# APPENDIX H AIR QUALITY EMISSIONS CALCULATIONS



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# **Final**

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

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# **Acronyms and Abbreviations**

AESO Aircraft Environmental Support Office
AFTT Atlantic Fleet Training and Testing

CO carbon monoxide CO<sub>2</sub> carbon dioxide

CO₂e carbon dioxide equivalent

DE Delaware

EIS Environmental Impact Statement
EPA Environmental Protection Agency

FL Florida GA Georgia

HC hydrocarbons
JAX Jacksonville

JEB Joint Expeditionary Base

lb/hr pounds per hour MA Massachusetts

ME Maine

NS

mph miles per hour

MS Mississippi

MT metric ton

NAVAIR Naval Air Systems

NAVSEA Naval Sea Systems

NC North Carolina

NJ New Jersey

NM nautical mile

NO<sub>x</sub> nitrogen oxides

NSB Naval Submarine Base

NSWC Naval Surface Warfare Center
NUWC Naval Undersea Warfare Center

**Naval Station** 

OEIS Overseas Environmental Impact Statement

ONR Office of Naval Research

OPAREA Operations Area

RONA Record of Non-Applicability

 $PM_{10}$  particulate matter less than or equal to 10 microns in diameter  $PM_{2.5}$  particulate matter less than or equal to 2.5 microns in diameter

Pt Point

RC Range Complex
RI Rhode Island

SEIS Supplemental EIS

SFOMF South Florida Ocean Measurement Facility Testing Range

 $\begin{array}{ll} \text{SINKEX} & \text{Sinking Exercise} \\ \text{SO}_2 & \text{sulfur dioxide} \\ \text{SO}_X & \text{sulfur oxides} \\ \text{TPY} & \text{tons per year} \end{array}$ 

TX Texas

U.S. United States

USCG United States Coast Guard

VA Virginia

VACAPES Virginia Capes

VOC volatile organic compound

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# H AIR QUALITY EMISSIONS CALCULATIONS

#### H.1 AIR QUALITY EMISSIONS CALCULATIONS

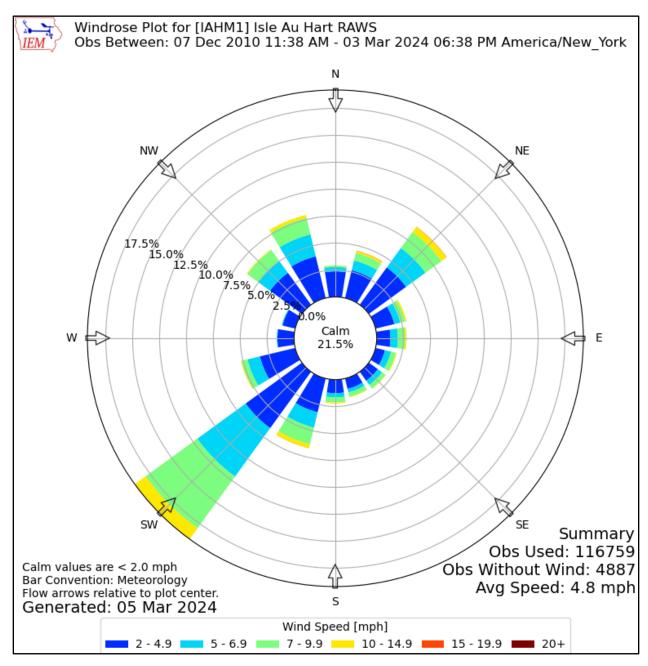


Figure H-1: Island 30 Miles Southwest of Bar Harbor

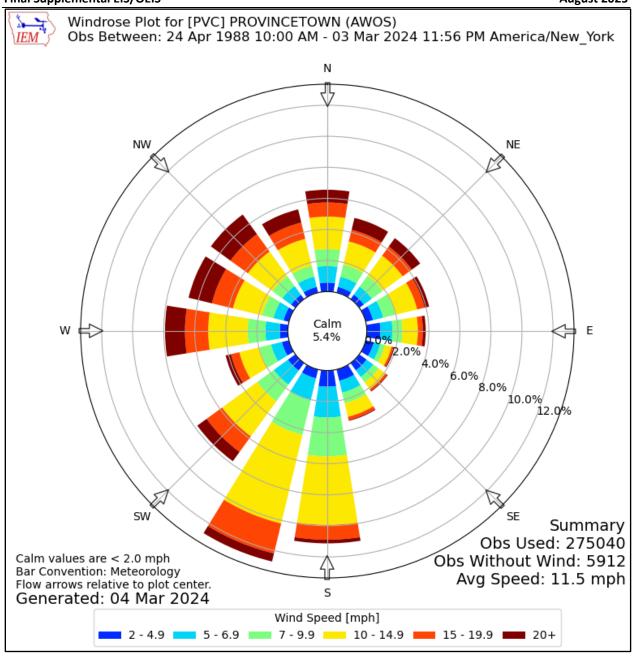


Figure H-2: Northern Tip of Cape Cod

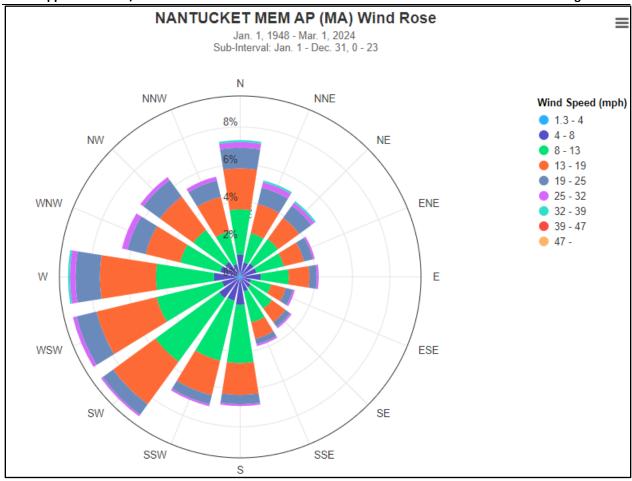


Figure H-3: Directly Between the Boston and Narragansett Bay Operating Areas

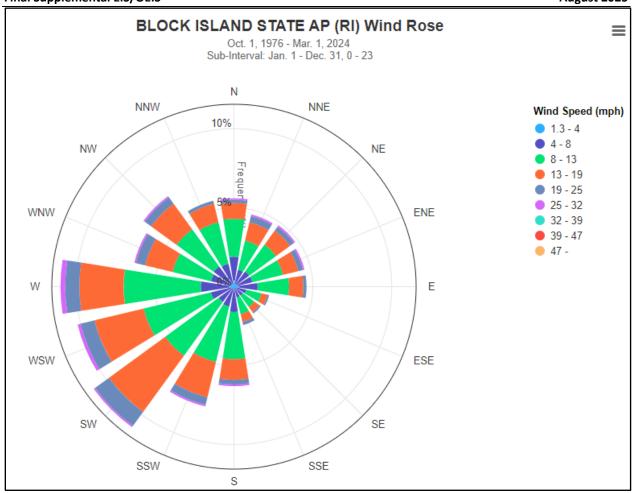


Figure H-4: On the Inshore Boundary of the Narragansett Bay Operating Area

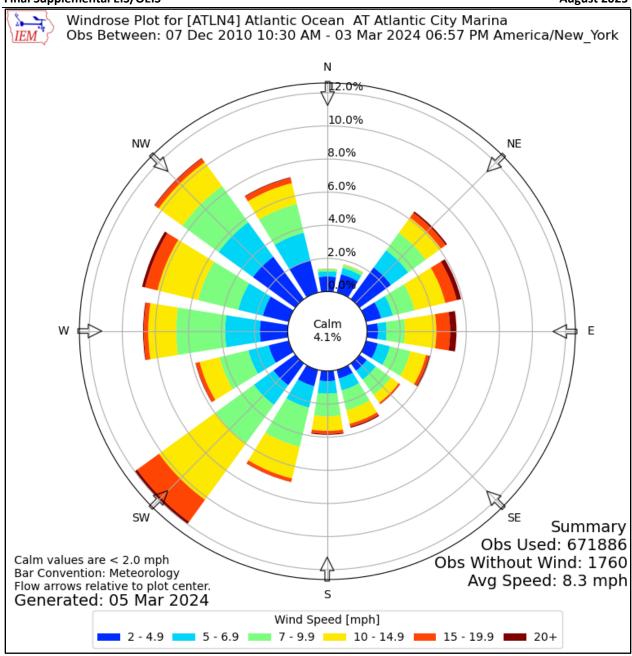


Figure H-5: Site Is 1 Mile from the Coast Inside the Atlantic City Marina Entrance Channel

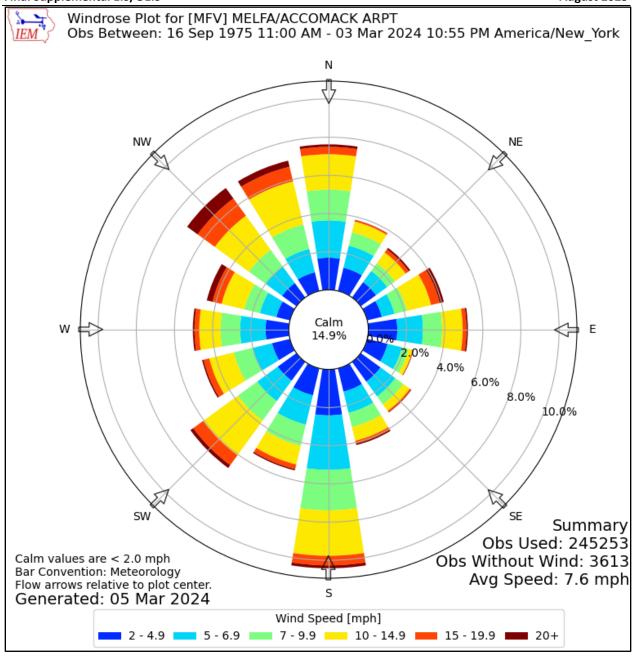


Figure H-6: Fifty Miles North/Northeast of Virginia Beach and East of Chesapeake Bay

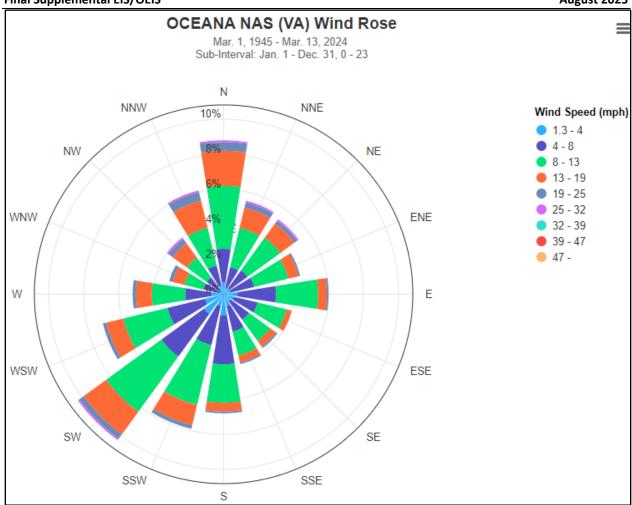


Figure H-7: On the Coast at Virginia Beach

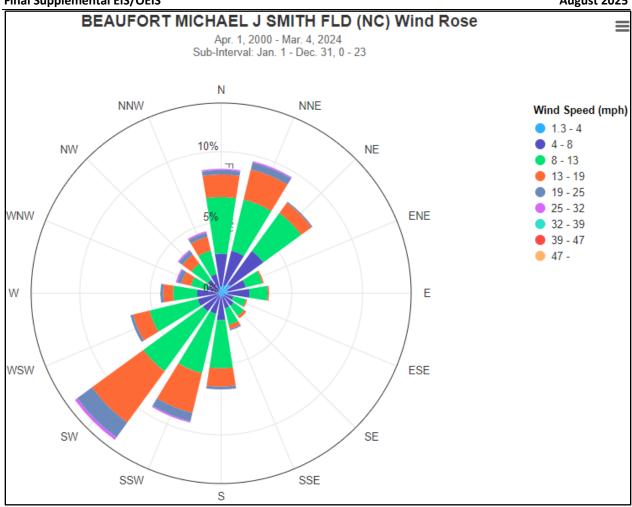


Figure H-8: Central North Carolina – 72 Miles Southwest of Cape Hatteras

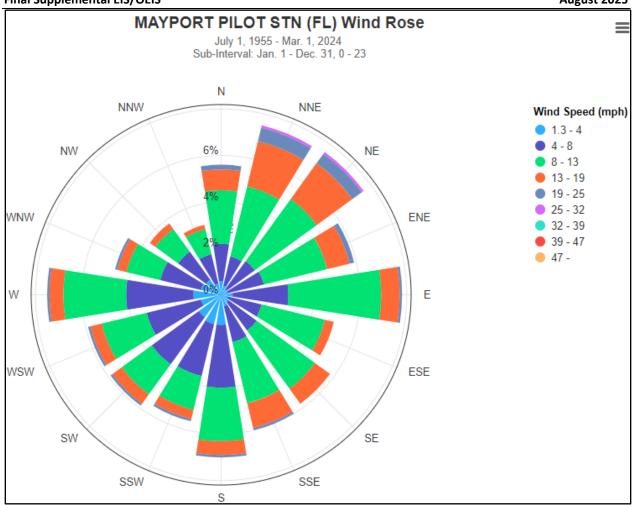


Figure H-9: Directly on the Coast East Of Jacksonville

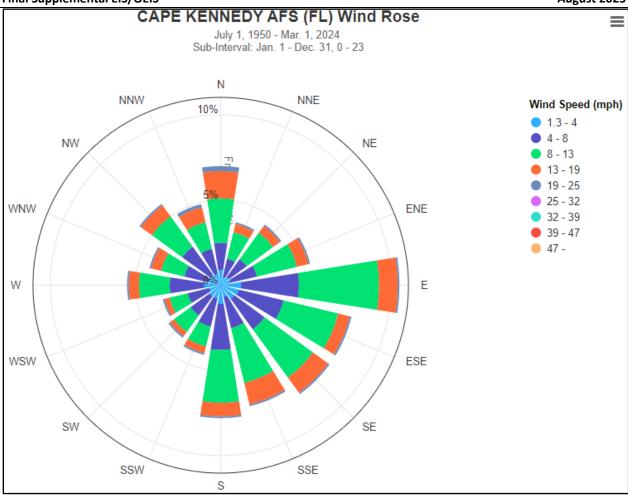


Figure H-10: On the Beach at Cape Canaveral

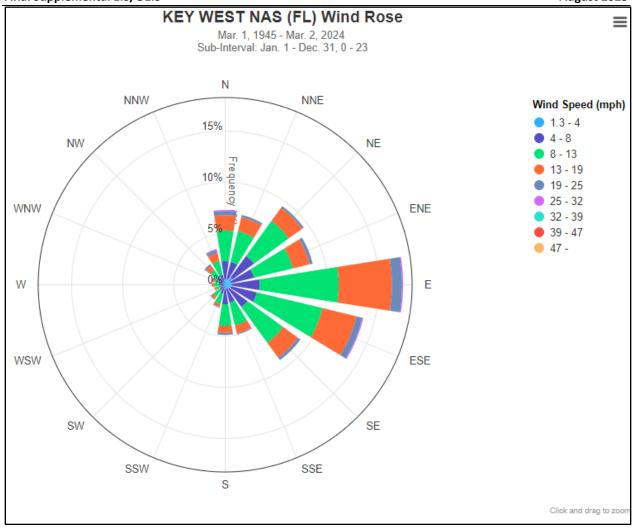


Figure H-11: A Few Miles North of the Key West Operating Area, Elevation 6 Feet Mean Sea Level

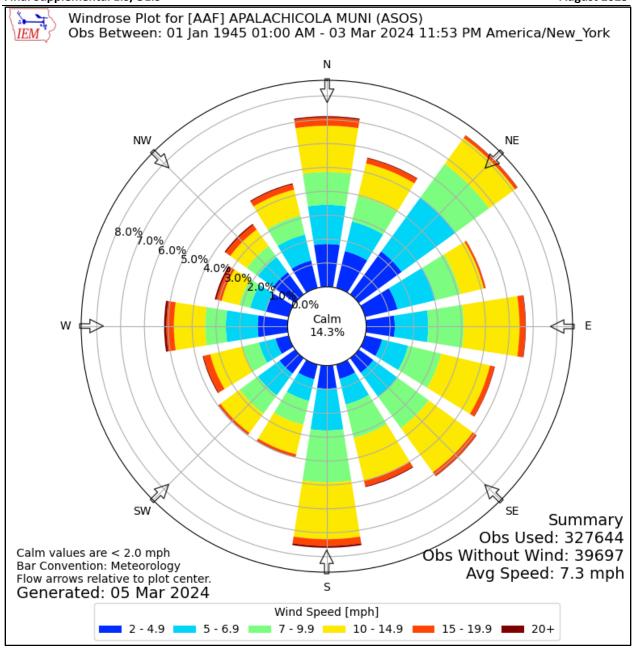


Figure H-12: Site Is on the Coast and Directly North of the Boundary of the Panama City
Operating Area

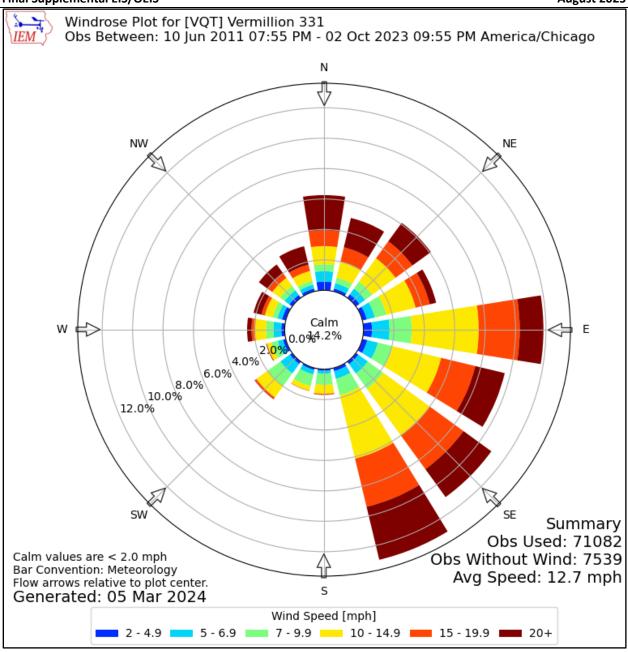


Figure H-13: This Site Is 132 Miles Southwest of Morgan City and Just West of the New Orleans Operating Area

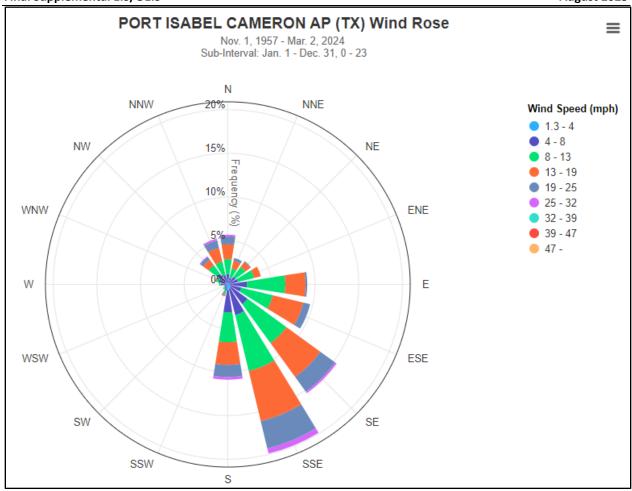


Figure H-14: On the Beach 20 Miles Northeast of Brownsville

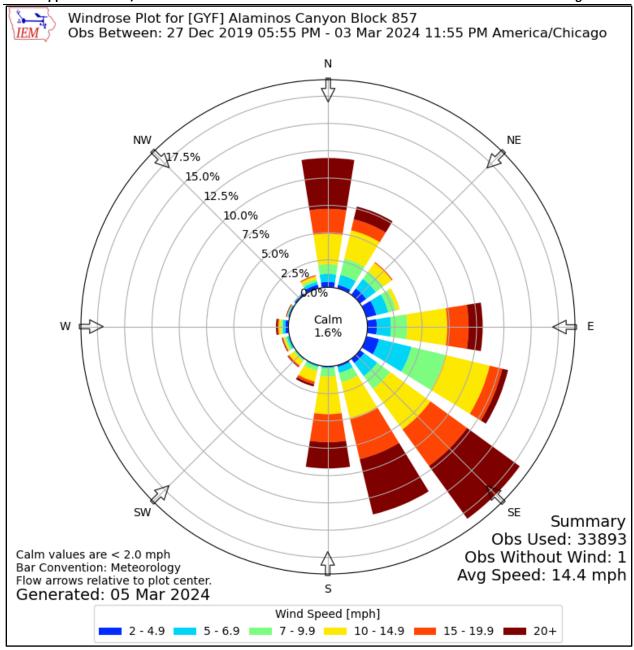


Figure H-15: A Few Miles East of the Center of the Corpus Christi Operating Area

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Table H-1: Current and Proposed Navy, Marine Corps, and U.S. Coast Guard Training Activities

	004054	•		1	Events by Projec		2 (D)
Activity/	OPAREA		tions (Phase III)		1 (Phase IV)	Alternative	
		Fleet Training	USCG Training	Fleet Training	USCG Training	Fleet Training	USCG Training
Major Training Exercise - Large	Northeast	<u> </u>	Τ	T .	T .	I	
	VACAPES	2		2		3	
	Cherry Pt	2		2		3	
Composite Training Unit	JAX	2		2		3	
	Key West	2		2		3	
Exercise	Gulf Range Complex					1	
	Other AFTT Areas					1	
	Total	6		6		10	
Major Training Exercise - Med						10	
viajor frammig Exercise ivica	Northeast	T	l .	I	1	1	
	VACAPES	6		2		2	
	Cherry Pt	6		2		2	
	JAX	6		2		2	
Sustainment Exercise	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	18		6		6	
Small Integrated ASW Training		10					
man integrated MOVV ITAIIIIII	Northeast			1			
	VACAPES	6		2		2	
	Cherry Pt	6		2		2	
Navy Undersea Warfare	JAX	6		2		2	
Training Assessment Course	Key West	0					
Training Assessment Course	Gulf Range Complex			1	1	1	
	Other AFTT Areas						
	Total	18		6		6	
		18		В		O	
	Northeast	-		2		2	
	VACAPES	6		2		2	
	Cherry Pt	6		2		2	
Surface Warfare Advanced	JAX	6		2		2	
Tactical Training	Key West						
	Gulf Range Complex						
	Other AFTT Areas	10					
Andione Considerated ACM To-	Total	18		6		6	
Medium Coordinated ASW Tra	ı	<u> </u>	I	1	1	1	
	Northeast	1		4			
	VACAPES	1		1			
	Cherry Pt	1					
Anti-Submarine Warfare	JAX	2		1			
Tactical Development Exercise							
	Gulf Range Complex						
	Other AFTT Areas						
	Total	4		2			
Small Coordinated ASW Traini	_		I	ı	I	I	
	Northeast			_		_	
	VACAPES Charman Bt	5		5		5	
	Cherry Pt	5		4	1	4	
Group Sail	JAX	4		5		5	
	Key West			1	1		
	Gulf Range Complex			1	1		
	Other AFTT Areas						
	Total	14		14	1	14	
	Northeast			1	1		
	VACAPES	_			1		
. , , ,	Cherry Pt	5		1		1	
Marine Expeditionary Unit Composite Training Unit Exercise	JAX			ļ			
	Key West			1	1		
	Gulf Range Complex			1	1		
	Other AFTT Areas						
	Total	5		1		1	
Air Warfare			1	ı	T	ı	
	Northeast			ļ	ļ		
	VACAPES	1,200		1,200		1,200	
	Cherry Pt	1,155		1,925		1,925	
Air Combat Maneuvers	JAX	1,270		1,270		1,270	
All Collinat Malledvels	Key West	6,300		6,300		6,300	
	Gulf Range Complex						
	Other AFTT Areas						
	Total	9,925		10,695		10,695	

Table H-1: Current and Proposed Navy, Marine Corps, and U.S. Coast Guard Training Activities (continued)

Northeast	/				raining Activity Events by Project			
Morthead	Activity/	OPAREA					Alternative 2 (Phase IV)	
Avr Defense Exercise Avr Defense Exercise Cherry PP Avr Defense Cherry PP Avr Defense Exercise Cherry PP Avr Defense Exercis		Ni - ukla k	Fleet Training	USCG Training	Fleet Training	USCG Training	Fleet Training	USCG Training
Air Defense Exercise   Cherry PF			2.425		2.425		2.425	
Air Defense Exercise   Air Defense Exercise   Exercise   Court angle Complex   Section   Secti			-		·		·	
Key Wort		-						
Suffixed Complex   S5   S5   S5   S5   S5   S5   S5   S	Air Defense Exercise		5,157		938		938	
Other AFTT Areas			0.5		O.F.		O.F.	
Total			85		85		85	
Moutheast			42.022		6.040		6.040	
VACAPES			13,833		6,049		6,049	
Commery Exercise Air-to-Air   Amelian Calibre			420		00		00	
Sumery Exercise Air to Air   Max								
Medium Caliber								
Gulf Range Complex								
Other AFTT Areas	Medium Caliber		70		20		20	
Total								
Mortheast								
VACAPES			305		180		180	
Cherry Pt								
Small-Caliber   Small-Calibe					5		5	
Small-Caliber   Sey West   Sey Mest   Sey State   Se								
Guif Range Complex					5		5	
Other AFTT Areas	Small-Caliber							
Total								
Northeast								
Missile Exercise Air-to-Air Missile Exercise Air-to-Air Missile Exercise Surface-to-Air Air Large Calibrer  Gunnery Exercise Surface-to-Air Air Large Calibrer  Air Medium Calibrer  Ai					10		10	
Cherry Pt		Northeast						
Missile Exercise Air-to-Air   Air		VACAPES	40				16	
Missile Exercise Air-Io-Air   Key West   8   16   30   30   30   30   30   30   30   3		Cherry Pt	48		15		15	
Rey West	Missila Evaraisa Air ta Air	JAX	48		15		15	
Other AFTT Areas	Missile Exercise Air-to-Air	Key West	8		16		16	
Total		Gulf Range Complex			30		30	
Northeast		Other AFTT Areas						
MACAPES		Total	144		92		92	
Cherry Pt		Northeast						
AX		VACAPES	25		25	20	25	20
AX		Cherry Pt						
Air Large Caliber Gulf Range Complex Other AFTT Areas Total Air Medium Caliber Air Medium	Gunnery Exercise Surface-to-		7		10	5	10	5
Gulf Range Complex   Other AFTT Areas   Other AFT								
Other AFTT Areas   32   35   25   35   25   25   35   25   35   25   35   25   35   25   35   25   35   25   35   25   35   25   35   25   35   25   35   25   35   25   35   25   35   25   35   25   35   25   35   3								
Mortheast								
VACAPES		Total	32		35	25	35	25
VACAPES		Northeast						
Gunnery Exercise Surface-to- Air Medium Caliber  Air Defense System  Air Defense Syste			59		36	3	36	3
Sunnery Exercise Surface-to-Air Medium Caliber   Sun Farrage   Sunnery Exercise Surface   Sunface   Sunf								
Air Medium Caliber Gulf Range Complex Other AFTT Areas Total  Air Defense System Air Defense System Air Defense System Avaval Surface Fire Supprot Exercise - Land-Based Target  Northeast  Key West Gulf Range Complex 123 65 5 65 5 65 5 65 5 65 5 65 5 65 5 65	Gunnery Exercise Surface-to-					2		2
Gulf Range Complex	•					_		_
Other AFTT Areas   10	, , ca.a ca.a.c.							
Total   123   65   5   65   5   5   5   5   5   5			10					
Northeast					65	5	65	5
VACAPES   30   36   36   36						<del></del>		
Cherry Pt								
Section   Sect								
Key West		ΙΔΧ						
Gulf Range Complex   2   2   2   2   2   2   2   2   2	Missile Exercise Surface-to-Air							
Other AFTT Areas			2		2		2	
Total								
Northeast			/11		ΛQ		ΛQ	
VACAPES			41	1	40		40	
Cherry Pt   5	Missila Fugusias Mass Doubelele							
Missile Exercise Man-Portable Air Defense System       Key West			Е	1	1/		1/	
Air Defense System       Key West       ————————————————————————————————————			3	1	14		14	
Gulf Range Complex   Other AFTT Areas   Total   5   14   14								
Other AFTT Areas	Air Defense System							
Total   5								
Northeast			-	ļ	4.4		4.4	
Northeast   VACAPES	Amount this NAT	Lotai	5	<u> </u>	14		14	<u> </u>
Naval Surface Fire Support         JAX         13         13           Exercise - Land-Based Target         Key West         Gulf Range Complex	Amphibious Warfare	Nowher			ı	I	ı	I
Naval Surface Fire Support Exercise - Land-Based Target  Cherry Pt  13  13  13  13  IAX  Key West  Gulf Range Complex								
Naval Surface Fire Support Exercise - Land-Based Target  Key West Gulf Range Complex			10		4.2		4.2	
Exercise - Land-Based Target Key West Gulf Range Complex		· · · · · · · · · · · · · · · · · · ·	13		13		13	
Gulf Range Complex								
	Exercise - Land-Based Target							
Other AFTT Areas								
Total 13 13 13		Total	13		13		13	

Table H-1: Current and Proposed Navy, Marine Corps, and U.S. Coast Guard Training Activities (continued)

		Annual Training Activity Events by Project				t Scenario	
Activity/OPAREA			ions (Phase III)		1 (Phase IV)		2 (Phase IV)
		Fleet Training	USCG Training	Fleet Training	USCG Training	Fleet Training	<b>USCG Training</b>
	Northeast						
	VACAPES	38		19		19	
	Cherry Pt	2		2		2	
Naval Surface Fire Support Exercise - at Sea	JAX	12		6		6	
Exercise - at Sea	Key West Gulf Range Complex	4		2		2	
		4		2			
	Other AFTT Areas Total	56		29		29	
	Northeast	30		29		29	
	VACAPES						
Amphibious Ready Group	Cherry Pt	5		1		1	
Marine Expeditionary Unit	JAX			<u> </u>			
Composite Training Unit	Key West						
Exercise	Gulf Range Complex						
	Other AFTT Areas						
	Total	5		1		1	
	Northeast			_			
	VACAPES						
	Cherry Pt	5		5		5	
Anna I di di	JAX						
Amphibious Assault	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	5		5		5	
	Northeast						
	VACAPES			12		12	
	Cherry Pt			45		45	
Amphibious Operations in a	JAX						
Contested Environment	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total			57		57	
	Northeast						
	VACAPES						
	Cherry Pt	34		34		34	
Amphibious Raid	JAX	20		20		20	
p - 2 - 2 - 2 - 2	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	54		54		54	
	Northeast						
	VACAPES			4			
N 6 1 15 11	Cherry Pt	1		1		1	
Non-Combat Evacuation	JAX						
Operation	Key West	+					
	Gulf Range Complex Other AFTT Areas	+					
	Total	1		1		1	
	Northeast	1		1		1	
	VACAPES						
	ol 5:	1		1		1	
Amphibious Squadron Marine	IAV	1		1		1	
Expeditionary Unit Integration	Key West						
Training	Gulf Range Complex						
	Other AFTT Areas						
	Total	1		1		1	
Amphibious Vehicle	Northeast	<del>                                     </del>		<del>-</del>		<u> </u>	
	VACAPES RC Inshore			256		256	
	VACAPES	186		46		46	
	Cherry Pt	100					
	JAX	2		2		2	
Maneuvers	Key West	<del>                                     </del>		_		_	
	Gulf Range Complex						
		+					
	Other AFTT Areas						

Table H-1: Current and Proposed Navy, Marine Corps, and U.S. Coast Guard Training Activities (continued)

	(OD 4 D 5 -	Annual Training Activity Events by Project Scenario					o /p!
Activity/OPAREA			Current Conditions (Phase III)  Fleet Training USCG Training		1 (Phase IV)	Alternative 2 (Phase IV)  Fleet Training USCG Training	
Surface Warfare		Fleet Training	USCG Training	Fleet Training	USCG Training	Fleet Training	USCG Training
Surface warrare	Northeast RC Inshore	13	1	13		13	
	Northeast	13		15	50	13	55
	VACAPES RC Inshore			374		374	
	VACAPES	895		521	498	521	548
	Cherry Pt	75		75	116	75	128
Maritime Security Operations				45		45	
, .	JAX	210		165	149	165	164
	Key West				50		55
	Gulf Range Complex	59		59	89	59	98
	Other AFTT Areas						
	Total	1,252		1,252	952	1,252	1,048
	Northeast				1		1
	VACAPES	450		180		180	
	Cherry Pt	20		12		12	
•	JAX	300		120		120	
Surface Ship Small Caliber	Key West						
	Gulf Range Complex	10		4	4	4	4
	Other AFTT Areas	50		20	1	20	1
	Total	830		336	6	336	6
	Northeast						
	VACAPES	321		319	100	319	100
	Cherry Pt	72		70	20	70	20
Gunnery Exercise Surface-to-		161		110	40	110	40
Surface Ship Medium Caliber		22		24	43	24	12
	Gulf Range Complex	33		34	12	34	12
	Other AFTT Areas	41		40	170	40 572	170
	Total	628		573	172	573	172
	Northeast VACAPES	75		63	15 20	63	15 20
	Cherry Pt	35		34	10	34	10
Cumpary Eversica Surface to		51		46	15	46	15
Gunnery Exercise Surface-to- Surface Ship Large Caliber	Key West	31		40	13	40	13
Surface Ship Large Camber	Gulf Range Complex	9		8	29	8	29
	Other AFTT Areas	10		9	23	9	23
	Total	180		160	89	160	89
	Northeast	18		6	05	6	03
	VACAPES	330		213	20	213	20
	Cherry Pt	92		28	2	28	2
Gunnery Exercise Surface-to-		84		25	6	25	6
	Key West	<u> </u>					
	Gulf Range Complex	67		21	11	21	11
	Other AFTT Areas						
	Total	591		293	39	293	39
	Northeast	2		2	11	2	11
	VACAPES	260		404		404	
	Cherry Pt	128		128	7	128	7
Gunnery Exercise Surface-to-		26		26	7	26	7
Surface Boat Medium Caliber					7		7
	Gulf Range Complex	6		6	7	6	7
	Other AFTT Areas						
	Total	422		566	39	566	39
	Northeast						
	VACAPES	12		15		15	
	Cherry Pt						
Missile Exercise Surface-to-	JAX	16		19		19	
Surface	Key West						
	Gulf Range Complex						
	Other AFTT Areas				ļ		
	Total	28		34	<b></b>	34	
Small Boat Attack	Northeast			_			
	VACAPES	25		30	ļ	30	
	Cherry Pt	~=			<u> </u>		
	JAX	25		15	<u> </u>	15	
	Key West				<del> </del>		
	Gulf Range Complex				<u> </u>		
	Other AFTT Areas				<u> </u>		
	Total	50		45	<u> </u>	45	
	Northeast	===		222	<u> </u>	202	
	VACAPES	560		300	<u> </u>	300	
	Cherry Pt	130		71	-	71	
Gunnery Exercise Air-to-	JAX	200		108	<u> </u>	108	
Surface Small Caliber	Key West				<u> </u>		
	Gulf Range Complex				<u> </u>		1
	Other AFTT Areas			4=-	<u> </u>	4	
	Total	890		479		479	

Table H-1: Current and Proposed Navy, Marine Corps, and U.S. Coast Guard Training Activities (continued)

					vents by Project			
Activity/OPAREA		Current Conditions (Phase III)			1 (Phase IV)	Alternative 2 (Phase IV)		
		Fleet Training	USCG Training	Fleet Training	<b>USCG Training</b>	Fleet Training	<b>USCG Training</b>	
	Northeast				25		25	
	VACAPES	720		720	10	720	10	
	Cherry Pt	395		395	10	395	10	
Gunnery Exercise Air-to-	JAX	495		490	30	490	30	
Surface Medium Caliber	Key West							
	Gulf Range Complex	30		30	10	30	10	
	Other AFTT Areas							
	Total	1,640		1,635	85	1,635	85	
	Northeast							
	VACAPES	92		100		100		
	Cherry Pt	10		15		15		
Missile Exercise Air-to-Surface		102		115		115		
Rocket	Key West							
	Gulf Range Complex	10		10		10		
	Other AFTT Areas							
	Total	214		240		240		
	Northeast							
	VACAPES	88		83		83		
	Cherry Pt	52		72		72		
Missile Exercise Air-to-Surface	JAX	102		81		81		
THE EVEL CISE WILL FOR SMILLING	Key West			8		8		
	Gulf Range Complex							
	Other AFTT Areas							
	Total	242		244		244		
	Northeast							
	VACAPES	329		272				
	Cherry Pt	108		73		272		
Bombing Exercise Air-to-	JAX	434		260		73		
Surface	Key West					260		
	Gulf Range Complex	67		47				
	Other AFTT Areas					47		
	Total	938		652		652		
	Northeast							
	VACAPES	2		2		2		
	Cherry Pt							
	JAX	2		2		2		
Integrated Live Fire Exercise	Key West							
	Gulf Range Complex							
	Other AFTT Areas							
	Total	4		4		4		
	Northeast							
	VACAPES	272		286	4	286	4	
	Cherry Pt							
	JAX	315		330	4	330	4	
Laser Targeting - Aircraft	Key West							
	Gulf Range Complex							
	Other AFTT Areas							
	Total	587		616	8	616	8	
	Northeast	307		010	- G	010	J	
	VACAPES	4		4		4		
	Cherry Pt	†		· ·		· ·		
	JAX	4		4		4		
Laser Targeting - Ship	Key West	7		-T		т		
	Gulf Range Complex	+						
	Other AFTT Areas	+						
	Total	8		8		8		
	Northeast	•		0		0		
	VACAPES	+		10		10		
	Cherry Pt	+		10		10		
Long Dange Unmanned	JAX			10		10		
Long Range Unmanned				10		10		
Surface Vessel Training	Key West	+						
	Gulf Range Complex							
	Other AFTT Areas			20		20		
	Total			20		20		
	Northeast							
	VACAPES Charma Dt							
	Cherry Pt	1		4		4		
	SINKEX Box	1		1		1		
Sinking Exercise	JAX							
	Key West	-						
	Gulf Range Complex							
	Other AFTT Areas							
4	Total	1	Ī	1		1		

Table H-1: Current and Proposed Navy, Marine Corps, and U.S. Coast Guard Training Activities (continued)

			Annual Ti	raining Activity I	Events by Project	t Scenario	
Activity/OPAREA		Current Conditions (Phase III)		raining Activity Events by Projec Alternative 1 (Phase IV)		Alternative 2 (Phase IV)	
					USCG Training		
Anti-Submarine Warfare				8			9000
	Northeast	6		6		6	
Anti-Submarine Warfare	VACAPES	2		2		2	
Torpedo Exercise – Submarine	JAX	12		12		12	
	Total	20		20		20	
	Northeast	18		18		18	
A .: C 1	VACAPES	6		6		6	
Anti-Submarine Warfare	Cherry Pt	1		1		1	
Tracking Exercise – Submarine + Anti-Submarine Warfare				2		2	
Torpedo Exercise – Submarine	JAX	13		13		13	
	G 11.10.7 11.17 11.00.0	44		44		44	
	Total	82		84		84	
	Northeast						<u> </u>
	VACAPES	5		5		5	<u> </u>
	Cherry Pt	1.5		1.5	ļ	1.5	<del> </del>
Anti-Submarine Warfare	JAX	16		16		16	
Torpedo Exercise – Ship	Key West					<u> </u>	<del>                                     </del>
	Gulf Range Complex						
	Other AFTT Areas Total	21		21	<u> </u>	21	+
	Northeast	21 5	+	21 5	<del>                                     </del>	21 5	+
	VACAPES	220	<del> </del>	120	<del>                                     </del>	220	+
	Cherry Pt	55		33		55	
Anti-Submarine Warfare	JAX	440	1	290		440	+
Tracking Exercise – Ship	Key West	440		290		440	
Tracking Exercise Ship	Gulf Range Complex	5		5		5	+
	Other AFTT Areas	110		55		110	+
	Total	835		508		835	
	Northeast			333			
	VACAPES	4		4		4	
	Cherry Pt						
Anti-Submarine Warfare	JAX	14		14		14	
Torpedo Exercise – Helicopter	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	18		18		18	
	Northeast						
	VACAPES	8		8		8	
	Cherry Pt	12		12		12	
Anti-Submarine Warfare	JAX	370		370		370	
Tracking Exercise – Helicopter							
	Gulf Range Complex			3		3	
	Other AFTT Areas	24		24		24	
	Total	414		417		417	
	Northeast			_	ļ		<b>_</b>
	VACAPES	4		4	ļ	4	<del> </del>
Anti-Submarine Warfare	Cherry Pt	4.4	1	4.4	<u> </u>	1.4	<u> </u>
Torpedo Exercise – Maritime	JAX Kov Wost	14		14	<del>                                     </del>	14	+
Patrol Aircraft	Key West		<del> </del>		<del> </del>	<del>                                     </del>	+
	Gulf Range Complex Other AFTT Areas		<del> </del>		<del>                                     </del>		+
	Total	18	<del> </del>	18	<del>                                     </del>	18	+
	Northeast	90	1	90		90	+
	VACAPES	176	<del>                                     </del>	176	<del>                                     </del>	176	+
	Cherry Pt	46		46		46	+
Anti-Submarine Warfare	JAX	525		525	<del>                                     </del>	525	†
Tracking Exercise – Maritime	Key West	1 323	1				†
Patrol Aircraft	Gulf Range Complex		1				†
	Other AFTT Areas						1
	Total	837		837		837	1
Electronic Warfare							
	Northeast						
	VACAPES	302		32		32	
	Cherry Pt	2,620		370		370	
Electronic Warfare Operations	JAX	181		21		21	
Electronic warrare Operations	key west						
	Culf Damas Camaniau			1			
	Gulf Range Complex						
	Other AFTT Areas Total	3,103		423		423	

Table H-1: Current and Proposed Navy, Marine Corps, and U.S. Coast Guard Training Activities (continued)

Activity-OPAREA				Annual Ti	aining Activity F	vents by Project	t Scenario	
Moutheast	Activity/OPAREA		Current Condit					
Counter Targeting Flame		-						
Counter Targeting Flare   Exercise   Exerc		Northeast						
About   Abou		VACAPES	50		50		50	
Exercise   Key West   1.550								
Sulf Surger Complets   92   92   92   92   92   92   92   9								
Other AFTT Areas	Exercise	-						
Counter Targeting Chaff   A-707   A-		·	92		92		92	
Notificest			4 707		4.707		4 707	
ACACRES   50   10   5   10   5			4,707		4,/0/		4,/0/	
Counter Targeting Chaff   Exercise - Ship   Ex			F0		10	-	10	Г
Available   Avai								
Exercise - Ship	Counter Targeting Chaff							
Surf Range Complex   5   5   3   5   3   3					<u> </u>	<u> </u>		3
Other AFTT Areas   6	Exercise 5mp		5		5	3	5	3
Total								
Northeast			65		25	14	25	14
Counter Targeting Chaff   Exercise - Aircraft   Exercise - Aircr					-			
AX			130		130		130	
AX								
Exercise - Aircraft	Counter Targeting Chaff							
Guil Range Complex   18								
Total								
Northeast		Other AFTT Areas						
Missile Exercise   Missile Exe		Total	7,748		7,748		7,748	
High-Speed Anti-Radiation   Missile Exercise   Markey   Mest   Messile Exercise   Markey   Mest   Messile Exercise   Messile		Northeast						
High-Speed Anti-Radiation Missile Exercise								
Missile Exercise   Key West   Gulf Range Complex   Gulf Range Complex			10		2		2	
Gulf Range Complex   Cother AFTT Areas   Cot			4		1		1	
Other AFT Areas	Missile Exercise							
Total   25		i i						
Northeast   VACAPES   30   145   1								
Northeast		Total	25		6		6	
VACAPES	Expeditionary Warfare	Newtherest	T	I		l l	T	T
Cherry Pt			20		145		145	
NS Mayport   60   60   60   60     JAX   8   8   8   8     Key West   8   8   8   8     Other AFTT Areas   7   7     Farstraction – Air   Extraction – Air   Subsurface								
Dive and Salvage Operations   Fig. 16   Fig.								
Key West   8   8   8   8   8   8   6   6   16   1	Dive and Salvage Operations		- 00		00		00	
Gulf Range Complex   16	Dive and Salvage Operations		8		8		8	
Other AFTT Areas								
Total								
Northeast			130		245		245	
Cherry Pt								
Maritime Security Operations   Anti-Swimmer Grenades   Key West   Key West		VACAPES	5					
Anti-Swimmer Grenades   Key West   Gulf Range Complex   2		Cherry Pt	2					
Anti-Swimmer Grenades   Key West   Gulf Range Complex   2		JAX	2					
Other AFTT Areas		Key West						
Total			2					
Northeast								
Personnel Insertion   Extraction – Air   Function   Extraction – Surface and Subsurface   S			15					
Personnel Insertion								
Cherry Pt								
Personnel Insertion			2,164		74		74	
Factorian - Air   Factorian - Surface and Subsurface   Factorian - Surface   Factorian -	Personnel Insertion/		40		40		40	
Gulf Range Complex   50   50   50     Other AFTT Areas   2,184   238   238     Total   2,184   238   48     Northeast RC Inshore   48   48     Northeast   2   216   216     VACAPES RC Inshore   216   216     VACAPES   360   175   175     Cherry Pt   3AX   1   2   2   2     Key West   Gulf Range Complex   5   12   12     Other AFTT Areas   50   50   50     Other AFTT Areas   50     Other AFTT	•				10		10	
Other AFTT Areas         Company of the company o			10		F0		F0	
Total   2,184   238   238   238					50		50	
Personnel Insertion/ Extraction – Surface and Subsurface         Northeast RC Inshore         2         216         21			2 1 2 /		228		238	
Northeast   2			2,104					
VACAPES RC Inshore   216   216     VACAPES RC Inshore   VACAPES   360   175   175     175			2		40		40	
Personnel Insertion/ Extraction – Surface and Subsurface         VACAPES         360         175         175           JAX         1         2         2           Key West         5         12         12           Other AFTT Areas         0         12         12					216		216	
Cherry Pt			360					
Extraction – Surface and Subsurface           Subsurface         JAX         1         2         2           Key West               Gulf Range Complex         5         12         12            Other AFTT Areas  <							-,,,	
Key West         5         12         12           Other AFTT Areas         0         12         12			1		2		2	
Gulf Range Complex 5 12 12 Other AFTT Areas	Subsurface				<del>-</del>			
Other AFTT Areas			5		12		12	
			368		453		453	

Table H-1: Current and Proposed Navy, Marine Corps, and U.S. Coast Guard Training Activities (continued)

Control   Cont			Annual Training Activity Events by Project Scenario						
Northeast	Activity/OPAREA								
## ACAPPS IX Imbrore   42			Fleet Training	USCG Training	Fleet Training	USCG Training	Fleet Training	<b>USCG Training</b>	
Personnel insention									
Personned Incertain/   Cert PT			42		42		42		
PETROTION - Junimer Pole  Grant Range Complex  Other AFT Areas  Fort Danage Repair  Port Danage Repair  Po									
Extraction - Swimmer/Doep	Personnel Insertion/								
Port Damage Regain									
Other ATT Times									
Cital									
Northcost									
MACAPES			42		42		42		
Cherry PT									
MS Meyport									
Port Damage Repair		•							
Rey West					4		4		
Gulf Range Complex	Port Damage Repair								
Other AFTT Areas		· · · · · · · · · · · · · · · · · · ·							
Total									
Mortheast		Other AFTT Areas							
MACAPES RC Inshore					4		4		
MACAPES   8									
Cherry Pt					100		100		
Mine Countermeasures-Ship   Ax   A   B   B   B   B   B   B   B   B   B			8						
Team Training   Guff Agriculture   Figure   Fi									
Gulfport MS			4						
Suff Range Complex   Superior AFTT Areas   Complex   Complex AFTT Areas   Complex   Complex AFTT Areas   Complex   Complex AFTT Areas   Complex AFTT AFTT AREas   Complex AFTT Areas   Complex AFTT Areas   Complex AFTT AFTT AFTT AFTT AFTT AFTT AFTT AFT	Team Training		4				16		
Other AFTT Areas		-			16		16		
Mine Warfare			8		16		16		
Mortheast		Other AFTT Areas							
Northeast   VACAPES   S3   S3   S3   S3   S3   S3   S3		Total	24		156		156		
Mine Countermeasures - Ship   JAX   S3   S3   S3   S3   S3   S3   S3   S	Mine Warfare		•						
Cherry Pt		Northeast							
Mine Countermeasures - Ship   Sonar		VACAPES	53		53		53		
Northeast   Nort		Cherry Pt							
Sulf Range Complex   22   22   22   22   22   128	Mine Countermeasures - Ship	JAX	53		53		53		
Other AFTT Areas	Sonar	Key West							
Other AFTT Areas			22		22		22		
Northeast									
VACAPES   524   325		Total	128		128		128		
Mine Neutralization Exploisive   Inches   Inch		Northeast							
VACAPES			6		96		96		
Cherry Pt									
Mine Neutralization Explosive Ordnance Disposal Ordnance Disposal Ordnance Disposal Profit (New York)         IAX         20         100         100         100         176			16		86		86		
Northeast	Mine Neutralization Explosive								
Northeast   17   30   30   30   30   30   30   30   3									
Gulf Range Complex   16   96   96   96   96   96   96   96	·								
Other AFTT Areas									
Total   659   909   909   909									
Northeast			659		909		909		
Name			- 555						
Cherry Pt			1	1					
Submarine Mobile Mine and Mine Laying Exercise   Key West   Gulf Range Complex   Chern AFTT Areas   Cherry Pt   Churderwater Mine Countermeasure Raise, Tow, Beach, and Exploitation Operations   Cherr AFTT Areas   Cherry Pt   Cherry			1						
Mine Laying Exercise         Key West         Image: Complex of the part	Submarine Mobile Mine and				2		2		
Gulf Range Complex   Cherry Pt   Cherry Areas   Cherry Pt   Cherry Areas   Cherry Pt   Cherry Areas   Cherry Pt   Cherry Areas   Cherry Are									
Other AFTT Areas	THE LAYING EXCICISE								
Total									
Northeast			+		2		2		
VACAPES			+	1					
Cherry Pt			162		162		162		
Surface Ship Object Detection       JAX       76       76       76			102	1	102		102		
Key West   Gulf Range Complex   Gulf Range Comple			76		76		76		
Countermeasure Raise, Tow, Beach, and Exploitation Operations   First Areas   First	Surface Ship Object Detection		76		/0		/0		
Other AFTT Areas         1         238         238         238           Total         238         238         238         238           Northeast         0         100         100         100           VACAPES RC Inshore         100         100         100         100           VACAPES         446         20         20         20           Cherry Pt         24         16         16         16           JAX RC Inshore         4         4         4           JAX         78         20         20           Key West         8         40         40           Gulf Range Complex         56         24         24           Other AFTT Areas         4         4         4			+						
Total   238   23			+						
Northeast   VACAPES RC Inshore   100   100   100   VACAPES RC Inshore   20   20   20   20   20   20   20   2			220		220		220		
VACAPES RC Inshore   100   100   100   100   VACAPES   446   20   20   20   20   20   20   20   2			238		238		238		
Underwater Mine       VACAPES       446       20       20         Countermeasure Raise, Tow, Beach, and Exploitation Operations       JAX RC Inshore       4       4         May West       8       20       20         Key West       8       40       40         Gulf Range Complex       56       24       24         Other AFTT Areas       4       4       4					400		400		
Underwater Mine Countermeasure Raise, Tow, Beach, and Exploitation Operations         Cherry Pt         24         16         16           AX RC Inshore         4         4         4           JAX         78         20         20           Key West         8         40         40           Gulf Range Complex Other AFTT Areas         56         24         24           Other AFTT Areas         4         4         4				1					
Countermeasure Raise, Tow, Beach, and Exploitation Operations       JAX RC Inshore       4       4         Operations       JAX       78       20       20         Key West       8       40       40         Gulf Range Complex       56       24       24         Other AFTT Areas       4       4       4				1					
Beach, and Exploitation Operations         JAX         78         20         20           Key West         8         40         40           Gulf Range Complex         56         24         24           Other AFTT Areas         4         4	Countermeasure Raise, Tow,		24						
Operations         Key West         8         40         40           Gulf Range Complex         56         24         24           Other AFTT Areas         4         4									
Gulf Range Complex         56         24         24           Other AFTT Areas         4         4	<del>-</del>								
Other AFTT Areas 4 4	Operations								
			56						
Total 612 228 228									
		Total	612		228		228		

Table H-1: Current and Proposed Navy, Marine Corps, and U.S. Coast Guard Training Activities (continued)

			Annual Ti	caining Activity F	vents by Project	t Scenario	
Activity/OPAREA		Current Conditions (Phase III)		raining Activity Events by Project Alternative 1 (Phase IV)		Alternative 2 (Phase IV)	
		Fleet Training			USCG Training		USCG Training
	Northeast			8		8	
	VACAPES	510		375		375	
	Cherry Pt	108		96		96	
Airborne Mine	JAX	100		70		70	
Countermeasures Towed Mine Neutralization	Key West			15		15	
Neutralization	Gulf Range Complex	50		30		30	
	Other AFTT Areas						
	Total	768		586		586	
	Northeast						
	VACAPES	1,540		1,420		1,420	
	Cherry Pt	371		321		321	
Airborne Mine	JAX	317		275		275	
Countermeasures - Mine Detection	Key West			187		187	
Detection	Gulf Range Complex	310		290		290	
	Other AFTT Areas						
	Total	2,538		2,493		2,493	
	Northeast						
	VACAPES	630		315		315	
	Cherry Pt	71		36		36	
Mine Countermeasures – Mine	JAX	71		36		36	
Neutralization – Remotely	Key West			10		10	
Operated Vehicles	Gulf Range Complex	132		66		66	
	Other AFTT Areas						
	Total	904		463		463	
	Northeast	-		-			
	VACAPES	4		4		4	
	Cherry Pt	2		2		2	
	JAX	1		1		1	
Airborne Mine Laying	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	7		7		7	
	Boston, MA	1				1	
	Earle, NJ	1				1	
	Delaware Bay, DE	1				1	
	Hampton Roads, VA	1				1	
	Morehead City, NC	1				1	
Civilian Port Defense –	Wilmington, NC	1				1	
Homeland Security Anti-	Savannah, GA	1				1	
-	Kings Bay, GA	1				1	
Exercise	Mayport, FL	1				1	
	Tampa, FL	1				1	
	Port Canaveral, FL	1				1	
	Beaumont, TX	1				1	
	Corpus Christi, TX	1				1	
	Total	13				13	
	Northeast	4		4		4	
	VACAPES						
	Cherry Pt	2		2		2	
Coordinated Unit Level	JAX	1		1		1	
Helicopter Airborne Mine	Key West						
Countermeasures Exercise	Gulf Range Complex						
	Other AFTT Areas						
	Total	7		7		7	
	Northeast						
	VACAPES RC Inshore			1		1	
	VACAPES			1		1	
	Cherry Pt			1		1	
Installation and Maintenance	JAX			1		1	
of Mine Training Areas	Key West			1		1	
	Gulf Range Complex						
	Other AFTT Areas						
	Total			5		5	
Other Training							
	Northeast						
	VACAPES RC Inshore			760		760	
	VACAPES	1,176		598	100	598	100
	Cherry Pt	,			100		100
County 15	JAX RC Inshore			30		30	
Search and Rescue	JAX	776		704	100	704	100
	Key West						
	Gulf Range Complex				100		100
	Other AFTT Areas				100		100
	Total	1,952		2,092	500	2,092	500
L'		· · · · · ·				•	

Table H-1: Current and Proposed Navy, Marine Corps, and U.S. Coast Guard Training Activities (continued)

			Annual Ti		vents by Project	t Scenario	
Activity/OPAREA			ions (Phase III)			Alternative 2 (Phase I	
		Fleet Training	<b>USCG Training</b>	Fleet Training	<b>USCG Training</b>	Fleet Training	<b>USCG Training</b>
	Northeast						
	VACAPES			1		1	
	Cherry Pt			1		1	
Ship-to-Shore Fuel Transfer	JAX			1		1	
System Training	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total			3		3	
	Northeast						
	VACAPES	710		710	500	710	500
	Cherry Pt						
	JAX	231		231	200	231	200
Precision Anchoring	Key West						
	Gulf Range Complex	9		9	100	9	100
	Other AFTT Areas			-			
	Total	950		950	800	950	800
	Northeast	330		330	555	330	300
	VACAPES	1					
	Cherry Pt	1					
	JAX	<u> </u>					
Elevated Causeway System	Key West	+					
	Gulf Range Complex						
	Other AFTT Areas						
	Total	2					
	Northeast	169		169		169	
	VACAPES	84		84		84	
	Cherry Pt						
Submarine Navigation	JAX	29		29		29	
Submarine Navigation	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	282		282		282	
	Northeast	9		9		9	
	VACAPES	9		9		9	
	Cherry Pt	3		3		3	
Submarine Under Ice	JAX	3		3		3	
Certification	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	24		24		24	
	Northeast	24		24		24	
	NS Norfolk	235		175		175	
	VACAPES	120		175		175	
Surface Ship Sonar	Cherry Pt	120		120		120	
Maintenance and Systems	NS Mayport	50		50		50	
Checks	JAX	18		50		50	
	Key West						
	Gulf Range Complex	50		50		50	
	Other AFTT Areas	18		18		18	
	Total	611		638		638	
	Northeast	86		66		66	
	NSB New London	66		66		66	
	VACAPES	47		34		34	
	Cherry Pt	13					
Cultura 1 C	JAX	9		4		4	
Submarine Sonar	NS Norfolk	34		34		34	
Maintenance and Systems	NSB Kings Bay			2		2	
Checks	Key West						
	Gulf Range Complex						
	Port Canaveral, FL			2		2	
	Other AFTT Areas	12		12		12	
	Total	267		220		220	
	Northeast	207		220		220	
	VACAPES			51	250	51	250
		+					
Unmanned Aerial System	Cherry Pt			100	200	100	200
Training and Certification -	JAX	<del></del>		50	200	50	200
Submarine	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	İ		201	650	201	650

Table H-1: Current and Proposed Navy, Marine Corps, and U.S. Coast Guard Training Activities (continued)

		Annual Training Activity Events by Project Scenario								
Activity	/OPAREA	Current Conditions (Phase III)		Alternative 1 (Phase IV)		Alternative 2 (Phase IV)				
		Fleet Training	<b>USCG Training</b>	Fleet Training	<b>USCG Training</b>	Fleet Training	<b>USCG Training</b>			
	Northeast			12		12				
	VACAPES RC Inshore			21	20	21	20			
	VACAPES			32	20	32	20			
Unmanned Underwater	Cherry Pt			10	10	10	10			
Vehicle Training – Certification and	JAX			22	10	22	10			
Development	Key West									
Development	Gulf Range Complex			10	10	10	10			
	Other AFTT Areas									
	Total			107	70	107	70			
	Northeast RC Inshore	141		185	93	185	102			
	Northeast				92	-	102			
	VACAPES RC Inshore	110		182	182	182	200			
	VACAPES									
	Cherry Pt									
Matarbarna Training	JAX RC Inshore	55		69	69	69	76			
Waterborne Training	JAX									
	Key West				69		76			
	Gulf Range Complex	42		42	69	42	76			
	Gulf Range Complex Inshore				69		76			
	Other AFTT Areas									
	Total	348		478	643	478	708			

Note: Summation of values might not exactly match each totals row due to minor rounding errors.

Table H-2: Current and Proposed NAVAIR, NAVSEA, and ONR Testing Activities

		Annual Testing Activity Events by Project Scenario								
Activity/OPAREA		Current Condit	ions (Phase III)	Alternative	1 (Phase IV)	Alternative	2 (Phase IV)			
			NAVAIR Testing		NAVAIR Testing	NAVSEA Testing				
Air Warfare – NAVAII	?									
	Northeast									
	VACAPES		550		550		550			
	Cherry Pt									
Air Combat	JAX									
Maneuvers Test	Key West									
	Gulf Range Complex									
	Other AFTT Areas									
	Total		550		550		550			
	Northeast									
	VACAPES		190		190		190			
	Cherry Pt		9		9		9			
Air Platform Vehicle			9		9		9			
Test	Key West		9		9		9			
	Gulf Range Complex		12		12		12			
	Other AFTT Areas									
	Total		229		229		229			
	Northeast		223		223					
	VACAPES		40		40		40			
	Cherry Pt		40		40		70			
Air Platform	ΙΔΧ									
Weapons Integration	Key West									
Test	Gulf Range Complex				2		2			
	Other AFTT Areas									
	Total		40		42		42			
	Northeast		40		72		42			
	VACAPES		55		55		55			
	Cherry Pt		33		33					
Air-to-Air Gunnery	JAX									
Test – Medium-	Key West									
Caliber	Gulf Range Complex									
	Other AFTT Areas									
	Total		55		55		55			
		+	55		55		35			
	Northeast VACAPES	+	83		83		83			
		+	03		03		0.5			
Air to Air Missil-	Cherry Pt JAX	+								
Air-to-Air Missile Test										
1621	Key West									
	Gulf Range Complex									
	Other AFTT Areas		02		02		02			
	Total		83		83		83			

Table H-2: Current and Proposed NAVAIR, NAVSEA, and ONR Testing Activities (continued)

	<b>10.5</b> ()			l Testing Activity E			- /	
Activit	y/OPAREA		tions (Phase III)					
	Tata walka a saa	NAVSEA Testing	NAVAIR Testing	NAVSEA Testing	NAVAIR Testing	NAVSEA Testing	NAVAIR Testing	
	Northeast VACAPES							
	Cherry Pt							
Air-to-Air Weapons								
System Test	Key West							
	Gulf Range Complex		10		2		2	
	Other AFTT Areas							
	Total		10		2		2	
	Northeast		400		222		222	
	VACAPES Cherry Pt	+	406 9		233 10		233 10	
Intelligence,	JAX		7		8		8	
Surveillance, and	Kov Most		,				3	
Reconnaissance Test	Gulf Range Complex				5		5	
	Other AFTT Areas							
	Total		422		256		256	
Anti-Submarine War			T	T		T		
	Northeast	1	40		45		45	
	VACAPES Charry Pt	-	25 14		25 15		25 15	
Anti-Submarine	Cherry Pt SINKEX Box		14		25		25	
Tracking Test –	JAX	+	19		19		19	
Fixed-Wing	Key West		11		12		12	
J	Gulf Range Complex		12		15		15	
	Other AFTT Areas							
	Total		121		156		156	
	Northeast							
	VACAPES		80		80		121	
Anti-Submarine	Cherry Pt		24		24		42	
Warfare Torpedo	JAX Key West	+	31		31		43	
Test	Gulf Range Complex							
	Other AFTT Areas							
	Total		111		111		164	
	Northeast		69		110		110	
	VACAPES		209		280		280	
Anti-Submarine	Cherry Pt							
Warfare Tracking	JAX		6		23		23	
Test – Rotary Wing	Key West		14 5		27		27	
	Gulf Range Complex Other AFTT Areas		5		6		6	
	Total		303		446		446	
	Northeast		2		4		4	
	VACAPES		30		40		40	
	Cherry Pt							
Kilo Dip Test	JAX		3		6		6	
Kilo Dip Test	Key West		3		6		6	
	Gulf Range Complex		4		6		6	
	Other AFTT Areas Total		42		62		62	
	Northeast		42		02		02	
	VACAPES							
	Cherry Pt							
Sonobuoy Lot	JAX							
Acceptance Test	Key West		160		186		186	
	Gulf Range Complex	<del> </del>						
	Other AFTT Areas	1	460		400		400	
Electronic Warfare - I	Total		160		186		186	
Liectionic wariare - I	Northeast							
	VACAPES	1	24		24		24	
	Cherry Pt	1						
	JAX		4		4		4	
	Key West							
	Gulf Range Complex		20		20		20	
	Other AFTT Areas	1						
	Total	1	48		48		48	
	Northeast VACAPES	1	61		61		61	
	Cherry Pt	1	01		01		01	
Electronic Systems	JAX		2		2		2	
Test	Key West		_				<del>-</del>	
	Gulf Range Complex							
	Other AFTT Areas							
	Total		63		63		63	

Table H-2: Current and Proposed NAVAIR, NAVSEA, and ONR Testing Activities (continued)

Airborne Dipping Sonar Minehunting Test  Airborne Laser Mine Detection System Test  Airborne Mine Warfare - NAVAIR  Airborne Laser Mine Neutralization System Test  Airborne Mine Neutralization System Test	Iortheast ACAPES Herry Pt AX ey West fulf Range Complex Other AFTT Areas	Current Condit  NAVSEA Testing	10 30 12 24 36 50 40 90	Alternative NAVSEA Testing	1 (Phase IV)  NAVAIR Testing  20  40  40  32  72  50  40  90	Alternative  NAVSEA Testing	20 20 40 40 32 72 50 40
Airborne Dipping Sonar Minehunting Test  Airborne Laser Mine Detection System Test  Airborne Mine Neutralization System Test	ACAPES Cherry Pt AX Ey West Gulf Range Complex Other AFTT Areas Otal R Hortheast ACAPES Cherry Pt AX Ey West Gulf Range Complex ISWC Panama City Esting Range Other AFTT Areas Otal Hortheast ACAPES Cherry Pt AX Ey West Gulf Range Complex ISWC Panama City Esting Range Other AFTT Areas Otal Hortheast ACAPES Cherry Pt AX Ey West Gulf Range Complex ISWC Panama City Esting Range Other AFTT Areas Otal Hortheast ACAPES Cherry Pt AX Ey West Other AFTT Areas Otal Hortheast ACAPES Cherry Pt AX Ey West	NAVSEA Testing	20 10 30 12 24 36 50 40	NAVSEA Testing	20 40 40 32 72 50 40	NAVSEA Testing	20 20 40 40 32 72 50 40
Airborne Dipping Sonar Minehunting Test  Airborne Laser Mine Detection System Test  Airborne Mine Neutralization System Test	ACAPES Cherry Pt AX Ey West Gulf Range Complex Other AFTT Areas Otal R Hortheast ACAPES Cherry Pt AX Ey West Gulf Range Complex ISWC Panama City Esting Range Other AFTT Areas Otal Hortheast ACAPES Cherry Pt AX Ey West Gulf Range Complex ISWC Panama City Esting Range Other AFTT Areas Otal Hortheast ACAPES Cherry Pt AX Ey West Gulf Range Complex ISWC Panama City Esting Range Other AFTT Areas Otal Hortheast ACAPES Cherry Pt AX Ey West Other AFTT Areas Otal Hortheast ACAPES Cherry Pt AX Ey West		10 30 12 24 36 50 40		20 40 40 32 72 50 40		20 40 40 32 72 50 40
Airborne Dipping Sonar Minehunting Test  Airborne Laser Mine Detection System Test  Airborne Mine No Ch No VA Ch No Ch No VA Ch No C	ey West fulf Range Complex Other AFTT Areas Otal R Iortheast ACAPES Cherry Pt AX Ey West Sulf Range Complex ISWC Panama City Eesting Range Other AFTT Areas Otal Iortheast ACAPES Cherry Pt AX Ey West Sulf Range Complex ISWC Panama City Eesting Range Other AFTT Areas Otal Iortheast ISCAPES Cherry Pt AX Ey West Sulf Range Complex ISWC Panama City Eesting Range Other AFTT Areas Otal Iortheast ISWC Panama City Eesting Range Other AFTT Areas Otal Iortheast ICACAPES Cherry Pt AX Ey West Extending Range Other AFTT Areas Otal Iortheast ICACAPES Cherry Pt AX Ey West Extending Range Other AFTT Areas Otal Iortheast ICACAPES Cherry Pt AX Ey West		10 30 12 24 36 50 40		20 40 40 32 72 50 40		20 40 40 32 72 50 40
Airborne Dipping Sonar Minehunting Test  Airborne Laser Mine Detection System Test  Airborne Mine Neutralization System Test	ey West fulf Range Complex other AFTT Areas otal fulf Range Complex other AFTT Areas fortheast facapes fiberry Pt fax fey West fulf Range Complex fiswC Panama City festing Range other AFTT Areas otal fortheast facapes fiberry Pt fax fill Range Complex fill Ran		30 12 24 36 50 40		40 40 32 72 50 40		40 40 32 72 50 40
Airborne Dipping Sonar Minehunting Test  Airborne Laser Mine Detection System Test  Airborne Mine Neutralization System Test	Sulf Range Complex Other AFTT Areas Otal R Jortheast JACAPES Cherry Pt AX Ley West Sulf Range Complex JISWC Panama City Lesting Range Other AFTT Areas Otal Jortheast JACAPES Cherry Pt AX Ley West Sulf Range Complex JISWC Panama City Lesting Range Other AFTT Areas Otal Jortheast JACAPES Cherry Pt AX Ley West Sulf Range Complex JISWC Panama City Lesting Range Other AFTT Areas Otal Jortheast JACAPES Cherry Pt AX Ley West Let AX L		30 12 24 36 50 40		40 40 32 72 50 40		40 40 32 72 50 40
Airborne Dipping Sonar Minehunting Test  Airborne Laser Mine Detection System Test  Airborne Mine Neutralization System Test  Airborne Mine Neutralization System Test  NS Te Ot Airborne Mine Neutralization System Test  NS Te Ot Ot To Ot Ot Ot To Ot Ot Ot Ot To Ot	otal  R  Jortheast JACAPES Cherry Pt  AX  ey West Sulf Range Complex JISWC Panama City esting Range Other AFTT Areas JORTHEAST JACAPES Cherry Pt  AX  ey West JORTHEAST JORTHEAS		30 12 24 36 50 40		40 40 32 72 50 40		40 40 32 72 50 40
Airborne Dipping Sonar Minehunting Test  Airborne Laser Mine Detection System Test  Airborne Mine Neutralization System Test	otal R Iortheast ACAPES Cherry Pt AX ey West Gulf Range Complex ISWC Panama City esting Range Other AFTT Areas Iortheast ACAPES Cherry Pt AX ey West Gulf Range Complex ISWC Panama City esting Range Other AFTT Areas Iortheast ISWC Panama City esting Range Other AFTT Areas ISWC Panama City esting Range Other AFTT Areas Iortheast Iorthea		12 24 36 50 40		32 72 50 40		32 72 50 40
Airborne Dipping Sonar Minehunting Test  Airborne Laser Mine Detection System Test  Airborne Mine Neutralization System Test  Airborne Mine Neutralization System Test  NS Te Ot Airborne Mine Neutralization System Test  NS Te Ot VA Ch JA Ke Ot Airborne Mine Neutralization System Test  NS Te Ot VA Ch JA Airborne Mine Neutralization System Test  NS Te Ot Ot To	Idortheast		12 24 36 50 40		32 72 50 40		32 72 50 40
Airborne Dipping Sonar Minehunting Test  Airborne Laser Mine Detection System Test  Airborne Mine Neutralization System Test  NS Ch Airborne Mine Neutralization System Test  NS Te Ot Ot To Ot Ot To Ot To Ot Ot To Ot Ot To Ot	Iortheast IACAPES Icherry Pt AX Iough Range Complex ISWC Panama City Iough Range Iother AFTT Areas Iotal Iortheast IACAPES Icherry Pt AX Iough Range Complex ISWC Panama City Iough Range		24 36 50 40		32 72 50 40		32 72 50 40
Airborne Dipping Sonar Minehunting Test  Airborne Laser Mine Detection System Test  Airborne Mine Neutralization System Test  NS Te Ot Ot To Ot Airborne Laser Mine No Test  NS Te Ot Ot To To Ot Ot To Ot To Ot To Ot To Ot To Ot	ACAPES Cherry Pt AX Ley West Gulf Range Complex ISWC Panama City Lesting Range Other AFTT Areas Otal Lortheast ACAPES Cherry Pt AX Ley West Gulf Range Complex ISWC Panama City Lesting Range Other AFTT Areas Otal Lortheast Lort		24 36 50 40		32 72 50 40		32 72 50 40
Airborne Dipping Sonar Minehunting Test  Airborne Laser Mine Detection System Test  Airborne Mine Neutralization System Test  Airborne Mine Neutralization System Test  NS Te Ot Ot To Ot	herry Pt AX ey West fulf Range Complex ISWC Panama City esting Range Other AFTT Areas otal Iortheast ACAPES herry Pt AX ey West fulf Range Complex ISWC Panama City esting Range Other AFTT Areas otal Iortheast AX ey West Other AFTT Areas otal Iortheast ACAPES herry Pt AX ey West Other AFTT Areas otal Iortheast ACAPES herry Pt AX ey West		24 36 50 40		32 72 50 40		32 72 50 40
Airborne Dipping Sonar Minehunting Test  Test  No Te Ot Ot To Airborne Laser Mine Detection System Test  Airborne Mine Neutralization System Test  No Ch No Ch Ot To Ot To Ot Ot To Ot Ot To Ot Ot To Ot Ot To Ot To Ot Ot To Ot Ot To Ot Ot To Ot Ot Ot To Ot Ot To Ot	ey West Sulf Range Complex SUSWC Panama City Sesting Range Other AFTT Areas Otal Sortheast CACAPES Cherry Pt AX Sey West Sulf Range Complex SUSWC Panama City Sesting Range Other AFTT Areas Otal Sortheast CACAPES Cherry Pt CACAPES CHERRANGE COMPLEX COMPLE		36 50 40 90		72 50 40 90		72 50 40 90
Sonar Minehunting Test  Test  No. Test  No. Test  No. Test  No. Test  No. Test  Airborne Laser Mine Detection System Test  No. Test  Ot. To  Airborne Mine Neutralization System Test  No.	Sulf Range Complex ISWC Panama City esting Range Other AFTT Areas otal Iortheast ACAPES Therry Pt AX ey West Sulf Range Complex ISWC Panama City esting Range Other AFTT Areas otal Iortheast ACAPES Therry Pt ACA		36 50 40 90		72 50 40 90		72 50 40 90
Test  Test  Test  NS  Te  Ot  To  VA  Ch  Airborne Laser Mine  Detection System  Test  Ot  To  Airborne Mine  Neutralization  System Test  NS  Te  Ot  VA  Ch  NS  Te  Ot  To  No  VA  Ch  To  To  No  VA  Ch  No  To  To  No  VA  Ch  No  To  No  VA  Ch  No  To  To  No  VA  Te  Ot  To  No  VA  Te  Ot  To  No  VA  No  Te  Ot  To  No  VA  Te  Ot  To  No  VA  No  Te  Ot  To  No  VA  VA  VA  VA  VA  VA  VA  VA  VA  V	ISWC Panama City esting Range Other AFTT Areas otal Iortheast ACAPES Cherry Pt AX ey West Gulf Range Complex ISWC Panama City esting Range Other AFTT Areas otal Iortheast ACAPES Cherry Pt AX ey West Other AFTT Areas otal Iortheast ACAPES Cherry Pt AX ey West		36 50 40 90		72 50 40 90		72 50 40 90
Airborne Laser Mine Detection System Test Te Ot Ot Airborne Mine Neutralization System Test NS Te Ot Ot To Airborne Mine Neutralization System Test NS Te Ot VA	esting Range Other AFTT Areas Otal Iortheast ACAPES Cherry Pt AX Ley West Gulf Range Complex ISWC Panama City Lesting Range Other AFTT Areas Otal Iortheast ACAPES Cherry Pt AX Ley West		36 50 40 90		72 50 40 90		72 50 40 90
Airborne Laser Mine Detection System Test  Airborne Mine Neutralization System Test  NS Te Ot Airborne Mine Neutralization System Test  NS Te Ot NS Te Ot NS Te Ot NS Te	otal Iortheast ACAPES Therry Pt AX ey West Gulf Range Complex ISWC Panama City esting Range Other AFTT Areas otal Iortheast ACAPES Therry Pt AX ey West		50 40 90		40		50 40 90
Airborne Laser Mine Detection System Test  Test  Airborne Mine Neutralization System Test  NS Te Ot Ot To No VA Ch Airborne Mine Neutralization System Test  NS Te Ot	otal lortheast ACAPES herry Pt AX ey West fulf Range Complex ISWC Panama City esting Range otal lortheast ACAPES herry Pt AX ey West		50 40 90		40		50 40 90
Airborne Laser Mine Detection System Test  Test  Airborne Mine Neutralization System Test  NS Te Ot VA Ch JA Ke Ot VA Ch JA Ch JA Ke Ot VA	Iortheast IACAPES Icherry Pt AX Iey West Sulf Range Complex ISWC Panama City Iesting Range Iother AFTT Areas Iotal Iortheast IACAPES Icherry Pt AX Iey West		50 40 90		40		50 40 90
Airborne Laser Mine Detection System Test NS Te Ot Airborne Mine Neutralization System Test NS Te Ot VA Ch Airborne Mine Neutralization System Test NS Te Ot VA	ACAPES Cherry Pt  AX Ey West Gulf Range Complex ISWC Panama City Eesting Range Other AFTT Areas Otal Iortheast CACAPES Cherry Pt  AX Ey West		40		40		40
Airborne Laser Mine Detection System Test  Test  Ot Ot Airborne Mine Neutralization System Test  NS Te Ot VA Ch Airborne Mine Neutralization System Test  NS Te Ot Ot To	herry Pt  AX  ey West fulf Range Complex ISWC Panama City esting Range Other AFTT Areas otal fortheast ACAPES Cherry Pt AX ey West		40		40		40
Airborne Laser Mine Detection System Test NS Te Ot Ot Airborne Mine Neutralization System Test NS Te Ot VA Ch JA Airborne Mine Neutralization System Test NS Te Ot VA	ey West Gulf Range Complex ISWC Panama City esting Range Other AFTT Areas otal Iortheast ACAPES herry Pt AX ey West		90		90		90
Detection System Test NS Te Ot Ot To Airborne Mine Neutralization System Test NS Te Ot NS Te	iulf Range Complex ISWC Panama City esting Range Other AFTT Areas otal Iortheast ACAPES Cherry Pt AX ey West		90		90		90
Test  NS Te Ot Ot To  VA Ch System Test  NS Te Ot VA	ISWC Panama City esting Range Other AFTT Areas otal Iortheast ACAPES Cherry Pt AX ey West		90		90		90
Airborne Mine Neutralization System Test Ot  Ac  VA  Ch  Solution  Ch  Ch  JA  Ke  Ot  To  NS  Te  Ot  VA	esting Range Other AFTT Areas Otal Jortheast ACAPES Cherry Pt AX Ley West		90		90		90
Airborne Mine Neutralization System Test Ot To  VA  Ch  JA  Ke  NS  Te  Ot  VA	otal Iortheast ACAPES herry Pt AX ey West						
Airborne Mine Neutralization System Test Ot To No. VA Ch Ke No. To No. VA	otal lortheast 'ACAPES 'herry Pt AX ey West						
Airborne Mine Neutralization System Test Ot To	Iortheast IACAPES Therry Pt AX Tey West						
Airborne Mine Neutralization System Test NS Te Ot No	herry Pt AX ey West		35		25		
Airborne Mine Neutralization System Test NS Te Ot NO VA	AX ey West				23		25
Airborne Mine Neutralization System Test  Te Ot To	ey West						
Neutralization System Test NS Te Ot No VA							
NS Te Ot No							
Te Ot To No VA		+					
Ot To No VA	ISWC Panama City esting Range		23		27		27
No VA	Other AFTT Areas						
VA	otal		58		52		52
	Iortheast						
<b>I</b> Ch	ACAPES		24		12		12
	herry Pt						
	AX						
	ey West Julf Range Complex	+					
	ISWC Panama City						
	esting Range		52		26		26
	ther AFTT Areas						
	otal		76		38		38
	lortheast		_				
	ACAPES	+	2		2		2
IA	herry Pt AX	+	1		1		1
Mine Laving Test —	ey West	+	1		1		1
	Gulf Range Complex	1					
	ther AFTT Areas	<u></u>					
	otal		3		3		3
Surface Warfare - NAVA			ı	•		ı	
	lortheast	1					
	ACAPES	+	20		20		20
Air-to-Surface JA	herry Pt ΔX	+					<del> </del>
	ey West	+					
	Gulf Range Complex	1					
	Other AFTT Areas						
	otal		20		20		20
	Iortheast						
	ACAPES	<u> </u>	125		140		140
	herry Pt	1					
	ΑX	1	40		55		55
	01/ \\/oc+						-
	ey West						
To	ey West Gulf Range Complex Other AFTT Areas			•		Ī	<u>1</u>

Table H-2: Current and Proposed NAVAIR, NAVSEA, and ONR Testing Activities (continued)

			Annua	l Testing Activity E	vents by Project So	cenario	
Activit	:y/OPAREA	Current Condit	tions (Phase III)	Alternative			2 (Phase IV)
7.00.010	.,,, 0. /		NAVAIR Testing		NAVAIR Testing	NAVSEA Testing	
	Northeast		<u> </u>	J	J	<u> </u>	<u> </u>
	VACAPES		132		117		117
	Cherry Pt						
Air-to-Surface	JAX		34		29		29
Missile Test	Key West		5		5		5
	Gulf Range Complex Other AFTT Areas		5		5		5
	Total		171		151		151
	Northeast		1/1		131		151
	VACAPES		108		108		108
	Cherry Pt						
Air-to-Surface High-							
Energy Laser Test	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total		108		108		108
	Northeast						
	VACAPES		5		5		5
	Cherry Pt						
Laser Targeting Test	JAX Kov Wost	+					
	Key West Gulf Range Complex	+					
	Other AFTT Areas	+					
	Total	+	5		5		5
	Northeast		, , , , , , , , , , , , , , , , , , ,		<u> </u>		
	VACAPES	1	20		20		20
	Cherry Pt		12		12		12
Maritime Security	JAX		12		12		12
Operations - NAVAIR							
	Gulf Range Complex						
	Other AFTT Areas						
	Total		44		44		44
	Northeast						
	VACAPES		33		35		35
	Cherry Pt						
Rocket Test	JAX		17		19		19
	Key West						
	Gulf Range Complex Other AFTT Areas						
	Total		50		54		54
Other Testing Activit			] 30		34		<u> </u>
o their resting returns	Northeast		1		1		1
	VACAPES		1		1		1
	Cherry Pt						
Acoustic and	JAX		1		1		1
Oceanographic Research	Key West		1		1		1
Research	Gulf Range Complex		1		1		1
	Other AFTT Areas						
	Total		5		5		5
	Northeast		426		452		452
	VACAPES Charry Bt	+	126		152		152
Air Platform	Cherry Pt JAX	+			30		30
Shipboard	Key West	+			30		30
Integration Test	Gulf Range Complex	+			30		30
	Other AFTT Areas						
	Total	1	126		242		242
	Northeast						
	VACAPES		26				
Classed 1	Cherry Pt						
Shipboard Electronics Systems	JAX		24				
Evaluation	Key West		24				
	Gulf Range Complex		24				
	Other AFTT Areas						
	Total	1	98				
	Northeast	1					
	VACAPES Charry Dt						
lled 5	Cherry Pt	+	12		43		20
Undersea Range System Test	JAX Kov Wost	+	12		12		20
System rest	Key West Gulf Range Complex	+					
	Other AFTT Areas	+					
	Total	1	12		12		20
L	1			1		1	

Table H-2: Current and Proposed NAVAIR, NAVSEA, and ONR Testing Activities (continued)

	_			l Testing Activity E			
Activit	y/OPAREA		ions (Phase III)  NAVAIR Testing		1 (Phase IV)  NAVAIR Testing		2 (Phase IV)
Amphibious Warfare	- NAVSEA	NAVSEA TESTING	NAVAIN TESTING	INAVSEA TESTING	WAVAIN TESTING	NAVSEA TESTING	NAVAIR TESTING
Timpinions trainare	Northeast						
	VACAPES						
	Cherry Pt						
Amphibious Vessel	JAX						
Testing	Key West						
	Gulf Range Complex					1	
	Other AFTT Areas						
	Total					1	
Anti-Submarine Warf	are - NAVSEA						
	Northeast			0.05		0.10	
	NUWC Newport Testing Range	0.20					
	Newport, RI	0.20					
Anti-Submarine	VACAPES	1.30					
Warfare Mission	Cherry Pt						
Package Testing	JAX	2.10		0.10		0.10	
	Key West						
	Gulf Range Complex			0.05		0.10	
	Other AFTT Areas						
	Total	3.80		0.20		0.30	
	Northeast			0.55		0.75	
	NUWC Newport Testing Range	0.40					
	VACAPES	0.60		0.95		1.10	
	Cherry Pt	0.10		0.10		0.10	
At-Sea Sonar Testing		0.20		0.20		0.20	
· ·	SFOMF			0.10		0.10	
	Key West						
	Gulf Range Complex			0.50		0.70	
	Other AFTT Areas						
	Total	1.30		2.40		2.95	
	Northeast						
	Bath, ME	0.00		0.00		0.00	
	Portsmouth Naval	0.00		0.00		0.00	
	Shipyard						
	Newport, RI	0.00					
	VACAPES						
Pierside Sonar	NS Norfolk	0.00		0.00		0.00	
Testing	Cherry Pt						
, and the second	JAX						
	NS Mayport			0.00		0.00	
	Key West						
	Gulf Range Complex	0.00		0.00		2.22	
	Pascagoula, MS	0.00		0.00		0.00	
	Other AFTT Areas	0.00		0.00		0.00	
	Total	0.00		0.00		0.00	
	Northeast	0.00					
	Portsmouth Naval Shipyard	0.00					
	VACAPES						
Submarine Sonar	NS Norfolk	0.00					
Testing/	Cherry Pt	5.00					
Maintenance	JAX						
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	0.00					
	Northeast	2.00					
	VACAPES	3		4		4	
	NS Norfolk	3					
0 (	Cherry Pt						
Surface Ship Sonar	JAX	1		1		1	
Testing/	Key West						
Maintenance	NS Mayport	1					
	Gulf Range Complex						
	Other AFTT Areas						
	Total	8		5		5	
	Northeast	0.00				0.00	
	VACAPES	0.00		0.00		0.00	
	Cherry Pt	0.00				0.00	
Torpedo (Explosive)	JAX	0.00		0.00		0.00	
	Key West	0.00					
	Gulf Range Complex	0.00		0.00		0.00	
	Other AFTT Areas						
	Total	0.00		0.00		0.00	

Table H-2: Current and Proposed NAVAIR, NAVSEA, and ONR Testing Activities (continued)

				l Testing Activity E		
Northeast   Nort	Activit	y/OPAREA				
Range		Northeast		 , and a second	 g	
MCAPPS		-	30.00	30.00	30.00	
ACK   0.00   0			0.00	0.00	0.00	
MAY CENTROLOGY   COUNTY   CO		Cherry Pt	0.00	0.00	0.00	
SFOME			0.00	0.00	0.00	
Key West   0.00   0.0						
Gulf Hange Complex   0.00			0.00			
Other AFT Areas   Total   30.00   30.00   30.00			0.00			
Total   30.00   30.0			0.00	0.00	0.00	
No.			30.00	30.00	30.00	
NSB Nev London	Electronic Warfare - N		00.00	00.00	23.00	
VACAPES   1.65   2.45   3.25   VACAPES   VACAPES   0.05		Northeast	0.10			
Radar and Other Systems Testing Systems Testin		NSB New London	0.20			
NS Norfolk			1.65	2.45		
Radia and Other System's Testing   First Property   Fir						
AX	Padar and Other		0.10	0.35	0.50	
Rey West	Systems Testing					
Sulf Range Complex						
Other AFTT Areas				1.25	1.70	
Total   2.05   4.05   5.50				5		
Northeast			2.05	4.05	5.50	
VACAPES						
Countermeasure and eleutralization Testing   Countermeasure and eleutralization Testing   Countermeasure and eleutralization Testing   Countermeasure and eleutralization Testing   Countermeasure and   Countermeasure a						
AX			0.00	0.00	0.00	
Acoustic and   Acoustic Component   Acoustic Component	Mine					
Other AFT I Areas	Carratamasaasuma anad					
Other AFT I Areas	Neutralization Testing	Gulf Range Complex	0.00	0.00	0.00	
Total		Other AFTT Areas	0.00	0.00	0.00	
Mine   Countermeasure   Mission Package   Testing   SEOMF   2   2   2   2   2   2   2   2   2			0.00	0.00	0.00	
Cherry Pt		Northeast				
Mine   Countermeasure   Mission Package   Festing   Mission Package   Festing   Mission Package   Mi		VACAPES	5	3	3	
Mine   Countermeasure   Mission Package   Testing   SFOMF						
Countermeasure   Mission Package   Testing   Mission Package   Gulf Range Complex   19   15   15   15   15   15   15   15	Mine					
Missor   Package   Testing   Testing   MisWC Panama City   Testing Range   11	Countermeasure		2	2	2	
NSWC Panama City	iviission Package	· ·	10	15	15	
Testing Range	I CSUITE					
Total		Testing Range	11	11	11	
Northeast			47	20	20	
VACAPES			47	39	39	
Cherry Pt						
Mine Detection and Classification Testing Activities - NAVSEA  Acoustic and Oceanographic Research Research  Acoustic Component Testing  Acous			4.00			
Name Detection and Classification Testing					0.40	
Classification Testing   County   Cou	Mine Detection and	JAX RC Inshore	3.60			
Gulf Range Complex   2.40   114.40   114.80	Classification Testing					
Testing Range		Gulf Range Complex	2.40			
Total   30.40   114.40   115.20		Testing Range	20.40	 114.40	 114.80	
Norther Testing Activities - NAVSEA						
Acoustic and Oceanographic Research  Oceanographic Research  Acoustic Component Testing  Testing  Northeast  VACAPES  Cherry Pt  JAX  Key West  Gulf Range Complex  Other AFTT Areas  Northeast  VACAPES  Cherry Pt  JAX  Key West  Gulf Range Complex  Other AFTT Areas  Total  Northeast  VACAPES  Cherry Pt  JAX  SFOMF  33  33  33  33  Acoustic Component  Testing  Northeast  VACAPES  Cherry Pt  JAX  SFOMF  33  33  33  33  33  33  33  33  Acoustic Component  Testing  Testin			30.40	114.40	115.20	
Acoustic and Oceanographic Research  Acoustic Component Testing  Acoustic Component Testing  VACAPES  Cherry Pt  JAX  Key West  Gulf Range Complex  Other AFTT Areas  Total  Acoustic Component Testing  Acoustic Complex  Gulf Range Complex  Other AFTT Areas  Total  Acoustic Component Testing  Acoustic Component	_			2	2	
Acoustic and Oceanographic Research				3	3	
Acoustic and Oceanographic Research    Acoustic Component Testing   JAX						
Northeast   VACAPES   Cherry Pt   JAX   James   Jame	Acoustic and				1	
Gulf Range Complex   1   1   1   1   1   1   1   1   1	• .	Key West				
Total 3 5  Northeast  VACAPES  Cherry Pt  JAX  SFOMF 33 33 33 33 33 33 33 33 33 33 33 33 33	Research	Gulf Range Complex		 		
Northeast						
VACAPES Cherry Pt JAX SFOMF Sty West Gulf Range Complex Other AFTT Areas				3	5	
Cherry Pt						
Acoustic Component Testing						
SFOMF   33   33   33   33		ΙΔΧ		1	1	
Key West Gulf Range Complex Other AFTT Areas	Acoustic Component		33			
Gulf Range Complex Other AFTT Areas	resting		55	55	<u></u>	
Other AFTT Areas						
Total 33 34 34				 		
		Total	33	34	 34	

Table H-2: Current and Proposed NAVAIR, NAVSEA, and ONR Testing Activities (continued)

	Annual Testing Activity Events by Project Scenario  /OPAREA Current Conditions (Phase III) Alternative 1 (Phase IV) Alternative 2						
Activit	y/OPAREA					Alternative 2 (Phase IV)	
		NAVSEA Testing	NAVAIR Testing	NAVSEA Testing	NAVAIR Testing	NAVSEA Testing	NAVAIR Testing
	Northeast	40.00		1.00		2.50	
	VACAPES	40.00		1.00		2.50	
	Cherry Pt JAX	40.00					
Simulant Testing	Key West	40.00					
	Gulf Range Complex						
	Other AFTT Areas						
	Total	160.00		1.00		2.50	
	Northeast	100.00		1.00		2.30	
	NUWC Newport Testing						
	Range			6.00		6.00	
	VACAPES			0.00		0.00	
	JEB Little Creek Fort			5.00		F 00	
Countermeasure	Story			5.00		5.00	
Testing	Cherry Pt			0.00		0.00	
	JAX	0.00		0.00		0.00	
	Key West	0.00		0.00		0.00	
	Gulf Range Complex			0.00		0.00	
	Other AFTT Areas						
	Total	0.00		11.00		11.00	
	Northeast						
	VACAPES						
	Cherry Pt						
	JAX						
Insertion/ Extraction	Key West						
misertion, Extraction	Gulf Range Complex						
	NSWC Panama City	134.00		250.50		251.00	
	Testing Range	134.00		230.30		231.00	
	Other AFTT Areas						
	Total	134.00		250.50		251.00	
	Northeast						
	VACAPES			1		1	
Intellinance	Cherry Pt						
Intelligence, Surveillance,	JAX			2		2	
Reconnaissance	Key West						
recommunistance	Gulf Range Complex						
	Other AFTT Areas						
	Total			3		3	
	Northeast						
	VACAPES						
	Cherry Pt						
	JAX						
Line Charge Testing	Key West						
Line charge resting	Gulf Range Complex						
	NSWC Panama City	4		4		4	
	Testing Range	-т		-т		-т	
	Other AFTT Areas						
	Total	4		4		4	
	Northeast						
	VACAPES	2.00				0.50	
	Hampton Roads, VA					0.50	
Non-Acoustic	Cherry Pt						
Component Testing	JAX						
i i i pomone resemb	Key West						
	Gulf Range Complex	2.00		0.50		1.50	
	Other AFTT Areas						
	Total	4.00		0.50		2.50	
	Northeast	0.00		0.00		0.00	
	NUWC Newport Testing	39.00		39.00		39.00	
	Range	33.00		33.00		33.00	
	VACAPES						
Payload Deployer	Cherry Pt						
Testing	JAX						
	Key West						
	Gulf Range Complex	0.00		0.00		0.00	
	Other AFTT Areas						
	Total	39.00		39.00		39.00	

Table H-2: Current and Proposed NAVAIR, NAVSEA, and ONR Testing Activities (continued)

	Annual Testing Activity Events by Project Scenario						
Activit	y/OPAREA		ions (Phase III)		1 (Phase IV)		2 (Phase IV)
		NAVSEA Testing	NAVAIR Testing	NAVSEA Testing	NAVAIR Testing	NAVSEA Testing	NAVAIR Testing
	Northeast						
	NUWC Newport Testing	190.00		164.00		173.00	
	Range Newport, RI	2.00		2.00		2.00	
	VACAPES	2.00		2.00		2.00	
	NS Norfolk			5.50		7.00	
	Cherry Pt						
Semi-Stationary	JAX						
<b>Equipment Testing</b>	Port Canaveral, FL			5.50		7.00	
	Key West						
	Key West RC Inshore			5.50		7.00	
	Gulf Range Complex	5.50					
	NSWC Panama City Testing Range			15.00		15.00	
	Other AFTT Areas						
	Total	197.50		197.50		211.00	
	Northeast	207.00		207.00			
	NUWC Newport Testing	26		4.6		40	
	Range	36		46		49	
	VACAPES						
	Cherry Pt						
Testing	JAX						
	Key West						
	Gulf Range Complex						
	Other AFTT Areas Total	36		46		49	
Surface Warfare – NA		30		40		49	
	Northeast	0.00		0.00		0.00	
	VACAPES	0.00		0.00		0.00	
	Cherry Pt	0.00					
	JAX	0.00		0.00		0.00	
Gun Testing - Large-	<u> </u>	0.00					
Caliber	Gulf Range Complex	0.00		0.00		0.00	
	NSWC Panama City	0.00		0.00		0.00	
	Testing Range Other AFTT Areas						
	Total	0.00		0.00		0.00	
	Northeast	0.00		0.00		0.00	
	VACAPES	0.00		0.00		0.00	
	Cherry Pt	0.00		3.00		3,33	
	JAX						
Gun Testing -	Key West	0.00					
Medium-Caliber	Gulf Range Complex			0.00		0.00	
	NSWC Panama City	0.00		0.00		0.00	
	Testing Range						
	Other AFTT Areas	0.00		0.00		0.00	
	Total Northeast	0.00		0.00 0.00		0.00	
	VACAPES	0.00		0.00		0.00	
	Cherry Pt	0.00		0.00		0.00	
	JAX	0.00		0.00		0.00	
Gun Testing - Small-		0.00		0.00		0.00	
Caliber	Gulf Range Complex	0.00				0.00	
	NSWC Panama City	0.00		0.00		0.00	
	Testing Range	0.00		0.00		0.00	
	Other AFTT Areas	0.00		0.00		0.00	
	Total	0.00		0.00		0.00	
	Northeast VACAPES	0.00					
	Cherry Pt	0.00					
Kinetic Energy	JAX	0.00					
	Key West	0.00					
	Gulf Range Complex	0.00					
	Other AFTT Areas						
	Total	0.00					
	Northeast	0.00					
	VACAPES	0.00		0.00		0.00	
	Cherry Pt	0.00		0.00		0.00	
	JAX	0.00		0.00		0.00	
Testing	Key West	0.00		0.00		0.00	
	Gulf Range Complex	0.00		0.00		0.00	
	Other AFTT Areas Total	0.00		0.00		0.00	
	Γισται	0.00	<u> </u>	0.00	<u> </u>	0.00	<u> </u>

Table H-2: Current and Proposed NAVAIR, NAVSEA, and ONR Testing Activities (continued)

Mathematical   Math				Annua	l Testing Activity E	vents by Project So	cenario	
Unmaned Systems - NAVSEA	Activit	y/OPAREA				l		
Northeast		NAVOTA	NAVSEA Testing	NAVAIR Testing	NAVSEA Testing	NAVAIR Testing	NAVSEA Testing	NAVAIR Testing
VACAPES   2   5	Unmanned Systems -		Ι		T T			
Defenvater search,   AN   Security   Secur					2		5	
Underword Search,   AX								
Deployment, and Recovery   Reco	Underwater Search.							
Court Range Complex	,		33		33		33	
Other AFT Areas   33   35   38   38   38   38   38   38		Key West						
Total   33   35   38		Gulf Range Complex						
Northeast   15   Northeast   15   Northeast   17   17   17   17   17   17   17   1		Other AFTT Areas						
NUMC Newport Testing   17					35		38	
Range			15					
VACAPS   7.50			17		17		17	
Unmanned Aurial   System Testing   Sys			7.50					
March   Marc	Llamana and Annial		7.50					
Key West								
Gulf Range Complex	System resting							
Other AFTT Areas								
Total   39.50   17   17     17								
Numarined Surface   Number			39.50		17		17	
Unmanned Surface   Vehicle System   Tasting   Range   Vehicle System   Tasting   Vehicle System   Tasting   Vehicle System			55.50		_,			
Unmaned Surface   VACAPES   0.0.0   0.00			422					
Unmaned Surface			132		4		4	
Unmanned Surface   Very Pt					0.00		0.00	
Testing		Cherry Pt			0.00		0.00	
Registration	-	JAX			0.00		0.00	
Defense Testing	resung	Key West			0.00		0.00	
Total		Gulf Range Complex			0.00		0.00	
Northeast		Other AFTT Areas			0.00		0.00	
NUMC Newport Testing   Range   Num			132		4.00		4.00	
Name								
Cherry Pt			308		138		138	
Unmanned Underwater Vehicle Testing  A XR C Inshore		VACAPES						
Underwater Vehicle Testing  West  Gulf Range Complex NSWC Panama City Testing Range Other AFTT Areas  Air Defense Testing  Air Caft Carrier Sea  Trials Propulsion Testing  Air Caft Carrier Sea  Air Caft Carrier Sea  Trials Propulsion Testing  Hydrodynamic and Maneuverability After Maneuverability Testing  More After Areas  Total  Associated Associate		Cherry Pt						
MAR K.Inshore	Unmanned		12.50					
February								
Rey West   Gulf Range Complex   20.50   104.00   104.50			21.00		0.50		0.50	
NSWC Panama City Testing Range   T2.50   104.00   104.50	J							
Testing Range   72.50			20.50					
Other AFTT Areas   1		•	72.50		104.00		104.50	
Vessel Evaluation - NAVSEA								
Northeast			439.00		242.50		243.00	
VACAPES	Vessel Evaluation - N	AVSEA						
Air Defense Testing		Northeast	0.00					
Air Defense Testing			0.00		0.00		0.00	
Air Defense Lesting								
Rey West   Gulf Range Complex   O.00   O.0	Air Defense Testing		0.00		0.00		0.00	
Other AFTT Areas								
Total   0.00			0.00					
Northeast			0.00		0.00		0.00	
Aircraft Carrier Sea   Cherry Pt   JAX   Key West   Gulf Range Complex   Cherry Pt   JAX   Cherry Pt   JAX   Cherry Pt   JAX   Cherry Pt			0.00		0.00		0.00	
Cherry Pt			2					
Aircraft Carrier Sea   Trials - Propulsion   Testing   Gulf Range Complex   Other AFTT Areas   Total   2   Other AFTT Areas			<u> </u>					
Trials - Propulsion Testing								
Gulf Range Complex   Other AFTT Areas   Other AFT								
Other AFTT Areas	Testing							
Total   2								
Northeast			2					
Hydrodynamic and Maneuverability Testing       VACAPES       1			_					
Cherry Pt			1					
Hydrodynamic and   Maneuverability   Testing   JAX			_					
Testing Key West Gulf Range Complex Other AFTT Areas	Hydrodynamic and		1					
Gulf Range Complex Other AFTT Areas	Maneuverability							
Other AFTT Areas	resting							
			2					

Table H-2: Current and Proposed NAVAIR, NAVSEA, and ONR Testing Activities (continued)

			Annua	l Testing Activity E	vents by Project So	cenario	
Activity	y/OPAREA		ions (Phase III)	Alternative	1 (Phase IV)	Alternative	
	Northeart	NAVSEA Testing	NAVAIR Testing	NAVSEA Testing	NAVAIR Testing	NAVSEA Testing	NAVAIR Testing
	Northeast VACAPES	-					
	NS Norfolk	0.00		0.00		0.00	
	Cherry Pt						
In-Port Maintenance							
	NS Mayport, FL	0.00		0.00		0.00	
	Key West						
,	Gulf Range Complex Other AFTT Areas						
	Total	0.00		0.00		0.00	
	Northeast						
	VACAPES						
	Cherry Pt						
0 1	JAX Key West	1					
ITIAIS	Gulf Range Complex	+					
	Other AFTT Areas						
	Total	1					
	Northeast	5		1		2	
-	VACAPES	7		44		74	
	Cherry Pt	10		11		18	
	JAX Key West	11 10		11 11		18 18	
	Gulf Range Complex	86		44		58	
i Produkton tekting t	Gulf Range Complex						
	Inshore	11		11		19	
	NSWC Panama City			1		2	
	Testing Range Other AFTT Areas						
	Total	140		134		209	
	Northeast	110		131		203	
	VACAPES						
	Hampton Roads, VA					0.00	
	Cherry Pt						
,	JAX SFOMF	0.00		0.00		0.00	
	Key West	0.00		0.00		0.00	
	Gulf Range Complex						
	Other AFTT Areas						
	Total	0.00		0.00		0.00	
	Northeast						
	VACAPES Charma Pt					1	
	Cherry Pt JAX	1		1		1	
I	Key West			<u> </u>			
	Gulf Range Complex	+					
1	Other AFTT Areas				_		
	Total	1		1		2	
	Northeast	1		3		4	
	VACAPES Cherry Pt	1		3		4	
Submarine Sea Trials		1					
<ul><li>Propulsion Testing</li></ul>		<del>-</del>					
	Gulf Range Complex						
	Other AFTT Areas						
	Total	3		6		8	
	Northeast NE RC Inshore	4		3		4	
	VACAPES	4		3		1 4	
	Cherry Pt	<del>-</del>		<u> </u>		-т	
	JAX	2		2		2	
Submarine Sea Trials		2					
	NSB Kings Bay	<b></b>		1		2	
	Port Canaveral, FL	4		1		2	
	SFOMF Key West	1					
	Gulf Range Complex	1		1		1	
,		_		=		=	
	Other AFTT Areas						

Table H-2: Current and Proposed NAVAIR, NAVSEA, and ONR Testing Activities (continued)

			Annua	l Testing Activity E	vents by Project So	enario	
Activit	y/OPAREA	Current Condit	ions (Phase III)	Alternative	1 (Phase IV)	Alternative	2 (Phase IV)
	•		NAVAIR Testing			NAVSEA Testing	
	Northeast	0.00			<u> </u>	<u> </u>	
	VACAPES	0.00		0.00		0.00	
	Cherry Pt						
Surface Warfare	JAX	0.00		0.00		0.00	
Testing	Key West	0.00					
J	Gulf Range Complex	0.00		0.00		0.00	
	Other AFTT Areas						
	Total	0.00		0.00		0.00	
	Northeast			0.00		0.00	
	VACAPES	0.00		0.00		0.00	
	Cherry Pt	0.00		0.00		0.00	
	JAX	0.00		0.00		0.00	
Undersea Warfare	SFOMF	0.00		0.00		0.00	
Testing	Key West	5.55				0.00	
	Gulf Range Complex	0.00				5.55	
	Other AFTT Areas	0.00					
	Total	0.00		0.00		0.00	
	Northeast	0.00		0.00		0.00	
	NUWC Newport Testing						
	Range			0.00		1	
	VACAPES	0.00		0.00		0.00	
	Hampton Roads, VA	0.00		0.00		0.00	
	JEB Little Creek Fort			0.00		0.00	
Vessel Signature	Story	5					
Evaluation	Cherry Pt						
	JAX	0.00		0.00		0.00	
	SFOMF	0.00		0.00		0.00	
	Key West			0.00		0.00	
	Gulf Range Complex	0.00		0.00		0.00	
	Other AFTT Areas	0.00		0.00		0.00	
	Total	5.00		0.00		1.00	
Acquetic and Oceans	graphic Science and Tech	ļ		0.00		1.00	
Acoustic and Oceano	Northeast	9		4		4	
	VACAPES	2		3		4	
	Cherry Pt			3		4	
Acoustic and	JAX			3		3	
Oceanographic	Key West			3		3	
Research	•			3		1	
	Gulf Range Complex Other AFTT Areas	5 2		3		4	
		18		12		15	
	Total	18		13		15 2	
	Northeast			1			
	VACAPES Charry Bt	8		1		1	
Large Displacement	Cherry Pt	4		1		4	
Jnmanned Undersea	JAX	12		1		1	
Vehicle Testing	Key West	4		1		4	
	Gulf Range Complex	4		1		1	
	Other AFTT Areas	4.4				-	
	Total	44		4		5	
	Northeast	2		1		2	
	VACAPES	1		1		1	
Mine	Cherry Pt						
Countermeasure	JAX	1		1		1	
	Key West						
echnology Research	Gulf Range Complex			1		1	
		Ī	i	I		Ī	i
	Other AFTT Areas					5	

Notes: Some testing activities for Current Conditions (Phase III) and Alternative 1 (Phase IV) with ranges of annual events identified in Final Supplement EIS/OEIS Tables 2.2-3 through 2.2-5 were evaluated based on the median of the events range. In addition, some NAVSEA testing activities events (represented by number of events in 2 decimal places) were lowered from those presented in Final Supplement EIS/OEIS Table 2.2-4, as they would occur simultaneously with like kind training activities. The summation of values might not exactly match each totals row due to minor rounding errors.

Table H-3: Vessel Emissions by OPAREA – Outside State Waters – Phase III

		Alternative 1 (Tons per Year of Emissions)								
Area	VOCs	со	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO₂e (MT)			
Northeast	7.20	47.18	169.86	35.51	2.37	2.18	17,295			
VACAPES	72.04	889.14	1,968.14	330.28	33.26	30.60	407,842			
Cherry Pt	67.52	741.64	1,583.20	266.09	26.56	24.44	318,662			
JAX	63.53	748.89	1,626.56	266.77	27.53	25.32	336,998			
SFOMF	0.13	1.87	5.02	0.30	0.07	0.06	513			
Key West	5.90	18.58	122.39	6.42	1.68	1.55	9,675			
Gulf Range Complex	39.28	184.81	830.50	61.13	11.31	10.41	84,235			
Other AFTT Areas	2.56	33.21	70.51	15.06	1.34	1.23	15,725			

Table H-4: Vessel Emissions by OPAREA – Inside State Waters – Phase III

		Alternative 1 (Tons per Year of Emissions)								
Area	VOCs	со	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO₂e (MT)			
Northeast	9.70	74.00	411.57	154.98	6.14	5.65	64,039			
VACAPES	38.24	288.14	1,505.83	710.31	38.39	35.32	200,822			
Cherry Pt	5.62	24.58	163.48	60.16	3.26	3.00	22,765			
JAX	4.39	37.73	215.96	116.60	4.42	4.06	37,226			
SFOMF	0.73	5.63	33.29	10.31	0.41	0.38	4,642			
Key West	0.08	1.18	2.54	4.06	0.05	0.05	239			
Gulf Range Complex	3.80	36.47	197.25	97.86	3.04	2.79	32,805			
Other AFTT Areas	0.16	1.76	19.48	7.20	0.46	0.42	4,149			

Table H-5: Aircraft Emissions by OPAREA – Outside State Waters – Phase III

		Alternative 1 (Tons per Year of Emissions)								
Area	VOCs	со	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO₂e (MT)			
Northeast	0.36	7.35	16.57	0.63	3.26	3.00	14,917			
VACAPES	5.49	50.81	291.74	9.06	117.35	107.96	339,932			
Cherry Pt	3.60	30.16	211.65	6.01	92.18	84.81	294,108			
JAX	5.19	47.76	253.90	7.65	103.76	95.46	351,607			
SFOMF	0.00	0.04	0.04	0.00	0.03	0.02	35			
Key West	1.09	12.39	12.69	0.73	8.33	7.66	332,263			
Gulf Range Complex	0.39	4.10	8.21	0.33	4.18	3.85	14,143			
Other AFTT Areas	0.03	0.39	0.44	0.02	0.28	0.26	420			

Table H-6: Aircraft Emissions by OPAREA – Inside State Waters – Phase III

		Alternative 1 (Tons per Year of Emissions)								
Area	VOCs	со	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO₂e (MT)			
Northeast	0.04	0.47	0.67	0.03	0.30	0.28	-			
VACAPES	5.04	56.97	74.25	4.03	40.68	37.43	-			
Cherry Pt	0.43	5.01	5.43	0.31	3.36	3.09	-			
JAX	1.18	13.41	14.93	0.83	8.92	8.21	-			
SFOMF	0.00	0.04	0.04	0.00	0.03	0.02	-			
Key West	0.01	0.10	0.17	0.01	0.08	0.07	-			
Gulf Range Complex	0.49	5.57	5.70	0.33	3.74	3.44	-			
Other AFTT Areas	-	-	-	-	-	-	-			

Note: CO<sub>2</sub>e emissions within state waters included in emissions by OPAREA - see Table H-5.

Table H-7: Munitions Emissions by OPAREA – Phase III

		Phase III Alternative 1 (Tons per Year of Emissions)									
Area	VOCs	со	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	Pb	CO₂e (MT)			
Northeast	0.001	0.74	0.02	0.001	1.13	0.83	0.002	1			
VACAPES	0.025	49.24	0.86	0.005	33.74	25.76	0.209	35			
Cherry Pt	0.004	16.02	0.29	0.001	5.78	4.26	0.027	9			
JAX	0.012	34.78	0.62	0.002	19.10	14.29	0.183	28			
Key West	0.000	2.85	0.07	0.001	0.76	0.51	0.003	3			
Gulf Range Complex	0.001	3.38	0.07	0.001	1.16	0.82	0.015	4			
Other AFTT Areas	0.000	1.37	0.02	0.001	0.41	0.31	0.001	1			

Note: From Draft SEIS Appendix H Table H-16. All emissions would occur greater than 3 nm from shore.

Table H-8: Emissions by OPAREA – Inside State Water Boundaries – Phase III

		Alternative 1 (Tons per Year of Emissions)									
Area	VOCs	со	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO₂e (MT)				
Northeast	9.74	74.46	412.25	155.02	6.44	5.93	64,039				
VACAPES	43.29	354.11	1,580.08	714.34	79.07	72.75	200,822				
Cherry Pt	6.05	29.59	168.91	60.47	6.62	6.09	22,765				
JAX	5.56	51.15	230.89	117.43	13.34	12.27	37,226				
SFOMF	0.73	5.66	33.32	10.31	0.44	0.40	4,642				
Key West	0.09	1.28	2.71	4.07	0.13	0.12	239				
Gulf Range Complex	4.29	42.04	202.96	98.19	6.78	6.24	32,805				
Other AFTT Areas	0.16	1.76	19.48	7.20	0.46	0.42	4,149				

Table H-9: Grand Total Emissions Summary by OPAREA – Phase III

		Alternative 1 (Tons per Year of Emissions)								
Area	VOCs	со	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO₂e (MT)			
Northeast	17.29	129.73	598.70	191.16	13.20	11.93	96,252			
VACAPES	120.84	1,334.30	3,840.82	1,564.95	263.42	237.06	948,631			
Cherry Pt	77.17	817.41	1,964.05	707.70	131.15	119.59	635,545			
JAX	74.30	882.58	2,111.97	800.31	163.72	147.34	725,860			
SFOMF	0.87	7.57	38.38	14.64	0.53	0.49	5,191			
Key West	7.08	35.10	137.85	21.10	10.90	9.84	342,180			
Gulf Range Complex	43.96	234.33	1,041.75	277.06	23.44	21.31	131,187			
Other AFTT Areas	2.75	36.73	90.45	38.59	2.49	2.22	20,294			
Total - Phase III Alternative 1	344.26	3,477.74	9,823.98	3,615.51	608.84	549.79	2,905,140			

Note: Includes emissions inside and outside state waters.

Table H-10: Vessel Emissions by OPAREA – Outside State Waters – Phase IV Alternative 1

		Alternative 1 (Tons per Year of Emissions)									
Area	VOCs	со	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO₂e (MT)				
Northeast	5.09	39.96	153.27	8.14	2.35	2.16	14,127				
VACAPES	76.33	790.16	2,469.97	245.22	43.42	39.95	374,740				
Cherry Pt	31.91	308.63	908.92	93.62	15.55	14.30	146,390				
JAX	41.99	458.10	1,349.15	146.33	24.44	22.48	219,436				
SFOMF	0.17	2.57	7.41	0.05	0.14	0.13	662				
Key West	6.78	25.05	170.86	7.36	2.58	2.37	13,484				
Gulf Range Complex	28.43	197.70	880.96	38.13	12.14	11.17	85,461				
Other AFTT Areas	1.79	22.98	69.37	7.52	1.14	1.05	10,585				

Table H-11: Vessel Emissions by OPAREA – Inside State Waters – Phase IV Alternative 1

		Alternative 1 (Tons per Year of Emissions)									
Area	VOCs	со	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO₂e (MT)				
Northeast	6.91	58.62	285.25	4.75	5.87	5.40	35,547				
VACAPES	35.63	267.70	1,428.42	241.65	29.36	27.02	171,789				
Cherry Pt	10.35	36.14	224.85	16.54	4.23	3.89	28,655				
JAX	6.01	45.01	215.88	16.85	4.90	4.51	29,154				
SFOMF	0.29	3.14	11.61	0.02	0.17	0.16	631				
Key West	0.74	3.90	18.46	0.23	0.42	0.39	1,088				
Gulf Range Complex	8.41	85.81	414.22	1.50	7.79	7.16	54,677				
Other AFTT Areas	0.76	3.04	25.40	1.85	0.63	0.58	2,907				

Table H-12: Aircraft Emissions by OPAREA – Outside State Waters – Phase IV Alternative 1

		Alternative 1 (Tons per Year of Emissions)									
Area	VOCs	со	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO₂e (MT)				
Northeast	0.40	6.96	16.78	0.65	3.19	2.94	14,616				
VACAPES	5.06	45.13	305.24	9.38	120.38	110.75	301,964				
Cherry Pt	2.05	19.17	86.22	2.72	36.36	33.46	201,679				
JAX	3.66	37.64	131.20	4.61	47.69	43.88	280,184				
SFOMF	0.00	0.04	0.04	0.00	0.03	0.02	35				
Key West	1.33	14.33	37.74	1.53	17.35	15.96	341,845				
Gulf Range Complex	0.67	7.51	11.69	0.55	6.66	6.13	19,117				
Other AFTT Areas	0.07	0.86	1.04	0.06	0.72	0.66	2,785				

Table H-13: Aircraft Emissions by OPAREA – Inside State Waters – Phase IV Alternative 1

		Alternative 1 (Tons per Year of Emissions)								
Area	VOCs	со	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO₂e (MT)			
Northeast	0.04	0.50	0.70	0.04	0.33	0.30	-			
VACAPES	3.10	35.29	37.87	2.16	24.00	22.08	-			
Cherry Pt	0.37	4.36	4.75	0.27	2.97	2.73	-			
JAX	1.13	12.92	14.47	0.81	8.65	7.96	-			
SFOMF	0.00	0.04	0.04	0.00	0.03	0.02	-			
Key West	0.15	1.71	1.76	0.10	1.16	1.07	-			
Gulf Range Complex	0.71	8.13	8.70	0.50	5.57	5.12	-			
Other AFTT Areas	0.01	0.18	0.20	0.01	0.15	0.14	-			

Note: CO₂e emissions within state waters included in emissions by OPAREA – see Table H-12.

Table H-14: Munitions Emissions by OPAREA – Phase IV Alternative 1

	Alternative 1 (Tons per Year of Emissions)									
Area	VOCs	со	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	Pb	CO₂e (MT)		
Northeast	0.001	0.71	0.02	0.001	1.08	0.79	0.002	1		
VACAPES	0.024	47.27	0.82	0.004	32.39	24.73	0.201	34		
Cherry Pt	0.004	15.38	0.28	0.001	5.55	4.09	0.026	9		
JAX	0.012	33.39	0.60	0.002	18.33	13.72	0.175	27		
Key West	0.000	2.74	0.06	0.001	0.73	0.49	0.003	3		
Gulf Range Complex	0.001	3.25	0.07	0.001	1.12	0.79	0.015	4		
Other AFTT Areas	0.000	1.32	0.02	0.001	0.40	0.29	0.001	1		

Note: Phase IV Alternative 1 emissions = 0.96 \* Phase III emissions. All emissions would occur greater than 3 nm from shore.

Table H-15: Emissions by OPAREA – Inside State Water Boundaries – Phase IV Alternative 1

		Alternative 1 (Tons per Year of Emissions)									
Area	VOCs	со	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO₂e (MT)				
Northeast	6.95	59.13	285.96	4.78	6.20	5.70	35,547				
VACAPES	38.73	303.00	1,466.29	243.81	53.37	49.10	171,789				
Cherry Pt	10.72	40.50	229.60	16.81	7.20	6.62	28,655				
JAX	7.14	57.92	230.35	17.66	13.55	12.47	29,154				
SFOMF	0.29	3.18	11.65	0.02	0.20	0.18	631				
Key West	0.89	5.62	20.23	0.33	1.58	1.46	1,088				
Gulf Range Complex	9.12	93.93	422.92	2.00	13.36	12.29	54,677				
Other AFTT Areas	0.77	3.22	25.61	1.87	0.78	0.72	2,907				

Table H-16: Grand Total Emissions Summary by OPAREA – Phase IV Alternative 1

		Alternative 1 (Tons per Year of Emissions)									
Area	VOCs	со	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO₂e (MT)				
Northeast	12.43	106.76	456.03	13.58	12.82	11.59	64,292				
VACAPES	120.15	1,185.56	4,242.32	498.42	249.56	224.52	848,527				
Cherry Pt	44.68	383.68	1,225.01	113.16	64.66	58.47	376,732				
JAX	52.79	587.05	1,711.30	168.60	104.02	92.55	528,802				
SFOMF	0.46	5.79	19.10	0.08	0.36	0.34	1,327				
Key West	9.00	47.73	228.89	9.22	22.24	20.28	356,420				
Gulf Range Complex	38.22	302.38	1,315.65	40.68	33.27	30.37	159,258				
Other AFTT Areas	2.62	28.38	96.03	9.45	3.04	2.73	16,278				
Total - Phase IV Alternative 1	280.36	2,647.33	9,294.33	853.17	489.98	440.85	2,351,637				
Total - Phase III Alternative 1	344.26	3,477.74	9,823.98	3,615.51	608.84	549.79	2,905,140				
Net Change - Phase IV - Phase III	(63.91)	(830.41)	(529.65)	(2,762.34)	(118.86)	(108.94)	(553,503)				

Notes: Includes emissions inside and outside state waters. Totals might vary slightly from the summation of individual values due to minor rounding errors.

Table H-17: Vessel Emissions by OPAREA – Outside State Waters – Phase IV Alternative 2

		Alternative 2 (Tons per Year of Emissions)									
Area	VOCs	со	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO₂e (MT)				
Northeast	5.57	42.38	166.98	8.76	2.53	2.33	15,275				
VACAPES	90.10	877.61	2,828.79	277.50	49.37	45.42	419,192				
Cherry Pt	36.43	346.74	1,031.18	105.98	17.59	16.18	164,704				
JAX	48.31	519.78	1,531.00	170.38	27.78	25.56	248,649				
SFOMF	0.17	2.57	7.41	0.05	0.14	0.13	662				
Key West	9.14	35.02	228.32	11.08	3.48	3.20	19,141				
Gulf Range Complex	36.19	230.72	1,069.54	50.55	15.09	13.88	104,252				
Other AFTT Areas	2.47	32.86	92.59	12.54	1.67	1.54	15,157				

Table H-18: Vessel Emissions by OPAREA – Inside State Waters – Phase IV Alternative 2

			Alternative 2	(Tons per Yed	ar of Emission	ıs)	
Area	VOCs	со	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO₂e (MT)
Northeast	7.42	60.60	297.79	5.47	6.12	5.63	36,623
VACAPES	36.01	270.64	1,448.84	244.73	29.90	27.51	175,086
Cherry Pt	10.39	36.66	228.28	17.20	4.32	3.98	29,320
JAX	6.37	48.88	241.51	21.34	5.61	5.16	33,870
SFOMF	0.29	3.14	11.61	0.02	0.17	0.16	631
Key West	0.80	4.06	19.98	0.25	0.46	0.42	1,160
Gulf Range Complex	8.54	86.30	418.14	1.54	7.87	7.24	55,003
Other AFTT Areas	0.86	4.36	33.98	3.49	0.87	0.80	4,570

Table H-19: Aircraft Emissions by OPAREA – Outside State Waters – Phase IV Alternative 2

	Alternative 2 (Tons per Year of Emissions)													
Area	VOCs	со	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO₂e (MT)							
Northeast	0.40	7.00	16.82	0.65	3.22	2.96	14,758							
VACAPES	4.51	38.96	297.16	8.98	115.65	106.40	300,091							
Cherry Pt	2.13	19.87	88.60	2.80	37.30	34.32	207,238							
JAX	3.70	38.25	130.30	4.62	47.71	43.89	280,902							
SFOMF	0.00	0.04	0.04	0.00	0.03	0.02	35							
Key West	1.36	14.48	40.05	1.58	18.05	16.60	345,552							
Gulf Range Complex	0.67	7.57	11.37	0.55	6.61	6.08	18,386							
Other AFTT Areas	0.07	0.86	1.04	0.06	0.72	0.66	2,785							

Table H-20: Aircraft Emissions by OPAREA – Inside State Waters – Phase IV Alternative 2

		,	Alternative 2	(Tons per Yed	ar of Emission	ıs)	
Area	VOCs	со	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO₂e (MT)
Northeast	0.06	0.57	0.88	0.04	0.43	0.39	-
VACAPES	3.09	35.24	37.83	2.16	23.96	22.04	-
Cherry Pt	0.37	4.37	4.76	0.27	2.98	2.74	-
JAX	1.13	12.95	14.50	0.81	8.67	7.98	-
SFOMF	0.00	0.04	0.04	0.00	0.03	0.02	-
Key West	0.15	1.72	1.77	0.10	1.16	1.07	-
Gulf Range Complex	0.71	8.15	8.73	0.50	5.58	5.13	-
Other AFTT Areas	0.01	0.18	0.20	0.01	0.15	0.14	-

Note: CO<sub>2</sub>e emissions within state waters included in emissions by OPAREA - see Table H-19.

Table H-21: Munitions Emissions by OPAREA – Phase IV Alternative 2

			Alterna	tive 2 (Tons	per Year of	Emissions)		
Area	VOCs	со	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	Pb	CO₂e (MT)
Northeast	0.001	0.71	0.02	0.001	1.09	0.80	0.002	1
VACAPES	0.025	47.77	0.83	0.004	32.73	24.98	0.201	34
Cherry Pt	0.004	15.54	0.28	0.001	5.61	4.13	0.026	9
JAX	0.012	33.74	0.60	0.002	18.52	13.86	0.175	27
Key West	0.000	2.77	0.06	0.001	0.73	0.49	0.003	3
Gulf of America	0.001	3.28	0.07	0.001	1.13	0.80	0.015	4
Other AFTT Areas	0.000	1.33	0.02	0.001	0.40	0.30	0.001	1

Note: Phase IV Alternative 2 emissions = 0.97 \* Phase III emissions. All emissions would occur greater than 3 nm from shore.

Table H-22: Emissions by OPAREA – Inside State Water Boundaries – Phase IV Alternative 2

			Alternative 2	(Tons per Yed	ar of Emission	ıs)	
Area	VOCs	со	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO₂e (MT)
Northeast	7.48	61.18	298.67	5.51	6.55	6.02	36,623
VACAPES	39.10	305.88	1,486.66	246.89	53.86	49.55	175,086
Cherry Pt	10.76	41.03	233.04	17.47	7.30	6.72	29,320
JAX	7.50	61.83	256.01	22.15	14.28	13.14	33,870
SFOMF	0.29	3.18	11.65	0.02	0.20	0.18	631
Key West	0.95	5.78	21.74	0.35	1.62	1.49	1,160
Gulf Range Complex	9.26	94.45	426.87	2.04	13.46	12.38	55,003
Other AFTT Areas	0.88	4.54	34.19	3.51	1.03	0.94	4,570

Table H-23: Grand Total Emissions Summary by OPAREA – Phase IV Alternative 2

		,	Alternative 2 (	Tons per Yea	ır of Emissio	ns)	
Area	VOCs	со	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO₂e (MT)
Northeast	13.44	111.27	482.49	14.93	13.39	12.12	66,658
VACAPES	133.74	1,270.21	4,613.45	533.37	251.62	226.36	894,403
Cherry Pt	49.33	423.19	1,353.11	126.25	67.80	61.35	401,271
JAX	59.53	653.61	1,917.92	197.15	108.29	96.44	563,448
SFOMF	0.46	5.79	19.10	0.08	0.36	0.34	1,327
Key West	11.45	58.04	290.17	13.01	23.88	21.79	365,855
Gulf Range Complex	46.12	336.02	1,507.85	53.14	36.28	33.14	177,645
Other AFTT Areas	3.42	39.59	127.83	16.11	3.82	3.44	22,513
Total - Phase IV	317.49	2,897.72	10,311.91	954.04	505.44	454.97	2,493,120
Alternative 2							
Total - Phase III	344.26	3,477.74	9,823.98	3,615.51	608.84	549.79	2,905,140
Alternative 1							
Net Change - Phase IV - Phase III	(26.77)	(580.02)	487.94	(2,661.48)	(103.40)	(94.82)	(412,020)

Notes: Includes emissions inside and outside state waters. Totals might vary slightly from the summation of individual values due to minor rounding errors.

Table H-24: Conformity Applicability Analyses – Phase IV minus Phase III Emissions

		Α	Iternative :	1			A	Alternativ		
Nonattainment/			(tons/yr)					(tons/yr		
Maintenance Area	VOCs	СО	NO <sub>x</sub>	SO <sub>x</sub>	PM	VOCs	СО	NO <sub>x</sub>	SO <sub>x</sub>	PM
Rhode Island - Metro	politan Pr	ovidence	Interstate (	Ozone Noi	nattainm	ent¹				
Phase IV	5.91	50.26	243.06	4.07	5.27	6.35	52.00	253.87	4.68	5.57
Phase III	8.28	63.29	350.41	131.76	5.47	8.28	63.29	350.41	131.76	5.47
Net Change	(2.37)	(13.03)	(107.35)	(127.70)	(0.21)	(1.93)	(11.29)	(96.54)	(127.08)	0.09
Metropolitan Portlan	d/Cumbe	rland Cou	nty Ozone I	Maintenai	nce²					
Phase IV	0.69	5.91	28.60	0.48	0.62	0.75	6.12	29.87	0.55	0.65
Phase III	0.97	7.45	41.22	15.50	0.64	0.97	7.45	41.22	15.50	0.64
Net Change	(0.28)	(1.53)	(12.63)	(15.02)	(0.02)	(0.23)	(1.33)	(11.36)	(14.95)	0.01
Eastern Connecticut I	ntrastate	Ozone No	nattainme	nt <sup>3</sup>						
Phase IV	0.35	2.96	14.30	0.24	0.31	0.37	3.06	14.93	0.28	0.33
Phase III	0.49	3.72	20.61	7.75	0.32	0.49	3.72	20.61	7.75	0.32
Net Change	(0.14)	(0.77)	(6.31)	(7.51)	(0.01)	(0.11)	(0.66)	(5.68)	(7.48)	0.01
Virginia - Hampton Ro	oads Intra	state Ozo	ne Mainter	nance <sup>4</sup>						
VACAPES - Phase IV	38.73	303.00	1,466.29	243.81	53.37	39.10	305.88	1,486.66	246.89	53.86
VACAPES - Phase III	43.29	345.11	1,580.08	714.34	79.07	43.29	345.11	1,580.08	714.34	79.07
Net Change	(4.56)	(42.11)	(113.79)	(470.53)	(25.71)	(4.18)	(39.22)	(93.42)	(467.45)	(25.21)
Jacksonville, Florida S	ulfur Diox	cide Maint	tenance⁵							
Phase IV	7.14	57.92	230.35	17.66	13.55	7.50	61.83	256.01	22.15	14.28
Phase III	5.56	51.15	230.89	117.43	13.34	5.56	51.15	230.89	117.43	13.34
Net Change	1.57	6.78	(0.54)	(99.78)	0.22	1.94	10.68	25.12	(95.28)	0.95

Notes: All emissions would occur in state waters. Totals might vary slightly from the summation of individual values due to minor rounding errors.

Table H-25: Data Organization by Geographic Areas

Designation (1)		Relationship to EPA Region (Coastal States)				
Northeast OPAREA	Region 1:	Maine, New Hampshire, Massachusetts, Rhode Island, and Connecticut				
Northeast OPAREA	Region 2:	New York and New Jersey				
VACAPES OPAREA	Region 3:	Delaware and Virginia				
Cherry Pt OPAREA	Region 4:	North Carolina, South Carolina, Georgia				
JAX OPAREA	Region 4:	Florida				
Key West OPAREA	Region 4:	Florida				
Gulf Range Complex	Region 4:	Florida and Alabama				
OPAREA	Region 6:	Louisiana and Texas				
Outside Range Complexes	Other locations within the Study Area that are not in the OPAREA boundaries.					

Note:

 $<sup>^{\</sup>rm 1}$  Equates to 85% of the emissions that occur within the Northeast Area state waters.

<sup>&</sup>lt;sup>2</sup> Equates to 10% of the emissions that occur within the Northeast Area state waters.

<sup>&</sup>lt;sup>3</sup> Equates to 5% of the emissions that occur within the Northeast Area state waters.

<sup>&</sup>lt;sup>4</sup> Equates to 100% of the emissions that occur within the VACAPES and Virginia Capes Range Complex Inshore state waters.

<sup>&</sup>lt;sup>5</sup> Equates to 100% of the emissions that occur within the JAX and JAX Range Complex Inshore state waters.

<sup>&</sup>lt;sup>1</sup> The OPAREA designation includes adjacent state waters. Emissions in state waters separately delineated in the calculations.

Table H-26: Vessel and Boat Engine Specifics and Emission Factors

			P			ors (lb/hr) s + Genero						
Ship/Boat Type	Acronym	нс	со	NOx	SO <sub>x</sub> Phase 4	SO <sub>x</sub>	PM <sub>10</sub> / <sub>2.5</sub>	CO <sub>2</sub>	Vessel Mode	Engine model (# of Engines)	Use <sup>1</sup>	
							Ships					
Logistics/Support	A0E-6	10.6 5.9	109.6 35.0	310.6 444.4	0.4	103.0 154.4	3.5 5.3	67,802 81,308	Underway Restricted Waters	3608 (5) LM2500 (4)	Service Diesel Generator Main Gas Turbine	
Nuclear Aircraft Carrier - Nimitz	CVN-1	0.3	1.2	16.7	1.4	1.4	0.1	684		16-645E5 (4)	Emergency Diesel Generator	
Class	CVN-R	0.0	0.1	1.7	0.1	0.1	0.0	68				
Guided Missile Cruiser -	CG-68	4.3	61.5	79.6	54.5	54.5	2.3	24,191	Underway	501-K17 (3)	Service Gas Turbine Generator	
Ticonderoga	CG-08	2.5	27.7	285.5	110.0	110.0	10.0	69,839	Restricted Waters	LM2500 (4)	Main Gas Turbine	
Guided Missile Destroyer – Jack H	DDG-125	4.0	59.6	114.4	0.2	51.5	1.3	27,522	Underway	501-K34 (3)	Service Gas Turbine Generator	
Lucas	DDG-123	2.4	30.6	374.0	0.7	110.0	5.3	84,962	Restricted Waters	LM2500 (4)	Main Gas Turbine	
Guided Missile	FFG-61	3.1	32.8	47.1	11.0	11.0	1.1	10,404	Underway	3512B Tier 1 (4)	Service Diesel Generator	
Frigate	110 01	1.8	13.9	143.2	22.0	22.0	2.4	31,926	Restricted Waters	LM2500 (2)	Main Gas Turbine	
Littoral Combat		3.1	46.0	186.3	0.2	51.5	4.2	25,458	Underway	V1078 (2)	Service Diesel Generator	
Ship - Replaces FFG in Phase 4	LCS	6.2	79.0	152.2	0.1	23.2	6.2	11,092	Restricted Waters	16PA6B-STC (2) MT30 (2)	Main Diesel Engine Main Gas Turbine	
Amphibious Assault		14.5	8.4	277.2	10.2	10.2	4.8	35,847	Underway	12PA6B (6)	Service Diesel Generator	
Ship - America Class	LHA-8	15.2	18.7	199.5	10.2	10.2	3.3	27,999	Restricted Waters	LM2500+ (2)	Main Gas Turbine	
Amphibious Assault	LUD 0	14.5	8.4	277.2	10.2	10.2	4.8	35,847	Underway	12PA6B (6)	Service Diesel Generator	
Ship – Wasp Class	LHD-8	15.2	18.7	199.5	10.2	10.2	3.3	27,999	<b>Restricted Waters</b>	LM2500+ (2)	Main Gas Turbine	
Landing Transport Dock - San Antonio	LPD-17	16.9	31.6	272.3	37.5	37.5	3.3	16,767	Underway	3608 (Tier 1) (5)	Service Diesel Generator	
Class	LPD-17	15.0	28.1	263.8	33.0	33.0	2.8	15,026	Restricted Waters	PC2.5STC (4)	Main Diesel Engine	
Dock Landing Ship	LSD	10.8	21.3	334.5	0.01	2.6	2.2	16,264	Underway	38D8-1/8 (4)	Service Diesel Generator	
	LJU	20.4	40.0	604.3	0.2	51.5	2.2	21,126	Restricted Waters	PC2.5V (4)	Main Diesel Engine	
Patrol Coastal	PC	5.9	37.2	73.9	0.01	1.5	1.3	7,660	Underway	16RP200 (2)	Service Diesel Generator	
	1.0	7.3	43.1	78.1	0.01	1.5	1.5	8,037	Restricted Waters	3306B (4)	Main Diesel Engine	
USNS Vadm K. R.	T-AG 5001	6.8	13.7	103.9	0.1	20.6	20.3	35,774	Underway	3406 (1)	Service Diesel Generator	
Wheeler	. 7.0 5001	6.8	13.7	101.6	0.1	20.6	20.1	35,663	Restricted Waters	3508 (2)	Service Diesel Generator	

Table H-26: Vessel and Boat Engine Specifics and Emission Factors (continued)

			P			ors (lb/hr) s + Genero					
Ship/Boat Type	Acronym	нс	со	NOx	SO <sub>x</sub> Phase 4	SO <sub>x</sub>	PM <sub>10</sub> / <sub>2.5</sub>	CO <sub>2</sub>	Vessel Mode	Engine model (# of Engines)	Use <sup>1</sup>
										3512 (2) 12 M 32C (2)	Service Diesel Generator Main Diesel Engine
Ocean Surveillance Vessel - Offshore	T-AGOS 19	2.9 2.9	4.8 4.8	66.7 66.4	0.02 0.02	5.1 5.1	0.9	2,895 2,886	Underway Restricted Waters	3408C TA (1) 3512 (4)	Service Diesel Generator Main Diesel Engine
Maritime		3.7	76.8	419.5	0.4	103.0	2.4	52,666	Underway	3516B TA (1)	Service Diesel Generator
Prepositioning Force Ship	T-AKR 312	5.7	40.3	193.8	0.2	51.5	2.4	27,056	Restricted Waters	3608 Tier 1 (5) LM2500 (2)	Service Diesel Generator Main Gas Turbine
Rescue and Salvage	T ADC 52	1.3	3.1	32.1	0.02	5.1	0.4	3,403	Underway	D399(S) (3)	Service Diesel Generator
Ship	T-ARS 52	0.9	3.3	38.1	0.04	5.1	0.2	3,967	Restricted Waters	D399(M) (4)	Main Diesel Engine
		2.2	16.3	104.1	0.04	10.3	0.4	3,586	Underway	16V-71T 7163-7305	Service Diesel Generator
Support Vessel	T-ATF-168	2.6	13.4	139.5	0.04	10.3	0.4	4,836	Restricted Waters	(3) 20-645E7 (2)	Main Diesel Engine
USCG Cutter -	WMEC-210	1.5	11.2	71.3	0.03	7.1	0.3	2,456	Underway	None	Service Diesel Generator
Resilient Class - 210'	WIVIEC-210	1.8	9.2	95.5	0.03	7.1	0.3	3,312	Restricted Waters	ALCO 251B (2)	Main Diesel Engine
USCG Cutter -	WMEC-270	2.2	16.3	104.1	0.04	10.3	0.4	3,586	Underway	3512B (2)	Service Diesel Generator
Famous Class - 270'	WWILC-270	2.6	13.4	139.5	0.04	10.3	0.4	4,836	Restricted Waters	ALCO V-18 (2)	Main Diesel Engine
USCG Cutter -		9.4	215.2	433.0	0.4	83.2	16.0	37,391	Underway	3512B (3)	Service Diesel Generator
Legend Class - 418'	WMSL	2.4	56.7	104.8	0.1	28.1	4.0	7,158	Restricted Waters	MTU 20V 1163 (2) LM2500 (1)	Main Diesel Engine Main Gas Turbine
						ı	Boats				
Amphibious Assault Vehicle – Phase 3 Only	AAV-P7/A1	0.8	0.8	6.2	1.3	1.3	0.3	647	All	None VT 400 903 (P-7A1), 525 Hp (1)	Service Diesel Generator Main Diesel Engine
Amphibious Combat Vehicle – Phase 4 Only	ACV	1.1	1.0	8.3	1.7	1.7	0.3	863	All	None Iveco Cursor 16, 700 Hp (1)	Service Diesel Generator Main Diesel Engine
Landing Craft Air Cushion	LCAC – Phase 3 Only	3.5	18.3	114.5	9.3	9.3	2.3	20,693	All	T-62-T-40-7 (2) TF-40B, 3,955 Hp (4)	APU Engine Main Diesel Engine
Cusilion	LCAC-SSC – Phase 4 only	4.6	24.2	151.1	12.2	12.2	3.0	27,315	All	68 kW (2) 6,100 Hp (4)	APU Engine Main Diesel Engine

Table H-26: Vessel and Boat Engine Specifics and Emission Factors (continued)

			P			ors (lb/hr) s + Genero					
Ship/Boat Type	Acronym	нс	со	NOx	SO <sub>x</sub> Phase 4	SO <sub>x</sub> Phase 3	PM <sub>10</sub> / <sub>2.5</sub>	CO₂	Vessel Mode	Engine model (# of Engines)	Use <sup>1</sup>
Landing Craft Utility	LCU/LCM	0.5	36.2	45.0	0.1	25.7	1.6	1,683.9	All	None 12V-71 7122-7000 (2)	Service Diesel Generator Main Diesel Engine
Combat Rubber Raiding Craft	CRRC	1.3	6.4	0.4	0.0001	0.0001	0.02	87	All	55 Hp 2-stroke engine Tier 0 (1)	Main Gasoline Engine
Patrol Boat – 40' Defiant Emissions Factors	40 FT PB	0.2	9.0	10.1	0.01	2.6	0.0	1,294	All	Twin Cummins QSB 6.7 inboards Tier 3 (2)	Main Diesel Engine
Patrol Boat – 33' Riverine Assault Boat	RA	0.7	1.5	14.1	0.01	2.1	0.2	836	All		Main Diesel Engine
Patrol Boat - Sea Ark 34' (Dauntless Class)	34 FT PB	0.6	1.4	13.5	0.2	46.8	0.3	739	All	Cummins 380 Hp (2)	Main Diesel Engine
Disid Inflatable Deet	7M RHIB	0.1	2.0	2.6	0.02	5.1	0.1	267	All	230 Hp (1)	Main Diesel Engine
Rigid Inflatable Boat (zodiac)	11M RHIB	0.2	6.2	8.8	0.1	25.7	0.2	903	All	Caterpillar 3126, 470 Hp (2)	Main Diesel Engine

<sup>&</sup>lt;sup>1</sup> Data from Navy and MSC Marine Engine Fuel Consumption & Emissions Calculator, U.S. Navy, February 2025

**Table H-27: Aircraft Engine Specifics and Emission Factors** 

	Fusing	#	Aircraft	Fuel Flow		Emission	s Indices	(Lb/1,0	00 Lb Fuel)			E	mission R	ates (Lb,	/hr)	
Aircraft	Engine Model	# Engines	Mode	per engine lb/hr	voc	со	NO <sub>x</sub>	SO <sub>2</sub>	PM <sub>10/2.5</sub>	CO <sub>2</sub>	voc	со	NO <sub>x</sub>	SO <sub>2</sub>	PM <sub>10/2.5</sub>	CO₂e
AH-1W	T700-GE-401C	2	Circle	406	0.57	11.21	5.44	0.37	4.20	3,221	0.46	9.10	4.42	0.30	3.41	2,616
C-130 F/R/T	T56-A-16 Turboprop	4	Circle	1,125	0.54	2.07	8.16	0.37	3.97	3,213	2.43	9.32	36.72	1.67	17.87	14,459
CH-53	T64-GE-415	3	Cruise	1,488	0.17	2.13	8.08	0.37	2.21	3,221	0.76	9.51	36.07	1.65	9.87	14,380
E-2 / E-2C	T56-A-425, -427	2	Approach	1,133	0.36	2.54	10.04	0.37	0.94	3,252	0.82	5.76	22.75	0.84	2.13	7,369
EA-18G	F414-GE-400	2	Circle	3,318	0.51	2.44	6.74	0.37	6.56	3,154	3.38	16.19	44.73	2.46	43.53	20,930
F-15E	F100-PW-229	2	Military	5,745	0.31	0.33	29.29	0.37	1.33	3,200	3.56	3.79	336.54	4.25	15.28	36,768
FA-18E/F	F414-GE-400	2	Approach	5,169	0.14	0.72	14.75	0.37	6.56	3,191	1.43	7.44	152.49	3.83	67.82	32,992
F-35A	F135-PW-100	1	55% Engine Thrust Request								0.18	9.80	150.61	11.73	0.99	38,265
HH-60	T700-GE-401C	2	Circle	600	0.55	6.25	6.40	0.37	4.20	3,221	0.76	7.50	7.68	0.44	5.04	3,866
Learjet	TFE731-2-2B	2	Approach	266	4.90	22.38	5.90	0.37	0.09	3,200	0.05	11.91	3.14	0.20	6.00	12,259
MH-60R/S	T700-GE-401C	2	Cruise	600	0.55	6.25	6.40	0.37	4.20	3,221	0.66	7.50	7.68	0.44	5.04	3,866
MV-22	T406-AD-400	2	Fixed Wing Cruise	1,910	0.01	0.52	14.09	0.37	1.57	3,209	0.05	1.99	53.82	1.41	6.00	12,259
P-8 MMA	737-800, CFM56- 7B26	2	Approach	2,770	0.12	1.41	11.00	0.37	0.09	3,161	0.64	7.81	60.94	2.05	0.49	17,512
S-3B	TF34-GE-400	2	Approach	1,145	2.14	14.10	4.07	0.37	3.62	3,200	4.90	32.29	9.32	0.85	8.29	7,328
UH-1N	T400-CP-400	2	Circle	270	0.17	3.34	4.72	0.37	4.20	3,221	0.09	1.80	2.55	0.20	2.27	1,740

Table H-28: Aircraft Engine Emission Factors References

Aircraft	Source of Emissions Indices Information
AH-1W	AESO Memorandum Report No. 9961, Revision A, November 2009 – Circle mode.
C-130 F/R/T	AESO Memorandum Report No. 2000-09D, December 2015 – Circle mode.
CH-53	AESO Memorandum Report No. 9822, Revision D, November 2009 – Cruise mode.
E-2 / E-2C	AESO Memorandum Report No. 9943E, September 2015 – Approach mode.
EA-18G	AESO Memorandum Report No. 9933, Revision D, March 2011 – Circle mode.
F-15E	Air Emissions Guide for Air Force Mobile Source, July 2016. Assumed fuel flow rate is total for each mode, not per engine – Military mode.
FA-18E/F	AESO Memorandum Report No. 9815 I, June 2017, Table 5 – Approach mode.
F-35A	Karnes 3 profile 21 - power rating = 55% ETR.
HH-60	AESO Memorandum Report No. 9929 Revision D December 2019, Table ES-2 – Cruise mode.
Learjet	Air Emissions Guide for Air Force Mobile Source, July 2024. Assumed fuel flow rate is total for each mode, not per engine – Approach mode.
MH-60R/S	AESO Memorandum Report No. 9929, Revision B, January 2014 – Cruise mode.
MV-22	AESO Memorandum Report No. 9946 Revision G, May 2017, Table ES-2 – Fixed Cruise Mode.
P-8 MMA	AESO Memorandum Report No. 2017-09, April 2017 – Approach mode.
S-3B	AESO Memorandum Report No. 9915B, May 2010 – Approach mode.
UH-1N	AESO Memorandum Report No. 9962, Revision A, November 2009 – Circle mode.

#### Notes:

 $PM_{2.5} = PM_{10}$  emissions, in accordance with AESO Memorandum Report No. 2013-04 Revision A, January 2014.  $PM_{2.5}$  to  $PM_{10}$  Ratio for Aircraft Emitted Particles.

U.S. Department of the Navy Aircraft Environmental Support Office Report 2012-01D, December 2014. Sulfur Dioxide Emission Index Using JP-5 and JP-8 Fuel.

VOC correction from U.S. Environmental Protection Agency, Recommended Best Practice for Quantifying Speciated Organic Gas Emissions from Aircraft Equipped with Turbofan, Turbojet and Turboprop Engines - Version 1.0, Report No. EPA-420-R-09-901, May 2009.

Table H-29: Assumptions Used in the Estimation of Emissions for the AFTT Final Supplemental EIS/OEIS - Phase IV

Vessel and Aircraft Activity Data and Emissions	Vessel and aircraft operational data were developed for each project activity and were based on current Phases III operations and expected changes to current operations for Phase IV.  Operational data were developed based on project operating areas and distances from shore delineated by less than 3 nautical miles (NM), 3 to 12 NM, and greater than NM oceanward. Aircraft operations took into consideration the amount of time flown within 3,000 feet of ground or ocean surfaces, commonly known as the mixing layer. Helicopters were evaluated as flying entirely within this mixing layer. The analysis only estimated criteria pollutant emissions for aircraft flown within the mixing layer. The analysis estimated greenhouse gas emissions for aircraft based on total flight times within the project operating areas.
NAVSEA Testing Activities	Some testing activities for Current Conditions (Phase III) and Alternative 1 (Phase IV) with ranges of annual events identified in Final Supplemental EIS/OEIS Tables 2.2-3 through 2.2-5 were evaluated based on the median of the events range. This approach is more efficient than and as meaningful as evaluating all scenario ranges.
NAVSEA Testing Activities	The analysis reduced the number of events for most NAVSEA testing activities compared to those presented in the Final Supplemental EIS/OEIS Table 2.2-4, as these activities were determined to simultaneously occur with like kind training activities. This was done to prevent the double counting of emissions from these testing activities. The following NAVSEA testing activities were not affected by this reduction process:  • Amphibious Vessel Testing, • Surface Ship Sonar Testing/Maintenance, • Mine Countermeasure Mission Package Testing, • Acoustic and Oceanographic Research, • Acoustic Component Testing, • Intelligence, Surveillance, Reconnaissance, • Line Charge Testing, • Towed Equipment Testing, • Underwater Search, Deployment, and Recovery, • Aircraft Carrier Sea Trials – Propulsion Testing, • Hydrodynamic and Maneuverability Testing, • Large Ship Shock Trials, • Propulsion Testing, • Small Ship Shock Trials, • Submarine Sea Trials – Propulsion Testing, and • Submarine Sea Trials – Weapons System Testing.
Munitions Emissions	New munitions activity data were not included in for this update and therefore munitions emissions were not included in the air emissions analysis. Munitions emissions are de minimis in comparison to emissions from other project sources and mainly occur greater than 12 NM offshore. Recommend using the munitions emissions estimates presented in the Final Supplemental EIS/OEIS which show Phase IV emissions are slightly lower (95%) than those estimated for Phase III.

# H.2 NAVY RECORD OF NON-APPLICABILITY (RONA) FOR CLEAN AIR ACT CONFORMITY

#### H.2.1 RHODE ISLAND OZONE NONATTAINMENT AREA

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

# **Proposed Action**

Action Proponent: United States (U.S.) Navy, Fleet Forces Command

Location: Rhode Island State Waters

**Proposed Action Name:** Atlantic Fleet Training and Testing (AFTT)

Proposed Action and Emissions Summary: The Proposed Action (Preferred Alternative, Alternative 1) involves operation of military vessels, small boats, and aircraft and munition usages to achieve requisite training and testing requirements. Small boats and vessels would operate within the nearshore and state waters of Rhode Island. These activities generate emissions primarily through fossil fuel combustion from engine operations. Emissions from the Proposed Action would replace those associated with the Phase III (Alternative 1) training and testing activities approved in the 2018 Final Atlantic Fleet Training and Testing Environmental Impact Statement/Overseas Environmental Impact Statement (EIS/OEIS). The entire state of Rhode Island and its state waters are an orphan nonattainment area for the 1997 ozone national ambient air quality standard. As a result, Proposed Action emissions were evaluated to assess compliance with the General Conformity Rule de minimis thresholds for ozone precursors (volatile organic compounds [VOCs] and nitrogen oxides [NOx]). Table H-30 provides a summary of the evaluation.

Table H-30: Proposed Action Ozone Precursor Emissions Compared to General Conformity Rule *de Minimis* Thresholds (tons/year)

Activity	voc	NOx
Alternative 1	5.91	243.06
Phase III	8.28	350.41
Net Change Alternative 1 minus Phase III	-2.37	-107.35
De Minimis Thresholds	100	100
Exceed Threshold?	No	No

Affected Air Basin: Metropolitan Providence Interstate

Date RONA Prepared: July 16, 2025

RONA Prepared by: Navy Facilities Engineering Command Atlantic

# **Proposed Action Exemptions**

The Proposed Action is exempt from General Conformity Rule requirements, based on the determination that emissions associated with the Proposed Action are below all *de minimis* thresholds.

#### **Emissions Evaluation Conclusion**

The U.S. Navy concludes that *de minimis* thresholds for ozone precursors would not be exceeded as a result of implementation of the Proposed Action. The emissions data supporting this conclusion is

shown in Table H-30 above. The calculations, methodology, data, and references are contained in Section 3.1 (Air Quality) and Appendix H of the AFTT Supplemental EIS/OEIS. Therefore, the Navy concludes that further formal Conformity Determination procedures are not required, resulting in this RONA.

RONA Approval COFFIN.DAVID.E. Digitally signed by COFFIN.DAVID.E. 1504719800 Date: 2025.08.04 13:49:12 -04'00'

Name: Dave Coffin, PE

Position: Environmental Compliance Analyst

# H.2.2 METROPOLITAN PORTLAND/CUMBERLAND COUNTY, MAINE, OZONE MAINTENANCE AREA

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

# **Proposed Action**

Action Proponent: United States (U.S.) Navy, Fleet Forces Command

Location: Portland/Cumberland County, Maine, State Waters

Proposed Action Name: Atlantic Fleet Training and Testing (AFTT)

Proposed Action and Emissions Summary: The Proposed Action (Preferred Alternative, Alternative 1) involves operation of military vessels, small boats, and aircraft and munition usages to achieve requisite training and testing requirements. Small boats and vessels would operate within the nearshore and state waters of Cumberland County, Maine. These activities generate emissions primarily through fossil fuel combustion from engine operations. Emissions from the Proposed Action would replace those associated with the Phase III (Alternative 1) training and testing activities approved in the 2018 Final Atlantic Fleet Training and Testing Environmental Impact Statement/Overseas Environmental Impact Statement (EIS/OEIS). The Metropolitan Portland/Cumberland County region and its state waters are an orphan maintenance area for the 1997 ozone national ambient air quality standard. As a result, Proposed Action emissions were evaluated to assess compliance with the General Conformity Rule de minimis thresholds for ozone precursors (volatile organic compounds [VOCs] and nitrogen oxides [NOx]). Table H-31 provides a summary of the evaluation.

Table H-31: Proposed Action Ozone Precursor Emissions Compared to General Conformity Rule *de Minimis* Thresholds (tons/year)

Activity	voc	NOx
Alternative 1	0.69	28.60
Phase III	0.97	41.22
Net Change Alternative 1 minus Phase III	-0.28	-12.63
De Minimis Thresholds	100	100
Exceed Threshold?	No	No

Affected Air Basin: Metropolitan Portland Intrastate

Date RONA Prepared: July 16, 2025

RONA Prepared by: Navy Facilities Engineering Command Atlantic

### **Proposed Action Exemptions**

The Proposed Action is exempt from General Conformity Rule requirements, based on the determination that emissions associated with the Proposed Action are below all *de minimis* thresholds.

#### **Emissions Evaluation Conclusion**

The U.S. Navy concludes that *de minimis* thresholds for ozone precursors would not be exceeded as a result of implementation of the Proposed Action. The emissions data supporting this conclusion is shown in Table H-31 above. The calculations, methodology, data, and references are contained in Section 3.1 (Air Quality) and Appendix H of the AFTT Supplemental EIS/OEIS. Therefore, the Navy

concludes that further formal Conformity Determination procedures are not required, resulting in this RONA.

**RONA Approval** 

COFFIN.DAVID.E.150471 Digitally signed by COFFIN.DAVID.E.1504719800 Date: 2025.08.04 13:50:09 -04'00' Signature: \_\_

Name: Dave Coffin, PE

Position: Environmental Compliance Analyst

# H.2.3 EASTERN CONNECTICUT INTRASTATE (NEW LONDON COUNTY), OZONE NONATTAINMENT AREA

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

# **Proposed Action**

Action Proponent: United States (U.S.) Navy, Fleet Forces Command

Location: Eastern Connecticut/New London County, State Waters

Proposed Action Name: Atlantic Fleet Training and Testing (AFTT)

Proposed Action and Emissions Summary: The Proposed Action (Preferred Alternative, Alternative 1) involves operation of military vessels, small boats, and aircraft and munition usages to achieve requisite training and testing requirements. Small boats and vessels would operate within the nearshore and state waters of New London County, Connecticut. These activities generate emissions primarily through fossil fuel combustion from engine operations. Emissions from the Proposed Action would replace those associated with the Phase III (Alternative 1) training and testing activities approved in the 2018 Final Atlantic Fleet Training and Testing Environmental Impact Statement/Overseas Environmental Impact Statement (EIS/OEIS). The Eastern Connecticut Intrastate region and its state waters are serious nonattainment area for the 2015 ozone national ambient air quality standard. As a result, Proposed Action emissions were evaluated to assess compliance with the General Conformity Rule de minimis thresholds for ozone precursors (volatile organic compounds [VOCs] and nitrogen oxides [NOx]). Table H-32 provides a summary of the evaluation.

Table H-32: Proposed Action Ozone Precursor Emissions Compared to General Conformity Rule *de Minimis* Thresholds (tons/year)

Activity	voc	NOx
Alternative 1	0.35	14.30
Phase III	0.49	20.61
Net Change Alternative 1 minus Phase III	-0.14	-6.31
De Minimis Thresholds	50	50
Exceed Threshold?	No	No

Affected Air Basin: Metropolitan Portland Intrastate

Date RONA Prepared: July 16, 2025

RONA Prepared by: Navy Facilities Engineering Command Atlantic

### **Proposed Action Exemptions**

The Proposed Action is exempt from General Conformity Rule requirements, based on the determination that emissions associated with the Proposed Action are below all *de minimis* thresholds.

#### **Emissions Evaluation Conclusion**

The U.S. Navy concludes that *de minimis* thresholds for ozone precursors would not be exceeded as a result of implementation of the Proposed Action. The emissions data supporting this conclusion is shown in Table H-32 above. The calculations, methodology, data, and references are contained in Section 3.1 (Air Quality) and Appendix H of the AFTT Supplemental EIS/OEIS. Therefore, the Navy

concludes that further formal Conformity Determination procedures are not required, resulting in this RONA.

RONA Approval COFFIN.DAVID.E.150 Digitally signed by

4719800 COFFIN.DAVID.E.1504719800
Date: 2025.08.04 13:51:02 -04'00'

Signature:

Name: Dave Coffin, PE

Position: Environmental Compliance Analyst

# H.2.4 HAMPTON ROADS, VIRGINIA, OZONE MAINTENANCE AREA

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

#### **Proposed Action**

Action Proponent: United States (U.S.) Navy, Fleet Forces Command

Location: Chesapeake Bay, Virginia, State Waters

<u>Proposed Action Name</u>: Atlantic Fleet Training and Testing (AFTT)

Proposed Action and Emissions Summary: The Proposed Action (Preferred Alternative, Alternative 1) involves operation of military vessels, small boats, and aircraft and munition usages to achieve requisite training and testing requirements. Small boats, vessels, and aircraft would operate within the Chesapeake Bay and adjacent state waters of Virginia. These activities generate emissions primarily through fossil fuel combustion from engine operations. Emissions from the Proposed Action would replace those associated with the Phase III (Alternative 1) training and testing activities approved in the 2018 Final Atlantic Fleet Training and Testing Environmental Impact Statement/Overseas Environmental Impact Statement (EIS/OEIS). The Hampton Roads Area and its state waters are an orphan maintenance area for the 1997 ozone national ambient air quality standard. As a result, Proposed Action emissions were evaluated to assess compliance with the General Conformity Rule de minimis thresholds for ozone precursors (volatile organic compounds [VOCs] and nitrogen oxides [NO<sub>X</sub>]). Table H-33 provides a summary of the evaluation.

Table H-33: Proposed Action Ozone Precursor Emissions Compared to General Conformity Rule *de Minimis* Thresholds (tons/year)

Activity	VOC	NO <sub>x</sub>
Alternative 1	38.73	1,466.29
Phase III	43.29	1,508.08
Net Change Alternative 1 minus Phase III	-4.56	-113.79
De Minimis Thresholds	100	100
Exceed Threshold?	No	No

Affected Air Basin: Hampton Roads Intrastate

Date RONA Prepared: July 16, 2025

RONA Prepared by: Navy Facilities Engineering Command Atlantic

# **Proposed Action Exemptions**

The Proposed Action is exempt from General Conformity Rule requirements, based on the determination that emissions associated with the Proposed Action are below all *de minimis* thresholds.

#### **Emissions Evaluation Conclusion**

The U.S. Navy concludes that *de minimis* thresholds for ozone precursors would not be exceeded as a result of implementation of the Proposed Action. The emissions data supporting this conclusion is shown in Table H-33 above. The calculations, methodology, data, and references are contained in Section 3.1 (Air Quality) and Appendix H of the AFTT Supplemental EIS/OEIS. Therefore, the Navy

concludes that further formal Conformity Determination procedures are not required, resulting in this RONA.

COFFIN.DAVID. Digitally signed by COFFIN.DAVID.E.1504719800 **RONA Approval** 

E.1504719800 Date: 2025.08.04 13:48:35 Signature: \_\_\_\_

Name: Dave Coffin, PE

Position: Environmental Compliance Analyst

# H.2.5 JACKSONVILLE, FLORIDA, SULFUR DIOXIDE MAINTENANCE AREA

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

# **Proposed Action**

Action Proponent: United States (U.S.) Navy, Fleet Forces Command

Location: Jacksonville, Florida, and surrounding State Waters

Proposed Action Name: Atlantic Fleet Training and Testing (AFTT)

Proposed Action and Emissions Summary: The Proposed Action (Preferred Alternative, Alternative 1) involves operation of military vessels, small boats, and aircraft and munition usages to achieve requisite training and testing requirements. Small boats and vessels would operate within the riverine environment in the Jacksonville, Florida, locality. These nearshore activities generate emissions primarily through fossil fuel combustion from engine operations. Emissions from the Proposed Action would replace those associated with the Phase III (Alternative 1) training and testing activities approved in the 2018 Final Atlantic Fleet Training and Testing Environmental Impact Statement/Overseas Environmental Impact Statement (EIS/OEIS). Part of Nassau County, which is adjacent to Jacksonville, is a maintenance area for the sulfur dioxide (SO<sub>2</sub>) national ambient air quality standard. As a result, Proposed Action emissions were evaluated to assess compliance with the General Conformity Rule de minimis threshold for this pollutant. Table H-34 provides a summary of the evaluation.

Table H-34: Proposed Action Sulfur Dioxide Emissions Compared to General Conformity Rule *de Minimis* Thresholds (tons/year)

Activity	SO <sub>2</sub>
Alternative 1	17.66
Phase III	117.43
Net Change Alternative 1 minus Phase III	-99.78
De Minimis Thresholds	100
Exceed Threshold?	No

Affected Air Basin: Jacksonville (Florida)-Brunswick (Georgia) Interstate Air Quality Control Region

Date RONA Prepared: June 2, 2025

RONA Prepared by: Navy Facilities Engineering Command Atlantic

#### **Proposed Action Exemptions**

The Proposed Action is exempt from General Conformity Rule requirements, based on the determination that emissions associated with the Proposed Action are below the *de minimis* threshold for SO<sub>2</sub>.

#### **Emissions Evaluation Conclusion**

The U.S. Navy concludes that *de minimis* thresholds for sulfur dioxide would not be exceeded as a result of implementation of the Proposed Action. The emissions data supporting this conclusion is shown in Table H-34 above. The calculations, methodology, data, and references are contained in Section 3.1 (Air Quality) and Appendix H of the AFTT Supplemental EIS/OEIS. Therefore, the Navy concludes that further formal Conformity Determination procedures are not required, resulting in this RONA.

RONA Approval COFFIN.DAVID.E.150471 Digitally signed by

COFFIN.DAVID.E.1504719800

Signature: 9800 Date: 2025.08.04 13:53:35 -04'00'

Name: Dave Coffin, PE

Position: Environmental Compliance Analyst

Atlantic Fleet Training and Testing
Final Supplemental EIS/OEIS

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