifeforms), water quality, and the viability of marine ecosystems that are so vital to the health of our planet and the economic viability of marine resources. Dramatically impacting marine mammals and marine ecosystems to meet short term training goals indicates a less than prudent trade-off in terms of priorities. There is a substantial body of evidence gathered to date indicating that bomb blasts and sonar used in weapons training and testing create extreme stress, if not mortality, in marine mammals. I do not believe the military should be exempt from marine mammal protection laws; they were created for a good reason, and everyone, including all government departments, should voluntarily obey these laws, with the only exception being extreme emergency. Training is not an extreme emergency; it is expected and planned for. Destroying our own food base and coastlines for training makes no sense and is counter-productive to national security and the economic and environmental well being of our people. Because of the damage to the marine mammals that can be expected with the proposed training activities, the impacts on the overall marine environment, and the totally	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Regarding the use of simulation, as described in Section 2.5.1.3.1 (Simulated Training) of the Final EIS/OEIS, today's simulation technology does not permit effective training and testing. The Navy has complied with all applicable marine mammal protection federal laws, including the Marine Mammal Protection Act and the Endangered Species Act.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	inadequate mitigation measures proposed, I do not support the Atlantic Fleet Training proposal, or any of the options proposed as submitted. I would encourage the military to think of ways to defend our country without causing such unnecessary levels of destruction. Sincerely, Melinda McComb	
P285	Don't kill whales just for some stupid test.	Thank you for participating in the NEPA process.
P286	Your website talks about the Navy's commitment to marine health. I desperately hope that this is true but your actions speak otherwise. Whales and dolphins use sound frequency and echo location to communicate in every possible way. It is especially important that mothers are able to locate and communicate with their babies. You should know better than anyone that low frequency sound underwater can carry for hundreds of miles and how it can kill and painfully harm sea creatures. Your testing is reprehensible and threatens to tortuously kill thousands of innocent creatures in unspeakable ways. I'm ashamed that my tax dollars would go to fund such a heinous and blatantly inhumane project.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P287	Please do not do testing that will further endanger our marine wildlife. With endangered species on the rise - I can't imagine adding to this crisis.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P288	Please for the love of God, do not perform these deadly explosions and sonar exercises that will kill and deafen dolphins, whales, and porpoises. These wonderful creatures are already subjected to humans' rampant pollution, fishing nets, hunting, boating, etc. Please have a heart for these animals who are so vital the ocean's ecosystem.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P289	Please don't kill a bunch of Animals just so you can be "prepared" for a fight.	Thank you for participating in the NEPA process.
P290	We understand the need for protecting our country, but we can find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P291	TESTING IS BAD BECOUSE TOO MANY ANIMALS WILL GET HURT	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P292	Dear U.S. Navy, Please do not conduct sonar and explosives experiments along the East and West Coast of our country. Our marine mammals already include many endangered species...please let them live in peace. There must be another way to protect our country without endangering our wildlife. Thank you, Mimi	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P293	I read an article in the Cape Cod Times about the public hearing in Provience and would be very interested in seeing the 3D view of sound behavior in the water and how it affects different species. Can you please provide information on how I could view this model? Thank you, Mindy Sweeny	The poster on the Navy Acoustic Effects Model can be found on the project web site ( <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> ) under "Documents and References."
P294	stop the navy experiments as long it kills our all sea life.	Thank you for participating in the NEPA process.
P295	I understand the need for protecting our country, but can't we find a better way to ensure national security without sacrificing all of these whales, dolphins, and many other marine creatures. I don't know what else to say. It breaks my heart	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P296	We understand the need for protecting our country, but we can find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures. Please protect marine mammals from explosives and sonar along the East Coast and California/Hawaii. We know that in the past, whales have stranded and died in the wake of major military sonar exercises, with bleeding from the ears and other tissue damage attributed to sonar. These have included incidents of beaked whales dying in the Canary Islands following sonar exercises, the panicked flight of orcas and porpoises off Washington State in 2003, and dozens of whales (including pregnant females) from several species who died in North Carolina in 2005. These tragedies can be avoided to a very significant degree. This is unusually cruel. Please consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. I am asking the	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy believes that the proposed training and testing will not pose a significant risk to whales, fish, and other wildlife given that these same activities have been conducted for many years in other range complexes with no indications of broad-scale impacts that are either injurious or of significant biological impact on marine mammals, fish, or wildlife at those locations. Please see the recent results supporting this as presented in training ranges monitoring reports available at available at NMFS Office of Protected Resources web site. Please see the project web site ( <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> ) for the <i>Marine Mammal Stranding Report</i> which has a full review of the scientific record concerning marine mammal strandings and sonar use. An integrated monitoring plan for the activities in the AFTT Study Area is also planned as presented in Section 5.5.1.1 (Integrated Comprehensive

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	U.S. Navy to re-think its plans and to incorporate additional protective measures. Thank you, Barbara Fleming	Monitoring Program) of the Final EIS/OEIS. The Navy will continue to implement the monitoring and research programs where training and testing has been occurring to determine if there are determinable impacts as a result of those activities and will do so in the AFTT Study Area associated with future training and testing occurring there. The Navy will continue to be a leader in funding of research to better understand the potential impacts of Navy training and testing activities and to operate with the least possible impacts while meeting training and testing requirements.
P297	do not conduct these inhumane tests. animals are being tortured and subject to extreme pain.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P298	I live in a Coastal Community in Massachusetts. The Ocean and all of the animals and fish that live in the waters here are very important to us. They are part of New England culture, economy and tourism. On the East Coast we see what happens when these magnificent animals are stranded or loose their way. We are on the other end of your exercises. Dolphins, porpoises and whales are sentient beings and mammals, just like us. Their intelligence and communication skills are on a parallel to ours. We still don't know all the things we could learn about them. However, they tolerate us in spite of ourselves. I truly cannot believe that with all the funding, taxpayer's money and state of the art technology the United States Navy has at its disposal, it cannot find another model for its testing so as to not kill and/or deafen our magnificent wildlife that make their homes in these waters. We know that in the past, whales and dolphins have stranded and died in the wake of major military sonar exercises, with bleeding from the ears and other tissue damage attributed to sonar. Whales beach themselves when they come into contact with the high level military sonar in an effort to escape the painful and damaging effects of the powerful sonar. For the ones that did not die immediately, their hearing was damaged. It then	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy believes that the proposed training and testing will not pose a significant risk to whales, fish, and other wildlife given that these same activities have been conducted for many years in other range complexes with no indications of broad-scale impacts that are either injurious or of significant biological impact on marine mammals, fish, or wildlife at those locations. Please see the recent results supporting this as presented in training ranges monitoring reports available at available at NMFS Office of Protected Resources web site. Please see the project web site ( <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> ) for the <i>Marine Mammal Stranding Report</i> which has a full review of the scientific record concerning marine mammal strandings and sonar use. An

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	<p>becomes be more difficult for them to hunt and navigate, as they rely on echo-location. We know that loud electronic echoing noise causes dolphins and whales to stampede. All of these things have significant and adverse effect on pregnant females and calves who are vulnerable to injury or death. Whales are communal and if one whale gets sick or decides to beach, all of the remaining whales in the group will beach themselves to remain together as a group. The number of our whales are dwindling. And, yes, humans again had alot to do with their dwindling numbers in the past as they were hunted and killed by us. And still are in places today. We need to look to preserve and treasure these magnificent sentient beings. They could hunt us, or lift a boat out of water but they don't. They are tolerant and communicate with us. Surely as a species we can do better than we have done by them. I am not saying that the Navy should not do what it needs to do. What I am saying is that the Navy can do what it needs to do without deafening, maiming and/or killing part of America that it is supposed to be protecting. These animals matter. It is not acceptable for the Navy to say they are going to do exercises that involve the use of live explosives and high-intensity sonar that according to its own Environmental Impact Statements estimates that the planned exercises would kill up to 2,000 marine mammals, including a large number of animals from endangered species, such as right whales. Thousands of others would suffer permanent lung damage. An additional 16,000 would be permanently deafened and 5 million would be temporarily deafened by the exercises. I ask you to consider steps to reduce the harmful impacts to marine mammals such as avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. I am the daughter of a World War II Veteran and I believe that the Navy can accomplish everything it wants to without injuring or killing innocent, sentient beings that live in the waters that the Navy is using. To do anything less is unconscionable and indefensible and dehumanizes all of us. That is not the image I would like to have of the United States Navy. Please reconsider your plans and if you must test here on the East Coast, how you are handling your testing by incorporating additional protective measures. Thank you for your time</p>	<p>integrated monitoring plan for the activities in the AFTT Study Area is also planned as presented in Section 5.5.1.1 (Integrated Comprehensive Monitoring Program) of the Final EIS/OEIS. The Navy will continue to implement the monitoring and research programs where training and testing has been occurring to determine if there are determinable impacts as a result of those activities and will do so in the AFTT Study Area associated with future training and testing occurring there. The Navy will continue to be a leader in funding of research to better understand the potential impacts of Navy training and testing activities and to operate with the least possible impacts while meeting training and testing requirements.</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	and for reading my email.	
P299	I am concerned about the potential harmful effect on dolphins in the area of testing. I have read reports of problems with hearing following loud testing in areas where this has been done which dolphins rely very much on their hearing so I am against this testing in an area where dolphins are plentiful.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P300	In conducting your training exercises along the east coast I urge you to minimize the impact these activities have upon the marine life. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy recommends in specific mitigation areas that are important to marine mammals. The Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P301	I support the humane society (HSUS) in their request to the Navy to consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy recommends in specific mitigation areas that are important to marine mammals.
P302	I am writing at the urging of the Humane Society of the U.S. to express my strong opposition to naval testing on the east and west coasts that could affect, hurt and even kill hundreds, even thousands, of marine mammals. Yes, naval operations are important, but not at the expense of so many animals, including some endangered species. Such an endeavor is wrong, plain and simple. And it should not be part of U.S. military exercises.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P303	I urge for a moratorium on this plan, and continued testing, until a full congressional hearing can be undertaken. I do not want to see more marine life killed because of this or any similar program.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Please see Chapters 1 (Purpose and Need) and 2 (Description of Proposed Action and Alternatives) of the Final EIS/OEIS for a clear definition of the scope of this project.
P304	<i>Duplicate comment to P303</i>	<i>See response to comment to P303</i>
P305	Please stop hurting the animals.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy



Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P306	I truly do support our armed forces. I know that we need to conduct training exercises in order to further our technology, however, I do not approve of doing so in such a way that endangers wildlife. Please find an alternate solution. I know that you can find other means to ensure both our safety, and the safety of innocent lives. Thank you, A concerned and supportive citizen.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P307	You know your testing is killing whales and porpoises. You know there are ways to minimize that killing. Do so. The whales (of all sizes) are already threatened - by overfishing, "by catch" collateral damage, by ocean warming/acidification. Don't add to it. The small whales are top predators and help keep the prey species healthy the way wolves do on land. Humans are mucking up the chain of life to the extent that we are threatening our own future. The Navy needs to stop being a part of that threat. Modify your testing to stop killing whale species.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P308	Respect Earth.	Thank you for participating in the NEPA process.
P309	I urge to Navy to avoid the most harmful activities to cetaceans in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. These steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P310	Our oceans sustain life that should not be messed with or abused. No matter how important the reason these creatures cannot be killed and endangered. We have seen animals go extinct or become endangered before because of the choices of man. It is not worth it to let these animals die, if the ocean dies we die. Simple as that. Please make chan	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		(Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P311	PLEASE STOP THIS CRUEL AND UNNECESSARY TESTING. IF YOU CAN PREDICT THE NUMBER OF DEATHS AND DAMAGE TO MARINE MAMMALS ALREADY ISN'T THIS REDUNDANT??	Thank you for participating in the NEPA process.
P312	[EXPLETIVE DELETED] Navy.	Thank you for participating in the NEPA process.
P313	Karma and compassion are universal concepts. Treat others as you'd like to be treated. We urge you to cease military action that would kill and disfigure life in the ocean and elsewhere. Sincerely, P. Yushin Honolulu, HI	Thank you for participating in the NEPA process.
P314	Whales and dolphins communicate by sonar and your testing can kill them. NO MORE SONAR TESTING!! It kills whales and dolphins. DONE!	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P315	Please do not harm or kill the whales and dolphins. These are beautiful magnificent creatures on our planet that need to be revered and protected.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P316	Please do not kill sea life because of the explosive testing you plan to do on the East Coast.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P317	I am saddened to hear that the Navy is considering conducting exercises involving the use of live explosives and high-intensity sonar. Do you feel that it is really necessary to conduct this testing that will affect such a volume of marine life? It would be a great pity to see so much of the conservation work the USA has undertaken towards its marine environment over the last number of years being undermined by these proposed exercises. These conservation initiatives deserve to be applauded and have made the USA one of the leaders in marine conservation. To conduct these exercises flies in the face of all the good work and progress that has been achieved to date. There is also the issue of sound channels in the oceans that can carry sounds over vast distances, so not only local populations may be affected but also populations in areas seemingly far removed from the testing activities. As these activities could potentially affect endangered species on both the high seas and possibly in the territorial waters of other nations I believe that any other nations that could potentially be affected should be fully consulted, and the findings of any such consultations made public, prior to any decision being made on whether these activities should progress to the next stage. I would ask you to give serious consideration to just how necessary these proposed exercises are and where the benefits of them lie versus the destruction of marine life that so many dedicated citizens have worked tirelessly to preserve and enhance for both current and future generations. I look forward to hearing from you with your views on the above, if you have any queries please do not hesitate to contact us, Sincerely, Paul A. Kelley, Ph.D.	Thank you for your comment.
P318	Please help protect dolphins and orcas from the sonar!	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P319	We are saddened to hear that the Navy is considering conducting exercises involving the use of live explosives and high-intensity sonar. Do you feel that it is really necessary to conduct this testing that will affect such a volume of marine life? It would be a great pity to see so much of the conservation work the USA has undertaken towards its marine environment over the last number of years being undermined by these proposed exercises. These conservation initiatives deserve to be applauded and have made the USA one of the leaders in marine conservation. To conduct these exercises flies in the face of all the good work and progress that has been achieved to date. There is also the issue of sound channels in the oceans that can carry sounds over vast distances, so not only local populations may be affected but also populations in areas seemingly far removed from the testing activities. As these activities could potentially affect endangered species on both the high seas and possibly in the territorial waters of other nations we believe that any other nations that could potentially be affected should be fully consulted, and the findings of any such consultations made public, prior to any decision being made on whether these activities should progress to the next stage. We would ask you to give serious consideration to just how necessary these proposed exercises are and where the benefits of them lie versus the destruction of marine life that so many dedicated citizens have worked tirelessly to preserve and enhance for both current and future generations. We look forward to hearing from you with your views on the above, if you have any queries please do not hesitate to contact us, yours, Paula	Thank you for your comment.
P320	This is insanity. There have to be other means of testing that will not destroy other mammals. What a shame. These tests should not be conducted, if they are devastating to the marine life. There simply have to be other ways of testing. Please stop this now! It is wrong.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		(Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P321	Please consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. Thank you.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.
P322	Please protect marine mammals from explosives and sonar along the East Coast! I understand the need for protecting our country, but can't we find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P323	Stop the killing of 1,800 whales and dolphins and the deafening of 15,900 more by ceasing the operation of the Navy's underwater sound system in the Hawaiian Islands, the California and Atlantic Coasts, and the Gulf of Mexico.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. The Navy does not anticipate any mortality from its activities. Though the model estimates the potential for mortality based on very conservative criteria, with the implementation of proven mitigation and decades of historical information from conducting training and testing in the Study Area, mortalities are highly unlikely. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. The Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P324	I urge you, in the proposal to conduct training exercises along the U.S. East Coast and in the rich marine environment off the coast of California and Hawaii, to please incorporate additional protective measures to reduce the harmful impacts to marine mammals from the use of live explosives and high-intensity sonar. Please do the right thing. Sincerely, Rebecca Portman	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P325	Please respect these animal's health and habitat. Sonar and loud explosives are life threatening and very dangerous for these creatures whose main sensory way of living is through sound. The outcome of thousands of dead and damaged dolphins and whales is not worth the Navy being able to conduct some training exercises.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		Study Area with no documented proof of injuries to marine mammals.
P326	Please do not let our precious marine animals die from your experiments. Please have a conscious.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P327	The blatant disregard for life.....perpetrated by the US Federal Govt. must and will end. The only terrorist GLOBALLY IS the US Federal Govt and its corporate & banker Military Industrial Complex. Americans will not stand for the incremental destruction of human & animal life and rights.....the illegal, and Unconstitutional governance we are temporarily & currently enslaved by will soon be expelled by ALL humanity and respect for our planet.....SANITY! and THE RULE OF LAW RESTORED!	Thank you for participating in the NEPA process.
P328	The U.S. Navy should not be granted permissions for the Active sonar training and use of explosives that the Navy is requesting, based on the historical incidents of cetacean strandings, etc. and changes in marine mammal behavior that have documented in prior years. The terrorist threat that the United States faces is overblown. I also question the level of military activity that our country expends to maintain our safety. The number and size of areas in which the Navy intends to actively test sonar is completely out of proportion to the dangers faced by the Navy and by the United States in general. I would like to see definitive proof that these activities do not adversely impact marine mammal populations, as opposed to lack of proof.	The Navy shares your desire to preserve marine life. The Navy believes that the proposed training and testing will not pose a significant risk to whales, fish, and other wildlife given that these same activities have been conducted for many years in other range complexes with no indications of broad-scale impacts that are either injurious or of significant biological impact on marine mammals, fish, or wildlife at those locations. Please see the recent results supporting this as presented in training ranges monitoring reports available at available at NMFS Office of Protected Resources web site. Please see the project web site ( <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> ) for the <i>Marine Mammal Stranding Report</i> which has a full review of the scientific record concerning marine mammal strandings and sonar use. An integrated monitoring plan for the activities in the AFTT Study Area is also planned as presented in Section 5.5.1.1 (Integrated Comprehensive Monitoring Program) of the Final EIS/OEIS. The Navy will continue to implement the monitoring and research programs where training and testing has been occurring to determine if there are determinable impacts as a result of those activities and will do so in the AFTT Study Area associated with future training and testing occurring there. The Navy will continue to be a leader in funding of

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		research to better understand the potential impacts of Navy training and testing activities and to operate with the least possible impacts while meeting training and testing requirements.
P329	Stop... We need 2 start caring 4 all animals (land, air & sea)... Ur xperiment is harmful to sea life... Stop...	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P330	Please, the cost to marine life, the fragile eco systems and indeed our survival as a species is too great. These mad practices of war against each other and the degradation and destruction of our planet must cease and desist immediately. Thank you.	Thank you for participating in the NEPA process.
P331	As a citizen, I am very concerned about the Navy's activities which might impact marine life, particularly dolphins and whales. HSUS is joining other environmental and animal welfare groups to ask the Navy to consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. Thanks Richard Pendarvis, Ph.D. (Chemistry)	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy recommends in specific mitigation areas that are important to marine mammals.
P332	This testing does nothing to make us safer. It will only be a black mark on the honor of the United States in general and of the U.S. Navy in particular.	Thank you for participating in the NEPA process
P333	Hello: I am writing because I strongly oppose sonic testing. Animals exist in their own right as individuals pursuing their way of being, which	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All



Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	<p>is no more or less sacred and holy than yours or mine. My most recent concern is Decompression Related Embolism in Stranded Whales and Dolphins, which occurs exclusively due to the US Navy. I am a citizen. I do not support cruel and grievous conduct to human or non-human creatures. Moreover, means do not justify ends - even when those ends may seem justifiable to those employing unjust means. I do not support hurting or violence towards others, human or otherwise. I appreciate a strong defense but not one that disrupts, upsets or destroys others, human, non-human, plant, mineral, rock, water or soil. I look forward to your response. Thank you.</p>	<p>of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy believes that the proposed training and testing will not pose a significant risk to whales, fish, and other wildlife given that these same activities have been conducted for many years in other range complexes with no indications of broad-scale impacts that are either injurious or of significant biological impact on marine mammals, fish, or wildlife at those locations. Please see the recent results supporting this as presented in training ranges monitoring reports available at available at NMFS Office of Protected Resources web site. Please see the project web site (<a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a>) for the <i>Marine Mammal Stranding Report</i> which has a full review of the scientific record concerning marine mammal strandings and sonar use. An integrated monitoring plan for the activities in the AFTT Study Area is also planned as presented in Section 5.5.1.1 (Integrated Comprehensive Monitoring Program) of the Final EIS/OEIS. The Navy will continue to implement the monitoring and research programs where training and testing has been occurring to determine if there are determinable impacts as a result of those activities and will do so in the AFTT Study Area associated with future training and testing occurring there. The Navy will continue to be a leader in funding of research to better understand the potential impacts of Navy training and testing activities and to operate with the least possible impacts while meeting training and testing requirements.</p>
P334	<p>Please help the whales and dolphins. Do the RIGHT THING!!! I can't tell you how important it is for people like YOU in YOUR POSITION to step up and do something unselfish for a change. These peaceful, majestic, and innocent animals need YOUR HELP. PLEASE? DO THE RIGHT THING!!!!!!!!!!</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P335	I believe aquatic wildlife should be protected however support national security that active SONAR provides. The SONAR VLF range (sub-grouped very low, mid,high and very high)should be further studied to understand impact to various marine species and use the subsequent frequencies that mitigate marine wildlife damage. This effort should mitigate damage to marine life while providing for our national security.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P336	<i>Duplicate comment to P335</i>	<i>See response to comment to P335</i>
P337	This should not be done. DO NOT DO THIS. The welfare of the animals is far more important than any test. STOP!!	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P338	All animals deserve to live on this planet and be safe from destruction of another species. Please do the right thing and make the necessary changes to protect whales and other sea animals. Thank you,	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P339	Comments/Questions/ for Navy Atlantic Fleet Training and Testing EIS/OEIS July 9, 2012 RE: Aerosol sized chaff from 30,000 canisters Aluminium is oxidized by water to produce hydrogen and heat: $2 \text{ Al} + 3 \text{ H}_2\text{O} \rightarrow \text{Al}_2\text{O}_3 + 3 \text{ H}_2$ This conversion is of interest for the production of hydrogen. Challenges include circumventing the formed oxide layer which inhibits the reaction and the expenses associated with the storage	Discussion and analysis of chaff can be found in Sections 3.0.5.3.5.3 (Military Expended Materials Other Than Munitions), 3.1.3.4.3 (Chaff), 3.1.3.4.6.2 (Chaff), and 3.2.1.3 (Approach to Analysis). The Navy has consulted with NMFS and U.S. Fish and Wildlife Service on federally protected species within the Study Area.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	<p>of energy by regeneration of the Al metal. Question: What will be the impact to the atmospheric environment in the vicinity of all the aerosol sized Aluminum chaff to be dispensed from the 30,000 cannisters? Question: What will be the impact on human biological systems in the vicinity of all the aerosol sized Aluminum chaff to be dispensed from the 30,000 cannisters? The presence of aluminum oxide - a material not occurring in nature in humans and mammals in Monroe County, Fla. has been established - and a baseline has been established. Question: What agency of the Federal government or company who makes the material will be held accountable in the event of increased contamination? Non-naturally occurring Aluminum has been establish as the causative agent in a number of diseases. The aluminum aerosols dispersion program (chaff) may cause further widespread disease in the Florida Keys and downwind in Collier county. Question: Who will pay the long term health costs for any human exposures to the aluminum toxins? I am requesting you get a US Fish and Wildlife Service (1849 C Street, NW Washington, DC 20240) consultation re: unpermitted "take" of all the federally endangered and threatened species in Monroe County, Fla – including but not limited to the manatee, American crocodile, Florida panther, all of the listed birds and plants – from aerial dispersion of a known toxin, the direct, indirect and cumulative impacts of which have not been determined for any of those species. Respectfully LT. Ron Cole USNR</p>	
P340	<p>Please -- It is clear from your draft statement that you have not thought this matter through, and that you still have a great deal of research and planning to do before you are ready to RESPONSIBLY conduct these tests. You want to simply forge ahead, [EXPLETIVE DELETED] consequences! I used to be proud of the Navy. What [EXPLETIVE DELETED] has happened to it?</p>	<p>Thank you for participating in the NEPA process.</p>
P341	<p>May 25, 2012 TO: The Honorable Secretary of the U.S. Navy, Ray Mabus RE: Formal Request &amp; Action by the U.S. Navy in the Final AFTT EIS document. Dear Secretary Mabus: I am formally requesting a hard copy and CD of the subsequent AFTT Final Environmental Impact Statement of the Atlantic Fleet Training &amp; Testing Range Complex once prepared from your current draft AFTT EIS-OEIS document. I would also like notification of the dates when the final AFTT EIS/OEIS public comments are noticed in the U.S. Federal Register so that comments may be made in a timely manner. The following information was release by U.S. Senator McCain and U.S. Senator</p>	<p>Thank you for participating in the NEPA process. However this comment is outside the scope of this EIS/OEIS. Please see Chapters 1 (Purpose and Need) and 2 (Description of Proposed Action and Alternatives) of the Final EIS/OEIS for a clear definition of the scope of this project. The commenter was provided a copy of the Final EIS/OEIS.</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	<p>Levin: <a href="http://startingpoint.blogs.cnn.com/2012/05/22/sen-carl-levin-counterfeit-military-parts-pose-significant-safety-risk/">http://startingpoint.blogs.cnn.com/2012/05/22/sen-carl-levin-counterfeit-military-parts-pose-significant-safety-risk/</a> CNN News &amp; Video – May 22, 2012 Sen. Carl Levin: Counterfeit military parts pose 'significant safety risk' "...Because of a recent surge of counterfeit military parts– such as pieces of equipment used in aircrafts– the Senate Armed Services Committee has adopted new legislation to change the procedural laws for buying new or refurbished parts. Senator Carl Levin joins Starting Point this morning to explain the details of the new law, which he has been working on alongside Sen. John McCain. Levin explains that the news laws say that parts can only be bought from contracted, authorized distributors or certified suppliers and dictates that suppliers will be responsible for their own repairs. Regarding the threat posed by the counterfeit parts, Levin explains that the problem occurs almost exclusively with equipment produced in China, and poses a "significant" safety threat to the nation..." End The U.S. Navy is now conducting warfare testing in the Pacific, Atlantic, and the Gulf of Mexico. Nuclear submarines, aircraft, ships, missiles, drones, and a whole host of other warfare weapons are now being tested over land and ocean areas. What actions are you taking to address the issue of counterfeit and questionable refurbished parts being purchased by the U.S. Navy? These counterfeit and faulty parts not only cost the U.S. Navy money but they have the potential to cause injuries to our Naval personnel, civilians, and others when they subsequently fail. Secretary Mabus, I have seen you recently on television and on interview shows, speaking about the U.S. Navy, but never once demanding that action be taken to address the issue of counterfeit parts, especially from China. In addition, I didn't hear you state, for the record, that the Navy will refuse to use said parts, especially from China, in order to protect the sailors under your watch and the civilians that may be killed or injured when these counterfeit parts malfunction. It is time that military parts, software, and hardware be made in the United States where quality controls are in place. I expect that you will at the forefront in stopping the use of counterfeit parts from China and other foreign countries. I am looking forward to hearing from you in writing within the next few days on this critical issue and that you will require that those who prepare your final AFTT EIS/OEIS to address this critical issue in order to protect our troops and the U.S. civilian population. Sincerely, Rosalind Peterson [ADDRESS REMOVED] CC: U.S. Senator Barbara Boxer U.S. Senator Dianne Feinstein U.S. Congressman Mike Thompson (California)</p>	

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P342	Please protect our marine mammals	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P343	Please stop testing in the ocean where ocean life is.	The alternatives carried forward meet the Navy's purpose and need to ensure that it can fulfill its obligation under Title 10. See Section 2.5 (Alternatives Development) for more detailed information on the development of alternatives. The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P344	to whom is going to read this, I do NOT see the true reason to do these excersises. To thoughtlessly KILL and Injure ALL those animals for practice... REALLY? i would one day like to have my daughter and her kids know what marine life is... doing such training excersises that will hurt and kill animals on the endanger spieces list will further hinder our oceans and our future generations from enjoying the rich life they support. the whalers around the world atleast kill to eat the poor animals... not just for the heck of it... i understand the Navy HAS TO do somethings but the wildlife in the oceans around the US are still trying to come back from the BP oil spill that was now 2 yrs ago. i doubt we need dead animals washing up on our shores AGAIN! This is NOT ok and i dont support these actions the US military are willing to take in order to just have drills... there are so many species in the ocean and if we as	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	<p>people are wreckless we will never even get to see and explore them. we only know 2% of what there is to know about our oceans. this is just wrong and as a military i will always support our troops BUT I DONT HAVE TO SUPPORT THE ACTIONS THE US GOVERNMENT MAKES THE TROOPS DO! I hope this reaches someone who can help stop this from happening. my daughter is 4. she started to cry as i read to her what the US NAVY wants to do. EVEN A 4 YR OLD KNOWS ITS WRONG! i am writting this as a plea from my heart and the heart of my daughter, PLEASE DONT DO IT! PLEASE HELP TO PROTECT THESE ANIMALS AND NOT DO THINGS SUCH AS TRAINING EXCERSISES THAT WILL ONLY FURTHER HURT THEM. Thank you.</p>	
P345	<p>We are saddened to hear that the Navy is considering conducting exercises involving the use of live explosives and high-intensity sonar. Do you feel that it is really necessary to conduct this testing that will affect such a volume of marine life? It would be a great pity to see so much of the conservation work the USA has undertaken towards its marine environment over the last number of years being undermined by these proposed exercises. These conservation initiatives deserve to be applauded and have made the USA one of the leaders in marine conservation. To conduct these exercises flies in the face of all the good work and progress that has been achieved to date. There is also the issue of sound channels in the oceans that can carry sounds over vast distances, so not only local populations may be affected but also populations in areas seemingly far removed from the testing activities. As these activities could potentially affect endangered species on both the high seas and possibly in the territorial waters of other nations we believe that any other nations that could potentially be affected should be fully consulted, and the findings of any such consultations made public, prior to any decision being made on whether these activities should progress to the next stage. We would ask you to give serious consideration to just how necessary these proposed exercises are and where the benefits of them lie versus the destruction of marine life that so many dedicated citizens have worked tirelessly to preserve and enhance for both current and future generations. We look forward to hearing from you with your views on the above, if you have any queries please do not hesitate to contact us, yours, .....</p>	Thank you for your comment.
P346	Please stop any actions that torture and kill cetaceans now!	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P347	There is no excuse for this genocide. Please look inside yourself and realize that this slaughter of cetacean life which could very well lead to the extinction of multiple species is cannot be justified by your project deliverables no matter the results.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P348	Hello There, Thank you for all that you do. PLEASE protect marine mammals from explosives and sonar along the East Coast as well as California and Hawaii. Thank you so much :)	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P349	To whom it may concern, Please protect marine mammals from explosives and sonar along the East Coast. I urge you to re-think the proposed plans for the use of sonar and explosives, and to incorporate additional protective measures. Thank you for your consideration, Samantha Novak	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P350	I am appalled that after your acknowledgement of the immeasurable injury and lethal impacts to marine life, that you would consider moving forward with your current oceanic testing programs, national security or not. If we survive at the cost of losing site of the value of other forms of life besides human, then when we begin to feel the results of the loss of our delicate environmental balance - we will deserve every single misery it creates. Our natural earth balance is being threatened on all fronts. This is another very sad form of it and your children and children's children will suffer because of it. PLEASE REVISE YOUR PLANS TO OPTIMIZE CARE AND RESPECT OF OTHER LIVING AND LIKELY MORE INTELLIGENT THAN US.....BEINGS. PLEASE!!!!	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P351	You are NOT really going to conduct your sonar exercises in the oceans, ARE YOU?! That is SO wrong - I advocated against it a decade ago, and I know it was proven that it's much too detrimental to whales and dolphins. If you do this, you have no heart, no soul. I don't care what your reasoning is, war on terror BS or whatever. God is watching you.	Thank you for participating in the NEPA process
P352	While I believe that we need a strong Navy for protect national security reasons, I also strongly believe that we need to be respectful and protect marine mammals and the oceans. I do not think we have to choose between these two options; we can have both. Because we can have both, I am writing today to ask the Navy to use training methods that do not kill or damage marine mammals such as whales, dolphins and other marine creatures. I understand that from your own Environmental Impact statements you estimate the current planned exercises would kill up to 2,000 marine mammals, including a large number of animals from endangered species, such as right whales. Thousands of others would suffer permanent lung damage. An additional 16,000 would be permanently deafened and 5 million would be temporarily deafened by the exercises. Damaging or killing these creatures is unacceptable and beneath us as a great country. A great country does not squander life of any kind when there are other ways to achieve what we need. We understand the need for protecting our country, but we can find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures. I urge the Navy to protect marine mammals from explosives and sonar along	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. The Navy does not anticipate any mortality from its activities. Though the model estimates the potential for mortality based on very conservative criteria, with the implementation of proven mitigation and decades of historical information from conducting training and testing in the Study Area, mortalities are highly unlikely. As described in Chapter 5 (Standard



Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	<p>the East Coast and California and Hawaii. I urge the Navy to take steps to reduce the harmful impacts to marine mammals. Such steps to protect these magnificent creatures include: a) avoiding the most harmful activities in areas used as calving grounds or migratory corridors; b) avoiding seasonal high-use feeding areas; c) creating a larger "safety zone" around the exercises; and d) use aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Implementing these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. Please do not go forward with activities that will maim or kill marine creatures without these mitigating steps to protect them. Thank you, Sandra Moreland</p>	<p>Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. The Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.</p>
P353	<p>NO to this destructive use of underwater sound system for military training...that then deafens huge numbers of whales &amp; dolphins and kills 1,800+. These species are already hanging on by a thread. I am good friends with a Navy guy, Oscar, who served in WW II. He feels such PRIDE as a Navy guy. What does it say about the character and lack of compassion of the naval officers involved, the whole chain of command...to be SO DESTRUCTIVE in the name of training?? This must be creating morale issues up and down the chain of command...as it should. It is wrong to do this...and changing your decisions to stopping this will be reason for PRIDE. I saw a quote recently about ERASERS: an old man said, "Erasers are made for those who make mistakes." A youth replied, "Erasers are made for those who are willing to correct their mistakes!" Please be wise and correct the mistake of even considering this destruction. Don't do it. Thank-you.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.</p>
P354	<p>I am opposed to the proposed training exercises all along the U.S. East Coast. I understand that these exercises would involve the use of live explosives and high-intensity sonar. According to your estimates, the planned exercises would kill up to 2,000 marine mammals, including a large number of animals from endangered species, such as right whales. Thousands of others would suffer permanent lung damage. An additional 16,000 would be permanently deafened and 5 million would be temporarily deafened by the exercises. I understand the need for protecting our country, but we can find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures. Thank you for your time and consideration of this important matter.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		with no documented proof of injuries to marine mammals. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P355	I believe the US Navy need not further endanger cetaceans in order to improve its prowess. The danger to sea creatures such as whales and dolphins has been scientifically documented repeatedly. The cost to the Navy of these installations and operations is also documented. That money could go to other uses and do more good for the US Navy, its personnel and its equipment. I am a US Air Force veteran. I believe the communications and tracking capabilities these systems promise can be had via other means at lower cost without endangering whales, dolphins, rays, manatees, other sealife, and non-Navy divers and boaters and fishers. Please discontinue these expensive and destructive programs before more harm is done. Thank you.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P356	You have done to much destruction to our earth as it is,don't you have enough training facilities to train your killing mindless [EXPLETIVE DELETED] ? My country makes me sick !!!!	Thank you for participating in the NEPA process.
P357	You are ruining the planet. Explosives and testing is no where near as important as preserving the fragile ecosystems of such places as the ocean. The animal life found therein is necessary for the world to function as it has. We are all intertwined. We are supposed to be striving toward peaceful coexistence... not the petty wants of humans to outweigh the greater desire of animals to continue living. Are we so bent on removing the great creatures of our past and present that we place weapons testing above the value of life?	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P358	As humanity searches for the answer to the question of whether we are the only sentient species in the universe, those who crane their necks skyward too often skip making sure there aren't other sentient species on Earth first. In light of mounting evidence, we at least must consider the possibility that cetaceans (dolphins, whales, porpoises) satisfy the criteria. If there is even a chance this is the case, as virtually all evidence suggests, immediate steps should be taken to protect these intelligent,	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	<p>self-aware creatures, who aren't really mere "creatures" at all but instead the very answer to our search for non-human intelligence in the universe, and not just in the universe somewhere unknown or unreachable, but literally sharing with us a home we call Earth. The Navy's plans to test high frequency (et al.) sound equipment underwater will kill an estimated 1,800 cetaceans and deafen another 15,900 (a probable death sentence for beings which rely so heavily on echolocation) over the next five years alone. It is irresponsible and immoral of us to so casually discard the lives of so many intelligent beings, so close to extinction as it is (and that almost entirely our own doing as well), and especially so when the benefit to us is uncertain and of questionable importance to the security of our nation. If, as the evidence suggests, even one of these species affected is worthy of the "non-human person" descriptor, it would be unconscionable to knowingly take steps which kill and maim these unique beings. Orson Scott Card wrote of "genocide," the wiping out of an entire intelligent alien species, but in his work, the person who ultimately brought about this purposeful extinction was unaware of the affects of his actions and had been hoodwinked into doing this without his knowledge or consent. If the Navy proceeds with its plans, it will be fully culpable for the blood on its hands, facilitating the extinction of several species who we know are self-aware, with complex social structures and sophisticated minds. It is time humanity's shortsightedness is brought to an end. Although we face many challenges and have wrought much destruction on the natural world, the purposeful elimination of an entire intelligent Earth-born species would be among the most inhumane acts our species can commit, a blight on human history surpassed by no other. If we are as intelligent a species as we claim to be, it is imperative every action be taken to ensure the survival of other intelligent, sentient beings at our mercy. That means stopping this project now, and working henceforth to right our past wrongs by rehabilitating and protecting these under-appreciated and misunderstood beings.</p>	<p>using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.</p>
P359	<p>We know that in the past, whales have stranded and died in the wake of major military sonar exercises, with bleeding from the ears and other tissue damage attributed to sonar. These have included incidents of beaked whales dying in the Canary Islands following sonar exercises, the panicked flight of orcas and porpoises off Washington State in 2003, and dozens of whales (including pregnant females) from several species who died in North Carolina in 2005. These tragedies can be avoided to a</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	<p>very significant degree. The HSUS is joining other environmental and animal welfare groups to ask the Navy to consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger “safety zone” around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. We are calling on the U.S. Navy to re-think its plans and to incorporate additional protective measures. This is not a dress rehearsal, ladies and gentlemen. We only have one chance to get this right so let's do so. Let's do the right thing and think of all the beautiful and wonderful creatures and do no harm, especially in the name of humanity.</p>	<p>potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. The Navy believes that the proposed training and testing will not pose a significant risk to whales, fish, and other wildlife given that these same activities have been conducted for many years in other range complexes with no indications of broad-scale impacts that are either injurious or of significant biological impact on marine mammals, fish, or wildlife at those locations. Please see the recent results supporting this as presented in training ranges monitoring reports available at available at NMFS Office of Protected Resources web site. Please see the project web site (<a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a>) for the <i>Marine Mammal Stranding Report</i> which has a full review of the scientific record concerning marine mammal strandings and sonar use. An integrated monitoring plan for the activities in the AFTT Study Area is also planned as presented in Section 5.5.1.1 (Integrated Comprehensive Monitoring Program) of the Final EIS/OEIS. The Navy will continue to implement the monitoring and research programs where training and testing has been occurring to determine if there are determinable impacts as a result of those activities and will do so in the AFTT Study Area associated with future training and testing occurring there. The Navy will continue to be a leader in funding of research to better understand the potential impacts of Navy training and testing activities and to operate with the least possible impacts while meeting training and testing requirements.</p>
P360	<p>The U.S. Navy is proposing to conduct training exercises all along the U.S. East Coast and in the rich marine environment off the coast of California and Hawaii. These exercises would involve the use of live explosives and high-intensity sonar. According to its own Environmental Impact Statements, the Navy estimates that the planned exercises would kill up to 2,000 marine mammals, including a large number of animals from endangered species, such as right whales. Thousands of others would suffer permanent lung damage. An additional 16,000 would be permanently deafened and 5 million would be temporarily deafened by the exercises. PLEASE DO NOT ALLOW THIS TO HAPPEN! We understand the need for protecting our country, but we can find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures. This would be a travesty!</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and</p>

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Comment Identifier	Comment	Navy Response
		Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P361	The incredible disregard for life continuously displayed by those supposedly in the business of protecting life is breathtaking. May you get your ultimate wish, and find that there is no one left to play with except the Kochs and Waltons. I don't think there is enough alcohol on this planet to make that a fun day.	Thank you for participating in the NEPA process.
P362	I understand the necessity for testing new equipment. My son-in-law is in the Navy deployed on an aircraft carrier four times in four years. America's readiness for combat is vital to our survival. But at what price? War and actual combat is bad enough. Is there not some way to do this testing farther from shores? In space? In a testing vacuum? In seas less populated by people and defenseless animals who do no harm to us? They are God's gifts to us. They are an essential part of the ecosystem which gives us life on Earth. We must respect and protect them more than our need to kill our enemies. They are not our enemies. We will be judged by how we treat others. Harming these majestic beings will bring more harm to us no matter how much we test. Not all answers lie in statistics and tests and data when precious life is threatened. It's heart, soul and conscience that matters most.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P363	Dear People, I am writing as a concerned citizen and a taxpayer about the testing of sonar in areas where it would harm whales and dolphins - or anywhere at all, if dead or injured cetaceans is the result. We are stewards of the seas and you should be protecting the oceans and the wildlife there. I strongly object to these cruel and foolish practices. Please reconsider.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P364	I agree that we need a robust and strong Navy to protect national security. I also agree that whales, dolphins, and porpoises deserve to live and to have a healthy ocean environment. According to its own Environmental Impact Statements, the Navy estimates that the training exercises planned along the East Coast and in the rich marine	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	<p>environment off the coast of California and Hawaii involving live explosives and high-intensity sonar would kill up to 2,000 marine mammals, including a large number of animals from endangered species, such as right whales. Thousands of others would suffer permanent lung damage. An additional 16,000 would be permanently deafened and 5 million would be temporarily deafened by the exercises. I understand the need for protecting our country, but we can find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures. In the past, whales have stranded and died in the wake of major military sonar exercises, with bleeding from the ears and other tissue damage attributed to sonar. These have included incidents of beaked whales dying in the Canary Islands following sonar exercises, the panicked flight of orcas and porpoises off Washington State in 2003, and dozens of whales (including pregnant females) from several species who died in North Carolina in 2005. These tragedies can be avoided to a very significant degree. I urge the Navy to consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed.</p>	<p>Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. The Navy believes that the proposed training and testing will not pose a significant risk to whales, fish, and other wildlife given that these same activities have been conducted for many years in other range complexes with no indications of broad-scale impacts that are either injurious or of significant biological impact on marine mammals, fish, or wildlife at those locations. Please see the recent results supporting this as presented in training ranges monitoring reports available at available at NMFS Office of Protected Resources web site. Please see the project web site (<a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a>) for the <i>Marine Mammal Stranding Report</i> which has a full review of the scientific record concerning marine mammal strandings and sonar use. An integrated monitoring plan for the activities in the AFTT Study Area is also planned as presented in Section 5.5.1.1 (Integrated Comprehensive Monitoring Program) of the Final EIS/OEIS. The Navy will continue to implement the monitoring and research programs where training and testing has been occurring to determine if there are determinable impacts as a result of those activities and will do so in the AFTT Study Area associated with future training and testing occurring there. The Navy will continue to be a leader in funding of research to better understand the potential impacts of Navy training and testing activities and to operate with the least possible impacts while meeting training and testing requirements.</p>
P365	<p>Hello, I am commenting about upcoming training exercises that will affect marine life. I understand the need for protecting our country, but please find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures. According to its own Environmental Impact Statements, the Navy estimates that the planned exercises would kill up to 2,000 marine mammals, including a large number of animals from endangered species, such as right whales. Thousands of others would suffer permanent lung damage. An additional 16,000 would be permanently deafened and 5 million would be temporarily deafened by the exercises. Please consider steps to reduce the harmful impacts to marine mammals. These steps could include avoiding the most harmful activities in areas used as calving grounds or migratory corridors;</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	avoiding seasonal high-use feeding areas; creating a larger “safety zone” around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. Thank you for your consideration.	with no documented proof of injuries to marine mammals. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P366	I am writing to you today to request that you make it a priority to protect marine mammals from tragedies which can be avoided in planned upcoming training exercises. The planned explosives and sonar along the East Coast and California/Hawaii may be horribly cruel to marine mammals. There are important steps that can be implemented to prevent inhumane conditions include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger “safety zone” around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. I urge the U.S. Navy to re-think its plans and to incorporate additional protective measures. Thank you for your attention to this important matter.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P367	Please find another way to conduct these tests, we don't need to kill innocents to protect innocents	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P368	To whom it may concern, Sometimes as an individual one feels very impotent to stop an exercise of this magnitude. All I want to remind the people behind this is that we are NOT alone on Earth. The continuance of life on Earth requires balance and respect to all those we share this planet with. In the name of progress we ignore the collateral damage we cause but we don't realize that the Earth has a pulse too and it has	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	reminded us, through Tsunamis and Earthquakes and disasters of horrible magnitudes, that payback is tough. So lets respect non-humans on Earth and not inflict such damage on them. Best, Simran	EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P369	I am a live-aboard, world cruiser. I understand the need for protecting our country, but I strongly oppose destroying our marine environment to do it. We must find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures as would occur under the Navy's training exercises planned off the entire eastern US coast. Consider steps to reduce the harmful impacts to marine mammals: including avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. We know that in the past, whales have stranded and died in the wake of major military sonar exercises, with bleeding from the ears and other tissue damage attributed to sonar. These have included incidents of beaked whales dying in the Canary Islands following sonar exercises, the panicked flight of orcas and porpoises off Washington State in 2003, and dozens of whales (including pregnant females) from several species who died in North Carolina in 2005. These tragedies can be avoided to a very significant degree. It just takes some thought and time. It doesn't have to increase costs. These marine animals are already struggling for their existence. Don't add this assault to their plight.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. The Navy believes that the proposed training and testing will not pose a significant risk to whales, fish, and other wildlife given that these same activities have been conducted for many years in other range complexes with no indications of broad-scale impacts that are either injurious or of significant biological impact on marine mammals, fish, or wildlife at those locations. Please see the recent results supporting this as presented in training ranges monitoring reports available at available at NMFS Office of Protected Resources web site. Please see the project web site ( <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> ) for the <i>Marine Mammal Stranding Report</i> which has a full review of the scientific record concerning marine mammal strandings and sonar use. An integrated monitoring plan for the activities in the AFTT Study Area is also planned as presented in Section 5.5.1.1 (Integrated Comprehensive Monitoring Program) of the Final EIS/OEIS. The Navy will continue to implement the monitoring and research programs where training and testing has been occurring to determine if there are determinable impacts as a result of those activities and will do so in the AFTT Study Area associated with future training and testing occurring there. The Navy will continue to be a leader in funding of research to better understand the potential impacts of Navy training and testing activities and to operate with the least possible impacts while meeting training and testing requirements.
P370	We are saddened to hear that the Navy is considering conducting exercises involving the use of live explosives and high-intensity sonar. Do you feel that it is really necessary to conduct this testing that will	Thank you for your comment.



Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	<p>affect such a volume of marine life? It would be a great pity to see so much of the conservation work the USA has undertaken towards its marine environment over the last number of years being undermined by these proposed exercises. These conservation initiatives deserve to be applauded and have made the USA one of the leaders in marine conservation. To conduct these exercises flies in the face of all the good work and progress that has been achieved to date. There is also the issue of sound channels in the oceans that can carry sounds over vast distances, so not only local populations may be affected but also populations in areas seemingly far removed from the testing activities. As these activities could potentially affect endangered species on both the high seas and possibly in the territorial waters of other nations we believe that any other nations that could potentially be affected should be fully consulted, and the findings of any such consultations made public, prior to any decision being made on whether these activities should progress to the next stage. We would ask you to give serious consideration to just how necessary these proposed exercises are and where the benefits of them lie versus the destruction of marine life that so many dedicated citizens have worked tirelessly to preserve and enhance for both current and future generations. We look forward to hearing from you with your views on the above, if you have any queries please do not hesitate to contact us, yours, sophie ebert</p>	
P371	<i>Duplicate comment to P370</i>	<i>See response to comment to P370</i>
P372	<p>We are saddened to hear that the Navy is considering conducting exercises involving the use of live explosives and high-intensity sonar. Do you feel that it is really necessary to conduct this testing that will affect such a volume of marine life? It would be a great pity to see so much of the conservation work the USA has undertaken towards its marine environment over the last number of years being undermined by these proposed exercises. These conservation initiatives deserve to be applauded and have made the USA one of the leaders in marine conservation. To conduct these exercises flies in the face of all the good work and progress that has been achieved to date. There is also the issue of sound channels in the oceans that can carry sounds over vast distances, so not only local populations may be affected but also populations in areas seemingly far removed from the testing activities. As these activities could potentially affect endangered species on both the high seas and possibly in the territorial waters of other nations we believe that any other nations that could potentially be affected should</p>	Thank you for your comment.

Table E-5: Responses to Comments from Private Individuals (Continued)

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	be fully consulted, and the findings of any such consultations made public, prior to any decision being made on whether these activities should progress to the next stage. We would ask you to give serious consideration to just how necessary these proposed exercises are and where the benefits of them lie versus the destruction of marine life that so many dedicated citizens have worked tirelessly to preserve and enhance for both current and future generations. We look forward to hearing from you with your views on the above, if you have any queries please do not hesitate to contact us. Yours, Stacy Wagner & helpless animals of the ocean	
P373	In a time of mass extinction due to the greed and resource exploitation of humans, we need to do all that we can to bring balance back to our planet. My seven year old saw his first orca last week, and the joy he felt cannot be described. I want to believe that humans will do the right thing and protect the limited wildness that remains on land and in our oceans. I want to believe that my grandchildren will be able to experience what my son did and I did before him.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P374	Please consider the following steps to reduce the harmful impacts to marine mammals: avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P375	By the act of destructive sonar used, you are killing hundreds if not thousands of cetaceans among numerous other sea life. You cannot get these back, once they are gone, there is no more. The eco-system of the ocean is vital to the survival of MANY things, including humans. We cannot afford to have it disappear just b/c the military, etc. want to be irresponsible. What happened to saving the earth, and protecting what's in it? Because, the military definitely isn't doing that. It's sad to think, that killing animals and mammals important to the natural eco-system is	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	more important than protecting them. And to that I say, Shame on you government. Shame on you. I hope for the sake of the world, and the children in it, you change your minds, and begin to find a more safe way of using your sonar. Our children don't need to see dolphins, whales, etc. etc. etc. in books because they're extinct at the hands of the government! It's a sad sad day, to know that our government preaches earth day, and cleaning up the oceans, but the military (government ran) can kill thousands of mammals and animals. Shameful, and disgraceful.	mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P376	As a citizen of the United States I strongly, strongly object to the Navy's plan to conduct high-intensity sonar testing anywhere near marine mammals. I do not want you to protect me at the expense of killing wildlife that we are all responsible for and which I cherish. Such testing has been documented in the past to cause significant loss of marine life and cause thousands others to become deaf. The environmental impacts of your actions are simply too great. Please stop and desist.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P377	Please stop this senseless killing and deafening of these incredible creatures.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P378	Please refrain from the planned bombing and explosive detonation in the ocean. This will cause irreparable harm to marine species. It is cruel and completely unnecessary. Thank you.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P379	An estimated 1800 whales dying and another 16,000 deafened (a likely death sentence due to whales being dependent upon echolocation and vocalizations for food and socialization) by the US Navy deploying very high power high & low frequency sound generation technology, with dubious return on investment, is unacceptable, especially in an era of vanishing species, over-fishing, man-made pollution and climate change. The destruction of so many whales is not a legacy worthy of the US to leave in the wake of our civilization. Improve passive sonar and other technologies, without destroying the largest mammals sharing this earth with us.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P380	Once again the Navy plans to deploy sonar testing near whales and dolphins despite their own findings purporting that said cetaceans would suffer enormously in the process. This experimentation has already resulted in the beaching and deaths of numerous marine mammals. When do you plan to end these abominable practices? Perhaps when no marine mammals are left to torture? Several environmental groups have appealed to you and the Department of Fisheries, to take additional time to study the patterns of whales and dolphins to determine a safe time in which to employ the sonar. Apparently, common sense eludes you. "Animals with air filled lungs and swim bladders are especially vulnerable because of the large difference in impedance between air in the lungs or swim bladders and their body tissues or seawater. Submerged animals exposed to explosions at short range showed hemorrhage in the lungs and ulceration of the gastro-intestinal tract. The killing is largely due to resonance phenomena in the whales' cranial airspaces that are tearing apart delicate tissues around the brains and ears." The confusion and disorientation imposed upon these animals is despicable in itself; the fact that you would knowingly with	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	<p>intent and malice, cause immense pain and suffering, frequently followed by death is atrocious and morally reprehensible. These animals are as intelligent as a four to five year old child, and infinitely more mentally acute than many who are mentally challenged. Would it then stand to reason that the navy would be willing to repeatedly puncture the eardrums of children and those who are mentally challenged? In what crazy world do you consider it acceptable to inflict such horrific pain on sentient beings? Are their lives of no value because they live in the water and are unable to convey the pain that they feel? You have the data and literature to make reasoned, sane, compassionate, and ethical choices. The Navy, as well as other branches of the U.S. military, has an abysmal record regarding their treatment of animals. The goats on San Clemente Island were destroying flora and fauna? Don't try to relocate them – instead the Navy brought in sharpshooters to kill without remorse. Is it possible to conduct trauma training without the use and grievous abuse of live animals – as many European countries already do? Not for the United States. The Navy has used dolphins for better than forty years for mine detection. No worries about loss of life. I resent my taxpayer dollars being utilized for the sanctioned killings of wildlife – on land and in the water, and any animals, for that matter. My taxes pay your salaries, your health insurance, your pensions, in fact, for your entire livelihood. The means by which you conduct business are truly a stain upon this country.</p>	
P381	<p>Please stop using explosives and sonar that kill dolphins and whales. Thank you.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.</p>
P382	<p>Hello. I strongly object to the use of high frequency underwater sound testing in the waters off Hawaii, California, and the Atlantic Coasts. This testing will interfere, damage or kill marine animals that use sound to communicate. Please do not use my tax dollars for this destructive</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	purpose. Find another way to protect us without harming them and us. We do not know what the long term effects on ocean health will be and we are obligated to consider what future generations will be left with if we pursue this policy.	Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P383	I am urging you to consider alternative means to Naval training off of the East Coast, California, and Hawaii. The cost to marine life promises to be too great under current plans. At a time when the environment and our wildlife are facing so many challenges due to natural disasters and the by-products of our quality of life, we have to take any opportunities we can to minimize harm. I appreciate that National security is a priority. We are such an inventive and scientifically-advanced nation. It's time we make the choices within our power to protect the earth's resources before it's too late. Our oceans and the marine life within them hold scientific treasures and opportunity for medical and energy source breakthroughs. Please let's find another way to protect all that is precious for today and for generations to come. Thank you.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P384	I'm a General Manager of a Holiday Inn Ft. Lauderdale Airport property. I read that you do testing off the coast of Ft. Lauderdale and was wondering if need a place to stay with the personel dealing with the operations. Please call or email a response. Thanks!	Thank you for your comment.
P385	Please re-think its plans and to incorporate additional protective measures. Please consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. I believe it is also your job to not only protect people but all living creatures. Thank you, Susan Snowball	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy recommends in specific mitigation areas that are important to marine mammals.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P386	<p>The planned training exercises would kill up to 2,000 marine mammals, including a large number of animals from endangered species, such as right whales. Thousands of others would suffer permanent lung damage. An additional 16,000 would be permanently deafened and 5 million would be temporarily deafened by the exercises. We understand the need for protecting our country, but we can find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures. Please do not harm our marine populations.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. The Navy does not anticipate any mortality from its activities. Though the model estimates the potential for mortality based on very conservative criteria, with the implementation of proven mitigation and decades of historical information from conducting training and testing in the Study Area, mortalities are highly unlikely. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. The Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.</p>
P387	<p>Stop. Stop stop stop. THINK. Explosives and sonar testing? Really? COME ON. We would ask you to give serious consideration to just how necessary these proposed exercises are and where the benefits of them lie versus the destruction of marine life that so many dedicated citizens have worked tirelessly to preserve and enhance for both current and future generations. Susan Woodward</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P388	We're Americans, we're supposed to be able to do what we have to with competence, with honesty, with integrity, with grit, and without screwing up everything around us. Whales and dolphins as collateral damage? To a US Navy undertaking? that's not competence. Your integrity demands that you go back and figure out how to do what you have to, with competence. Cheers.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P389	Please re-think your plans in order to protect the marine life from explosives and sonar.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P390	"We know that in the past, whales have stranded and died in the wake of major military sonar exercises, with bleeding from the ears and other tissue damage attributed to sonar. These have included incidents of beaked whales dying in the Canary Islands following sonar exercises, the panicked flight of orcas and porpoises off Washington State in 2003, and dozens of whales (including pregnant females) from several species who died in North Carolina in 2005. These tragedies can be avoided to a very significant degree. The HSUS is joining other environmental and animal welfare groups to ask the Navy to consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales,	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. The Navy believes that the proposed training and testing will not pose a significant risk to whales, fish, and other wildlife given that these same activities have been conducted for many years in other range complexes with no indications of broad-scale impacts that are either injurious or of significant biological impact on marine mammals, fish, or wildlife at those locations. Please see the recent results



Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	dolphins, and porpoises might be harmed or killed." I am calling on the U.S. Navy to re-think its plans and to incorporate additional protective measures. Please don't go through with this plan. Sincerely, Sylvia Hlynsdottir	supporting this as presented in training ranges monitoring reports available at available at NMFS Office of Protected Resources web site. Please see the project web site ( <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> ) for the <i>Marine Mammal Stranding Report</i> which has a full review of the scientific record concerning marine mammal strandings and sonar use. An integrated monitoring plan for the activities in the AFTT Study Area is also planned as presented in Section 5.5.1.1 (Integrated Comprehensive Monitoring Program) of the Final EIS/OEIS. The Navy will continue to implement the monitoring and research programs where training and testing has been occurring to determine if there are determinable impacts as a result of those activities and will do so in the AFTT Study Area associated with future training and testing occurring there. The Navy will continue to be a leader in funding of research to better understand the potential impacts of Navy training and testing activities and to operate with the least possible impacts while meeting training and testing requirements.
P391	I urge you to reconsider your training exercises which would use explosives and high intensity sonar, which, by the Navy's own estimates, will result in the death of 2,000 marine mammals -- and the injury of thousands more. Surely there is an alternative method that would prove as effective without causing this much damage. If you will not cancel these training exercises all together, please consider taking steps to reduce the impacts -- such as avoiding the most harmful activities in areas used as calving grounds or migratory corridors, avoiding seasonal high-use feeding areas, creating a larger "safety zone" around the exercises, and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Thank you for your consideration.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy recommends in specific mitigation areas that are important to marine mammals. The Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P392	Please protect the whales!	Thank you for participating in the NEPA process.
P393	How can you act like it's no big deal to knowingly slaughter thousands of animals for testing purposes? Shame on you, shame on the American Government for allowing you to conduct these bombing tests	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities.
P394	Please stop this unnecessary destruction. It is inhumane and revolting. What if anything are you leaving behind for your children?	Thank you for participating in the NEPA process.
P395	Please do not complete sonar training exercises -- especially the ones currently proposed along the U.S. East Coast and in the rich marine environment off the coast of California and Hawaii. Almost everybody agrees that we need a robust and strong Navy to protect national security. And almost all of us agree that whales, dolphins, and porpoises deserve to live and to have a healthy ocean environment. But a recent proposal from the federal government tries to make Americans pick between these options, and it's a false choice. We understand the need for protecting our country, but we can find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures. Thank you for your time and attention.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P396	Greetings and with all due respect, Sir; My concern about your needed operations which I see personally as a precaution to any attacks against our great nation, is has there been any consideration for artifacts at sea, and known historical ship wrecks being covered up or even more destroyed by explosions at sea. R/S Ted Lewis USMC vet 1966-1969	All potential effects from Navy training and testing activities on cultural resources were analyzed in Section 3.10 (Cultural Resources) of the EIS/OEIS. This analysis includes information on artifacts and shipwrecks. Refer to Section 5.3.3.2.1.1 (Shallow Coral Reefs, Hard Bottom Habitat, Artificial Reefs, and Shipwrecks) for information on mitigation designed to avoid or reduce potential impacts to shipwrecks.
P397	This isn't right. There has to be another way to do what needs to be done and save the marine life. I do not condone this. Hurting our marine life is not the answer.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		(Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P398	what is going on with this country? must we kill every living creature? stop the nonsense. .enough already I am sick and tired of hearing how the government wants to injure and kill innocent wildlife. find something else to experiment on. my tax dollars at work? yeah right.	Thank you for participating in the NEPA process.
P399	Thank you for making the report and findings public via this website. It will be most instructive to summarize the findings and make those available as well as providing an impact statement to our local, state and federally elected officials. I will continue working to enhance the MMPA regulations, restrictions and guidelines to better manage testing and functioning of our equipment necessary for national and strategic security; while providing a humane level of protection to the world's wildlife. one question? What does the EIS/OEIS consider acceptable loss? What alternatives are under consideration to minimize or eliminate those risks? Sincerely, Terry Baresh, [ADDRESS REMOVED]	As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.
P400-01	Per your paper: "Any mortality or serious injury for this stock should be considered significant. This is a strategic stock because the average annual human-related mortality and serious injury exceeds potential biological removal and because the North Atlantic right whale is an endangered species." Yet these plans persist.	The Endangered Species Act conclusions in the Final EIS/OEIS state sonar and other active acoustic sources and explosives may affect and are likely to adversely affect the North Atlantic right whale. However, the analysis shows that no mortality or injury to North Atlantic right whales was predicted nor is it expected from any activity. All other stressors analyzed determined either no effect or may affect, not likely to adversely affect the North Atlantic right whale. In addition, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures to further reduce any potential impacts. Through consultation and permitting with NMFS, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.
P400-02	I also couldn't help but notice the statements that estimates of whales' hearing capacities and sensitivities are, in actuality, based on an extremely small and captive, i.e., non-wild and therefore non-representative, sample. Yet these plans persist.	The Navy shares your concern for marine life. The Navy has used the best available science in the development of this EIS/OEIS.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P400-03	Another thing I couldn't help but notice was the bizarre verbiage of "no *expected* impacts. Gentlemen, I'm sure you are amply familiar with the "best intentions" adage. When one reads your draft report, it quickly becomes clear it is based on assumptions, the lowest of lowball estimates, and hoping for the best.	The Navy shares your concern for marine life. The Navy has used the best available science in the development of this EIS/OEIS.
P400-04	"There are many unknowns in assessing impacts such as the potential interaction of different effects and the significance of responses by marine mammals to sound exposures." Your paper goes on to acknowledge that "many other factors besides just the received level of sound may affect an animal's reaction such as the animal's physical condition, prior experience with the sound, and proximity to the source of the sound." We all know you cannot control such things. The draft paper cites the case where a pod of dolphins happened upon an explosion test site at precisely the wrong moment. You can't prevent that from happening. You don't really know, at any point in time, what animals are directly in the vicinity of your experimental blasts and noises. Face it, gentlemen: YOU JUST DON'T KNOW AND YOU CANNOT CONTROL ALL THE VARIABLES. Please get right with that understanding and set about the one thing you can control: abandoning plans that you yourself acknowledge pose a threat to "strategic" whale populations.	The Navy, in conjunction with NMFS, has determined what mitigation it can effectively use during its training and testing activities. Through careful exploration of all mitigation measures to determine which were the most effective (Chapter 5, Standard Operating Procedures, Mitigation, and Monitoring), the Navy has chosen the existing measures to mitigate harm to marine mammals while still being able to meet its operational needs to train for real-world conditions.
P400-05	Another noticeable characteristic of your draft statement is that it does not seem very forward-thinking or holistic in its assessments of potential damage. By that I mean we are living in one of the most extreme weather cycles in human history. The Navy must be more familiar than most with the changes to ocean currents wrought by glacial melt. The sea levels are rising. The increased temperatures are thought to be pulling food sources and the whales who feed on them closer to shore. It is also suspected that plankton blooms are coming unseasonably early and that whale populations might miss the feeding if their migrations have not been adjusted apace. We are in wholly uncharted territory here. One thing that is abundantly clear is that there are currently, as I type, several risks posed to the world's whale populations right now. They might be able to weather one, maybe even two in succession. But it seems equally clear that they would not likely survive two challenges at once, and that, gentlemen, is a test we simply cannot afford to conduct.	The approach to analysis in the EIS/OEIS is described in Section 3.0.5 (Overall Approach to Analysis). Cumulative impacts have been considered in the EIS/OEIS (Chapter 4, Cumulative Impacts) where the Proposed Action is considered in the context of other activities in the region. As required under NEPA, the level and scope of the cumulative analysis is commensurate with the potential impacts of the Proposed Action as reflected in the resource-specific discussions in Chapter 3 (Affected Environment and Environmental Consequences). Chapter 3 provides the past and present impacts and environmental conditions that represent the baseline and the potential impacts from Navy activities; Chapter 4 (Cumulative Impacts) discusses the current impacts of past and present actions and the anticipated impacts of reasonably foreseeable future actions.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P401	<i>Duplicate comment to P400</i>	<i>See response to comment to P400</i>
P402	<i>Duplicate comment to P400</i>	<i>See response to comment to P400</i>
P403	PLEASE protect our marine life. Do not allow the senseless injury to these gentle creatures that live in the sea!	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P404	The US Navy has done an outstanding job in addressing and protecting the wide variety of environmental issues on our Atlantic Coast. Protecting our country comes first and testing and training to protect our country will not have a significant impact on our environment. I recommend no changes or additions to the EIS and approval of alternative 2, the best approach for our country.	Thank you for your comment.
P405	US Navy is properly balancing national defense requirements against environmental stewardship. Military actions and reactions are now measured in seconds and hours, not in days, months or years of preparedness. Deployed fleet units must be ready within these time limits to respond to presidential calls for military responses. Readiness, which is the term for the naval ability to act or react, requires training and, in turn, training requires places at sea to train. Because of the uniqueness of War at Sea, training ashore in simulators leave a significant gap in readiness that only at-sea training can fill. The Navy has taken significant strides in lessening its environmental impacts. For decades it has made significant investments along these lines starting in the 1970's and 1980's with major investments in sanitation and waste water treatment systems on ships. It invested in the 1990's in trash compacting, especially plastics and onboard incinerators. It pays close attention to whale migrations and avoids training when environmental models, which they paid for in the early 2000's, indicate the potential for physically harming them or harrashing them exists, particularly during mating seasons. They have deployed software systems to provide naval	Thank you for your comment.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	<p>plannings staffs and commanding officers with environmental awareness information ranging from live corral formations to the legal boundaries of protected maritime wildlife sanctuaries. These training areas are vital for the readiness of the fleet to keep open the maritime sea lanes of commerce, which because of the inter-connection of world commerce, are vital to all nations. One bad acting nation can place not only the US economy but the world economy at risk. Many of these areas are in 'shallow' water, with submarine threats. The US coastline, while extensive, has only a few areas that can provide reasonably real-world training conditions where the US Navy will most likely fight its next battles at sea. The establishment and administration of the areas presented in the documents posted are more than adequate to meet all reasonable expectations, concerns and requirements. Both as a 27 year Navy veteran with 17 years of those at sea and now a US citizen with strong environmental concerns, I am satisfied that this reasonable balance has been reached. If the nation and concerned environmental groups wish to make significant strides in both protecting the maritime eco-systems and allowing reasonable management of the oceans capability and capacity to feed a growing world population without a repeat of the Grand Banks tragedy, then they would do well to support the Navy's training and testing proposal in order to ask other government agencies to invest and emulate the plan in their areas of responsibilities.</p>	
P406	THIS MUST STOP! NO MORE SONAR TESTS. NO MORE DEAD WHALES AND DOLPHINS!!!	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. The Navy believes that the proposed training and testing will not pose a significant risk to whales, fish, and other wildlife given that these same activities have been conducted for many years in other range complexes with no indications of broad-scale impacts that are either injurious or of significant biological impact on marine mammals, fish, or wildlife at those locations. Please see the</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		<p>recent results supporting this as presented in training ranges monitoring reports available at available at NMFS Office of Protected Resources web site. Please see the project web site (<a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a>) for the <i>Marine Mammal Stranding Report</i> which has a full review of the scientific record concerning marine mammal strandings and sonar use. An integrated monitoring plan for the activities in the AFTT Study Area is also planned as presented in Section 5.5.1.1 (Integrated Comprehensive Monitoring Program) of the Final EIS/OEIS. The Navy will continue to implement the monitoring and research programs where training and testing has been occurring to determine if there are determinable impacts as a result of those activities and will do so in the AFTT Study Area associated with future training and testing occurring there. The Navy will continue to be a leader in funding of research to better understand the potential impacts of Navy training and testing activities and to operate with the least possible impacts while meeting training and testing requirements.</p>
P407	<p>To whom it may concern, I am writing to voice my opposition to continued testing of underwater sound generating equipment. The damage to marine mammals and other ocean life is immeasurable. Future generations will look back and judge us for our disregard for our environment and the creatures that share it with us. Please consider your own place in history. In addition, this technology, while interesting, is of dubious practical use. The threat of underwater attack upon the US is a cold-war-era issue. Today's threats are very unlikely to be discovered by this kind of technology. Our nation's time, energy and money would be better spent elsewhere. Thank you for your attention.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.</p>
P408	<p>Please consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P409	PLEASE consider steps to reduce the terrible impacts your sonar exercises have to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow your important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. PLEASE, all life should be considered!	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.
P410	We are saddened to hear that the Navy is considering conducting exercises involving the use of live explosives and high-intensity sonar. Do you feel that it is really necessary to conduct this testing that will affect such a volume of marine life? It would be a great pity to see so much of the conservation work the USA has undertaken towards its marine environment over the last number of years being undermined by these proposed exercises. These conservation initiatives deserve to be applauded and have made the USA one of the leaders in marine conservation. To conduct these exercises flies in the face of all the good work and progress that has been achieved to date. There is also the issue of sound channels in the oceans that can carry sounds over vast distances, so not only local populations may be affected but also populations in areas seemingly far removed from the testing activities. As these activities could potentially affect endangered species on both the high seas and possibly in the territorial waters of other nations we believe that any other nations that could potentially be affected should be fully consulted, and the findings of any such consultations made public, prior to any decision being made on whether these activities should progress to the next stage. We would ask you to give serious consideration to just how necessary these proposed exercises are and where the benefits of them lie versus the destruction of marine life that so many dedicated citizens have worked tirelessly to preserve and enhance for both current and future generations. We look forward to hearing from you with your views on the above, if you have any queries please do not hesitate to contact us, yours, Tommy	Thank you for your comment.
P411	Please take these steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All



Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. sincerely, traci Hunt	of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P412	as much sea life that we are killing by either hunting, or destroying their habitat, and so on. i find it hard to believe that among all the very smart, educated people that make decisions, that harming and potentially killing them is even an option. please do you small part to help in stop ruining their natural environment.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P413	We are saddened to hear that the Navy is considering conducting exercises involving the use of live explosives and high-intensity sonar. Do you feel that it is really necessary to conduct this testing that will affect such a volume of marine life? It would be a great pity to see so much of the conservation work the USA has undertaken towards its marine environment over the last number of years being undermined by these proposed exercises. These conservation initiatives deserve to be applauded and have made the USA one of the leaders in marine conservation. To conduct these exercises flies in the face of all the good work and progress that has been achieved to date. There is also the issue of sound channels in the oceans that can carry sounds over vast distances, so not only local populations may be affected but also populations in areas seemingly far removed from the testing activities. As these activities could potentially affect endangered species on both the high seas and possibly in the territorial waters of other nations we believe that any other nations that could potentially be affected should be fully consulted, and the findings of any such consultations made public, prior to any decision being made on whether these activities should progress to the next stage. We would ask you to give serious consideration to just how necessary these proposed exercises are and where the benefits of them lie versus the destruction of marine life that	Thank you for your comment.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	so many dedicated citizens have worked tirelessly to preserve and enhance for both current and future generations. We look forward to hearing from you with your views on the above, if you have any queries please do not hesitate to contact us, yours,	
P414	According to your own estimates it will deafen more than 15,900 whales and dolphins and kill 1,800 more over the next 5 years. Whales and dolphins depend on sound to navigate and live. I refuse to live in a world where we have killed off every other living being just because we have no use for them.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. The Navy does not anticipate any mortality from its activities. Though the model estimates the potential for mortality based on very conservative criteria, with the implementation of proven mitigation and decades of historical information from conducting training and testing in the Study Area, mortalities are highly unlikely. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. The Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P415	Please consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	harm or killed.	NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy recommends in specific mitigation areas that are important to marine mammals.
P416	We are saddened to hear that the Navy is considering conducting exercises involving the use of live explosives and high-intensity sonar. Do you feel that it is really necessary to conduct this testing that will affect such a volume of marine life? It would be a great pity to see so much of the conservation work the USA has undertaken towards its marine environment over the last number of years being undermined by these proposed exercises. These conservation initiatives deserve to be applauded and have made the USA one of the leaders in marine conservation. To conduct these exercises flies in the face of all the good work and progress that has been achieved to date. There is also the issue of sound channels in the oceans that can carry sounds over vast distances, so not only local populations may be affected but also populations in areas seemingly far removed from the testing activities. As these activities could potentially affect endangered species on both the high seas and possibly in the territorial waters of other nations we believe that any other nations that could potentially be affected should be fully consulted, and the findings of any such consultations made public, prior to any decision being made on whether these activities should progress to the next stage. We would ask you to give serious consideration to just how necessary these proposed exercises are and where the benefits of them lie versus the destruction of marine life that so many dedicated citizens have worked tirelessly to preserve and enhance for both current and future generations. We look forward to hearing from you with your views on the above, if you have any queries please do not hesitate to contact us, yours, Trina Lopatka	Thank you for your comment.
P417	Please do not conduct Navy exercises that harm marine animals. It is cruel and unnecessary to endanger the lives of these animals. Please do not do this.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P418	Respect our surroundings and those who inherited it. Respect Nature. Preserve what we can. Spend less on war and more on making friendships, it's possible.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P419	Alternatives must be found rather than inflicting this horrific misery to our precious & magnificent ocean animals.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P420	Please find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures. Please protect marine mammals from explosives and sonar along the East Coast and California/Hawaii. Thank you.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P421	Please add additional protective measures for marine mammals before testing explosives and sonar!	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P422	please do not test underwater equipment that harms marine creatures off the East Coast or the Hawaiian islands. This sounds like it just for your convience and if these tests are so terribly necessary you should be able to find a safer place to do them even if it takes a little more work on the part of the navy.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P423	It's been proven that whales have stranded and died in the wake of major military sonar exercises. Visible traumas have been documented such as bleeding from the ears and other tissue damage attributed to sonar, not to mention incidents of beaked whales dying in the Canary Islands following sonar exercises, the panicked flight of orcas and porpoises off Washington State in 2003, and dozens of whales (including pregnant females) from several species who died in North Carolina in 2005. These tragedies can be avoided to a very significant degree. I understand the need for protecting our country, but we can find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures. Please help to protect these innocent lives, not to compromise them. Thank you	The Navy shares your desire to preserve marine life. The Navy believes that the proposed training and testing will not pose a significant risk to whales, fish, and other wildlife given that these same activities have been conducted for many years in other range complexes with no indications of broad-scale impacts that are either injurious or of significant biological impact on marine mammals, fish, or wildlife at those locations. In addition, the Navy implements protective measures during its training and testing events as developed with NMFS as a cooperating agency. Please see the project web site ( <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> ) for the <i>Marine Mammal Stranding Report</i> which has a full review of the scientific record concerning marine mammal strandings and sonar use. The Navy will continue to implement the monitoring and research programs where training and testing has been occurring to determine if there are determinable impacts as a result of those activities and will do so in the AFTT Study Area associated with future training and testing occurring there. The Navy will continue to be a leader in funding of research to

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		better understand the potential impacts of Navy training and testing activities and to operate with the least possible impacts while meeting training and testing requirements.
P424	The US Navy testing will be extremely harmful for the marine wildlife! I urge you not to conduct such training, which will have a tremendous negative impact on whales and dolphins!	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P425	please don't allow this to happen!	Thank you for participating in the NEPA process.
P426	Please consider the marine mammals that will be in danger during your tests. consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.
P427	Whales, dolphins, and porpoises deserve to live and to have a healthy ocean environment. The U.S. Navy is proposing to conduct training exercises all along the U.S. East Coast and in the rich marine environment off the coast of California and Hawaii. These exercises would involve the use of live explosives and high-intensity sonar. According to its own Environmental Impact Statements, the Navy estimates that the planned exercises would kill up to 2,000 marine mammals, including a large number of animals from endangered species, such as right whales. Thousands of others would suffer permanent lung damage. An additional 16,000 would be permanently deafened and 5 million would be temporarily deafened by the exercises.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy believes that the proposed training and testing will not pose a significant risk to whales, fish, and other wildlife given that these same activities have been conducted for many

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	<p>I understand the need for protecting our country, but we can find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures. In the past, whales have stranded and died in the wake of major military sonar exercises, with bleeding from the ears and other tissue damage attributed to sonar. These have included incidents of beaked whales dying in the Canary Islands following sonar exercises, the panicked flight of orcas and porpoises off Washington State in 2003, and dozens of whales (including pregnant females) from several species who died in North Carolina in 2005. These tragedies can be avoided to a very significant degree. Consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger “safety zone” around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. Re-think plans and incorporate additional protective measures.</p>	<p>years in other range complexes with no indications of broad-scale impacts that are either injurious or of significant biological impact on marine mammals, fish, or wildlife at those locations. Please see the recent results supporting this as presented in training ranges monitoring reports available at available at NMFS Office of Protected Resources web site. Please see the project web site (<a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a>) for the <i>Marine Mammal Stranding Report</i> which has a full review of the scientific record concerning marine mammal strandings and sonar use. An integrated monitoring plan for the activities in the AFTT Study Area is also planned as presented in Section 5.5.1.1 (Integrated Comprehensive Monitoring Program) of the Final EIS/OEIS. The Navy will continue to implement the monitoring and research programs where training and testing has been occurring to determine if there are determinable impacts as a result of those activities and will do so in the AFTT Study Area associated with future training and testing occurring there. The Navy will continue to be a leader in funding of research to better understand the potential impacts of Navy training and testing activities and to operate with the least possible impacts while meeting training and testing requirements.</p>
P428	<p>Please do not proceed with sonar testing that will impact cetaceans. Thank you, B. Duncan Hyde Park, VT</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.</p>
P429	<p>High frequency underwater testing will kill and deafen thousands of cetaceans, which depend on echolocation for their survival. It is unconscionable that these creatures should be destroyed by experiments with sound equipment — experiments of questionable value but unquestionable negative impact upon species which are already endangered. These experiments are appalling violations of core moral principles and should not be carried out.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P430	Don't screw up the marine mammals any further than everything else man is doing to the oceans already are. Please reconsider the explosives and sonar exercises that are being planned for military purposes--there's got to be a way you can conduct some of these exercises that doesn't impact wildlife to the extent that the current way does. I'm sure you're looking at this and other letters expressing similar concerns as a joke, but try not to laugh and actually consider what you're doing to the environment. I realize that you don't give much of a thought to the environment and view all conservationists & environmentalists as crack heads that you can sit back and laugh at, but please try to take this seriously. The animals are important too---it's not just humans who live on this planet, and some of the species that will be affected are endangered.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P431	It seems that humans have lost sight of what is important. I can't even imagine how horrific it must be for one of the sea mammals to die in this manner (under the high frequency sounds of sonar and loud explosions). Please, please, please, consider this before performing tests in this manner. We have to protect our oceans and all of the vulnerable creatures that live there. I am saddened beyond belief to think how careless we are in these matters.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P432	Please consider proposals from Humane Society of the United States and other organisations to take precautions to minimise the impact of these exercises on marine mammals and other sea life.	Thank you for participating in the NEPA process.
P433	I live on Bay Point Key(saddlebunch Key) and have asked the NAS to not have the F18s fly directly over our homes since we are 7-8 miles from the NAS. A quick look at a map will indicate the Atlantic and Gulf on both sides of our very small key. The noise when they are directly overhead prevent normal conversation--INSIDE our homes. We have written letters and personally spoken with the base commanders and chief of flight operation about having the F18s turn slightly on rotation so	Thank you for participating in the NEPA process. However this comment is outside the scope of this EIS/OEIS. Please see Chapters 1 (Purpose and Need) and 2 (Description of Proposed Action and Alternatives) of the Final EIS/OEIS for a clear definition of the scope of this project.



Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	<p>the do not pass directly overhead. We have never been given a reason why they must go absolutely straight and our request are basically ignored. We have older sick folks here, people who work nights, children and so on. We accept jet noise as a part of pilot training, but cannot understand how inconsiderate and rude the Navy has been. The local attitude is they "just don't give a damn"! Why given such a huge expanse of ocean on both sides do they make our lives difficult? It almost seem like they enjoy what they do and do it on purpose. Needless to say, local opinion about the NAS is not good. As you must know when F18s take off "hot" they generate an amazing amount of noise. All we have ever asked for is a little courtesy. So far they have ignored us and not even responded the our letters. I hope the rest of our navy is more professional.</p>	
P434	<p>We urge the Navy to come up with alternative means in the upcoming tests on the east coast which will not result in the needless deaths of thousands of marine mammals.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stock. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.</p>
P435	<p>We are capable of defending ourselves without resorting to the kind of violence that injures our sealife. Surely the Navy can develop better technologies that will not result in such slaughter. You listed the North Atlantic Right Whale as an endangered species under extreme threat. Per your paper: "Any mortality or serious injury for this stock should be considered significant. This is a strategic stock because the average annual human-related mortality and serious injury exceeds potential biological removal and because the North Atlantic right whale is an endangered species." If you openly acknowledge this then why continue with this type of operation that harms them? Please reconsider and stop with the experiments and seek other less harmful ways of determining your data.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P436	Please stop killing and deafening the whales and dolphins.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P437	The video in the center of the rooms was short, to the point and very interesting on what the Navy does in a number of areas.	The Navy appreciates your comment, and considers public outreach very important.
P438	Please do not proceed with these exercises as planned at the expense of this large number of sea creatures. Maybe you could use your instruments to plan around where they are and still have the exercises? Some of these creatures are endangered and need to be protected. Your own estimates are that a high number would be injured, killed, or permanently maimed leading to their death. I agree that we need a strong Navy, able to protect our coasts and insure our safety, but please avoid harming other creatures to do these exercises. There must be some open ocean where they are not abundant for you to use. Thank you for your consideration.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P439	I ask, as a United States citizen and as someone who cares deeply about our oceans, and the marine life that exists there to please reconsider this testing that WILL kill and torture marine wildlife. You are well aware of the results of your previous testing on these creatures of the ocean and yet you persist in wanting to test again and again. In your environmental report I noticed it often mentioned that it may cause _____ but it is unlikely. This is a way to keep from watering down the significance of what can be caused by your actions so the reader would believe that it is unlikely anything would happen. Well, you can't fool this reader with those kind of statements and SHAME on you for trying. The Navy and science is full aware of the sound levels that are generated by the sonar that will be tested. If that sound level was used on humans we would surely bleed from our ear drums exploding and blood would come from our eyes like those of the beached whales and	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	dolphins found after other tests. How can you justify doing them again? You know it will happen again. This is UNCONSCIONABLE and would be considered CRIMINAL if it were not the Navy. I must insist you reconsider all of the factors and if you still need to test, have several marine biologists who work for reputable environmental groups, such as Ocean Conservancy or Center for Biological Diversity, aid in finding areas where the least harm will come of our marine wildlife and limit your testing to protect them. If we loose the life in our oceans we will also loose our own lives and we won't need a Navy to carry that out. Nature will.	
P440	This is clearly the best written document of all time. My congratulations to the professionals that tirelessly put their lives on hold while working toward this admirable achievement. Bravo Zulu!	Thank you for your comment.
P441	Stop the killing of 1,800 whales and dolphins and the deafening of 15,900 more by ceasing the operation of the Navy's underwater sound system in the Hawaiian Islands, the California and Atlantic Coasts, and the Gulf of Mexico.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P442	WHY continue to kill life? I don't understand, I ask you, the reader, to pass the message and all people involved in this "training operation" that they need to grow their conscious mind and seek spiritual growth. They are too alienated and hypnotize with BS stories about security and control. The need for guns and combat training comes from weak insecure and greedy minds. Please think about future generations, think about the consequences of this act, its not just that it is completely non-	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable,

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	sense by itself, but it will affect many other living beings, which makes this operation a tremendous illogical act. I understand you are following orders but it is time you all re-evaluate, re-think, the life you are living.	mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P443	This is not humane, it is an eco-crime in my opinion, we do not need to plunder every damn resource on the earth for our own benefit - I for one believe we need to do with less, consume less, buy less and so on - These creatures are sacred, and belong to the earth just as much as we do, and I do not want to see them tortured, exploited, or endangered. Thank you.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P444	The continued use of sonar weaponry testing by the U.S. Navy is just cruel and ignorant. They are obliterating the hearing of and KILLING our endangered, majestic marine life!	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P445	Hello, Please find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures. According to its own Environmental Impact Statements, the Navy estimates that the planned exercises would kill up to 2,000 marine mammals, including a large number of animals from endangered species, such as right whales. Thousands of others would suffer permanent lung damage. An additional 16,000 would be permanently deafened and 5 million would be temporarily deafened by the exercises. Please consider steps to reduce the harmful impacts to marine mammals. These steps could include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	<p>zone” around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. Thank you for your time and consideration.</p>	<p>testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. The Navy does not anticipate any mortality from its activities. Though the model estimates the potential for mortality based on very conservative criteria, with the implementation of proven mitigation and decades of historical information from conducting training and testing in the Study Area, mortalities are highly unlikely. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. The Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.</p>
P446	<p>We, the American people, are saddened to hear that the Navy is considering conducting exercises involving the use of live explosives and high-intensity sonar. Do you feel that it is really necessary to conduct this testing that will affect such a volume of marine life? It would be a great pity to see so much of the conservation work the USA has undertaken towards its marine environment over the last number of years being undermined by these proposed exercises. These conservation initiatives deserve to be applauded and have made the USA one of the leaders in marine conservation. To conduct these exercises flies in the face of all the good work and progress that has been achieved to date. There is also the issue of sound channels in the oceans that can carry sounds over vast distances, so not only local populations may be affected but also populations in areas seemingly far removed from the testing activities. As these activities could potentially affect endangered species on both the high seas and possibly in the territorial waters of other nations we believe that any other nations that could potentially be affected should be fully consulted, and the findings of any such consultations made public, prior to any decision being made on whether these activities should progress to the next stage. We would ask you to give serious consideration to just how necessary these proposed exercises are and where the benefits of them lie versus the destruction of marine life that so many dedicated citizens have worked tirelessly to preserve and enhance for both current and future generations. We look forward to hearing from you with your views on</p>	<p>Thank you for your comment.</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	the above.	
P447	Please reconsider the explosive and sonar exercises. The military forces of the United States should be know to protect their people, but also protect their environment and animals within this environment.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P448	Please rethink your plans and incorporate more protective measures to protect marine mammals from explosives and sonar along the East Coast» and California/Hawaii. This is cruel, inhumane and unnecessary. Thank you.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P449	It is not acceptable to endanger marine mammals by conducting training exercises using explosives and sonar in their habitats.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P450	I appreciate the extensive research conducted on behalf of the Navy and documented in the volumes of the Environmental Impact Statement submitted for the exemption from the Marine Mammal Protection and	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	<p>Endangered Species Act. And I recognize the Navy's need to test technology for training, safety and security reasons. As a long-time resident of the Tidewater area, I know many current and retired service members and acknowledge that these citizens appreciate the marine environment that they work and live in. I feel confident that service members will do their utmost to protect our marine resources. Nevertheless, there have been reports of marine mammal strandings resulting from acoustic damage. Acoustic damage is one of the biggest concerns associated with sonar and weaponry testing. Mitigation measures are discussed, including temporal and spatial limits. Ecological data on each species inhabiting the expansive test area have been collected. Alternative testing systems are also mentioned. But when it comes down to it, in some situations, the only option for testing is in the marine environment. And the monitoring system relied upon to protect marine mammals from harm needs improvement. Relying on visual and some passive acoustic surveys to determine if marine mammals or endangered species are in the area is not always sufficient. To reduce worse case scenario odds, a better monitoring system needs to be developed. At the very least, monitoring should be conducted in the region for many hours before testing is to be undertaken. In addition, some kind of subtle warning system that encourages movement away from a potentially hazardous situation should be researched, tested and deployed. Such a system would be in demand in shipping lanes and for other marine based projects like wind farm development and oil and gas exploration. It is imperative that very specific language favoring better monitoring, mitigation, and alternative testing option requirements be incorporated into any final action. It should also be stipulated in the final document that any and all feasible subtle warning systems be researched, tested and if possible deployed. Since it is the Navy's mission to protect national security, and they are coordinating with the National Marine Fisheries Service, which is responsible for protecting marine mammals, I believe the NMFS should be continually involved and held responsible for ensuring that all the protections necessary are being provided.</p>	<p>analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy believes the proposed training and testing activities will not pose a significant risk to whales, fish, and other wildlife given that these same activities have been conducted for many years in Navy range complexes with no indications of broad-scale impacts that are either injurious or of significant biological impact on marine mammals, fish, or wildlife at those locations. Please see the recent results supporting this as presented in training ranges monitoring reports available at NMFS Office of Protected Resources web site. Please see the project web site (<a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a>) for the Marine Mammal Stranding Report, which has a full review of the scientific record concerning marine mammal strandings and sonar use. An integrated monitoring plan for the activities in the AFTT Study Area is also planned as presented in Section 5.5.1.1 (Integrated Comprehensive Monitoring Program) of the Final EIS/OEIS. Navy and NMFS are working together to finalize this monitoring program. The Navy will continue to implement the monitoring and research programs where training and testing has been occurring to determine if there are determinable impacts as a result of those activities and will do so in the AFTT Study Area associated with future training and testing activities occurring there. In addition to monitoring, the Navy and NMFS developed an adaptive management process that allows for consideration and integration of new data collected through research and monitoring activities. Adaptive management allows for alternate mitigation actions if mitigation commitments originally made in the planning and decision documents fail to achieve projected environmental outcomes. The Navy and NMFS have and will continue to meet on an annual basis to review new information, discuss results of the previous year's monitoring work, and make refinements to mitigation and monitoring as necessary. The Navy will continue to be a leader in funding research to better understand the potential impacts of Navy training and testing activities and to operate with the least possible impacts while meeting training and testing requirements.</p>
P451	<p>There is not enough proof to establish that navy testing does not affect whales and as such no more should be undertaken</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Please see the project web site ( <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> ) for the <i>Marine Mammal Stranding Report</i> , which has a full review of the scientific record concerning marine mammal strandings and sonar use.
P452	I am opposed to the U.S. Navy proposing to conduct training exercises along the east coast and off the coast of California and Hawaii that will harm the rich marine life. It is well known that these areas are rich in marine life as migratory routes and feeding areas. This proposal blatantly disregards marine animals particularly whales and dolphins that depend on the protection of these areas.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P453	Please think about what you are doing before you act. Much of the marine life will be needlessly destroyed if you proceed with these tests. Surely with your advanced technology you could find less destructive means to make your target. I ask that you please put an end to these training tactics.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P454	The U.S. Navy is proposing to conduct training exercises that involve explosives and high intensity sonar all along the U.S. East Coast and in the rich marine environment off the coast of California and Hawaii. The planned exercises would kill up to 2,000 marine mammals, including a	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental



Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	<p>large number of animals from endangered species, such as right whales. Thousands of others would suffer permanent lung damage. An additional 16,000 would be permanently deafened and 5 million would be temporarily deafened by the exercises. Please consider steps to reduce the harmful impacts to marine mammals. Please avoid the most harmful activities in areas used as calving grounds or migratory corridors. Avoid seasonal high-use feeding areas. Create a larger "safety zone" around the exercises. Use aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. These steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. Whales, dolphins, and porpoises deserve to live and to have a healthy ocean environment. You can make this happen. Please take these steps to reduce the harmful impacts to marine mammals.</p>	<p>Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.</p>
P455	<p>Please adhere to the HSUS and other animal welfare groups' requests to prevent thousands of animals from being killed and injured from this exercise. Like most citizens I know that it is imperative to have a strong defense for our country but there are ways that would be less harmful.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.</p>
P456	<p>Please do not test along the ocean waters and kill our marine lives. That is invasion on their home and they deserve to love a long healthy life without having to worry about what humans are going to do. We do enough to animals already without doing this test. You should test out in the DESERT!</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P457	<p>There have been objections raised to overuse of underwater sonar technologies for some years, many of them based on studies that show their comparative ineffectiveness and inefficiency. But even more important than the potential for cost-saving through eliminating a poorly designed program is the protection of thousands of marine mammals who will be jeopardized by these tests. The small potential gains are not worth that risk, when so many of these species are already under siege by other human-made conditions that are not so easy to address. The "collateral damage" suffered by non-human species is significant, too, and should be avoided whenever possible, as is possible now.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.</p>
P458	<p>I would just like to voice my opposition to continued testing of underwater high-frequency, low-frequency, and high-power sound generating equipment. The damage to life in our oceans is impossible to measure, and once done cannot be undone. I think the research shows that we just don't know how much damage could be done. Please find a better way.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.</p>
P459	<p>I am saddened to hear that the Navy is considering conducting exercises involving the use of live explosives and high-intensity sonar. Do you feel that it is really necessary to conduct this testing that will affect such a volume of marine life? It would be a great pity to see so much of the conservation work the USA has undertaken towards its marine environment over the last number of years being undermined by these proposed exercises. These conservation initiatives deserve to be applauded and have made the USA one of the leaders in marine conservation. To conduct these exercises flies in the face of all the good work and progress that has been achieved to date. There is also the issue of sound channels in the oceans that can carry sounds over vast distances, so not only local populations may be affected but also populations in areas seemingly far removed from the testing activities. As these activities could potentially affect endangered species on both the high seas and possibly in the territorial waters of other nations we believe that any other nations that could potentially be affected should</p>	<p>Thank you for your comment.</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	be fully consulted, and the findings of any such consultations made public, prior to any decision being made on whether these activities should progress to the next stage. I would ask you to give serious consideration to just how necessary these proposed exercises are and where the benefits of them lie versus the destruction of marine life that so many dedicated citizens have worked tirelessly to preserve and enhance for both current and future generations. Cathy Pupo	
P460	Please, no more experiments like this, they kill the sea.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P461	While I have respect for the navy, I'm really concerned about all of the life that will be hurt/killed as a result of these exercises. Our marine life is already struggling and someday .. I believe .. we will learn how absolutely dependant human life is on other species.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P462	Once these animals are destroyed they are gone forever! Pls stop this testing! Find a way to test without destroying our water mammals.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P463	My comment is relatively simple, and should be understood by anybody considering an operation that DOES NOT have to kill so many living beings. Compassion for animals is common among the good guys, but not among the bad ones. One of the surest signs that a biblical figure is a player in God's redemptive plan is the person's decency to the beasts of the field. Humane treatment of animals is seen here with Noah and will be repeated by Moses, Rebecca, Laban, and a host of others. It is not a coincidence that Christ is referred to as the 'Good Shepherd'. As St. Francis of Assisi said: "If you have men who will exclude any of God's creatures from the shelter of compassion and pity, you will have men who will deal likewise with their fellow men." Respectfully, Charles Swanson USAFR Retired officer	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P464	Stop this, please	Thank you for participating in the NEPA process.
P466	After reading what documents were provided, I understand the need to protect our shorelines. But, how many times and at what time increments are these tests to be conducted. The killing and maiming of ocean life gives me pause to consider the necessity of human life being of far more importance then animal or sea animal life. Can our military not use such wide intended boundaries of ocean to conduct these tests? It is a most complex issue and one can see the importance and value of each -- the testing and the ocean life. We have come so far and yet, as a Native American, I cannot bear the thought of the erosion to our oceans and their sea life.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P467	Please protect animals during training exercises.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P468	Please consider the impact to marine life and develop training exercises using explosives and sonar that do not damage and kill marine life. What's the point of protecting the planet if there is nothing left to protect?	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P469	I understand the need for protecting our country, but please find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures. I know that in the past, whales have stranded and died in the wake of major military sonar exercises, with bleeding from the ears and other tissue damage attributed to sonar. These have included incidents of beaked whales dying in the Canary Islands following sonar exercises, the panicked flight of orcas and porpoises off Washington State in 2003, and dozens of whales (including pregnant females) from several species who died in North Carolina in 2005. These tragedies can be avoided to a very significant degree. I support the HSUS and other environmental and animal welfare groups in asking the Navy to consider steps to reduce the harmful impacts to marine mammals. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy believes that the proposed training and testing will not pose a significant risk to whales, fish, and other wildlife given that these same activities have been conducted for many years in other range complexes with no indications of broad-scale impacts that are either injurious or of significant biological impact on marine mammals, fish, or wildlife at those locations. Please see the recent results supporting this as presented in training ranges monitoring reports available at available at NMFS Office of Protected Resources web site. Please see the project web site ( <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> ) for the <i>Marine Mammal Stranding Report</i> which has a full review of the scientific record concerning marine mammal strandings and sonar use. An integrated monitoring plan for the activities in the AFTT Study Area is also planned as presented in Section 5.5.1.1 (Integrated Comprehensive Monitoring Program) of the Final EIS/OEIS. The Navy will continue to implement the monitoring and research programs where training and testing has been occurring to determine if there are determinable impacts as a result of those activities and will do so in the AFTT Study Area associated with future training and testing occurring there. The Navy will continue to be a leader in funding of research to better understand the potential impacts of Navy training and testing activities

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		and to operate with the least possible impacts while meeting training and testing requirements.
P470	Please consider steps to reduce the harmful impacts to marine mammals of the planned training exercises. These steps include avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that extraordinary numbers of whales, dolphins, and porpoises might be harmed or killed. Please re-think the training exercise plans as they are currently proposed and incorporate additional protective measures. Thank you.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.
P471	Please rethink before you kill wildlife	Thank you for participating in the NEPA process.
P472	As the daughter of a fighter pilot, I understand the need for protecting our country, but I am hoping that we can find a way to ensure national security without sacrificing such an extraordinary number of whales, dolphins, and many other marine creatures. For that reason, I am writing ask the Navy to re-think its plans and to incorporate additional protective measures as it conducts training exercises involving explosives/sonar along the U.S. East Coast and in the rich marine environment off the coast of California and Hawaii. According to its own Environmental Impact Statements, the Navy estimates that the planned exercises would kill up to 2,000 marine mammals, including a large number of animals from endangered species, such as right whales. Thousands of others would suffer permanent lung damage. An additional 16,000 would be permanently deafened and 5 million would be temporarily deafened by the exercises.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P473	Stop your training and testing it's hurting the environment!!! Please!!!	Thank you for participating in the NEPA process.
P474	You have to STOP doing this your killing everything stop this and stop HAARP this MUST STOP NOW!Look what your doing to this world our Oceans please safe the sea life do no harm ..	Thank you for participating in the NEPA process.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P475	This underwater testing by the Navy is CRUEL and We should not be treating fellow species traveling on Spaceship Earth to death and or deafness. THERE IS NO PLANET B.	Thank you for participating in the NEPA process.
P476	I am writing to request that the US Navy does all they can to cause no harm to marine animals when they test and train. I believe in today's day and age, the US Navy can come up with alternatives that don't harm animals. The US Navy should be able to protect our Nation in a manner that doesn't kill an astronomically high number of whales, dolphins and other sea creatures. If every nation did what the US is doing, we wouldn't have any animals and food left in the sea. The US Navy, as the most powerful Navy on this earth, is not setting an example to the rest of the world. Please reduce the number of marine animals that will be killed. No testing should be done in calving and feeding areas. I believe our US Navy can protect our national security and at the same time respect the Earth. They are not mutually exclusive. Be a leader, don't do what's easiest. Do what's right – Be a Global Force of Good for mankind and all creatures.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P477	I disagree with sonar testing and that the NAVY can responsibly do it with acceptable environmental impact. The calculated loss versus knowledge gain is not worth it in my opinion.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P478	Please rethink planned training exercises that use live explosives and high-intensity sonar. The impact on wildlife would be significantly damaging. I would rather these exercises stop altogether but another option is to take steps including avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	harm or killed.	presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures that the Navy recommends in specific mitigation areas that are important to marine mammals. The Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P479	Let's please lead by example, let's show the world we care (even if we don't).... Our oceans are already dying. They are polluted. Animals are dying because of the pollution and we don't need to contribute even more to this disaster. Let's show we care for these animals and for our ocean by stopping these type of exercises that are known to have bad ending for our world. .	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P480	Dear Navy, I understand the need for testing of our military devices, but if we are causing more harm then good, how can this be right? Lets take a step back and reconsider. If the Navy does the testing knowing the harm to the wildlife it causes, then how can anyone in their right mind do the testing? It isn't right. Please! Thank you, Colleen Johnson Sebastian, FL	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P481	I urge you to take into account the lives and well-being of the marine animals, especially dolphins and whales, when conducting training exercises. We can surely maintain national security and protect marine animals at the same time. I ask that you consider avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales,	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.



Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	dolphins, and porpoises might be harmed or killed. Thank you for your time and consideration.	
P482	I humbly request that the US Navy consider steps to reduce the harmful impacts to marine mammals including avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. Thank you.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.
P483	I am asking that the Navy protect marine mammals from explosives and sonar. These are precious animals that don't deserve to be abused and there are other ways for the Navy to test protective ways than killing in our waters. These exercises would involve the use of live explosives and high-intensity sonar. According to its own Environmental Impact Statements, the Navy estimates that the planned exercises would kill up to 2,000 marine mammals, including a large number of animals from endangered species, such as right whales. Thousands of others would suffer permanent lung damage. An additional 16,000 would be permanently deafened and 5 million would be temporarily deafened by the exercises. Please stop this action! Thank you, Curt Albright	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The impact analysis in the Final EIS/OEIS has been refined in coordination with NMFS. The number of marine mammal harassment exposures must be estimated scientifically using complex modeling, but it is only an estimate, not a prediction. This estimate needs to encompass the capacity of what could occur to ensure Navy's permits are not exceeded. The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P484	Stop!	Thank you for participating in the NEPA process.
P485	I grew up in the Norfolk, VA area where the Navy is a vital and respected part of the fabric of the community. My father was in the Naval Reserves and was away from home at least once a month. He was also a boater and a fisherman who had great respect for the ocean. The sea is critical to the U.S. Navy and our national security and is also critical to	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	the very survival of the dolphins and whales that must share it with our ships. I implore the Navy to find ways to lessen the impact on these amazing animals that already face survival challenges from so many man-made objects (i.e. trash, etc.) Surely there are intelligent scientists/biologists that can help our officers at the Pentagon come up with a strategy to fulfill the Navy's mission AND protect our sea life. To do anything less would be an abdication of responsibility as U.S. citizens and as caretakers of our fellow creatures. Thank you for the opportunity to comment.	(Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy employs hundreds of people whose sole or primary responsibility is environmental stewardship, and hires numerous contractors to assist with these programs. These personnel are involved on a daily basis in planning, implementing and monitoring stewardship programs to protect, preserve and/or conserve species and their habitats.
P486	No exercises of any kind are worth the lives and health of those creatures who live in the sea. Not only is protecting these animals the right thing to do, it benefits us as well. Because when the flora and the fauna of this world flourish, so, too, do we. But if they suffer and die, we are going to likewise be effected - by less food in the food chain, by dead animals washing up on shore thereby contaminating the beaches, etc. Please discontinue any testing or plans for testing which will harm the hearing and/or health of sea mammals. This includes sonar, radar, and explosive testing. Thank you.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P487	Save the whales and dolphins! Do not allow training exercises along the U.S. East Coast and in the rich marine environment off the coast of California and Hawaii. Destroying wildlife and the environment is just plain wrong.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P488	USA STOP YOUR PLANS.MARINES MAMMALS NEED PROTECTION! DARIA GYEDU,POLAND	Thank you for participating in the NEPA process.
P489	<i>Duplicate to comment P106</i>	<i>See response to comment P106</i>
P490	Our lands were taken away, don't take our ocean life. It is with great concern that I address the U.S. Navy's AFTT. As a Vietnam naval wife, Marine Corp and 2 Navy son-in-laws mother as well as a 5th	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	generational and more Native American of the Creek triber there are three things that we must do to have peace in our hearts. #1 Respect the Great Spirit. #2 Respect you fellow human. #3 Respect and take care of what the Great Spirit has given on and of planet Earth. When these values are broken chaos occurs. I support national defence. I support protection of all living creatures. Please consider not doing testing during whale and dolphin migration to their feeding/spawing. Please do use the "deep" ravines and chasmisn in open ocean away from our coastal area.	analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.
P491	We urge you to take into consideration the irreparable harm your testing will do to whales and dolphins. We respect the need for testing as part of our national security, but your own environmental studies point to severe, horrific injury to these animals, who are sentient, family-oriented creatures like us. Please, reduce the impact your testing will have; use alternative, more sensitive methodologies. Thank you.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P492	I wholeheartedly agree with what the HSUS describes as a terrible outcome for sea life, especially that on the endangered species lists. There are other ways and means to ensure our country's safety without destroying our oceans and sea creatures. Thank you.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P493	We are saddened to hear that the Navy is considering conducting exercises involving the use of live explosives and high-intensity sonar. Do you feel that it is really necessary to conduct this testing that will affect such a volume of marine life? It would be a great pity to see so much of the conservation work the USA has undertaken towards its marine environment over the last number of years being undermined by these proposed exercises. These conservation initiatives deserve to be	Thank you for your comment.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	<p>applauded and have made the USA one of the leaders in marine conservation. To conduct these exercises flies in the face of all the good work and progress that has been achieved to date. There is also the issue of sound channels in the oceans that can carry sounds over vast distances, so not only local populations may be affected but also populations in areas seemingly far removed from the testing activities. As these activities could potentially affect endangered species on both the high seas and possibly in the territorial waters of other nations we believe that any other nations that could potentially be affected should be fully consulted, and the findings of any such consultations made public, prior to any decision being made on whether these activities should progress to the next stage. We would ask you to give serious consideration to just how necessary these proposed exercises are and where the benefits of them lie versus the destruction of marine life that so many dedicated citizens have worked tirelessly to preserve and enhance for both current and future generations. We look forward to hearing from you with your views on the above, if you have any queries please do not hesitate to contact us, yours, Brian Hurley Controller, Sullivan Miranda S.C.</p>	
P494	<p>As a tax-payer, small business owner and ocean conservationist, I am deeply concerned about the potential for death and harm to marine mammals from the sonar project. My business is Washington, DC caters to scuba divers, snorkelers and other underwater enthusiasts who spend a lot of time and money to see these beautiful, threatened animals in their natural environments. Animal deaths or injuries from these exercises would cause a massive public outcry and potentially harm many other businesses who depend on income from marine mammal-related tourism. Please take steps to reduce the harmful impacts to marine mammals, such as avoiding the most harmful activities in areas used as calving grounds or migratory corridors; avoiding seasonal high-use feeding areas; creating a larger "safety zone" around the exercises; and using aerial or acoustic monitoring to determine whether marine mammals are nearby and may be harmed. Taking these steps would allow important military training exercises to go forward, while minimizing the likelihood that whales, dolphins, and porpoises might be harmed or killed. Thanks for the opportunity to comment.</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures that the Navy recommends in specific mitigation areas that are important to marine mammals. The Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.</p>
P495	<p>We understand the need for protecting our country, but this carnage and killing is reprehensible beyond measure. As you are very well aware there are ways to ensure national security without sacrificing such an</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were</p>

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	extraordinary number of whales, dolphins, and many other marine creatures. Citizens want this to STOP!	analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P496-01	Please consider the reality of need not only from the standpoint of the Navy but from the standpoint of we the people you are presuming to protect, and our very deep concerns for the animals we so treasure in the areas you are invading. This person's most sincere plea is that you will use both compassion and redeeming human judgment when you decide about the necessity, the intensity, and the repetition of the very painful and lethal sonar testing you are intending to do.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P496-02	If you question the terrible effect you are having on these animals with your tests, you might contract to have this type of torture applied to a "laboratory" sample.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P497	Our neighborhood is overflowed daily by training planes. We are always pleased to hear them and frequently try to see them, and sometimes wave if they are low passing over us. Your planes are as welcome as patrolling police car cruising by. "The sound of freedom" and the vision of protection. Keep 'em up! F and N. JAX FL 32257	Thank you for your comment.
P498	Please use all precautions and protective measures while carrying out the sonar and explosive activities to ensure marine mammals are	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	protected.	of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P499	How can you even begin to believe killing innocent animals is ok? You guys need to visualize what the results will be from these ocean tests. Stop it now (over) please.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P500-01	The analysis fails to present and analyze reasonable alternatives that would significantly reduce the unprecedented level of harm to marine life.	The alternatives carried forward meet the Navy's purpose and need (Section 1.4, Purpose and Need) to ensure that it can fulfill its obligation under Title 10. See Section 2.5 (Alternatives Development) for more detailed information on the development of alternatives. The Navy complied with NEPA requirements in the development and consideration of alternatives. This EIS/OEIS analyzes all alternatives in Section 2.5.2 (Alternatives Carried Forward) and explains why the Navy has eliminated other alternatives in Section 2.5.1 (Alternatives Eliminated from Further Consideration). The selection of an alternative by the decision maker will be based on a review of all relevant facts, impact analyses, and comments received via the EIS/OEIS public participation process.
P500-02	The mitigation scheme that the Navy principally relies upon, centered on the ability of lookouts to detect whales and dolphins, will not result in an appreciable decrease in marine mammal injuries.	As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
P500-03	I urgently and respectfully call on the Navy to identify and set aside areas of high marine mammal density acknowledged to be the most effective means of reducing marine mammal injury. The Navy should and must take common sense precautions -- like keeping training out of key whale habitat -- before launching this sonic assault. Such precautions will not compromise the nation's military readiness.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. The Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy recommends in specific mitigation areas that are important to marine mammals.
P501-01	Just how many individuals do you think can be harmed before a population is affected?	All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the Final EIS/OEIS and it was determined that population-level impacts would not occur. If long-term consequences for a few animals in populations that number in the tens of thousands do occur, they are unlikely to have measurable long-term consequences for marine mammal populations. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities that reduce the potential for impacts to occur.
P501-02	The mitigation scheme that the Navy principally relies upon, centered on the ability of lookouts to detect whales and dolphins, will not result in an appreciable decrease in marine mammal injuries.	As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.
P501-03	set aside areas of high marine mammal density....	As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
		effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, with regard to marine mammals, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS. Specifically, Section 5.3.3.1 (Marine Mammal Habitats) discusses measures the Navy recommends in specific mitigation areas that are important to marine mammals.
P502	Please stop the killing and harming of our animal and human populations, and stop destroying the environment that these are dependent upon for their survival.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P503	This letter is written to tell the US Navy that inflicting such far-reaching harm on marine mammals is simply unacceptable....I am urging the US Navy to reexamine and reevaluate their potential ocean sonar and explosive testing as this potential harm and destruction of our endangered marine wildlife will threaten their ability to survive and must be reevaluated. These actions are inhumane and unacceptable.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements, to the maximum extent practicable, mitigation measures during its training and testing activities. The Navy has conducted active sonar training and testing activities for decades in the seaspace depicted in the Study Area with no documented proof of injuries to marine mammals.
P504	Good morning. Good afternoon. This is Beverly Bernice Hartley Wilhite, [ADDRESS REMOVED]. I've come to say thank you to the U.S. Navy for all the representatives, admirals, commanders, and foot soldiers that you have located everywhere throughout the world. As a mother of the United States Marine Corps who went over to Desert Storm, as a wife of a Navy man, as the mother also of two sons-in-law Ethan Abbot and Nicholas Duane Wood, we thank the Navy for the opportunity to say that you're doing a great job. With those thoughts in mind I'd like to say my peace in regards to	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy implements the most practical mitigation measures with the aim of achieving the least practicable adverse impacts to marine mammal species or stocks.



Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	<p>protecting the seas through science. As well as the things listed above, I'd like to make mention that I am a fifth-generation Native American. With that in mind fifth-generation Native American came from Creek Indians who subbranched from the Cherokee. So as you well know, there's been a lot of things going in and out throughout centuries of time. And with those things in mind, going out throughout the centuries in time mind I'd like to share with you the facts of what our people on my mother's side believes in. There's three very important facts. Number one: if we can have peace in our hearts and lives and lands we do these three things. Honor your great spirit wherever your great spirit, whoever your great spirit is. Number two: respect your fellow man or woman or gender-selected whatever you want to choose. Number three: protect the Earth. With these three thoughts in mind, we are to do and establish those things that are before us.</p> <p>With those things in mind, we come to this oral presentation that I'd like for all to hear and share and I thank you for your time and diligence in putting this together. In Jacksonville where I live, we have a president Andrew Jackson that established us here. And I'd like to share what he had to say. And Andrew Jackson wrote on March 3, 1837: "You have the highest form of human trust committed to your care. Providence has shown on this favored land, blessings without number and has chosen you as the guardians of freedom to preserve it for the benefit of the human race. May he who hold in his hand the destinies of nations make you worthy of the favors he has bestowed and enabled you with pure hearts and hands and sleepless vigilance to guard and to defend to the end the great charge he's committed you." And this is from the annals of six on 310.</p> <p>With that in mind Andrew Jackson speaking his peace about guarding and preserving, that covers the man. But also we need to cover those forces of nature that has been established by, like I said, my people's great spirit. How do we do that? That's the question. You don't disagree with me, I know that. But also we have got to find a way of protecting our nation. In protecting the seas, my suggestion and thought is that we do a little bit of research. Find out what's happening with the nature. Is nature going to be hurt or harmed? Some say "yes" and some say "no". My Navy son who works in radar... he says "yes, they can distinguish between whales". But I suggest highly that our technology be so advanced and so minutely tuned to definitely distinguish a herd of whales, a herd of those environmental animals that we need to protect.</p>	

Table E-5: Responses to Comments from Private Individuals (Continued)

Comment Identifier	Comment	Navy Response
	<p>Our technology be so advanced that we do not detonate and destroy and kill off the pathways and the avenues and the birthing canals of those great animals. You say, is she a whale and fish lover? Let me tell you I am a lover of all things. It gives me life, it gives me breath, and it gives you life and it gives you breath. To love those things that give you the peace of mind, to look and see, to hear. So with this in mind I strongly ask and request that this input would be considered in the highest order even to the president, the next presidential and all the representatives to consider a time span when exercises need to be established... Not, not, not during the season of travel for the migrating whales and not, not, not in the intercoastal waterways that need to be preserved for our environment. The reefs, the underwater reefs... Some people say are not important. Hello, I live in Jacksonville. Have you ever heard of a hurricane and water surges? Water surges come up from the ocean. By detonating and destroying our underground reefs and our protective stabilizers underneath, in the ocean floorboard. We're also setting Jacksonville up and all of the coastline up for destruction.</p> <p>Please consider these thoughts. I thank you. Once again I thank you for your time, your attention. I ask that you consider the timing of when things are done, when things are done, what locations – away. Please consider having it away from the coastal areas. Just have it out in the middle of the ocean. Why not play out there where the deep chasms are. If things need to be blown up, blow them up in the deep chasms that are down in the bottom of the ocean. You know where they're at. I don't. So if you'll take time and just look at that and consider that, you know what? I think everybody will along, be just fine and be happy. Well I appreciate your time and you have a good day or night whatever the situation may be. Thank you.</p>	
P505	<p>I've become aware of the training exercises that are planned to be conducted off of the east coast of the U.S. and also off of the coast of California and Hawaii that will involve the use of live explosives and high-intensity sonar. According to the Navy itself, these practices will kill thousands of marine animals, and leave thousands more injured with lung damage, bleeding from ears and deafness. Instead, please consider avoiding those areas where the animals are known to be calving, migrating or feeding. Please have a large safety area around the exercise areas and use aerial or acoustic monitoring to determine where the mammals are and so to avoid them. Please keep the welfare of the mammals as a priority when these training exercises are done, and</p>	<p>The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.</p>

**Table E-5: Responses to Comments from Private Individuals (Continued)**

<b>Comment Identifier</b>	<b>Comment</b>	<b>Navy Response</b>
	protect them from being harmed or killed as has happened in the past. Thank you for your attention to my letter.	
P506	Please reconsider the plan to do sonar work. I am outraged that this work will cause unnecessary suffering and/or death to many species of sea turtles, whales, and dolphins. The Navy ought to be ashamed.	The Navy shares your concern for marine life. The analysis and the science show that there is not a significant impact on marine species. All of the potential effects from Navy training and testing activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS/OEIS. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.

**E.2.2.1 Form Letter**

The Navy received a CD from the Natural Resources Defense Council containing approximately 76,000 versions of a letter from their activists. Table E-6 provides the Navy's responses to the comments in the letter. Table E-7 provides the Navy's response to amendments to the basic letter. Responses to these comments were prepared and reviewed for scientific and technical accuracy and completeness.

**Table E-6: Responses to Comments in the Form Letter from the Natural Resources Defense Council**

<b>Comment Identifier</b>	<b>Comment</b>	<b>Navy Response</b>
O12-01	Your analysis fails to present and analyze reasonable alternatives that would significantly reduce the unprecedented level of harm to marine life.	The alternatives carried forward meet the Navy's purpose and need (Section 1.4, Purpose and Need) to ensure that it can fulfill its obligation under Title 10. See Section 2.5 (Alternatives Development) for more detailed information on the development of alternatives. The Navy complied with NEPA requirements in the development and consideration of alternatives. This EIS/OEIS analyzes all alternatives in Section 2.5.2 (Alternatives Carried Forward) and explains why the Navy has eliminated other alternatives in Section 2.5.1 (Alternatives Eliminated from Further Consideration). The selection of an alternative by the decision maker will be based on a review of all relevant facts, impact analyses, and comments received via the EIS/OEIS public participation process. Further, the USEPA has reviewed the EIS/OEIS and stated "the draft EIS/OEIS provides an adequate discussion of the potential environmental impacts and we have not identified any potential environmental impacts requiring substantive changes. EPA has rated the draft EIS as LO- "Lack of Objections.""
O12-02	The mitigation scheme that the Navy principally relies on centered on the ability of lookouts to detect whales and dolphins will not result in an appreciable decrease in marine mammal injuries. Federal courts have found this same scheme inadequate and ineffective for good reason: it is largely useless in conditions (common at sea) that impair visual surveillance, it is unsuitable for detecting cryptic and deep-diving species that spend little time at the surface, and, even if it were fully effective at detecting whales and dolphins, would only protect species from the most serious injuries.	As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.
O12-03	I call on the Navy to identify and set aside areas of high marine mammal density acknowledged to be the most effective means of reducing marine mammal injury.	As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. Through consultation and permitting with NMFS and U.S. Fish and Wildlife Service, the Navy refined the mitigation measures, which are now presented in Chapter 5 of this Final EIS/OEIS.

Individuals who submitted the form letter made their own amendments, additions, changes, and editorial remarks. Most expressed general opposition to the Proposed Action; others were related to the topics described below. The Navy has responded to these additional comments in Table E-7.

**Table E-7: Responses to the Additions and Changes to the Form Letter  
as Submitted by the Natural Resources Defense Council**

<b>Comment Topic</b>	<b>Response</b>
Concern for harm to marine mammals/ marine life	The Navy is committed to protecting the marine environment during the conduct of its training and testing activities. As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the EIS/OEIS, the Navy has used extensive measures to protect the marine environment while training and testing for nearly a decade.
Requests or suggestions for different alternatives	The alternatives carried forward meet the Navy's purpose and need (Section 1.4, Purpose and Need) to ensure that it can fulfill its obligation under Title 10. See Section 2.5 (Alternatives Development) for more detailed information on the development of alternatives. The Navy complied with NEPA requirements in the development and consideration of alternatives. This EIS/OEIS analyzes all alternatives in Section 2.5.2 (Alternatives Carried Forward) and explains why the Navy has eliminated other alternatives in Section 2.5.1 (Alternatives Eliminated from Further Consideration). The selection of an alternative by the decision maker will be based on a review of all relevant facts, impact analyses, and comments received via the EIS/OEIS public participation process. Further, the USEPA has reviewed the EIS/OEIS and stated "the draft EIS/OEIS provides an adequate discussion of the potential environmental impacts and we have not identified any potential environmental impacts requiring substantive changes. EPA has rated the draft EIS as LO- "Lack of Objections.""
Requests or suggestions for additional or other mitigation	As described in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the Final EIS/OEIS, the Navy evaluated the effectiveness and practicability of numerous potential mitigation measures. The Navy, in conjunction with NMFS, has determined what mitigation it can effectively use during its training and testing activities. Through careful exploration of all mitigation measures to determine which were the most effective (Chapter 5, Standard Operating Procedures, Mitigation, and Monitoring), the Navy has chosen the existing measures to mitigate harm to marine mammals while still being able to meet its operational needs to train for real-world conditions.
General misunderstanding for the need for the Proposed Action	The alternatives carried forward meet the Navy's purpose and need (Section 1.4, Purpose and Need) to ensure that it can fulfill its obligation under Title 10. See Section 2.5 (Alternatives Development) for more detailed information on the development of alternatives.

#### **E.2.2.2 Petition**

The Navy received a petition circulated by MoveOn.org containing approximately 477,000 signatures. Table E-8 provides the Navy's response to the petition itself. The response to the petition was prepared and reviewed for scientific and technical accuracy and completeness. Individuals who signed the petition added their own remarks. Most expressed general opposition to the Proposed Action; other additions were similar to the topics described above for the Natural Resources Defense Council form letter (Table E-7).

**Table E-8: Response to the Petition from MoveOn.Org**

<b>Comment Identifier</b>	<b>Comment</b>	<b>Navy Response</b>
O13	Stop the killing of 1,800 whales and dolphins and the deafening of 15,900 more by ceasing the operation of the Navy's underwater sound system in the Hawaiian Islands, the California and Atlantic Coasts, and the Gulf of Mexico.	<p>Below is a summary of the facts and analyses related to the AFTT EIS/OEIS:</p> <ul style="list-style-type: none"> <li>• The Navy employs extensive mitigation measures during training and testing activities, which the Navy believes significantly minimizes the risk to marine mammals.</li> <li>• During several decades of training and testing with explosives, only four marine mammals are known to have died during one training accident. Following this incident and in accordance with standard operating procedures, the Navy ceased all similar training, reviewed its protective measures, worked with regulators, and has revised its mitigation measures.</li> <li>• There is evidence of fewer than 40 marine mammal stranding deaths worldwide connected to Navy sonar training, and no such incidents have occurred since 2006. There has never been a recorded marine mammal stranding in which Navy training or testing was a causal factor along the East Coast, West Coast, Gulf of Mexico, or Hawaii.</li> <li>• The modeling, which does not account for mitigation efforts, estimates there is a possibility marine mammals may be exposed to sound levels in certain frequencies that could result in a loss of hearing sensitivity. Using mitigation measures, actual numbers of marine mammals affected by Navy training and testing are expected to be much lower. See the Final EIS/OEIS for the refined analysis (refined in coordination with NMFS). The revised estimates now account for mitigation and avoidance, to provide a more holistic approach to analysis. Additionally, loss of hearing sensitivity at certain frequencies does not mean marine mammals will become deaf—they will still be able to hear, hunt for food, and perform other normal activities.</li> </ul>

### **E.3 NATIONAL MARINE FISHERIES SERVICE PROPOSED RULE**

As part of the EIS/OEIS process, the Navy has applied to NMFS for authorization to take marine mammals incidental to Navy training and testing activities in accordance with the Marine Mammal Protection Act (MMPA). On 31 January 2013, NMFS published in the Federal Register the MMPA Proposed Rule for public comment.

Since the Draft EIS/OEIS was released, adjustments were made to the quantified results of the marine mammal acoustic effects analysis. These changes were presented in the Navy's Letter of Authorization application to NMFS and are reflected in the Final EIS/OEIS. Modifications to the requested take numbers outlined in the Draft EIS/OEIS were presented in the Proposed Rule and are a result of consultation with NMFS, as well as refinements to training and testing modeling inputs and minor changes to Navy training and testing as a result of emerging requirements. In consultation with NMFS, the Navy made post-model adjustments to further refine the numerical analysis of acoustic effects by considering animal avoidance of sound sources, avoidance of areas of activity before use of a sound source or explosive, and implementation of mitigation. Section 3.4.3.1.5.5 (Marine Mammal Avoidance of Sound Exposures) and Section 3.4.3.1.5.6 (Implementing Mitigation to Reduce Sound Exposures) describe in detail the post-model adjustments made to further refine the numerical analysis of acoustic effects.

Because of the changes since the Draft EIS/OEIS, the Navy ensured that the public had the opportunity to review and comment on the changes before the issuance of the Final EIS/OEIS. The Navy sent out letters to stakeholders (Section 8.3) and e-mails to interested parties; in addition, the Navy posted a link to the Proposed Rule on the public web site ([www.AFTTEIS.com](http://www.AFTTEIS.com)). The Navy advised NMFS and the public that all comments received on the Proposed Rule that address (1) changes to the tempo or location of certain proposed activities, (2) refinement to the modeling inputs for training and testing, and (3) additional post-model analysis of acoustic effects and implementation of mitigation would be reviewed and addressed by the Navy in the Final EIS/OEIS. Comments on the Proposed Rule and the Navy's responses can be found in Table E-10.

### E.3.1 COMMENTERS, COMMENTS, AND RESPONSES

This section contains a list of the agencies and organizations that elected to comment on the NMFS Proposed Rule pertaining to the three topics outlined above (Table E-9). During the 45-day public comment period, comments were received from one federal agency and two non-governmental organizations pertaining to the three topics outlined above. The Commenter Identifier is used to identify the comments and responses in the comment response matrix (Table E-10). For example, a comment letter from a federal agency could have 10 comments within it. To organize responses, each commenter received a Commenter Identifier and each comment within the letter was numbered (e.g., F01-01 is the first comment in the letter from the Marine Mammal Commission).

**Table E-9: Agencies and Organizations Who Commented on the Proposed Rule**

Commenter Identifier	Commenting Agency/Organization
<b>Federal Agencies (F)</b>	
F01	Marine Mammal Commission
<b>Organizations (O)</b>	
O01	Natural Resources Defense Council
O02	Cetacean Society International

### E.3.2 COMMENTS AND RESPONSES

Table E-10 provides a listing of all comments received on the NMFS Proposed Rule pertaining to the three topics outlined above, and the Navy's responses. Responses to these comments were prepared and reviewed for scientific and technical accuracy and completeness. Comments appear as they were submitted and have not been altered. Table E-10 contains comments from a federal (F) and non-governmental organization (O) received during the public comment period pertaining to the three topics outlined above, and the Navy's responses.

**Table E-10: Responses to Comments on the Proposed Rule from Agencies and Non-Governmental Organizations**

Commenter Identifier	Comment	Draft Response
F01-01	<p>The Navy assumed that marine mammals likely would avoid repeated high level exposures to a sound source that could result in injuries (i.e., PTS). It therefore adjusted its estimated numbers of takes to account for marine mammals swimming away from a sonar or other active source and away from multiple explosions to avoid repeated high-level sound exposures. The Navy did not provide a basis for this assumption or the details of its adjustment. The Navy also assumed that harbor porpoises and beaked whales would avoid certain training and testing activity areas because of high levels of vessel or aircraft traffic before the activity. It based that assumption on various publications indicating those species swim away from or avoid vessels (Barlow 1988, Polacheck and Thorpe 1990, Evans et al. 1994, Jaramillo-Legorreta et al. 1999, Palka and Hammond 2001, Pirotta et al. 2012). But, again, it did not explain how it adjusted the take estimates to reflect the degree of avoidance by harbor porpoises and beaked whales. Depending on conditions, marine mammals may avoid areas of excessive sound or activity. Indeed, one of the concerns regarding sound-related disturbance is that it causes marine mammals to abandon important habitats on a long-term or even permanent basis. That being said, the Commission knows of no scientifically established basis for predicting the extent to which marine mammals will abandon their habitat, which would seem to be essential information for adjusting the estimated numbers of takes. Absent the relevant information, the Commission and public cannot comment on the appropriateness of such adjustments—in essence, the regulatory process would not be sufficiently transparent.</p>	<p>The quantitative analysis of acoustic impacts is discussed in AFTT Final EIS/OEIS Section 3.4.3.1.5 (Quantitative Analysis), as well as in Section 6.1.5 (Quantitative Analysis), in the Navy's Request for Letter of Authorization submitted to NMFS (77 FR 60679). Specifically, post-model analysis taking into account sensitive species' avoidance of anthropogenic activity is discussed in AFTT Final EIS/OEIS Section 3.4.3.1.5.5, Marine Mammal Avoidance of Sound Exposures. Background information on harbor porpoise and beaked whale sensitivity to vessels and aircraft is discussed in AFTT Final EIS/OEIS Section 3.4.3.1.2.5, Behavioral Reactions. Reactions due to repeated exposures to sound-producing activities are discussed in AFTT Final EIS/OEIS Section 3.4.3.1.2.6, Repeated Exposures.</p> <p>The model-estimated effects (without consideration of avoidance or mitigation) are provided in the <i>Determination of Acoustic Effects on Marine Mammals and Sea Turtles</i> technical report available at <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a>. The Navy Acoustic Effects Model does not currently take into account avoidance behavior by sensitive species when estimating acoustic effects on marine mammals; that is, even for activities in which there is a high level of vessel or low-altitude aircraft activity prior to the start of explosive or sonar activities, sensitive animals are modeled as if they would remain stationary and tolerate any very close anthropogenic encounters. Harbor porpoises and beaked whales, however, are known to avoid anthropogenic activity (see AFTT Final EIS/OEIS Section 3.4.3.1.2.5, Behavioral Reactions). Therefore, the model-estimated effects provide an unrealistic estimate of impacts close to sound sources during certain activities.</p> <p>Marine mammals are not assumed to avoid or abandon important habitats on a long-term or permanent basis. Before use of explosives, sonar, or other acoustic sources, harbor porpoises and beaked whales are conservatively estimated to only avoid a region that would encompass the range to onset mortality for explosives (less than 600 yd., except for full ship shock trials) or PTS for sonar and other active acoustic sources (less than 110 yd.), only if the activity is preceded by multiple vessel movements or hovering helicopters. Example ranges to these effects for specific sources are provided in AFTT Final EIS/OEIS Tables 3.4-20 and 3.4-21 (explosives, for mid- and high-frequency cetaceans, respectively) and Table 3.4-9 (sonar and other active acoustic sources). Therefore, the model-estimated onset mortalities (due to explosives) and PTS (due to sonar and other active acoustic sources) for harbor porpoises and beaked whales are instead assumed to be recoverable injuries (i.e., onset slight lung injury) and TTS, respectively, for the activities described above.</p>



**Table E-10: Responses to Comments on the Proposed Rule from Agencies and Non-Governmental Organizations (Continued)**

Commenter Identifier	Comment	Draft Response
		<p>In addition to the information already contained within the AFTT EIS/OEIS, and in response to public comments, the Navy has prepared a technical report which describes the process for the post modeling analysis in further detail. This report is available at <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a>.</p>
F01-02	<p>The Navy also indicated that its post-model analysis considered the potential for highly effective mitigation to prevent Level A harassment from exposure to sonar and other active acoustic sources and Level A harassment and mortalities from exposure to explosives. Clearly, the purpose of mitigation measures is to reduce the number and severity of takes. However, the effectiveness of the Navy's mitigation measures has not been demonstrated and remains uncertain. This is an issue that the Commission has raised many times in the past, and the Navy has recognized the need to assess the effectiveness of its mitigation measures in its ICMP and even in its recent DEIS, which states that although the use of lookouts is expected to increase the likelihood that marine species would be detected at the water's surface, it is unlikely that using those lookouts would help avoid impacts to all species because of the inherent limits of visual monitoring. The Navy has now proposed to adjust its take estimates based on both mitigation effectiveness scores and <math>g(0)</math>—the probability that an animal on a vessel's or aircraft's track line will be detected. According to its proposed approach, for each species the Navy would multiply a mitigation effectiveness score and a <math>g(0)</math> to estimate the percentage of the subject species that would be observed by lookouts and for which mitigation would be implemented, thus reducing the estimated number of marine mammal takes for Level A harassment and mortality (explosives only). The Navy then would decrease the estimated numbers of Level A harassment and mortality takes for that species to Level B or Level A harassment takes, respectively.</p> <p>The difficulty with this approach is in determining the appropriate adjustment factors. Again, the information needed to judge effectiveness has not been made available. In addition, the Navy did not provide the criteria (i.e., the number and types of surveillance platforms, number of lookouts, and sizes of the respective zones) needed to elicit the three</p>	<p>The Navy Acoustic Effects Model currently does not have the ability to account for mitigation or horizontal animal movement either as representative animal movements or as avoidance behavior (see AFTT Final EIS/OEIS Section 3.4.3.1.5.4, Model Assumptions and Limitations). While the Navy will continue to incorporate best available science and modeling methods into future versions of the Navy Acoustic Effects Model, it was necessary to perform post-model analysis to account for mitigation and avoidance behavior.</p> <p>A summary of the current status of the Navy's Lookout effectiveness study and why the data cannot be used in the analysis has been added in Section 5.3.1.2.4, Effectiveness Assessment for Lookouts. The Navy believes consideration of marine mammal sightability and activity-specific mitigation effectiveness in its quantitative analysis is appropriate in order to provide decision makers a reasonable assessment of potential impacts under each alternative. A comprehensive discussion of the Navy's quantitative analysis of acoustic impacts, including the post-model analysis to account for mitigation and avoidance, is presented in the Navy's Request for Letter of Authorization under the MMPA submitted to NMFS (77 FR 60679). The assignment of mitigation effectiveness scores and the appropriateness of consideration of sightability using detection probability, <math>g(0)</math>, when assessing the mitigation in the quantitative analysis of acoustic impacts is discussed in AFTT Final EIS/OEIS Section 3.4.3.1.5.6, Implementing Mitigation to Reduce Sound Exposures. Additionally, the activity category, mitigation zone size, and number of Lookouts is provided in AFTT EIS/OEIS Tables 5.3-2 and 5.4-1. In addition to the information already contained within the AFTT EIS/OEIS, and in response to public comments, the Navy has prepared a technical report which describes the process for the post modeling analysis in further detail. This report is available at <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a>.</p> <p>Any marine mammal detection within the mitigation zones results in implementation of the appropriate mitigation measures. Details on implementation of mitigation can be found in the annual exercise reports provided to NMFS and briefed annually to NMFS and the Marine Mammal Commission. The annual exercise reports can be found at <a href="http://www.navymarinespeciesmonitoring.us/">http://www.navymarinespeciesmonitoring.us/</a>. For more information on how mitigation is implemented see AFTT EIS/OEIS Chapter 5, Standard Operating</p>

**Table E-10: Responses to Comments on the Proposed Rule from Agencies and Non-Governmental Organizations (Continued)**

Commenter Identifier	Comment	Draft Response
	mitigation effectiveness scores. Moreover, the simple detection of a marine mammal does not guarantee that mitigation measures will be effective. That is, measures of effort (i.e., numbers of lookouts and surveillance platform (s)) are not necessarily measures of effectiveness, and the Navy has not yet demonstrated that such measures of effort are reliably linked to effectiveness. Therefore, the use of those scores is unsubstantiated.	Procedures, Mitigation, and Monitoring.
F01-03	In addition, this approach is confusing because the Navy is inconsistent in its use of the terms "range to effects zone" and "mitigation zone," which are not the same (see Table 11-1 of the application). More importantly, some of the mitigation zones are smaller than the estimated range to effects zones. For example, the Navy proposed a mitigation zone of 183 m after a 10 dB reduction in power for its most powerful active acoustic sources (e.g., source bin/type MF1: AN/SQS-53C) and assumed that marine mammals would leave the area near the sound source after the first three to four pings. However, for a single ping, the predicted average range to PTS is 257 m and could be as large as 267 m. That distance would increase if the activity involves multiple pings, which most do. But even with a single ping, PTS may occur well outside of the mitigation zone. In such cases, mitigation based on those zones cannot be deemed effective, no matter how many observers or observer platforms are involved. That being the case, assigning mitigation effectiveness scores based on zones that do not cover the full range to which PTS may occur is inappropriate.	<p>The terms "range to effects zone" and "mitigation zone" are used appropriately in the discussion of mitigation in both the Navy's Request for Letter of Authorization under the MMPA submitted to NMFS (77 FR 60679) and in AFTT Final EIS/OEIS Section 5.3.2, Mitigation Zone Procedural Measures. In summary, the range to effects zone is the distance over which the specific effects would be expected, and the mitigation zone is the distance that the Lookout will be implementing mitigation within and is developed based on the range to effects distance for injury (i.e., PTS).</p> <p>In all cases except ship shock trials, the proposed mitigation zones encompass the ranges to PTS for the most sensitive marine mammal functional hearing group (see AFTT Final EIS/OEIS Table 5.3-2), which is usually the high-frequency cetacean hearing group. Therefore, the mitigation zones are even more protective for the remaining functional hearing groups (i.e., low-frequency cetaceans, mid-frequency cetaceans, and pinnipeds), and likely cover a larger portion of the potential range to onset of TTS. The Navy believes that ranges to effect for PTS that are based on spherical spreading best represent the typical range to effects near a sonar source; therefore, the ranges to effects for sonar presented in Table 11-1 of the Navy's Request for Letter of Authorization have been revised as shown in Table 5.3-2. The predicted ranges to onset of PTS for a single ping are provided for each marine mammal functional hearing group in Table 3.4-9. The single ping range to onset of PTS for sonar in sonar bin MF1 (i.e., AN/SQS-53), the most powerful source bin analyzed, is no greater than 100 m for any marine mammal functional hearing group. Furthermore, as discussed in Section 3.4.3.1.8.1 (Range to Effects), there is little overlap of PTS footprints from successive pings, indicating that in most cases, an animal predicted to receive PTS would do so from a single exposure (i.e., ping). Additional discussion regarding consideration of mitigation in the quantitative analysis of sonar and other active acoustic sources is provided in AFTT Final EIS/OEIS Section 3.4.3.1.8.2, Avoidance Behavior and Mitigation Measures as Applied to Sonar and Active Acoustic Sources.</p>

**Table E-10: Responses to Comments on the Proposed Rule from Agencies and Non-Governmental Organizations (Continued)**

Commenter Identifier	Comment	Draft Response
F01-04	<p>The Navy used numerous references to estimate species-specific <math>g(0)</math>s. Those sources were based on scientific surveys of marine mammals that used both vessels and aircraft. It also indicated that various factors are involved in estimating <math>g(0)</math>, including sightability and detectability of the animal (e.g., species-specific behavior and appearance, school size, blow characteristics, dive characteristics, and dive interval), viewing conditions (e.g., sea state, wind speed, wind direction, sea swell, and glare), the observer's ability to detect animals (e.g., experience, fatigue, and concentration), and platform characteristics (e.g., pitch, roll, yaw, speed, and height above water). In the DEIS, the Navy noted that due to the various detection probabilities, levels of experience, and dependence on sighting conditions, lookouts will not always be effective at avoiding impacts to all species. Yet it based its <math>g(0)</math> estimates on seasoned researchers conducting the associated surveys, not Navy lookouts whose observer effectiveness has yet to be determined. The Commission recommended earlier in this letter that the Navy supplement its mitigation and monitoring measures because the observer effectiveness study has yet to be completed or reviewed. It therefore would be inappropriate for the Navy to reduce the numbers of takes based on the proposed post-analysis approach because, as the Navy has described it, it does not address the issue of observer effectiveness in developing mitigation effectiveness scores and <math>g(0)</math>.</p>	<p>A summary of the current status of the Navy's Lookout effectiveness study and why the data cannot be used in the analysis has been added in Section 5.3.1.2.4, Effectiveness Assessment for Lookouts. The Navy believes consideration of marine mammal sightability and activity-specific mitigation effectiveness in its quantitative analysis is appropriate in order to provide decision makers a reasonable assessment of potential impacts under each alternative. A comprehensive discussion of the Navy's quantitative analysis of acoustic impacts, including the post-model analysis to account for mitigation and avoidance, is presented in the Navy's Request for Letter of Authorization under the MMPA submitted to NMFS (77 FR 60679). Additional discussion regarding the use of detection probability, <math>g(0)</math>, in the consideration of mitigation in the quantitative analysis is provided in AFTT Final EIS/OEIS Section 3.4.3.1.5.6, Implementing Mitigation to Reduce Sound Exposures.</p>
F01-05	<p>Based on all of these concerns, the Marine Mammal Commission recommends that the National Marine Fisheries Service authorize in the regulations the total numbers of model-estimated Level A harassment and mortality takes rather than reducing the estimated numbers of Level A harassment and mortality takes based on the Navy's proposed post-model analysis. The Navy's general approach has merit and warrants further investigation, but it cannot be deemed reliable at this point.</p>	<p>The post model assessment process was developed using the best available science and in coordination with NMFS, and is necessary to account for mitigation and avoidance behavior. Relying solely on the output of the Navy Acoustic Effects Model presents an overestimate of acoustic impacts for higher order effects such as injury or mortality, for the following reasons:</p> <ol style="list-style-type: none"> <li>(1) Sensitive species (i.e., beaked whales and harbor porpoises) are modeled as if they would remain stationary and tolerate any very close anthropogenic encounters, although these species are known to avoid anthropogenic activity (see AFTT Final EIS/OEIS Section 3.4.3.1.2.5, Behavioral Reactions).</li> <li>(2) Implementation of mitigation is not currently modeled; however, the Navy has developed mitigation measures in cooperation with NMFS that are considered effective at reducing environmental impacts while being operationally feasible (see AFTT Final EIS/OEIS Chapter 5, Standard</li> </ol>

**Table E-10: Responses to Comments on the Proposed Rule from Agencies and Non-Governmental Organizations (Continued)**

Commenter Identifier	Comment	Draft Response
		<p>Operating Procedures, Mitigation, and Monitoring).</p> <p>(3) Animals are assumed to remain horizontally stationary in the model and tolerate any disturbing or potentially injurious sound exposure, although animals have been observed to avoid sound sources with high source levels (see AFTT Final EIS/OEIS Section 3.4.3.1.2.5, Behavioral Reactions).</p> <p>(4) The model estimates the potential for mortality based on very conservative criteria (see AFTT Final EIS/OEIS Section 3.4.3.1.4.1, Mortality and Injury from Explosions). With the implementation of proven mitigation and decades of historical information from conducting training and testing in the Study Area, the likelihood of mortality is very low.</p> <p>Additional discussion of the model-estimated impacts is in AFTT Final EIS/OEIS Section 3.4.3.1.5.4, Model Assumptions and Limitations. A comprehensive discussion of the Navy's acoustic impact analysis, including modeling and the post-model analysis, is in AFTT Final EIS/OEIS Section 3.4.3.1.5 (Quantitative Analysis), as well as in Section 6.1.5 (Quantitative Analysis), of the Navy's Request for Letter of Authorization submitted to NMFS (77 FR 60679). In addition to the information already contained within the AFTT EIS/OEIS and the Navy's Request for Letter of Authorization, and in response to public comments, the Navy has prepared a technical report which describes the process for the post modeling analysis in further detail. This report is available at <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a>.</p>
O01-01	<p>If the Proposed Rule is adopted, the Navy will be allowed to harm whales, dolphins, and other marine mammals nearly 22 million times over five years, which equates to almost 12,000 instances of take every day, nearly 500 takes every hour, more than 8 takes every minute for five years. NMFS's proposal includes authorizing the Navy to kill 186 marine mammals, subject more than 25 species to more than 11,000 instances of permanent hearing loss, lung injury, or other serious physiological harm, and subject almost 40 marine mammal species to millions of instances of temporary hearing loss over the life of the rule. Authorization of this amount of take would be unprecedented.<sup>2</sup></p> <p><sup>2</sup>Authorizing the Navy's activities would also likely result in greater take than predicted. The Navy's application to NMFS reflects a marked decline in its DEIS estimate of severe injury (e.g., permanent hearing loss and lung injury) and death after the application of a "post-model analysis" it derived for use in</p>	<p>The post-model analysis process was developed using the best available science and in coordination with NMFS, and is necessary to account for the mitigation and avoidance behavior. Relying solely on the output of the Navy Acoustic Effects Model presents an overestimate of acoustic impacts for higher order effects such as injury or mortality, for the following reasons:</p> <p>(1) Sensitive species (i.e., beaked whales and harbor porpoises) are modeled as if they would remain stationary and tolerate any very close anthropogenic encounters, although these species are known to avoid anthropogenic activity (see AFTT Final EIS/OEIS Section 3.4.3.1.2.5, Behavioral Reactions).</p> <p>(2) Implementation of mitigation is not currently modeled; however, the Navy has developed mitigation measures in cooperation with NMFS that are considered effective at reducing environmental impacts while being operationally feasible (see AFTT Final EIS/OEIS Chapter 5, Standard Operating Procedures, Mitigation, and Monitoring).</p> <p>(3) Animals are assumed to remain horizontally stationary in the model and tolerate any disturbing or potentially injurious sound exposure, although animals have been observed to avoid sound sources with high source levels</p>

**Table E-10: Responses to Comments on the Proposed Rule from Agencies and Non-Governmental Organizations (Continued)**

Commenter Identifier	Comment	Draft Response
	its application. Unfortunately, as discussed in more detail below, the Navy's post-model analysis is fraught with problems ranging from unjustified assumptions regarding the "sightability" of different species using observation rates of marine mammals specialists from differently situated platforms in ideal conditions (e.g., not at night) to questionable and unsupported assumptions regarding marine mammal avoidance behavior.	<p>(see AFTT Final EIS/OEIS Section 3.4.3.1.2.5, Behavioral Reactions).</p> <p>(4) The model estimates the potential for mortality based on very conservative criteria (see AFTT Final EIS/OEIS Section 3.4.3.1.4.1, Mortality and Injury from Explosions). With the implementation of proven mitigation and decades of historical information from conducting training and testing in the Study Area, the likelihood of mortality is very low.</p> <p>Additional discussion of the model-estimated impacts is in AFTT Final EIS/OEIS Section 3.4.3.1.5.4, Model Assumptions and Limitations. A comprehensive discussion of the Navy's acoustic impact analysis, including modeling and the post-model analysis, is in AFTT Final EIS/OEIS Section 3.4.3.1.5 (Quantitative Analysis), as well as in Section 6.1.5 (Quantitative Analysis), of the Navy's Request for Letter of Authorization submitted to NMFS (77 FR 60679). In addition to the information already contained within the AFTT EIS/OEIS and the Navy's Request for Letter of Authorization, and in response to public comments, the Navy has prepared a technical report which describes the process for the post modeling analysis in further detail. This report is available at <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a>.</p>
O01-02	Indeed, NMFS' estimates represent a very significant decrease from the numbers originally presented in the Navy's DEIS, which were several times those presented here and included several thousand cases of lung injury. To justify the decrease, the agency cites certain corrections made by the Navy to its modeling, the potential for marine mammals to vacate the area upon exposure to harassing noise, and—perhaps most relevant—the ability of Navy lookouts to spot marine mammals in the water. Yet none of these factors, least of all the Navy's ineffective monitoring scheme, can account for the magnitude of the adjustment. Furthermore, since NMFS does not indicate how much of a reduction each factor represents, it is impossible for the public to fully comment on this important issue, rendering notice and comment deficient under the Administrative Procedure Act ("APA"). 5 U.S.C. § 553(b), (c); 5 U.S.C. § 706(2)(D).	A comprehensive discussion of the Navy's acoustic impact analysis, including modeling and the post-model analysis, is in Section 3.4.3.1.5 (Quantitative Analysis) of this EIS/OEIS. Furthermore, within NMFS Proposed Rule (78 FR 7050), NMFS refers to Section 6.1.5 (Quantitative Analysis) of the Navy's Request for Letter of Authorization submitted to NMFS (77 FR 60679) for additional details. This information is sufficient to notify the public of the post-modeling analysis and provide the public an opportunity to comment. In addition to the information already contained within the AFTT EIS/OEIS and the Navy's Request for Letter of Authorization, and in response to public comments, the Navy has prepared a technical report which describes the process for the post modeling analysis in further detail. This report is available at <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a> . This report demonstrates that the differences in predicted impacts due to the post-modeling analysis and the corrections in modeling the Proposed Action made after publication of the Draft EIS/OEIS were not substantial changes in the Proposed Action that will significantly affect the environment in a manner not already considered in the Draft EIS/OEIS.
O01-03	The take estimates NMFS presents in its Proposed Rule, although high, represent a significant reduction from those set forth in the Navy's DEIS, both in the lower numbers of Level B take and in the conversion of the majority of mortalities and lung injuries into non-injurious harm. Yet the agency provides	A summary of the current status of the Navy's Lookout effectiveness study and why the data cannot be used in the analysis has been added in Section 5.3.1.2.4, Effectiveness Assessment for Lookouts. A comprehensive discussion of the Navy's acoustic impact analysis, including modeling and the post-model analysis is in AFTT Final EIS/OEIS Section 3.4.3.1.5, Quantitative

**Table E-10: Responses to Comments on the Proposed Rule from Agencies and Non-Governmental Organizations (Continued)**

Commenter Identifier	Comment	Draft Response
	<p>only summary explanations for these significant changes, pointing to three methodological differences—some corrections for prior modeling assumptions, a discount in some types of harm for animals fleeing the area, and incorporation of mitigation into the analysis—without specifying how each factor influenced the total. NMFS' failure to provide any specific information has prevented the public from effectively commenting on this significant change in the agencies' analysis, in contravention of the APA. 5 U.S.C. § 553(b), (c); 5 U.S.C. § 706(2)(D).</p> <p>Moreover, insofar as the Navy has provided any information on any of these factors, it tends to suggest that the agencies have grossly overstated the effectiveness of the Navy's primary mitigation measure. Both the DEIS and the consistency determinations submitted to the California and Hawaii state coastal authorities appear to use the species-specific <math>g(0)</math> factors used in professional marine mammal abundance surveys—primarily undertaken by NMFS biologists—as their basis of analysis for the Navy's safety zone mitigation. It should go without saying that the Navy's sighting effectiveness is likely to be much poorer than that of experienced biologists dedicated exclusively to marine mammal detection, operating under conditions aimed at maximizing sightings. Any reliance on survey data for this purpose would clearly be arbitrary and capricious. In any case, the extraordinary size of the reduction in estimated mortalities and lung injuries suggests that NMFS has overinflated one or another of the three discounting factors mentioned above.</p>	<p>Analysis. Furthermore, within NMFS' Proposed Rule (78 FR 7050), NMFS refers to Section 6.1.5 (Quantitative Analysis), of the Navy's Request for Letter of Authorization submitted to NMFS (77 FR 60679) for additional details. The assignment of mitigation effectiveness scores and the appropriateness of consideration of sightability using detection probability, <math>g(0)</math>, when assessing the mitigation in the quantitative analysis of acoustic impacts is discussed in AFTT Final EIS/OEIS Section 3.4.3.1.5.6, Implementing Mitigation to Reduce Sound Exposures. In addition to the information already contained within the AFTT EIS/OEIS and the Navy's Request for Letter of Authorization, and in response to public comments, the Navy has prepared a technical report which describes the process for the post modeling analysis in further detail. This report is available at <a href="http://www.AFTTEIS.com">www.AFTTEIS.com</a>.</p> <p>It should be noted that the estimates of acoustic impacts presented in the AFTT Draft EIS/OEIS did consider marine mammal avoidance of potentially injurious exposures to sonar and other active acoustic sources. The additional post-model analysis documented in the Navy's Request for Letter of Authorization and in this Final EIS/OEIS incorporates the following: (1) the reduction of higher-order exposures (mortality due to explosives and injury due to sonar and other active acoustic sources) due to likely avoidance of anthropogenic activity by sensitive species, (2) the potential for effective mitigation to reduce impacts, and (3) the reduction of PTS due to animal avoidance of multiple detonations, with any reduction in quantified impacts being added to the next highest category of impact in all cases (e.g., reductions in predicted PTS are added to the predicted TTS). Additionally, minor adjustments were made to the number of activities modeled to ensure the number of events modeled matched the number of training and testing events proposed by the Navy; these adjustments are reflected in the acoustic impacts quantified in the Navy's Request for Letter of Authorization and in this Final EIS/OEIS.</p>

**Table E-10: Responses to Comments on the Proposed Rule from Agencies and Non-Governmental Organizations (Continued)**

Commenter Identifier	Comment	Draft Response
O02	<p>CSI requests that the AFTT FEIS include the current status, database, conclusions and recommended improvements of the Navy's Lookout Effectiveness Study. The Navy and the NMFS know there is no way a naval vessel's lookouts can reliably and consistently locate a cetacean or sea turtle at a kilometer, in fog, darkness, and moderate seas, especially while the vessel is maneuvering at high speed. Since 1996, when the one kilometer radius was adopted because it was close to the 180 dB isopleth of the SURTASS LFA, the Navy has made believe that visual mitigation was adequate. If the revised acoustic model was an effort to be more realistic about impacts then why not be realistic about the reliance on lookouts?</p>	<p>A summary of the current status of the Navy's Lookout effectiveness study and why the data cannot be used in the analysis has been added in Section 5.3.1.2.4, Effectiveness Assessment for Lookouts.</p> <p>The assignment of mitigation effectiveness scores and the appropriateness of consideration of sightability using detection probability, <math>g(0)</math>, when assessing the mitigation in the quantitative analysis of acoustic impacts is discussed in AFTT Final EIS/OEIS Section 3.4.3.1.5.6, Implementing Mitigation to Reduce Sound Exposures. Additional discussion regarding consideration of mitigation in the quantitative analysis of sonar and other active acoustic sources is provided in AFTT Final EIS/OEIS Section 3.4.3.1.8.2, Avoidance Behavior and Mitigation Measures as Applied to Sonar and Active Acoustic Sources. Additional discussion regarding consideration of mitigation in the quantitative analysis of explosives is provided in AFTT Final EIS/OEIS Section 3.4.3.1.9.2, Avoidance Behavior and Mitigation Measures as Applied to Explosives.</p>

#### **E.4 FINAL ENVIRONMENTAL IMPACT STATEMENT/OVERSEAS ENVIRONMENTAL IMPACT STATEMENT**

The public has the opportunity to review the Navy's responses to their comments when the Final EIS/OEIS is available for review. All public comments are considered by the decision maker before making a decision.



## **APPENDIX F**

### **TRAINING AND TESTING ACTIVITIES MATRICES**

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APPENDIX F     TRAINING AND TESTING ACTIVITIES MATRICES

F.1    STRESSORS ASSOCIATED WITH NAVY ACTIVITIES BY TRAINING ACTIVITY

Table F-1: Stressors by Training Activity

Atlantic Fleet Training Activity	Biological Resources														Physical Resources						Human Resources									
	Acoustic Stressors						Energy Stressors		Physical Stressors			Entanglement Stressors		Ingestion Stressors	Air Quality Stressors		Sediment and Water Quality Stressors				Acoustics <sup>1,4</sup>	Physical Disturbance <sup>1</sup>	Accessibility <sup>2</sup>	Airborne Acoustics <sup>2</sup>	Physical Disturbance and Strikes <sup>2</sup>	Underwater Energy <sup>3</sup>	In-Air Energy <sup>3</sup>	Physical Interactions <sup>3</sup>		
	Tactical Acoustic Sonar	Other Acoustic Devices	Underwater Explosives	In-Air Explosives	Weapons Firing Noise	Aircraft Noise	Vessel Noise	Electromagnetic Devices	High Energy Lasers	Aircraft and Aerial Target Strikes	Vessel and In-Water Device Strikes	Military Expended Materials	Seafloor Devices	Fiber Optic Cables and Guidance Wires	Parachutes	Military Expended Materials	Criteria Air Pollutants	Hazardous Air Pollutants	Explosives and Explosion Byproducts	Metals									Chemicals Other than Explosives	Other Materials
ANTI-AIR WARFARE (AAW)																														
Air Combat Maneuver (ACM)						✓				✓							✓	✓					✓			✓	✓			
Air Defense Exercise (ADEX)						✓	✓			✓	✓						✓	✓							✓	✓				
Gunnery Exercise (Air-to-Air) – Medium-Caliber						✓				✓		✓				✓	✓	✓		✓				✓	✓	✓	✓			✓
Missile Exercise (Air-to-Air)				✓		✓				✓		✓			✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓			✓
Gunnery Exercise (Surface-to-Air) – Large-Caliber				✓	✓	✓	✓			✓	✓	✓				✓	✓	✓	✓	✓				✓	✓	✓	✓			✓
Gunnery Exercise (Surface-to-Air) – Medium-Caliber				✓	✓	✓	✓			✓	✓	✓				✓	✓	✓		✓				✓	✓	✓	✓			✓
Missile Exercise (Surface-to-Air)				✓	✓		✓			✓	✓	✓				✓	✓	✓	✓	✓	✓			✓	✓	✓	✓			✓
AMPHIBIOUS WARFARE (AMW)																														
Naval Surface Fire Support Exercise – Land-Based Target					✓		✓				✓						✓	✓							✓	✓				✓
Naval Surface Fire Support Exercise – At Sea			✓		✓		✓				✓	✓				✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓		✓
Marine Expeditionary Unit (MEU) Certification Exercise (CERTEx)**						✓	✓			✓	✓						✓	✓							✓	✓	✓			✓
Amphibious Assault						✓	✓			✓	✓						✓	✓						✓	✓	✓	✓			✓
Amphibious Raid/Humanitarian Assistance Operations							✓			✓	✓						✓	✓						✓	✓	✓	✓			✓
STRIKE WARFARE (STW)																														
High-Speed Anti-Radiation Missile Exercise (Air-to-Surface) (HARMEX [A-S])				✓		✓	✓			✓	✓	✓				✓	✓	✓	✓	✓	✓			✓	✓	✓	✓		✓	✓

Note: \*\* Alternative 1 and Alternative 2 only. 1: cultural resources stressor; 2: socioeconomics stressor; 3: public health and safety stressor; 4: Acoustics Stressor only includes underwater explosives and airborne sonic booms

Table F-1: Stressors by Training Activity (Continued)

Atlantic Fleet Training Activity	Biological Resources														Physical Resources						Human Resources									
	Acoustic Stressors						Energy Stressors		Physical Stressors			Entanglement Stressors		Ingestion Stressors	Air Quality Stressors		Sediment and Water Quality Stressors				Acoustics <sup>1,4</sup>	Physical Disturbance <sup>1</sup>	Accessibility <sup>2</sup>	Airborne Acoustics <sup>2</sup>	Physical Disturbance and Strikes <sup>2</sup>	Underwater Energy <sup>3</sup>	In-Air Energy <sup>3</sup>	Physical Interactions <sup>3</sup>		
	Tactical Acoustic Sonar	Other Acoustic Devices	Underwater Explosives	In-Air Explosives	Weapons Firing Noise	Aircraft Noise	Vessel Noise	Electromagnetic Devices	High Energy Lasers	Aircraft and Aerial Target Strikes	Vessel and In-Water Device Strikes	Military Expended Materials	Seafloor Devices	Fiber Optic Cables and Guidance Wires	Parachutes	Military Expended Materials	Criteria Air Pollutants	Hazardous Air Pollutants	Explosives and Explosion Byproducts	Metals									Chemicals Other than Explosives	Other Materials
ANTI-SURFACE WARFARE (ASUW)																														
Maritime Security Operations						✓	✓			✓	✓	✓				✓	✓	✓							✓	✓	✓			✓
Maritime Security Operations – Anti-Swimmer Grenades			✓				✓				✓	✓				✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓			✓
Gunnery Exercise (Surface-to-Surface) Ship – Small-Caliber							✓				✓	✓				✓	✓	✓		✓					✓	✓	✓			✓
Gunnery Exercise (Surface-to-Surface) Ship – Medium-Caliber			✓		✓		✓				✓	✓				✓	✓	✓	✓	✓			✓	✓	✓	✓	✓			✓
Gunnery Exercise (Surface-to-Surface) Ship – Large-Caliber			✓		✓		✓				✓	✓				✓	✓	✓	✓	✓			✓	✓	✓	✓	✓			✓
Gunnery Exercise (Surface-to-Surface) Boat – Small-Caliber							✓				✓	✓				✓	✓	✓		✓					✓	✓	✓			✓
Gunnery Exercise (Surface-to-Surface) Boat – Medium-Caliber			✓		✓		✓				✓	✓				✓	✓	✓	✓	✓			✓	✓	✓	✓	✓			✓
Missile Exercise (Surface-to-Surface)			✓		✓		✓				✓	✓				✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓			✓
Gunnery Exercise (Air-to-Surface) – Small-Caliber						✓				✓		✓				✓	✓	✓		✓					✓	✓	✓			✓
Gunnery Exercise (Air-to-Surface) – Medium-Caliber			✓			✓				✓	✓	✓				✓	✓	✓	✓	✓			✓	✓	✓	✓	✓			✓
Missile Exercise (Air-to-Surface) Rocket			✓			✓				✓	✓	✓				✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
Missile Exercise (Air-to-Surface)			✓			✓				✓	✓	✓		✓		✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
Bombing Exercise (Air-to-Surface)			✓			✓				✓		✓				✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓
Laser Targeting						✓	✓			✓	✓						✓	✓							✓	✓	✓		✓	✓
Sinking Exercise (SINKEX)			✓		✓	✓	✓			✓	✓	✓		✓		✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓			✓
ANTI-SUBMARINE WARFARE (ASW)																														
Tracking Exercise/Torpedo Exercise – Submarine	✓					✓	✓			✓	✓	✓		✓						✓					✓		✓	✓		✓
Tracking Exercise/Torpedo Exercise – Surface	✓					✓	✓				✓	✓					✓	✓		✓					✓	✓	✓	✓		✓

Note: 1: cultural resources stressor; 2: socioeconomics stressor; 3: public health and safety stressor; 4: Acoustics Stressor only includes underwater explosives and airborne sonic booms

Table F-1: Stressors by Training Activity (Continued)

Atlantic Fleet Training Activity	Biological Resources													Physical Resources							Human Resources								
	Acoustic Stressors						Energy Stressors		Physical Stressors			Entanglement Stressors		Ingestion Stressors	Air Quality Stressors		Sediment and Water Quality Stressors				Acoustics <sup>1,4</sup>	Physical Disturbance <sup>1</sup>	Accessibility <sup>2</sup>	Airborne Acoustics <sup>2</sup>	Physical Disturbance and Strikes <sup>2</sup>	Underwater Energy <sup>3</sup>	In-Air Energy <sup>3</sup>	Physical Interactions <sup>3</sup>	
	Tactical Acoustic Sonar	Other Acoustic Devices	Underwater Explosives	In-Air Explosives	Weapons Firing Noise	Aircraft Noise	Vessel Noise	Electromagnetic Devices	High Energy Lasers	Aircraft and Aerial Target Strikes	Vessel and In-Water Device Strikes	Military Expended Materials	Seafloor Devices	Fiber Optic Cables and Guidance Wires	Parachutes	Military Expended Materials	Criteria Air Pollutants	Hazardous Air Pollutants	Explosives and Explosion Byproducts	Metals									Chemicals Other than Explosives
ANTI-SUBMARINE WARFARE (ASW) (Continued)																													
Tracking Exercise/Torpedo Exercise – Helicopter	✓					✓	✓			✓	✓	✓			✓	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	✓	✓
Tracking Exercise/Torpedo Exercise – Maritime Patrol Aircraft	✓					✓	✓			✓	✓	✓			✓	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓		✓
Tracking Exercise/Torpedo Exercise – Maritime Patrol Aircraft Extended Echo Ranging Sonobuoys	✓		✓			✓				✓		✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	
Anti-Submarine Warfare Tactical Development	✓	✓				✓	✓			✓	✓	✓			✓	✓	✓	✓		✓	✓			✓	✓	✓	✓		✓
Integrated Anti-Submarine Warfare Course (IAC)	✓	✓				✓	✓			✓	✓	✓			✓	✓	✓	✓		✓	✓			✓	✓	✓	✓		✓
Group Sail	✓	✓	✓			✓	✓			✓	✓	✓			✓		✓	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓
Submarine Command Course (SCC) Operations	✓	✓				✓	✓			✓	✓	✓		✓	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓		✓
ASW for Composite Training Unit Exercise (COMPTUEX)	✓	✓	✓			✓	✓			✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
ASW for Joint Task Force Exercise (JTFEX)/Sustainment Exercise (SUSTAINEX)	✓	✓	✓			✓	✓			✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
ELECTRONIC WARFARE (EW)																													
Electronic Warfare Operations (EW Ops)						✓	✓			✓	✓						✓	✓							✓	✓	✓		✓
Counter Targeting Flare Exercise						✓				✓						✓	✓	✓		✓		✓		✓	✓	✓			✓
Counter Targeting Chaff Exercise – Ship							✓				✓					✓	✓	✓		✓		✓			✓	✓			✓
Counter Targeting Chaff Exercise – Aircraft						✓				✓						✓	✓	✓		✓		✓			✓				✓
MINE WARFARE (MIW)																													
Mine Countermeasures Exercise (MCM) – Ship Sonar	✓						✓				✓		✓				✓	✓							✓		✓		✓
Mine Neutralization – Explosive Ordnance Disposal (EOD)			✓			✓	✓			✓	✓	✓	✓			✓	✓	✓	✓	✓			✓	✓	✓	✓	✓		✓

Note: 1: cultural resources stressor; 2: socioeconomics stressor; 3: public health and safety stressor; 4: Acoustics Stressor only includes underwater explosives and airborne sonic booms

Table F-1: Stressors by Training Activity (Continued)

Atlantic Fleet Training Activity	Biological Resources																Physical Resources						Human Resources							
	Acoustic Stressors						Energy Stressors		Physical Stressors			Entanglement Stressors		Ingestion Stressors	Air Quality Stressors		Sediment and Water Quality Stressors				Acoustics <sup>1,4</sup>	Physical Disturbance <sup>1</sup>	Accessibility <sup>2</sup>	Airborne Acoustics <sup>2</sup>	Physical Disturbance and Strikes <sup>2</sup>	Underwater Energy <sup>3</sup>	In-Air Energy <sup>3</sup>	Physical Interactions <sup>3</sup>		
	Tactical Acoustic Sonar	Other Acoustic Devices	Underwater Explosives	In-Air Explosives	Weapons Firing Noise	Aircraft Noise	Vessel Noise	Electromagnetic Devices	High Energy Lasers	Aircraft and Aerial Target Strikes	Vessel and In-Water Device Strikes	Military Expended Materials	Seafloor Devices	Fiber Optic Cables and Guidance Wires	Parachutes	Military Expended Materials	Criteria Air Pollutants	Hazardous Air Pollutants	Explosives and Explosion Byproducts	Metals									Chemicals Other than Explosives	Other Materials
MINE WARFARE (MIW) (Continued)																														
Underwater Mine Countermeasures (UMCM) Raise, Tow, Beach, and Exploitation Operations**						✓	✓			✓	✓		✓				✓	✓						✓	✓	✓	✓			✓
Airborne Mine Countermeasures (AMCM) – Towed Mine Neutralization						✓	✓	✓		✓	✓		✓				✓	✓						✓	✓	✓	✓	✓		✓
Airborne Mine Countermeasures (AMCM) – Mine Detection	✓					✓	✓			✓	✓		✓				✓	✓						✓	✓	✓	✓	✓	✓	✓
Mine Countermeasures (MCM) – Mine Neutralization – Small and Medium-Caliber					✓	✓	✓			✓	✓	✓	✓			✓	✓	✓		✓				✓	✓	✓	✓		✓	✓
Mine Countermeasures (MCM) – Mine Neutralization – Remotely Operated Vehicle			✓			✓	✓			✓	✓	✓	✓	✓		✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓		✓
Mine Laying**						✓				✓		✓					✓	✓		✓				✓	✓	✓	✓			✓
Coordinated Unit Level Helicopter Airborne Mine Countermeasure Exercises**	✓					✓		✓		✓	✓		✓	✓			✓	✓		✓				✓	✓	✓	✓	✓		✓
Civilian Port Defense**	✓		✓			✓	✓	✓		✓	✓		✓				✓	✓	✓				✓	✓	✓	✓	✓	✓		✓
OTHER TRAINING EXERCISES																														
Search and Rescue (SAR)						✓	✓			✓	✓						✓	✓						✓	✓	✓	✓			✓
Precision Anchoring							✓				✓		✓				✓	✓						✓	✓	✓	✓			✓
Elevated Causeway System (ELCAS)**		✓																										✓		
Submarine Navigation	✓										✓																✓	✓		✓
Submarine Under Ice Certification**	✓										✓																✓	✓		✓
Surface Ship Object Detection	✓						✓				✓													✓			✓	✓		✓
Surface Ship Sonar Maintenance (in OPAREAs and Ports)	✓						✓				✓													✓			✓	✓		✓
Submarine Sonar Maintenance (in OPAREAs and Ports)	✓										✓													✓			✓	✓		✓
Undersea Warfare Training Range	✓	✓				✓	✓			✓	✓	✓		✓	✓	✓	✓	✓		✓		✓				✓				✓

Note: \*\* Alternative 1 and Alternative 2 only. 1: cultural resources stressor; 2: socioeconomics stressor; 3: public health and safety stressor; 4: Acoustics Stressor only includes underwater explosives and airborne sonic booms



F.2 STRESSORS ASSOCIATED WITH NAVY ACTIVITIES BY TESTING ACTIVITY

Table F-2: Stressors by Testing Activity

Research, Development, Test, and Evaluation Activity	Biological Resources															Physical Resources						Human Resources							
	Acoustic Stressors						Energy Stressors		Physical Stressors			Entanglement Stressors		Ingestion Stressors	Air Quality Stressors		Sediment and Water Quality Stressors				Acoustics <sup>1,4</sup>	Physical Disturbance <sup>1</sup>	Accessibility <sup>2</sup>	Airborne Acoustics <sup>2</sup>	Physical Disturbance and Strikes <sup>2</sup>	Underwater Energy <sup>3</sup>	In-Air Energy <sup>3</sup>	Physical Interactions <sup>3</sup>	
	Tactical Acoustic Sonar	Other Acoustic Devices	Underwater Explosives	In-Air Explosives	Weapons Firing Noise	Aircraft Noise	Vessel Noise	Electromagnetic Devices	High Energy Lasers	Aircraft and Aerial Target Strikes	Vessel and In-Water Device Strikes	Military Expended Materials	Seafloor Devices	Fiber Optic Cables and Guidance Wires	Parachutes	Military Expended Materials	Criteria Air Pollutants	Hazardous Air Pollutants	Explosives and Explosion Byproducts	Metals									Chemicals Other than Explosives
Naval Air Systems Command																													
ANTI-AIR WARFARE (AAW)																													
Air Combat Maneuver (ACM)						✓				✓							✓	✓							✓	✓			✓
Air Platform/Vehicle Test						✓				✓		✓					✓	✓		✓					✓	✓		✓	✓
Air Platform Weapons Integration Test						✓				✓		✓			✓		✓	✓	✓	✓				✓	✓	✓			✓
Air-to-Air Weapons System Test						✓				✓		✓			✓		✓	✓		✓				✓		✓	✓		✓
Air-to-Air Missile Test						✓				✓		✓			✓	✓	✓	✓		✓				✓	✓	✓			✓
Air-to-Air-Gunnery Test – Medium-Caliber					✓	✓				✓		✓				✓	✓	✓		✓				✓	✓	✓			✓
Intelligence, Surveillance, and Reconnaissance Test						✓				✓							✓	✓							✓	✓			✓
ANTI-SURFACE WARFARE (ASUW)																													
Air-to-Surface Missile Test			✓			✓				✓		✓				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓
Air-to-Surface Gunnery Test			✓		✓	✓				✓		✓				✓	✓	✓	✓	✓			✓	✓	✓	✓	✓		✓
Rocket Test			✓			✓				✓		✓				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Air-to-Surface Bombing Test						✓				✓		✓					✓	✓		✓				✓	✓	✓			✓
Laser Targeting Test						✓				✓							✓	✓							✓	✓		✓	✓
High Energy Laser Weapons Test						✓			✓	✓	✓					✓	✓	✓					✓		✓	✓		✓	✓
ELECTRONIC WARFARE (EW)																													
Electronic System Evaluation						✓				✓							✓	✓							✓				✓
Chaff Test						✓				✓						✓	✓	✓					✓		✓				✓
Flare Test						✓				✓						✓	✓	✓					✓		✓				✓

Note: 1: cultural resources stressor; 2: socioeconomics stressor; 3: public health and safety stressor; 4: Acoustics Stressor only includes underwater explosives and airborne sonic booms

Table F-2: Stressors by Testing Activity (Continued)

Research, Development, Test, and Evaluation Activity	Biological Resources														Physical Resources							Human Resources								
	Acoustic Stressors						Energy Stressors		Physical Stressors				Entanglement Stressors		Ingestion Stressors	Air Quality Stressors		Sediment and Water Quality Stressors				Acoustics <sup>1,4</sup>	Physical Disturbance <sup>1</sup>	Accessibility <sup>2</sup>	Airborne Acoustics <sup>2</sup>	Physical Disturbance and Strikes <sup>2</sup>	Underwater Energy <sup>3</sup>	In-Air Energy <sup>3</sup>	Physical Interactions <sup>3</sup>	
	Tactical Acoustic Sonar	Other Acoustic Devices	Underwater Explosives	In-Air Explosives	Weapons Firing Noise	Aircraft Noise	Vessel Noise	Electromagnetic Devices	High Energy Lasers	Aircraft and Aerial Target Strikes	Vessel and In-Water Device Strikes	Military Expended Materials	Seafloor Devices	Fiber Optic Cables and Guidance Wires	Parachutes	Military Expended Materials	Criteria Air Pollutants	Hazardous Air Pollutants	Explosives and Explosion Byproducts	Metals	Chemicals Other than Explosives									Other Materials
ANTI-SUBMARINE WARFARE (ASW)																														
ASW Torpedo Test	✓					✓				✓	✓	✓		✓	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	✓		✓
Kilo Dip	✓					✓				✓							✓	✓							✓	✓	✓	✓		✓
Sonobuoy Lot Acceptance Test**	✓		✓			✓	✓			✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
ASW Tracking Test – Helicopter	✓		✓			✓	✓			✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
ASW Tracking Test – Maritime Patrol Aircraft	✓		✓			✓				✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
MINE WARFARE (MIW)																														
Airborne Mine Neutralization Systems (AMNS)Test			✓			✓				✓		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Airborne Projectile-Based Mine Clearance System			✓			✓				✓		✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Airborne Towed Minesweeping Test			✓			✓		✓		✓	✓		✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Airborne Towed Minehunting Sonar Test	✓					✓				✓							✓	✓								✓	✓	✓		✓
Airborne Laser-based Mine Detection System Test						✓				✓							✓	✓								✓	✓	✓		✓
Mine Laying Test						✓				✓			✓				✓	✓		✓					✓	✓	✓	✓		✓
OTHER TESTING ACTIVITIES																														
Test and Evaluation (T&E) Catapult Launch						✓	✓			✓	✓						✓	✓								✓	✓	✓		✓
Air Platform Shipboard Integration Test						✓				✓							✓	✓								✓	✓	✓		✓
Shipboard Electronic Systems Evaluation						✓				✓							✓	✓									✓	✓		✓
Maritime Security						✓	✓			✓	✓						✓	✓									✓	✓		✓

Note: \*\* Alternative 1 and Alternative 2 only. 1: cultural resources stressor; 2: socioeconomics stressor; 3: public health and safety stressor; 4: Acoustics Stressor only includes underwater explosives and airborne sonic booms

Table F-2: Stressors by Testing Activity (Continued)

Research, Development, Test, and Evaluation Activity	Biological Resources																Physical Resources						Human Resources						
	Acoustic Stressors						Energy Stressors		Physical Stressors			Entanglement Stressors		Ingestion Stressors	Air Quality Stressors		Sediment and Water Quality Stressors				Acoustics <sup>1,4</sup>	Physical Disturbance <sup>1</sup>	Accessibility <sup>2</sup>	Airborne Acoustics <sup>2</sup>	Physical Disturbance and Strikes <sup>2</sup>	Underwater Energy <sup>3</sup>	In-Air Energy <sup>3</sup>	Physical Interactions <sup>3</sup>	
	Tactical Acoustic Sonar	Other Acoustic Devices	Underwater Explosives	In-Air Explosives	Weapons Firing Noise	Aircraft Noise	Vessel Noise	Electromagnetic Devices	High Energy Lasers	Aircraft and Aerial Target Strikes	Vessel and In-Water Device Strikes	Military Expended Materials	Seafloor Devices	Fiber Optic Cables and Guidance Wires	Parachutes	Military Expended Materials	Criteria Air Pollutants	Hazardous Air Pollutants	Explosives and Explosion Byproducts	Metals									Chemicals Other than Explosives
Naval Sea Systems Command																													
SHIP CONSTRUCTION AND MAINTENANCE																													
NEW SHIP CONSTRUCTION																													
Surface Combatant Sea Trials – Pierside Sonar Testing**	✓	✓																								✓			
Surface Combatant Sea Trials – Propulsion Testing							✓				✓						✓	✓							✓		✓		✓
Surface Combatant Sea Trials – Gun Testing					✓		✓				✓	✓				✓	✓	✓		✓				✓	✓	✓			✓
Surface Combatant Sea Trials – Missile Testing				✓	✓		✓			✓	✓					✓	✓	✓		✓				✓	✓	✓			✓
Surface Combatant Sea Trials – Decoy Testing							✓				✓	✓				✓	✓	✓				✓			✓			✓	
Surface Combatant Sea Trials – Surface Warfare Testing- Large-Caliber					✓		✓				✓	✓					✓	✓		✓					✓	✓	✓		✓
Surface Combatant Sea Trials – Anti-Submarine Warfare Testing	✓	✓					✓				✓						✓	✓		✓	✓				✓	✓	✓	✓	✓
Aircraft Carrier Sea Trials – Propulsion Testing**							✓				✓						✓	✓							✓	✓	✓		✓
Aircraft Carrier Sea Trials – Gun Testing – Small-Caliber**							✓				✓	✓				✓	✓	✓		✓					✓	✓	✓		✓
Aircraft Carrier Sea Trials – Gun Testing – Medium-Caliber**			✓		✓	✓	✓			✓	✓	✓				✓	✓	✓	✓	✓			✓	✓	✓	✓	✓		✓
Aircraft Carrier Sea Trials – Missile Testing**				✓			✓			✓	✓	✓				✓	✓	✓		✓			✓	✓	✓	✓	✓		✓
Aircraft Carrier Sea Trials – Bomb Testing**						✓	✓			✓	✓	✓					✓	✓		✓				✓	✓	✓			
Submarine Sea Trials – Pierside Sonar Testing**	✓	✓																									✓		
Submarine Sea Trials – Propulsion Testing**											✓															✓			✓

Note: 1: cultural resources stressor; 2: socioeconomics stressor; 3: public health and safety stressor; 4: Acoustics Stressor only includes underwater explosives and airborne sonic booms

Table F-2: Stressors by Testing Activity (Continued)

Research, Development, Test, and Evaluation Activity	Biological Resources															Physical Resources							Human Resources							
	Acoustic Stressors							Energy Stressors		Physical Stressors			Entanglement Stressors		Ingestion Stressors	Air Quality Stressors		Sediment and Water Quality Stressors					Acoustics <sup>1,4</sup>	Physical Disturbance <sup>1</sup>	Accessibility <sup>2</sup>	Airborne Acoustics <sup>2</sup>	Physical Disturbance and Strikes <sup>2</sup>	Underwater Energy <sup>3</sup>	In-Air Energy <sup>3</sup>	Physical Interactions <sup>3</sup>
	Tactical Acoustic Sonar	Other Acoustic Devices	Underwater Explosives	In-Air Explosives	Weapons Firing Noise	Aircraft Noise	Vessel Noise	Electromagnetic Devices	High Energy Lasers	Aircraft and Aerial Target Strikes	Vessel and In-Water Device Strikes	Military Expended Materials	Seafloor Devices	Fiber Optic Cables and Guidance Wires	Parachutes	Military Expended Materials	Criteria Air Pollutants	Hazardous Air Pollutants	Explosives and Explosion Byproducts	Metals	Chemicals Other than Explosives	Other Materials								
Naval Sea Systems Command (Continued)																														
SHIP CONSTRUCTION AND MAINTENANCE (Continued)																														
NEW SHIP CONSTRUCTION (Continued)																														
Submarine Sea Trials – Weapons System Testing**											✓															✓			✓	
Submarine Sea Trials – Anti-Submarine Warfare Testing**	✓	✓									✓											✓				✓	✓		✓	
Other Class Ship Sea Trials – Propulsion Testing											✓						✓	✓							✓	✓	✓			✓
Other Class Ship Sea Trials – Gun Testing – Small-Caliber											✓	✓				✓	✓	✓		✓					✓	✓	✓			✓
ASW Mission Package Testing**	✓						✓	✓		✓	✓	✓			✓	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	✓		✓
SUW Mission Package Testing – Gun Testing – Small-Caliber**								✓			✓	✓				✓	✓	✓		✓						✓	✓	✓		✓
SUW Mission Package Testing – Gun Testing – Medium-Caliber**			✓		✓			✓			✓	✓				✓	✓	✓		✓					✓	✓	✓	✓		✓
SUW Mission Package Testing – Gun Testing – Large-Caliber**				✓	✓			✓			✓	✓				✓	✓	✓		✓					✓	✓	✓	✓		✓
SUW Mission Package Testing – Missile/Rocket Testing**			✓		✓	✓		✓			✓	✓	✓			✓	✓	✓		✓				✓	✓	✓	✓	✓		✓
MCM Mission Package Testing**	✓		✓			✓	✓			✓	✓	✓				✓	✓	✓		✓				✓	✓	✓	✓	✓	✓	✓
Post-Homeporting Testing (All Classes)**							✓				✓						✓	✓							✓		✓			✓
SHOCK TRIALS																														
Aircraft Carrier Full Ship Shock Trial**			✓				✓				✓						✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓
DDG 1000 Zumwalt Class Destroyer Full Ship Shock Trial**			✓				✓				✓						✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓
Littoral Combat Ship Full Ship Shock Trial**			✓				✓				✓						✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓

Note: \*\* Alternative 1 and Alternative 2 only. 1: cultural resources stressor; 2: socioeconomics stressor; 3: public health and safety stressor; 4: Stressor only includes underwater explosives and airborne sonic booms

Table F-2: Stressors by Testing Activity (Continued)

Research, Development, Test, and Evaluation Activity	Biological Resources															Physical Resources						Human Resources								
	Acoustic Stressors							Energy Stressors		Physical Stressors			Entanglement Stressors		Ingestion Stressors	Air Quality Stressors		Sediment and Water Quality Stressors				Acoustics <sup>1,4</sup>	Physical Disturbance <sup>1</sup>	Accessibility <sup>2</sup>	Airborne Acoustics <sup>2</sup>	Physical Disturbance and Strikes <sup>2</sup>	Underwater Energy <sup>3</sup>	In-Air Energy <sup>3</sup>	Physical Interactions <sup>3</sup>	
	Tactical Acoustic Sonar	Other Acoustic Devices	Underwater Explosives	In-Air Explosives	Weapons Firing Noise	Aircraft Noise	Vessel Noise	Electromagnetic Devices	High Energy Lasers	Aircraft and Aerial Target Strikes	Vessel and In-Water Device Strikes	Military Expended Materials	Seafloor Devices	Fiber Optic Cables and Guidance Wires	Parachutes	Military Expended Materials	Criteria Air Pollutants	Hazardous Air Pollutants	Explosives and Explosion Byproducts	Metals	Chemicals Other than Explosives									Other Materials
Naval Sea Systems Command (Continued)																														
SHIP CONSTRUCTION AND MAINTENANCE (Continued)																														
LIFECYCLE ACTIVITIES																														
Ship Signature Testing**							✓				✓						✓	✓								✓			✓	
Surface Ship Sonar Testing/Maintenance (in OPAREAs and Ports)**	✓	✓					✓				✓						✓	✓								✓	✓		✓	
Submarine Sonar Testing/Maintenance (in OPAREAs and Ports)**	✓	✓									✓															✓	✓		✓	
Combat System Ship Qualification Trial (CSSQT) – In-port Maintenance Period**	✓																									✓				
Combat System Ship Qualification Trial (CSSQT) – Air Defense (AD)**				✓	✓		✓			✓	✓	✓				✓	✓	✓		✓		✓		✓		✓			✓	
Combat System Ship Qualification Trial (CSSQT) – Surface Warfare (SUW)**				✓	✓		✓				✓	✓				✓	✓	✓		✓		✓		✓		✓			✓	
Combat System Ship Qualification Trial (CSSQT) – Undersea Warfare (USW)**	✓					✓	✓			✓	✓	✓			✓	✓	✓	✓		✓		✓		✓		✓	✓		✓	
NAVSEA RANGE ACTIVITIES																														
Naval Surface Warfare Center, Panama City Division																														
Air Operations*						✓				✓							✓	✓							✓	✓	✓			✓
Surface Operations*							✓				✓						✓	✓							✓	✓	✓			✓
Subsurface Operations*							✓				✓		✓											✓		✓	✓			✓
Sonar Operations*	✓						✓				✓						✓	✓								✓	✓	✓		✓
Electromagnetic Operations*						✓	✓	✓		✓	✓						✓	✓								✓	✓			✓
Laser Operations*																												✓		
Ordnance Operations*			✓			✓	✓			✓	✓	✓				✓	✓	✓	✓	✓			✓	✓	✓	✓				✓

Note: \*No Action Alternative only. \*\* Alternative 1 and Alternative 2 only. 1: cultural resources stressor; 2: socioeconomics stressor; 3: public health and safety stressor; 4: Acoustics Stressor only includes underwater explosives and airborne sonic booms

Table F-2: Stressors by Testing Activity (Continued)

Research, Development, Test, and Evaluation Activity	Biological Resources																Physical Resources						Human Resources								
	Acoustic Stressors						Energy Stressors		Physical Stressors			Entanglement Stressors		Ingestion Stressors	Air Quality Stressors		Sediment and Water Quality Stressors				Acoustics <sup>1,4</sup>	Physical Disturbance <sup>1</sup>	Accessibility <sup>2</sup>	Airborne Acoustics <sup>2</sup>	Physical Disturbance and Strikes <sup>2</sup>	Underwater Energy <sup>3</sup>	In-Air Energy <sup>3</sup>	Physical Interactions <sup>3</sup>			
	Tactical Acoustic Sonar	Other Acoustic Devices	Underwater Explosives	In-Air Explosives	Weapons Firing Noise	Aircraft Noise	Vessel Noise	Electromagnetic Devices	High Energy Lasers	Aircraft and Aerial Target Strikes	Vessel and In-Water Device Strikes	Military Expended Materials	Seafloor Devices	Fiber Optic Cables and Guidance Wires	Parachutes	Military Expended Materials	Criteria Air Pollutants	Hazardous Air Pollutants	Explosives and Explosion Byproducts	Metals									Chemicals Other than Explosives	Other Materials	
NAVSEA RANGE ACTIVITIES (Continued)																															
Naval Surface Warfare Center, Panama City Division (Continued)																															
Projectile Firing**					✓		✓				✓	✓				✓	✓	✓		✓				✓	✓	✓	✓			✓	
Unmanned Underwater Vehicles Demonstrations**	✓						✓				✓		✓				✓	✓						✓	✓	✓	✓	✓		✓	
Mine Detection and Classification Testing**	✓					✓	✓			✓	✓						✓	✓						✓	✓	✓	✓	✓	✓	✓	
Mine Countermeasure/Neutralization Testing**			✓			✓	✓	✓		✓	✓	✓				✓	✓	✓		✓			✓	✓	✓	✓	✓	✓		✓	
Stationary Source Testing**	✓	✓					✓				✓		✓				✓	✓						✓		✓	✓	✓		✓	
Special Warfare Testing**		✓									✓															✓	✓		✓		
Unmanned Underwater Vehicle (UUV) Testing**	✓						✓				✓		✓				✓	✓						✓	✓	✓	✓	✓		✓	
Ordnance Testing – Line Charge Testing**			✓				✓				✓					✓			✓				✓	✓	✓	✓	✓	✓		✓	
Ordnance Testing – Gun Testing – Small-Caliber**						✓	✓			✓	✓	✓				✓	✓	✓		✓				✓	✓	✓	✓			✓	
Ordnance Testing – Gun Testing – Medium-Caliber**					✓	✓	✓			✓	✓	✓				✓	✓	✓		✓				✓	✓	✓	✓			✓	
Ordnance Testing – Gun Testing – Large-Caliber**			✓		✓	✓	✓			✓	✓	✓				✓	✓	✓		✓			✓	✓	✓	✓	✓	✓		✓	
Naval Undersea Warfare Center Division, Newport																															
Launcher Testing							✓				✓					✓	✓	✓		✓		✓		✓	✓	✓	✓			✓	
Torpedo Testing	✓						✓				✓			✓			✓	✓		✓		✓			✓	✓	✓	✓		✓	
Towed Equipment Testing	✓						✓				✓						✓	✓							✓	✓	✓	✓		✓	

Note: \* No Action Alternative only. \*\* Alternative 1 and Alternative 2 only. 1: cultural resources stressor; 2: socioeconomic stressor; 3: public health and safety stressor; 4: Acoustics Stressor only includes underwater explosives and airborne sonic booms

Table F-2: Stressors by Testing Activity (Continued)

Research, Development, Test, and Evaluation Activity	Biological Resources																Physical Resources						Human Resources							
	Acoustic Stressors						Energy Stressors		Physical Stressors				Entanglement Stressors		Ingestion Stressors	Air Quality Stressors		Sediment and Water Quality Stressors				Acoustics <sup>1,4</sup>	Physical Disturbance <sup>1</sup>	Accessibility <sup>2</sup>	Airborne Acoustics <sup>2</sup>	Physical Disturbance and Strikes <sup>2</sup>	Underwater Energy <sup>3</sup>	In-Air Energy <sup>3</sup>	Physical Interactions <sup>3</sup>	
	Tactical Acoustic Sonar	Other Acoustic Devices	Underwater Explosives	In-Air Explosives	Weapons Firing Noise	Aircraft Noise	Vessel Noise	Electromagnetic Devices	High Energy Lasers	Aircraft and Aerial Target Strikes	Vessel and In-Water Device Strikes	Military Expended Materials	Seafloor Devices	Fiber Optic Cables and Guidance Wires	Parachutes	Military Expended Materials	Criteria Air Pollutants	Hazardous Air Pollutants	Explosives and Explosion Byproducts	Metals	Chemicals Other than Explosives									Other Materials
NAVSEA RANGE ACTIVITIES (Continued)																														
Naval Undersea Warfare Center Division, Newport (Continued)																														
Unmanned Underwater Vehicle (UUV) Testing	✓						✓				✓						✓	✓							✓	✓	✓	✓		✓
Unmanned Surface Vehicle (USV) Testing							✓				✓						✓	✓							✓	✓	✓			✓
Unmanned Aerial System Testing							✓			✓	✓						✓	✓							✓	✓	✓			✓
Semi-Stationary Equipment Testing	✓	✓					✓				✓						✓	✓							✓	✓	✓	✓		✓
Unmanned Underwater Vehicles Demonstrations	✓						✓				✓		✓				✓	✓							✓	✓	✓	✓	✓	✓
Pierside Integrated Swimmer Defense	✓	✓										✓													✓		✓		✓	✓
South Florida Ocean Measurement Facility Testing Range																														
Signature Analysis Activities**	✓						✓				✓						✓	✓								✓	✓	✓		✓
Mine Testing Activities**	✓					✓	✓	✓		✓	✓		✓				✓	✓							✓	✓	✓	✓	✓	✓
Surface Testing Activities**	✓						✓				✓						✓	✓								✓	✓	✓	✓	✓
Subsurface Testing Activities**							✓				✓		✓												✓		✓	✓		✓
Unmanned Underwater Vehicle Demonstrations**	✓						✓				✓		✓				✓	✓							✓	✓	✓	✓	✓	✓
ACTIVITIES AT LOCATIONS OUTSIDE OF NAVAL UNDERSEA WARFARE TESTING RANGES																														
ANTI-SURFACE WARFARE/ANTI-SUBMARINE WARFARE TESTING																														
Missile Testing**					✓		✓			✓	✓	✓					✓	✓		✓	✓				✓	✓	✓	✓		✓
Kinetic Energy Weapon Testing**					✓		✓				✓	✓					✓	✓		✓	✓				✓	✓	✓	✓		✓
Electronic Warfare Testing**											✓																✓			✓
Torpedo (Non-Explosive) Testing	✓	✓				✓	✓			✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓

Note: 1: cultural resources stressor; 2: socioeconomics stressor; 3: public health and safety stressor; 4: Acoustics Stressor only includes underwater explosives and airborne sonic booms

Table F-2: Stressors by Testing Activity (Continued)

Research, Development, Test, and Evaluation Activity	Biological Resources														Physical Resources							Human Resources								
	Acoustic Stressors							Energy Stressors		Physical Stressors			Entanglement Stressors		Ingestion Stressors	Air Quality Stressors		Sediment and Water Quality Stressors			Acoustics <sup>1,4</sup>	Physical Disturbance <sup>1</sup>	Accessibility <sup>2</sup>	Airborne Acoustics <sup>2</sup>	Physical Disturbance and Strikes <sup>2</sup>	Underwater Energy <sup>3</sup>	In-Air Energy <sup>3</sup>	Physical Interactions <sup>3</sup>		
	Tactical Acoustic Sonar	Other Acoustic Devices	Underwater Explosives	In-Air Explosives	Weapons Firing Noise	Aircraft Noise	Vessel Noise	Electromagnetic Devices	High Energy Lasers	Aircraft and Aerial Target Strikes	Vessel and In-Water Device Strikes	Military Expended Materials	Seafloor Devices	Fiber Optic Cables and Guidance Wires	Parachutes	Military Expended Materials	Criteria Air Pollutants	Hazardous Air Pollutants	Explosives and Explosion Byproducts	Metals									Chemicals Other than Explosives	Other Materials
ACTIVITIES AT LOCATIONS OUTSIDE OF NAVAL UNDERSEA WARFARE TESTING RANGES (Continued)																														
ANTI-SURFACE WARFARE/ANTI-SUBMARINE WARFARE TESTING (Continued)																														
Torpedo (Explosive) Testing	✓		✓			✓	✓			✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	
Countermeasure Testing	✓	✓					✓				✓				✓	✓	✓	✓		✓		✓		✓	✓	✓	✓	✓	✓	
Pierside Sonar Testing	✓																										✓			
At-sea Sonar Testing	✓	✓					✓				✓	✓					✓	✓								✓	✓	✓		✓
MINE WARFARE TESTING																														
Mine Detection and Classification Testing**	✓					✓	✓			✓	✓						✓	✓							✓	✓	✓	✓		✓
Mine Countermeasure/Neutralization Testing**	✓		✓			✓	✓	✓		✓	✓			✓		✓	✓	✓	✓			✓	✓		✓	✓	✓	✓		✓
SHIPBOARD PROTECTION SYSTEMS AND SWIMMER DEFENSE TESTING																														
Pierside Integrated Swimmer Defense	✓	✓					✓				✓		✓												✓		✓	✓	✓	✓
Shipboard Protection Systems Testing							✓				✓	✓				✓	✓	✓		✓						✓	✓	✓		✓
Chemical/Biological Simulant Testing						✓	✓			✓	✓						✓	✓			✓	✓			✓	✓	✓			✓
UNMANNED VEHICLE TESTING																														
Underwater Deployed Unmanned Aerial System Testing**										✓	✓	✓								✓					✓	✓		✓		✓
Unmanned Vehicle Development and Payload Testing**	✓						✓				✓		✓				✓	✓							✓	✓	✓	✓	✓	✓

Note: \*\* Alternative 1 and Alternative 2 only. 1: cultural resources stressor; 2: socioeconomics stressor; 3: public health and safety stressor; 4: Acoustics Stressor only includes underwater explosives and airborne sonic booms



Table F-2: Stressors by Testing Activity (Continued)

Research, Development, Test, and Evaluation Activity	Biological Resources														Physical Resources						Human Resources								
	Acoustic Stressors						Energy Stressors		Physical Stressors			Entanglement Stressors		Ingestion Stressors	Air Quality Stressors		Sediment and Water Quality Stressors				Acoustics <sup>1,4</sup>	Physical Disturbance <sup>1</sup>	Accessibility <sup>2</sup>	Airborne Acoustics <sup>2</sup>	Physical Disturbance and Strikes <sup>2</sup>	Underwater Energy <sup>3</sup>	In-Air Energy <sup>3</sup>	Physical Interactions <sup>3</sup>	
	Tactical Acoustic Sonar	Other Acoustic Devices	Underwater Explosives	In-Air Explosives	Weapons Firing Noise	Aircraft Noise	Vessel Noise	Electromagnetic Devices	High Energy Lasers	Aircraft and Aerial Target Strikes	Vessel and In-Water Device Strikes	Military Expended Materials	Seafloor Devices	Fiber Optic Cables and Guidance Wires	Parachutes	Military Expended Materials	Criteria Air Pollutants	Hazardous Air Pollutants	Explosives and Explosion Byproducts	Metals									Chemicals Other than Explosives
ACTIVITIES AT LOCATIONS OUTSIDE OF NAVAL UNDERSEA WARFARE TESTING RANGES (Continued)																													
OTHER TESTING (Continued)																													
Special Warfare	✓	✓					✓				✓						✓	✓							✓	✓	✓		✓
Radio-Frequency Communications Testing**							✓				✓						✓	✓							✓	✓			✓
Hydrodynamic Testing**											✓														✓				✓
At-Sea Explosive Testing**			✓													✓			✓				✓		✓				

Note: \*\* Alternative 1 and Alternative 2 only; 1: cultural resources stressor; 2: socioeconomics stressor; 3: public health and safety stressor; 4: Acoustics Stressor only includes underwater explosives and airborne sonic booms

F.3 STRESSORS ASSOCIATED WITH NAVY ACTIVITIES BY RESOURCE

Table F-3: Stressors by Resource

		Biological Resources																Physical Resources						Human Resources							
Stressors vs. Resources		Acoustic Stressors						Energy Stressors		Physical Stressors				Entanglement Stressors		Ingestion Stressors	Air Quality Stressors		Sediment and Water Quality Stressors				Acoustics <sup>1, 4</sup>	Physical Disturbance <sup>1</sup>	Accessibility <sup>2</sup>	Airborne Acoustics <sup>2</sup>	Physical Disturbance and Strikes <sup>2</sup>	Underwater Energy <sup>3</sup>	In-Air Energy <sup>3</sup>	Physical Interactions <sup>3</sup>	
		Tactical Acoustic Sonar	Other Acoustic Devices	Underwater Explosives	In-Air Explosives	Weapons Firing Noise	Aircraft Noise	Vessel Noise	Electromagnetic Devices	High Energy Lasers	Aircraft and Aerial Target Strikes	Vessel and In-Water Device Strikes	Military Expended Materials	Seafloor Devices	Fiber Optic Cables and Guidance Wires	Parachutes	Military Expended Materials	Criteria Air Pollutants	Hazardous Air Pollutants	Explosives and Explosion Byproducts	Metals	Chemicals Other than Explosives									Other Materials
Physical	Sediments and Water Quality																			✓	✓	✓	✓								
	Air Quality																	✓	✓												
Biological	Marine Habitats			✓								✓	✓	✓																	
	Marine Mammals	✓	✓	✓		✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓			✓	✓	✓	✓								
	Sea Turtles and Other Marine Reptiles	✓	✓	✓		✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓			✓	✓	✓	✓								
	Birds	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓				✓		✓	✓												
	Marine Vegetation			✓								✓	✓	✓						✓	✓	✓	✓								
	Marine Invertebrates	✓	✓	✓					✓	✓		✓	✓	✓	✓	✓	✓			✓	✓	✓	✓								
	Fish	✓	✓	✓		✓		✓	✓	✓		✓	✓	✓	✓	✓	✓			✓	✓	✓	✓								
Human	Cultural Resources																							✓	✓						
	Socioeconomic Resources																								✓	✓	✓				
	Public Health and Safety																										✓	✓	✓		

Note: 1: cultural resources stressor; 2: socioeconomics stressor; 3: public health and safety stressor; 4: Acoustics Stressor only includes underwater explosives and airborne sonic booms

## **APPENDIX G**

### **STATISTICAL PROBABILITY ANALYSIS FOR ESTIMATING DIRECT STRIKE IMPACT AND NUMBER OF POTENTIAL EXPOSURES**

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## APPENDIX G STATISTICAL PROBABILITY ANALYSIS FOR ESTIMATING DIRECT STRIKE IMPACT AND NUMBER OF POTENTIAL EXPOSURES

This appendix discusses the methods and results for calculating the probability of a direct strike of an animal from any military items from the proposed training and testing activities falling toward (or directed at) the sea surface. For the purposes of this appendix, military items include non-explosive practice munitions, sonobuoys, acoustic countermeasures, targets, and high-energy lasers. Only marine mammals and sea turtles will be analyzed using these methods because animal densities are necessary to complete the calculations, and density estimates are currently only available for marine mammals and sea turtles within the Study Area. Furthermore, the analysis conducted here does not account for explosive munitions because impacts from explosives are analyzed within the Navy Acoustic Effects Model.

### G.1 DIRECT IMPACT ANALYSIS

A statistical probability was calculated to estimate the impact probability (P) and number of exposures (T) associated with direct impact of military items on marine animals on the sea surface within the specified training or testing area (R) in which the activities are occurring. The statistical probability analysis is based on probability theory and modified Venn diagrams with rectangular “footprint” areas for the individual animal (A) and total impact (I) inscribed inside the training or testing area (R). The analysis assumes: (1) that all animals would be at or near the surface 100 percent of the time, when in fact, marine mammals spend the majority of their time underwater, and (2) that the animals are stationary, which does not account for any movement or any potential avoidance of the training or testing activity.

1.  $A = \text{length} \times \text{width}$ , where the individual animal’s width (breadth) is assumed to be 20 percent of its length for marine mammals and 112 percent of its length for sea turtles. This product for A is multiplied by the number of animals  $N_a$  in the specified training or testing area (i.e., product of the highest average seasonal animal density [D] and training or testing area [R]:  $N_a = D \times R$ ) to obtain the total animal footprint area ( $A \times N_a = A \times D \times R$ ) in the training or testing area. As a worst case scenario, the total animal footprint area is calculated for the species with the highest average seasonal density in the training or testing area with the highest use of military items within the entire Study Area.
2.  $I = N_{\text{mun}} \times \text{length} \times \text{diameter}$ , where  $N_{\text{mun}}$  = total annual number of military items for each type, and “length” and “diameter” refer to the individual military equipment dimensions. For each type, the individual impact footprint area is multiplied by the total annual number of military items to obtain the type-specific impact footprint area ( $I = N_{\text{mun}} \times \text{length} \times \text{diameter}$ ). Each training or testing activity uses one or more different types of military items, each with a specific number and dimensions, and several training and testing activities occur in a given year. When integrating over the number of military items types for the given activity (and then over the number of activities in a year), these calculations are repeated (accounting for differences in dimensions and numbers) for all military items types used, to obtain the type-specific impact footprint area (I). These impact footprint areas are summed over all military items types for the given activity, and then summed (integrated) over all activities to obtain the total impact footprint area resulting from all activities occurring in the training or testing area in a given year. As a worst case scenario, the total impact footprint area is calculated for the training or testing area with the highest use of military items within the entire Study Area.

Though marine mammals and sea turtles are not randomly distributed in the environment, a random point calculation was chosen due to the intensive data needs that would be required for a calculation that incorporated more detailed information on an animal's or military item's spatial occurrence.

The analysis is expected to provide an overestimation of the probability of a strike for the following reasons: (1) it calculates the probability of a single military item (of all the items expended over the course of the year) hitting a single animal at its species' highest seasonal density, (2) it does not take into account the possibility that an animal may avoid military activities, (3) it does not take into account the possibility that an animal may not be at the water surface, (4) it does not take into account that most projectiles fired during training and testing activities are fired at targets, and so only a very small portion of those projectiles that miss the target would hit the water with their maximum velocity and force, and (5) it does not quantitatively take into account the Navy avoiding animals that are sighted through the implementation of mitigation measures.

The likelihood of an impact is calculated as the probability (P) that the animal footprint (A) and the impact footprint (I) will intersect within the training or testing area (R). This is calculated as the area ratio  $A/R$  or  $I/R$ , respectively. Note that A (referring to an **individual** animal footprint) and I (referring to the impact footprint resulting from the **total** number of military items  $N_{mun}$ ) are the relevant quantities used in the following calculations of single-animal impact probability [P], which is then multiplied by the number of animals to obtain the number of exposures (T). The probability that the random point in the training or testing area is within both types of footprints (i.e., A and I) depends on the degree of overlap of A and I. The probability that I overlaps A is calculated by adding a buffer distance around A based on one-half of the impact area (i.e.,  $0.5*I$ ), such that an impact (center) occurring anywhere within the combined (overlapping) area would impact the animal. Thus, if  $L_i$  and  $W_i$  are the length and width of the impact footprint such that  $L_i*W_i = 0.5*I$  and  $W_i/L_i = L_a/W_a$  (i.e., similar geometry between the animal footprint and impact footprint), and if  $L_a$  and  $W_a$  are the length and width (breadth) of the individual animal such that  $L_a*W_a = A$  (= individual animal footprint area), then, assuming a purely static, rectangular scenario (Scenario 1), the total area  $A_{tot} = (L_a + 2*L_i)*(W_a + 2*W_i)$ , and the buffer area  $A_{buffer} = A_{tot} - L_a*W_a$ .

Four scenarios were examined with respect to defining and setting up the overlapping combined areas of A and I:

1. **Scenario 1:** Purely static, rectangular scenario. Impact is assumed to be static (i.e., direct impact effects only; non-dynamic; no explosions or scattering of military items after the initial impact). Hence the impact footprint area (I) is assumed to be rectangular and given by the product of military items length and width (multiplied by the number of military items).  
 $A_{tot} = (L_a + 2*L_i)*(W_a + 2*W_i)$  and  $A_{buffer} = A_{tot} - L_a*W_a$ .
2. **Scenario 2:** Dynamic scenario with end-on collision, in which the length of the impact footprint ( $L_i$ ) is enhanced by  $R_n = 5$  military items lengths to reflect forward momentum.  
 $A_{tot} = (L_a + (1 + R_n)*L_i)*(W_a + 2*W_i)$  and  $A_{buffer} = A_{tot} - L_a*W_a$ .
3. **Scenario 3:** Dynamic scenario with broadside collision, in which the width of the impact footprint ( $W_i$ ) is enhanced by  $R_n = 5$  military items lengths to reflect forward momentum.  
 $A_{tot} = (L_a + 2*W_i)*(W_a + (1 + R_n)*L_i)$  and  $A_{buffer} = A_{tot} - L_a*W_a$ .
4. **Scenario 4:** Purely static, radial scenario, in which the rectangular animal and impact footprints are replaced with circular footprints while conserving area. Define the radius ( $R_a$ ) of the circular



individual animal footprint such that  $\pi * R_a^2 = L_a * W_a$ , and define the radius ( $R_i$ ) of the circular impact footprint such that  $\pi * R_i^2 = 0.5 * L_i * W_i = 0.5 * I$ . Then  $A_{tot} = \pi * (R_a + R_i)^2$  and  $A_{buffer} = A_{tot} - \pi * R_a^2$  (where  $\pi = 3.1415927$ ).

Static impacts (Scenarios 1 and 4) assume no additional areal coverage effects of scattered military items beyond the initial impact. For dynamic impacts (Scenarios 2 and 3), the distance of any scattered military items must be considered by increasing the length (Scenario 2) or width (Scenario 3), depending on orientation (broadside versus end-on collision), of the impact footprint to account for the forward horizontal momentum of the falling object. Forward momentum typically accounts for five object lengths, resulting in a corresponding increase in impact area. Significantly different values may result from these two types of orientation. Both of these types of collision conditions can be calculated each with 50 percent likelihood (i.e., equal weighting between Scenarios 2 and 3, to average these potentially different values).

Impact probability  $P$  is the probability of impacting one animal with the given number, type, and dimensions of all military items used in training or testing activities occurring in the area per year, and is given by the ratio of total area ( $A_{tot}$ ) to training or testing area ( $R$ ):  $P = A_{tot}/R$ . Number of exposures is  $T = N * P = N * A_{tot}/R$ , where  $N$  = number of animals in the training or testing area per year (given as the product of the animal density [ $D$ ] and range size [ $R$ ]). Thus,  $N = D * R$  and hence  $T = N * P = N * A_{tot}/R = D * A_{tot}$ . Using this procedure,  $P$  and  $T$  were calculated for each of the four scenarios, for Endangered Species Act (ESA)-listed marine mammals and the marine mammal and sea turtle species with the highest average seasonal density (used as the annual density value) and for each military item type. The scenario -specific  $P$  and  $T$  values were averaged over the four scenarios (using equal weighting) to obtain a single scenario -averaged annual estimate of  $P$  and  $T$ .

## G.2 PARAMETERS FOR ANALYSIS

Impact probabilities ( $P$ ) and number of exposures ( $T$ ) were estimated by the analysis for the following parameters:

1. **Three proposed alternatives:** No Action Alternative, Alternative 1, and Alternative 2. Animal densities, animal dimensions, and military item dimensions are the same for the three alternatives.
2. **Two Training or Testing Areas:** Virginia Capes (VACAPES) and Jacksonville (JAX) Range Complexes. Areas are 94,996 kilometers ( $\text{km}$ )<sup>2</sup> and 172,024  $\text{km}^2$ , respectively. These two training areas were chosen because they constitute the areas with the highest estimated numbers and concentrations of military expended materials for each alternative, and would, thus, provide a reasonable comparison for all other areas with fewer expended materials.
3. **The following types of munitions or other items:**
  - a) **Small-caliber projectiles:** up to and including .50 caliber rounds
  - b) **Medium-caliber projectiles:** larger than .50 caliber rounds but smaller than 57 millimeters (mm) projectiles
  - c) **Large-caliber projectiles:** includes projectiles greater than or equal to a 57 mm projectile
  - d) **Missiles:** includes rockets and jet-propelled munitions
  - e) **Bombs:** Non-explosive practice bombs and mine shapes, ranging from 10 to 2000 lbs
  - f) **Torpedoes:** includes aircraft deployed torpedoes

- g) **Sonobuoys:** includes aircraft deployed sonobuoys
  - h) **Targets:** includes airborne, surface, and subsurface targets, as well as mine shapes
  - i) **Lightweight torpedo accessories:** includes all accessories that are dropped along with the torpedo (nose cap, air stabilizer, etc.)
  - j) **Anchor blocks:** includes blocks used to anchor mine shapes to the seafloor
  - k) **Acoustic countermeasures:** includes aircraft deployed acoustic countermeasures
  - l) **High Energy Lasers:** includes high energy laser weapons that are directed at a surface target
4. **Animal species of interest:** the six species of Endangered Species Act (ESA)-listed marine mammals and the non-ESA listed marine mammal species with the highest average seasonal density in the training and testing areas of interest. The sea turtle species with the highest average seasonal density in the training and testing areas of interest.

### G.3 INPUT DATA

Input data for the direct strike analysis include animal species likely to be in the area and military items proposed for use under each of the three alternatives. Animal species data include: (1) species ID and status (i.e., threatened, endangered, or neither), (2) highest average seasonal density estimate for the species of interest, and (3) adult animal dimensions (length and width) for the species with the highest density. The animal's dimensions are used to calculate individual animal footprint areas ( $A = \text{length} \times \text{width}$ ), and animal densities are used to calculate the number of exposures (T) from the impact probability (P):  $T = N \times P$ . Military items data include: (1) military items category (e.g., projectile, bomb, rocket, target), (2) military items dimensions (length and width), and (3) total number of military items used annually.

Military items input data, specifically the quantity (e.g., numbers of guns, bombs, and rockets), are different in magnitude among the three proposed alternatives (No Action Alternative, Alternative 1, and Alternative 2). All animal species input data, the military items identification and category, and military items dimensions are the same for the three alternatives, only the quantities (i.e., total number of military items) are different.

### G.4 OUTPUT DATA

Estimates of impact probability (P) and number of exposures (T) for a given species of interest were made for the specified training or testing area with the highest annual number of military items used for each of the three alternatives. The calculations derived P and T from the highest annual number of military items used in the Study Area for the given alternative. Differences in P and T among the alternatives arise from different numbers of events (and therefore military items) for the three alternatives.

Results for marine mammals and sea turtles are presented in Tables G-1 through G-4.

**Table G-1: Probability of a High Energy Laser Strike for Representative Marine Mammal Species by Alternative**

Northeast United States Continental Shelf Large Marine Ecosystem and Gulf Stream Open Ocean Area			
VACAPES Range Complex			
Species	Testing		
	No Action	Alternative 1	Alternative 2
North Atlantic Right Whale	0.00%	0.00%	0.00%
Humpback Whale	0.00%	0.00%	0.00%
Sei Whale	0.00%	0.00%	0.00%
Fin Whale	0.00%	0.00%	0.00%
Blue Whale	0.00%	0.00%	0.00%
Sperm Whale	0.00%	0.00%	0.00%
Atlantic Spotted Dolphin	0.00%	0.03%	0.03%

VACAPES: Virginia Capes Range Complex

**Table G-2: Probability of a High Energy Laser Strike for a Representative Sea Turtle Species by Alternative**

Northeast United States Continental Shelf Large Marine Ecosystem and Gulf Stream Open Ocean Area			
VACAPES Range Complex			
Species	Testing		
	No Action	Alternative 1	Alternative 2
Loggerhead Sea Turtle	0.00%	0.01%	0.01%

VACAPES: Virginia Capes Range Complex

**Table G-3: Probability of a Military Expended Material Strike for Representative Marine Mammal Species by Area and Alternative**

Northeast United States Continental Shelf Large Marine Ecosystem and Gulf Stream Open Ocean Area						
VACAPES Range Complex						
Species	Training			Testing		
	No Action	Alternative 1	Alternative 2	No Action	Alternative 1	Alternative 2
North Atlantic Right Whale	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Humpback Whale	0.00%	0.01%	0.01%	0.01%	0.01%	0.01%
Sei Whale	0.02%	0.05%	0.05%	0.04%	0.06%	0.06%
Fin Whale	0.01%	0.03%	0.03%	0.03%	0.04%	0.05%
Blue Whale	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Sperm Whale	0.08%	0.18%	0.18%	0.16%	0.23%	0.25%
Atlantic Spotted Dolphin	1.84%	4.42%	4.42%	3.76%	5.69%	6.01%
Southeast United States Continental Shelf Large Marine Ecosystem and Gulf Stream Open Ocean Area						
JAX Range Complex						
Species	Training			Testing		
	No Action	Alternative 1	Alternative 2	No Action	Alternative 1	Alternative 2
North Atlantic Right Whale	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Humpback Whale	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Sei Whale	0.01%	0.02%	0.02%	0.00%	0.01%	0.01%
Fin Whale	0.00%	0.01%	0.01%	0.00%	0.00%	0.00%
Blue Whale	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Sperm Whale	0.01%	0.02%	0.02%	0.00%	0.01%	0.01%
Atlantic Spotted Dolphin	0.45%	0.94%	0.94%	0.15%	0.25%	0.28%

JAX: Jacksonville Range Complex; VACAPES: Virginia Capes Range Complex

**Table G-4: Probability of a Military Expended Material Strike for a Representative Sea Turtle Species by Area and Alternative**

Northeast United States Continental Shelf Large Marine Ecosystem and Gulf Stream Open Ocean Area						
VACAPES Range Complex						
Species	Training			Testing		
	No Action	Alternative 1	Alternative 2	No Action	Alternative 1	Alternative 2
Loggerhead Sea Turtle	0.74%	1.78%	1.78%	1.51%	2.29%	2.42%
Southeast United States Continental Shelf Large Marine Ecosystem and Gulf Stream Open Ocean Area						
JAX Range Complex						
Species	Training			Testing		
	No Action	Alternative 1	Alternative 2	No Action	Alternative 1	Alternative 2
Loggerhead Sea Turtle	0.50%	1.04%	1.04%	0.17%	0.28%	0.31%

JAX: Jacksonville Range Complex; VACAPES: Virginia Capes Range Complex

## **APPENDIX H**

### **IMPACTS DUE TO ATLANTIC FLEET TRAINING AND TESTING ACTIVITIES AT THE UNDERSEA WARFARE TRAINING RANGE**

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## **APPENDIX H     IMPACTS DUE TO ATLANTIC FLEET TRAINING AND TESTING ACTIVITIES AT THE UNDERSEA WARFARE TRAINING RANGE**

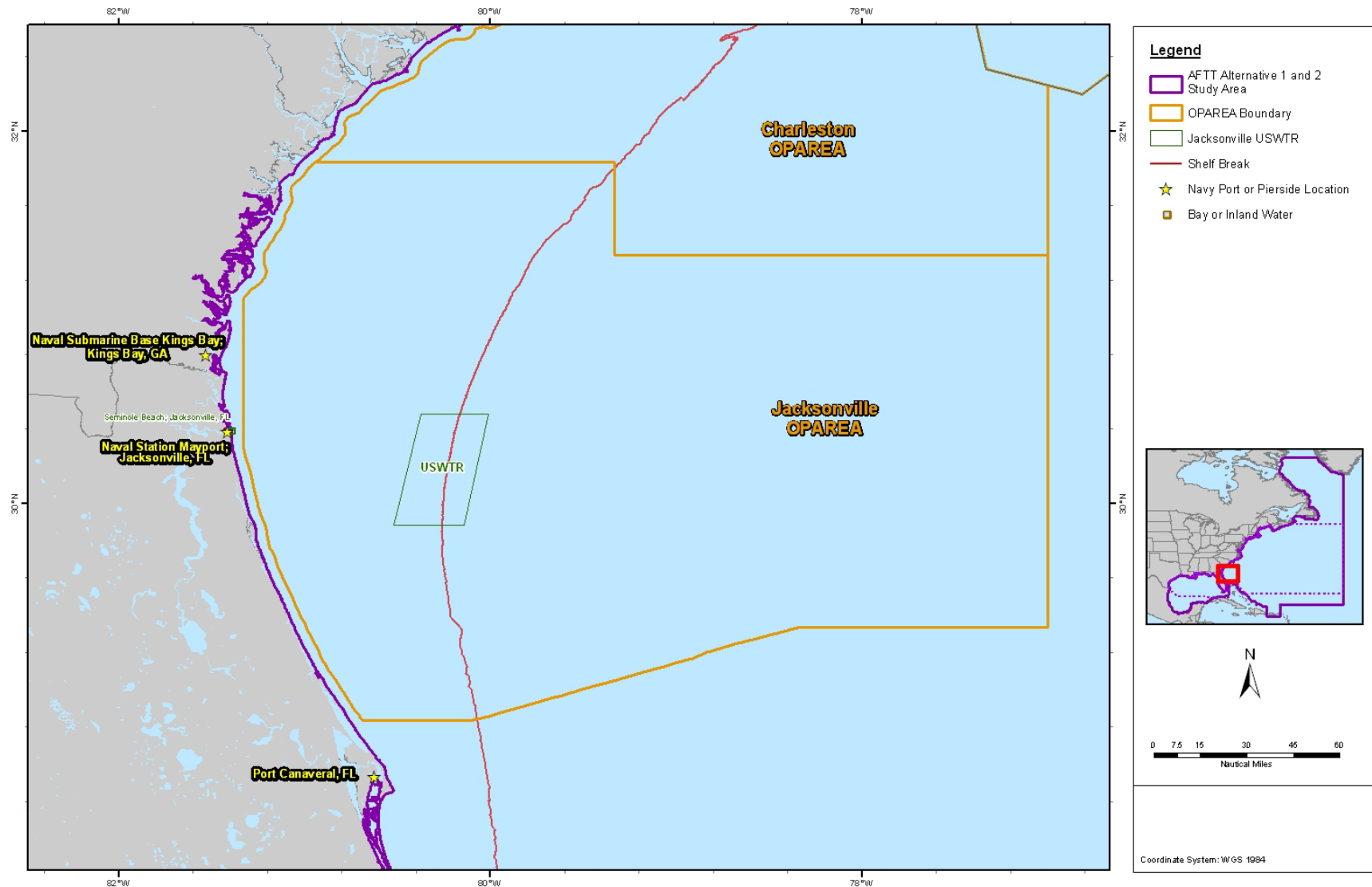
### **H.1    PURPOSE**

The Undersea Warfare Training Range is within the Atlantic Fleet Training and Testing (AFTT) Study Area. The first phase of construction is estimated to be completed in 2018. Some of the training and testing activities described within this AFTT Environmental Impact Statement (EIS)/Overseas Environmental Impact Statement (OEIS) for the Jacksonville (JAX) Range Complex may be conducted within the Undersea Warfare Training Range sea space beginning in 2018. Therefore, the analysis of impacts due to training and testing activities that could take place on the Undersea Warfare Training Range are included in the comprehensive analysis of impacts due to training and testing activities in this AFTT EIS/OEIS. In order to facilitate public understanding of impacts due to the subset of AFTT activities that would occur on the Undersea Warfare Training Range, these impacts are extracted from the comprehensive AFTT EIS/OEIS environmental consequences analysis and described within this appendix.

The Undersea Warfare Training Range OEIS/EIS (Record of Decision signed on 31 July 2009) included an analysis of the potential effects of both constructing and training on the Undersea Warfare Training Range. The proposed training activities analyzed in the Undersea Warfare Training Range OEIS/EIS were reanalyzed in this AFTT EIS/OEIS to account for updated science and refinements to analytical methods. In addition, the AFTT EIS/OEIS analyzes proposed testing activities that would be similar to proposed anti-submarine warfare training activities at the Undersea Warfare Training Range.

### **H.2    DESCRIPTION OF THE UNDERSEA WARFARE TRAINING RANGE**

The Undersea Warfare Training Range will be located approximately 57 nautical miles (nm) from shore in the JAX Range Complex (see Figure H-1). The Undersea Warfare Training Range will consist of no more than 300 nodes, or underwater acoustic transducer devices, spread on the ocean floor over an area of approximately 500 square nautical miles (nm<sup>2</sup>). The distance between nodes will vary from 1 nm to 3 nm, depending on water depth. The nodes will be connected by cable to each other and to a landside facility where shallow water training and testing activities will be evaluated. Additional details regarding the construction of the Undersea Warfare Training Range are provided in the Undersea Warfare Training Range OEIS/EIS.



**Figure H-1: Location of the Undersea Warfare Training Range within the AFTT EIS/OEIS Study Area**

AFTT: Atlantic Fleet Training and Testing; FL: Florida; GA: Georgia; OPAREA: Operating Area; USWTR: Undersea Warfare Training Range

### H.3 ACTIVITIES TAKING PLACE ON THE UNDERSEA WARFARE TRAINING RANGE

The training and testing activities which may take place on the Undersea Warfare Training Range that are proposed within this AFTT EIS/OEIS under Alternative 2 (Preferred Alternative) are outlined below.

**Table H-1: Training Activities on the Undersea Warfare Training Range Analyzed in the AFTT EIS/OEIS**

<b>Training</b>	Anti-submarine warfare training activities that may occur on the Undersea Warfare Training Range in the JAX Range Complex.
<i>Long Description</i>	Anti-submarine warfare training will occur on the Undersea Warfare Training Range in the JAX Range Complex. The Undersea Warfare Training Range is an instrumented sea space, equipped with cables and hydrophones. This capability allows for real time tracking of anti-submarine warfare exercise participants and the assessment of tactics employed and crew proficiency. The ability to provide detailed feedback to the trainees greatly improves the training value of the anti-submarine warfare exercise.
<i>Information Typical to the Event</i>	<b>Platform:</b> Fixed-wing aircraft, helicopters, surface ships, submarines <b>Systems:</b> Mid-frequency helicopter dipping, hull-mounted, and towed sonars; sonobuoys; acoustic countermeasures <b>Ordnance/Munitions:</b> Exercise torpedoes (non-explosive) <b>Targets:</b> MK 39, MK 30, submarine <b>Duration:</b> Not Applicable
<i>Potential Impact Concerns</i> (Information regarding deconstruct categories and stressors)	<b>Acoustic:</b> Various sonar systems (sonobuoy, dipping sonar, torpedo guidance, hull-mounted, and towed), aircraft noise, vessel noise <b>Energy:</b> None <b>Physical Disturbance and Strike:</b> Military expended material strike, aircraft strike (birds only), vessel and in-water device strike <b>Entanglement:</b> Parachutes, guidance wires <b>Ingestion:</b> Parachutes
<i>Detailed Military Expended Materials Information</i>	MK 39 Expendable Mobile Anti-Submarine Warfare Training Targets Torpedo accessories (ballast weights) from exercise torpedoes, sonobuoys, parachutes
<i>Assumptions Used for Analysis</i>	Torpedoes are recovered. Guidance wire has a low breaking strength. Weights sink rapidly. <b>Typical Undersea Warfare Training Range Events (Alternative 2):</b> Approximate number of anti-submarine warfare tracking exercises/torpedo exercises annually: <ul style="list-style-type: none"> <li>• Helicopter, 214 events (14 torpedoes)</li> <li>• Maritime patrol aircraft, 100 events (14 torpedoes)</li> <li>• Maritime patrol multi-static active coherent sonobuoys, 43 events</li> <li>• Surface, 102 events (12 torpedoes)</li> <li>• Submarine, 16 events (24 torpedoes)</li> </ul>

JAX: Jacksonville

**Table H-2: Testing Activities on the Undersea Warfare Training Range Analyzed in the AFTT EIS/OEIS**

<b>Testing</b>	Anti-submarine warfare testing activities that may occur at the Undersea Warfare Training Range in the JAX Range Complex
<i>Long Description</i>	Anti-submarine warfare testing will occur on the Undersea Warfare Training Range in the JAX Range Complex. The Undersea Warfare Training Range is an instrumented sea space, equipped with cables and hydrophones. This capability allows for the evaluation of anti-submarine warfare systems, including systems onboard rotary-wing and fixed-wing aircraft and on in-water vehicles and vessels, and the ability to search for, detect, classify, localize, and track a submarine or similar target. The instrumented range provides data that confirms whether systems are operating as designed.
<i>Information Typical to the Event</i>	<p><b>Platform:</b> Fixed-wing aircraft, helicopters, surface ships, submarines, support craft</p> <p><b>Systems:</b> Mid-frequency helicopter dipping, hull-mounted, and towed sonars; sonobuoys; acoustic countermeasures; torpedo guidance; underwater communication systems</p> <p><b>Ordnance/Munitions:</b> Exercise torpedoes (non-explosive)</p> <p><b>Targets:</b> MK 39, MK 30, submarines</p> <p><b>Duration:</b> Not Applicable</p>
<i>Potential Impact Concerns</i> (Information regarding deconstruct categories and stressors)	<p><b>Acoustic:</b> Various sonar systems (sonobuoy, dipping sonar, torpedo guidance, hull-mounted, and towed); aircraft noise; vessel noise</p> <p><b>Energy:</b> None</p> <p><b>Physical Disturbance and Strike:</b> Military expended material strike, aircraft strike (birds only), vessel and in-water device strike</p> <p><b>Entanglement:</b> Parachutes, guidance wires</p> <p><b>Ingestion:</b> Parachutes</p>
<i>Detailed Military Expended Materials Information</i>	<p>MK 39 Expendable Mobile Anti-Submarine Warfare Training Targets</p> <p>Torpedo accessories (ballast weights) from exercise torpedoes, sonobuoys, parachutes</p>
<i>Assumptions Used for Analysis</i>	<p>Torpedoes are recovered.</p> <p>Guidance wire has a low breaking strength. Weights sink rapidly.</p> <p><b>Typical Undersea Warfare Training Range Events (Alternative 2):</b></p> <p>Approximate number of Naval Air Systems Command tracking and torpedo testing events annually:</p> <ul style="list-style-type: none"> <li>• Helicopter, 83 events (45 torpedoes)</li> <li>• Approximate number of Naval Sea Systems Command events annually:</li> <li>• Combat system ship qualification trial– undersea warfare, 6 events (48 torpedoes)</li> <li>• Torpedo (non-explosive) testing, 13 events (347 torpedoes)</li> <li>• At-sea sonar testing, 1 event</li> </ul>

JAX: Jacksonville

## H.4 ENVIRONMENTAL CONSEQUENCES

The organization and analysis of environmental consequences differ between the Undersea Warfare Training Range OEIS/EIS and this AFTT EIS/OEIS. Since the issuance of the Undersea Warfare Training Range Final OEIS/EIS and Record of Decision, the Navy has progressively refined its impact analysis methodologies based on the best available science; therefore, the analysis of the same activity may lead to slightly different predictions of impacts. Furthermore, the Navy has organized the analysis differently in this AFTT EIS/OEIS, evolving into a more detailed analysis which is conducted stressor-by-stressor for each specific resource. Finally, while the activities on the Undersea Warfare Training Range proposed in the AFTT EIS/OEIS are the same or similar in scope and intensity as what was analyzed in the Undersea Warfare Training Range OEIS/EIS, additional testing activities which may be conducted on the Undersea Warfare Training Range are included in the AFTT analysis and described here.

The following sections describe the impacts specific to the Undersea Warfare Training Range that are also included in the comprehensive analysis of impacts for Alternative 2 (Preferred Alternative) in this AFTT EIS/OEIS. It is important to emphasize that 2018 is the earliest activities would begin on the Undersea Warfare Training Range.

### H.4.1 SEDIMENTS AND WATER QUALITY

The following stressors are analyzed in this AFTT EIS/OEIS for potential impacts on sediments and water quality.

#### H.4.1.1 Explosives and Explosion Byproducts

There are no proposed training or testing activities in the AFTT EIS/OEIS which involve explosives on the Undersea Warfare Training Range.

#### H.4.1.2 Metals

Military expended materials with metal components on the Undersea Warfare Training Range would include expendable subsurface targets, sonobuoys, and torpedo accessories. Other military expended materials with metal components would not be expended during training and testing activities on the Undersea Warfare Training Range. The potential impacts on water quality from metals in military expended materials are analyzed in Section 3.1.3.2 (Metals). The quantified predicted impacts at the Undersea Warfare Training Range shown in Table H-3 are included in the overall total impacts due to training and testing activities presented in Section 3.1.3.2 (Metals). The potential impacts on water quality from metals on the Undersea Warfare Training Range would not differ from those described for the AFTT Study Area.

**Table H-3: Military Expended Materials on the Undersea Warfare Training Range with Metal Components under Alternative 2 (Preferred Alternative)**

Type of Military Expended Material	Training	Testing
Expendable Subsurface Targets <sup>1</sup>	459	308
Sonobuoys	3,000	1,689
Torpedo Accessories <sup>2</sup>	64	440

<sup>1</sup> Includes acoustic countermeasures

<sup>2</sup> Includes guidance wires, flex hoses, ballast, protective nose covers, suspension bands, air stabilizers, and propeller baffles used with air-launched torpedoes

#### **H.4.1.3 Chemicals Other than Explosives**

Chemicals other than explosives that could be released on the Undersea Warfare Training Range during training and testing activities include Otto Fuel II propellant and its combustion byproducts. Other chemicals would not be released during training and testing on the Undersea Warfare Training Range. The potential impacts on water quality from chemicals other than explosives are analyzed in Section 3.1.3.3 (Chemicals other than Explosives). The potential impacts on water quality from chemicals on the Undersea Warfare Training Range would not differ from those described for the AFTT Study Area.

#### **H.4.1.4 Other Materials**

Other materials that could be expended on the Undersea Warfare Training Range during training and testing activities include miscellaneous components of military expended materials consisting of nonreactive or slowly reactive materials (e.g., glass, carbon fibers, and plastics) or materials that break down or decompose into benign byproducts (e.g., rubber, steel, and iron). The potential impacts on water quality due to other materials are analyzed in Section 3.1.3.4 (Other Materials). The potential impacts on water quality due to other materials on the Undersea Warfare Training Range would not differ from those described for the AFTT Study Area.

### **H.4.2 AIR QUALITY**

The following stressors are analyzed in this AFTT EIS/OEIS for potential impacts on air quality.

#### **H.4.2.1 Criteria Air Pollutants**

Criteria air pollutants would be emitted during combustion of fuel and propellants during training and testing activities on the Undersea Warfare Training Range. The potential impacts from emission of criteria air pollutants are analyzed in Section 3.2.3.1 (Criteria Air Pollutants). Criteria air pollutant emissions at the Undersea Warfare Training Range would be a sub-set of the criteria air pollutant emissions predicted to be emitted on the JAX Range Complex, as shown in Section 3.2.3.1.3 (Alternative 2 – Preferred Alternative). Emissions due to activities at the Undersea Warfare Training Range would be distant from shore, reducing the likelihood that regional air quality and receptors ashore would be affected.

#### **H.4.2.2 Hazardous Air Pollutants**

Hazardous air pollutants would be emitted during combustion of fuel and propellants during training and testing activities on the Undersea Warfare Training Range. The potential impacts from emission of hazardous air pollutants are analyzed in Section 3.2.3.2 (Hazardous Air Pollutants). The potential impacts from emission of hazardous air pollutants on the Undersea Warfare Training Range would not differ from those described for the AFTT Study Area.

### **H.4.3 MARINE HABITATS**

The following stressors are analyzed in this AFTT EIS/OEIS for potential impacts on marine habitats.

#### **H.4.3.1 Acoustic Stressors**

The potential impacts of acoustic stressors on marine habitats by explosives are analyzed in Section 3.3.3.1.1 (Impacts from Explosives). There are no proposed activities in the AFTT EIS/OEIS which involve explosives while training or testing on the Undersea Warfare Training Range. As discussed in Section 3.3.3.1 (Acoustic Stressors), other acoustic stressors do not have the potential to affect marine habitats.

#### **H.4.3.2 Physical Disturbance and Strike Stressors**

Physical disturbance of bottom substrates due to military expended materials (i.e., expendable subsurface targets, sonobuoys, and torpedo accessories) could occur during training and testing activities at the Undersea Warfare Training Range. The potential impacts on marine habitats due to physical disturbance are analyzed in Section 3.3.3.2 (Physical Disturbance and Strike Stressors).

The impact of the expended material on the seafloor is assumed to be twice the size of its actual footprint. This assumption accounts for any displacement of sediments at the time of impact as well as any subsequent movement of the item on the seafloor due to currents or other forces. This should more accurately reflect the potential disturbance to soft bottom habitats, but should overestimate disturbance to hard bottom habitats since no displacement of the substrate would occur.

Once the impact footprints were calculated, two analyses were performed: (1) potential impact on the soft bottom habitats within the Undersea Warfare Training Range if all expended materials settled in areas with unconsolidated sediments, and (2) potential impact on the hard bottom habitats in the Undersea Warfare Training Range if all expended materials settled in areas containing hard substrates. Based on a Navy-funded survey of the range, the Undersea Warfare Training Range contains approximately 1,811 square kilometers (km<sup>2</sup>) of soft substrates (e.g., sand, silt, clay) and 544 km<sup>2</sup> of hard substrates (e.g., rock outcrop, pavement, rubble). Figure H-2 illustrates how these substrate types are distributed throughout the range. The quantified predicted impacts at the Undersea Warfare Training Range shown in Table H-4 and Table H-5 are included in the overall total impacts due to training and testing activities presented in Section 3.3.3.2 (Physical Disturbance and Strike Stressors). Since it is unlikely that all military expended materials would impact only one type of bottom substrate, the actual impact of military expended materials within the range on either hard or soft bottom substrates would be less than shown for each substrate in Table H-5. The potential impacts from physical disturbance of bottom substrates on the Undersea Warfare Training Range would not differ from those described for the AFTT Study Area.



Figure H-2: The Distribution of Hard and Soft Substrates within the Undersea Warfare Training Range

Table H-4: Numbers and Estimated Annual Impacts of Military Expended Materials Due to Training and Testing Activities on the Undersea Warfare Training Range under Alternative 2 (Preferred Alternative)

Military Expended Materials	Size (m <sup>2</sup> )	Impact Footprint (m <sup>2</sup> )	Training		Testing	
			Number	Impact (m <sup>2</sup> )	Number	Impact (m <sup>2</sup> )
Sub-surface targets	0.1134	0.2268	459	104	126	29
Acoustic countermeasures	0.0289	0.1155	0	0	182	21
Lightweight torpedo accessories	0.0939	0.1879	40	8	169	32
Heavyweight torpedo accessories	0.0150	0.3007	24	7	271	81
Sonobuoys (non-explosive)	0.1134	0.5669	3,000	1,701	1,689	957
Parachutes - large	0.8400	1.6800	28	47	93	156
Parachutes - small	0.2642	0.5284	3,459	1,828	1,815	959
<b>Total</b>			<b>7,010</b>	<b>3,695</b>	<b>4,345</b>	<b>2,235</b>

m: meter



**Table H-5: Annual Possible Maximum Impact of Military Expended Materials under Alternative 2 (Preferred Alternative) as Percent of Habitat within the Undersea Warfare Training Range**

Bottom Type	Maximum Area Impacted (Percent of Total Area of Each Bottom Type)		
	Training	Testing	Total
Soft substrates	0.0004	0.0003	0.0007
Hard substrates	0.0013	0.0008	0.0021

#### **H.4.4 MARINE MAMMALS**

The following stressors are analyzed in this AFTT EIS/OEIS for potential impacts on marine mammals.

##### **H.4.4.1 Acoustic Stressors**

The only acoustic stressors that would be present at the Undersea Warfare Training Range due to training and testing activities are sonar and other active acoustic sources, vessel noise, and aircraft noise. There are no planned activities on the Undersea Warfare Training Range involving explosives, pile driving, swimmer defense air guns, or weapons firing, launch, or impact noise. The potential impacts of acoustic stressors on marine mammals from sonars and other active acoustic sources, vessel noise, and aircraft noise during training and testing activities are analyzed in Section 3.4.3.1 (Acoustic Stressors).

The potential impacts from vessel and aircraft noise on marine mammals during training and testing activities on the Undersea Warfare Training Range would not differ from those described for the AFTT Study Area.

Sonars and other active acoustic sources that would be used for training and testing on the Undersea Warfare Training Range after construction are within the mid- and high-frequencies. Predicted impacts due to training and testing activities at the Undersea Warfare Training Range are shown in Table H-6. The quantified predicted impacts at Undersea Warfare Training Range shown in Table H-6 are included in the total predicted impacts due to annual training and annual testing activities presented in Section 3.4.3.1.8 (Impacts from Sonar and Other Active Acoustic Sources).

**Table H-6: Predicted Acoustic Impacts per Year on Marine Mammals from Annually Recurring Sonar and Other Active Acoustic Training and Testing Activities under Alternative 2 (Preferred Alternative)**

Species1	Training			Testing		
	Behavioral Reaction	TTS	PTS	Behavioral Reaction	TTS	PTS
<b>Mysticetes</b>						
Blue whale*	0	0	0	0	0	0
Bryde's whale	7	6	0	1	2	0
Minke whale	837	562	0	154	165	0
Fin whale*	39	23	0	6	8	0
Humpback whale*	19	14	0	4	5	0
North Atlantic right whale*	11	9	0	2	3	0
Sei whale*	18	13	0	3	4	0
<b>Odontocetes – Delphinids</b>						
Atlantic spotted dolphin	8,308	464	0	2,333	155	0
Atlantic white-sided dolphin	1	0	0	0	0	0
Bottlenose dolphin	6,637	259	0	1,710	92	0
Clymene dolphin	358	12	0	59	4	0
Common dolphin	5,484	205	0	1,302	71	0
False killer whale	2	0	0	1	0	0
Fraser's dolphin	11	0	0	2	0	0
Killer whale	173	7	0	46	3	0
Melon-headed whale	64	2	0	18	1	0
Pantropical spotted dolphin	688	28	0	164	11	0
Pilot whale	1,040	25	0	243	15	0
Pygmy killer whale	13	0	0	2	0	0
Risso's dolphin	2,625	93	0	686	40	0
Rough-toothed dolphin	20	1	0	5	0	0
Spinner dolphin	207	5	0	38	2	0
Striped dolphin	702	20	0	185	9	0
<b>Odontocetes – Sperm Whales</b>						
Sperm Whale*	41	1	0	10	0	0
<b>Odontocetes – Beaked Whales</b>						
Blainville's beaked whale	71	0	0	22	0	0
Cuvier's beaked whale	172	1	0	31	0	0
Gervais' beaked whale	360	2	0	67	1	0
Northern bottlenose whale	0	0	0	0	0	0
Sowerby's beaked whale	117	0	0	18	0	0
True's beaked whale	39	0	0	13	0	0
<b>Odontocetes – <i>Kogia</i> Species and Porpoises</b>						
Dwarf and pygmy sperm whales ( <i>Kogia</i> spp.)	6	57	0	1	16	0

PTS: permanent threshold shift; TTS: temporary threshold shift

\* ESA-listed species

<sup>1</sup> Species potentially present within the potential zone of impacts.

It should be noted that the analytical methods and data used to predict acoustic impacts on marine mammals differ between the Undersea Warfare Training Range OEIS/EIS and the AFTT EIS/OEIS due to emerging science and progressive refinements to modeling and analytical methods. As a result, the quantified acoustic impacts on marine mammals due to training and testing activities at the Undersea Warfare Training Range differ between the Undersea Warfare Training Range OEIS/EIS and the AFTT EIS/OEIS, even though the activities analyzed in both documents are the same or similar in scope and intensity. The differences are due to the following factors implemented in the AFTT EIS/OEIS acoustic analysis:

- *Animal density estimates:* Additional and emerging data have been incorporated into estimates of marine mammal densities (see Section 3.4.3.1.5.1, Marine Mammal Density). As a result, prior marine mammal density estimates have been refined, and densities have been estimated for all species potentially present in the zone of acoustic impacts around the Undersea Warfare Training Range. Density estimates were previously unavailable for some species.
- *Marine mammal auditory weighting functions:* Additional and emerging data have been incorporated into estimates of marine mammal hearing abilities. As a result, auditory weighting functions were developed for marine mammal functional hearing groups to emphasize frequencies of greater sensitivity and de-emphasize frequencies of lesser sensitivity in the acoustic impact analysis (see Section 3.4.3.1.4.2, Frequency Weighting). Auditory weighting functions were not previously applied.
- *Behavioral response threshold for beaked whales:* The threshold for behavioral response for beaked whales due to exposure to sonar and other active acoustic sources was set at 140 dB re 1  $\mu$ Pa sound pressure level (see Section 3.4.3.1.4.5, Behavioral Responses). Previously, the behavioral response function (i.e., “risk function”) was used to assess potential for behavioral response by beaked whales.
- *Acoustic modeling:* The Navy Acoustic Effects Model was developed to estimate the number of marine mammals exposed to underwater sounds produced during training and testing (see Section 3.4.3.1.5.3, Navy Acoustic Effects Model). The Navy Acoustic Effects Model considers multiple simultaneous sound sources, animal depth, and site-specific environmental and bathymetric characteristics. Previous estimates of exposures used area-density models.
- *Consideration of Avoidance:* The potential for marine mammals to avoid repeated high level sound exposures after an initial exposure and the potential for beaked whales to avoid high levels of naval activity (i.e., multiple ship traffic) associated with some activities was considered in the acoustic impact analysis (see Section 3.4.3.1.5.5, Marine Mammal Avoidance of Sound Exposures). The previous quantitative acoustic impact analysis assumed animals would tolerate high-level sound exposures and not exhibit any avoidance reactions.
- *Consideration of Mitigation:* The potential for mitigation to reduce high-level exposures was analyzed for certain activities based on ability to continuously observe mitigation zones (see Section 3.4.3.1.5.6, Implementing Mitigation to Reduce Sound Exposures). The previous quantitative acoustic impact analysis in the Undersea Warfare Training Range OEIS/EIS did not account for implementation of mitigation.

#### **H.4.4.2 Energy Stressors**

There are no proposed activities on the Undersea Warfare Training Range in the AFTT EIS/OEIS which involve energy stressors.

#### **H.4.4.3 Physical Disturbance and Strike Stressors**

The potential impacts on marine mammals due to physical disturbance and strike from Navy vessels, military expended materials, and in-water devices are analyzed in Section 3.4.3.3 (Physical Disturbance and Strike Stressors). Military expended materials would include subsurface targets, acoustic countermeasures, sonobuoys, and torpedo launch accessories on the Undersea Warfare Training Range. The potential impacts on marine mammals due to physical disturbance and strike on the Undersea Warfare Training Range would not differ from those described for the AFTT Study Area.

#### **H.4.4.4 Entanglement Stressors**

The potential for entanglement to marine mammals as a result of proposed training and testing activities is analyzed in Section 3.4.3.4 (Entanglement Stressors). Military expended materials due to training and testing activities on the Undersea Warfare Training Range that were analyzed for entanglement include: (1) fiber optic cables and guidance wires and (2) parachutes.

Under Alternative 2 (Preferred Alternative) there would be a maximum annual concentration of approximately 1 cable every 21 nm<sup>2</sup> due to training and 1 cable every 2 nm<sup>2</sup> due to testing (1 cable every 1.7 nm<sup>2</sup> combined) on the Undersea Warfare Training Range. There would also be a maximum annual concentration of 7 parachutes per nm<sup>2</sup> due to training and 4 parachutes per nm<sup>2</sup> due to testing (11 parachutes per nm<sup>2</sup> combined) on the Undersea Warfare Training Range. The potential impacts on marine mammals due to entanglement on the Undersea Warfare Training Range would not differ from those described for the AFTT Study Area.

#### **H.4.4.5 Ingestion Stressors**

The potential impacts on marine mammals due to ingestion stressors used during proposed training and testing activities are analyzed in Section 3.4.3.5 (Ingestion Stressors). Parachutes are the only military expended material during training and testing activities planned on the Undersea Warfare Training Range that have the potential to be ingested by marine mammals.

Under Alternative 2 (Preferred Alternative) there would be a maximum annual concentration of 7 parachutes per nm<sup>2</sup> due to training and 4 parachutes per nm<sup>2</sup> due to testing (11 parachutes per nm<sup>2</sup> combined) on the Undersea Warfare Training Range. The potential impacts on marine mammals due to ingestion on the Undersea Warfare Training Range would not differ from those described for the AFTT Study Area.

#### **H.4.4.6 Secondary Stressors**

Secondary stressors that may occur on the Undersea Warfare Training Range due to training and testing are metals and chemicals. The potential impacts on marine mammals due to secondary stressors are analyzed in Section 3.4.3.6 (Secondary Stressors). The potential impacts on marine mammals due to metals and chemicals as secondary stressors on the Undersea Warfare Training Range would not differ from those described for the AFTT Study Area.

### **H.4.5 SEA TURTLES AND OTHER MARINE REPTILES**

Sea turtles are the only marine reptiles that would be present within the Undersea Warfare Training Range. The following stressors are analyzed in this AFTT EIS/OEIS for potential impacts on sea turtles.

#### **H.4.5.1 Acoustic Stressors**

The only acoustic stressors that would be present at the Undersea Warfare Training Range due to training and testing activities are sonar and other active acoustic sources, vessel noise, and aircraft noise. There are no planned activities on the Undersea Warfare Training Range involving explosives, pile driving, swimmer defense air guns, or weapons firing, launch, or impact noise. The potential impacts of acoustic stressors on sea turtles from sonars and other active acoustic sources, vessel noise, and aircraft noise during training and testing activities are analyzed in Section 3.5.3.1 (Acoustic Stressors).

The potential impacts from vessel and aircraft noise on sea turtles during training and testing activities on the Undersea Warfare Training Range would not differ from those described for the AFTT Study Area.

Sonars and other active acoustic sources that would be used in the Undersea Warfare Training Range after construction are within the mid- and high-frequencies. Most of these sources are above the known hearing range of sea turtles. As a result, there are no model-predicted impacts on sea turtles (permanent threshold shift [PTS] or temporary threshold shift [TTS]) due to sonar and other active acoustic sources during training or testing activities on the Undersea Warfare Training Range.

#### **H.4.5.2 Energy Stressors**

There are no proposed activities on the Undersea Warfare Training Range in the AFTT EIS/OEIS which involve energy stressors.

#### **H.4.5.3 Physical Disturbance and Strike Stressors**

The potential impacts of physical disturbance and strike stressors on sea turtles from military expended materials, in-water devices, and Navy vessels are analyzed in Section 3.5.3.3 (Physical Disturbance and Strike Stressors). Military expended materials would include subsurface targets, acoustic countermeasures, sonobuoys, and torpedo launch accessories on the Undersea Warfare Training Range. The potential impacts on sea turtles due to physical disturbance and strike stressors during training and testing activities on the Undersea Warfare Training Range would not differ from those described for the AFTT Study Area.

#### **H.4.5.4 Entanglement Stressors**

The potential impacts on sea turtles due to entanglement as a result of training and testing activities are analyzed in Section 3.5.3.4 (Entanglement Stressors). Military expended materials due to training and testing activities on the Undersea Warfare Training Range that were analyzed for entanglement include: (1) fiber optic cables and guidance wires and (2) parachutes.

Under Alternative 2 (Preferred Alternative) there would be a maximum annual concentration of approximately 1 cable every 21 nm<sup>2</sup> due to training and 1 cable every 2 nm<sup>2</sup> due to testing (1 cable every 1.7 nm<sup>2</sup> combined) on the Undersea Warfare Training Range. There would also be a maximum annual concentration of 7 parachutes per nm<sup>2</sup> due to training and 4 parachutes per nm<sup>2</sup> due to testing (11 parachutes per nm<sup>2</sup> combined) on the Undersea Warfare Training Range. The potential impacts on sea turtles due to entanglement on the Undersea Warfare Training Range would not differ from those described for the AFTT Study Area.

#### **H.4.5.5 Ingestion Stressors**

The potential for impacts on sea turtles as a result of various types of ingestion stressors used during proposed training and testing activities are analyzed in Section 3.5.3.5 (Ingestion Stressors). Parachutes

are the only military expended material during training and testing activities planned on the Undersea Warfare Training Range that have the potential to be ingested by sea turtles.

Under Alternative 2 (Preferred Alternative) there would be a maximum annual concentration of 7 parachutes per  $\text{nm}^2$  due to training and 4 parachutes per  $\text{nm}^2$  due to testing (11 parachutes per  $\text{nm}^2$  combined) on the Undersea Warfare Training Range. The potential impacts on sea turtles due to entanglement on the Undersea Warfare Training Range would not differ from those described for the AFTT Study Area.

#### **H.4.5.6 Secondary Stressors**

Secondary stressors that may occur on the Undersea Warfare Training Range due to training and testing are metals and chemicals. The potential impacts on sea turtles due to secondary stressors are analyzed in Section 3.5.3.6 (Secondary Stressors). The potential impacts on sea turtles due to metals and chemicals as secondary stressors on the Undersea Warfare Training Range would not differ from those described for the AFTT Study Area.

### **H.4.6 BIRDS**

The following stressors are analyzed in this AFTT EIS/OEIS for potential impacts on birds.

#### **H.4.6.1 Acoustic Stressors**

The only acoustic stressors that would be present on the Undersea Warfare Training Range due to training and testing activities are sonar and other active acoustic sources, vessel noise, and aircraft noise. There are no planned activities on the Undersea Warfare Training Range involving explosives, pile driving, swimmer defense air guns, or weapons firing, launch, or impact noise. The potential impacts of acoustic stressors on birds from sonars and other active acoustic sources, vessel noise, and aircraft noise during training and testing activities are analyzed in Section 3.6.3.1 (Acoustic Stressors). The potential impacts from sonar and other active acoustic sources, vessel noise, and aircraft noise on birds during training and testing activities on the Undersea Warfare Training Range would not differ from those described for the AFTT Study Area.

#### **H.4.6.2 Energy Stressors**

There are no proposed activities on the Undersea Warfare Training Range in the AFTT EIS/OEIS which involve energy stressors.

#### **H.4.6.3 Physical Disturbance and Strike Stressors**

The potential impacts of physical disturbance and strike stressors on birds from aircraft, vessels (disturbance and strike), and military expended materials are analyzed in Section 3.6.3.3 (Physical Disturbance and Strike Stressors). The potential impacts on birds due to physical disturbance and strike stressors during training and testing activities on the Undersea Warfare Training Range would not differ from those described for the AFTT Study Area.

#### **H.4.6.4 Ingestion Stressors**

The potential for impacts on birds as a result of various types of ingestion stressors used during proposed training and testing activities is analyzed in Section 3.6.3.4 (Ingestion Stressors). However, all military expended materials resulting from training and testing activities on the Undersea Warfare Training Range are too large to be considered an ingestion risk for birds and no further analysis was conducted.

#### **H.4.6.5 Secondary Stressors**

The potential impacts on birds due to secondary stressors are analyzed in Section 3.6.3.5 (Secondary Stressors). The potential impacts on birds due to secondary stressors on the Undersea Warfare Training Range would not differ from those described for the AFTT Study Area.

#### **H.4.7 MARINE VEGETATION**

The following stressors are analyzed in this AFTT EIS/OEIS for potential impacts on marine vegetation.

##### **H.4.7.1 Acoustic Stressors**

There are no planned activities on the Undersea Warfare Training Range involving explosives, pile driving, swimmer defense air guns, or weapons firing, launch, or impact noise. The only acoustic stressors that would be present on the Undersea Warfare Training Range due to training and testing activities are sonar and other active acoustic sources, vessel noise, and aircraft noise; however, these stressors would have no impact on marine vegetation and no further analysis was conducted.

##### **H.4.7.2 Physical Disturbance or Strike Stressors**

The potential impacts of physical disturbance and strike stressors on marine vegetation by vessels, in-water devices, and military expended materials are analyzed in Section 3.7.3.2 (Physical Disturbance and Strike Stressors). Military expended materials would include subsurface targets, acoustic countermeasures, sonobuoys, and torpedo launch accessories on the Undersea Warfare Training Range. The potential impacts on marine vegetation due to physical disturbance and strike stressors during training and testing activities on the Undersea Warfare Training Range would not differ from those described for the AFTT Study Area.

##### **H.4.7.3 Secondary Stressors**

The potential impacts on marine vegetation due to secondary stressors are analyzed in Section 3.7.3.3 (Secondary Stressors). The potential impacts on marine vegetation due to secondary stressors on the Undersea Warfare Training Range would not differ from those described for the AFTT Study Area.

#### **H.4.8 MARINE INVERTEBRATES**

The following stressors are analyzed in this AFTT EIS/OEIS for potential impacts on marine invertebrates.

##### **H.4.8.1 Acoustic Stressors**

Acoustic stressors that would be present at the Undersea Warfare Training Range due to training and testing activities are sonar and other active acoustic sources, vessel noise, and aircraft noise. There are no planned activities on the Undersea Warfare Training Range involving explosives, pile driving, swimmer defense air guns, or weapons firing, launch, or impact noise. The potential impacts of acoustic stressors on marine invertebrates from sonars and other active acoustic sources, vessel noise, and aircraft noise during training and testing activities are analyzed in Section 3.8.3.1 (Acoustic Stressors). The potential impacts from acoustic stressors on marine invertebrates during training and testing activities on the Undersea Warfare Training Range would not differ from those described for the AFTT Study Area.

##### **H.4.8.2 Energy Stressors**

There are no proposed activities on the Undersea Warfare Training Range in the AFTT EIS/OEIS which involve energy stressors.

#### **H.4.8.3 Physical Disturbance and Strike Stressors**

The potential impacts of physical disturbance and strike stressors on marine invertebrates by vessels, in-water devices, and military expended materials are analyzed in Section 3.8.3.3 (Physical Disturbance and Strike Stressors). Military expended materials would include subsurface targets, acoustic countermeasures, sonobuoys, and torpedo launch accessories on the Undersea Warfare Training Range. The potential impacts on marine invertebrates due to physical disturbance and strike stressors during training and testing activities on the Undersea Warfare Training Range would not differ from those described for the AFTT Study Area.

#### **H.4.8.4 Entanglement Stressors**

The potential for entanglement on invertebrates as a result of proposed training and testing activities is analyzed in Section 3.8.3.4 (Entanglement Stressors). Military expended materials due to training and testing activities on the Undersea Warfare Training Range that were analyzed for entanglement include: (1) fiber optic cables and guidance wires and (2) parachutes.

Under Alternative 2 (Preferred Alternative) there would be a maximum annual concentration of approximately 1 cable every 21 nm<sup>2</sup> due to training and 1 cable every 2 nm<sup>2</sup> due to testing (1 cable every 1.7 nm<sup>2</sup> combined) on the Undersea Warfare Training Range. There would also be a maximum annual concentration of 7 parachutes per nm<sup>2</sup> due to training and 4 parachutes per nm<sup>2</sup> due to testing (11 parachutes per nm<sup>2</sup> combined) on the Undersea Warfare Training Range. The potential impacts on marine invertebrates from entanglement on the Undersea Warfare Training Range would not differ from those described for the AFTT Study Area.

#### **H.4.8.5 Ingestion Stressors**

The potential for impacts on invertebrates as a result of various types of ingestion stressors used during proposed training and testing activities is analyzed in Section 3.8.3.5 (Ingestion Stressors). Parachutes are the only military expended material used during training and testing activities planned on the Undersea Warfare Training Range that may be considered ingestion stressors.

Under Alternative 2 (Preferred Alternative) there would be a maximum annual concentration of 7 parachutes per nm<sup>2</sup> due to training and 4 parachutes per nm<sup>2</sup> due to testing (11 parachutes per nm<sup>2</sup> combined) on the Undersea Warfare Training Range. Due to the relatively large size of the military expended materials resulting from training and testing activities on the Undersea Warfare Training Range (subsurface targets, acoustic countermeasures, sonobuoys, and torpedo launch accessories), it is unlikely that these items would be ingested by invertebrates.

#### **H.4.8.6 Secondary Stressors**

The potential impacts on marine invertebrates due to secondary stressors are analyzed in Section 3.8.3.6 (Secondary Stressors). The potential impacts on marine invertebrates due to secondary stressors on the Undersea Warfare Training Range would not differ from those described for the AFTT Study Area.

#### **H.4.9 FISH**

The following stressors are analyzed in this AFTT EIS/OEIS for potential impacts on fish.



#### **H.4.9.1 Acoustic Stressors**

Acoustic stressors that would be present at the Undersea Warfare Training Range due to training and testing activities are sonar and other active acoustic sources, vessel noise, and aircraft noise. There are no planned activities within the Undersea Warfare Training Range involving explosives, pile driving, swimmer defense air guns, or weapons firing, launch, or impact noise. The potential impacts of acoustic stressors on fish from sonars and other active acoustic sources, vessel noise, and aircraft noise during training and testing activities are analyzed in Section 3.9.3.1 (Acoustic Stressors). The potential impacts from acoustic stressors on fish during training and testing activities on the Undersea Warfare Training Range would not differ from those described for the AFTT Study Area.

#### **H.4.9.2 Energy Stressors**

There are no proposed activities on the Undersea Warfare Training Range in the AFTT EIS/OEIS which involve energy stressors.

#### **H.4.9.3 Physical Disturbance and Strike Stressors**

The potential impacts of physical disturbance and strike stressors on fish by vessels, in-water devices, and military expended materials are analyzed in Section 3.9.3.3 (Physical Disturbance and Strike Stressors). Military expended materials would include subsurface targets, acoustic countermeasures, sonobuoys, and torpedo launch accessories on the Undersea Warfare Training Range. The potential impacts on fish due to physical disturbance and strike stressors during training and testing activities on the Undersea Warfare Training Range would not differ from those described for the AFTT Study Area.

#### **H.4.9.4 Entanglement Stressors**

The potential for entanglement to fish as a result of proposed training and testing activities is analyzed in Section 3.9.3.4 (Entanglement Stressors). Military expended materials due to training and testing activities on the Undersea Warfare Training Range that were analyzed for entanglement include: (1) fiber optic cables and guidance wires and (2) parachutes.

Under Alternative 2 (Preferred Alternative) there would be a maximum annual concentration of approximately 1 cable every 21 nm<sup>2</sup> due to training and 1 cable every 2 nm<sup>2</sup> due to testing (1 cable every 1.7 nm<sup>2</sup> combined) on the Undersea Warfare Training Range. There would also be a maximum annual concentration of 7 parachutes per nm<sup>2</sup> due to training and 4 parachutes per nm<sup>2</sup> due to testing (11 parachutes per nm<sup>2</sup> combined) on the Undersea Warfare Training Range. The potential impacts on fish from entanglement on the Undersea Warfare Training Range would not differ from those described for the AFTT Study Area.

#### **H.4.9.5 Ingestion Stressors**

The potential for impacts on fish as a result of various types of ingestion stressors used during proposed training and testing activities is analyzed in Section 3.9.3.5 (Ingestion Stressors). Parachutes are the only military expended material used during training and testing activities planned on the Undersea Warfare Training Range that may be considered ingestion stressors.

Under Alternative 2 (Preferred Alternative) there would be a maximum annual concentration of 7 parachutes per nm<sup>2</sup> for training and 4 parachutes per nm<sup>2</sup> for testing (11 parachutes per nm<sup>2</sup> combined) on the Undersea Warfare Training Range. Due to the relatively large size of the military expended materials resulting from training and testing activities on the Undersea Warfare Training

Range (subsurface targets, acoustic countermeasures, sonobuoys, and torpedo launch accessories), it is unlikely that these items would be ingested by fish.

#### **H.4.9.6 Secondary Stressors**

The potential impacts on fish due to secondary stressors are analyzed in Section 3.9.3.6 (Secondary Stressors). The potential impacts on fish due to secondary stressors on the Undersea Warfare Training Range would not differ from those described for the AFTT Study Area.

### **H.5 CONCLUSION**

Potential impacts from training and testing on the Undersea Warfare Training Range were analyzed in this AFTT EIS/OEIS and are similar in scope and intensity to activities in the JAX Range Complex and throughout the AFTT Study Area.

Cumulative impacts due to training and testing activities at the Undersea Warfare Training Range would be similar in scope and intensity as those cumulative impacts analyzed in Chapter 4 (Cumulative Impacts) of this AFTT EIS/OEIS.

Mitigation measures would be identical for activities on the Undersea Warfare Training Range to those presented in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of this AFTT EIS/OEIS. Mitigation measures would further reduce potential effects below what is predicted in this EIS/OEIS.