

## **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
CO <sub>2</sub> e	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
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
NS	Naval Station
NSB	Naval Submarine Base
NSWC	Naval Surface Warfare Center
NUWC	Naval Undersea Warfare Center
OEIS	Overseas Environmental Impact Statement
ONR	Office of Naval Research
OPAREA	Operations Area
RONA	Record of Non-Applicability
PM <sub>10</sub>	particulate matter less than or equal to 10 microns in diameter
PM <sub>2.5</sub>	particulate matter less than or equal to 2.5 microns in diameter

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Pt	Point
RC	Range Complex
RI	Rhode Island
SEIS	Supplemental EIS
SFOMF	South Florida Ocean Measurement Facility Testing Range
SINKEX	Sinking Exercise
SO <sub>2</sub>	sulfur dioxide
SO <sub>x</sub>	sulfur oxides
TPY	tons per year
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

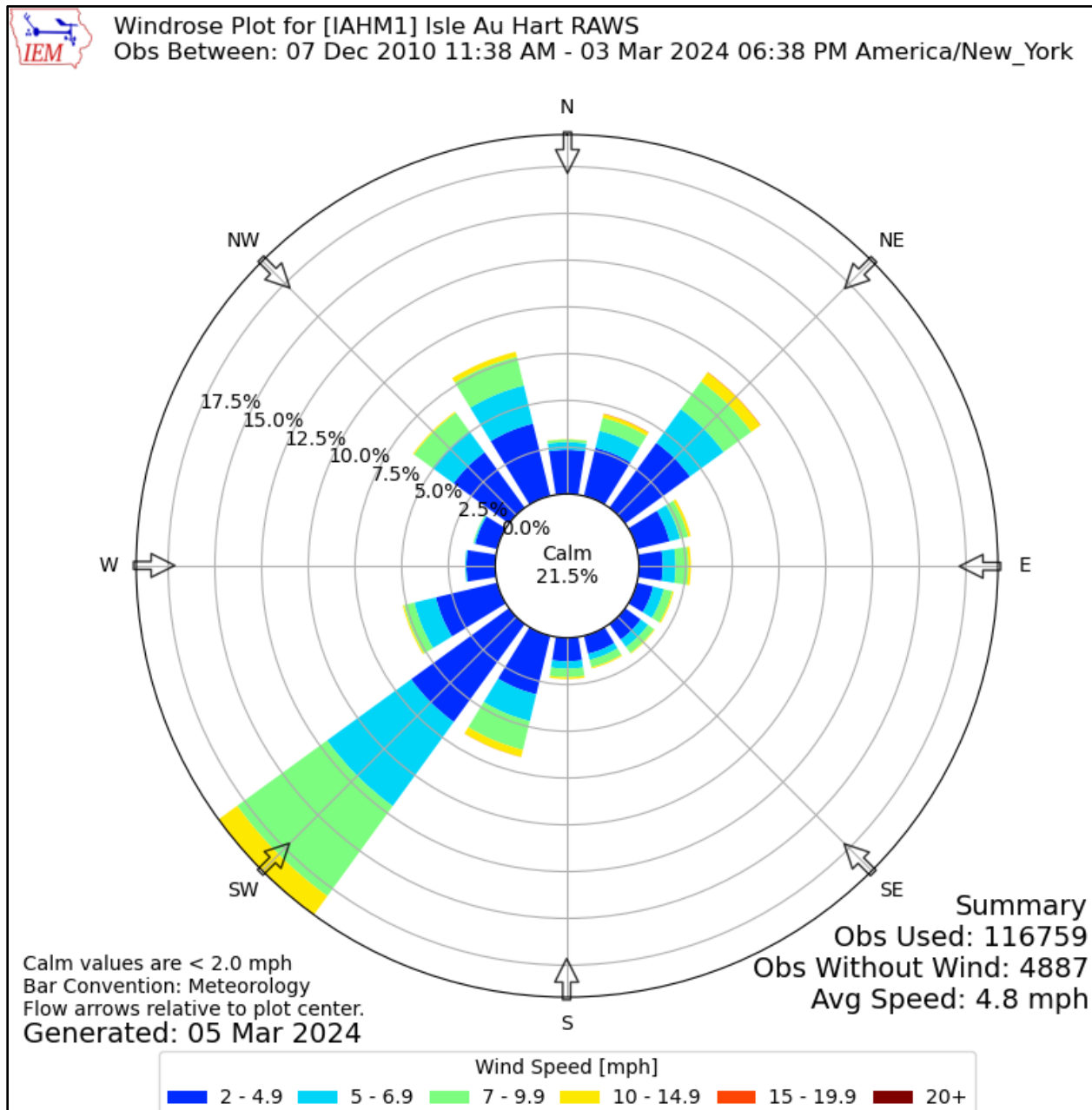


Figure H-1: Island 30 Miles Southwest of Bar Harbor

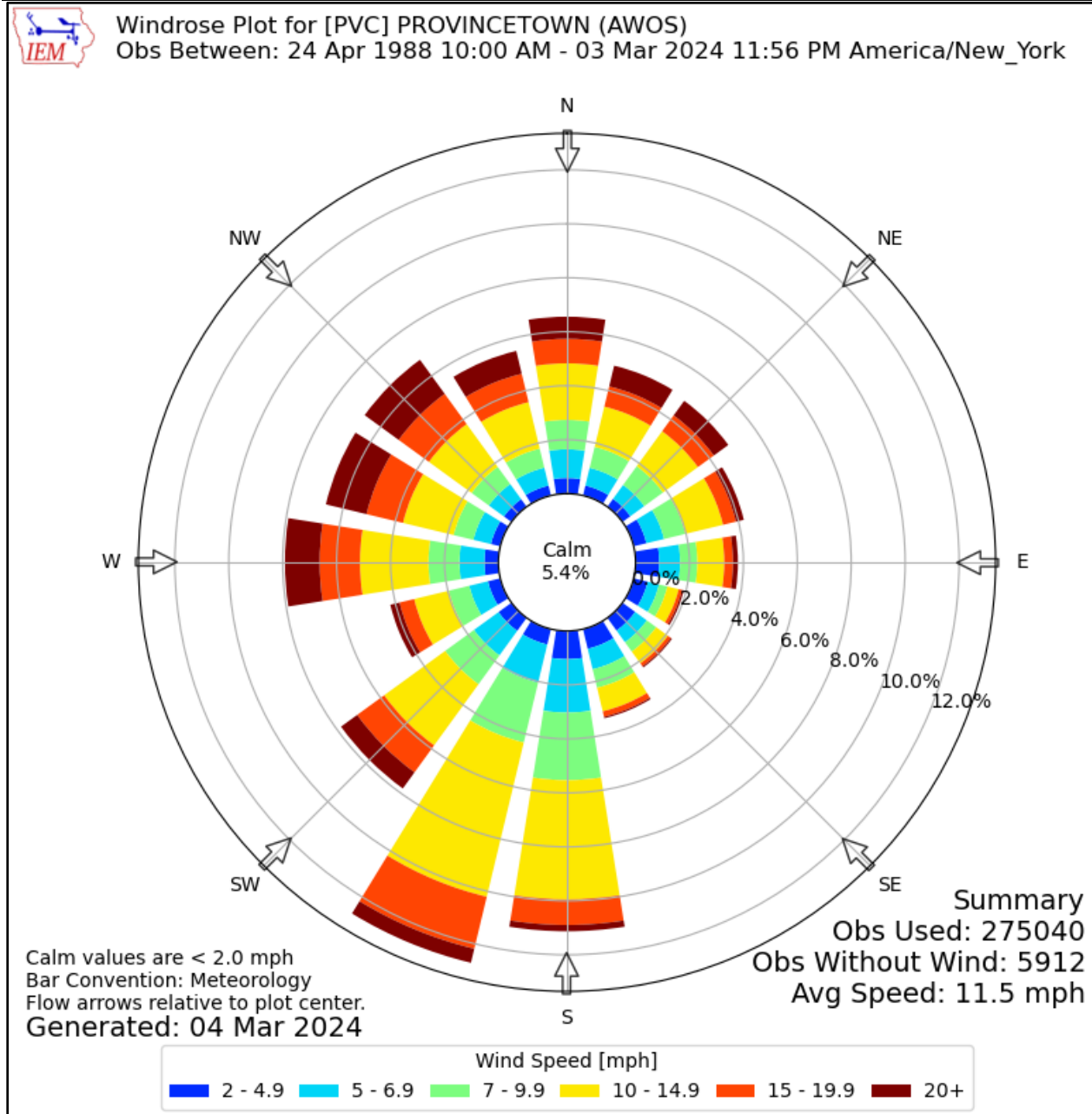
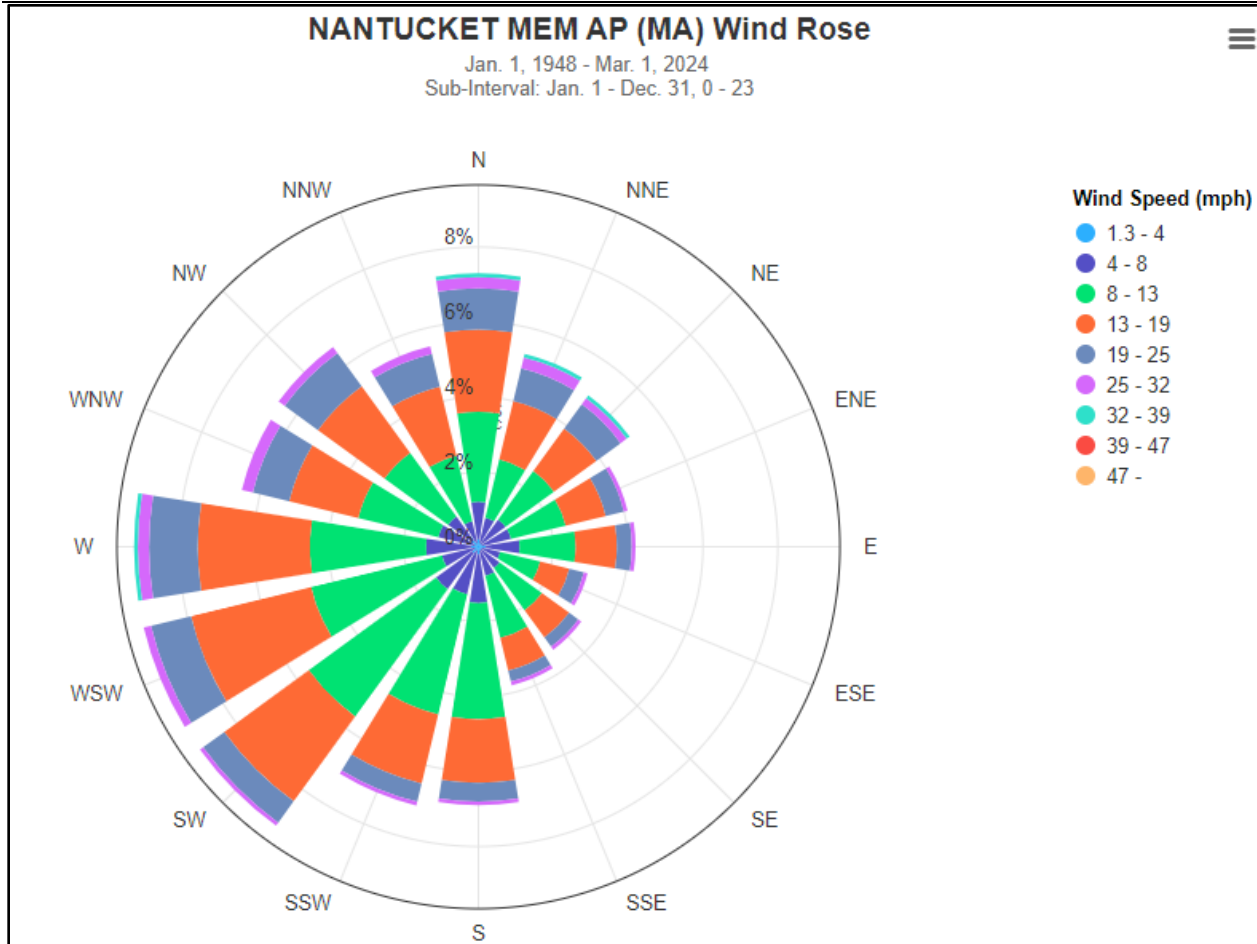
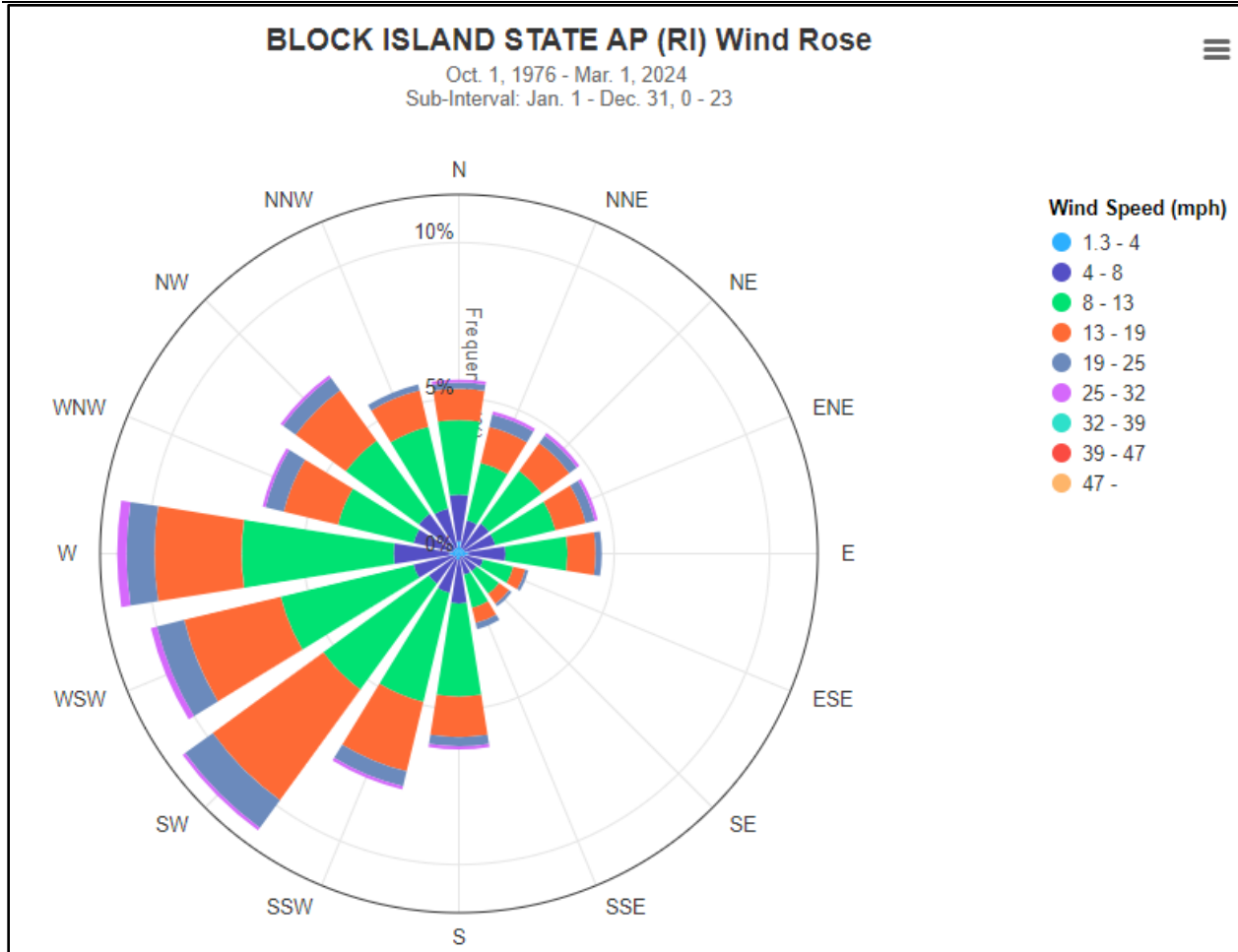


Figure H-2: Northern Tip of Cape Cod



**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**

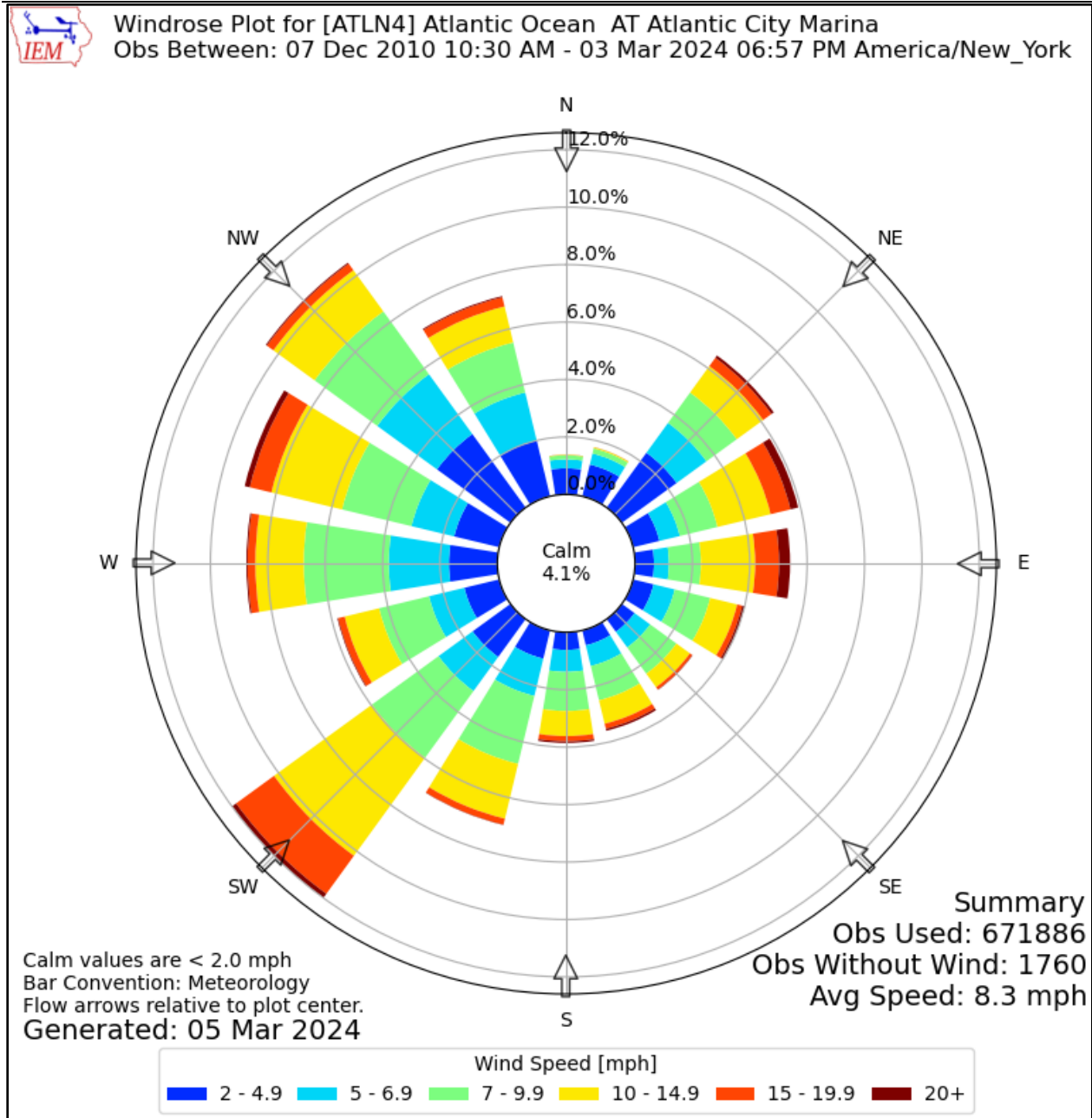


Figure H-5: Site Is 1 Mile from the Coast Inside the Atlantic City Marina Entrance Channel

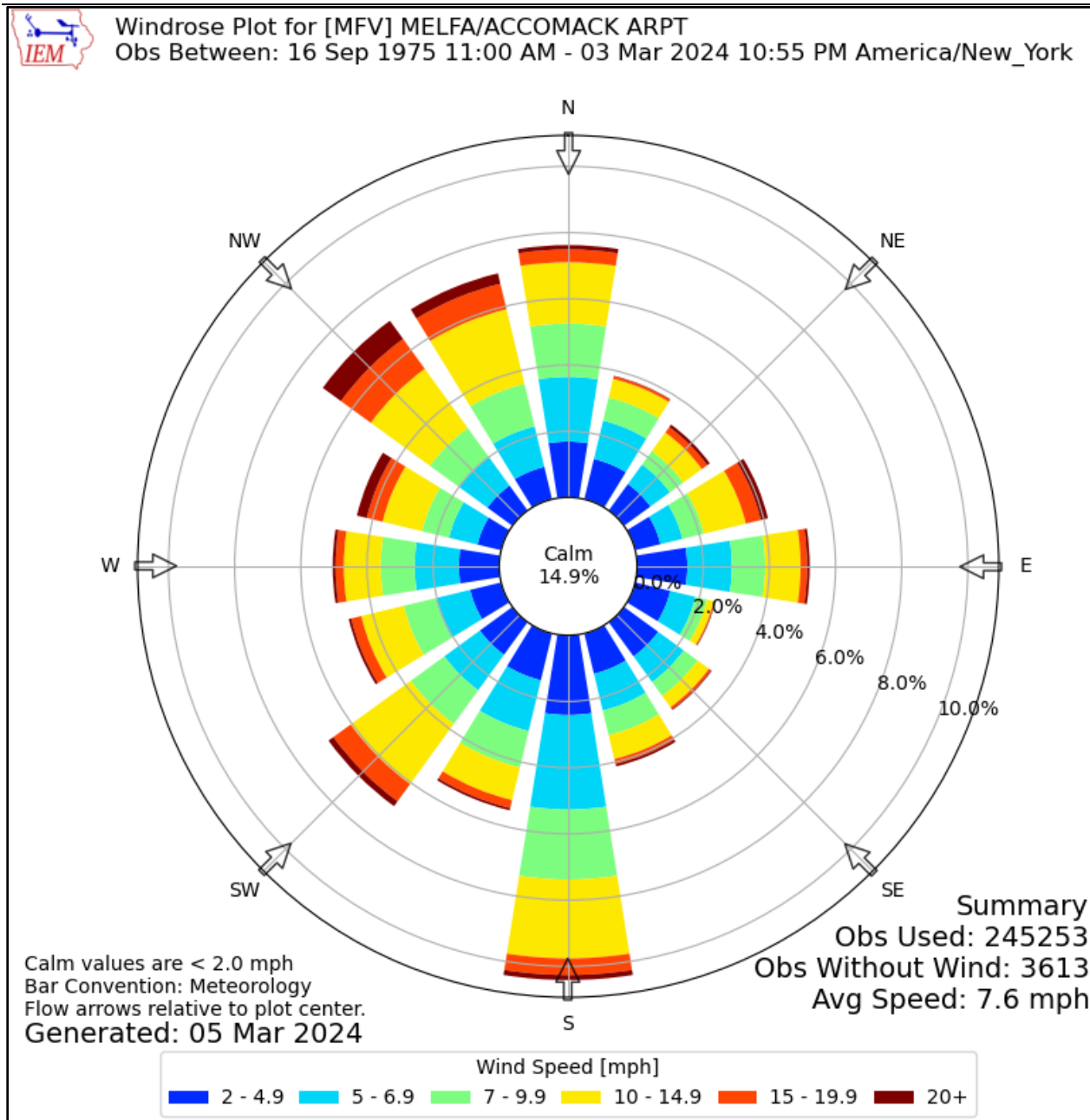


Figure H-6: Fifty Miles North/Northeast of Virginia Beach and East of Chesapeake Bay

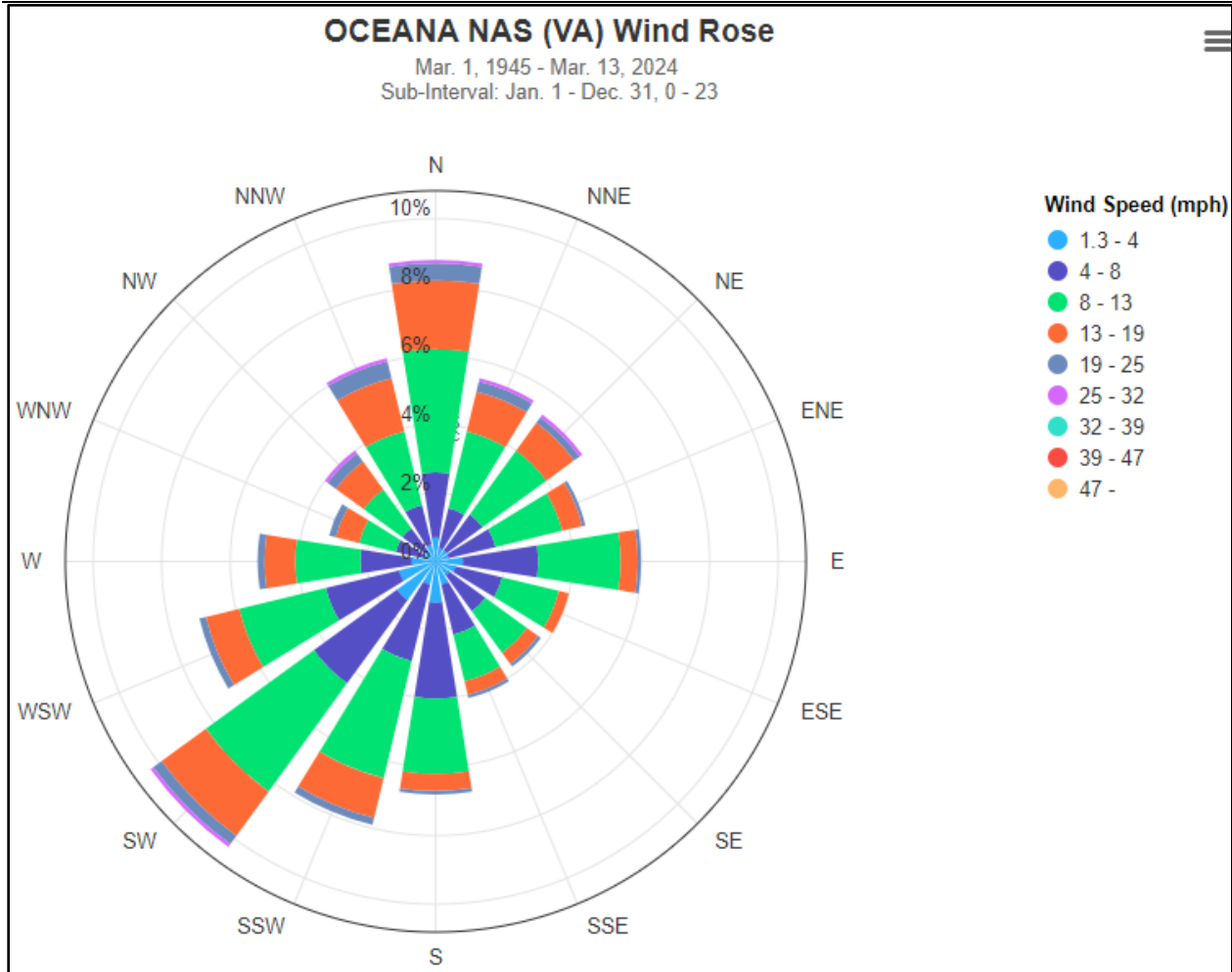


Figure H-7: On the Coast at Virginia Beach

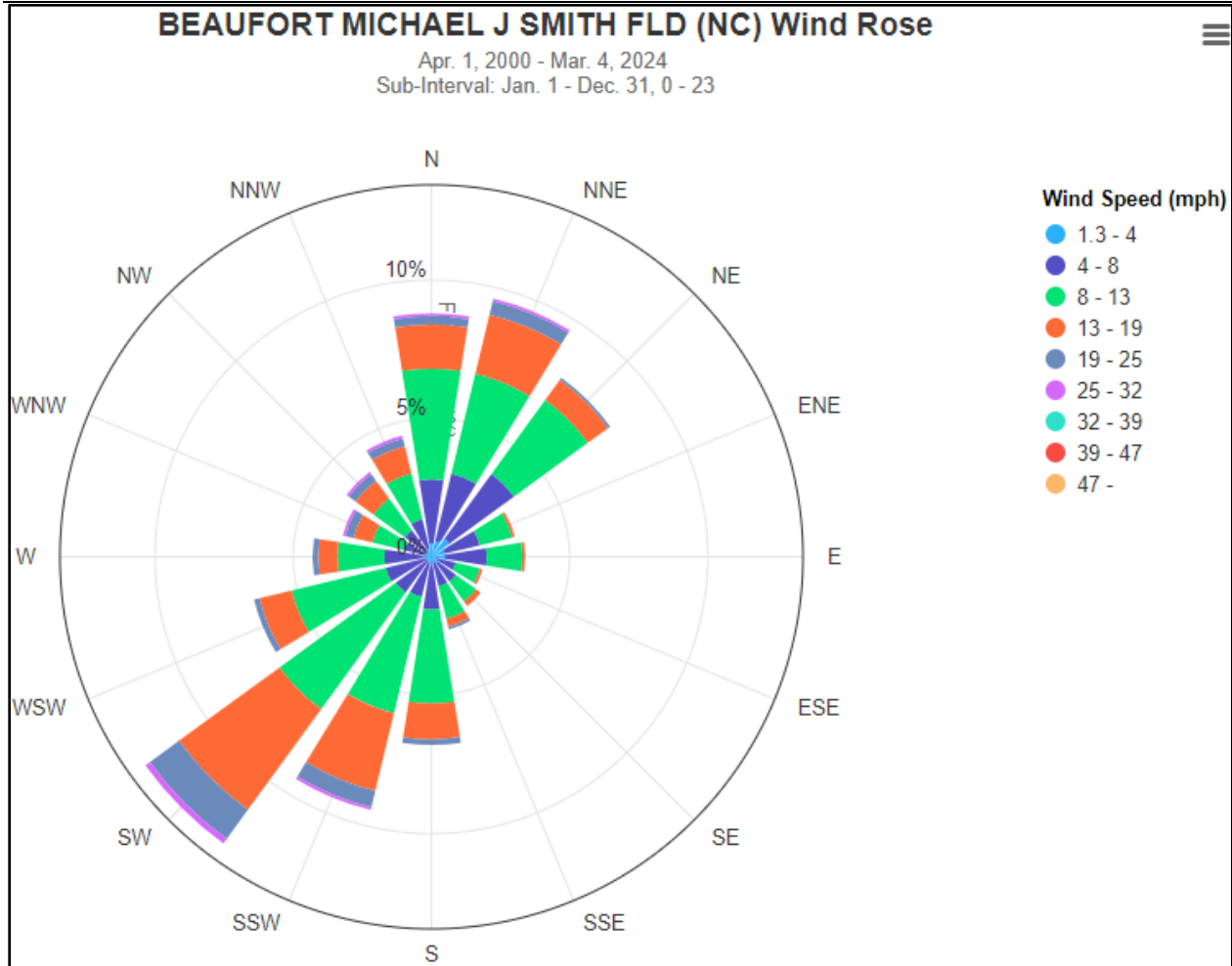


Figure H-8: Central North Carolina – 72 Miles Southwest of Cape Hatteras



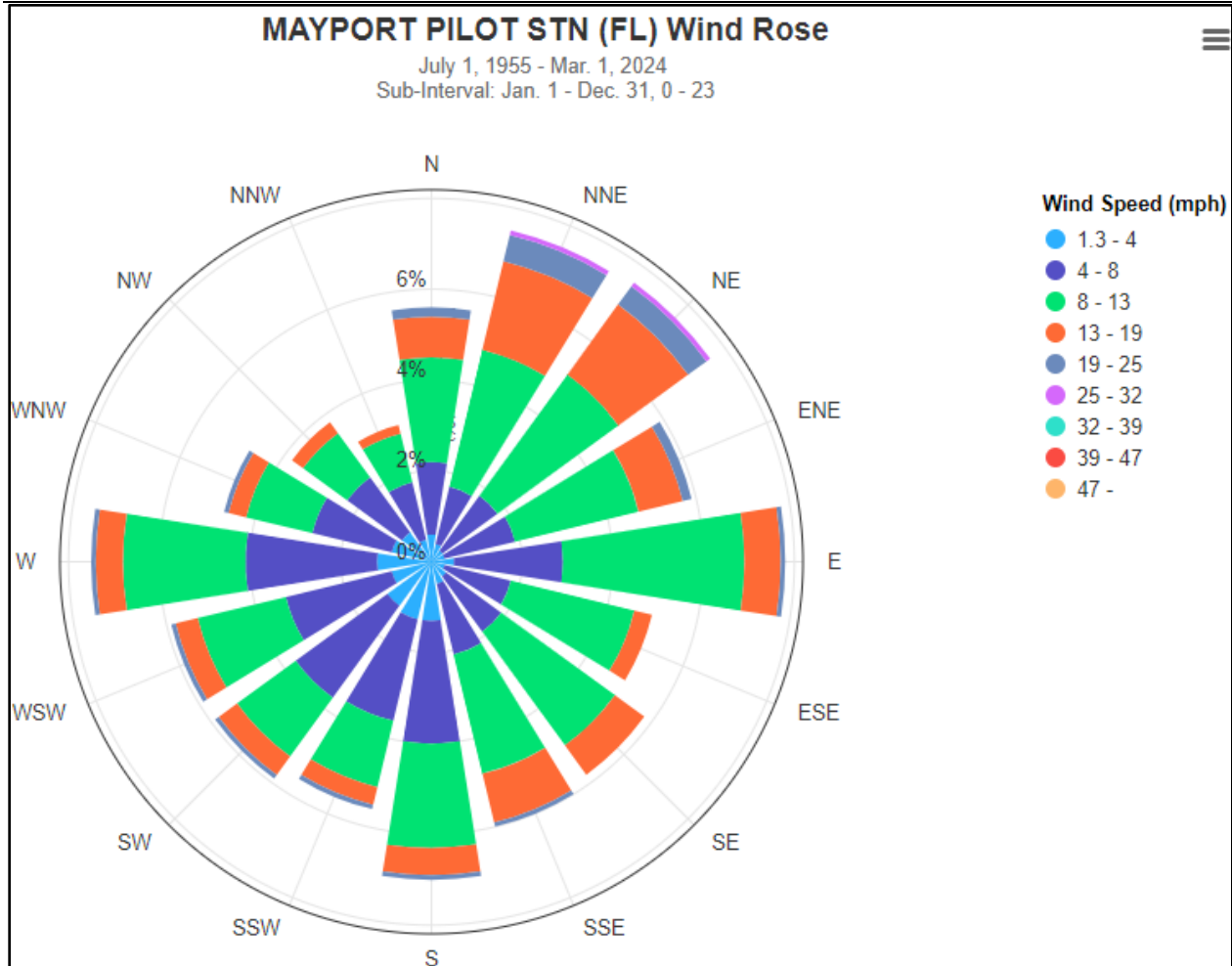


Figure H-9: Directly on the Coast East Of Jacksonville

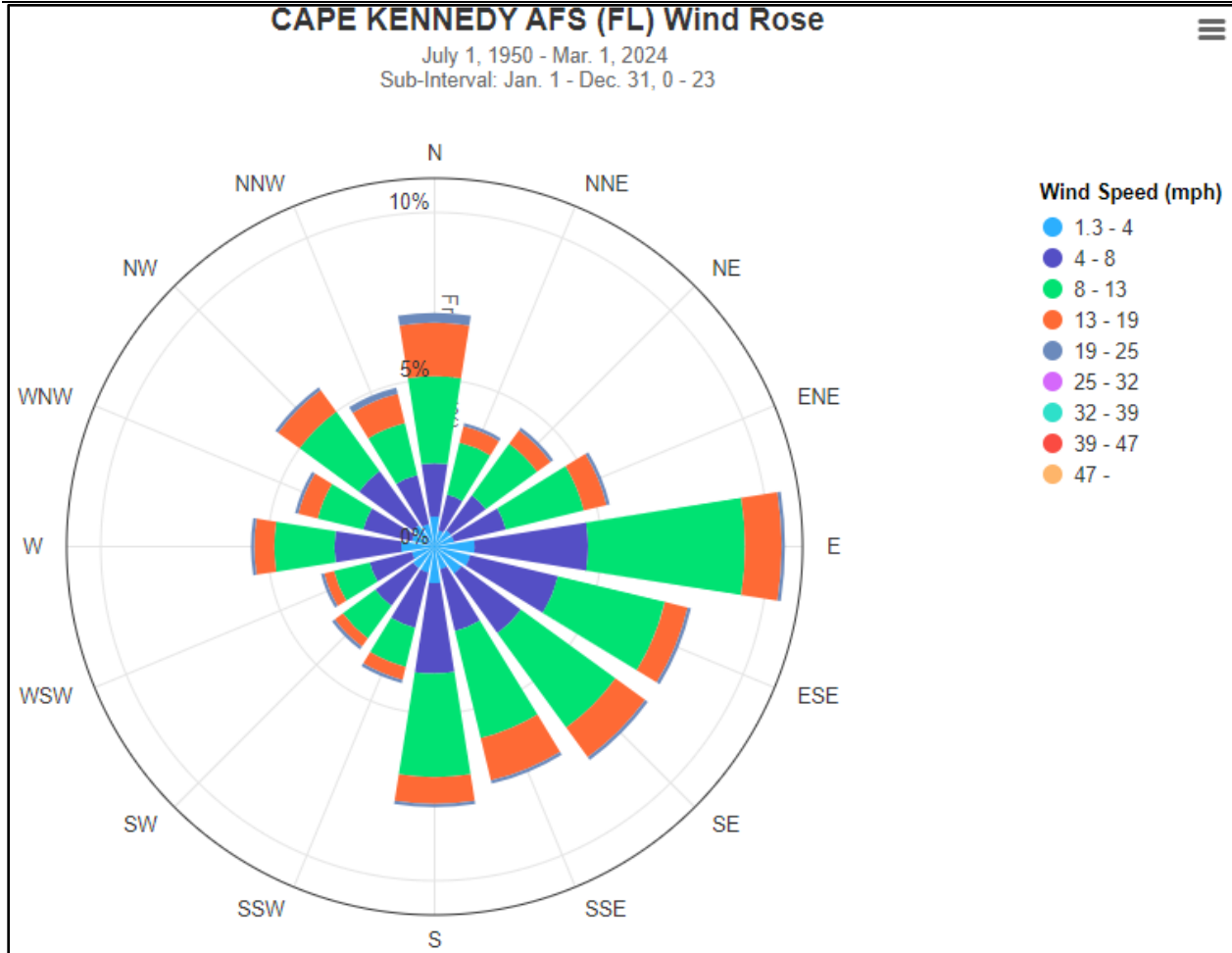
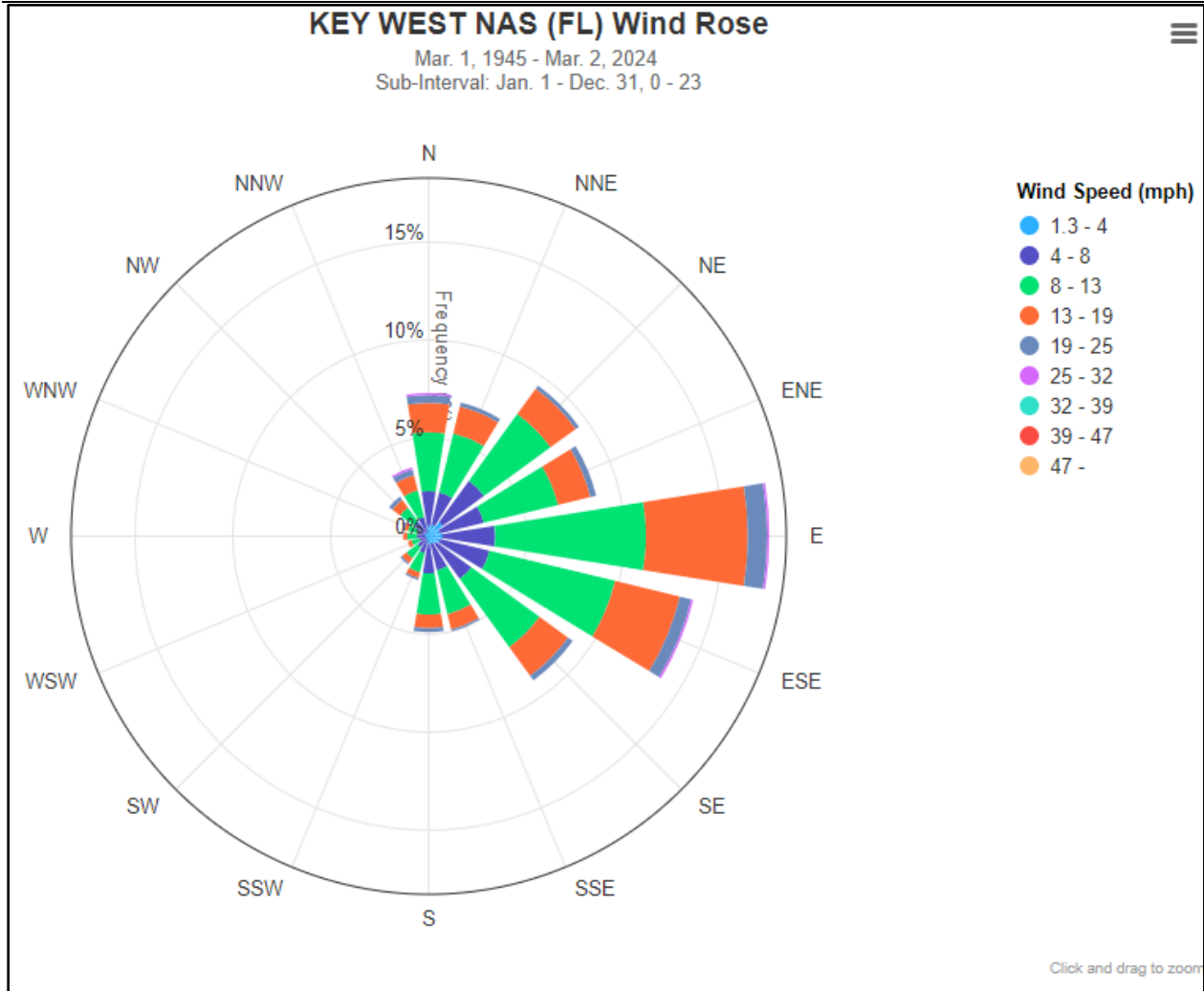
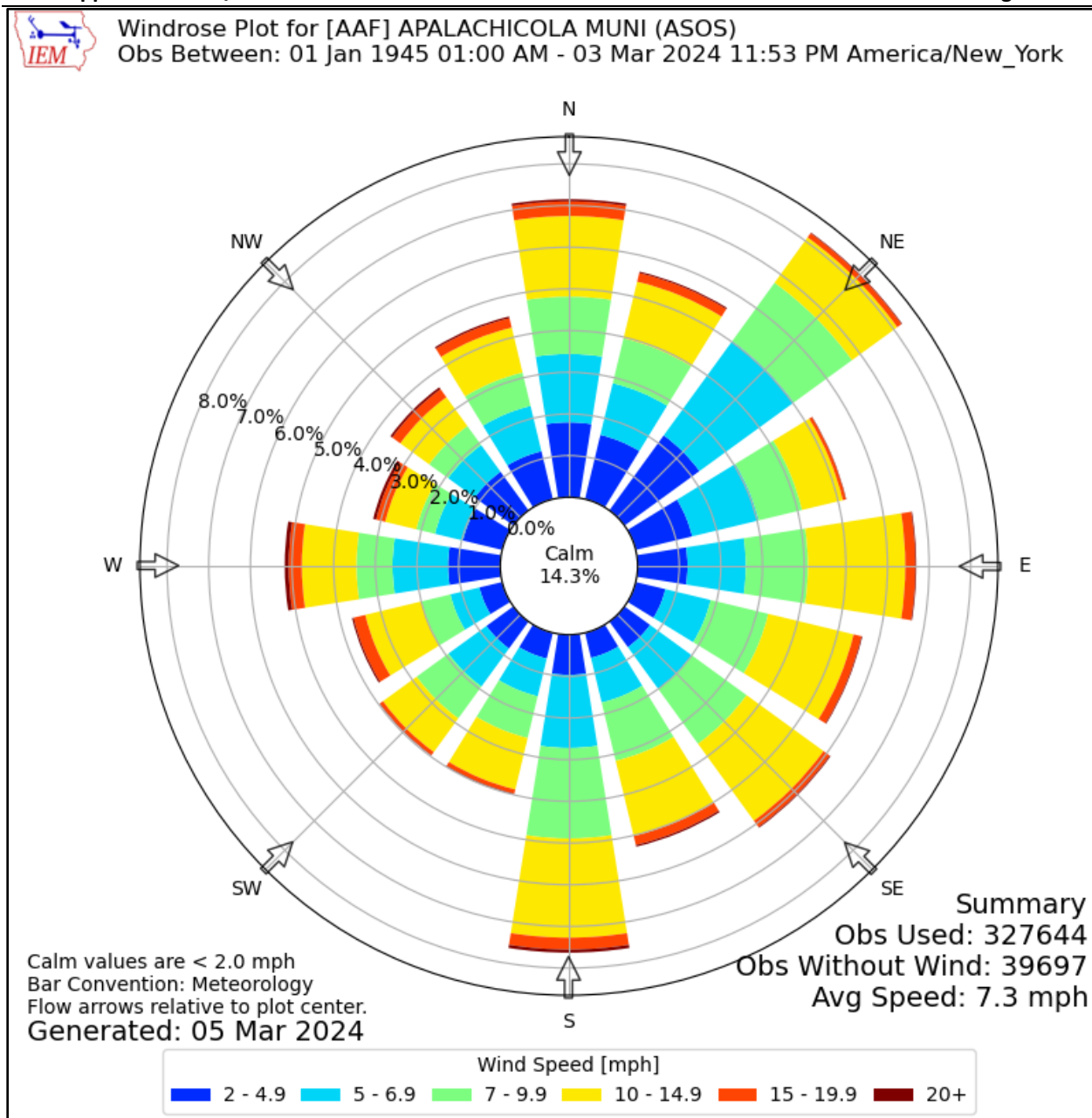


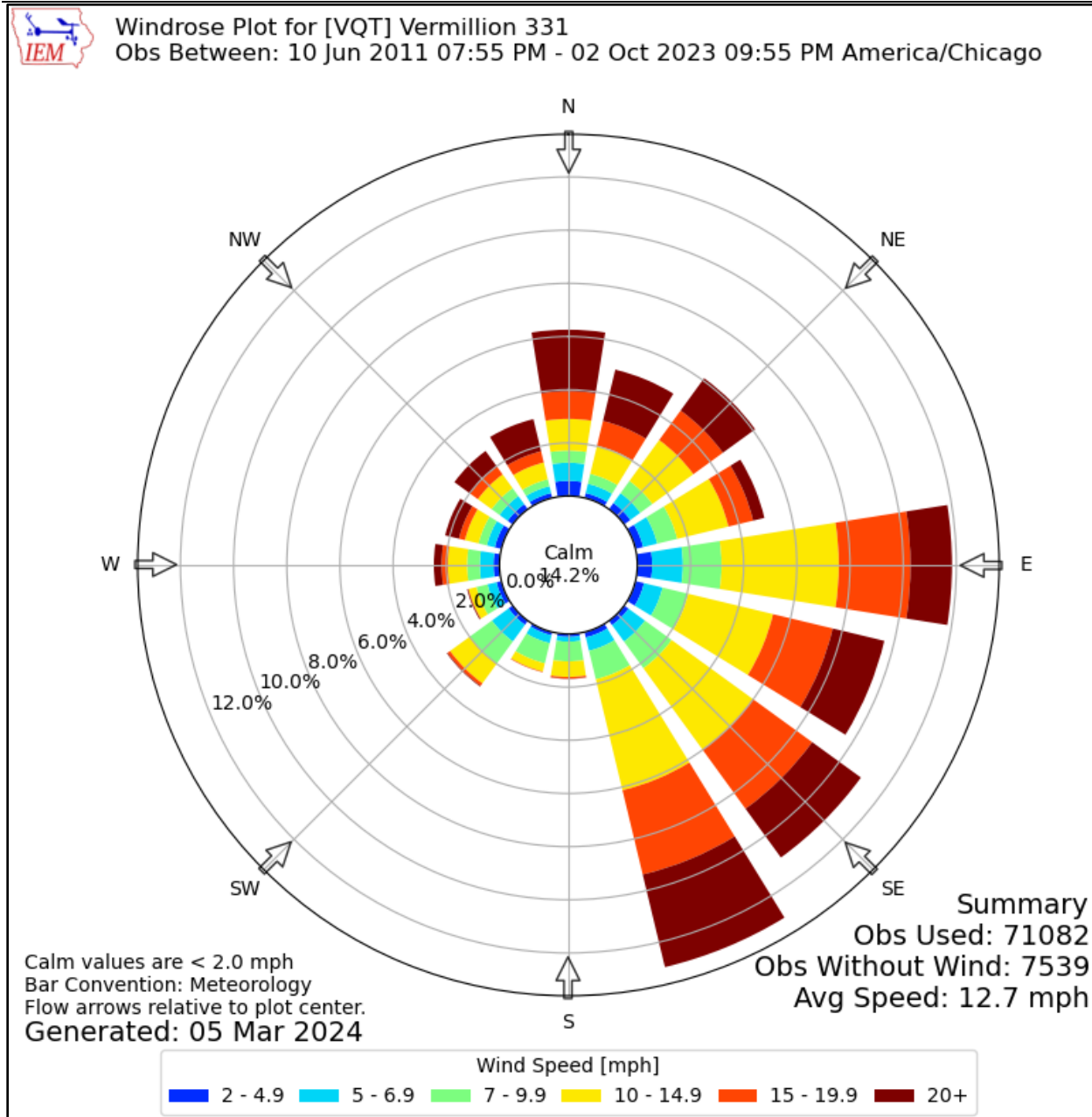
Figure H-10: On the Beach at Cape Canaveral



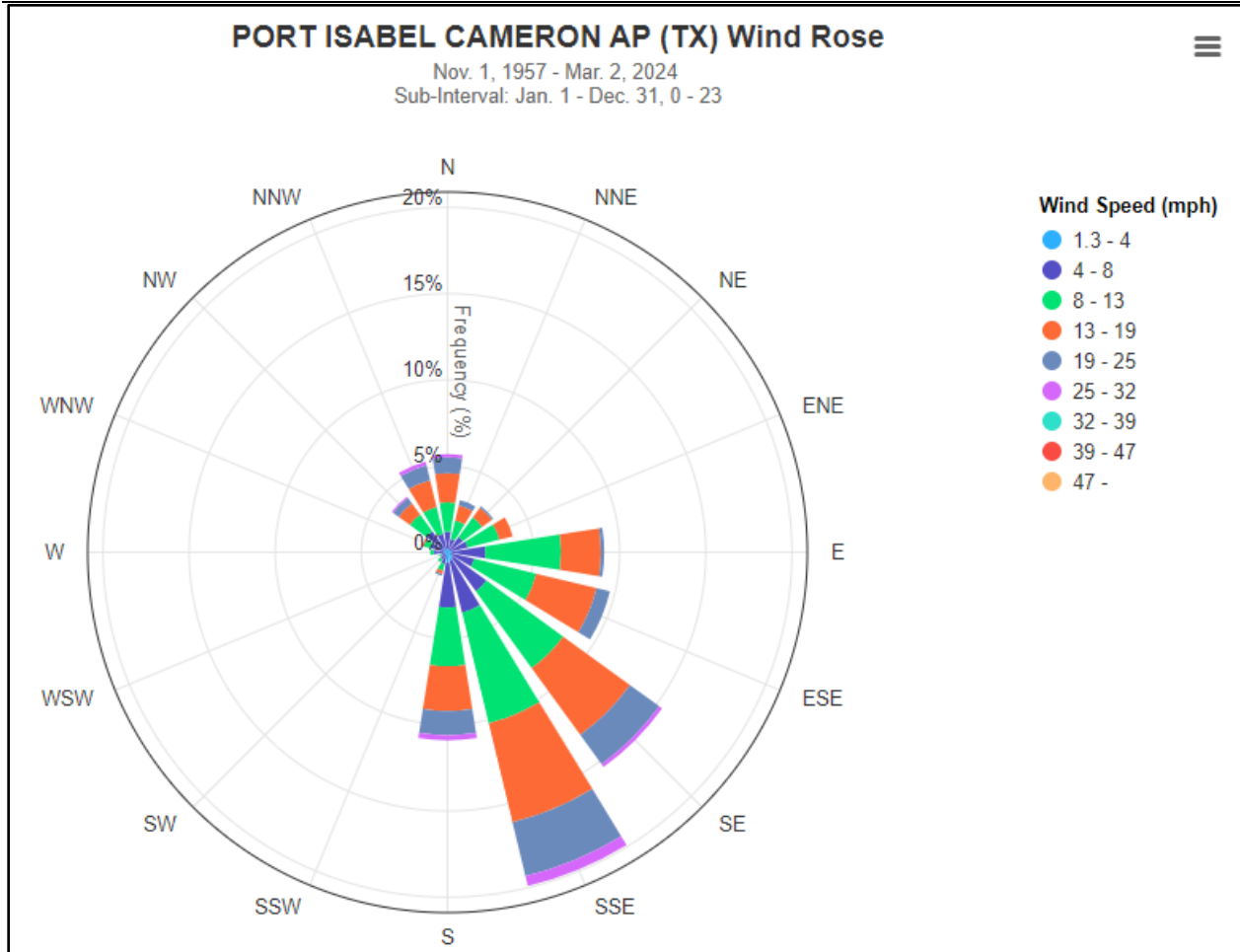
**Figure H-11: A Few Miles North of the Key West Operating Area, Elevation 6 Feet  
Mean Sea Level**



**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**

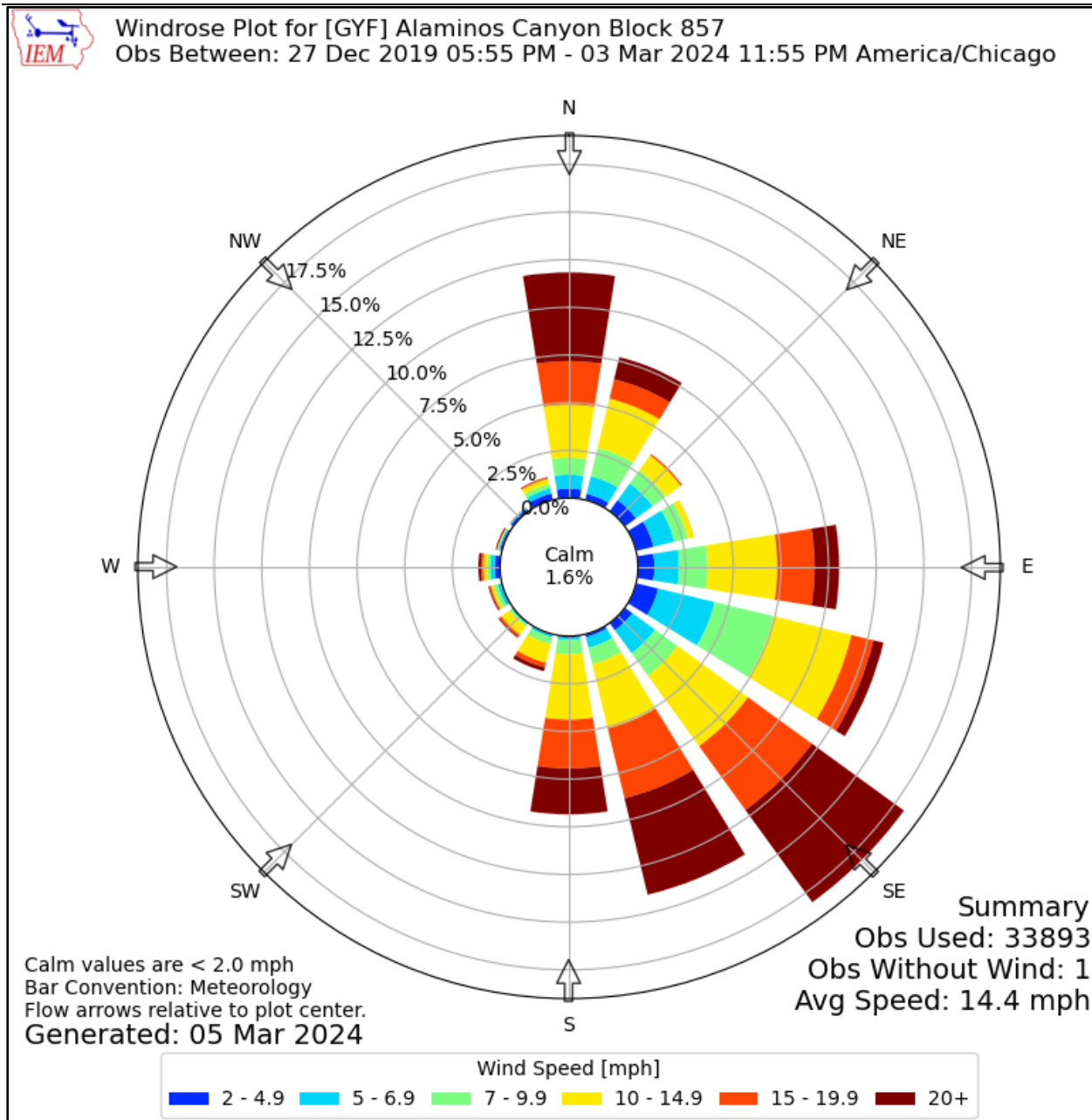


Figure H-15: A Few Miles East of the Center of the Corpus Christi Operating Area

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

Activity/OPAREA		Annual Training Activity Events by Project Scenario					
		Current Conditions (Phase III)		Alternative 1 (Phase IV)		Alternative 2 (Phase IV)	
		Fleet Training	USCG Training	Fleet Training	USCG Training	Fleet Training	USCG Training
Major Training Exercise - Large Integrated ASW							
Composite Training Unit Exercise	Northeast						
	VACAPES	2		2		3	
	Cherry Pt	2		2		3	
	JAX	2		2		3	
	Key West						
	Gulf Range Complex					1	
	Other AFTT Areas						
	Total	6		6		10	
Major Training Exercise - Medium Integrated ASW							
Sustainment Exercise	Northeast						
	VACAPES	6		2		2	
	Cherry Pt	6		2		2	
	JAX	6		2		2	
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	18		6		6	
Small Integrated ASW Training							
Navy Undersea Warfare Training Assessment Course	Northeast						
	VACAPES	6		2		2	
	Cherry Pt	6		2		2	
	JAX	6		2		2	
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	18		6		6	
Surface Warfare Advanced Tactical Training	Northeast						
	VACAPES	6		2		2	
	Cherry Pt	6		2		2	
	JAX	6		2		2	
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	18		6		6	
Medium Coordinated ASW Training							
Anti-Submarine Warfare Tactical Development Exercise	Northeast						
	VACAPES	1		1			
	Cherry Pt	1					
	JAX	2		1			
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	4		2			
Small Coordinated ASW Training							
Group Sail	Northeast						
	VACAPES	5		5		5	
	Cherry Pt	5		4		4	
	JAX	4		5		5	
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	14		14		14	
Amphibious Ready Group Marine Expeditionary Unit Composite Training Unit Exercise	Northeast						
	VACAPES						
	Cherry Pt	5		1		1	
	JAX						
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	5		1		1	
Air Warfare							
Air Combat Maneuvers	Northeast						
	VACAPES	1,200		1,200		1,200	
	Cherry Pt	1,155		1,925		1,925	
	JAX	1,270		1,270		1,270	
	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)

Activity/OPAREA		Annual Training Activity Events by Project Scenario					
		Current Conditions (Phase III)		Alternative 1 (Phase IV)		Alternative 2 (Phase IV)	
		Fleet Training	USCG Training	Fleet Training	USCG Training	Fleet Training	USCG Training
Air Defense Exercise	Northeast						
	VACAPES	3,425		3,425		3,425	
	Cherry Pt	5,166		1,601		1,601	
	JAX	5,157		938		938	
	Key West						
	Gulf Range Complex	85		85		85	
	Other AFTT Areas						
	Total	13,833		6,049		6,049	
Gunnery Exercise Air-to-Air Medium Caliber	Northeast						
	VACAPES	120		80		80	
	Cherry Pt	40		40		40	
	JAX	75		40		40	
	Key West	70		20		20	
	Gulf Range Complex						
	Other AFTT Areas						
	Total	305		180		180	
Gunnery Exercise Air-to-Air Small-Caliber	Northeast						
	VACAPES			5		5	
	Cherry Pt						
	JAX			5		5	
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total			10		10	
Missile Exercise Air-to-Air	Northeast						
	VACAPES	40		16		16	
	Cherry Pt	48		15		15	
	JAX	48		15		15	
	Key West	8		16		16	
	Gulf Range Complex			30		30	
	Other AFTT Areas						
	Total	144		92		92	
Gunnery Exercise Surface-to-Air Large Caliber	Northeast						
	VACAPES	25		25	20	25	20
	Cherry Pt						
	JAX	7		10	5	10	5
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	32		35	25	35	25
Gunnery Exercise Surface-to-Air Medium Caliber	Northeast						
	VACAPES	59		36	3	36	3
	Cherry Pt	23		9		9	
	JAX	31		20	2	20	2
	Key West						
	Gulf Range Complex						
	Other AFTT Areas	10					
	Total	123		65	5	65	5
Missile Exercise Surface-to-Air	Northeast	2		2		2	
	VACAPES	30		36		36	
	Cherry Pt	2		2		2	
	JAX	5		6		6	
	Key West						
	Gulf Range Complex	2		2		2	
	Other AFTT Areas						
	Total	41		48		48	
Missile Exercise Man-Portable Air Defense System	Northeast						
	VACAPES						
	Cherry Pt	5		14		14	
	JAX						
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	5		14		14	
Amphibious Warfare							
Naval Surface Fire Support Exercise - Land-Based Target	Northeast						
	VACAPES						
	Cherry Pt	13		13		13	
	JAX						
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	13		13		13	

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

Activity/OPAREA		Annual Training Activity Events by Project Scenario					
		Current Conditions (Phase III)		Alternative 1 (Phase IV)		Alternative 2 (Phase IV)	
		Fleet Training	USCG Training	Fleet Training	USCG Training	Fleet Training	USCG Training
Naval Surface Fire Support Exercise - at Sea	Northeast						
	VACAPES	38		19		19	
	Cherry Pt	2		2		2	
	JAX	12		6		6	
	Key West						
	Gulf Range Complex	4		2		2	
	Other AFTT Areas						
	Total	56		29		29	
Amphibious Ready Group Marine Expeditionary Unit Composite Training Unit Exercise	Northeast						
	VACAPES						
	Cherry Pt	5		1		1	
	JAX						
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	5		1		1	
Amphibious Assault	Northeast						
	VACAPES						
	Cherry Pt	5		5		5	
	JAX						
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	5		5		5	
Amphibious Operations in a Contested Environment	Northeast						
	VACAPES			12		12	
	Cherry Pt			45		45	
	JAX						
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total			57		57	
Amphibious Raid	Northeast						
	VACAPES						
	Cherry Pt	34		34		34	
	JAX	20		20		20	
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	54		54		54	
Non-Combat Evacuation Operation	Northeast						
	VACAPES						
	Cherry Pt	1		1		1	
	JAX						
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	1		1		1	
Amphibious Squadron Marine Expeditionary Unit Integration Training	Northeast						
	VACAPES						
	Cherry Pt	1		1		1	
	JAX						
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	1		1		1	
Amphibious Vehicle Maneuvers	Northeast						
	VACAPES RC Inshore			256		256	
	VACAPES	186		46		46	
	Cherry Pt						
	JAX	2		2		2	
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	188		304		304	

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

Activity/OPAREA		Annual Training Activity Events by Project Scenario					
		Current Conditions (Phase III)		Alternative 1 (Phase IV)		Alternative 2 (Phase IV)	
		Fleet Training	USCG Training	Fleet Training	USCG Training	Fleet Training	USCG Training
Surface Warfare							
Maritime Security Operations	Northeast RC Inshore	13		13		13	
	Northeast				50		55
	VACAPES RC Inshore			374		374	
	VACAPES	895		521	498	521	548
	Cherry Pt	75		75	116	75	128
	JAX RC Inshore			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
Gunnery Exercise Surface-to-Surface Ship Small Caliber	Northeast				1		1
	VACAPES	450		180		180	
	Cherry Pt	20		12		12	
	JAX	300		120		120	
	Key West						
	Gulf Range Complex	10		4	4	4	4
	Other AFTT Areas	50		20	1	20	1
	Total	830		336	6	336	6
Gunnery Exercise Surface-to-Surface Ship Medium Caliber	Northeast						
	VACAPES	321		319	100	319	100
	Cherry Pt	72		70	20	70	20
	JAX	161		110	40	110	40
	Key West						
	Gulf Range Complex	33		34	12	34	12
	Other AFTT Areas	41		40		40	
	Total	628		573	172	573	172
Gunnery Exercise Surface-to-Surface Ship Large Caliber	Northeast				15		15
	VACAPES	75		63	20	63	20
	Cherry Pt	35		34	10	34	10
	JAX	51		46	15	46	15
	Key West						
	Gulf Range Complex	9		8	29	8	29
	Other AFTT Areas	10		9		9	
	Total	180		160	89	160	89
Gunnery Exercise Surface-to-Surface Boat Small Caliber	Northeast	18		6		6	
	VACAPES	330		213	20	213	20
	Cherry Pt	92		28	2	28	2
	JAX	84		25	6	25	6
	Key West						
	Gulf Range Complex	67		21	11	21	11
	Other AFTT Areas						
	Total	591		293	39	293	39
Gunnery Exercise Surface-to-Surface Boat Medium Caliber	Northeast	2		2	11	2	11
	VACAPES	260		404		404	
	Cherry Pt	128		128	7	128	7
	JAX	26		26	7	26	7
	Key West				7		7
	Gulf Range Complex	6		6	7	6	7
	Other AFTT Areas						
	Total	422		566	39	566	39
Missile Exercise Surface-to-Surface	Northeast						
	VACAPES	12		15		15	
	Cherry Pt						
	JAX	16		19		19	
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	28		34		34	
Small Boat Attack	Northeast						
	VACAPES	25		30		30	
	Cherry Pt						
	JAX	25		15		15	
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	50		45		45	
Gunnery Exercise Air-to-Surface Small Caliber	Northeast						
	VACAPES	560		300		300	
	Cherry Pt	130		71		71	
	JAX	200		108		108	
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	890		479		479	

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

Activity/OPAREA		Annual Training Activity Events by Project Scenario					
		Current Conditions (Phase III)		Alternative 1 (Phase IV)		Alternative 2 (Phase IV)	
		Fleet Training	USCG Training	Fleet Training	USCG Training	Fleet Training	USCG Training
Gunnery Exercise Air-to-Surface Medium Caliber	Northeast				25		25
	VACAPES	720		720	10	720	10
	Cherry Pt	395		395	10	395	10
	JAX	495		490	30	490	30
	Key West						
	Gulf Range Complex	30		30	10	30	10
	Other AFTT Areas						
	Total	1,640		1,635	85	1,635	85
Missile Exercise Air-to-Surface Rocket	Northeast						
	VACAPES	92		100		100	
	Cherry Pt	10		15		15	
	JAX	102		115		115	
	Key West						
	Gulf Range Complex	10		10		10	
	Other AFTT Areas						
	Total	214		240		240	
Missile Exercise Air-to-Surface	Northeast						
	VACAPES	88		83		83	
	Cherry Pt	52		72		72	
	JAX	102		81		81	
	Key West			8		8	
	Gulf Range Complex						
	Other AFTT Areas						
	Total	242		244		244	
Bombing Exercise Air-to-Surface	Northeast						
	VACAPES	329		272			
	Cherry Pt	108		73		272	
	JAX	434		260		73	
	Key West					260	
	Gulf Range Complex	67		47			
	Other AFTT Areas					47	
	Total	938		652		652	
Integrated Live Fire Exercise	Northeast						
	VACAPES	2		2		2	
	Cherry Pt						
	JAX	2		2		2	
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	4		4		4	
Laser Targeting - Aircraft	Northeast						
	VACAPES	272		286	4	286	4
	Cherry Pt						
	JAX	315		330	4	330	4
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	587		616	8	616	8
Laser Targeting - Ship	Northeast						
	VACAPES	4		4		4	
	Cherry Pt						
	JAX	4		4		4	
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	8		8		8	
Long Range Unmanned Surface Vessel Training	Northeast						
	VACAPES			10		10	
	Cherry Pt						
	JAX			10		10	
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total			20		20	
Sinking Exercise	Northeast						
	VACAPES						
	Cherry Pt						
	SINKEX Box	1		1		1	
	JAX						
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	1		1		1	

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

Activity/OPAREA		Annual Training Activity Events by Project Scenario					
		Current Conditions (Phase III)		Alternative 1 (Phase IV)		Alternative 2 (Phase IV)	
		Fleet Training	USCG Training	Fleet Training	USCG Training	Fleet Training	USCG Training
Anti-Submarine Warfare							
Anti-Submarine Warfare Torpedo Exercise – Submarine	Northeast	6		6		6	
	VACAPES	2		2		2	
	JAX	12		12		12	
	Total	20		20		20	
Anti-Submarine Warfare Tracking Exercise – Submarine + Anti-Submarine Warfare Torpedo Exercise – Submarine	Northeast	18		18		18	
	VACAPES	6		6		6	
	Cherry Pt	1		1		1	
	SINKEX Box			2		2	
	JAX	13		13		13	
	Other AFTT Areas	44		44		44	
	Total	82		84		84	
Anti-Submarine Warfare Torpedo Exercise – Ship	Northeast						
	VACAPES	5		5		5	
	Cherry Pt						
	JAX	16		16		16	
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	21		21		21	
Anti-Submarine Warfare Tracking Exercise – Ship	Northeast	5		5		5	
	VACAPES	220		120		220	
	Cherry Pt	55		33		55	
	JAX	440		290		440	
	Key West						
	Gulf Range Complex	5		5		5	
	Other AFTT Areas	110		55		110	
	Total	835		508		835	
Anti-Submarine Warfare Torpedo Exercise – Helicopter	Northeast						
	VACAPES	4		4		4	
	Cherry Pt						
	JAX	14		14		14	
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	18		18		18	
Anti-Submarine Warfare Tracking Exercise – Helicopter	Northeast						
	VACAPES	8		8		8	
	Cherry Pt	12		12		12	
	JAX	370		370		370	
	Key West						
	Gulf Range Complex			3		3	
	Other AFTT Areas	24		24		24	
	Total	414		417		417	
Anti-Submarine Warfare Torpedo Exercise – Maritime Patrol Aircraft	Northeast						
	VACAPES	4		4		4	
	Cherry Pt						
	JAX	14		14		14	
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	18		18		18	
Anti-Submarine Warfare Tracking Exercise – Maritime Patrol Aircraft	Northeast	90		90		90	
	VACAPES	176		176		176	
	Cherry Pt	46		46		46	
	JAX	525		525		525	
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	837		837		837	
Electronic Warfare							
Electronic Warfare Operations	Northeast						
	VACAPES	302		32		32	
	Cherry Pt	2,620		370		370	
	JAX	181		21		21	
	Key West						
	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 Training Activity Events by Project Scenario					
		Current Conditions (Phase III)		Alternative 1 (Phase IV)		Alternative 2 (Phase IV)	
		Fleet Training	USCG Training	Fleet Training	USCG Training	Fleet Training	USCG Training
Counter Targeting Flare Exercise	Northeast						
	VACAPES	50		50		50	
	Cherry Pt	1,115		1,115		1,115	
	JAX	1,900		1,900		1,900	
	Key West	1,550		1,550		1,550	
	Gulf Range Complex	92		92		92	
	Other AFTT Areas						
	Total	4,707		4,707		4,707	
Counter Targeting Chaff Exercise - Ship	Northeast						
	VACAPES	50		10	5	10	5
	Cherry Pt	5		5	3	5	3
	JAX	5		5	3	5	3
	Key West						
	Gulf Range Complex	5		5	3	5	3
	Other AFTT Areas						
	Total	65		25	14	25	14
Counter Targeting Chaff Exercise - Aircraft	Northeast						
	VACAPES	130		130		130	
	Cherry Pt	1,610		1,610		1,610	
	JAX	2,990		2,990		2,990	
	Key West	3,000		3,000		3,000	
	Gulf Range Complex	18		18		18	
	Other AFTT Areas						
	Total	7,748		7,748		7,748	
High-Speed Anti-Radiation Missile Exercise	Northeast						
	VACAPES	11		3		3	
	Cherry Pt	10		2		2	
	JAX	4		1		1	
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	25		6		6	
Expeditionary Warfare							
Dive and Salvage Operations	Northeast						
	VACAPES	30		145		145	
	Cherry Pt	16		16		16	
	NS Mayport	60		60		60	
	JAX						
	Key West	8		8		8	
	Gulf Range Complex	16		16		16	
	Other AFTT Areas						
	Total	130		245		245	
Maritime Security Operations – Anti-Swimmer Grenades	Northeast	4					
	VACAPES	5					
	Cherry Pt	2					
	JAX	2					
	Key West						
	Gulf Range Complex	2					
	Other AFTT Areas						
	Total	15					
Personnel Insertion/ Extraction – Air	Northeast						
	VACAPES RC Inshore			104		104	
	VACAPES	2,164		74		74	
	Cherry Pt						
	JAX	10		10		10	
	Key West	10					
	Gulf Range Complex			50		50	
	Other AFTT Areas						
	Total	2,184		238		238	
Personnel Insertion/ Extraction – Surface and Subsurface	Northeast RC Inshore			48		48	
	Northeast	2					
	VACAPES RC Inshore			216		216	
	VACAPES	360		175		175	
	Cherry Pt						
	JAX	1		2		2	
	Key West						
	Gulf Range Complex	5		12		12	
	Other AFTT Areas						
	Total	368		453		453	

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

Activity/OPAREA		Annual Training Activity Events by Project Scenario					
		Current Conditions (Phase III)		Alternative 1 (Phase IV)		Alternative 2 (Phase IV)	
		Fleet Training	USCG Training	Fleet Training	USCG Training	Fleet Training	USCG Training
Personnel Insertion/ Extraction – Swimmer/Diver	Northeast						
	VACAPES RC Inshore	42		42		42	
	VACAPES						
	Cherry Pt						
	JAX						
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	42		42		42	
Port Damage Repair	Northeast						
	VACAPES						
	Cherry Pt						
	NS Mayport			4		4	
	JAX						
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total			4		4	
Underwater Construction Team Training	Northeast						
	VACAPES RC Inshore			100		100	
	VACAPES	8					
	Cherry Pt						
	JAX	4		8		8	
	Key West	4		16		16	
	Gulfport MS			16		16	
	Gulf Range Complex	8		16		16	
	Other AFTT Areas						
	Total	24		156		156	
Mine Warfare							
Mine Countermeasures - Ship Sonar	Northeast						
	VACAPES	53		53		53	
	Cherry Pt						
	JAX	53		53		53	
	Key West						
	Gulf Range Complex	22		22		22	
	Other AFTT Areas						
	Total	128		128		128	
Mine Neutralization Explosive Ordnance Disposal	Northeast						
	VACAPES RC Inshore	6		96		96	
	VACAPES	524		325		325	
	Cherry Pt	16		86		86	
	JAX	20		100		100	
	Key West RC Inshore	60		176		176	
	Key West	17		30		30	
	Gulf Range Complex	16		96		96	
	Other AFTT Areas						
	Total	659		909		909	
Submarine Mobile Mine and Mine Laying Exercise	Northeast						
	VACAPES						
	Cherry Pt						
	JAX			2		2	
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total			2		2	
Surface Ship Object Detection	Northeast						
	VACAPES	162		162		162	
	Cherry Pt						
	JAX	76		76		76	
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	238		238		238	
Underwater Mine Countermeasure Raise, Tow, Beach, and Exploitation Operations	Northeast						
	VACAPES RC Inshore			100		100	
	VACAPES	446		20		20	
	Cherry Pt	24		16		16	
	JAX RC Inshore			4		4	
	JAX	78		20		20	
	Key West	8		40		40	
	Gulf Range Complex	56		24		24	
	Other AFTT Areas			4		4	
	Total	612		228		228	



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

Activity/OPAREA		Annual Training Activity Events by Project Scenario					
		Current Conditions (Phase III)		Alternative 1 (Phase IV)		Alternative 2 (Phase IV)	
		Fleet Training	USCG Training	Fleet Training	USCG Training	Fleet Training	USCG Training
Airborne Mine Countermeasures Towed Mine Neutralization	Northeast						
	VACAPES	510		375		375	
	Cherry Pt	108		96		96	
	JAX	100		70		70	
	Key West			15		15	
	Gulf Range Complex	50		30		30	
	Other AFTT Areas						
	Total	768		586		586	
Airborne Mine Countermeasures - Mine Detection	Northeast						
	VACAPES	1,540		1,420		1,420	
	Cherry Pt	371		321		321	
	JAX	317		275		275	
	Key West			187		187	
	Gulf Range Complex	310		290		290	
	Other AFTT Areas						
	Total	2,538		2,493		2,493	
Mine Countermeasures – Mine Neutralization – Remotely Operated Vehicles	Northeast						
	VACAPES	630		315		315	
	Cherry Pt	71		36		36	
	JAX	71		36		36	
	Key West			10		10	
	Gulf Range Complex	132		66		66	
	Other AFTT Areas						
	Total	904		463		463	
Airborne Mine Laying	Northeast						
	VACAPES	4		4		4	
	Cherry Pt	2		2		2	
	JAX	1		1		1	
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	7		7		7	
Civilian Port Defense – Homeland Security Anti-Terrorism/Force Protection Exercise	Boston, MA	1				1	
	Earle, NJ	1				1	
	Delaware Bay, DE	1				1	
	Hampton Roads, VA	1				1	
	Morehead City, NC	1				1	
	Wilmington, NC	1				1	
	Savannah, GA	1				1	
	Kings Bay, GA	1				1	
	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	
Coordinated Unit Level Helicopter Airborne Mine Countermeasures Exercise	Northeast	4		4		4	
	VACAPES						
	Cherry Pt	2		2		2	
	JAX	1		1		1	
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	7		7		7	
Installation and Maintenance of Mine Training Areas	Northeast						
	VACAPES RC Inshore			1		1	
	VACAPES			1		1	
	Cherry Pt			1		1	
	JAX			1		1	
	Key West			1		1	
	Gulf Range Complex						
	Other AFTT Areas						
	Total			5		5	
Other Training							
Search and Rescue	Northeast						
	VACAPES RC Inshore			760		760	
	VACAPES	1,176		598	100	598	100
	Cherry Pt				100		100
	JAX RC Inshore			30		30	
	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

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

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

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

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

Activity/OPAREA		Annual Testing Activity Events by Project Scenario					
		Current Conditions (Phase III)		Alternative 1 (Phase IV)		Alternative 2 (Phase IV)	
		NAVSEA Testing	NAVAIR Testing	NAVSEA Testing	NAVAIR Testing	NAVSEA Testing	NAVAIR Testing
Air Warfare – NAVAIR							
Air Combat Maneuvers Test	Northeast						
	VACAPES		550		550		550
	Cherry Pt						
	JAX						
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total		550		550		550
Air Platform Vehicle Test	Northeast						
	VACAPES		190		190		190
	Cherry Pt		9		9		9
	JAX		9		9		9
	Key West		9		9		9
	Gulf Range Complex		12		12		12
	Other AFTT Areas						
	Total		229		229		229
Air Platform Weapons Integration Test	Northeast						
	VACAPES		40		40		40
	Cherry Pt						
	JAX						
	Key West						
	Gulf Range Complex				2		2
	Other AFTT Areas						
	Total		40		42		42
Air-to-Air Gunnery Test – Medium-Caliber	Northeast						
	VACAPES		55		55		55
	Cherry Pt						
	JAX						
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total		55		55		55
Air-to-Air Missile Test	Northeast						
	VACAPES		83		83		83
	Cherry Pt						
	JAX						
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total		83		83		83

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

Activity/OPAREA		Annual Testing Activity Events by Project Scenario					
		Current Conditions (Phase III)		Alternative 1 (Phase IV)		Alternative 2 (Phase IV)	
		NAVSEA Testing	NAVAIR Testing	NAVSEA Testing	NAVAIR Testing	NAVSEA Testing	NAVAIR Testing
Air-to-Air Weapons System Test	Northeast						
	VACAPES						
	Cherry Pt						
	JAX						
	Key West						
	Gulf Range Complex		10		2		2
	Other AFTT Areas						
	Total		10		2		2
Intelligence, Surveillance, and Reconnaissance Test	Northeast						
	VACAPES		406		233		233
	Cherry Pt		9		10		10
	JAX		7		8		8
	Key West						
	Gulf Range Complex				5		5
	Other AFTT Areas						
	Total		422		256		256
Anti-Submarine Warfare - NAVAIR							
Anti-Submarine Tracking Test – Fixed-Wing	Northeast		40		45		45
	VACAPES		25		25		25
	Cherry Pt		14		15		15
	SINKEX Box				25		25
	JAX		19		19		19
	Key West		11		12		12
	Gulf Range Complex		12		15		15
	Other AFTT Areas						
	Total		121		156		156
Anti-Submarine Warfare Torpedo Test	Northeast						
	VACAPES		80		80		121
	Cherry Pt						
	JAX		31		31		43
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total		111		111		164
Anti-Submarine Warfare Tracking Test – Rotary Wing	Northeast		69		110		110
	VACAPES		209		280		280
	Cherry Pt						
	JAX		6		23		23
	Key West		14		27		27
	Gulf Range Complex		5		6		6
	Other AFTT Areas						
	Total		303		446		446
Kilo Dip Test	Northeast		2		4		4
	VACAPES		30		40		40
	Cherry Pt						
	JAX		3		6		6
	Key West		3		6		6
	Gulf Range Complex		4		6		6
	Other AFTT Areas						
	Total		42		62		62
Sonobuoy Lot Acceptance Test	Northeast						
	VACAPES						
	Cherry Pt						
	JAX						
	Key West		160		186		186
	Gulf Range Complex						
	Other AFTT Areas						
	Total		160		186		186
Electronic Warfare - NAVAIR							
Chaff Test	Northeast						
	VACAPES		24		24		24
	Cherry Pt						
	JAX		4		4		4
	Key West						
	Gulf Range Complex		20		20		20
	Other AFTT Areas						
	Total		48		48		48
Electronic Systems Test	Northeast						
	VACAPES		61		61		61
	Cherry Pt						
	JAX		2		2		2
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total		63		63		63

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

Activity/OPAREA		Annual Testing Activity Events by Project Scenario					
		Current Conditions (Phase III)		Alternative 1 (Phase IV)		Alternative 2 (Phase IV)	
		NAVSEA Testing	NAVAIR Testing	NAVSEA Testing	NAVAIR Testing	NAVSEA Testing	NAVAIR Testing
Flare Test	Northeast						
	VACAPES		20		20		20
	Cherry Pt						
	JAX						
	Key West						
	Gulf Range Complex		10		20		20
	Other AFTT Areas						
	Total		30		40		40
Mine Warfare - NAVAIR							
Airborne Dipping Sonar Minehunting Test	Northeast						
	VACAPES		12		40		40
	Cherry Pt						
	JAX						
	Key West						
	Gulf Range Complex						
	NSWC Panama City Testing Range		24		32		32
	Other AFTT Areas						
	Total		36		72		72
Airborne Laser Mine Detection System Test	Northeast						
	VACAPES		50		50		50
	Cherry Pt						
	JAX						
	Key West						
	Gulf Range Complex						
	NSWC Panama City Testing Range		40		40		40
	Other AFTT Areas						
	Total		90		90		90
Airborne Mine Neutralization System Test	Northeast						
	VACAPES		35		25		25
	Cherry Pt						
	JAX						
	Key West						
	Gulf Range Complex						
	NSWC Panama City Testing Range		23		27		27
	Other AFTT Areas						
	Total		58		52		52
Airborne Sonobuoy Minehunting Test	Northeast						
	VACAPES		24		12		12
	Cherry Pt						
	JAX						
	Key West						
	Gulf Range Complex						
	NSWC Panama City Testing Range		52		26		26
	Other AFTT Areas						
	Total		76		38		38
Mine Laying Test	Northeast						
	VACAPES		2		2		2
	Cherry Pt						
	JAX		1		1		1
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total		3		3		3
Surface Warfare - NAVAIR							
Air-to-Surface Bombing Test	Northeast						
	VACAPES		20		20		20
	Cherry Pt						
	JAX						
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total		20		20		20
Air-to-Surface Gunnery Test	Northeast						
	VACAPES		125		140		140
	Cherry Pt						
	JAX		40		55		55
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total		165		195		195

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

Activity/OPAREA		Annual Testing Activity Events by Project Scenario					
		Current Conditions (Phase III)		Alternative 1 (Phase IV)		Alternative 2 (Phase IV)	
		NAVSEA Testing	NAVAIR Testing	NAVSEA Testing	NAVAIR Testing	NAVSEA Testing	NAVAIR Testing
Air-to-Surface Missile Test	Northeast						
	VACAPES		132		117		117
	Cherry Pt						
	JAX		34		29		29
	Key West						
	Gulf Range Complex		5		5		5
	Other AFTT Areas						
	Total		171		151		151
Air-to-Surface High-Energy Laser Test	Northeast						
	VACAPES		108		108		108
	Cherry Pt						
	JAX						
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total		108		108		108
Laser Targeting Test	Northeast						
	VACAPES		5		5		5
	Cherry Pt						
	JAX						
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total		5		5		5
Maritime Security Operations - NAVAIR	Northeast						
	VACAPES		20		20		20
	Cherry Pt		12		12		12
	JAX		12		12		12
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total		44		44		44
Rocket Test	Northeast						
	VACAPES		33		35		35
	Cherry Pt						
	JAX		17		19		19
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total		50		54		54
Other Testing Activities - NAVAIR							
Acoustic and Oceanographic Research	Northeast		1		1		1
	VACAPES		1		1		1
	Cherry Pt						
	JAX		1		1		1
	Key West		1		1		1
	Gulf Range Complex		1		1		1
	Other AFTT Areas						
	Total		5		5		5
Air Platform Shipboard Integration Test	Northeast						
	VACAPES		126		152		152
	Cherry Pt						
	JAX				30		30
	Key West				30		30
	Gulf Range Complex				30		30
	Other AFTT Areas						
	Total		126		242		242
Shipboard Electronics Systems Evaluation	Northeast						
	VACAPES		26				
	Cherry Pt						
	JAX		24				
	Key West		24				
	Gulf Range Complex		24				
	Other AFTT Areas						
	Total		98				
Undersea Range System Test	Northeast						
	VACAPES						
	Cherry Pt						
	JAX		12		12		20
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total		12		12		20

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

Activity/OPAREA		Annual Testing Activity Events by Project Scenario					
		Current Conditions (Phase III)		Alternative 1 (Phase IV)		Alternative 2 (Phase IV)	
		NAVSEA Testing	NAVAIR Testing	NAVSEA Testing	NAVAIR Testing	NAVSEA Testing	NAVAIR Testing
Amphibious Warfare - NAVSEA							
Amphibious Vessel Testing	Northeast						
	VACAPES						
	Cherry Pt						
	JAX						
	Key West						
	Gulf Range Complex					1	
	Other AFTT Areas						
	Total					1	
Anti-Submarine Warfare - NAVSEA							
Anti-Submarine Warfare Mission Package Testing	Northeast			0.05		0.10	
	NUWC Newport Testing Range	0.20					
	Newport, RI	0.20					
	VACAPES	1.30					
	Cherry Pt						
	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	
At-Sea Sonar Testing	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	
	JAX	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	
Pierside Sonar Testing	Northeast						
	Bath, ME	0.00		0.00		0.00	
	Portsmouth Naval Shipyard	0.00		0.00		0.00	
	Newport, RI	0.00					
	VACAPES						
	NS Norfolk	0.00		0.00		0.00	
	Cherry Pt						
	JAX						
	NS Mayport			0.00		0.00	
	Key West						
	Gulf Range Complex						
	Pascagoula, MS	0.00		0.00		0.00	
	Other AFTT Areas						
	Total	0.00		0.00		0.00	
Submarine Sonar Testing/ Maintenance	Northeast						
	Portsmouth Naval Shipyard	0.00					
	VACAPES						
	NS Norfolk	0.00					
	Cherry Pt						
	JAX						
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	0.00					
Surface Ship Sonar Testing/ Maintenance	Northeast						
	VACAPES	3		4		4	
	NS Norfolk	3					
	Cherry Pt						
	JAX	1		1		1	
	Key West						
	NS Mayport	1					
	Gulf Range Complex						
	Other AFTT Areas						
	Total	8		5		5	
Torpedo (Explosive) Testing	Northeast	0.00				0.00	
	VACAPES	0.00		0.00		0.00	
	Cherry Pt	0.00				0.00	
	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)

Activity/OPAREA		Annual Testing Activity Events by Project Scenario					
		Current Conditions (Phase III)		Alternative 1 (Phase IV)		Alternative 2 (Phase IV)	
		NAVSEA Testing	NAVAIR Testing	NAVSEA Testing	NAVAIR Testing	NAVSEA Testing	NAVAIR Testing
Torpedo (Non-Explosive) Testing	Northeast						
	NUWC Newport Testing Range	30.00		30.00		30.00	
	VACAPES	0.00		0.00		0.00	
	Cherry Pt	0.00		0.00		0.00	
	JAX	0.00		0.00		0.00	
	JAX RC Inshore	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						
	Total	30.00		30.00		30.00	
Electronic Warfare - NAVSEA							
Radar and Other Systems Testing	Northeast	0.10					
	NSB New London	0.20					
	VACAPES	1.65		2.45		3.25	
	VACAPES RC Inshore					0.05	
	NS Norfolk	0.10		0.35		0.50	
	Cherry Pt						
	JAX						
	Key West						
	Gulf Range Complex			1.25		1.70	
	Other AFTT Areas						
	Total	2.05		4.05		5.50	
Mine Warfare - NAVSEA							
Mine Countermeasure and Neutralization Testing	Northeast						
	VACAPES	0.00		0.00		0.00	
	Cherry Pt						
	JAX						
	Key West						
	Gulf Range Complex	0.00		0.00		0.00	
	Other AFTT Areas						
	Total	0.00		0.00		0.00	
Mine Countermeasure Mission Package Testing	Northeast						
	VACAPES	5		3		3	
	Cherry Pt						
	JAX	10		8		8	
	SFOMF	2		2		2	
	Key West						
	Gulf Range Complex	19		15		15	
	NSWC Panama City Testing Range	11		11		11	
	Other AFTT Areas						
	Total	47		39		39	
Mine Detection and Classification Testing	Northeast						
	VACAPES						
	Cherry Pt	4.00					
	JAX					0.40	
	JAX RC Inshore	3.60					
	Key West						
	Gulf Range Complex	2.40					
	NSWC Panama City Testing Range	20.40		114.40		114.80	
	Other AFTT Areas						
	Total	30.40		114.40		115.20	
Other Testing Activities - NAVSEA							
Acoustic and Oceanographic Research	Northeast			3		3	
	VACAPES						
	Cherry Pt						
	JAX					1	
	Key West						
	Gulf Range Complex						
	Other AFTT Areas					1	
	Total			3		5	
Acoustic Component Testing	Northeast						
	VACAPES						
	Cherry Pt						
	JAX			1		1	
	SFOMF	33		33		33	
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	33		34		34	



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

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

Activity/OPAREA		Annual Testing Activity Events by Project Scenario					
		Current Conditions (Phase III)		Alternative 1 (Phase IV)		Alternative 2 (Phase IV)	
		NAVSEA Testing	NAVAIR Testing	NAVSEA Testing	NAVAIR Testing	NAVSEA Testing	NAVAIR Testing
Semi-Stationary Equipment Testing	Northeast						
	NUWC Newport Testing Range	190.00		164.00		173.00	
	Newport, RI	2.00		2.00		2.00	
	VACAPES						
	NS Norfolk			5.50		7.00	
	Cherry Pt						
	JAX						
	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	
Towed Equipment Testing	Northeast						
	NUWC Newport Testing Range	36		46		49	
	VACAPES						
	Cherry Pt						
	JAX						
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	36		46		49	
Surface Warfare – NAVSEA							
Gun Testing - Large-Caliber	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	
	Key West	0.00					
	Gulf Range Complex	0.00		0.00		0.00	
	NSWC Panama City Testing Range	0.00		0.00		0.00	
	Other AFTT Areas						
	Total	0.00		0.00		0.00	
Gun Testing - Medium-Caliber	Northeast			0.00		0.00	
	VACAPES	0.00		0.00		0.00	
	Cherry Pt	0.00					
	JAX						
	Key West	0.00					
	Gulf Range Complex			0.00		0.00	
	NSWC Panama City Testing Range	0.00		0.00		0.00	
	Other AFTT Areas						
	Total	0.00		0.00		0.00	
Gun Testing - Small-Caliber	Northeast	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	
	Key West	0.00		0.00		0.00	
	Gulf Range Complex	0.00				0.00	
	NSWC Panama City Testing Range	0.00		0.00		0.00	
	Other AFTT Areas						
	Total	0.00		0.00		0.00	
Kinetic Energy Weapons Testing	Northeast	0.00					
	VACAPES	0.00					
	Cherry Pt	0.00					
	JAX	0.00					
	Key West	0.00					
	Gulf Range Complex	0.00					
	Other AFTT Areas						
	Total	0.00					
Missile and Rocket Testing	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	
	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)

Activity/OPAREA		Annual Testing Activity Events by Project Scenario					
		Current Conditions (Phase III)		Alternative 1 (Phase IV)		Alternative 2 (Phase IV)	
		NAVSEA Testing	NAVAIR Testing	NAVSEA Testing	NAVAIR Testing	NAVSEA Testing	NAVAIR Testing
Unmanned Systems - NAVSEA							
Underwater Search, Deployment, and Recovery	Northeast						
	VACAPES			2		5	
	Cherry Pt						
	JAX						
	SFOMF	33		33		33	
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	33		35		38	
Unmanned Aerial System Testing	Northeast	15					
	NUWC Newport Testing Range	17		17		17	
	VACAPES	7.50					
	Cherry Pt						
	JAX						
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	39.50		17		17	
Unmanned Surface Vehicle System Testing	Northeast						
	NUWC Newport Testing Range	132		4		4	
	VACAPES			0.00		0.00	
	Cherry Pt			0.00		0.00	
	JAX			0.00		0.00	
	Key West			0.00		0.00	
	Gulf Range Complex			0.00		0.00	
	Other AFTT Areas			0.00		0.00	
	Total	132		4.00		4.00	
Unmanned Underwater Vehicle Testing	Northeast						
	NUWC Newport Testing Range	308		138		138	
	VACAPES						
	Cherry Pt						
	JAX	12.50					
	JAX RC Inshore	4.50					
	SFOMF	21.00		0.50		0.50	
	Key West						
	Gulf Range Complex	20.50					
	NSWC Panama City Testing Range	72.50		104.00		104.50	
	Other AFTT Areas						
	Total	439.00		242.50		243.00	
Vessel Evaluation - NAVSEA							
Air Defense Testing	Northeast	0.00					
	VACAPES	0.00		0.00		0.00	
	Cherry Pt						
	JAX	0.00		0.00		0.00	
	Key West						
	Gulf Range Complex	0.00					
	Other AFTT Areas						
	Total	0.00		0.00		0.00	
Aircraft Carrier Sea Trials – Propulsion Testing	Northeast						
	VACAPES	2					
	Cherry Pt						
	JAX						
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	2					
Hydrodynamic and Maneuverability Testing	Northeast						
	VACAPES	1					
	Cherry Pt						
	JAX	1					
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	2					

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

Activity/OPAREA		Annual Testing Activity Events by Project Scenario					
		Current Conditions (Phase III)		Alternative 1 (Phase IV)		Alternative 2 (Phase IV)	
		NAVSEA Testing	NAVAIR Testing	NAVSEA Testing	NAVAIR Testing	NAVSEA Testing	NAVAIR Testing
In-Port Maintenance Testing	Northeast						
	VACAPES						
	NS Norfolk	0.00		0.00		0.00	
	Cherry Pt						
	JAX						
	NS Mayport, FL	0.00		0.00		0.00	
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	0.00		0.00		0.00	
Large Ship Shock Trials	Northeast						
	VACAPES						
	Cherry Pt						
	JAX	1					
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	1					
Propulsion Testing	Northeast	5		1		2	
	VACAPES	7		44		74	
	Cherry Pt	10		11		18	
	JAX	11		11		18	
	Key West	10		11		18	
	Gulf Range Complex	86		44		58	
	Gulf Range Complex Inshore	11		11		19	
	NSWC Panama City Testing Range			1		2	
	Other AFTT Areas						
	Total	140		134		209	
Signature Analysis Operations	Northeast						
	VACAPES						
	Hampton Roads, VA					0.00	
	Cherry Pt						
	JAX	0.00					
	SFOMF	0.00		0.00		0.00	
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	0.00		0.00		0.00	
Small Ship Shock Trial	Northeast						
	VACAPES					1	
	Cherry Pt						
	JAX	1		1		1	
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	1		1		2	
Submarine Sea Trials – Propulsion Testing	Northeast	1		3		4	
	VACAPES	1		3		4	
	Cherry Pt						
	JAX	1					
	Key West						
	Gulf Range Complex						
	Other AFTT Areas						
	Total	3		6		8	
Submarine Sea Trials – Weapons System Testing	Northeast	4		3		4	
	NE RC Inshore			1		1	
	VACAPES	4		3		4	
	Cherry Pt						
	JAX	2		2		2	
	JAX RC Inshore	2					
	NSB Kings Bay			1		2	
	Port Canaveral, FL			1		2	
	SFOMF	1					
	Key West						
	Gulf Range Complex	1		1		1	
	Other AFTT Areas						
	Total	14		12		16	

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

Activity/OPAREA		Annual Testing Activity Events by Project Scenario					
		Current Conditions (Phase III)		Alternative 1 (Phase IV)		Alternative 2 (Phase IV)	
		NAVSEA Testing	NAVAIR Testing	NAVSEA Testing	NAVAIR Testing	NAVSEA Testing	NAVAIR Testing
Surface Warfare Testing	Northeast	0.00					
	VACAPES	0.00		0.00		0.00	
	Cherry Pt						
	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	
Undersea Warfare Testing	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	
	SFOMF	0.00		0.00		0.00	
	Key West					0.00	
	Gulf Range Complex	0.00					
	Other AFTT Areas						
	Total	0.00		0.00		0.00	
Vessel Signature Evaluation	Northeast						
	NUWC Newport Testing Range			0.00		1	
	VACAPES	0.00		0.00		0.00	
	Hampton Roads, VA			0.00		0.00	
	JEB Little Creek Fort Story	5					
	Cherry Pt						
	JAX	0.00		0.00		0.00	
	SFOMF			0.00		0.00	
	Key West						
	Gulf Range Complex	0.00		0.00		0.00	
	Other AFTT Areas						
	Total	5.00		0.00		1.00	
Acoustic and Oceanographic Science and Technology - ONR							
Acoustic and Oceanographic Research	Northeast	9		4		4	
	VACAPES	2		3		4	
	Cherry Pt						
	JAX			3		3	
	Key West						
	Gulf Range Complex	5		3		4	
	Other AFTT Areas	2					
	Total	18		13		15	
Large Displacement Unmanned Undersea Vehicle Testing	Northeast	16		1		2	
	VACAPES	8		1		1	
	Cherry Pt	4					
	JAX	12		1		1	
	Key West						
	Gulf Range Complex	4		1		1	
	Other AFTT Areas						
	Total	44		4		5	
Mine Countermeasure Technology Research	Northeast	2		1		2	
	VACAPES	1		1		1	
	Cherry Pt						
	JAX	1		1		1	
	Key West						
	Gulf Range Complex			1		1	
	Other AFTT Areas						
	Total	4		4		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**

<i>Area</i>	<i>Alternative 1 (Tons per Year of Emissions)</i>						
	<i>VOCs</i>	<i>CO</i>	<i>NO<sub>x</sub></i>	<i>SO<sub>x</sub></i>	<i>PM<sub>10</sub></i>	<i>PM<sub>2.5</sub></i>	<i>CO<sub>2</sub>e (MT)</i>
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**

<i>Area</i>	<i>Alternative 1 (Tons per Year of Emissions)</i>						
	<i>VOCs</i>	<i>CO</i>	<i>NO<sub>x</sub></i>	<i>SO<sub>x</sub></i>	<i>PM<sub>10</sub></i>	<i>PM<sub>2.5</sub></i>	<i>CO<sub>2</sub>e (MT)</i>
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**

<i>Area</i>	<i>Alternative 1 (Tons per Year of Emissions)</i>						
	<i>VOCs</i>	<i>CO</i>	<i>NO<sub>x</sub></i>	<i>SO<sub>x</sub></i>	<i>PM<sub>10</sub></i>	<i>PM<sub>2.5</sub></i>	<i>CO<sub>2</sub>e (MT)</i>
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**

Area	Alternative 1 (Tons per Year of Emissions)						
	VOCs	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2</sub> e (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**

Area	Phase III Alternative 1 (Tons per Year of Emissions)							
	VOCs	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	Pb	CO <sub>2</sub> e (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**

Area	Alternative 1 (Tons per Year of Emissions)						
	VOCs	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2</sub> e (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**

Area	Alternative 1 (Tons per Year of Emissions)						
	VOCs	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2</sub> e (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
<b>Total - Phase III Alternative 1</b>	<b>344.26</b>	<b>3,477.74</b>	<b>9,823.98</b>	<b>3,615.51</b>	<b>608.84</b>	<b>549.79</b>	<b>2,905,140</b>

Note: Includes emissions inside and outside state waters.

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

Area	Alternative 1 (Tons per Year of Emissions)						
	VOCs	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2</sub> e (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**

Area	Alternative 1 (Tons per Year of Emissions)						
	VOCs	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2</sub> e (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**

Area	Alternative 1 (Tons per Year of Emissions)						
	VOCs	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2</sub> e (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**

Area	Alternative 1 (Tons per Year of Emissions)						
	VOCs	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2</sub> e (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: CO<sub>2</sub>e emissions within state waters included in emissions by OPAREA – see Table H-12.

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

Area	Alternative 1 (Tons per Year of Emissions)							
	VOCs	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	Pb	CO <sub>2</sub> e (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**

Area	Alternative 1 (Tons per Year of Emissions)						
	VOCs	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2</sub> e (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**

Area	Alternative 1 (Tons per Year of Emissions)						
	VOCs	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2</sub> e (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
<b>Total - Phase IV Alternative 1</b>	<b>280.36</b>	<b>2,647.33</b>	<b>9,294.33</b>	<b>853.17</b>	<b>489.98</b>	<b>440.85</b>	<b>2,351,637</b>
<b>Total - Phase III Alternative 1</b>	<b>344.26</b>	<b>3,477.74</b>	<b>9,823.98</b>	<b>3,615.51</b>	<b>608.84</b>	<b>549.79</b>	<b>2,905,140</b>
<b>Net Change - Phase IV - Phase III</b>	<b>(63.91)</b>	<b>(830.41)</b>	<b>(529.65)</b>	<b>(2,762.34)</b>	<b>(118.86)</b>	<b>(108.94)</b>	<b>(553,503)</b>

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**

Area	Alternative 2 (Tons per Year of Emissions)						
	VOCs	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2</sub> e (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**

Area	Alternative 2 (Tons per Year of Emissions)						
	VOCs	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2</sub> e (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**

Area	Alternative 2 (Tons per Year of Emissions)						
	VOCs	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2</sub> e (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**

Area	Alternative 2 (Tons per Year of Emissions)						
	VOCs	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2</sub> e (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**

<i>Area</i>	<i>Alternative 2 (Tons per Year of Emissions)</i>							
	<i>VOCs</i>	<i>CO</i>	<i>NO<sub>x</sub></i>	<i>SO<sub>x</sub></i>	<i>PM<sub>10</sub></i>	<i>PM<sub>2.5</sub></i>	<i>Pb</i>	<i>CO<sub>2e</sub> (MT)</i>
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**

Area	Alternative 2 (Tons per Year of Emissions)						
	VOCs	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2e</sub> (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**

Area	Alternative 2 (Tons per Year of Emissions)						
	VOCs	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2</sub> e (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 Alternative 2	317.49	2,897.72	10,311.91	954.04	505.44	454.97	2,493,120
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	(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**

<i>Nonattainment/ Maintenance Area</i>	<i>Alternative 1 (tons/yr)</i>					<i>Alternative 2 (tons/yr)</i>				
	<i>VOCs</i>	<i>CO</i>	<i>NO<sub>x</sub></i>	<i>SO<sub>x</sub></i>	<i>PM</i>	<i>VOCs</i>	<i>CO</i>	<i>NO<sub>x</sub></i>	<i>SO<sub>x</sub></i>	<i>PM</i>
<b>Rhode Island - Metropolitan Providence Interstate Ozone Nonattainment<sup>1</sup></b>										
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
<b>Net Change</b>	<b>(2.37)</b>	<b>(13.03)</b>	<b>(107.35)</b>	<b>(127.70)</b>	<b>(0.21)</b>	<b>(1.93)</b>	<b>(11.29)</b>	<b>(96.54)</b>	<b>(127.08)</b>	<b>0.09</b>
<b>Metropolitan Portland/Cumberland County Ozone Maintenance<sup>2</sup></b>										
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
<b>Net Change</b>	<b>(0.28)</b>	<b>(1.53)</b>	<b>(12.63)</b>	<b>(15.02)</b>	<b>(0.02)</b>	<b>(0.23)</b>	<b>(1.33)</b>	<b>(11.36)</b>	<b>(14.95)</b>	<b>0.01</b>
<b>Eastern Connecticut Intrastate Ozone Nonattainment<sup>3</sup></b>										
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
<b>Net Change</b>	<b>(0.14)</b>	<b>(0.77)</b>	<b>(6.31)</b>	<b>(7.51)</b>	<b>(0.01)</b>	<b>(0.11)</b>	<b>(0.66)</b>	<b>(5.68)</b>	<b>(7.48)</b>	<b>0.01</b>
<b>Virginia - Hampton Roads Intrastate Ozone Maintenance<sup>4</sup></b>										
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
<b>Net Change</b>	<b>(4.56)</b>	<b>(42.11)</b>	<b>(113.79)</b>	<b>(470.53)</b>	<b>(25.71)</b>	<b>(4.18)</b>	<b>(39.22)</b>	<b>(93.42)</b>	<b>(467.45)</b>	<b>(25.21)</b>
<b>Jacksonville, Florida Sulfur Dioxide Maintenance<sup>5</sup></b>										
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
<b>Net Change</b>	<b>1.57</b>	<b>6.78</b>	<b>(0.54)</b>	<b>(99.78)</b>	<b>0.22</b>	<b>1.94</b>	<b>10.68</b>	<b>25.12</b>	<b>(95.28)</b>	<b>0.95</b>

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

<sup>1</sup> Equates to 85% of the emissions that occur within the Northeast Area state waters.

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

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

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

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

**Table H-25: Data Organization by Geographic Areas**

<i>Designation <sup>(1)</sup></i>	<i>Relationship to EPA Region (Coastal States)</i>	
Northeast OPAREA	Region 1:	Maine, New Hampshire, Massachusetts, Rhode Island, and Connecticut
	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 OPAREA	Region 4:	Florida and Alabama
	Region 6:	Louisiana and Texas
Outside Range Complexes	Other locations within the Study Area that are not in the OPAREA boundaries.	

Note:

<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**

Ship/Boat Type	Acronym	Emissions Factors (lb/hr) <sup>1</sup> Propulsion Engines + Generators							Vessel Mode	Engine model (# of Engines)	Use <sup>1</sup>
		HC	CO	NOx	SO <sub>x</sub> Phase 4	SO <sub>x</sub> Phase 3	PM <sub>10/2.5</sub>	CO <sub>2</sub>			
Ships											
Logistics/Support	A0E-6	10.6	109.6	310.6	0.4	103.0	3.5	67,802	Underway	3608 (5)	Service Diesel Generator
		5.9	35.0	444.4	0.7	154.4	5.3	81,308	Restricted Waters	LM2500 (4)	Main Gas Turbine
Nuclear Aircraft Carrier - Nimitz Class	CVN-1	0.3	1.2	16.7	1.4	1.4	0.1	684		16-645E5 (4)	Emergency Diesel Generator
	CVN-R	0.0	0.1	1.7	0.1	0.1	0.0	68			
Guided Missile Cruiser - Ticonderoga	CG-68	4.3	61.5	79.6	54.5	54.5	2.3	24,191	Underway	501-K17 (3)	Service Gas Turbine Generator
		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 Lucas	DDG-125	4.0	59.6	114.4	0.2	51.5	1.3	27,522	Underway	501-K34 (3)	Service Gas Turbine Generator
		2.4	30.6	374.0	0.7	110.0	5.3	84,962	Restricted Waters	LM2500 (4)	Main Gas Turbine
Guided Missile Frigate	FFG-61	3.1	32.8	47.1	11.0	11.0	1.1	10,404	Underway	3512B Tier 1 (4)	Service Diesel Generator
		1.8	13.9	143.2	22.0	22.0	2.4	31,926	Restricted Waters	LM2500 (2)	Main Gas Turbine
Littoral Combat Ship - Replaces FFG in Phase 4	LCS	3.1	46.0	186.3	0.2	51.5	4.2	25,458	Underway	V1078 (2)	Service Diesel Generator
		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 Ship - America Class	LHA-8	14.5	8.4	277.2	10.2	10.2	4.8	35,847	Underway	12PA6B (6)	Service Diesel Generator
		15.2	18.7	199.5	10.2	10.2	3.3	27,999	Restricted Waters	LM2500+ (2)	Main Gas Turbine
Amphibious Assault Ship – Wasp Class	LHD-8	14.5	8.4	277.2	10.2	10.2	4.8	35,847	Underway	12PA6B (6)	Service Diesel Generator
		15.2	18.7	199.5	10.2	10.2	3.3	27,999	Restricted Waters	LM2500+ (2)	Main Gas Turbine
Landing Transport Dock - San Antonio Class	LPD-17	16.9	31.6	272.3	37.5	37.5	3.3	16,767	Underway	3608 (Tier 1) (5)	Service Diesel Generator
		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
		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
		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. Wheeler	T-AG 5001	6.8	13.7	103.9	0.1	20.6	20.3	35,774	Underway	3406 (1)	Service Diesel Generator
		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)**

Ship/Boat Type	Acronym	Emissions Factors (lb/hr) <sup>1</sup> Propulsion Engines + Generators							Vessel Mode	Engine model (# of Engines)	Use <sup>1</sup>
		HC	CO	NOx	SO <sub>x</sub> Phase 4	SO <sub>x</sub> Phase 3	PM <sub>10/2.5</sub>	CO <sub>2</sub>			
										3512 (2) 12 M 32C (2)	Service Diesel Generator Main Diesel Engine
Ocean Surveillance Vessel - Offshore	T-AGOS 19	2.9	4.8	66.7	0.02	5.1	0.9	2,895	Underway	3408C TA (1)	Service Diesel Generator
		2.9	4.8	66.4	0.02	5.1	0.9	2,886	Restricted Waters	3512 (4)	Main Diesel Engine
Maritime Prepositioning Force Ship	T-AKR 312	3.7	76.8	419.5	0.4	103.0	2.4	52,666	Underway	3516B TA (1)	Service Diesel Generator
		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 Ship	T-ARS 52	1.3	3.1	32.1	0.02	5.1	0.4	3,403	Underway	D399(S) (3)	Service Diesel Generator
		0.9	3.3	38.1	0.04	5.1	0.2	3,967	Restricted Waters	D399(M) (4)	Main Diesel Engine
Support Vessel	T-ATF-168	2.2	16.3	104.1	0.04	10.3	0.4	3,586	Underway	16V-71T 7163-7305 (3)	Service Diesel Generator
		2.6	13.4	139.5	0.04	10.3	0.4	4,836	Restricted Waters	20-645E7 (2)	Main Diesel Engine
USCG Cutter - Resilient Class - 210'	WMEC-210	1.5	11.2	71.3	0.03	7.1	0.3	2,456	Underway	None	Service Diesel Generator
		1.8	9.2	95.5	0.03	7.1	0.3	3,312	Restricted Waters	ALCO 251B (2)	Main Diesel Engine
USCG Cutter - Famous Class - 270'	WMEC-270	2.2	16.3	104.1	0.04	10.3	0.4	3,586	Underway	3512B (2)	Service Diesel Generator
		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 - Legend Class - 418'	WMSL	9.4	215.2	433.0	0.4	83.2	16.0	37,391	Underway	3512B (3)	Service Diesel Generator
		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
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
	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)**

Ship/Boat Type	Acronym	Emissions Factors (lb/hr) <sup>1</sup> Propulsion Engines + Generators							Vessel Mode	Engine model (# of Engines)	Use <sup>1</sup>
		HC	CO	NOx	SO <sub>x</sub> Phase 4	SO <sub>x</sub> Phase 3	PM <sub>10/2.5</sub>	CO <sub>2</sub>			
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	Yanmar 6LY2A-STP 440 hp (2)	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
Rigid Inflatable Boat (zodiac)	7M RHIB	0.1	2.0	2.6	0.02	5.1	0.1	267	All	230 Hp (1)	Main Diesel Engine
	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>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**

Aircraft	Engine Model	# Engines	Aircraft Mode	Fuel Flow per engine lb/hr	Emissions Indices (Lb/1,000 Lb Fuel)						Emission Rates (Lb/hr)					
					VOC	CO	NO <sub>x</sub>	SO <sub>2</sub>	PM <sub>10/2.5</sub>	CO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	SO <sub>2</sub>	PM <sub>10/2.5</sub>	CO <sub>2e</sub>
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<sub>2.5</sub> = PM<sub>10</sub> emissions, in accordance with AESO Memorandum Report No. 2013-04 Revision A, January 2014. *PM<sub>2.5</sub> to PM<sub>10</sub> 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	<p>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:</p> <ul style="list-style-type: none"> <li>• Amphibious Vessel Testing,</li> <li>• Surface Ship Sonar Testing/Maintenance,</li> <li>• Mine Countermeasure Mission Package Testing,</li> <li>• Acoustic and Oceanographic Research,</li> <li>• Acoustic Component Testing,</li> <li>• Intelligence, Surveillance, Reconnaissance,</li> <li>• Line Charge Testing,</li> <li>• Towed Equipment Testing,</li> <li>• Underwater Search, Deployment, and Recovery,</li> <li>• Aircraft Carrier Sea Trials – Propulsion Testing,</li> <li>• Hydrodynamic and Maneuverability Testing,</li> <li>• Large Ship Shock Trials,</li> <li>• Propulsion Testing,</li> <li>• Small Ship Shock Trials,</li> <li>• Submarine Sea Trials – Propulsion Testing, and</li> <li>• Submarine Sea Trials – Weapons System Testing.</li> </ul>
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 [NO<sub>x</sub>]). 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)**

<i>Activity</i>	<i>VOC</i>	<i>NO<sub>x</sub></i>
Alternative 1	5.91	243.06
Phase III	8.28	350.41
<b>Net Change Alternative 1 minus Phase III</b>	<b>-2.37</b>	<b>-107.35</b>
<b><i>De Minimis</i> Thresholds</b>	<b>100</b>	<b>100</b>
<b>Exceed Threshold?</b>	<b>No</b>	<b>No</b>

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**

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Office of the Deputy Assistant Secretary of the Navy (Environment and Mission Readiness)

## 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 [NO<sub>x</sub>]). 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)**

<i>Activity</i>	<i>VOC</i>	<i>NO<sub>x</sub></i>
Alternative 1	0.69	28.60
Phase III	0.97	41.22
<b>Net Change Alternative 1 minus Phase III</b>	<b>-0.28</b>	<b>-12.63</b>
<b><i>De Minimis</i> Thresholds</b>	<b>100</b>	<b>100</b>
<b>Exceed Threshold?</b>	<b>No</b>	<b>No</b>

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**

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## 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 [NO<sub>x</sub>]). 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)**

<i>Activity</i>	<i>VOC</i>	<i>NO<sub>x</sub></i>
Alternative 1	0.35	14.30
Phase III	0.49	20.61
<b>Net Change Alternative 1 minus Phase III</b>	<b>-0.14</b>	<b>-6.31</b>
<b><i>De Minimis</i> Thresholds</b>	<b>50</b>	<b>50</b>
<b>Exceed Threshold?</b>	<b>No</b>	<b>No</b>

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**

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## 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

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, 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
<i>De Minimis</i> 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.

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## 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
<b>Net Change Alternative 1 minus Phase III</b>	<b>-99.78</b>
<b><i>De Minimis</i> Thresholds</b>	<b>100</b>
<b>Exceed Threshold?</b>	<b>No</b>

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**

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