# APPENDIX C Air Quality Emissions Calculations and Record of NonApplicability



# **Draft**

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

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Atlantic Fleet	
Training and Test	ting Draft EIS/OEIS

# APPENDIX C AIR QUALITY EMISSIONS CALCULATIONS AND RECORD OF NON-APPLICABILITY

This appendix discusses emission factor development and calculations including assumptions employed in the analyses presented in the Air Quality section of Chapter 3 (Section 3.1).

# C.1 AIR QUALITY EXAMPLE CALCULATIONS

#### C.1.1 SURFACE ACTIVITIES EMISSIONS

Surface activities consist of activities associated with boat and vessel traffic. Fleet training activities incorporate a variety of marine vessels including cruisers, destroyers, frigates, carriers, riverine vessels, and rigid hull inflatable boats. Larger vessels also have generators operating onboard to provide electricity for non-propulsion functions. Each of these vessels incorporates different propulsion methods such as marine outboard engines, diesel engines, and gas turbines. Calculations are based on the combustion of fossil fuels (primarily diesel) in these engines and the time they run.

#### C.1.1.1.1 Marine Outboard Engines

The U.S. Environmental Protection Agency (USEPA) has published emissions factors for air pollutants produced by several types of two-stroke and four-stroke outboard engines. These engines are operated on a variety of small boats and vessels involved in nearshore training and testing activities. Emission factors were obtained from USEPA NONROAD documentation for Compression Ignition and Spark Ignition engines.

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

Emissions = HP×HR/YR×EF×ENG
Where:
Emissions = Surface craft Emissions (pound per year)
HP = Horsepower (reflective of a particular load factor/engine power setting)
HR/YR = Hours per year
EF = Emission factor for specific engine type ENG = Number of engine

To determine the entire project emissions, a calculation was conducted for each surface vessel type and for each pollutant and converted to tons, then compared to the baseline Study Area emissions. The baseline is defined as the training and testing identified as the Preferred Alternative in the Atlantic Fleet Forces Training and Testing Final Environmental Impact Statement/Overseas Environmental Impact Statement released in August 2013. These values were summed according to the appropriate pollutant to provide the cumulative emissions associated with surface vessel emissions activities.

# C.1.1.1.2 Diesel Engines

Large vessel emissions were calculated in a similar fashion using emission factors from the Naval Sea Systems Command Navy and Military Sealift Command Marine Engine Fuel Consumption and Emission Calculator for the propulsion system and the supplemental ship service generator(s).

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

# C.1.2 AIR ACTIVITIES EMISSIONS

Fleet training and Naval Air Systems Command testing consists of various activities associated with airplanes or helicopters. Aircraft activities of concern are those that occur from ground level up to 3,000 feet (ft.) above ground level. The 3,000 ft. above ground level ceiling is the default atmospheric mixing height above which any pollutant generated would not contribute to increased pollutant concentrations at ground level (known as the mixing zone). All pollutant emissions from aircraft generated greater than 3,000 ft. (914 m) above ground level are excluded from this analysis. The pollutant emission rate is a function of the engine's operating mode, the fuel flow rate, and the engine's overall efficiency. Emissions for one complete flight for a particular aircraft are calculated by knowing the specific engine pollutant emission factors for each mode of operation.

For this EIS/OEIS, emission factors for most military engines were obtained from Navy's Aircraft Environmental Support Office (AESO) memoranda. For those aircraft for which engine data from AESO was unavailable, applicable data from other reputable data sources was used. Emissions factors vary depending on engine power mode, time in each mode, and fuel flow. Using these data, as well as information on hours of cruise time and number of landing/takeoff activities on a vessel, pollutant emissions for each aircraft and activity were calculated by applying the equation below.

Emissions = TIM×FF×EF×ENG×CF
Where:
Emissions = Aircraft Emissions (lb. per activity) (for EF in lb./1000 gallon fuel) TIM = Time-in-mode at a specified power setting (hr/activity).
FF = Fuel flow at a specified power setting (gallons/hr/engine)
EF = Emission factor for specific engine type and power setting (lb./1000 gallons of fuel used) ENG = Number of engines on aircraft

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

## **C.1.3 Ordnance and Munitions Emissions**

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

Emissions = EXP/YR×EF Where: Emissions = Ordnance Emissions (lb. per year) EXP/YR = Explosives, propellants, and pyrotechnics used per year EF = Emissions factor

### C.1.4 RECORD OF NON-APPLICABILITY

A Record of Non-Applicability For Clean Air Act Conformity has been prepared in accordance with the Navy Guidance for Compliance with the Clean Air Act General Conformity Rule (30 July 2013) and is included on the following page.

# C.1.5 EMISSIONS ESTIMATES SPREADSHEETS

The following spreadsheets (Tabs A - P) contain data used for the emissions calculations for vessels, aircraft, and munitions, respectively.

#### TAB A: Appendix C: Air Quality Emissions Estimates

Appendix Organi	zation	Acronym	s
Tab A	Appendix C Introduction	A/C	aircraft
Tab B	Baseline (Preferred Alternative from V2)	AESO	Aircraft Environmental Support Office
Tab C	Emissions Summary	CO	Carbon monoxide
Tab D	Ship Emissions	gal	gallon
Tab E	Training in State Waters	GPH	gallons per hour
Tab F	Aircraft Emissions	HC	hydrocarbons
Tab G	Munition Emissions	hp	horsepower
Tab H	Ship and Boat Emission Factors	hr	hour
Tab I	Munition Emission Factors	lb	pound
Tab J	Aircraft Engine Emissions Factors and Profiles	NM	nautical mile
Tab K	Aircraft Activity - Testing	NOx	Nitrogen oxides
Tab L	Aircraft Activity - Training	PM	Particulate matter
Tab M	Aircraft Activity by Region	SOx	Sulfur dioxide
Tab N	Aircraft Engine Emission Factor Sources	VOC	Volatile organic compounds
Tab O	Munition Activity Data	yr	year
Tab P	Baseline (V2 Preferred Alternative) Munition Summary		

#### **Data Organization**

Designation <sup>a</sup>	Relationsh	ip to EPA Region (coastal states)
Northeast OPAREA	Region 1:	Maine, New Hampshire, Massachusets, Rhode Island and Connecticut
	Region 2:	New York and New Jersey
VACAPES OPAREA	Region 3:	Delaware, Virginia
Cherry Pt OPAREA	Region 4:	North Carolina, South Carolina, Georgia
JAX OPAREA	Region 4:	Florida
Key West OPAREA	Region 4:	Florida
GOMEX OPAREA	Region 4:	Florida and Alabama
	Region 6:	Louisiana, Texas
Outside Range		
Complexes	Other locat	tions within the Study Area that are not in the OPAREA boundaries

<sup>&</sup>lt;sup>a</sup> the OPAREA designation includes adjacent state waters. These are also separately delineated in the calculations.

TAB B: Baseline (Preferred Alternative in the Atlantic Fleet Forces Training and Testing Final Environmental Impact Statement/Overseas Environmental Impact Statement released in August 2013)

	E	missions by	Criteria Air P	ollutant (TP	Y)	
Source	ω	NO.	voc	so.		PM <sub>2.5</sub>
Northeast R	ange Compl	ex			20	2.0
State waters						
Aircraft	0.04	0.17	0.01	0.01	0.04	0.04
Vessel	0.24	0.25	0.10	0.05	0.01	0.01
Ordnance	0.00	0.00	0.10 0.00	0.00	0.00	0.01 0.00
Total	0.27	0.42	0.11	0.06	0.05	0.05
	e U.S. (3-12					
Aircraft	0.02	0.07		0.00	0.02	0.02
Vessel	0.52	0.63	0.00 0.28	0.12	0.02	0.0
Ordnance	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.54	0.71	0.29	0.12	0.03	
			0.29	U.12	0.03	0.03
Internationa		2 nm)			0.76	
Aircraft	0.76	3.13 6.38	0.16 0.51 0.00	0.15	0.76	U. 76
Vessel	5.84 0.04	6.38	0.51	1.28 0.00	0.14	0.76 0.14 0.00
Uranance		0.00	0.00		0.03	0.00
Total	6.64	9.50	0.68	1.43	0.92	0.90
Total for No	theast Rang	e Complex 3.37				
Aircraft	0.81	3.37	0.17	0.16	0.81	0.81
Vessel	6.60	7.26	0.90 0.00	1.45 0.00	0.16	0.16 0.01
Ordnance	0.04	0.00	0.00	0.00	0.03	0.01
Total	7.46	10.63	1.07	1.61	1.00	0.98
				Percent In-9	State	0.04
					T	
Source	œ	NO.	voc	SO.	PM <sub>10</sub>	PM <sub>2</sub> s
	es Range Co			1	10	2.5
State waters		приск				
Aircraft	24.43	25.29	2.16	1 50	8.27	0 2
	1.49	30.89	2.10	1.58 3.37	0.20	
Vessel	0.00	0.00	2.16 2.92 0.00	0.00	0.00	8.27 0.20 0.00
Ordnance			0.00			0.00
Total	25.92	56.18	5.08	4.94	8.47	8.47
Waters of th	e U.S. (3-12	nm)			0.69	
Aircraft	1.98	nm) 2.14	0.18	0.13		0.69
Vessel	124.12	81.21	19.50	25.76	2.35	0.69 2.35 0.09
Ordnance	2.27	0.09	0.00	0.00	0.13	0.09
lotal	128.38	83.45	19.68	25.89	3.17	3.13
Internationa	waters (>1	2 nm)				
Aircraft	22.81 593.25	32.00	2.70 56.02	2.19	13.35	13.35 16.80
Vessel	593.25	390.35	56.02	182.75	16.80	16.80
Ordnance	20.47	0.82	0.00	0.00	1.21	0.79
Total	636.53	443.84	58.72	184.94	31.37	30.94
Total for Vin						
Aircraft	49.22	80.10	5.04 78.43	3.90	22.31	22.31
Vessel	718.86	502.46	72 43	211.87	22.31 19.36	10.36
Ordnance	22.75	0.91	0.00	0.00	1.35	22.31 19.36 0.87
Total	790.82	583.47	83.48	215.77	43.01	42.54
i Otal	750.62	383.47				
				Percent In-S	state	0.06
Source	∞	NO <sub>x</sub>	VOC	SO,	PM <sub>10</sub>	PM <sub>2.5</sub>
Cherry Point	Range Com	plex				
State waters	(0-3 nm)				L	
Aircraft	5.74	5.82	0.52	0.36	1.85	1.85
Vessel	5.74 16.35	34.36	3.46	35.46	3.09	3.09
Ordnance	0.00	0.00	0.52 3.46 0.00 3.98	0.00	0.00	0.00
Total	22.09	40.18	3.98	35.82	4.94	1.85 3.09 0.00 4.94
Waters of th		nm)				
Aircraft	0.86	0.89	0.07	0.05	0,30	0.30
	41.97	46.86	4.88	39.63	3.48	3.48
Vaccal			0.00	0.00	0.01	0.01
Vessel	0.55					
Vessel Ordnance	0.56	0.01				
Vessel Ordnance Total	43.39	47.76	4.95	39.69	3.79	3,78
Vessel Ordnance	43.39	47.76	4.95 2.59		3.79 42.85	3,78 42.85

	Е	missions by	Criteria Air F	ollutant (TP	Y)	
Source		NO.	voc	so.		PM <sub>2.5</sub>
Northeast R						
State waters						
Aircraft	0.01	0.03	0.00	0.00	0.01	0.0
Vessel	0.98	3.60	0.08	0.39	0.06	0.0
Ordnance	0.00	0.00	0.00	0.00	0.00	0.0 0.0
Total	0.99	3.62	0.08	0.39	0.08	0.0
Waters of th		nm1				
Aircraft	0.26	0.28 3.25	n nz	0.02	0.09	0.0
Vessel	3.34	3 25	0.02 0.30	0.02 0.78	0.08	0.0
Ordnance	0.00	0.00	0,00	0.00	0.00	0.0
Total	3.61	3.52	0.32		0.17	0.1
Internationa						
Aircraft	1 27	1.76	0.14	0.11	0.54	0.5 1.7
Vessel	1.27 62.53	40.17		19.02	1.70	1 7
Ordnance	0.02	0.00	5.75	0.00	0.01	0.0
Total	63.83	41.93	5.89	19.12	2.25	0.0
						2.2
Total for No Aircraft	theast Rang	e Complex 2.06			0.64	
Vessel	1.54 66.86	47.02		0.12	1.85	0.6
			0.16 6.12 0.00	20.19 0.00		1.8
Ordnance	0.02	0.00	0.00	0.00	0.01	0.0 <b>2.4</b>
Total	68.42	49.08	6.29	20.31		2.4
				Percent In-S	tate	0.0
Source	ω	NO <sub>z</sub>	VOC	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Virginia Cap		mplex				
State waters	(0-3 nm) 1.29 1.91					
Aircraft	1.29	1.34	0.11	0.08	0.44	0.4
Vessel	1.91	3,02	0.11 0.16 0.00	0.48	0.06	0.0
Ordnance	0.00	0.00	0.00	0.00	0.00	0.0
Total	3.20	4.36	0.27	0.57	0.50	0.5
Waters of th	e U.S. (3-12	nm)				
Aircraft	1.80	1.86	0.16 1.75	0.12	0.61	0.6
Vessel	18.91	13.84	1.75	4.08	0.39	0.3
Ordnance	0.41	0.02	0.00	0.00	0.06	0.0
Total	21.11	15.72	1.91	4.19	1.06	1.0
Internationa	l waters (>12	2 nm)	1			
Aircraft	12.15	17.10	1.15 25.43	0.88	4.96	4.9 5.7
Vessel	289.14	171.98	25.43	67.95	5.71	5.7
Ordnance	3.65	0.17	0.00	0.00	0.52	0.3
Total	304.94	189.24	26.58	68.83	11.19	11.0
Total for Virg	ginia Capes R	ange Compl				
Aircraft	15.23	20.30	1.42	1.07	6.01	6.0
Vessel	309.96	188.84	27.34	1.07 72.51	6.16	6.0 6.1
Ordnance	4.06	0.19	ex 1.42 27.34 0.00	0.00	0.58	0.3
Total	329.25	209.32	28.76	73.59	12.74	12.5
				Percent In-S		0.0
					I	
Source	ω	NO.	voc	SO.	PM <sub>10</sub>	PM <sub>2.5</sub>
	Range Com	plex			*10	2.5
State waters						
Aircraft	0.00	0.01	0.00	0.00	0.00	0.0
Vessel	0.52	2.20	0.04	0.23	0.04	0.0
Ordnance	0.00	0.00	0.00	0.00	0.00	0.0
Total	0.53	2.22	0.00 0.04	0.23	0.04	0.0 0.0
			0.04	0.23	0.04	0.0
Waters of th	e U.S. (3-12) 0.09	nm) 0.09	0.01	0,01	0.03	0.0
Aircraft						0.0
Vessel	0.73	1.30	0.08	0.26	0.03	0.0
Ordnance	0.00	0.00	0.00	0.00	0.00	0.0
Total	0.82	1.40	0.09	0.26	0.06	0.0
Internationa	waters (>12	2 nm)				1.3
Aircraft Vessel	3.99 32.86	4.33 22.86	0.36 3.25	0.27 12.87	1.39 1.22	1.3 1.2

Ordnance	5,00	0.13	0,00	0.00	0.13	0.07
Ordnance Total	5.00 883.21	0.13 659. <b>7</b> 9	0.00 <b>7</b> 5.44	196.63	57.88	57.82
	erny Point Ra	nge Complex				
Aircraft	26.32	194.15	3.18 81.20 0.00 <b>84.37</b>	5.97	45.00	45.00
Vessel	26.32 916.81	553.44	81.20	266.17	21.47	21.47
Ordnance	5.56	0.15	0.00	0.00	0.14	21.47
Total	948.69	747.73	84.37	272.14	66.61	66.54
					tate	0.05
Source	$\infty$	NO <sub>x</sub>	VOC	SO,	PM <sub>10</sub>	PM <sub>2.5</sub>
Jacksonville		plex				
State water:						
Aircraft	5.07	5.97 9.78	0.48 3.02 0.00 3.49	0.36 6.38	1.86 0.56	1.86 0.56
Vessel Ordnance	4.79 0.00	0.00	3,02	0.00	0.00	0.00
Total	9.85	15.76	2.40	6.74	2.41	2.41
Waters of th		nm)				
Aircraft	1.98	2.36 50.01 0.05	0.19	0.14	0.74	0.74 1.68 0.08
Vessel Ordnance	1.98 73.59 1.24	50.01	14.31	19.36 0.00	1.68 0.13	1.68
Ordnance	1.24	0.05	0.00	0.00	0.13	0.08
Total	76.81	52.43	0.19 14.31 0.00 14.50	19.50	2.55	2.49
Internationa	waters (>1. 31.55	2 nm)				
	31.55	214.14	4.32	6.83	49.42	49.42
Vessel	758.55	440.02	4.32 65.39 0.00 69.72	182.69	15.09	15.09 0.68 65.19
Ordnance	11.18 801.28	0.49 654.64	0.00	0.00	1.15	0.68
Total	801.28	654.64	69.72	189.53	65.66	65.19
Total for Jac	ksonville Rar 38.60	nge Complex 222.48	4.99 82.72		52.02	
Aircraft	836,93	499.81	4.99	7.33 208.44	1722	52.02 17.33 0.75
Vessel Ordnance	12.42		02.72	0.00	1,28	17.55
Total	887.95	0.54 <b>722.83</b>	0.00 <b>87.71</b>	215.77	70.62	70.10
					tate	0.02
Source	ω	NO <sub>x</sub>	voc	so,	PM <sub>10</sub>	PM <sub>2.5</sub>
Key West R	ange Comple	K				
Key West Ra State water	ange Comple s (0-3 nm)					
State water: Aircraft	s (0-3 nm) 0.00	0.00	0.00	0.00	0.00	0.00
State water: Aircraft Vessel	s (0-3 nm) 0.00 0.01	0.00	0.00	0.04	0.00	0.00
State water: Aircraft Vessel Ordnance	s (0-3 nm) 0.00 0.01 0.00	0.00 0.34 0.00	0.00	0.04 0.00	0.00	0.00 0.00 0.00
State water: Aircraft Vessel Ordnance Total	s (0-3 nm) 0.00 0.01 0.00 0.01	0.00 0.34 0.00 0.34	0.00 0.00 0.00	0.04	0.00	0.00 0.00 0.00
State water Aircraft Vessel Ordnance Total Waters of th	s (0-3 nm) 0.00 0.01 0.00 0.01 ne U.S. (3-12	0.00 0.34 0.00 0.34	0.00 0.00 0.00	0.04 0.00 0.04	0.00 0.00 0.00	0.00 0.00 0.00
State water: Aircraft Vessel Ordnance Total Waters of the Aircraft	s (0-3 nm) 0.00 0.01 0.00 0.01 ne U.S. (3-12	0.00 0.34 0.00 0.34 nm)	0.00 0.00 0.00	0.04 0.00 0.04	0.00 0.00 0.00	0.00 0.00 0.00
State water: Aircraft Vessel Ordnance Total Waters of th Aircraft Vessel Ordnance	s (0-3 nm) 0.00 0.01 0.00 0.01 ne U.S. (3-12 0.00 0.00	0,00 0,34 0,00 0,34 nm) 0,00 0,00	0.00 0.00 0.00	0.04 0.00 0.04 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00
State water: Aircraft Vessel Ordnance Total Waters of th Aircraft Vessel Ordnance Total	s (0-3 nm) 0.00 0.01 0.00 0.01 0.01 0.00 0.00 0.0	0.00 0.34 0.00 0.34 nm) 0.00 0.00	0.00 0.00 0.00	0.04 0.00 0.04 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00
State water: Aircraft Vessel Ordnance Total Waters of th Aircraft Vessel Ordnance Total International	s (0-3 nm) 0.00 0.01 0.00 0.01 eU.S. (3-12 0.00 0.00 0.09	0.00 0.34 0.00 0.34 nm) 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.04 0.00 0.04 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00
State water: Aircraft Vessel Ordnance Total Waters of th Aircraft Vessel Ordnance Total Total Aircraft Aircraft Aircraft	s (0-3 nm) 0.00 0.01 0.00 0.01 e U.S. (3-12 0.00 0.09 0.09 0.09 sl waters (>1.	0.00 0.34 0.00 0.34 nm) 0.00 0.00 0.00 0.00 0.00 2 nm)	0.00 0.00 0.00 0.00 0.00 0.00	0.04 0.00 0.04 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00
State water: Aircraft Vessel Ordnance Total Waters of th Aircraft Vessel Ordnance Total International International Vessel	s (0-3 nm) 0.00 0.01 0.00 0.01 0.01 0.02 0.00 0.00	0.00 0.34 0.00 0.34 nm) 0.00 0.00 0.00 0.00 2 nm) 10.37	0.00 0.00 0.00 0.00 0.00 0.00	0.04 0.00 0.04 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00
State water: Aircraft Vessel Ordinance Total Waters of th Aircraft Vessel Ordinance Total Internations Aircraft Vessel Ordinance Total Internations Aircraft Vessel Vessel Vessel Ordinance	(0-3 nm) 0.00 0.01 0.00 0.01 0.00 0.00 0.00 0.00 0.00 0.09 0.09 0.09	0.00 0.34 0.00 0.34 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.04 0.00 0.04 0.00 0.00 0.00 0.00 0.65 0.65	0.00 0.00 0.00 0.00 0.00 0.00 0.00 3.40 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00
State water: Aircraft Vessel Ordinance Total Waters of th Aircraft Vessel Ordinance Total Internations Aircraft Vessel Ordinance Total Ordinance Total	s (0-3 nm) 0.00 0.01 0.00 0.01 0.00 0.00 0.00 0.09 9 waters (>1 10.07 0.03 10.90	0.00 0.34 0.00 0.34 nm) 0.00 0.00 0.00 2 nm) 10.37 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.04 0.00 0.04 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
State water: Alicraft Vessel Ordinance Total Waters of th Alicraft Vessel Ordinance Total Internations Alicraft Vessel Ordinance Total Total Total Total	s (0-3 nm) 0.00 0.01 0.00 0.01 e U.S. (3-12 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	0.00 0.34 0.00 0.34 nm) 0.00 0.00 0.00 2 nm) 10.37 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.04 0.00 0.04 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
State water Aircraft Vessel Ordnance Total Waters of th Aircraft Vessel Ordnance Total Total Total Total Total Total Total Ordnance Total Total Aircraft Vessel Aircraft Vessel	s (0-3 nm) 0.00 0.01 0.00 0.01 0.00 0.00 0.00 0.0	0.00 0.34 0.00 0.34 nm) 0.00 0.00 0.00 2 nm) 10.37 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.04 0.00 0.04 0.00 0.00 0.00 0.00 0.65 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
State water Aircraft Vessel Ordnance Total Waters of th Aircraft Vessel Ordnance Total Total Total Total Total Total Total Ordnance Total Total Aircraft Vessel Aircraft Vessel	(0.3 nm) 0.00 0.01 0.01 0.01 0.02 0.02 0.00 0.00	0.00 0.34 0.00 0.34 nm) 0.00 0.00 0.00 2 nm) 10.37 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.04 0.00 0.04 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
State water Aircraft Vessel Ordnance Total Waters of th Aircraft Vessel Internationa Aircraft Vessel Total T	s (0-3 nm) 0.00 0.01 0.01 0.01 0.02 0.03 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.34 0.00 0.34 nm) 0.00 0.00 0.00 2 nm) 10.37 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.04 0.00 0.04 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
State water Aircraft Vessel Ordnance Total Waters of th Aircraft Vessel Ordnance Total Total Total Total Total Total Total Ordnance Total Total Aircraft Vessel Aircraft Vessel	(0.3 nm) 0.00 0.01 0.01 0.01 0.02 0.02 0.00 0.00	0.00 0.34 0.00 0.34 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.04 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
State water Aircraft Vessel Ordnance Total Waters of th Aircraft Vessel Internationa Aircraft Vessel Total T	s (0-3 nm) (0-2 nm) (	0.00 0.34 0.00 0.34 0.00 0.34 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.64 0.00 0.00 0.00 0.00 0.00 0.65 0.65 0.65	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
State water Afroat Vessel Ordnance Total Waters of th Afroat Vessel Ordnance Total Internation Vessel Ordnance Total Internation Internation Afroat Internation Afroat Internation Afroat Internation Vessel Ordnance Total Internation Total Internation Total Internation Source Source	s (0-3 nm) 0.00 0.00 0.01 0.01 0.01 0.02 0.03 0.09 0.09 0.09 0.09 0.09 0.03 10.07 0.00 0.03 10.07 0.00 0.03 10.07 0.00 0.03 10.07 0.00 0.03 10.07 0.00 0.03 10.00 0.	0.00 0.34 0.00 0.34 0.00 0.34 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.04 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
State water All conft Vessel Ordnance Total Waters of th Alroaft Vessel Ordnance Total International Alroaft Vessel Ordnance Total	s (0-3 nm)	0.00 0.34 0.00 0.34 0.00 0.34 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.64 0.00 0.00 0.00 0.00 0.00 0.65 0.65 0.65	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
State water Alroads Vessel Ordinance Total Waters of the Alroads Vessel Ordinance Total Vessel Ordinance Total Alroads Vessel Ordinance Total Internationa Alroads Vessel Ordinance Total Ordinance Total Vessel Ordinance Total Source Gulf of Mex Source Gulf of Mex State water	s (0-3 mm) 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	0.00 0.34 0.00 0.34 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.04 0.00 0.04 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
State water Africant Vessel Ordinance Total Waters of th Africant Vessel Ordinance Total International International Africant Vessel Ordinance Total International Total Total Total Total Total Total Total Total Total Source Gulf of Mex State water	(0-3 mm) (0-0 mm) (0-	0.00 0.34 0.00 0.34 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.64 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
State water Africant Vessel Ordinance Total Waters of th Africant Vessel Ordinance Total International International Africant Vessel Ordinance Total International Total Total Total Total Total Total Total Total Total Source Gulf of Mex State water	s (0-3 mm) (0-20	0.00 0.34 0.00 0.34 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.04 0.04 0.04 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
State water Africant Vessel Ordnance Total Waters of th Africant Vessel Ordnance Total Ordnance Total Ordnance Total Total Ordnance Total Total Ordnance Total Ordnance Total Source Source Gulf of Mex State water Africant Vessel Ordnance Total Ord	s (0-3 mm). 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.34 0.34 0.00 0.34 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.64 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
State water. Alroraft Vessel Ordinance Total Waters of the Alroraft Vessel Ordinance Total	s (0-3 nm) 0.00	0.00 0.34 0.34 0.34 0.39 0.30 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.04 0.04 0.04 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
State water Aircraft Vessel Ordnance Total Waters of th Aircraft Vessel Ordnance Ordnance Ordnance Ordnance Total Waters of th Waters of th Waters of th Waters of th	s (0-3 nm)	0.00 0.34 0.00 0.34 0.00 0.34 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.04 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
State water. Alroraft Vessel October State Waters of the Alroraft Vessel Alroraft Vessel Ordinance Total International Total Total or Kee Alroraft Vessel State water Alroraft Vessel Ordinance Total	s (0-3 nm) 0.00	0.00 0.34 0.00 0.34 0.00 0.34 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.64 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
State water Aircraft Vessel Ordnance Total Waters of th Aircraft Vessel Ordnance Ordnance Ordnance Ordnance Total Waters of th Waters of th Waters of th Waters of th	s (0-3 nm)	0.00 0.34 0.34 0.34 0.39 0.30 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.04 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0

Ordnance Total	0.00 36.86	0.00 27.19	0.00 3.61	0.00 13.13	0.00 2.61	0.0 2.6
Total for Ch	erry Point Ra	nge Complex		15.13	Z-D1	
TOTAL IOF C	4.08	4.43	0.37 3.37 0.00	0.37	1.42	1.4 1.2 0.0
Aircraft	4.08	26.36	U.3/	0.27	1.42	1.4
Vessel	34.12		3.37	0.27 13.35 0.00	1.29	1.2
Ordnance	0.00	0.00	0.00	0.00	0.00	0.0
Total	38.20	30,80	3,74	13.62	2.72	2.7
	L	L		Percent In-S	tate	0.0
Source	$\infty$	NO,	VOC	SO,	PM <sub>10</sub>	PM <sub>2.5</sub>
Jacksonville	Range Com	plex				
State water						
Aircraft	0.01	0.03	0.00	0.00	0.01	0.0
Vessel	0.72	2.32	0.06	0.26	0.04	0.0
Ordnance	0.00	0.00	0.00	0.00	0.00	0.0
Total	0.72	2.35	0.06	0.27	0.05	0.0
Waters of t	he U.S. (3-12	nm)				
Aircraft	0.43	0.45	0.04	0.03	0.15	0.1 0.2
Alltialt	10.27	9.28	1.06	1.97	0.23	
Vessel		9.28	1.06	1.9/		
Ordnance	0.17	0.00	0.00	0.00	0.02	0.0
Total	10.86	9.73	1.10	2.00	0.39	0.3
Internation	10.86 al waters (>1 5.77	2 nm)				
Aircraft	5.77	6.90	0.54	0.40	2.14	2.1
Vessel		74.89	9.56	28.51	2.90	2.9
Ordnance	1.52 100.39	0.04	9.56 0.00	0.00 28.91	0.16	0.1
Total	100.39	81.83	10.09	28.91	5.21	2.1 2.9 0.1 5.1
Total for Ja	ksonville Rar	nge Complex				
Aircraft	6.21	7.37	0.58 10.67	0.43	2.30	2.3 3.1 0.1
Vessel	104.09	86.49	10.67	0.43 30.75	3.17	3.1
Ordnance	1.69	0.05	0.00	0.00	0.18	0.1
Total	111.98	93.91	11.25	31.18	5.65	5.5
i Otal			11.25	Darcantin S		0.0
				Percent In-S	tate	
Source	ω	NO <sub>s</sub>	VOC	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
	ange Comple	i K				
State water	s (0-3 nm)	L			L	l
Aircraft	0.00	0.00	0.00	0.00	0.00	0.0
Vessel	0.05	0.07	0.00	0.01	0.00	0.0
Ordnance	0.00	0.00	0.00	0.00	0.00	0.0
						0.0
Total	0.05		0.00	0.01	0.00	
Total	0.05	0.07 nm)	0.00	0.01	0.00	1
Total Waters of t	0.05 he U.S. (3-12	0.07 nm)	0.00			
Total Waters of t Aircraft	0.05 he U.S. (3-12 0.10	0.07 nm) 0.11	0.00	0.01	0.03	
Total Waters of t Aircraft Vessel	0.05 he U.S. (3-12 0.10 1.11	0.07 nm) 0.11 0.89	0.00 0.01 0.11	0.01 0.29	0.03	0.0
Total Waters of t Aircraft Vessel Ordnance	0.05 he U.S. (3-12 0.10 1.11 0.01	0.07 nm) 0.11 0.89 0.00	0.00 0.01 0.11 0.00	0.01 0.29 0.00	0.03 0.03 0.00	0.0 0.0 0.0
Total Waters of t Aircraft Vessel Ordnance Total	0.05 he U.S. (3-12 0.10 1.11 0.01 1.23	0.07 nm) 0.11 0.89 0.00	0.00 0.01 0.11	0.01 0.29	0.03	0.0 0.0 0.0
Total Waters of t Aircraft Vessel Ordnance Total Internation	0.05 he U.S. (3-12 0.10 1.11 0.01 1.23 al waters (>1	0.07 nm) 0.11 0.89 0.00 1.00	0.00 0.01 0.11 0.00 0.12	0.01 0.29 0.00 0.30	0.03 0.03 0.00 0.06	0.0 0.0 0.0 0.0
Total Waters of t Aircraft Vessel Ordnance Total Internation Aircraft	0.05 he U.S. (3-12 0.10 1.11 0.01 1.23 al waters (>1	0.07 nm) 0.11 0.89 0.00 1.00 2 nm)	0.00 0.01 0.11 0.00 0.12	0.01 0.29 0.00 0.30	0.03 0.03 0.00 0.06	0.0 0.0 0.0
Total Waters of t Aircraft Vessel Ordnance Total Internation Aircraft Vessel	0.05 he U.S. (3-12 0.10 1.11 0.01 1.23 al waters (>1 0.42 7.85	0.07 nm) 0.11 0.89 0.00 1.00 2 nm) 0.48 5.89	0.00 0.01 0.11 0.00 0.12	0.01 0.29 0.00 0.30 0.03 1.91	0.03 0.03 0.00 0.06 0.15	0.0 0.0 0.0
Total Waters of t Aircraft Vessel Ordnance Total Internation Aircraft Vessel Ordnance	0.05 he U.S. (3-12 0.10 1.11 0.01 1.23 al waters (>1 0.42 7.85 0.11	0.07 nm) 0.11 0.89 0.00 1.00 2 nm) 0.48 5.89 0.03	0.00 0.01 0.11 0.00 0.12 0.04 0.74	0.01 0.29 0.00 0.30 0.03 1.91 0.00	0.03 0.03 0.00 0.06 0.15 0.18	0.0 0.0 0.0 0.0 0.1 0.1
Total Waters of t Aircraft Vessel Ordnance Total Internation Aircraft Vessel Ordnance Total Ordnance	0.05 he U.S. (3-12 0.10 1.11 0.01 1.23 al waters (>1 0.42 7.85 0.11 8.38	0.07 nm) 0.11 0.89 0.00 1.00 2 nm) 0.48 5.89 0.03 6.40	0.00 0.01 0.11 0.00 0.12 0.04 0.74	0.01 0.29 0.00 0.30 0.03 1.91	0.03 0.03 0.00 0.06 0.15	0.0 0.0 0.0 0.0 0.1 0.1
Total Waters of t Aircraft Vessel Ordnance Total Internation Aircraft Vessel Ordnance Total Total Total	0.05 he U.S. (3-12 0.10 1.11 0.01 1.23 al waters (>1 0.42 7.85 0.11 8.38 y West Range	0.07 nm) 0.11 0.89 0.00 1.00 2 nm) 0.48 5.89 0.03 6.40	0.00 0.01 0.11 0.00 0.12 0.04 0.74 0.00 0.78	0.01 0.29 0.00 0.30 0.03 1.91 0.00	0.03 0.03 0.00 0.06 0.15 0.18 0.00	0.0 0.0 0.0 0.0 0.1 0.1 0.0
Total Waters of t Aircraft Vessel Ordnance Total Internation Aircraft Vessel Ordnance Total Total Total	0.05 he U.S. (3-12 0.10 1.11 0.01 1.23 al waters (>1 7.85 0.11 8.38 by West Rang	0.07 nm) 0.11 0.89 0.00 1.00 2 nm) 0.48 5.89 0.03 6.40 e Complex 0.59	0.00 0.01 0.01 0.00 0.12 0.04 0.74 0.00 0.78	0.01 0.29 0.00 0.30 0.03 1.91 0.00 1.94	0.03 0.03 0.00 0.06 0.15 0.18 0.00 0.34	0.0 0.0 0.0 0.0 0.1 0.1 0.0 0.3
Total Waters of t Aircraft Vessel Ordnance Total Internation Aircraft Vessel Ordnance Total Total Total Total Total Total Vessel Aircraft Vessel	0.05 he U.S. (3.12 0.10 1.11 0.01 1.23 al waters (>1. 0.42 7.85 0.11 8.38 v West Rang	0.07 nm) 0.11 0.89 0.00 1.00 2 nm) 0.48 5.89 0.03 6.40 e Complex 0.59 6.85	0.00 0.01 0.11 0.00 0.12 0.74 0.74 0.00 0.78	0.01 0.29 0.00 0.30 0.03 1.91 0.00 1.94	0.03 0.03 0.00 0.06 0.15 0.18 0.00 0.34	0.0 0.0 0.0 0.0 0.1 0.1 0.0 0.3
Total Waters of t Aircraft Vessel Ordnance Total Internation Aircraft Vessel Ordnance Total Total Total Total Total Total Vessel Aircraft Vessel	0.05 he U.S. (3.12 0.10 1.11 0.01 1.23 al waters (>1. 0.42 7.85 0.11 8.38 v West Rang	0.07 nm) 0.11 0.89 0.00 1.00 2 nm) 0.48 5.89 0.03 6.40 e Complex 0.59 6.85	0.00 0.01 0.11 0.00 0.12 0.74 0.00 0.78 0.078	0.01 0.29 0.00 0.30 0.03 1.91 0.00 1.94 0.04 2.22	0.03 0.03 0.00 0.06 0.15 0.18 0.00 0.34	0.0 0.0 0.0 0.0 0.1 0.1 0.0 0.3
Total Waters of t Waters of t Vessel Ordnance Total Internation Aircraft Vessel Ordnance Total	0.05 he U.S. (3.12 0.10 1.11 0.01 1.23 al waters (>1. 0.42 7.85 0.11 8.38 v West Range 0.52 9.02 0.12	0.07 nm) 0.11 0.89 0.00 1.00 2 nm) 0.48 5.89 0.03 6.40 e Complex 0.59 6.85 0.03	0.00 0.01 0.11 0.00 0.12 0.74 0.00 0.78 0.078	0.01 0.29 0.00 0.30 0.03 1.91 0.00 1.94 0.04 2.22	0.03 0.03 0.00 0.06 0.15 0.18 0.00 0.34 0.19 0.21	0.0 0.0 0.0 0.0 0.1 0.1 0.3 0.3 0.1 0.2
Total Waters of t Aircraft Vessel Ordnance Total Internation Aircraft Vessel Ordnance Total Total Total Total Total Total Vessel Aircraft Vessel	0.05 he U.S. (3.12 0.10 1.11 0.01 1.23 al waters (>1. 0.42 7.85 0.11 8.38 v West Rang	0.07 nm) 0.11 0.89 0.00 1.00 2 nm) 0.48 5.89 0.03 6.40 e Complex 0.59 6.85	0.00 0.01 0.11 0.00 0.12 0.74 0.74 0.00 0.78	0.01 0.29 0.00 0.30 0.03 1.91 0.00 1.94 0.04 2.22 0.00 2.25	0.03 0.03 0.00 0.06 0.05 0.15 0.18 0.34 0.19 0.21 0.00 0.00	0.0 0.0 0.0 0.0 0.1 0.1 0.0 0.3 0.3
Total Waters of t Waters of t Vessel Ordnance Total Internation Aircraft Vessel Ordnance Total	0.05 he U.S. (3.12 0.10 1.11 0.01 1.23 al waters (>1. 0.42 7.85 0.11 8.38 v West Range 0.52 9.02 0.12	0.07 nm) 0.11 0.89 0.00 1.00 2 nm) 0.48 5.89 0.03 6.40 e Complex 0.59 6.85 0.03	0.00 0.01 0.11 0.00 0.12 0.74 0.00 0.78 0.078	0.01 0.29 0.00 0.30 0.03 1.91 0.00 1.94 0.04 2.22	0.03 0.03 0.00 0.06 0.05 0.15 0.18 0.34 0.19 0.21 0.00 0.00	0.0 0.0 0.0 0.0 0.1 0.1 0.0 0.3 0.3
Total  Aircraft Vessel Ordnance Total Internation Aircraft Vessel Ordnance Total Ordnance Total Total Total Ordnance Total Total Total Total Total Total Total Total	0.05 ne U.S. 3-12 0.10 0.10 0.11 0.01 1.11 0.01 1.23 al water \$\frac{1}{2}\$. 7.85 7.85 8.38 w West Rang 0.52 9.02 9.06	0.07 nm) 0.11 0.89 0.00 1.00 2.nm) 0.48 5.89 0.03 6.40 2.cmplex 0.59 6.65 6.65 0.003	0.00 0.01 0.11 0.00 0.12 0.04 0.74 0.05 0.05 0.05 0.05 0.00 0.00	0.01 0.29 0.00 0.30 0.30 1.91 0.00 1.94 0.04 2.22 0.00 2.25 Percent in-S	0.03 0.003 0.006 0.006 0.015 0.18 0.000 0.34 0.19 0.21 0.000 0.41	0.0 0.0 0.0 0.0 0.0 0.1 0.1 0.1 0.0 0.3 0.3 0.1 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Total Waters of the Aircraft Vessel Ordnance Total Internation Aircraft Vessel Ordnance Total Ordnance Total Total Ordnance Total Source	0.05 ne U.S. (3-12 0.00 0.10 0.10 1.22 al waters (-1 0.42 7.85 0.31 0.31 0.32 0.32 0.32 0.35 0.35 0.35	0.07 0.07 0.01 0.11 0.89 0.00 1.00 2.nm) 0.48 5.58 0.03 6.40 2.cmplex 0.39 6.85 0.33 7.47	0.00 0.01 0.11 0.00 0.12 0.74 0.00 0.78 0.078	0.01 0.29 0.00 0.30 0.03 1.91 0.00 1.94 0.04 2.22 0.00 2.25	0.03 0.03 0.00 0.06 0.05 0.15 0.18 0.34 0.19 0.21 0.00 0.00	0.0 0.0 0.0 0.0 0.1 0.1 0.0 0.3 0.3
Total  Aircraft Vessel Ordnance Total Internation Aircraft Vessel Ordnance Total Ordnance Total Ordnance Total Ordnance Total Total Total Total Ordnance Total Source Gulf of Mes	0.05 eU.S. (3-12 0.10 1.11 0.00 1.23 a) waters (3-1 0.42 0.42 0.42 0.42 0.43 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52	0.07 0.07 0.01 0.11 0.89 0.00 1.00 2.nm) 0.48 5.58 0.03 6.40 2.cmplex 0.39 6.85 0.33 7.47	0.00 0.01 0.11 0.00 0.12 0.04 0.74 0.05 0.05 0.05 0.05 0.00 0.00	0.01 0.29 0.00 0.30 0.30 1.91 0.00 1.94 0.04 2.22 0.00 2.25 Percent in-S	0.03 0.003 0.006 0.006 0.015 0.18 0.000 0.34 0.19 0.21 0.000 0.41	0.0 0.0 0.0 0.0 0.0 0.1 0.1 0.1 0.0 0.3 0.3 0.1 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Total Waters of the Aircraft Vessel Total Internation Aircraft Vessel Total To	0.05 he U.S. (3-12 0.10 0.10 0.10 1.23 a) waters (>1 0.42 7.85 0.11 8.33 v West Range 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52	0.07 0.01 0.11 0.89 0.00 1.00 2.nm) 0.48 5.89 0.03 6.40 9.09 0.59 0.09 0.747	0.00 0.01 0.11 0.11 0.12 0.12 0.07 0.07 0.07 0.08 0.08 0.08 0.09 0.90	0.01 0.29 0.00 0.30 0.03 1.91 0.00 1.94 2.22 0.00 2.25 Percent in-S	0.03 0.03 0.00 0.06 0.15 0.18 0.18 0.19 0.19 0.21 0.00 0.41 tate	0.0 0.0 0.0 0.0 0.0 0.1 0.1 0.1 0.0 0.3 0.3 0.3 0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Total Waters of t Aircraft Vessel Ordnance Total Internation Aircraft Vessel Ordnance Total Total Ordnance Total Ordnance Total Ordnance Total Ordnance Total Source Gulf of Mes State water Aircraft	0.05 0.12 0.10 1.11 0.00 1.23 a) waters (*1 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.1	0.07 om) 0.11 0.89 0.00 1.00 2.0m) 0.88 5.89 0.03 6.40 Complex 0.59 6.625 0.03 7.47	0.00 0.01 0.11 0.00 0.12 0.04 0.74 0.00 0.78 0.05 0.05 0.05 0.05 0.05	0.01 0.29 0.30 0.30 0.31 1.91 0.00 1.94 2.22 0.00 2.25 Percentin S	0.03 0.03 0.00 0.00 0.06 0.15 0.18 0.00 0.00 0.34 0.19 0.21 0.00 0.41 tate	0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.0 0.3 0.1 0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Total Waters of t Aircraft Vessel Total Internation Aircraft Vessel Ordnance Total T	0.05 0.00 0.10 0.10 1.11 0.01 1.23 0.02 7.85 0.01 0.01 0.02 0.02 0.02 0.02 0.02 0.02	0.07 om) 0.11 0.89 0.00 1.00 2.0m) 0.88 5.89 0.03 6.40 Complex 0.59 6.625 0.03 7.47	0.00 0.01 0.11 0.00 0.12 0.04 0.74 0.00 0.78 0.05 0.06 0.09 0.00 0.78	0.01 0.29 0.30 0.30 0.31 1.91 0.00 1.94 2.22 0.00 2.25 Percentin S	0.03 0.03 0.00 0.06 0.18 0.18 0.00 0.34 0.19 0.01 0.01 0.41 tate	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
Total Waters of t Aircraft Vessel Ordnance Total Internation Aircraft Vessel Total Ordnance Total Ordnance Total Total Total Total Total Total Total Source Gulf of Mes State water Aircraft Vessel Ordnance Total	0.05 0.05 0.10 1.11 0.00 1.22 0.23 0.24 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25	0.07 0.09 0.11 0.89 0.00 0.00 2.mm) 0.48 5.89 0.03 6.40 6.40 6.40 0.00 0.00 0.00 0.00 0.00	0.00 0.01 0.11 0.00 0.12 0.04 0.74 0.74 0.76 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.0	0.00 0.29 0.00 0.03 0.03 0.00 1.94 0.00 2.22 0.00 0.00 2.25 Percent in-S SO,	0.03 0.03 0.00 0.06 0.06 0.15 0.18 0.00 0.34 0.19 0.21 0.00 0.41 0.00 0.41 0.00 0.41 0.00 0.41 0.00 0.41 0.00 0.41	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
Total Waters of t Aircraft Vessel Total Internation Aircraft Vessel Ordnance Total T	0.05 0.00 0.10 0.10 1.11 0.01 1.23 0.02 7.85 0.01 0.02 0.02 0.02 0.02 0.02 0.02 0.03 0.03	0.07 0.11 0.89 0.00 0.00 0.00 0.48 5.89 0.03 6.40 Complex 0.59 6.85 0.03 7.47  NO, purplex 3.96 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	0.00 0.01 0.11 0.00 0.12 0.04 0.74 0.74 0.76 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.0	0.01 0.29 0.30 0.30 0.31 1.91 0.00 1.94 2.22 0.00 2.25 Percentin S	0.03 0.03 0.00 0.06 0.06 0.15 0.18 0.00 0.34 0.19 0.21 0.00 0.41 0.00 0.41 0.00 0.41 0.00 0.41 0.00 0.41 0.00 0.41	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
Total Waters of t Aircraft Vessel Total Internation Aircraft Vessel Ordnance Total	0.05 0.00 0.10 0.10 1.11 0.01 1.23 0.02 7.85 0.01 0.02 0.02 0.02 0.02 0.02 0.02 0.03 0.03	0.07 0.09 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.01 0.11 0.00 0.12 0.04 0.04 0.05 0.00 0.05 0.00 0.00 0.00	0.01 0.29 0.00 0.30 0.33 1.91 0.00 1.94 2.22 2.25 Percentines <b>So</b> ,	0.03 0.03 0.00 0.06 0.06 0.15 0.18 0.00 0.34 0.19 0.21 0.00 0.41 0.00 0.41 0.00 0.41 0.00 0.00	0.00 0.00 0.00 0.00 0.10 0.11 0.11 0.12 0.00 0.00
Total Vessel Ordnance Total Condition Aircraft Vessel Ordnance Total Ordnance Total Source Gulf of Meu State water Aircraft Vessel Ordnance Total Ordnance Total Wessel Ordnance Total Ordnance Total Wessel Ordnance Total Wessel Ordnance Total Waters of t	0.05 he U.S. (3-12) 0.10 0.10 1.11 1.11 0.01 0.01 0.02 0.02	0.07 0.01 0.89 0.00 0.00 0.00 0.00 0.00 0.48 5.89 0.03 5.89 6.40 6.40 6.50 0.03 7.47  NO mplex 3.96 6.27 0.00 6.72 0.00 6.72 0.00 6.72 0.00 6.72 0.00 6.72 0.00 6.72 0.00 6.72 0.00 6.72 0.00 6.72 0.00 6.72 0.00 6.72 0.00 6.72 0.00	0.00 0.01 0.11 0.00 0.72 0.05 0.05 0.05 0.05 0.00 0.00 0.00 0.0	0.01 0.29 0.30 0.30 0.30 0.03 0.03 1.34 0.04 2.22 0.00 0.03 Percentin-S so,	0.03 0.03 0.00 0.06 0.06 0.15 0.18 0.00 0.34 0.19 0.21 0.00 0.41 0.00 0.41 0.00 0.41 0.00 0.41 0.00 0.41 0.00 0.41	0.00 0.00 0.00 0.00 0.01 0.11 0.12 0.02 0.44 0.00 0.44 0.00 0.00 0.00 0.0
Total Waters of t Aircraft Vessel Total Internation Aircraft Vessel Ordnance Total	0.05 0.00 0.10 0.10 1.11 0.01 1.23 0.02 7.85 0.01 0.02 0.02 0.02 0.02 0.02 0.02 0.03 0.03	0.07 0.11 0.89 0.00 0.00 0.00 0.48 5.89 0.03 6.40 Complex 0.59 6.85 0.03 7.47  NO, purplex 3.96 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	0.00 0.01 0.11 0.00 0.12 0.04 0.74 0.74 0.76 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.0	0.01 0.29 0.00 0.30 0.33 1.91 0.00 1.94 2.22 2.25 Percentines <b>So</b> ,	0.03 0.03 0.00 0.06 0.06 0.15 0.18 0.00 0.34 0.19 0.21 0.00 0.41 0.00 0.41 0.00 0.41 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.01 0.11 0.00 0.33 0.12 0.02 0.04 0.00 0.04 0.00 0.00 0.00 0.0

International waters (2-12 nm)   Alroraft   3.57   6.98   0.34   0.32   1.93   1.98							
International waters (2-12 nm) Alloraft	Total	2.62	1 74	0.59	0.57	0.08	0.08
Aircraft 3.5.7 6.98 0.32 0.32 19.3.4 1.58 1.59 1. Vessel 66.18 40.81 6.22 18.3.4 1.58 1. Total For Acade Market Ma							
Aircraft 3.57 6.99 0.34 0.32 1.93 1. Vessel 69.18 40.81 6.22 18.34 1.58 1. Ordnance 1.48 0.03 0.00 0.00 0.00 0.10 0. Total 74.23 47.82 6.57 18.66 3.59 0. Aircraft 74.23 47.82 6.57 18.66 3.59 0. Aircraft 7.95 1.1.47 0.73 0.50 3.38 3. Total for GOMEX Range Complex Aircraft 7.95 1.1.47 0.73 0.50 3.38 3. Aircraft 7.95 1.47 0.03 0.00 0.00 0.00 0.11 0. Total 81.27 5.53 7.69 19.25 5.19 5.  Source 0 NO VOC 5.0 PM <sub>10</sub> PM <sub>10</sub> 5.  Source 1.64 0.03 0.00 0.00 0.01 1. Total 81.27 5.33 7.69 19.85 5.19 5.  Source 0 NO VOC 5.0 PM <sub>10</sub> PM <sub>10</sub> 5.  Source 1.64 0.03 0.00 0.00 0.00 0.00 0.00 0.00 0.0		ii waters (>1.	2 nm)				
Ordinarec   1.42	Aircraft	3.57	6.98	0.34	0.32		1.91
Ordinarec   1.42	Vessel	69.18	40.81	6.23	18.34	1.58	1.58
Total for GOMEX Range Complexes						0.10	0.00
Total for GOMEX Range Complexes	Ordinance			0.00		0.10	U.U0
Total for GOMEX Range Complex   Alicraft			47.82	6.57	18.66	3.59	3.55
Aircraft 7.95 11.47 0.73 0.50 3.38 3.   Vessel 71.68 6.53 6.95 19.6 1.65 1.65   Crdnance 1.64 0.03 0.00 0.00 0.11 0.   Source 0 NO, VOC SO, PM <sub>10</sub> PM <sub>20</sub> Source 0 NO, VOC SO, PM <sub>10</sub> PM <sub>20</sub> PM <sub>20</sub> Vessel 0.33 0.11 0.13 0.03 0.00 0.00 0.00   Aircraft 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	Total for GO	MEX Range	Complex				
Total			11.47	0.73	0.60	3 38	3 38
Total						3,30	
Total				0.96		1.65	1.65
Total	Ordnance	1.64	0.03	0.00	0.00	0.11	0.07
Source	Total	81.27	57.33	7.69	19.85	5.15	5.11
Source   CD   NO,   VOC   SO,   PM <sub>0.9</sub>   PM <sub>0.5</sub>							
Other AFT Areas (Outde Range Complexes)   State water (0.3) am)   Aircraft (0.0)					Percent III-3	uate	0.09
Other AFT Areas (Outde Range Complexes)   State water (0.3) am)   Aircraft (0.0)	<b>.</b>	L	L			L	l
Other AFT Areas (Outde Range Complexes)   State water (0.3) am)   Aircraft (0.0)	Source	ω	NO.	voc	SO.	PM <sub>10</sub>	PM <sub>2</sub> c
State waters (0-3 mm)	Other ACT	Annua (Outo)	de Denes Co	mand av and		20	2.0
Aircraft 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.			ue Kange Co	mprexes			
Vessel         0.13         0.11         0.13         0.03         0.00         0.00           Ordinates         0.00				l			l
Vessel         0.13         0.11         0.13         0.03         0.00         0.00           Ordinance         0.00         0.00         0.00         0.00         0.00         0.00           Total         0.13         0.11         0.13         0.03         0.00         0.00           Alroylt         0.06         0.07         0.01         0.02         0.00         0.00           Vessel         0.44         4.53         0.55         1.41         0.13         0.10           Ordinance         0.05         0.01         0.05         0.00         0.00         0.00           Total         0.72         4.56         0.55         1.41         0.13         0.1           Total         0.05         0.01         0.00         0.00         0.00         0.00           Total         0.07         0.05         0.00         0.00         0.00         0.00           Vessel         2.50         0.01         0.07         0.00         0.00         0.02         0.00           Ordnance         0.78         0.07         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.	Aircraft	0.00	0.00	0.00	0.00	0.00	0.00
Waters of the U.S. (3-12 nm) Alroraft		0.13	0.11	0.13	0.03	0.00	0.00
Waters of the U.S. (3-12 nm) Alroraft							
Waters of the U.S. (3-12 nm) Alroraft				U.00			u.00
Waters of the U.S. (3-12 nm) Aircraft	Total	0.13	0.11	0.13	0.03	0.00	0.00
Aircraft 0.05 0.07 0.01 0.00 0.00 0.00 0.00 0.00 0.00	Waters of th	e U.S. (3-12					
Total							
Total				0.01			U.U.Z
Total				0.95			0.13
Total	Ordnance	0.09	0.01	0.00	0,00	0.00	0.00
International waters (21.2 nm)   Africarist   0.42   0.45   0.05   0.02   0.13   0.45   0.05   0.02   0.13   0.45   0.05   0.02   0.13   0.45   0.05   0.00   0.0	Total	6 50	460	0.06	1 /1	0.16	0.16
Aircraft 0.42 0.45 0.05 0.02 0.13 0. Vesel 2.601 1.79 2.27 7.75 7.79 0.70 Crifrance 0.76 0.07 0.06 0.00 0.00 0.02 0. 0. 0.00 0.00 0.0							
Ordinaries   0.75   0.07   0.00							
Ordinaries   0.75   0.07   0.00	Aircraft	0.42	0.45	0.05	0.02	0.13	0.13
Ordinaries   0.75   0.07   0.00	Veccel	26.∩1	1979	2 37	7 75	0.73	∩ 73
Total for Other AFT Areas (Outside Range Complexes)							
Total for Other AFT Areas (Outside Range Complexes)				0.00			0.01
Total for Other AFT Areas (Outside Range Complexes)   Complexes			20.32	2.42		0.87	0.87
Aircraft 0.49 0.52 0.06 0.03 0.15 0. Vessel 32.57 24.51 3.45 0.18 0.86 0.07 dringned 0.87 0.09 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Total for Oth	ner AFTT Are	as (Outside F	Range Comple	exes!		
Vessel         32,57         24,51         3,45         9,18         0,86         0,0           Ordnance         0,87         0,08         0,00         0,00         0,00         0,00         0,00         0,00         0,00         0,00         0,00         0,00         0,00         0,00         1,00		0.40		0.08	0.02	0.15	0.15
Total   33.93   25.12   3.51   9.21   1.08   1.08   1.08   1.09   1.0					0.00		
Total   33.93   25.12   3.51   9.21   1.03   1.05   1.0				3.45		0.86	
Total   33.93   25.12   3.51   9.21   1.08   1.08   1.08   1.09   1.0	Ordnance	0.87	0.08	0.00	0.00	0.02	0.02
Percent In State   O.   PM <sub>D</sub>   PM <sub>D</sub>		33.93	25.12	3.51	9.21	1.03	1.03
Source   CD   NO,   VOC   SO,   PM <sub>10</sub>   PM <sub>1.5</sub>   Total for AFIT Study Area (Training-Related Emissions)						toto	0.01
Total for AFT Study Area (Training, Real sed Emissions)					reiteiltiira	uate	0.01
Total For AFT Study Area (Training Realted Emissions)							L
Total For AFT Study Area (Training Realted Emissions)	Source	lω	NO.	lvoc	SO.	PM <sub>10</sub>	PM <sub>2</sub> c
State waters (0-3 nm)         Aircraft         30.52         41.70         3.55         2.58         13.47         13.           Aircraft         30.52         41.70         3.55         2.58         13.47         13.           Vessel         23.00         75.00         5.77         6.60         3.59         3.           Ordnance         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         17.32         17.         17.         17.         18.         1.         1.78         1.         1.78         1.         1.78         1.         1.72         7.		TT Study Are	a (Training l	Palated Emic	cionel		
Aircraft 36.6.7 41.70 3.55 2.58 13.47 13. Vessel 28.08 79.08 9.77 6.56 8.39 3. Ordhance 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.			a trianing.	Leigten Lillio	I		
Total   C5.70   120.76   13.32   48.26   17.35   17.							
Total   C5.70   120.76   13.32   48.26   17.35   17.	Aircraft	39.62	41.70	3.55	2.58	13.47	13.47
Total   C5.70   120.76   13.32   48.26   17.35   17.		23 08		9 77	45.62	3 80	3 80
Total   C5.70   120.76   13.32   48.26   17.35   17.				I			I
Waters of the U.S. (3-12 mm) Aircraft 4,944 5.58 0.45 0.34 1.78 1. Vessel 249.06 185.02 40.51 86.54 7.71 7. Total 258.42 190.77 40.96 87.10 9.79 9. Trice mational waters (2-12 mm) Aircraft 88.90 475.16 11.06 15.72 111.81 111. Vessel 2,311.32 1369.57 203.38 833.89 49.24 49. Ordnance 30.79 1.56 0.00 0.00 2.65 1. Total 2440.01 1846.29 214.44 599.61 163.70 162. Total for Study Area Complexes Aircraft 133.47 522.44 15.06 18.64 127.06 127. Vessel 2583.45 1633.66 253.66 716.40 60.88 60. Ordnance 44.21 1.79 0.00 0.00 2.94 1.				0.00			
Waters of the U.S. (3-12 mm) Aircraft 4,944 5.58 0.45 0.34 1.78 1. Vessel 249.06 185.02 40.51 86.54 7.71 7. Total 258.42 190.77 40.96 87.10 9.79 9. Trice mational waters (2-12 mm) Aircraft 88.90 475.16 11.06 15.72 111.81 111. Vessel 2,311.32 1369.57 203.38 833.89 49.24 49. Ordnance 30.79 1.56 0.00 0.00 2.65 1. Total 2440.01 1846.29 214.44 599.61 163.70 162. Total for Study Area Complexes Aircraft 133.47 522.44 15.06 18.64 127.06 127. Vessel 2583.45 1633.66 253.66 716.40 60.88 60. Ordnance 44.21 1.79 0.00 0.00 2.94 1.	Lotal			13.32	48.26	17.35	17.35
Aircraft 4,94 5.58 0.45 0.34 1.78 1. Vessel 249,06 155.02 40.51 8.8.34 7.71 7. 1. Vessel 249,06 155.02 40.51 8.8.34 7.71 7. 1. Vessel 258,42 156,77 40.56 27.18 0.20 0.00 0.00 0.20 0.00 0.00 0.00 0.0	Waters of th	ne U.S. (3-12	nm)				
Ordnance         4.12         0.17         0.00         0.02         0.29         0.           Total         258.42         190.77         40.96         87.18         9.78         9.78         9.78         9.78         9.78         9.78         9.78         9.78         9.78         11.05         15.72         111.81         111.81         111.81         112.72         111.81         112.72         111.81         112.72         111.81         112.72         111.81         112.72         111.81         112.72         111.81         112.72         111.81         112.72 <td< td=""><td></td><td></td><td></td><td>O 45</td><td>0.24</td><td>1 70</td><td>1 70</td></td<>				O 45	0.24	1 70	1 70
Ordnance         4.12         0.17         0.00         0.02         0.29         0.           Total         258.42         190.77         40.96         87.18         9.78         9.78         9.78         9.78         9.78         9.78         9.78         9.78         9.78         11.05         15.72         111.81         111.81         111.81         112.72         111.81         112.72         111.81         112.72         111.81         112.72         111.81         112.72         111.81         112.72         111.81         112.72         111.81         112.72 <td< td=""><td></td><td></td><td></td><td>0.43</td><td></td><td></td><td>1./8</td></td<>				0.43			1./8
Ordnance         4.12         0.17         0.00         0.02         0.29         0.           Total         258.42         190.77         40.96         87.18         9.78         9.78         9.78         9.78         9.78         9.78         9.78         9.78         9.78         11.05         15.72         111.81         111.81         111.81         112.72         111.81         112.72         111.81         112.72         111.81         112.72         111.81         112.72         111.81         112.72         111.81         112.72         111.81         112.72 <td< td=""><td></td><td>249.06</td><td></td><td>40.51</td><td>86.84</td><td></td><td>7.71</td></td<>		249.06		40.51	86.84		7.71
Total   258.42   190.77   40.96   87.18   9.78   9.	Ordnance	4.42	0.17	0.00	0.00	0.29	0.18
International waters (x12 mm) Aircraft 88.90 475.15 11.05 15.72 111.81 111. Vessel 2,311.32 1366.57 203.38 583.50 42.74 00. Ordinance 39.79 1.156 0.00 0.26.5 15.70 162. Total 2440.01 1846.29 214.44 593.61 153.70 162. Total for Study Area Complexes Aircraft 133.47 522.44 15.06 18.64 127.06 127. Vessel 2853.45 1633.66 253.66 716.40 60.38 60. Ordinance 44.21 1.79 0.00 0.00 2.94 11.		258.42		40.96	87 1 9	Q 79	9.67
Aircraft 83.90 475.15 11.05 15.72 11.15 11.1 Vessel 2,511.32 1,369.57 203.38 583.89 49.24 49. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10		1		40.50			
Vessel         2.311.32         3.69.57         203.38         583.89         49.24         69.           Ordnance         36.79         1.55         0.00         0.00         2.65         1.7           Total         2440.01         1846.29         214.44         599.61         163.70         162.           Total for Study Area Complexes         34.7         522.44         15.06         18.64         127.06         127.           Aircraft         135.47         522.44         15.06         18.64         127.06         127.           Vessel         2583.45         1633.66         253.66         716.40         60.83         60.           Ordnance         44.21         1.79         0.00         0.00         2.94         11							
Ordnance         39.75         1.56         0.00         0.00         2.55         1.           Total         2440.01         1846.29         214.44         599.61         165.70         162.           Total For Study Area Complexes         34.77         12.24         15.06         18.64         127.06         127.           Vessel         2583.45         1638.66         253.66         716.40         60.38         60.           Ordnance         44.21         1.73         0.00         0.00         2.94         1.	Aircraft		475.16	11.06			111.81
Ordnance         39.75         1.56         0.00         0.00         2.55         1.           Total         2440.01         1846.29         214.44         599.61         165.70         162.           Total For Study Area Complexes         34.77         12.24         15.06         18.64         127.06         127.           Vessel         2583.45         1638.66         253.66         716.40         60.38         60.           Ordnance         44.21         1.73         0.00         0.00         2.94         1.	Vessel	2,311.32	1,369.57	203.38	583.89	49.24	49.24
Total         2440.01         1366.29         214.44         599.61         163.70         162.           Total for Study Area Complexes         17.06         18.64         127.06         127.           Aircraft         133.47         522.44         15.06         18.64         127.06         127.           Vessel         2583.45         1633.66         253.66         716.40         60.88         60.           Ordnance         44.21         1.79         0.00         0.00         2.94         11.           Total for the control of the control							1.62
Total for Study Area Complexes           Aircraft         133.47         522.44         15.06         18.64         127.06         127.           Vessel         2583.45         163.66         253.66         716.40         60.83         60.03	T-A-						
Aircraft         133.47         522.44         15.06         18.64         127.05         127.           Vessel         2583.45         1633.66         253.66         716.40         60.85         60.           Ordnance         44.21         1.73         0.00         0.00         2.94         1.				214.44	599.61	163.70	162.68
Aircraft         133.47         522.44         15.06         18.64         127.05         127.           Vessel         2583.45         1633.66         253.66         716.40         60.85         60.           Ordnance         44.21         1.73         0.00         0.00         2.94         1.	Total for Stu	ıdy Area Cor	nplexes				
Vessel         2583.45         1633.66         253.66         715.40         60.83         60.           Ordnance         44.21         1.73         0.00         0.00         2.94         1.				15.06	18.64	127.06	127.06
Ordnance 44.21 1.73 0.00 0.00 2.94 1.				252 66			60.83
					/10,40	90,83	00.83
Total   2761.13  2157.83  268.72  735.04  190.84  189.							
	Ordnance	44.21	1.73	0.00	0.00		1.80
						2.94 190.84	1.80 189.70

Total	5.54		0.58	2.60	0.73	0.7
	l waters (>1. 1.12		0.11			
Aircraft Vessel	23.88	1.43 20.61		0.09 14.08	0.45 1.36	0.4
			2.62 0.00	0.00	0.00	1.3 0.0 1.8
Ordnance	35.00	22.05	2.73			
Total Total for GO	25.00	Complex		14.16	1.81	1.0
Aircraft		6.87	0.58 3.18 0.00 <b>3.76</b>	0.43	2.23	
Vessel	6.42 29.30	27.60	2 4 6	16.96	1.67	2.2 1.6
Ordnance	0.00	0.00	2.10	0.00	0.00	1.0
		34.47	9.76		3,89	0.0 <b>3.8</b>
Total	35.72	34.47	3.76	17.39 Percent In-S		0.1
				reicentini-s	I	
Source	8	NO <sub>x</sub>	VOC	SO,	PM <sub>10</sub>	PM <sub>2.5</sub>
		de Range Co	mplexes)			
State water:						
Aircraft	0.01	0.02	0.00	0.00	0.01	0.0
Vessel	0.04	0.04	0.00 0.00 0.00	0.01	0.00	0.0
Ordnance	0.00	0.00	0.00	0.00	0.00	0.0 0.0 0.0
Total	0.04	0.06	0.00	0.01	0.01	0.0
Waters of the					L	
Aircraft	0.00	0.01	0.00	0.00	0.00	0.0
Vessel	0.65	0.65	0.07	0.20	0.02	0.0
Ordnance	0.00	0.00	0.00	0.00	0.00	0.0
Total	0.65	0.66	0.07	0.20	0.03	0.0
Internationa	l waters (>1)	2 nm)				
Aircraft	0.10	0.49	0.02	0.02	0.11	0.1
Vessel	4.84	4.37	0.51	1.35 0.00	0.15	0.1
Ordnance	0.00	0.00	0.00	0.00	0.00	0.1 0.1 0.0
Total	4.95	4.85	0.54	1.37	0.26	0.2
Total for Ot	ner AFTT Are	as (Outside F	ange Compl	exes!		
Aircraft	0.11	0.52	0.03	0.02	0.12	0.1
Aircraft Vessel	0.11	0.52 5.05	0.03	0.02 1.56	0.17	0.1 0.1
			0.03	0.02 1.56 0.00	0.17 0.01	0.1 0.1 0.0
Vessel Ordnance	0.11	0.52 5.05	0.03	0.02 1.56	0.17 0.01	0.0
Vessel	0.11 5.53 0.00	0.52 5.05 0.00	0.03 0.59 0.00	0.02 1.56 0.00	0.17 0.01 <b>0.30</b>	0.0 <b>0.2</b>
Vessel Ordnance Total	0.11 5.53 0.00 <b>5.64</b>	0.52 5.05 0.00 <b>5.57</b>	0.03 0.59 0.00 <b>0.61</b>	0.02 1.56 0.00 <b>1.58</b> Percent in-S	0.17 0.01 <b>0.30</b> itate	0.1 0.1 0.0 <b>0.2</b> 0.0
Vessel Ordnance Total Source	0.11 5.53 0.00 <b>5.64</b>	0.52 5.05 0.00 <b>5.57</b> NO <sub>2</sub>	0.03 0.59 0.00 <b>0.61</b> VOC	0.02 1.56 0.00 1.58 Percent In-S	0.17 0.01 <b>0.30</b>	0.0 <b>0.2</b>
Vessel Ordnance Total Source Total for AF	0.11 5.53 0.00 <b>5.64</b> CO TT Study Are	0.52 5.05 0.00 <b>5.57</b> NO <sub>2</sub>	0.03 0.59 0.00 <b>0.61</b>	0.02 1.56 0.00 1.58 Percent In-S	0.17 0.01 <b>0.30</b> itate	0.0 0.2 0.0 PM <sub>2.5</sub>
Vessel Ordnance Total Source	0.11 5.53 0.00 5.64 CO TT Study Are \$ (0-3 nm)	0.52 5.05 0.00 <b>5.57</b> NO <sub>2</sub>	0.03 0.59 0.00 0.61 VOC Related Emis	0.02 1.56 0.00 1.58 Percent In-S SO, sions)	0.17 0.01 <b>0.30</b> itate	0.0 0.2 0.0 PM <sub>2.5</sub>
Vessel Ordnance Total Source Total for AF State water Aircraft	0.11 5.53 0.00 5.64 CO TT Study Are \$ (0-3 nm)	0.52 5.05 0.00 5.57 NO. 1 (Training-H	0.03 0.59 0.00 0.61 VOC Related Emis	0.02 1.56 0.00 1.58 Percent In-S SO, sions)	0.17 0.01 0.30 state PM <sub>10</sub>	0.0 <b>0.2</b> 0.0 PM <sub>2.5</sub>
Vessel Ordnance Total  Source Total for AF State water: Alroraft Vessel Ordnance	0.11 5.53 0.00 5.64 CO TT Study Are \$(0-3 nm) 5.16 5.55	0.52 5.05 0.00 5.57 NO <sub>4</sub> a (Training-I	0.03 0.59 0.00 0.61 VOC Related Emis	0.02 1.56 0.00 1.58 Percent In-S SO, sions)	0.17 0.01 0.30 tate PM <sub>10</sub>	0.0 <b>0.2</b> 0.0 PM <sub>2.5</sub>
Vessel Ordnance Total  Source Total for AF State water: Alroraft Vessel Ordnance	0.11 5.53 0.00 5.64 CO TT Study Are \$(0-3 nm) 5.16 5.55	0.52 5.05 0.00 5.57 NO <sub>4</sub> a (Training-I	0.03 0.59 0.00 0.61 VOC Related Emis 0.46 0.45	0.02 1.56 0.00 1.58 Percentin-S SO, sions) 0.34 1.77 0.00	0.17 0.01 0.30 tate PM <sub>10</sub> 1.76 0.26	0.0 0.2 0.0 PM <sub>2.5</sub>
Vessel Ordnance Total  Source Total for AF State water: Alroraft Vessel Ordnance	0.11 5.53 0.00 5.64 00 T Study Are (0-3 nm) 5.16 5.55	0.52 5.05 0.00 5.57 NO <sub>4</sub> a (Training-I	0.03 0.59 0.00 0.61 VOC Related Emis 0.46 0.45 0.00 0.91	0.02 1.56 0.00 1.58 Percent In-S SO, sions)	0.17 0.01 0.30 tate PM <sub>10</sub> 1.76 0.26	0.0 0.2 0.0 PM <sub>2.5</sub>
Vessel Ordnance Total  Source Total for AF State water: Alroraft Vessel Ordnance	0.11 5.53 0.00 5.64 00 T Study Are (0-3 nm) 5.16 5.55	0.52 5.05 0.00 5.57 NO <sub>4</sub> a (Training-I	0.03 0.59 0.00 0.61 VOC Related Emis 0.46 0.45 0.00 0.91	0.02 1.56 0.00 1.58 Percentin-S SO, sions) 0.34 1.77 0.00 2.10	0.17 0.01 0.30 tate PM <sub>10</sub> 1.76 0.26 0.00 2.02	0.0 0.2 0.0 PM <sub>2.5</sub> 1.7 0.2 0.0 2.0
Vessel Or driance Total  Source Total for AF State water Aircraft Vessel Ordnance Total Waters of th	0.11 5.53 0.00 5.64 0.00 T Study Are (0.3 nm) 5.16 5.55 0.00 10.71 eU.S. (3-12	0.52 5.05 0.00 5.57 NO, a (Training-I 5.40 0.00 14.00 0.00 19.40 nm)	0.03 0.59 0.00 0.61 VOC Related Emis 0.46 0.45 0.00 0.91	0.02 1.56 0.00 1.58 Percentin-S SO, sions) 0.34 1.77 0.00 2.10	0.17 0.01 0.30 tate PM <sub>10</sub> 1.76 0.26 0.00 2.02	0.0 0.2 0.0 0.0 0.0 0.0 0.2 0.0 0.0 0.0
Vessel Ordnance Total Source Total for AF State water Aircraft Vessel Ordnance Total Waters of th Aircraft Vessel	0.11 5.53 0.00 5.64 TT Study Are (0-3 nm) 5.16 5.55 0.00 10.71 te U.S. (3-12 4.11 39.12	0.52 5.05 0.00 5.57 NO. as (Training-I 5.40 14.00 0.00 19.40 nm) 4.28 33.43	0.03 0.59 0.00 0.61 VOC Related Emis 0.46 0.45 0.00 0.91	0.02 1.58 0.00 1.58 Percent In-5 SO, sions) 0.34 1.77 0.00 2.10	0.17 0.01 0.30 tate PM <sub>10</sub> 1.76 0.26 0.00 2.02 1.40 1.03	0.0 0.2 0.0 0.0 0.0 0.0 0.2 0.0 0.0 0.0
Vessel Dridnance Total Source Total for AF State water Africalt Vessel Ordnance Total Waters of th Africalt Vessel Ordnance Total Ordnance Total Ordnance Total Ordnance Total Ordnance Ordnance	0.11 5.53 0.00 5.64 CO TT Study Ares \$(0-3 mm) 5.16 5.55 0.00 10.71 10.71 10.71 10.71 10.71 30.12 4.11 30.12 0.59	0.52 5.05 0.000 5.57 NO. 2000 19.40 19.40 19.40 19.40 19.40 3.33 3.343 0.03	0.03 0.59 0.00 0.61  VOC telated Emis 0.46 0.45 0.00 0.91	0.02 1.56 0.000 1.58 Percentin-S SO sions 0.34 1.77 0.00 2.10	0.17 0.01 0.30 tate PM <sub>10</sub> 1.76 0.26 0.00 2.02 1.40 1.40	0.0 0.2 0.0 0.0 0.0 1.7 0.0 0.0 0.0 1.4 1.0 0.0
Vessel Dridnance Total  Source Total for AF State water Africraft Vessel Waters of th Africraft Vessel Oridnance Total Oridnance Total	0.11 5.53 0.000 5.64 0.000 0.000 0.000 11 Study Are (0-3 nm) 0.000 0.000 0.000 10.71	0.52 5.05 0.000 5.57 NO <sub>4</sub> a (Training I 14.00 0.00 19.40 nm) 4.28 33.43 3.774	0.03 0.59 0.00 0.61 VOC velated Emis 0.45 0.00 0.91 0.37 0.37 3.33 3.33 0.00	0.02 1.58 Percent In-5 SO, sions) 0.34 1.77 0.00 2.10	0.17 0.01 0.30 tate PM <sub>10</sub> 1.76 0.26 0.00 2.02 1.40 1.03	0.0 0.2 0.0 0.0 0.0 1.7 0.0 0.0 0.0 1.4 1.0 0.0
Vessel Ordnance Total	0.11 5.53 0.00 5.64 5.64 0.00 117 Study Are (0-3 mm) 5.16 5.55 10.71 10.71 10.71 10.71 33.11 33.11 43.32	0.52 0.00 0.00 5.57 NO. 14.00 14.00 19.40 19.40 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.03 0.59 0.00 0.61 VOC velated Emis 0.45 0.00 0.91 0.37 0.37 3.33 3.33 0.00	0.02 1.55 0.00 1.58 Percent in-5 SQ sions) 0.24 1.77 0.00 2.10 10.08 0.00 10.35	0.17 0.01 0.80 0.80 PM <sub>10</sub> 1.76 0.26 0.00 0.00 1.03 0.00 0.00 0.00 0.00 0.00	PM <sub>2.5</sub>
Vessel Ordnance Total Total for AF State water Africaft Vessel Total for AF Ordnance Total Waters of th Africaft Vessel Ordnance Total Urdnance Total Africaft Africaft Africaft Africaft Africaft Africaft Africaft Africaft	0.11 5.53 0.00 5.64 5.64 0.2 min 5.16 5.55 0.00 10.71 eU.S (3-12 4.11 3-12 4.32 1 wetes (1-1 4.82	0.52 5.05 0.000 5.57 NO. 14.00 19.40	0.03 0.59 0.00 0.61 VOC velated Emis 0.45 0.00 0.91 0.37 0.37 3.33 3.33 0.00	0.02 1.56 0.00 1.58 Percentin-5 So, sionsl 0.34 1.77 0.00 2.10 0.07 10.08 0.00	0.17 0.01 0.30 tate PM <sub>In</sub> 1.76 0.26 0.00 2.02 1.40 1.40 0.03 0.03 0.03 9.75	PM <sub>2.5</sub>
Vessel Ordnance Total To	0.11 5.53 0.00 5.64 5.64 T Study Are (0.3 m), 0.00 10.21 10.71 20.12 20.	0.52 5.05 0.00 5.57 NO. a (Training I 5.40 14.00 0.00 19.40 19.40 0.03 33.43 33.74 2 nm) 32.48 34.77	0.03 0.55 0.00 0.61 VOC VOC Velated Emis 0.45 0.45 0.00 0.37 3.83 0.00 4.19 4.19 4.25 4.25 4.78 4.78	0.02 1.55 Percentin-S SO. 30,34 0.34 0.27 1.08 0.27 10.08	0.17 0.01 0.30 late PM <sub>100</sub> 1.76 0.26 0.00 0.00 1.03 1.03 0.08 2.51	PM_s 1.7 0.2 0.0 0.0 1.7 0.2 0.0 0.0 1.2 1.2 0.0 0.0 0.0 1.2 2.1 9.7
Vessel Ordnance Total Total Source Total for AF Africraft Vessel Ordnance Total Waters of th Africraft Vessel Ordnance Total Africraft Vessel Ordnance Total Ordnance Total Ordnance Total Ordnance Total Ordnance Total Ordnance Total	0.11 0.00 5.64 5.64 CO TT Study Are: (0.2 nm) 5.16 5.55 0.00 10.71 10.71 24.11 35.12 30.20 10.20 4.11 35.12 35.25 10.20 10.20 4.11 24.82 5.45 5.	0.52 5.05 5.05 5.05 5.05 NO, 10,00 14,00 0.00 19,40 0.03 33,343 37,74 2 mm) 32,48 340,77 0.04	0.03 0.55 0.05 0.00 0.61 VOC velated Enis 0.46 0.45 0.05 0.00 0.37 0.37 0.37 0.37 0.37 0.37 0.47 0.47 0.47 0.47 0.47 0.47 0.47 0.4	0.02 1.58 Percent In-S So, signs) 0.02 0.02 0.02 10.35 1.77 10.08 0.00 10.35	0.17 0.001 0.001 0.80 tare PM <sub>10</sub> 1.76 0.00 0.00 0.00 1.40 1.03 0.08 2.51 1.32 1.32 1.32 1.32	PM <sub>2S</sub> 1. 0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Vessel Dridnance Total Source Total for AF State water Afroraft Vessel Dridnance Total Waters of th Afroraft Vessel Ordnance Total Ordnance Total Ordnance Total Ordnance Total	0.11 0.00 5.64 0.00 5.64 0.00	0.52 5.05 0.00 5.57 NO, a (Training-I 5.40 14.00 0.00 19.40 19	0.03 0.55 0.00 0.61 VOC VOC Velated Emis 0.45 0.45 0.00 0.37 3.83 0.00 4.19 4.19 4.25 4.25 4.78 4.78	0.02 1.55 Percentin-S SO. 30,34 0.34 0.27 1.08 0.27 10.08	0.17 0.01 0.30 late PM <sub>100</sub> 1.76 0.26 0.00 0.00 1.03 1.03 0.08 2.51	PM <sub>2S</sub> 1. 0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Vessel Ordnance Total Source Total Source Total Total for AF Source Total Ordnance Total Waters of th Alteralt Vessel Ordnance Total Internationa Alteralt Vessel Ordnance Total Ordnance Total Total Total Total Total Total	0.11 0.00 5.64 0.00 0.00 0.00 0.00 0.00 0.00 0.00 10.71 10.71 10.71 10.59 10.71 24.84 10.59 10.71 24.84 10.59 10.71 24.84 10.59 10.59 10.71 10.59 10.59 10.59 10.71 10.59 10.59 10.59 10.59 10.59 10.59 10.59 10.59 10.50 10.59	0.52 5.55 5.55 NO. NO. 14.00 19.40 19	0.03 0.05 0.05 0.06 0.61  VOC Valiated Emis 0.46 0.45 0.00 0.91 0.07 3.88 3.88 3.88 0.00 4.19 4.28 5.00 5.00	0.02 1.58 1.58 Percent in-S SO sions) 0.24 1.77 0.00 2.10 0.27 10.05 0.27 10.05 10.35	0.17 0.01 0.80 1.76 0.26 0.26 0.00 0.00 0.00 0.00 1.03 0.08 2.51 1.32 2.51 1.3.22 0.70 2.3.67	0.0 0.0 0.0 0.0 0.0 0.0 1.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Vessel Ordnance Total  Source Total for AF  State water Afroraft Vessel Waters of th Arcraft Vessel Total Ordnance Total Ordnance Total Ordnance Total Ordnance Total Afroraft Vessel Afroraft A	0.111 5.53 5.53 0.00 5.64 T Study Are (0-3 m) 5.55 0.00 10.71 9.12 9.12 9.12 9.12 14.11 39.12 9.12 14.82 14.82 14.82 14.82 15.30 10.82 10.	0.52 5.05 5.05 0.00 5.57 NO. 14.00 19.40 19	0.03 0.05 0.05 0.06 0.61  VOC Valiated Emis 0.46 0.45 0.00 0.91 0.07 3.88 3.88 3.88 0.00 4.19 4.28 5.00 5.00	0.02 1.55 1.55 1.55 1.55 1.55 1.55 2.10 2.10 0.27 1.0.8 1.77 1.0.8 1.77 1.0.8 1.77 1.0.8 1.77 1.0.8 1.77 1.0.8 1.77 1.0.8 1.77 1.0.8 1.77 1.0.8 1.77 1.0.8 1.77 1.0.8 1.77 1.0.8 1.77 1.79 1.79 1.79 1.79 1.79 1.79 1.79	0.17 0.001 0.001 0.001 1.76 0.26 0.26 0.00 0.00 0.00 1.03 0.08 2.51 9.75 13.22 0.70 0.70 0.70 12.91	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
Vessel Ordnance Total To	0.11 5.53 0.00 5.64 TT Study Are TT Study Are 5.25 0.00 10.71 10.71 10.71 10.71 10.72 43.12 43.12 24.68 53.35 10.72 44.21 54.43 54.43 54.43 54.43 54.43 54.53	0.52 5.05 5.05 5.05 NO. NO. 14.00 14.00 19.40 19.	0.03 0.55 0.05 0.00 0.01 0.01 0.01 0.02 0.05 0.05 0.05 0.05 0.05 0.05 0.05	0.02 1.58 1.58 1.58 Percentin-5 SO 0.00 0.34 1.77 1.00 0.00 1.17 1.17 1.17 1.15 1.17 1.15 1.17 1.17	0.17 0.001 0.001 0.001 1.776 0.26 0.000 0.000 1.40 1.03 0.08 2.51 1.32 0.70 23.67	0.000000000000000000000000000000000000
Vessel Ordnance Total  Source Total for AF  State water Afroraft Vessel Waters of th Arcraft Vessel Total Ordnance Total Ordnance Total Ordnance Total Ordnance Total Afroraft Vessel Afroraft A	0.111 5.53 5.53 0.00 5.64 T Study Are (0-3 m) 5.55 0.00 10.71 9.12 9.12 9.12 9.12 14.11 39.12 9.12 14.82 14.82 14.82 14.82 15.30 10.82 10.	0.52 5.05 5.05 0.00 5.57 NO. 14.00 19.40 19	0.03 0.05 0.05 0.06 0.61  VOC Valiated Emis 0.46 0.45 0.00 0.91 0.07 3.88 3.88 3.88 0.00 4.19 4.28 5.00 5.00	0.02 1.55 1.55 1.55 1.55 1.55 1.55 2.10 2.10 0.27 1.0.8 1.77 1.0.8 1.77 1.0.8 1.77 1.0.8 1.77 1.0.8 1.77 1.0.8 1.77 1.0.8 1.77 1.0.8 1.77 1.0.8 1.77 1.0.8 1.77 1.0.8 1.77 1.0.8 1.77 1.79 1.79 1.79 1.79 1.79 1.79 1.79	0.17 0.001 0.001 0.001 1.76 0.26 0.26 0.00 0.00 0.00 1.03 0.08 2.51 9.75 13.22 0.70 0.70 0.70 12.91	0.00 0.20 0.00 0.00 0.00 1.7 0.20 0.00 0.00 0.00 2.4 9.7 13.2 9.7 13.2 23.4

Waters of th	ne U.S. (3-12	nm)	l			
Aircraft	0.06	0.07	0.01	0.00	0.02	0.02
Vessel	6.44	4.61	0.95	1.41	0.13	0.13
Ordnance	0.09	0.01	0.00	0.00	0.00	0.00
Total	6.59	4.69	0.96	1.41	0.16	0.16
Internationa	al waters (>12	2 nm)				
Aircraft	0.42	0.45	0.05	0.02	0.13	0.13
Vessel	26.01	19.79	2.37	7.75	0.73	0.73
Ordnance	0.78	0.07	0.00	0.00	0.02	0.01
Total	27.22	20.32	2.42	7.77	0.87	0.87
Total for Ot	her AFTT Are	as (Outside P	ange Comple	exes)		
Aircraft	0.49	0.52	0.06	0.03	0.15	0.15
Vessel	32.57	24.51	3.45	9.18	0.86	0.86
Ordnance	0.87	0.08	0.00	0.00	0.02	0.02
Total	33.93	25.12	3.51	9.21	1.03	1.03
				Percent In-S	tate	0.01
Source	co	NOx	voc	SOx	PM10	PM2.5
Total for AF	TT Study Are	a (Training-F	Related Emis	sions)		
State water						
Aircraft	39.62	41.70	3.55	2.58	13.47	13.47
Vessel	23.08	79.06	9.77	45.68	3.89	3.89
Ordnance	0.00	0.00	0.00	0.00	0.00	0.00
Total	62.70		13.32	48.26	17.35	17.35
	ne U.S. (3-12					
Aircraft	4.94	5.58	0.45	0.34	1.78	1.78
Vessel	249.06		40.51	86.84	7.71	7.71
Ordnance	4.42	0.17	0.00	0.00	0.29	0.18
Total	258.42	190.77	40.96	87.18	9.78	9.67
	l waters (>12					
Aircraft	88.90	475.16	11.06	15.72	111.81	111.81
Vessel	2,311.32	1,369.57	203.38	583.89	49.24	49.24
Ordnance	39.79	1.56	0.00	0.00	2.65	1.62
Total	2440.01	1846.29	214.44	599.61	163.70	162.68
	udy Area Con					
Aircraft	133.47	522.44	15.06	18.64	127.06	127.06
Vessel	2583.45	1633.66	253.66	716.40	60.83	60.83
Ordnance	44.21 2761.13	1.73 2157.83	0.00	0.00 735.04	2.94 190.84	1.80 189.70
Total			268.72			

Waters of th	ne U.S. (3-12	nm)			T	
Aircraft	0.00	0.01	0.00	0.00	0.00	0.00
Vessel	0.65	0.65	0.07	0.20	0.02	0.02
Ordnance	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.65	0.66	0.07	0.20	0.03	0.03
Internationa	l waters (>12	2 nm)				
Aircraft	0.10	0.49	0.02	0.02	0.11	0.11
Vessel	4.84	4.37	0.51	1.35	0.15	0.15
Ordnance	0.00	0.00	0.00	0.00	0.00	0.00
Total	4.95	4.85	0.54	1.37	0.26	0.26
Total for Ot	her AFTT Are	as (Outside F	ange Compl	exes)		
Aircraft	0.11	0.52	0.03	0.02	0.12	0.12
Vessel	5.53	5.05	0.59	1.56	0.17	0.17
Ordnance	0.00	0.00	0.00	0.00	0.01	0.00
Total	5.64	5.57	0.61	1.58	0.30	0.29
				Percent In-S	tate	0.01
					T	
Source	co	NOx	voc	SOx	PM10	PM2.5
Total for AF	TT Study Are	a (Testing-R	elated Emiss	ions)		
State water						
Aircraft	5.16	5.40	0.46	0.34	1.76	1.76
Aircraft Vessel	5.16 5.55	5.40 14.00	0.46 0.45	1.77	1.76 0.26	1.76 0.26
				0.34 1.77 0.00	1.76 0.26 0.00	
Vessel Ordnance Total	5.55 0.00 10.71	14.00 0.00 19.40	0.45	1.77	0.26	0.26
Vessel Ordnance Total	5.55 0.00	14.00 0.00 19.40	0.45 0.00	1.77 0.00	0.26 0.00	0.26 0.00
Vessel Ordnance Total	5.55 0.00 10.71	14.00 0.00 19.40 nm) 4.28	0.45 0.00 0.91	1.77 0.00 2.10 0.27	0.26 0.00	0.26 0.00
Vessel Ordnance Total Waters of th Aircraft Vessel	5,55 0,00 10,71 ne U.S. (3-12 4,11 39,12	14.00 0.00 19.40 nm) 4.28 33.43	0.45 0.00 0.91 0.37 3.83	1.77 0.00 2.10 0.27 10.08	0.26 0.00 2.02 1.40 1.03	0.26 0.00 2.01 1.40 1.03
Vessel Ordnance Total Waters of th Aircraft Vessel Ordnance	5.55 0.00 10.71 ne U.S. (3-12 4.11 39.12 0.59	14.00 0.00 19.40 nm) 4.28 33.43 0.03	0.45 0.00 0.91 0.37 3.83 0.00	1.77 0.00 2.10 0.27 10.08 0.00	0.26 0.00 2.02 1.40 1.03 0.08	0,26 0,00 2,01 1,40 1,03 0,05
Vessel Ordnance Total Waters of th Aircraft Vessel Ordnance Total	5.55 0.00 10.71 ne U.S. (3-12 4.11 39.12 0.59 43.82	14.00 0.00 19.40 nm) 4.28 33.43 0.03 37.74	0.45 0.00 0.91 0.37 3.83	1.77 0.00 2.10 0.27 10.08	0.26 0.00 2.02 1.40 1.03	0.26 0.00 2.01 1.40 1.03
Vessel Ordnance Total Waters of th Aircraft Vessel Ordnance Total Internations	5.55 0.00 10.71 ne U.S. (3-12 4.11 39.12 0.59	14.00 0.00 19.40 nm) 4.28 33.43 0.03 37.74	0.45 0.00 0.91 0.37 3.83 0.00	1.77 0.00 2.10 0.27 10.08 0.00	0.26 0.00 2.02 1.40 1.03 0.08	0,26 0,00 2,01 1,40 1,03 0,05
Vessel Ordnance Total Waters of th Aircraft Vessel Ordnance Total	5.55 0.00 10.71 ne U.S. (3-12 4.11 39.12 0.59 43.82 Il waters (>12	14.00 0.00 19.40 nm) 4.28 33.43 0.03 37.74 2 nm) 32.48	0.45 0.00 0.91 0.37 3.83 0.00 4.19	1.77 0.00 2.10 0.27 10.08 0.00 10.35	0.26 0.00 2.02 1.40 1.03 0.08 2.51	0,26 0,00 2,01 1,40 1,03 0,05
Vessel Ordnance Total Waters of th Aircraft Vessel Ordnance Total Internations Aircraft Vessel	5.55 0.00 10.71 ne U.S. (3-12 4.11 39.12 0.59 43.82 I waters (>12	14.00 0.00 19.40 nm) 4.28 33.43 0.03 37.74	0.45 0.00 0.91 0.37 3.83 0.00 4.19 2.36 47.86	1.77 0.00 2.10 0.27 10.08 0.00 10.35 1.79	0.26 0.00 2.02 1.40 1.03 0.08 2.51	0.26 0.00 2.01 1.40 1.03 0.05 2.48 9.75
Vessel Ordnance Total Waters of th Aircraft Vessel Ordnance Total Internationa	5.55 0.00 10.71 re U.S. (3-12 4.11 39.12 0.59 43.82 al waters (>1. 24.84 514.21	14.00 0.00 19.40 nm) 4.28 33.43 0.03 37.74 2 nm) 32.48 340.77 0.24	0.45 0.00 0.91 0.37 3.83 0.00 4.19 2.36 47.86	1.77 0.00 2.10 0.27 10.08 0.00 10.35 1.79 145.69 0.00	0.26 0.00 2.02 1.40 1.03 0.08 2.51 9.75 13.22	0.26 0.00 2.01 1.40 1.03 0.05 2.48 9.75 13.22
Vessel Ordnance Total Waters of th Aircraft Vessel Ordnance Total Internationa Aircraft Vessel Ordnance Total Ordnance Total Total Ordnance Total	5,55 0,00 10,71 1e U.S. (3-12 4,11 39,12 0,59 43,82 1 waters (>1,2 24,84 514,21 5,30 544,34	14.00 0.00 19.40 nm) 4.28 33.43 0.03 37.74 2 nm) 32.48 340.77 0.24 373.49	0.45 0.00 0.91 0.37 3.83 0.00 4.19 2.36 47.86	1.77 0.00 2.10 0.27 10.08 0.00 10.35 1.79	0.26 0.00 2.02 1.40 1.03 0.08 2.51 9.75 13.22	0.26 0.00 2.01 1.40 1.03 0.05 2.48 9.75
Vessel Ordnance Total Waters of th Aircraft Vessel Ordnance Total Internationa Aircraft Vessel Ordnance Tordnance Total Total Total for Sta	5.55 0.00 10.71 e U.S. (3-12 4.11 39.12 0.59 43.82 I waters (>1. 24.84 514.21 514.21 544.34	14.00 0.00 19.40 nm) 4.28 33.43 0.03 37.74 2 nm) 32.48 340.77 0.24 373.49 nplexes	0.45 0.00 0.91 0.37 3.83 0.00 4.19 2.36 4.786 0.00 50.22	1.77 0.00 2.10 0.27 10.08 0.00 10.35 1.79 145.69 0.00 147.48	0.26 0.00 2.02 1.40 1.03 0.08 2.51 9.75 13.22 0.70 23.67	0.26 0.00 2.01 1.40 1.03 0.05 2.48 9.75 13.22 0.47 23.44
Vessel Ordnance Total Waters of th Aircraft Vessel Ordnance Total Internationa Aircraft Vessel Ordnance Total Ordnance Total Total Ordnance Total	5.55 0.00 10.71 1e U.S. (3-12 4.11 39.12 0.59 43.82 al waters (>1. 24.84 514.21 5.30 544.34 udy Area Con	14.00 0.00 19.40 nm) 4.28 33.43 0.03 37.74 2 nm) 32.48 340.77 0.24 373.49 nplexes 42.15	0.45 0.00 0.91 0.37 3.83 0.00 4.19 2.36 47.86 0.00 50.22	1.77 0.00 2.10 0.27 10.08 0.00 10.35 1.79 145.69 0.00 147.48	0.26 0.00 2.02 1.40 1.03 0.08 2.51 9.75 13.22 0.70 23.67	0.26 0.00 2.01 1,40 1.03 0.05 2.48 9.75 13.22 0.47 23.44
Vessel Ordnance Total Waters of th Aircraft Vessel Ordnance Total Internations Aircraft Vessel Ordnance Total Total for Str Aircraft Vessel	5.55 0.00 10.71 e U.S. (3-12 4.11 39.12 0.59 43.82 al waters (>1. 24.84 514.21 5.30 544.34 udy Area Con 34.11 558.87	14.00 0.00 19.40 nm) 4.28 33.43 0.03 37.74 2 nm) 32.48 340.77 0.24 373.49 1plexes 42.15 388.21	0.45 0.00 0.91 0.37 3.83 0.00 4.19 2.36 4.7.86 0.00 50.22	1.77 0.00 2.10 0.27 10.08 0.00 10.35 1.79 145.69 0.00 147.48 2.39	0.26 0.00 2.02 1.40 1.03 0.08 2.51 9.75 13.22 0.70 23.67	0.26 0.00 2.01 1.40 1.03 0.05 2.48 9.75 13.22 0.47 23.44 12.90
Vessel Ordnance Total Waters of th Aircraft Vessel Ordnance Total Internations Aircraft Vessel Ordnance Total Total Total Total Total for Str	5.55 0.00 10.71 1e U.S. (3-12 4.11 39.12 0.59 43.82 al waters (>1. 24.84 514.21 5.30 544.34 udy Area Con	14.00 0.00 19.40 nm) 4.28 33.43 0.03 37.74 2 nm) 32.48 340.77 0.24 373.49 nplexes 42.15	0.45 0.00 0.91 0.37 3.83 0.00 4.19 2.36 47.86 0.00 50.22	1.77 0.00 2.10 0.27 10.08 0.00 10.35 1.79 145.69 0.00 147.48	0.26 0.00 2.02 1.40 1.03 0.08 2.51 9.75 13.22 0.70 23.67	0.26 0.00 2.01 1,40 1.03 0.05 2.48 9.75 13.22 0.47 23.44

ABC: SUMMAR

Table:	ole 1. Vessel Emissions by OPAREA - outside of state waters													
		Annual To	itals in Tons	per Year for	Alternative	1			Annual Tot	als in Tonsp	er Year for .	Alternative 2	2	
		VOCs	co	NO <sub>x</sub>	SO <sub>2</sub>	PM	CO <sub>2</sub>	VOCs	со	NO <sub>x</sub>	SO <sub>x</sub>	PM	CO <sub>2</sub>	
	Northeast	1.16	6.40	31.88	10.44	1.49	5,562	0.09	2.11	4.10	0.62	0.20	299	
	VACAPES	108.16	755.43	3404.96	932.48	107.62	502,660	101.79	727.45	3648.89	1,011.04	118.40	520,979	
	Cherry Pt	34.68	284.43	802.71	155.70	24.96	71,511	23.99	121.50	705.50	177.83	27.17	82,978	
	JAX	33.10	348.88	972.25	291.31	26.82	156,452	44.41	460.49	1,887.41	522.95	54.12	273,108	
	Key West	2.63	8.28	75.07	12.32	1.65	6,222	0.59	8.18	26.22	9.29	0.83	4,858	
	GOMEX	7.28	106.70	404.08	104.66	14.44	54,137	0.68	11.73	47.31	15.77	1.75	9,388	
	Outcide PCs	52.75	222.52	1672.05	270 07	49.14	215 402	150.76	520.00	4 000 00	641.55	90.41	225 174	

Table 2. Vessel Emissions by OPAREA - inside of state waters

	Annual To	tals in Tons	per Year for	Alternative	1		Annual Totals in Tons per Year for Alternative 2						
	VOCs	co	NO <sub>x</sub>	SO <sub>2</sub>	PM	CO <sub>2</sub>	VOCs	co	NO <sub>s</sub>	SO <sub>x</sub>	PM	CO <sub>2</sub>	
Northeast	0.03	0.09	0.92	0.19	0.02	99	0.01	0.02	0.27	0.02	0.00	8	
VACAPES	2.26	12.79	71.24	18.94	2.21	11,587	2.48	15.19	75.27	19.35	2.43	11,601	
Cherry Pt	0.08	0.27	2.17	0.46	0.06	237	0.05	0.17	1.47	0.29	0.03	151	
JAX	0.33	2.61	11.08	2.97	0.35	1,889	0.51	5.56	17.11	4.16	0.66	2,555	
Key West	0.02	0.07	0.62	0.20	0.03	102	0.01	0.03	0.37	0.06	0.01	31	
GOMEX	0.06	0.43	1.43	0.24	0.05	112	0.01	0.03	0.31	0.03	0.00	14	
Outside RCs	0.10	0.42	2.38	0.49	0.07	273	2.60	28.36	66.05	11.62	2.61	6,833	

. Small Boat and River	ine Vessels	by OPAREA							
	VOCs	co	NO <sub>x</sub>	SO <sub>2</sub>	PM	co			
Northeast	5.0	30.7	230.1	42.6	4.4	18,51			
VACAPES	10.5	210.4	325.6	100.8	10.5	51,56			
Chesapeake Bay	51.9	393.7	2,318.4	496.9	49.1	209,78			
Charleston	0.4	2.2	57.8	9.1	0.9	7,36			
IAX	1.5	5.1	51.3	8.2	1.2	4,03			
Cape Canaveral/SE									
FL	5.1	35.9	226.4	44.6	4.2	16,62			
Key West	0.0	0.1	0.9	0.1	0.0				
Panama City	0.1	0.5	3.3	0.7	0.1	2			
COMEY	1.4	4.7	47.1	7.4	1.1	2 5			

Table 4. Aircraft Emissions by OPAREA

		Annual To	tals in Tons	per Year for	Alternative	1	Annual Totals in Tonsper Year for Alternative 2					
Area	VOCs	co	NO <sub>x</sub>	SO <sub>2</sub>	PM	CO <sub>2</sub>	VOCs	co	NO <sub>x</sub>	SO <sub>x</sub>	PM	CO <sub>2</sub>
Northeast	0.70	7.67	12.15	3.00	4.72	4,339	1.22	13.19	17.80	4.96	8.43	7,184
VACAPES	7.16	88.40	160.03	22.83	39.55	47,181	9.17	110.02	182.16	30.51	54.07	58,321
Cherry Pt	5.00	39.17	28.83	3.72	4.88	7,696	5.00	39.17	28.83	3.72	4.88	7,696
JAX	13.86	95.80	74.68	10.54	12.83	18,966	14.09	98.28	77.22	11.42	14.49	20,241
Key West	0.09	0.92	0.98	0.34	0.65	496	0.29	3.07	3.18	1.11	2.09	1,603
GOMEX	0.91	11.76	11.14	3.71	6.65	5,408	0.93	11.94	11.32	3.78	6.77	5,501
Panama City	0.79	8.44	8,65	3.00	5.67	4,352	0.93	9.99	10.23	3,55	6.71	5,148

Table 5. Aircraft Emissions within state waters boundaries by OPAREA

		Annual To	tals in Tons į	per Year for	Alternative	1	Annual Totals in Tons per Year for Alternative 2						
Area	VOCs	co	NO <sub>x</sub>	SO <sub>2</sub>	PM	CO <sup>5</sup>	VOCs	co	NO <sub>x</sub>	SO <sub>x</sub>	PM	CO <sub>2</sub>	
Northeast	0	0	0	0	0	0	0	0	0	0	0	0	
VACAPES	0.27	3.77	20.41	0.70	1.45	3,998	0.27	3.77	20.41	0.70	1.45	3,998	
Cherry Pt	10.90	193.57	101.93	40.77	77.14	59,064	10.90	193.57	101.93	40.77	77.14	59,064	
JAX	0.06	0.60	0.61	0.21	0.40	307	0.06	0.60	0.61	0.21	0.40	307	
Key West	0	0	0	0	0	0	0	0	0	0	0	0	
GOMEX	0.0	0.1	0.1	0.0	0.1	39	0.0	0.1	0.1	0.0	0.1	39	
Panama City	0.79	8.44	8.65	3.00	5.67	4,352	0.93	9.99	10.23	3.55	6.71	5,148	

Table 6. Munition Emissions by OPAREA

				Alternative :	1							Alternative 2				
Location	voc	co	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2S</sub>	CO <sub>2</sub>	Pb	VOC	co	NO,	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO2	Pb
Northeast / NUWC																
Newport	0.00	0.76	0.01	0.00	3,90	2.98	0.51	0.00	0.00	0.76	0.01	0.00	3.89	2.98	0.51	0.00
Virginia Capes	0.13	61.20	1.05	0.02	168.56	129.34	49.35	0.31	0.13	61.20	1.05	0.02	168.55	129.33	49.35	0.31
Cherry Pt.	0.00	17.80	0.32	0.00	5.79	4.27	10.88	0.03	0.00	17.80	0.32	0.00	5.78	4.26	10.87	0.03
Jacksonville	0.01	37.80	0.66	0.01	22.18	16.66	33.91	0.21	0.01	37.80	0.66	0.00	22.17	16.66	33.91	0.21
Key West GOMEX / Panama""	0.00	3.96	80.0	0.00	0.23	0.13	2.57	0.00	0.00	3.96	0.08	0.00	0.22	0.12	2.57	0.00
City	0.00	3.65	0.07	0.00	4.86	3.69	3.61	0.02	0.00	3.65	0.07	0.00	4.85	3.68	3.61	0.02
Other AFTT	0.00	1.35	0.02	0.00	0.43		0.70		0.00	1.35	0.02	0.00	0.42	0.31		0.00
Study Area Total	0.15	126.53	2.20	0.05	205.96	157.40	101.54	0.58	0.15	126.53	2.20	0.02	205.88	157.34	101.52	0.58

Table 7. Emissions within State Water Boundaries

	All E	missions in	State Wate	rs, Alternati	ve 1	All Emissions in State Waters, Alternative 2					
Area	VOCs	co	NO <sub>x</sub>	SO <sub>2</sub>	PM	VOCs	co	NO,	SO,	PM	
Northeast	5.12	30.77	231.02	42.84	5.38	5.09	30.69	230.37	42.67	5.36	
VACAPES	13.01	226.95	417.25	120.42	14.16	13.23	229.35	421.27	120.83	14.38	
Chesapeake Bay	52.48	393.70	2318.42	496.89	60.52	52.48	393.70	2318.42	496.89	60.52	
Cherry Pt	0.08	0.27	2.17	0.46	0.06	10.95	193.74	103.40	41.06	77.17	
Charleston	0.38	2.15	57.82	9.11	0.95	0.38	2.15	57.82	9.11	0.95	
JAX	1.85	8.34	63.03	11.39	1.91	2.04	11.29	69.05	12.58	2.21	
Cape Canaveral/SE											
FL	5.1	35.9	226.4	44.6	5.1	5.1	35.9	226.4	44.6	5.1	
Key West	0.06	0.16	1.52	0.33	0.05	0.05	0.12	1.28	0.20	0.04	
Panama City	0.84	8.99	11.98	3.68	5.73	0.99	10.53	13.56	4.23	6.77	
GOMEX	1.49	5.21	48.59	7.71	1.18	1.44	4.81	47.47	7.50	1.13	
Outside RCs	0.10	0.42	2.38	0.49	0.07	2.60	28.36	66.05	11.62	2.61	
			3380.60								

. Grand Total Emissio	ns Summar	7										
		,	Alternative :	1				I	Alternative	2		
Area	VOCs	co	NO <sub>x</sub>	SO <sub>2</sub>	PM	CO <sub>2</sub>	VOCs	co	NO <sub>x</sub>	SO <sub>x</sub>	PM	co
Northeast	6.94	45.59	275.06	56.28	14.52	28,513	6.37	46.75	252.28	48.26	16.90	26,00
VACAPES	128.06	1,128.22	3,961.83	1,075.04	209.23	612,995	124.05	1,124.25	4,232.97	1,161.70	353.96	642,51
Cherry Pt	40.13	343.83	891.52	169.00	41.72	86,806	29.41	180.79	793.93	190.95	38.81	98,19
AX	48.76	490.23	1,109.36	313.03	75.06	181,340	60.49	607.27	2,033.74	546.75	92.58	299,97
Cey West	2.78	13.32	77.58	12.99	4.92	6,872	0.92	15.32	30.75	10.59	3.18	6,54
SOMEX	9.67	127.25	463.74	116.05	25.83	63,235	3.04	32.06	106.10	27.02	14.44	18,48
Outside RCs	53.64	332.74	1,683.07	383.46	55.59	220,027	162.29	569.59	4,160.17	656.71	90.15	337,15
	290	2,481	8,462	2,126	427	1,088,429	387	2,576	11,610	2,642	610	1,296,256

Area	VOCs	co	NO <sub>x</sub>	SO,	PM	co
Northeast	10.29	139.13	116.51	27.02	5.39	17,55
VACAPES	112.24	1,120.07	792.79	289.36	55.75	426,00
Cherry Pt	88.12	986.89	778.53	285.77	69.33	345,64
JAX	100.39	1,041.06	829.90	250.44	76.92	350,1
Key West	1.80	20.66	18.19	2.94	3.82	283,6
GOMEX	14.38	164.65	149.11	41.98	11.53	68,9
Outside RCs	4.12	39.57	30.69	10.79	1.33	8,1

Table 10. Emissions Summar	y for the Ba	seline - Stat	e Waters			
Area	VOCs	co	NO <sub>x</sub>	SO <sub>2</sub>	PM	CO <sub>2</sub>
Northeast	3.12	64.51	60.84	5.55	2.02	6.19
VACAPES	5.35	29.12	60.54	5.51	8.97	118.45
Cherry Pt	4.02	22.62	42.40	36.05	4.98	115.05
JAX	4.98	51.70	31.26	10.50	3.11	44.16
Key West	0.01	0.06	0.41	0.05	0.00	0.54
GOMEX	2.98	48.64	56.95	4.62	4.24	31.99
Outside RCs	0.13	0.17	0.17	0.04	0.01	0.53

11. Net Change for State Water Emissions												
	Annua	al Totals in 1	ons per Yea	r for Altern	ative 1	Annual Totals in Tons per Year for Alternative 2						
Area	VOCs	co	NO <sub>x</sub>	SO <sub>2</sub>	PM	VOCs	co	NO,	SO,	PM		
Northeast	2.00	-33.74	170.18	37.29	3.37	1.97	-33.82	169.53	37.12	3.34		
VACAPES	60.14	591.53	2675.13	611.80	65.72	60.36	593.93	2,679.15	612.21	65.94		
Cherry Pt	-3.56	-20.20	17.58	-26.48	-3.97	6.93	171.12	61.00	5.01	72.19		
JAX	-3.13	-43.36	31.76	0.89	-1.20	-2.94	-40.41	37.79	2.09	-0.90		
Key West	0.05	0.10	1.11	0.28	0.05	0.04	0.06	0.87	0.15	0.03		
GOMEX	-0.65	-34.44	3.62	6.77	2.67	-0.55	-33.30	4.09	7.11	3.66		
Outside RCs	-0.04	0.25	2.21	0.45	0.06	2.47	28.19	65.88	11.58	2.60		

		Annual Tot	als in Tons	per Year for	Alternative	1	Annual Totals in Tons per Year for Alternative 2						
Area	VOCs	co	NO <sub>x</sub>	SO <sub>E</sub>	PM	CO <sub>2</sub>	VOCs	co	NO <sub>x</sub>	SO <sub>x</sub>	PM	CO <sub>2</sub>	
Northeast	-3.35	-93.54	158.55	29.26	9.13	10,954	-3.92	-92.38	135.78	21.23	11.51	8,444	
VACAPES	15.82	8.15	3,169.04	785.68	153.48	186,933	11.81	4.18	3,440.18	872.35	298.21	216,455	
Cherry Pt	-47.99	-643.06	113.00	-116.77	-27.61	-258,837	-58.70	-806.10	15.40	-94.82	-30.52	-247,445	
JAX	-51.63	-550.83	279.45	62.59	-1.85	-168,778	-39.89	-433.79	1,203.84	296,31	15.67	-50,147	
Key West	0.98	-7.34	59.38	10.06	1.10	-276,733	-0.87	-5.34	12.56	7.66	-0.65	-277,058	
GOMEX	-4.71	-37.40	314.62	74.07	14.29	-5,683	-11.34	-132.59	-43.02	-14.96	2.91	-50,433	
Outside RCs	49.51	293.17	1,652.39	372.66	54.26	211,914	158.17	530.02	4,129.49	645.92	88.82	329,042	

TAB D: SHIP EMISSIONS																			ı					
Vessel Steaming Hours by State vs International V Alternative		OpArea Alterna	ative 2			Alterr	native 1		ı	I		Alterna	ative 1			Alter	native 2		I			Alternativ	a 2	ı
Steaming Hrs <sup>1</sup> Stea	aming Hrs <sup>1</sup> Ste	eaming Hrs <sup>1</sup>	Steaming Hrs <sup>1</sup>			Annual Emi	ssions in Ton					aters Only A	Annual Emission			Annual Emi	ssions in Tons					iters Only Ann	ual Emissions in	
Open Water         State           CVN         Northeast         0	te Waters Op	oen Water S	State Waters	<b>CO</b> 0.00	NOx 0.00	HC 0.00	<b>SOx</b> 0.00	PM10 0.00	CO2	0.00	0.00	HC 0.00	SOx 0.00	PM10 CO2		0.00 NOx HC	SOx 0.00	PM10 0.00	CO2 0	0.00	<b>NO</b> x 0.00	<b>нс</b> 0.00	SOx PN 0.00	0.00 CO2
VACAPES 2,761 Cherry Pt 46	57	1728 0	35 0	1.70 0.03	23.14 0.39	0.43 0.01	1.92 0.03	0.17 0.00	946	0.00 0.00	0.05	0.00	0.00 0.00	0.00 0.00		1.06 14.48 0.27 0.00 0.00 0.00	1.20 0.00	0.10 0.00	592 0	0.00	0.03	0.00	0.00 0.00	0.00 1 0.00 0
JAX 1,207	13	1032	10	0.74	10.11	0.19	0.84	0.07	413	0.00	0.01	0.00	0.00	0.00	0	0.64 8.64 0.16	0.72	0.06	353	0.00	0.01	0.00	0.00	0.00 0
Key West 86 GOMEX 0	0	96 0	Ö	0.05 0.00	0.72 0.00	0.01 0.00	0.06 0.00	0.01 0.00	0	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00 0.00	0	0.06 0.80 0.01 0.00 0.00 0.00	0.07 0.00	0.01 0.00	33 0	0.00	0.00	0.00	0.00	0.00 0 0.00 0
Outside RCs 551  CG Northeast 91	1	792 0	1	0.34 2.81	4.61 3.76	0.09	0.38 2.53	0.03 0.11	188 1,136	0.00	0.00	0.00	0.00	0.00		0.49 6.63 0.12 0.00 0.00 0.00	0.55	0.05	271 0	0.00	0.00	0.00	0.00	0.00 0
VACAPES 6,699	137	4032 552	81	207.93 34.53	286.11 44.93	14.64	190.08	8.22	85,811	1.90	19.56 0.29	0.17	7.53	0.69 4,7	84 12	125.13 172.00 8.81	114.33	4.94	51,597	1.12	11.56	0.10	4.45	0.41 2,828
Cherry Pt 1,122 JAX 2,756	28	3384	34	85.15	113.66	2.43 5.99	76.64	1.27 3.24	13,641 34,313	0.03 0.39	4.00	0.03	0.11 1.54	0.01 0.14 9	78 10	16.99 22.11 1.19 104.55 139.50 7.35	15.10 94.08	0.63 3.98	6,712 42,118	0.0 <b>1</b> 0. <b>47</b>	0.14 4.85	0.00 0.04	0.05 1.87	0.01 35 0.17 1,187
Key West 47	1	120 0	0.1	1.46 0.00	2.01 0.00	0.10 0.00	1.34 0.00	0.06 0.00	603	0.01 0.00	0.14	0.00	0.05 0.00	0.01 0.00		3.69 4.79 0.26 0.00 0.00 0.00	3.28 0.00	0.14	1,455 0	0.00	0.01	0.00	0.01 0.00	0.00 3 0.00 0
Outside RCs         551           DDG -1000         Northeast         110	1	1704	2	16.96 1.86	22.07 8.76	1.19	15.07	0.62	6,699	0.01 0.02	0.14 0.03	0.00	0.05	0.01	_	52.43 68.09 3.68 0.00 0.00 0.00	46.54 0.00	1.93 0.00	20,680	0.03	0.29 0.00	0.00	0.11	0.01 70 0.00 0
VACAPES 15,326	313	16272	325	263.47	1226.03	0.11 15.01	462.62	0.32 44.70	2,051 287,865	7.14	10.14	0.00 0.45	0.01 4.68	0.63 3,7	64 27	279.57 1,301.47 15.92	491.07	47.44	305,545	7.42	10.53	0.00 0.46	0.00 4.86	0.66 3,908
Cherry Pt 47 JAX 4,875	1 50	1368 5400	1 54	0.81 82.68	3.76 388.38	0.05 4.70	1.42 146.41	0.14 14.12	883 90,970	0.02 1.14	0.03 1.62	0.00 0.0 <b>7</b>	0.01 0.75	0.00 0.10 6		22.90 108.56 1.30 91.55 430.16 5.21	40.89 162.16	3.94 15.63	25,371 100,750	0.02 1.23	0.03 1. <b>7</b> 5	0.00	0.01 0.81	0.00 12 0.11 649
Key West 86 GOMEX 148	1	96 408	0.1 0.4	1.46 2.50	6.86 11.77	0.08 0.14	2.58 4.44	0.25 0.43	1,606 2,756	0.02 0.02	0.03	0.00	0.01 0.01	0.00		1.61 7.62 0.09 6.83 32.38 0.39	2.87 12.20	0.28 1.17	1,781 7,568	0.00 0.01	0.00	0.00	0.00 0.01	0.00 1 0.00 5
Outside RCs 7,466	8	2976	264	125.05	592.57	7.10	223.20	21.48	138,495	0.18	0.26	0.01	0.12	0.02	96 5	55.80 244.65 3.20	92.87	9.09	58,341	6.03	8.55	0.38	3.95	0.53 3,175
LCS Northeast 0 VACAPES 0	0	0 3 <b>24</b> 0	0 65	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0		0.00 0.00 0.00 77.32 307.53 5.37	0.00 <b>81.1</b> 6	0.00 11.05	0.0 41,691	0.00 2.57	0.00 4.96	0.00 0.20	0.00 0.76	0.00 0 0.24 361
Cherry Pt 0 JAX 756	0 14	696 9000	1 90	0.00 17.99	0.00 71.67	0.00 1.25	0.00 18.92	0.00 2.57	0 9,723	0 0.55	1.06	0.04	0.16	0.05		16.10 65.07 1.11 211.19 847.33 14.63	17.28 224.38	2.32 30.35	8,884 115,306	0.04 3.56	0.08 6.87	0.00 0.28	0.01 1.05	0.00 6 0.33 500
Key West 25		120	0	0.58	2.33	0.04	0.62	0.08	319	0.00	0.00	0.00	0.00	0.00	0	2.77 11.21 0.19	2.98	0.40	1,531	0.00	0.00	0.00	0.00	0.00 0 0.00 0
GOMEX 3,858 Outside RCs 314	1	120 8592	536	89.28 7.28	360.81 29.41	6.17 0.50	95.82 7.81	12.89 1.05	49,253 4,014	0.28 0.02	0.53 0.04	0.02 0.00	0.08 0.01	0.03 0.00		2.77 11.21 0.19 219.42 843.26 15.34	2.98 219.45	0.40 30.64	1,531 112,580	21.20	40.90	0.00 1.64	0.00 6.24	1.98 2,979
LSD Northeast 57  VACAPES 2,756	1 57	0 <b>24</b> 00	0 48	0.63 30.42	9.84 478.18	0.32 15.52	0.72 35.19	0.06 3.05	474 23,014	0.02 1.14	0.30 17.22	0.01	0.02 1.29	0.00 0.06 6		0.00 0.00 0.00 26.46 415.91 13.50	0.00 30.61	0.00 2.66	0 20,024	0.00	0.00 14.50	0.00 0.49	0.00 1.09	0.00 0 0.05 507
Cherry Pt 1,093	2	840	1	11.65 0.17		5.94	13.49	1.19 0.02	8,909	0.04	0.60 0.30	0.02 0.01	0.05	0.00		8.95 140.80 4.56	10.35	0.91	6,841	0.02 0.00	0.30 0.00	0.01	0.02	0.00 11 0.00 0
JAX 14 Key West 0		Ŏ		0.00	0.00	0.09 0.00	0.00	0.00	124 0	0.02 0.00	0.00	0.00	0.02 0.00	0.00	0	0.00 00.0	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
GOMEX 19 Outside RCs 1,088	1	0 1128	0 50	0.22 11.60	3.48 182.58	0.11 5.92	0.26 13.43	0.02 1.18	165 8,869	0.02 0.04	0.30 0.60	0.01 0.02	0.02 0.05	0.00		0.00 0.00 0.00 12.99 203.77 6.62	0.00 15.01	0.00 1.28	9,701	0.00 1.00	0.00 15.11	0.00 0.51	0.00 1.13	0.00 0 0.05 528
LHA         Northeast         0           VACAPES         0	0	0	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	0.00 0.00 0.00 0.07 2.22 0.12	0.00 0.53	0.00	0 287	0.00	0.00	0.00	0.00	0.00 0 0.00 0
Cherry Pt 0		0	ō	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	0.00 0.00 0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
JAX 0 Key West 0	0	0	0	0.00 0.00	0.00	0.00	0.00	0.00	0	0.00 0.00	0.00	0.00	0.00 0.00	0.00		0.00 0.00 00.0 00.0 00.0 00.0	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00 0 0.00 0
GOMEX 0 Outside RCs 62	0	2	0	0.00 0.26	0.00 8.75	0.00 0.46	0.00 2.11	0.00 0.26	0 1,132	0.00	0.00	0.00 0.01	0.00	0.00		0.01 0.28 0.01 0.09 3.10 0.16	0.00 0.07 0.75	0.01	36 401	0.00	0.00	0.00	0.00	0.00 0 0.00 0
LHD Northeast 57	1	0	0	0.23	1.38	0.17	2.77	0.83	1,381	0.00	0.02	0.00	0.06	0.01	24	0.00 0.00 0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
VACAPES 1,957 Cherry Pt 1,155	40 2	2328 1056	4/	8.06 4.67	47.60 27.66	5.75 3.34	95.49 55.05	28.44 16.52	47,558 27,555	0.15 0.01	0.80 0.04	0.10 0.01	2.41 0.12	0.48 9 0.02		9.59 56.62 6.84 4.27 25.27 3.05	113.56 50.28	33.82 15.10	56,560 25,174	0.18 0.00	0.94 0.02	0.12 0.00	2.84 0.06	0.57 1,116 0.01 24
JAX 28 Key West 47	1		0	0.12 0.19	0.69 1.14	0.08 0.14	1.39 2.30	0.41	691 1,143	0.00	0.02	0.00	0.06 0.06	0.01		0.00 0.00 0.00 00.0 0.00 0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00 0 0.00 0
GOMEX 14	1	0		0.06 3.61	0.35 21.35	0.04	0.73 42.48	0.21 12.75	357 21,268	0.00 0.00	0.02	0.00	0.06 0.06	0.01	24	0.00 0.00 0.00 3.88 22.98 2.77	0.00 45.72	0.00 13.73	0 22,887	0.00	0.00	0.00	0.00 0.06	0.00 0 0.01 24
LPD Northeast 67	1	0	0	1.07	9.25	0.57	1.27	0.11	569	0.01	0.13	0.01	0.02	0.00	8	0.00 0.00 0.00	0.00	0.00	. 0	0.00	0.02 0.00 8.44	0.00	0.00	0.00 0
VACAPES 1,839 Cherry Pt 758	38 1	3216 888	64 1	29.60 11.99	255.37 103.33	15.79 6.40	35.14 14.24	3.08 1.25	15,703 6,362	0.53 0.01	5.01 0.13	0.28 0.01	0.63 0.02	0.05 2		51.73 446.27 27.59 14.05 121.02 7.49	61.42 16.68	5.38 1.46	27,442 7,452	0.90	8.44 0.13	0.48	1.06 0.02	0.09 481 0.00 8
JAX 157	2	48	0.5	2.51 0.00	21.64 0.00	1.34 0.00	2.98 0.00	0.26 0.00	1,331	0.03 0.00	0.26 0.00	0.01 0.00	0.03 0.00	0.00		0.77 6.60 0.41 0.00 0.00 0.00	0.91	0.08	406	0.01 0.00	0.0 <b>7</b> 0.00	0.00	0.01 0.00	0.00 4 0.00 0
Key West 0 GOMEX 86	1	168	0.2	1.37	11.84	0.73	1.63	0.14	729	0.01	0.13	0.01	0.02	0.00	8	2.66 22.90 1.42	3.16	0.28	1,410	0.00	0.03	0.00	0.00	0.00 2
Outside RCs 1,160 PC Northeast 0	0	1800 0	3 0	18.36 0.00	158.19 0.00	9.79 0.00	21.81 0.00	1.91 0.00	9,740	0.03	0.26	0.01 0.00	0.03	0.00	_	28.49 245.45 15.20 0.00 0.00 0.00	33.84 0.00	2.97 0.00	15,113 0	0.04	0.40 0.00	0.02	0.05	0.00 23 0.00 0
VACAPES 122 Cherry Pt 1,088	3	8	2	20.64 183.57	4.64 40.43	0.38 3.28	1.03 8.96	0.14 1.22	480 4,184	0.06 0.04	0.12	0.01 0.01	0.03 0.02	0.00		1.39 0.38 0.03 0.79 0.17 0.01	0.08 0.04	0.01	39 18	0.04	0.08	0.01	0.02 0.00	0.00
JAX 622		44	5	105.07	23.34	1.90	5.17	0.70	2,416	0.15	0.27	0.03	0.06	0.01	28	7.60 1.84 0.15	0.41	0.06	190	0.11	0.19	0.02	0.04	0.01 20
Key West 0 GOMEX 33	1	2	0	0.00 5.59	0.00 1.26	0.00 0.10	0.00 0.28	0.00 0.04	131	0.00 0.02	0.00 0.04	0.00	0.00 0.01	0.00	4	0.00 0.00 0.00 0.39 0.09 0.01	0.00 0.02	0.00 0.00	9	0.00	0.00	0.00	0.00 0.00	0.00 0 0.00 0
Outside RCs 311  JHSV Northeast 0	1	22	0	52.48 0.00	11.57 0.00	0.94 0.00	2.56 0.00	0.35 0.00	1,198	0.02	0.0 <b>4</b> 0.00	0.00	0.01 0.00	0.00	_	3.65 0.80 0.07 2.11 4.10 0.09	0.18	0.02 0.20	83 299	0.00	0.00	0.00 0.00	0.00	0.00 0 0.00 0
VACAPES 621	13	23	6	119.97	232.82	5.35	35.45	11.31	16,951	0.66	1.30	0.03	0.20	0.06	94	4.65 9.04 0.21	0.62 1.38	0.44	658	0.29	0.57	0.01	0.09	0.03 41
Cherry Pt 9  JAX 123  Key West 0	2	1 8	1	1.78 23.73	3.46 46.06	0.08 1.06	0.53 7.01	0.17 2.24	252 3,353	0.05 0.10	0.10 0.20	0.00 0.00	0.02 0.03	0.00 0.01	15	0.19 0.37 0.01 1.67 3.25 0.07	0.06 0.49	0.02 0.16	27 236	0.00 0.05	0.00 0.09	0.00	0.00 0.01	0.00 0 0.00 7
Key West 0	0	0 9	ö	0.00 8.31	0.00 16.13	0.00 0.37	0.00 2.46	0.00 0.78	0	0.00 0.05	0.00 0.10	0.00	0.00 0.02	0.00		0.00 0.00 0.00 1.73 3.36 0.08	0.00	0.00 0.16	244	0.00	0.00	0.00	0.00	0.00 0 0.00 0
Outside RCs 311	1	45	Ö	59.80	116.05	2.67	17.67	5.64	8,449	0.05	0.10	0.00	0.02	0.00	7	8.64 16.76 0.39	0.51 2.55	0.16	1,221	0.00	0.00	0.00	0.00	0.00 0
MV Northeast 0 VACAPES 231	5	Ŏ	ŏ	0.00 0 <b>.8</b> 0		0.00 0.44	0.00 1.43	0.00 0.26	631	0.00 0.01	0.00	0.00 0.01	0.00 0.09	0.03	46	0.00 0.00 0.00	0.00	0.00	o o	0.00	0.00	0.00	0.00	0.00 0
Cherny Pt 0 JAX 0		0	0	0.00	0.00	0.00 0.00	0.00 0.00	0.00	0	0.00 0.00	0.00	0.00	0.00 0.00	0.00		0.00 0.00 0.00 0.00 0.00	0.00	0.00	0	0.00	0.00	0.00	0.00 0.00	0.00 0 0.00 0
Key West 1,026 GOMEX 0	2	2256	2	3.50 0.00	6 <b>8.7</b> 0	1.92 0.00	5.99 0.00	1.06 0.00	2,621	0.00 0.00	0.00	0.00	0.04 0.00	0.01 0.00	18	7.70 150.95 4.21 0.00 0.00 0.00	13.12 0.00	2.31 0.00	5,740	0.00	0.09	0.00	0.04 0.00	0.01 18 0.00 0
Outside RCs 451	1	312	0.3	1.54		0.84	2.63	0.47	1,153	0.00	0.04	0.00	0.02	0.01		1.06 20.88 0.58	1.82	0.32	794	0.00	0.00	0.00	0.00	0.00 3

SSGN Northeast		ñ	0 (	1 0 00L	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	ol (	0.00	I 0.00I	0.00	0.00
VACAPES	Ŏ	ŏ	Ŏ	0.00		0.00	0.00	Ŏ	0.00	0.00	0.00	0.00 0.00	0.00 0.00	0.00 0.00 0.00	0.00	0 (	0.00	0.00 0.00	0.00 0.00	0.00
Cherry Pt	0 204		0 ( 920 19	0.00	0.00 0.41		0.00 0.00 0.02 0.00	0		0.00	0.00 0	0.00 0.11	0.00 0.00 3.89 0.07	0.00	0.00		0.00 0.00 0.00 0.00	0.00 0.00	0.00	0.00 0
Key West	566	1	888	0.03	1.15		0.07 0.01	37		0.00	0.00	0.05	1.80 0.03	0.22 0.10 0.00	0.02 0.01		0.00		0.00 0.00	0.00
GOMEX	0	0	0	0.00	0.00	0.00	0.00 0.00	0		0.00	0.00 0	0.00	0.00 0.00	0.00	0.00		0.00 0.00	0.00 0.00	0.00	0.00 0
Outside RCs SSN Northeast	148 10,050	1	240 0.2	0.01	0.30 4.57		0.02 0.00 0.85 0.15	10		0.00	0.00	0.01 0.00	0.49 0.01 0.00 0.00	0.03 0.00	0.00		0.00 0.00 0.00 0.00	0.00	0.00	0.00 0
VACAPES	3,871 354	80	888 138	0.23	1.76			158		0.00	0.00	0.41	3.14 0.17	0.59	0.10		0.00 0.01	0.00		0.00 1
Cherry Pt		1	0 (	0.02	0.16	0.01	0.33 0.06 0.03 0.01	14		0.00	0.00 0	0.00	0.00	0.59 0.00 0.16	0.00		0.00 0.00	0.00	0.00 0.00	0.00 0
JAX Key West	1,397 129	15	920 19	0.08	0.64		0.12 0.02 0.01 0.00	57		0.00 0.00	0.00 0	0.12	0.87 0.05 0.00 0.00	0.16	0.03		0.00 0.00 0.00 0.00	0.00	0.00 0.00	0.00 0
GOMEX	23	1	Ŏ	0.00	0.01	0.00	0.00	1	0.00 0.00	0.00	0.00	0.00	0.00 0.00	0.00 0.00	0.00	0 (	0.00	0.00 0.00	0.00	0.00
Outside RCs	11,458	12 2	424 7340		5.21		0.97 0.17	467		0.00	0.00 0	1.26	9.62 0.51	1.81			0.04 0.33	0.00	0.07	0.00 29
T-AH Northeast VACAPES	38	1	72	0.00	0.00 2.02		0.00 0.00 1.41 0.40	698		0.00 0.00	0.00 18	0.00 0.50	0.00 0.00 3.79 0.25	0.00 2.64	0.00		0.00 0.00 0.01 0.05	0.00	0.00 0.04	0.00 0 0.01 18
Cherry Pt		0	0	0.00	0.00	0.00	0.00 0.00	0	0.00 0.00	0.00	0.00 0	0.00	0.00 0.00	0.00 0.00 0.00	0.00	0 (	0.00 0.00	0.00	0.00	0.00
JAX Kov Wost				0.00	0.00		0.00 0.00 0.00 0.00	0	0.00 0.00	0.00 0.00	0.00	0.00	0.00 0.00 0.00 0.00	0.00	0.00		0.00 0.00 0.00 0.00	0.00	0.00	0.00 0
Key West GOMEX	Ŏ	0	ŏ	0.00	0.00		0.00	0	0.00 0.00	.00 0.00	0.00 0	0.00		0.00 0.87	0.00	0 (	0.00 0.00	0.00	0.00	0.00 0
Outside RCs	4	1	24 (	0.03	0.26		0.18 0.05	89		0.00	0.01 18	0.16	0.00 0.00 1.25 0.08				0.00 0.00	-		0.00 0
T-AKE Northeast VACAPES	1.505	31	0 0 600 12	0.00 7.82	0.00 228.84		0.00 0.00 27.83 3.53	0 13,053	0.00 0.00 0.08 1.34	0.00 0.00 0.19 0.17	0.00 0 0.02 83	0.00 3.12	0.00 0.00 91.21 8.99	0.00	0.00 1.41		0.00 0.00 0.03 0.52	0.00 0.07	0.00 0.07	0.00 0 0.01 32
Cherry Pt	1,505 331	1	144 0.1	1.70	50.08		6.09 0.77	2,855	0.00 0.04	0.01 0.01	0.00 3	0.74	21.77 2.14	11.09 2.65	0.34		0.00 0.00	0.00	0.00	0.00 0
JAX	395	4	192	2.04	59.88		7.28 0.92 0.35 0.04	3,415		0.02	0.00 11 0.00 3	0.99	29.11 2.87 0.00 0.00	3.54 0.00	0.45 0.00		0.01 0.09 0.00 0.00	0.01 0.00	0.01	0.00 5 0.00 0
Key West GOMEX				0.10	2.92		0.00 0.00	100		0.01 0.01	0.00	0.00	0.00 0.00	0.00	0.00		0.00	0.00	0.00 0.00	0.00
Outside RCs	892	1	888 4	4.59			6.40 2.08	7,690		0.01 0.01	0.00 3	19.99	587.88 57.82	71.46	9.08		0.01 0.17	0.02		0.00 11
T-AO Northeast	2 018	1	0 (	0.25	3.48 730.84		0.23 0.02	21 202		0.02	0.00 8	0.00	0.00 0.00 842.72 27.50	0.00	0.00		0.02 0.27 0.75 11.31	0.01	0.02 0.82	0.00 8
VACAPES Cherry Pt	9 2,018 1,098		0 ( 328 47 624 1	0.25 52.73 28.31	730.84	23.85 4	0.23 0.02  8.44 4.29  5.95 2.30	102 21,393 11,479	0.75 11.31 0.04 0.54	0.82 0.02 0.04	0.00 8 0.07 325 0.00 15	0.00 60.80 16.09	0.00 0.00 842.72 27.50 222.76 7.27	0.00 55.85 14.74	4.95		0.02 0.27 0.75 11.31 0.04 0.54	0.01 0.38 0.02	0.02 0.82 0.04	0.00 8 0.07 325 0.00 15
VACAPES Cherry Pt JAX	1,098 955	2		52.73 28.31 24.78	730.84 392.04 343.20	23.85 4 12.79 2 11.20 2	8.44 4.29  5.95 2.30  2.73 2.01	11,479 10,048	0.75 11.31 0.04 0.54 0.18 2.69	0.38 0.82 0.02 0.04 0.09 0.20	0.00 15 0.02 77	60.80 16.09 27.39	842.72 27.50 222.76 7.27 379.48 12.38	55.85 14.74 25.13	4.95 1.31 2.23	24,669 ( 6,522 ( 11,110 (	0.75 11.31 0.04 0.54 0.18 2.69	0.38 0.02 0.09	0.20	0.07 325 0.00 15 0.02 77
VACAPES Cherry Pt JAX Key West	1,098 955	2	624 1	52.73 28.31	730.84 392.04 343.20 49.83	23.85 4 12.79 2 11.20 2 1.63	18.44 4.29 15.95 2.30 12.73 2.01 3.30 0.29	11,479	0.75 11.31 0.04 0.54 0.18 2.69 0.02 0.27	0.38 0.82 0.02 0.04 0.09 0.20 0.01 0.02	0.00 15	60.80 16.09	842.72 27.50 222.76 7.27 379.48 12.38	55.85 14.74 25.13 0.00	4.95 1.31 2.23 0.00	24,669 ( 6,522 ( 11,110 ( 0 (	0.75 11.31 0.04 0.54 0.18 2.69 0.02 0.27	0.38 0.02 0.09 0.01	0.20 0.02	0.07 325 0.00 15 0.02 77 0.00 8
VACAPES Cherry Pt JAX Key West GOMEX Outside RCs	1,098	10 10	624 1	7 52.73 28.31 24.78 3.60	730.84 392.04 343.20 49.83 10.25	23.85 4 12.79 2 11.20 2 1.63 0.33	8.44 4.29 15.95 2.30 12.73 2.01 3.30 0.29	11,479 10,048	0.75 11.31 0.04 0.54 0.18 2.69 0.02 0.27 0.02 0.27	0.38 0.82 0.02 0.04 0.09 0.20	0.00 15 0.02 77 0.00 8	60.80 16.09 27.39 0.00	842.72 27.50 222.76 7.27 379.48 12.38	55.85 14.74 25.13	4.95 1.31 2.23	24,669 ( 6,522 ( 11,110 ( 0 (	0.75 11.31 0.04 0.54 0.18 2.69 0.02 0.27 0.02 0.27 0.04 0.54	0.38 0.02 0.09	0.20	0.07 325 0.00 15 0.02 77
VACAPES Cherry Pt JAX Key West GOMEX Outside RCs T-AOE Northeast	1,098 955 139 28 1,477	10 11 1 2 0	624 1 056 11 0 0 0 0 688 6	52.73 28.31 24.78 3.60 0.74 38.08 0.00	730.84 392.04 343.20 49.83 10.25 527.17 0.00	23.85 4 12.79 2 11.20 2 1.63 0.33 17.20 3	8.44 4.29 15.95 2.30 12.73 2.01 3.30 0.29 0.68 0.06 4.89 3.09 0.00 0.00	11,479 10,048 1,459 300 15,436	0.75 11.31 0.04 0.54 0.13 2.69 0.02 0.27 0.02 0.27 0.04 0.54 0.00 0.00	.38 0.82 .02 0.04 .09 0.20 .01 0.02 .01 0.02 .01 0.02	0.00 15 0.02 77 0.00 8 0.00 8 0.00 15 0.00 0	60.80 16.09 27.39 0.00 0.00 146.60	842.72 27.50 222.76 7.27 379.48 12.38 0.00 0.00 0.00 0.00 2,029.70 66.21 0.00 0.00	55.85 14.74 25.13 0.00 0.00 134.33	4,95 1,31 2,23 0,00 0,00 11,90 0,00	24,669 (6,522 (7,11,110 (7,11)	0.75 11.31 0.04 0.54 0.18 2.69 0.02 0.27 0.02 0.27 0.04 0.54 0.00 0.00	0.38 0.02 0.09 0.01 0.01 0.02	0.20 0.02 0.02 0.04 0.00	0.07         325           0.00         15           0.02         77           0.00         8           0.00         8           0.00         15           0.00         0
WACAPES Cherry Pt JAX Key West GOMEX Outside RCs T-AOE Northeast VACAPES	1,098 955 139 28 1,477 0 658 283	2 10 1 1 2 0	624 1 056 11 0 0 688 6 0 0 328 4	7 52.73 28.31 24.78 3.60 0 0.74 5 38.08	730.84 392.04 343.20 49.83 10.25 527.17	23.85 4 12.79 2 11.20 2 1.63 0.33 17.20 3 0.00 3.53 2	8.44 4.29 5.95 2.30 2.73 2.01 3.30 0.29 0.68 0.06 44.89 3.09	11,479 10,048 1,459 300	0.75 11.31 0.04 0.54 0.18 2.69 0.02 0.27 0.02 0.27 0.04 0.54 0.00 0.00 0.25 3.12 0.02 0.22	.38 0.82 .02 0.04 .09 0.20 .01 0.02 .01 0.02 .01 0.02 .02 0.04 .00 0.00	0.00 15 0.02 77 0.00 8 0.00 8	60.80 16.09 27.39 0.00 0.00	842.72         27.50           222.76         7.27           379.48         12.38           0.00         0.00           0.00         0.00           2,029.70         66.21	55.85 14.74 25.13 0.00 0.00 134.33	4,95 1,31 2,23 0,00 0,00 11,90	24,669 0 6,522 1 11,110 0 0 0 59,430 0 9,766 0	0.75 11.31 0.04 0.54 0.18 2.69 0.02 0.27 0.02 0.27 0.04 0.54	0.38 0.02 0.09 0.01 0.01 0.02 0.00 0.14	0.20 0.02 0.02 0.04 0.00	0.07 325 0.00 15 0.02 77 0.00 8 0.00 8 0.00 15
VACAPES Cherry Pt JAX Key West GOMEX Outside RCs T-AOE Northeast VACAPES Cherry Pt JAX	1,098 955 139 28 1,477 0	10 10 1 1 2 0	624 1 056 11 0 0 688 6 0 0 328 4	52.73 28.31 24.78 3.60 0.74 38.08 0.00 7.36.36 15.55 4.19	730.84 392.04 343.20 49.83 10.25 527.17 0.00 105.54 44.27	23.85 4 12.79 2 11.20 2 1.63 0.33 17.20 3 0.00 3.53 2 1.50 1 0.41	8.44   4.29   1.595   2.30   2.73   2.01   3.30   0.29   0.66   0.06   4.89   3.09   0.00   0.00   2.82   1.99   1.18   3.27   0.32	11,479 10,048 1,459 300 15,436 0 2,789	0.75 11.31 0.04 0.54 0.18 2.69 0.02 0.27 0.02 0.27 0.04 0.54 0.00 0.00 0.25 3.12 0.02 0.22 0.02 0.22	1.38 0.82 1.02 0.04 1.09 0.20 1.01 0.02 1.01 0.02 1.02 0.04 1.00 0.00 1.00 0.07	0,000 15 0,02 77 0,000 8 0,000 8 0,000 15 0,000 0 0,000 570 0,001 41 0,001 41	60.80 16.09 27.39 0.00 0.00 146.60 0.00 128.59 34.26 14.54	842.72 27.50 222.75 7.27 379.48 12.38 0.00 0.00 0.00 0.00 2.029.70 66.21 0.00 0.00 372.84 12.48 97.35 3.31 41.75 1.41	55,85 14,74 25,13 0,00 0,00 134,33 0,00 101,19 26,35 11,32	4.95 1.31 2.23 0.00 0.00 11.90 0.00 9.97 2.60	24,669 6,522 11,110 0 0 59,430 9,766 2,145 1,013	0.75 11.31 0.04 0.54 0.18 2.65 0.02 0.27 0.02 0.27 0.04 0.54 0.00 0.00 0.82 10.46 0.02 0.22 0.05 0.67	0.38 0.02 0.09 0.01 0.01 0.02 0.02 0.00 0.14 0.00	0.20 0.02 0.02 0.04 0.00 3.15 0.07	0.07         325           0.00         15           0.02         77           0.00         8           0.00         8           0.00         15           0.00         15           0.00         0           0.29         1,915           0.01         41           0.02         122
WACAPES Cherry Pt JAX Key West GOMEX OUtside RCs T-AOE Northeast VACAPES Cherry Pt JAX Key West Key West	1,098 955 139 28 1,477 0 658 283	2 10 1 1 2 0	624 1 056 11 0 0 688 6 0 0 328 4	52.73 28.31 24.78 0 3.60 0.74 38.08 0 0.00 7 36.36 15.55 4.19	730.84 392.04 343.20 49.83 10.25 527.17 0.00 105.54 44.27 12.05 0.00	23.85 4 12.79 2 11.20 2 1.63 0.33 17.20 3 0.00 3.53 2 1.50 1 0.41 0.00		11,479 10,048 1,459 300 15,436 0 2,789	0.75 11.31 0.04 0.54 0.18 2.69 0.02 0.27 0.04 0.54 0.00 0.00 0.25 3.12 0.02 0.22 0.02 0.22 0.02 0.22 0.00 0.00	.38 0.82 .02 0.04 .09 0.20 .01 0.02 .01 0.02 .02 0.04 .00 0.00 .04 0.94 .00 0.07 .00 0.07	0.00 15 0.02 77 0.00 8 0.00 9 0.00 15 0.00 0 0.00 41 0.01 41 0.01 41 0.00 0	60.80 16.09 27.39 0.00 0.00 146.60 0.00 128.59 34.26 14.54 0.00	842,72 7,50 72,75 72,77 72,77 73,79 73,79 74,8 72,78 73,79 74,8 74,78 74,78 74,78 74,78 74,78 74,78 74,78 74,78 74,78 74,78 74,78 74,78 74,78 74,78 74,78	55,85 14,74 25,13 0,00 0,00 134,33 0,00 101,19 26,35 11,32 0,00	4.95 1.31 2.23 0.00 0.00 11.90 0.00 9.97 2.60 1.12 0.00	24,669 6,522 ( 11,110 0 0 0 0 59,430 0 0 9,766 0 2,145 1 1013 0	0.75 11.31 0.04 0.54 0.18 2.69 0.02 0.27 0.02 0.27 0.04 0.54 0.00 0.00 0.82 10.45 0.02 0.22 0.05 0.67	0.38 0.02 0.09 0.01 0.01 0.02 0.00 0.14 0.00 0.01	0.20 0.02 0.02 0.04 0.00 3.15 0.07	0.07         325           0.00         15           0.02         77           0.00         8           0.00         8           0.00         15           0.00         0           0.29         1,915           0.01         44           0.02         122           0.00         0
WACAPES Cherry Pt JAX Key West GOMEX Outside RCs T-AOE Northeast VACAPES Cherry Pt JAX Key West GOMEX GOMEX OUTSIDE OF THE OUTSIDE OF THE OUTSIDE OUTS	1,098 955 139 28 1,477 0 658 283	2 10 1 1 2 0	624 1 056 11 0 0 688 6 0 0 328 4	52.73 28.31 24.78 3.60 0.74 38.08 0.00 7.36.36 15.55 4.19	730.84 392.04 343.20 49.83 10.25 527.17 0.00 105.54 44.27	23.85 4 12.79 2 11.20 2 11.20 3 1.63 0.33 17.20 3 0.00 3.53 2 1.50 1 0.41 0.00 0.00	8.44   4.29   1.595   2.30   2.73   2.01   3.30   0.29   0.66   0.06   4.89   3.09   0.00   0.00   2.82   1.99   1.18   3.27   0.32	11,479 10,048 1,459 300 15,436 0 2,789	0.75 11.31 0.04 0.54 0.18 2.69 0.02 0.27 0.02 0.27 0.04 0.54 0.00 0.00 0.25 3.12 0.02 0.22 0.02 0.22 0.00 0.00 0.00 0.00	1.38 0.82 1.02 0.04 1.09 0.20 1.01 0.02 1.01 0.02 1.02 0.04 1.00 0.00 1.00 0.07	0,000 15 0,02 77 0,000 8 0,000 8 0,000 15 0,000 0 0,000 570 0,001 41 0,001 41	60.80 16.09 27.39 0.00 0.00 146.60 0.00 128.59 34.26 14.54	842.72 27.50 222.75 7.27 379.48 12.38 0.00 0.00 0.00 0.00 2.029.70 66.21 0.00 0.00 372.84 12.48 97.35 3.31 41.75 1.41	55.85 14.77 25.13 0.00 0.00 0.00 134.33 0.00 101.19 26.35 11.32 0.00 0.00 0.00 0.00 0.00 0.00	4.95 1.31 2.23 0.00 0.00 11.90 0.00 9.97 2.60	24,669 6,522 ( 11,110 ( 0 ( 0 ( 0 ( 9,766 ( 2,145 ( 1,013 ( 0 ( 0 ( 9,766 ( 0	0.75 11.31 0.04 0.54 0.18 2.65 0.02 0.27 0.02 0.27 0.04 0.54 0.00 0.00 0.82 10.46 0.02 0.22 0.05 0.67	0.38 0.02 0.09 0.01 0.01 0.02 0.02 0.00 0.14 0.00	0.20 0.02 0.02 0.04 0.00 3.15 0.07	0.07         325           0.00         15           0.02         77           0.00         8           0.00         8           0.00         15           0.00         15           0.00         0           0.29         1,915           0.01         41           0.02         122
VACAPES Cherry Pt JAX  Key West GOMEX Outside RCs T-AOE Northeast VACAPES VACAPES Cherry Pt JAX  Key West GOMEX Outside RCs T-AOE Northeast Northeast	1,098 955 139 28 1,477 0 658 283 76 0 0 0 4	2 10 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	624 0.56 11 0 0 0 0 0 0 0 0 3.28 4. 6.24 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	52.73 28.31 24.78 0 3.60 0.74 6 38.08 0 0.00 36.36 15.55 4.19 0 0.00 0.00	720.84 392.04 343.20 49.83 10.25 527.47 0.00 105.54 44.27 12.05 0.00 0.00 0.00 0.00 0.00 0.00	23.85 4 12.79 2 11.20 2 11.20 3 0.03 17.20 3 0.00 1.55 1 0.41 0.00 0.00 0.00 0.00 0.00 0.00		11,479 10,048 1,459 300 15,436 0 2,789	0.75 11.31 0.04 0.54 0.18 2.69 0.02 0.27 0.04 0.54 0.00 0.00 0.05 3.12 0.02 0.22 0.02 0.22 0.02 0.22 0.02 0.22 0.00 0.00 0.00 0.00 0.00 0.00	.38	0.00 15 0.02 77 0.00 8 0.00 9 0.00 15 0.00 0 0 0.00 570 0.01 41 0.00 0 0 0.00 0 0 0.00 0 0 0.00 0 0	00.00 16.09 27.39 0.00 0.00 146.60 0.00 128.59 34.26 34.26 0.00 0.00 0.00	842.72 7.50 22.75 7.50 22.77 7.77 379.48 12.38 0.00 0.00 0.00 0.00 0.00 2,029.70 66.21 0.00 0.00 372.44 12.88 97.35 3.31 41.76 1.41 1.76 1.41 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	55.85 14.77 25.13 0.00 0.00 0.00 134.33 0.00 101.19 26.35 11.32 0.00 0.00 0.00 0.00 0.00 0.00	4.95 1.31 2.23 0.00 0.00 11.30 0.00 9.97 2.60 11.2 0.00 0.00 0.00 0.00 0.00 0.00 0.0	2,4669 6,522 11,110 0 0 59,430 0 9,766 2,145 1,013 0 0 0	0.755 1.31 0.064 0.54 0.18 2.69 0.02 0.27 0.04 0.54 0.00	0.38 0.02 0.09 0.01 0.01 0.02 0.00 0.44 0.00 0.01 0.00 0.00	0.20 0.02 0.02 0.04 0.00 3.15 0.07 0.20 0.00 0.00	0.07         325           0.00         15           0.02         77           0.00         8           0.00         8           0.00         15           0.00         0           0.29         1,915           0.01         44           0.02         122           0.00         0           0.00         0           0.00         0           0.00         0           0.00         0           0.00         0           0         0           0         0
VACAPES Cherry Pt JAX Key West GOMEX Outside RCs T-AOE Northeast VACAPES GOMEX Obside RCs T-AOE Northeast Outside RCs Cherry Pt JAX Rey West GOMEX Outside RCs T-ARS Northeast VACAPES	1,098 955 139 28 1,477 0 658 283	2 10 1 1 2 0	624 0.56 11 0 0 0 0 0 0 0 0 3.28 4. 6.24 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7 52.73 28.31 24.78 3.60 0.74 38.08 0.00 7 36.36 15.55 3 4.19 0.00 0.00	730.84 392.04 393.20 49.83 10.25 527.17 0.00 105.54 44.27 12.05 0.00 0.00	23.85 4 12.79 2 11.20 2 1.63 0.33 17.20 3 0.00 3.55 2 1.50 1 0.41 0.00 0.00 0.00 0.00 0.00 0.00 0.00		11,479 10,048 1,459 300 15,436 0 2,789	0.75 11.31 0.04 0.54 0.18 2.69 0.02 0.27 0.04 0.54 0.00 0.00 0.05 3.12 0.02 0.22 0.02 0.22 0.02 0.22 0.02 0.22 0.00 0.00 0.00 0.00 0.00 0.00	.38	0.00 15 0.02 77 0.00 8 0.00 9 0.00 15 0.00 0 0.00 41 0.01 41 0.01 41 0.00 0	00.80 16.09 27.39 0.00 0.00 0.00 146.60 0.00 128.59 34.26 14.54 0.00 0.00	842.72 27.50 22.276 7.27 379.48 12.38 0.00 0.00 0.00 0.00 2,029.70 65.21 0.00 0.00 372.84 12.48 97.35 3.31 41.75 141 0.00 0.00 0.00 0.00 0.00 0.00	55.85 14.74 25.13 0.00 0.00 101.19 101.19 0.00 0.00 0.00	4.95 1.31 2.23 0.00 0.00 11.90 0.00 9.97 2.50 1.12 0.00 0.00 0.00 0.00	4,659 6,522 11,110 0 0 59,430 0 9,765 (2,145 1,013 0 0 0 0 0	0.75 11.31 0.04 0.54 0.18 2.99 0.02 0.27 0.02 0.27 0.04 0.54 0.00 0.00 0.82 10.45 0.02 0.22 0.05 0.67 0.00 0.00	0.38 0.02 0.09 0.01 0.01 0.02 0.00 0.14 0.00 0.01 0.01	0.20 0.02 0.02 0.04 0.04 0.00 3.15 0.07 0.20 0.00	0.07         325           0.00         15           0.02         77           0.00         8           0.00         8           0.00         15           0.00         0           0.29         1,915           0.01         44           0.02         122           0.00         0
WACAPES Cherry Pt JAX  Key West COWEX Outside RCs T-AOE Northeast VACAPES Cherry Pt JAX  Key West GOMEX  COUTSIDE RCS T-AOE Northeast VACAPES Cherry Pt JAX  Key West GOMEX Outside RCS T-ARS Northeast VACAPES Cherry Pt JAX	1,098 9,55 139 28 1,477 0 6,58 283 76 0 0 4 5,55	2 10 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	624 0.56 11 0 0 0 0 0 0 0 0 3.28 4. 6.24 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	52,73 28.31 24,78 3.50 0,74 38.08 0.00 7 36.36 15.35 3 4,19 0.00 0.00 0.00 0.00 0.00 0.00 0.00	720.84 392.04 343.20 49.83 10.23 527.17 0.00 105.54 44.27 12.05 0.00	23.85 4 12.79 2 11.20 2 1.55		11,479 10,048 1,459 300 15,436 0 2,789 995 297 0 0 9 970 459 246	0.75 11.31 0.04 0.54 0.54 0.07 0.07 0.07 0.00 0.00 0.00 0.00 0.0	3.38 0.32	0.00 15 0.02 77 0.00 8 0.00 9 0.00 15 0.00 0 0 0.00 570 0.01 41 0.01 41 0.00 0	50.50 16.09 17.39 0.00 0.00 146.60 0.00 125.59 34.26 14.54 0.00 0.0	842.72 7.50 22.75 7.50 22.77 7.50 22.77 7.50 22.77 7.50 2.72 7.50	55.85 14.74 25.13 0.00 0.00 101.19 101.19 0.00 0.00 0.00	4.95 1.31 2.23 0.00 0.00 11.90 0.00 9.97 2.50 1.12 0.00 0.00 0.00 0.00 0.00 0.00 0.0	2,669 6,522 11,110 0 0 59,430 0 9,766 2,145 1,013 0 0 0 1,256 0 1,66	0.75 11.31 0.04 0.54 0.03 2.69 0.02 0.27 0.02 0.27 0.04 0.54 0.00 0.00 0.02 0.02 0.02 0.03 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.38 0.02 0.09 0.01 0.01 0.01 0.02 0.00 0.14 0.00 0.01 0.00 0.00 0.00 0.00	0,20 0,02 0,02 0,04 0,00 3,15 0,07 0,20 0,00 0,00 0,00 0,00 0,00 0,00	0.07 925 0.00 15 0.00 8 0.00 8 0.00 15 0.00 15 0.00 15 0.00 15 0.00 15 0.00 15 0.00 0
VACAPES Cherry Pt JAX Key West GOMEX Outside RCs T-AOE Northeast VACAPES Cherry Pt JAX Key West GOMEX Outside RCs T-AOE ACTION Outside RCs T-ARS Northeast VACAPES Cherry Pt JAX ACTION Outside RCs T-ARS Northeast VACAPES Cherry Pt JAX Key West Cherry Pt JAX Key West	1,098 955 139 28 1,477 0 658 223 76 0 0 0	2 10 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	624 0.56 11 0 0 0 0 0 0 0 0 3.28 4. 6.24 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	52,73 28,31 24,78 3,60 0,73 38,08 0,00 36,36 15,55 4,19 0,00 0,00 0,00 0,00 0,00 0,00 0,00 0	720.84 392.04 343.20 49.83 10.25 527.17 0.00 105.54 44.27 12.05 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 3.00 0.00	23.85 4 12.75 2 11.20 2 1.63 0.03 0.03 0.03 0.03 0.00 0.00 0.00 0		11,479 10,048 1,459 300 15,436 0 2,789 995 297 0 0 0 9 970	0.75 11.31 0.04 0.54 1.31 0.05 1.31	.388 0.82 .002 0.004 .009 0.20 .001 0.002 .002 0.004 .001 0.002 .003 0.004 .000 0.007 .000 0.000 .000 0.000 .000 0.000 .000 0.000 .000 0.000 .000 0.000 .000 0.000 .000 0.000 .000 0.000 .000 0.000 .000 0.000	0.00 15 0.00 77 0.00 8 0.00 15 0.00 15 0.00 16 0.00 17 0.00 41 0.01 41 0.01 41 0.00 0 0.00 0 0.00 2 0.00 2 0.00 2 0.00 24 0.00 24 0.00 2	50.50 16.09 16.09 27.39 0.00 0.00 146.60 0.00 128.59 34.26 14.54 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 1.118 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 1.128.59 0.00 0.0	\$42.72	55.85 14.74 25.13 0.00 0.00 101.19 101.19 0.00 0.00 0.00	4.95 1.31 2.23 0.00 0.00 0.00 11.90 0.00 9.97 2.60 1.12 0.00 0.00 0.00 0.00 0.00 0.00 0.0	42,659 6,522 0 11,110 0 0 0 59,765 (2,145 1,013 0 0 0 1,256 0 1,256 0 0 1,256 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.75 11.31 0.04 0.54 0.18 2.69 0.02 0.27 0.04 0.54 0.09 0.00 0.27 0.04 0.54 0.00 0.00 0.02 10.46 0.00	0.38 0.02 0.09 0.01 0.01 0.02 0.00 0.04 0.00 0.00 0.00 0.00 0.00	0.20 0.02 0.02 0.04 0.00 3.15 0.07 0.20 0.00 0.00 0.00 0.00 0.00 0.00	0.07 925 0.00 15 0.00 8 0.00 8 0.00 15 0.00 15 0.00 15 0.00 0 15 0.00 0 15 0.00 0 0 0.29 1,915 0.00 0 0 0.00 0 0 0.00 0 0 0.00 0 0 0.00 0 0 0.00 0 0 0.00 0 0 0.00 28 0.00 0 0 0.00 0 0
WACAPES Cherry Pt JAX  Key West COWEX Outside RCs T-AOE Northeast VACAPES Cherry Pt JAX  Key West GOMEX  COUTSIDE RCS T-AOE Northeast VACAPES Cherry Pt JAX  Key West GOMEX Outside RCS T-ARS Northeast VACAPES Cherry Pt JAX	1,098 9,55 139 28 1,477 0 6,58 283 76 0 0 4 5,55	10 10 10 11 11 11 11 11 11 11 11 11 11 1	624 0.56 11 0 0 0 0 0 0 0 0 3.28 4. 6.24 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	52,73 28.31 24,78 3.50 0,74 38.08 0.00 7 36.36 15.35 3 4,19 0.00 0.00 0.00 0.00 0.00 0.00 0.00	720.84 392.04 343.20 49.83 10.23 527.17 0.00 105.54 44.27 12.05 0.00	23.85 4 12.79 2 11.20 2 1.63 0.33 0.33 0.03 17.720 3 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0		11,479 10,048 1,459 300 15,436 0 2,789 995 297 0 0 9 970 459 246	0.75 11.31 0.04 0.54 0.18 2.69 0.02 0.27 0.02 0.27 0.04 0.54 0.00 0.00 0.25 3.12 0.02 0.22 0.02 0.22 0.00 0.00 0.00 0.0	3.38 0.32	0.00 15 0.02 77 0.00 8 0.00 9 0.00 15 0.00 0 0 0.00 570 0.01 41 0.01 41 0.00 0	50.50 16.09 17.39 0.00 0.00 146.60 0.00 125.59 34.26 14.54 0.00 0.0	842.72 7.50 22.75 7.50 22.77 7.50 22.77 7.50 22.77 7.50 2.72 7.50	55.85 14.77 25.13 0.00 0.00 0.00 134.33 0.00 101.19 26.35 11.32 0.00 0.00 0.00 0.00 0.00 0.00	4.95 1.31 2.23 0.00 0.00 11.90 0.00 9.97 2.50 1.12 0.00 0.00 0.00 0.00 0.00 0.00 0.0	4,669 6,522 (11,110 (11) (11,110 (11,110 (11,1	0.75 11.31 0.04 0.54 0.03 2.69 0.02 0.27 0.02 0.27 0.04 0.54 0.00 0.00 0.02 0.02 0.02 0.03 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.38 0.02 0.09 0.01 0.01 0.01 0.02 0.00 0.14 0.00 0.01 0.00 0.00 0.00 0.00	0,20 0,02 0,02 0,04 0,00 3,15 0,07 0,20 0,00 0,00 0,00 0,00 0,00 0,00	0.07 925 0.00 15 0.00 8 0.00 8 0.00 15 0.00 15 0.00 15 0.00 15 0.00 15 0.00 15 0.00 0
WACAPES Cherry Pt JAX Key West GOMEX Outside RCS T-AOE Northeast VACAPES Cherry Pt JAX Rey West GOMEX Outside RCS T-ARS Northeast VACAPES Cherry Pt JAX Rey West GOMEX Outside RCS T-ARS Northeast VACAPES Cherry Pt JAX Key West GOMEX Outside RCS T-ARS Northeast VACAPES Cherry Pt JAX Northeast Northeast Northeast	1,098 955 139 28 1,477 0 658 283 75 0 0 0 0 4 4 555 269 142 49 99	10 11 11 2 0 0 14 14 15 16 0 0 0 0 0 0 0 0 0 12 12 12 12 12 13 14 14 15 16 16 16 16 16 16 16 16 16 16 16 16 16	624 0.56 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	52,73 28.31 24.78 3.60 0.74 3.80 3.808 0.000 3.6.36 15.55 3.4.19 0.000 0.000 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.000 0.000 0.001 0.000	720.84 392.04 393.00 49.83 10.25 527.17 0.00 105.54 44.27 12.05 0.00 0.00 0.00 8 9.17 4.34 2.33 8.06 0.00 0.00 0.00 0.00 0.00 0.00 0.00	23.85 4 12.79 2 11.20 2 1.63 0.33 0.33 0.30 0.30 0.353 2 1.150 0.00 0.00 0.00 0.00 0.00 0.00 0.0		11, 479 10,048 10,048 1,459 300 15,436 0 2,789 995 297 0 0 0 9 9 970 459 246 853	0.75 11.31 0.04 0.54 1.31 0.05 1.31	3.38 0.82	0.00 15 0.00 77 0.00 8 0.00 15 0.00 15 0.00 15 0.00 0 0 0.00 141 0.01 41 0.01 41 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 2 0.00 24 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2	50. 50 16.09 16.09 17.39 0.00 0.00 146.60 0.00 128.59 34.26 14.54 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00 0.00 0.00 1.00 0.00 0.00 1.00 0	\$42.72	55.85 5.85 25.13 0.00 0.00 0.00 101.19 26.55 11.32 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	4.95 1.31 2.23 0.00 0.00 0.00 11.90 0.00 9.97 2.50 1.12 0.00 0.00 0.00 0.00 0.00 0.00 0.0	4,669 6,522 11,110 0 0 0 0 9,766 (2,145 1,013 0 0 1,256 0 0 1,256 0 0 0 1,256 0 0 0 0 0 0 0 0 0 0 0 0 0	0.75 11.31 0.04 0.54 0.18 2.69 0.02 0.27 0.04 0.54 0.00 0.54 0.00	0.38 0.09 0.001 0.01 0.01 0.02 0.00 0.00 0.00 0.0	0,20 0,02 0,02 0,04 0,00 3,15 0,07 0,20 0,00 0,00 0,00 0,00 0,00 0,00	0.07 925 0.00 15 0.00 8 0.00 8 0.00 15 0.00 15 0.00 15 0.00 0 15 0.00 0 0 0.29 1,915 0.00 0 0
WACAPES Gherry Pt JAX Key West GOMEX Outside RCs T-AOE Northeast VACAPES Cherry Pt JAX Key West GOMEX Outside RCs T-ARS Northeast VACAPES Cherry Pt JAX Key West GOMEX Outside RCs T-ARS Northeast VACAPES Cherry Pt JAX Key West GOMEX Outside RCs T-ATF Northeast	1,098 955 139 28 1,477 0 658 283 75 0 0 0 0 4 4 555 269 142 49 99	10 10 10 11 11 11 11 11 11 11 11 11 11 1	624 0.56 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	52.73 24.78 24.78 3.60 0.74 38.08 3.60 0.00 26.36 4.19 0.00 0	720.84 392.04 392.04 343.20 49.83 10.25 527.17 0.00 105.54 44.27 12.05 0.00 0.00 0.00 0.08 9.17 4.34 2.33 8.06 0.00 12.23 0.00 28.26	23.85 4 127.79 2 111.20 2 2 20		11, 479 10,048 10,048 1,459 300 15,436 0 2,789 995 297 0 0 0 9 9 970 459 246 853	0.75 11.31 0.04 0.54 0.18 2.69 0.02 0.27 0.04 0.54 0.00 0.54 0.00 0.50 0.25 3.12 0.02 0.22 0.02 0.22 0.02 0.22 0.00	3.38 0.32	0.00 15 0.00 77 0.00 8 0.00 15 0.00 15 0.00 16 0.00 17 0.00 41 0.01 41 0.01 41 0.00 0 0.00 0 0.00 2 0.00 2 0.00 2 0.00 24 0.00 24 0.00 2	50. 50 16.09 16.09 17.39 0.00 0.00 146.60 0.00 128.59 34.26 14.54 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00 0.00 0.00 1.00 0.00 0.00 1.00 0	\$42.72	55.85 5.85 25.13 0.00 0.00 0.00 101.19 26.55 11.32 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	4.95 1.21 2.23 0.00 0.00 11.90 0.00 11.90 0.00 1.12 0.00 0.00 0.00 0.00 0.00 0.0	4,669 6,522 0 11,110 0 0 9,766 2,145 1,013 0 0 0 1,256 0 166 166 0 0 1,754	0.75 11.31 0.64 0.84 0.18 2.69 0.02 0.27 0.04 0.54 0.05 0.54 0.00 0.01 0.06	0.38 0.38 0.09 0.001 0.01 0.01 0.01 0.02 0.00 0.00 0.0	0,20 0,02 0,02 0,04 0,00 3,15 0,07 0,20 0,00 0,00 0,00 0,00 0,00 0,00	0.07   325   0.00   15   0.00   0.0
WACAPES Cherry Pt JAX Key West GOMEX Outside RCS T-AOE Northeast VACAPES Cherry Pt JAX Key West GOMEX Outside RCS T-AOE ACT Northeast VACAPES Cherry Pt JAX Northeast VACAPES Cherry Pt JAX Key West GOMEX Outside RCS T-ARS Northeast VACAPES Cherry Pt JAX Key West GOMEX Outside RCS T-ATF Northeast VACAPES Cherry Pt JAX Log West GOMEX Outside RCS T-ATF Northeast VACAPES Cherry Pt JAX Log West GOMEX Outside RCS T-ATF Northeast VACAPES Cherry Pt JAX Log West Cherry Pt Log West Cherry Pt JAX Log West Cherry Pt Log West	1,098 955 139 28 1,477 0 658 23 75 0 0 0 4 55 268 142 42 49 90 90 90 90 90 90 90 90 90 9	10 11 11 2 0 0 14 14 15 16 0 0 0 0 0 0 0 0 0 12 12 12 13 14 14 15 16 16 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	624 0.56 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	52,73 28.31 24.78 3.60 0.77 38.08 0.00 36.36 15.55 4.19 0.00 0.00 0.00 0.01 0.91 0.91 0.93 0.83 0.83 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.9	720.84 392.04 393.00 49.83 10.25 527.17 0.00 105.54 44.27 12.05 0.00 0.00 0.00 8 9.17 4.34 2.33 8.06 0.00 0.00 0.00 0.00 0.00 0.00 0.00	23.85 4 12.79 2 11.20 2 1.63 0.33 0.33 0.30 0.30 0.353 2 1.150 0.00 0.00 0.00 0.00 0.00 0.00 0.0		11, 479 10,048 10,048 1,459 300 15,436 0 2,789 995 297 0 0 0 9 9 970 459 246 853	0.75 11.31 0.04 0.54 1.31 0.05 1.31	.388	0.00 15 0.00 77 0.00 8 0.00 15 0.00 15 0.00 15 0.00 0 0 0.00 141 0.01 41 0.01 41 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 2 0.00 24 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2	50. 50 16.09 16.09 16.09 16.09 0.00 0.00 0.00 128.59 34.26 14.54 0.00 0.00 0.00 0.00 0.00 0.00 0.00	S42,72         27,50           A22,75         72,73           A22,76         72,73           A39,48         12,38           0,00         0,00           0,00         0,00           2,029,70         66,21           0,00         0,00           372,84         12,48           97,35         3,31           41,76         1,41           0,00         0,00           0,00         0,00           0,00         0,00           11,86         0,46           0,00         0,00           1,57         0,06           0,00         0,00           44,89         1,77           0,00         0,00           43,68         0,38           1,25         0,00           0,00         0,00	55.85 55.85 25.33 0.00 0.00 0.00 101.19 26.55 11.32 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	4.95 1.31 2.23 0.00 0.00 0.00 11.90 0.00 9.97 2.56 1.12 0.00 0.00 0.00 0.00 0.00 0.00 0.00	4,669 6,522 0 11,110 0 0 0 59,765 (2,145 1,013 0 0 1,256 0 0 1,256 0 0 4,754 (3,145) 0 0 1,505	0.75 11.31 0.04 0.54 0.18 2.69 0.02 0.27 0.04 0.54 0.09 0.00	0.38 0.09 0.001 0.01 0.01 0.02 0.00 0.00 0.01 0.01	0,20 0,02 0,02 0,03 0,00 3,15 0,07 0,20 0,00	0.07   325   0.00   15   0.00   0.0
WACAPES CHEETY PT JAX  Key West GOMEX Outside RCS T-AOE Northeast VACAPES ACAPES ACAPES Outside RCS T-AOE Northeast VACAPES Outside RCS T-ARS Northeast VACAPES Cherry Pt JAX Key West GOMEX Outside RCS T-ARS Northeast VACAPES Cherry Pt JAX Key West GOMEX Outside RCS T-AFF Northeast VACAPES Cherry Pt JAX Key ACAPES COMEX Outside RCS T-AFF Northeast VACAPES COMEX Outside RCS T-AFF Northeast VACAPES CHERRY PT JAX Key West CHERRY PT JAX Key West CHERRY PT JAX Key West	1,098 955 139 28 1,477 0 658 283 75 0 0 0 0 4 4 555 269 142 49 99	10 11 11 2 0 0 14 14 15 16 0 0 0 0 0 0 0 0 0 12 12 12 13 14 14 15 16 16 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	624 0.56 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	52,73 24,78 24,78 3,60 0,00 36,86 0,000 15,55 4,19 0,000	720.84 392.04 393.20 49.83 49.83 10.22 527.17 0.00 10.554 44.27 12.05 0.00 0.00 0.00 0.00 1.23 8.06 0.00 0.00 12.23 0.00 12.23 0.00 10.05	22.85 4 12.79 2 11.20 2 11.20 2 1.63 0.33 17.20 3 0.00 0.33 17.20 3 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0		11, 479 10,048 10,048 1,459 300 15,436 0 2,789 995 297 0 0 0 9 9 970 459 246 853	0.75 11.31 0.04 0.54 0.18 2.69 0.02 0.27 0.04 0.54 0.09 0.00	3.38 0.32	0.00 15 0.00 8 0.00 8 0.00 9 0.00 9 0.00 9 0.00 15 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 2 0.00 0 0.00 2 0.00 0 0.00 2 0.00 0 0.00 2 0.00 0 0.00 2 0.00 1 0.00 1 0.00 1 0.00 1 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 1 0.00 2 0.00 0 0.00 1 0.00 0	50. 50 16.09 16.09 17.39 0.00 0.00 0.00 146.60 0.00 125.59 34.26 14.54 0.00 0.00 0.00 0.00 0.00 0.00 0.00	S42,72         27,50           A22,75         72,73           A22,76         72,73           A39,48         12,38           0,00         0,00           0,00         0,00           2,029,70         66,21           0,00         0,00           372,84         12,48           97,35         3,31           41,76         1,41           0,00         0,00           0,00         0,00           0,00         0,00           11,86         0,46           0,00         0,00           1,57         0,06           0,00         0,00           44,89         1,77           0,00         0,00           43,68         0,38           1,25         0,00           0,00         0,00	55.85 55.85 25.33 0.00 0.00 0.00 101.19 26.55 11.32 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	4.95 1.31 2.23 0.00 0.00 11.50 0.00 11.50 0.00 11.50 0.00 0.0	4,754 1,555 1,552 0,	0.75 11.31 0.64 0.54 0.18 2.69 0.02 0.27 0.04 0.54 0.59 0.50 0.02 0.77 0.04 0.54 0.00	0.38 0.09 0.001 0.01 0.01 0.02 0.00 0.00 0.01 0.01	0,20 0,02 0,02 0,03 0,00 3,15 0,07 0,20 0,00	0.07   925
WACAPES Cherry Pt JAX Key West GOMEX Outside RCS T-ADE Northeast VACAPES Cherry Pt JAX Key West GOMEX Outside RCS T-ARS Northeast VACAPES Cherry Pt JAX AND	1,098 955 139 28 1,477 0 658 283 75 0 0 0 0 4 4 555 269 142 49 99	10 11 11 2 0 0 14 14 15 16 0 0 0 0 0 0 0 0 0 12 12 12 13 14 14 15 16 16 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	624 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.56	52,73 28.31 24.78 3.60 0.77 38.08 0.00 36.36 15.55 4.19 0.00 0.00 0.00 0.01 0.91 0.91 0.93 0.83 0.83 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.9	720.84 392.04 393.00 49.83 10.25 527.17 0.00 105.54 44.27 12.05 0.00 0.00 0.00 8 9.17 4.34 2.33 8.06 0.00 0.00 0.00 0.28.26 77 10.85	23.85 4 12.76 2 11.20 2 1.63 3.31 17.20 3 0.00 0.33 17.20 3 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0		11, 479 10,048 10,048 1,459 300 15,436 0 2,789 995 297 0 0 0 9 9 970 459 246 853	0.75 11.31 0.04 0.54 0.18 2.69 0.02 0.27 0.04 0.54 0.09 0.00	.388	0.00 15 0.00 77 0.00 8 0.00 15 0.00 0 9 0.00 17 0.00 0 0 0.00 141 0.00 0 0 0.00 0 0 0.00 0 0 0.00 0 0 0.00 24 0.00 24 0.00 2 0.00 24 0.00 2 0.00 7	50. 50 16.09 16.09 16.09 16.09 0.00 0.00 0.00 128.59 34.26 14.54 0.00 0.00 0.00 0.00 0.00 0.00 0.00	842.72         27.50           22.75         7.27           379.48         12.38           0.00         0.00           0.00         0.00           2,029.70         66.21           0.00         0.00           372.84         12.48           97.35         3.31           41.76         1.41           0.00         0.00           0.00         0.00           0.00         0.00           11.86         0.46           0.00         0.00           1.76         1.77           0.00         0.00           0.00         0.00           0.00         0.00           1.76         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00	55.85 5.85 25.13 0.00 0.00 0.00 134.33 0.00 101.19 26.35 11.32 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	4.95 1.31 2.23 0.00 0.00 0.00 11.90 0.00 9.97 2.56 1.12 0.00 0.00 0.00 0.00 0.00 0.00 0.00	4,656 6,522 11,110 0 59,430 0 9,756 2,145 1,013 0 0 0 1,255 0 0 1,255 0 0 1,255 0 0 1,255 0 0 1,255 0 0 0 0 0 0 0 0 0 0 0 0 0	0.75 11.31 0.04 0.54 0.18 2.69 0.02 0.27 0.04 0.54 0.09 0.00	0.38 0.09 0.00 0.00 0.01 0.00 0.00 0.00 0.00	0,20 0,02 0,02 0,04 0,00 3,15 0,07 0,00	0.07   325   0.00   15   0.00   0.0

1 Steaming hours provided by the US Navy, AFTT Gray Ship Steaming Hours for Air Analysis.docx, 12 September, 2016.

TAB E: Training in State Waters

#### State Waters Activities<sup>1</sup>

				T	otal Annual Ho	urs			
						Саре			GOMEX/
	NE -		Ches Bay +		JAX /St Johns/	Canaveral/			Corpus
Vessel Type	Naragansett	VACAPES	Trib	Charleston	Mayport	SE FL	Panama City	Key West	Christie
RCB	5,458	124	35,051	0	2,226	4,952	20	66	2,226
LCAC	0	3,198	5,979	0	0	0	0	0	0
DDG	0	780	0	0	0	0	0	0	0
LCU/LCM	0	1,160	1,426	0	0	0	0	0	0
RIB (Zodiac)	8,472	3,202	20,074	12,651	2,734	600	75	0	2,202
Mark V	3,232	390	36,770	0	200	4,352	75	0	152
CRRC	2,202	228	3,072	0	2,402	600	75	0	2,202
PC	0	780	50	0	0	0	0	0	0
TATE	0	170	795	0	0	0	0	0	0
TARS	0	218	795	0	0	0	0	0	0
HSMST	0	C	36	0	0	0	0	0	0

#### EMISSIONS BY AREA

EIVII 331 ON 3 BT AREA						
Vessel Type NE - Naragansett Bay, RI	voc	co	NO <sub>x</sub>	SO <sub>x</sub>	PM10/PM2.5	CO <sub>2</sub>
Riverine Command - RC MPDE	3.07	7.67	74.78	11.13	1.80	4342
LCAC (SSGTG/MPGT)(80/3955)	0	0	0	0	0	0
DDG (SSGTG/MPGT)	0	0	0	0	0	0
LCU/LCM	0	0	0	0	0	0
RIB (Zodiac)	0.25	1.44	38.72	6.10	0.64	4,930
Mark V	1.70	21.36	115.51	25.29	1.86	9,144
CRRC	0.03	0.20	1.09	0.13	0.09	96
PC	0	0	0	0	0	0
TATF	0	0	0	0	0	0
TARS	0	0	0	0	0	0
HSMST	0	0	0	0	0	0
Total Emissions in Tons	5.0	30.7	230.1	42.6	4.4	18,513

Vessel Type VA Capes	voc	co	NO <sub>x</sub>	SO <sub>x</sub>	PM10/PM2.5	CO <sub>2</sub>
RCB	0.07	0.17	1.70	0.25	0.04	98.65
LCAC	5.58	29.30	183.17	61.31	6.87	33,094
DDG	1.56	23.29	44.66	24.24	1.15	10,750
LCU/LCM	0.30	21.00	26.07	1.80	0.91	977
RIB (Zodiac)	0.10	0.54	14.63	2.31	0.24	1,863
Mark V	0.20	2.58	13.94	3.05	0.22	1,103
CRRC	0.00	0.02	0.11	0.01	0.01	10
PC	2.35	131.57	28.93	6.41	0.87	2,994
TATF	0.18	1.56	8.87	0.66	0.08	306
TARS	0.14	0.35	3.51	0.74	0.10	372
HSMST	0	0	0	0	0	0
Total Emissions in Tons	10.5	210.4	325.6	100.8	10.5	51,568

Chesapeake Bay & Tributaries	voc	co	NO <sub>x</sub>	SO <sub>x</sub>	PM10/PM2.5	CO <sub>2</sub>
RCB	19.71	49.27	480.23	71.48	11.57	27,886
LCAC	10.43	54.78	342.46	114.62	12.85	61,873
DDG	0	0	0	0	0	0
LCU/LCM	0.37	25.82	32.05	2.22	1.12	1,201
RIB (Zodiac)	0.60	3.41	91.74	14.45	1.51	11,682
Mark V	19.30	243.05	1,314.16	287.73	21.14	104,030
CRRC	0.04	0.28	1.53	0.18	0.12	134
PC	0.15	8.43	1.85	0.41	0.06	192
TATE	0.84	7.32	41.47	3.11	0.36	1,429

TARS	0.50	1.27	12.80	2.69	0.35	1,356
HSMST	0.00	0.03	0.12	0.00	0.00	4
Total Emissions in Tons	51.9	393.7	2,318.4	496.9	49.1	209,787

Vessel Type Charleston	voc	co	NO <sub>x</sub>	SO <sub>x</sub>	PM10/PM2.5	CO <sub>2</sub>
RCB	0	0	0	0	0	0
LCAC	0	0	0	0	0	0
DDG	0	0	0	0	0	0
LCU/LCM	0	0	0	0	0	0
RIB (Zodiac)	0.38	2.15	57.82	9.11	0.95	7,362
Mark V	0	0	0	0	0	0
CRRC	0	0	0	0	0	0
PC	0	0	0	0	0	0
TATF	0	0	0	0	0	0
TARS	0	0	0	0	0	0
HSMST	0	0	0	0	0	0
Total Emissions in Tons	0.4	2.2	57.8	9.1	0.9	7,362

Vessel Type JAX/ St John/ Mayport	voc	co	NO <sub>x</sub>	SO <sub>x</sub>	PM10/PM2.5	CO <sub>2</sub>
RCB	1.25	3.13	30.50	4.54	0.74	1,771
LCAC	0	0	0	0	0	0
DDG	0	0	0	0	0	0
LCU/LCM	0	0	0	0	0	0
RIB (Zodiac)	0.08	0.46	12.49	1.97	0.21	1,591
Mark V	0.11	1.32	7.15	1.57	0.12	566
CRRC	0.03	0.22	1.19	0.14	0.10	105
PC	0	0	0	0	0	0
TATF	0	0	0	0	0	0
TARS	0	0	0	0	0	0
HSMST	0	0	0	0	0	0
Total Emissions in Tons	1.5	5.1	51.3	8.2	1.2	4,033

Vessel Type Cape Canaveral / SE FL	voc	co	NO <sub>x</sub>	SO <sub>x</sub>	PM10/PM2.5	CO <sub>2</sub>
RCB	2.78	6.96	67.85	10.10	1.64	3,940
LCAC	0	0	0	0	0	0
DDG	0	0	0	0	0	0
LCU/LCM	0	0	0	0	0	0
RIB (Zodiac)	0.02	0.10	2.74	0.43	0.05	349
Mark V	2.28	28.77	155.54	34.05	2.50	12,313
CRRC	0.01	0.05	0.30	0.03	0.02	26
PC	0	0	0	0	0	0
TATE	0	0	0	0	0	0
TARS	0	0	0	0	0	0
HSMST	0	0	0	0	0	0
Total Emissions in Tons	5.09	35.88	226.43	44.62	4.21	16,628

Vessel Type Panama City	voc	co	NO <sub>x</sub>	so <sub>x</sub>	PM10/PM2.5	CO <sub>2</sub>
RCB	0.01	0.03	0.27	0.04	0.01	16
LCAC	0	0	0	0	0	0
DDG	0	0	0	0	0	0
LCU/LCM	0	0	0	0	0	0
RIB (Zodiac)	0.00	0.01	0.34	0.05	0.01	44
Mark V	0.04	0.50	2.68	0.59	0.04	212
CRRC	0.00	0.01	0.04	0.00	0.00	3
PC	0	0	0	0	0	0
TATE	0	0	0	0	0	0

TARS	0	0	0	0	0	0
HSMST	0	0	0	0	0	0
Total Emissions in Tons	0.1	0.5	3.3	0.7	0.1	275

Vessel Type Key West	voc	co	NO <sub>x</sub>	SO <sub>x</sub>	PM10/PM2.5	CO <sub>2</sub>
RCB	0.04	0.09	0.90	0.13	0.02	53
LCAC	0	0	0	0	0	0
DDG	0	0	0	0	0	0
LCU/LCM	0	0	0	0	0	0
RIB (Zodiac)	0	0	0	0	0	0
Mark V	0	0	0	0	0	0
CRRC	0	0	0	0	0	0
PC	0	0	0	0	0	0
TATF	0	0	0	0	0	0
TARS	0	0	0	0	0	0
HSMST	0	0	0	0	0	0
Total Emissions in Tons	0.0	0.1	0.9	0.1	0.0	53

Vessel Type GOMEX/ Corpus Christie	voc	co	NO <sub>x</sub>	SO <sub>x</sub>	PM10/PM2.5	CO <sub>2</sub>
RCB	1.25	3.13	30.50	4.54	0.74	1,771
LCAC	0	0	0	0	0	0
DDG	0	0	0	0	0	0
LCU/LCM	0	0	0	0	0	0
RIB (Zodiac)	0.07	0.37	10.06	1.59	0.17	1,281
Mark V	0.08	1.00	5.43	1.19	0.09	430
CRRC	0.03	0.20	1.09	0.13	0.09	96
PC	0	0	0	0	0	0
TATF	0	0	0	0	0	0
TARS	0	0	0	0	0	0
HSMST	0	0	0	0	0	0
Total Emissions in Tons	1.4	4.7	47.1	7.4	1.1	3,579

<sup>&</sup>lt;sup>1</sup> State water activities provided by US Navy, AFTT Inshore Events\_08Feb2017\_NAEMO WEB.xlsx

#### TAB F: AIRCRAFT EMISSIONS

		. Altern		Alten	native 2			Alterna	inser					Alterna	uve z		
			Cruise <sup>1</sup>		Cruise <sup>1</sup>			Annual Emis	ions in Tons	3				Annual Emiss	ions in Tons		
		LTOs (#)1	(Hrs)	LTOs (#)1	(Hrs)	voc	со	NOx	SO2	PM <sub>10/2.5</sub>	CO2e	voc	со	NOx	SO2	PM <sub>10/2.5</sub>	CO2
8/EA-18G	VACAPES	58	37	58	37	1.45	6.76	2.67	0.42	1,20	587	1.45	6.76	2.67	0.42	1.20	_
0,211200	GOMEX				5	0.00	0.01	0.24	0.04	0.11	52	0.00	0.01	0.24	0.04	0.11	
	JAX	491	41	491	41	12.24	56.84	9.34	1.53	4.28	2097	12.24	56.84	9.34	1.53	4.28	
	Key West	0		0	0	0	0	0	0	0	0	0	0	0	0	0	
	Northeast	0	C	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cherry Pt	157	24	157	24	3.92	18.20	3.54	0.57	1.61	790	3.92	18.20	3.54	0.57	1.61	
	Panama City	0		137	0	0.02	0	0.54	0.57	0	7,50	0.02	0.20	0.54	0.57	1.01	
	VACAPES	58	37	58	37	0.22	18.61	9.22	2.36	1.30	3713	0.22	18.61	9.22	2.36	1.30	
5	GOMEX				5	0.03	2.43	1.11	0.31	0.17	467	0.03	2.43	1.11	0.31	0.17	
	JAX	491	41	491	41	0.33	24.13	17.01	3.10	1.47	5759	0.33	24.13	17.01	3.10	1.47	
	Kev West	0	C	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Northeast	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cherry Pt	157	24	157	24	0.17	13.24	7.97	1.69	0.87	2905	0.17	13.24	7.97	1.69	0.87	
	Panama City	0	C	0	0	0	0	0	0	0	0	0	0	0	0	0	
	VACAPES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12	GOMEX	0		0	0	0	0	0	0	0	0	0	0	0	0	0	_
	JAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Key West	0		0	0	0	0	0	0	0	0	0	0	0	0	0	
	Northeast	0	C	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cherry Pt	110		110		0.00	0.17	0.39	0.11	0.07	163.4	0.00	0.17	0.39	0.11	0.07	1
	Panama City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	VACAPES		15		15	0.02	0.07	0.31	0.08	0.15	119	0.02	0.07	0.31	0.08	0.15	
	GOMEX		15		15	0.02	0.07	0.31	0.08	0.15	119	0.02	0.07	0.31	0.08	0.15	
	JAX		53		53	0.06	0.23	1.07	0.28	0.51	410	0.06	0.23	1.07	0.28	0.51	
	Key West	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Northeast		8		8	0.01	0.03	0.16	0.04	0.08	61	0.01	0.03	0.16	0.04	0.08	
	Cherry Pt		4	4	4	0.00	0.02	0.08	0.02	0.04	31	0.00	0.02	0.08	0.02	0.04	
	Panama City	0	C	0	0	0	0	0	0	0	0	0	0	0	0	0	
	VACAPES		64		64	0.07	1.10	7,45	0.77		1088	0.07	1.10	7.45	0.77	0.00	
	GOMEX	0	C	0	0	0	0	0	0	0	0	0	0	0	0	0	_
	JAX		185		185	0.21	3.17	21.40	2.20		3124	0.21	3.17	21.40	2.20	0.00	
	Key West	0	C	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Northeast		42		42	0.05	0.73	4.91	0.51		718	0.05	0.73	4.91	0.51	0.00	
	Cherry Pt		16		16	0.02	0.28	1.89	0.19		276	0.02	0.28	1.89	0.19	0.00	
	Panama City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	VACAPES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	_
-8B	GOMEX	0		0	0	0	0	0	0	0	0	0	0	0	0	0	
	JAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Key West	0		0	0	0	0	0	0	0	0	0	0	0	0	0	
	Northeast	0	C	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cherry Pt	107	3	107	3	0.46	2.64	0.49	0.15	0.41	211	0.46	2.64	0.49	0.15	0.41	
	Panama City	0		0		0	0	0	0	0	0	0	0	0	0	0	
	VACAPES	64	14,149	64	19,914	4.99	53.36	54.41	18.88	35.70	27395	7.01	74.97	76.54	26.56	50.23	38
50	GOMEX	-	2,469		2,517	0.86	9.25	9.48	3.29	6.22	4770	0.88	9.43	9.66	3.35	6.34	
-	JAX	129	2,447	129		0.94	9.80	9.57	3.33	6.28	4836	1.17	12.28	12.10	4.21	7.94	
	Key West		243		816	0.08	0.91	0.93	0.32	0.61	470	0.29	3.06	3.13	1.09	2.06	
	Northeast		1,843		3,315	0.64	6.91	7.07	2,45	4.64	3561	1.16	12.43	12.73	4,41	8.35	
	Cherry Pt	234	612	234	612	0.37	3.43	2.67	0.95	1.75	1377	0.37	3.43	2.67	0.95	1.75	
	Panama City		2,252		2,664	0.79	8.44	8.65	3,00	5,67	4352	0.93	9,99	10.23	3,55	6,71	
	VACAPES	<del></del>	1,812	1	2,004	0.79	8.35	85.02	0.00	0.61	13807	0.39	8.35	85.02	0.00	0.61	1
3	GOMEX	0	1,812	_		0.39	0.35	65.02	0.00	0.01	13607	0.39	8,35 0	65.02	0.00	0.01	1
•	JAX	U	342	· ·	U	0.07	1.58	16.05	0.00	0.12	2607	0.07	1.58	16.05	0.00	0.12	
	Key West	0	342			0.07	1.38	10.05	0.00	0.12	2007	0.07	1.58	10.05	0.00	0.12	_
	Northeast	0		1 0	0	0	0	0	0	0	- U	0	0	0	0	- 4	
	Cherry Pt	·	250	1 "	, u	0.05	1.15	11.73	0,00	0.08	1905	0.05	1.15	11.73	0,00	0.08	
		-	250			0.05	1.15	11.75		0.08	1902	0.05		11./3	0.00	0.08	
	Panama City	0		0	0	0	0	0	0	0	0	0	0	0	0	0	
	VACAPES		398			0.02	0.14	0.80	0.31	0.58	442	0.02	0.14	0.80	0.31	0.58	_

UH-1	GOMEX	0	0	(	0	0	0	0	0	0	0	0	0	0	0	0	0
	JAX		118			0.01	0.04	0.24	0.09	0.17	131	0.01	0.04	0.24	0.09	0.17	131
	Key West		24			0.00	0.01	0.05	0.02	0.03	27	0.00	0.01	0.05	0.02	0.03	27
	Northeast	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cherry Pt		27			0.00	0.01	0.05	0.02	0.04	30	0.00	0.01	0.05	0.02	0.04	30
	Panama City	0	0	(	0	0	0	0	0	0	0	0	0	0	0	0	0
	VACAPES	0	0	(	0	0	0	0	0	0	0	0	0	0	0	0	0
AH-1	GOMEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	JAX		2			0.00	0.01	0.00	0.00	0.00	3	0.00	0.01	0.00	0.00	0.00	3
	Key West	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Northeast	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0
	Cherry Pt		.5			0.00	0.02	0.01	0.00	0.01	7	0.00	0.02	0.01	0.00	0.01	7
	Panama City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VACAPES		13			0.00	0.02	0.15	0.02	0.00	31	0.00	0.02	0.15	0.02	0.00	31
Learjet	GOMEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	JAX	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0
	Key West	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Northeast	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cherry Pt	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0
	Panama City	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0

		l .			rnative 1	·			Ι.			Alternative 2			
		Cruise <sup>1</sup>		Ai	nnual Emissions	in Tons			Cruise			Annual Emiss	sions in Tons		
		(Hrs)	voc	со	NOx	SO2	PM <sub>10/2.5</sub>	CO2e	(Hrs)	VOC	со	NOx	SO2	PM <sub>30/2.5</sub>	CO2e
H-60	Northeast	0	0	0	0	0	0	C	0	0	0	0	0	0	0
	VACAPES	523	0.18	1.96	2.01	0.70		1011	523	0.18	1.96		0.70	1.32	1,011
	Cherry Pt	2	0.00	0.01	0.01	0.00	0.01	5	2	0.00	0.01	0.01	0.00	0.01	5
	JAX	159	0.06	0.60	0.61	0.21	0.40	307	159	0.06	0.60	0.61	0.21	0.40	307
	Key West									0.00	0.00	0.00	0.00	0.00	0
	GOMEX	20	0.01	0.07	80.0	0.03	0.05	39	20	0.01	0.07	0.08	0.03	0.05	39
	Panama City	2,252	0.79	8.44	8.65	3.00	5.67	4352	2,664	0.93	9.99	10.23	3.55	6.71	5,148
H-53	Northeast	0	0	0	0	0	0	C	0	0	0	0	0	0	0
	VACAPES	392	0.08	1.81	18.40	0.00	0.13	2988	392	0.08	1.81	18.40	0.00	0.13	2,988
	Cherry Pt	0	0	0	0	0	0	C	0	0	0	0	0	0	0
	JAX	0	0	0	0	0	0	C	0	0	0	0	0	0	0
	Key West	0	0	0	0	0	0	C	0	0	0	0	0	0	0
	GOMEX	0	0	0	0	0	0	C	0	0	0	0	0	0	0
	Panama City	0	0	0	0	0	0	C	0	0	0	0	0	0	0
UH-1	Northeast	0	0	0	0	0	0	C	0	0	0	0	0	0	0
	VACAPES	0	0	0	0	0	0	C	0	0	0	0	0	0	0
	Cherry Pt	0	0	0	0	0	0	C	0	0	0	0	0	0	0
	JAX	0	0	0	0	0	0	C	0	0	0	0	0	0	
	Key West	0	0	0	0	0	0	C	0	0	0	0	0	0	0
	GOMEX	0	0	0	0	0	0	C	0	0	0	0	0	0	0
	Panama City	0	0	0	0	0	0	C	0	0	0	0	0	0	0
AH-1	Northeast	0	0	0	0	0	0	C	0	0	0	0	0	0	0
	VACAPES	0	0	0	0	0	0	C	0	0	0	0	0	0	0
	Cherry Pt	22	10.90	193.56	101.92	40.77	77.13	59060	22	10.90	193.56	101.92	40.77	77.13	59,060
	JAX	0	0	0	0	0	0	C	0	0	0	0	0	0	0
	Key West	0	0	0	0	0	0	C	0	0	0	0	0	0	0
	GOMEX	0	0	0	0	0	0	C	0	0	0	0	0	0	0
	Panama City	0	0	0	0	0	0	c	0	0	0	0	0		e c

<sup>1</sup> Data on LTOs and Cruise time provided by USNavy, NAVAIR Assumptions.docx, Marine Corps Training Cycle.xlsx, C2X sorties hours.xlsx, IKE C2X.xlsx. AFTT Training Air Analysis.xlsx.

Atlantic Fleet	
<b>Training and Testing Draft EIS</b>	/OEIS

TABG:	MUNITION E	MISSIO NS																																												
MUNITION EMISSIO	NS ESTIMATES	- TESTING AN	D TRAINNO	a - OFFSHORÉ																																										
Category	Location – R Comple	ange Tes	Annual) I ining & iting vities	Items (Annual) for Training & Testing Activities		En	mission Factors	(lb/item)							Em	issions (lb/ Alternative	rear) 1								Emissions Alternati								Emission Alten	s (lb/year) native 2								Emissions Alternati				
Secret.		- ACL	_	Alternative 2	со	NO x	voc s	50 x	PM 10	PM2.5	CO2	Pb	ω	NO	x V	oc s	Ox	PM 10	PM2.5	C02	Р	b	ω	NOx	<b>УОС</b>	50 x	PM 10	PM2.5	CØ 2	Pb	ω	NOx	Aoc	50 x	PM 10	PM2.5	CØ2	Pb		со	NOx	УОС	SOx P	PM 10	PM2.5	CO2 Pb
Bombs (High Explosive)	Northeast / Newport		0	0		0.0000		0.0000	0.0000						0.00	0.00	0.00	0.00	0.0		0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00		0	.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Virginia Cape Cherry Pt. Jacksonville	5	78 0 50	78 0 50	61.0000 61.0000	0.0000	0.0000			0.000	0.000	0.0000	3050	0.00	0.00 0.00 0.00	0.00 0.00	0.00	0.00 0.00 0.00	0.0 0.0 0.0	0 0	0.00	0.00	2.4 0.0 1.5	0.0 0.0 0.0	0.0 0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0	4758.00 0.00 3050.00	0.00	0.00 0.00 0.00	0.00 0.00 0.00	00.0 00.0 00.0		0	.00 .00 .00	0.00 00.00 00.0	0.0 1.5	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0
	Key West		0	0		0.0000		0.0000	0.0000	0.000			244	4.00	0.00	0.00	0.00	0.00	0.0		0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	244.00	0.00	0.00	0.00	0.00	0.00	0	.00	0.00	0.1	0.0	0.0	0.0	0.0	0.0	0.0
	Panama City Other AFTT	Total 1	4 12 44	4 12 144	61.0000	0.0000	0.0000	0.0000	0.0000	0.000	0.000	0.0000	732	2.00	0.00	0.00	0.00	0.00	0.0	0 (	0.00	0.00	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	732.00	0.00	0.00	0.00	0.00	0.00	0	.00	0.00	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Projectiles Small Caliber	Northeast / N		Т		0.00	280E-05	0.00	0.00	9.80E-05	8.80E-0	5 00	0 1.206-09	. 7/	452	1.16	0.00	0.00	406	3.6		5.94	0.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	74.5 2	1.16	0.00	0.00	4.06	364	86	94	0.50	0.0	0.0	0.0	0.0	0.0	- 00	0.0
	Newport Virginia Cape Cherry Pt.	s 3,88 8.38	,475	41,400 3,887,550 838,475		280E-05	0.00	0.00	9.80E-05 9.80E-05	8.80E-0 8.80E-0	5 0.0	0 1.20E-05 0 1.20E-05	6997 1509	7.59 1/	1.15 08.85 23.48	0.00	0.00	380.98 82.17	342.1 73.7	0 8161	1.80	46.65 10.06	3.5	0.1	0.0	0.0	0.2	0.0	2 4.1	0.0	6997.59 1509.26	108.85	0.00	0.00	380.98 82.17	342.10 73.79	8163. 1760.	.86 4	16.65 10.06	35	0.1	0.0	0.0	0.2	0.2	4.1
	Jacksonville Key West		2,075 300	1,442,075 4,800	0.00		0.00			8.80E-0 8.80E-0		0 1.20E-0	2595 8		40.38 0.13	0.00	0.00 0.00	141.32 0.47	126.9 0.4	0 3026		17.30 0.06	0.0	0.0	0.0	0.0	0.1	0.0	1.5	0.0	2595.74 8.64	40.38 0.13	0.00	0.00	141.32 0.47	2 126.90 0.42	3028. 10		0.06	1.3 0.0	0.0	0.0	0.0	0.1	0.1	0.0
	GOMEX / NSI Panarna City Other AFTT	NC 262	300	26 2, 300 0 6,476,600	0.00	2805-05	0.00		9.80E-05	8.80E-0		0 1.20E-0	472	2.14	7.34	0.00	0.00	25.71	23.0		0.83	3.15	0.2	0.0	0.0	0.0	0.0	0.0	0.3	0.0	472.14	7.34	0.00	0.00	25.71	23.08	550.	.83	3.15	0.2	0.0	0.0	0.0	0.0	0.0	0.3
Medium Caliber (High Explosive)	Northeast / N		5,600	6,476,600		0.0015		0.0000	0.0033						5.79	0.00	0.00	12.74	6.5			0.19	5.8	0.1	0.0	0.0	0.3	0.3	6.8	0.0	328.10	5.79	0.00	0.00	12.74	6.56	165	98	0.19	5.8	0.1	0.0	0.0	0.3	0.3	
(nigii exprosive)	Newport Virginia Cape Cherry Pt.	3,1 5 82	582 560	3,860 82,582 26,560	0.085	0.0015	0.0000	0.0000	0.0033	0.001	7 0.04	3 0.000049	70.19	9 47 1	23.87	0.00	0.00	27252	140.3 45.1	9 355	L03	4.05	3.5	0.1	0.0	0.0	0.1	0.1	1.8	0.0	70.19.47	12387	0.00	0.00	272.52 87.69	2 140.39 45.15	3551.	.03	4.05	35	0.1	0.0	0.0	0.1	0.1	1.8
	Jackson ville Key West	73, 3,	560 812 360	26,560 73,812 3,360	0.0850	0.0015 0.0015	0.0000	0.0000	0.0033	0.001	7 0.043			5.60	5.04	0.00	0.00	87.65 243.58 11.09	45.1 125.4 5.7	1 14	1.48	3.6.2 0.16	3.1 0.1	0.1	0.0	0.0	0.1	0.0	1.6 0.1	0.0	285.60	110.72 5.04	0.00	0.00 0.00	243.58 11.09	125.48 5.71	3173. 144.	92	3.62 0.16	3.1 0.1	0.1	0.0	0.0	0.1	0.1	1.6 ( 0.1 (
	GOMEX / NS/ Panama City Other AFTT		510	9,610 1,350	0.0850	0.0015	0.0000	0.0000.0	0.0033			0.000049	816	5.85 4.75	14.42	0.00	0.00	31.71	16.3		3.23	0.47	0.4	0.0	0.0	0.0	0.0	0.0	0.2	0.0	816.85 114.75		0.00	0.00	31.71	15.34	413. 58		0.47	0.4	0.0	0.0	0.0	0.0	0.0	0.2
Medium Caliber (No Explosive Practice	Northeast / Newport	Total 201	,134	201,134		0.0015	0.0000	0.0000	0.0033	0.001			855		15.09	0.00	0.00	33.20	17.1			0.07	8.5 0.4	0.0	0.0	0.0	0.0			0.0	855.10		0.00	0.00	33.20		432	-	0.49	8.5	0.0	0.0	0.0	0.0	8.2 0.0	
Munitions)	Virginia Cape Cherry Pt. Jackson ville	s 1,04	0,429	1,0 40,429 366,734 676,594	0.0850	0.0015 0.0015 0.0015		0.000.0 0.000.0 0.000.0	0.0033	0.001	7 0.043 7 0.043 7 0.043	0.000		5.47 15 2.39 5 3.49 10	50.10	0.00 0.00 0.00	0.00 0.00	3433.42 1210.22	1768.7 623.4 1150.2	5 15769	.56	50.98 17.97	44.2 15.6	0.8	0.0	0.0	1.7 0.6	0.9	22.4 7.9 14.5	0.0	31172.39	1560.64 550.10 1014.89		0.00 0.00	3433.42 1210.22	623.45	15 769	56 1	50.98 17.97 33.15	44.2 15.6 28.8	0.8 0.3	0.0	0.0	1.7 0.6	0.9 0.3	22.4 ( 7.9 ( 14.5 (
	Key West	88,	660	88,660	0.0850	0.0015	0.0000	0.0000	0.0033	0.001	7 0.043	0.0001	75.36	5.10 1	32.99 89.94	0.00	0.00	2232.76 292.58 197.87	150.7	2 381:	- 1	4.34	3.8	0.1	0.0	0.0	0.1	0.1	1.9	0.0	75 36.10 50 96.60	132.99	0.00	0.00	2232.76 292.58 197.87	1150.21 150.72 101.93	3812. 2578.	.38	4.34	3.8	0.1	0.0	0.0	0.1	0.1	1.9
	Panama City Other AFTT	59, 21	960 250	59,960 21,250 2,263,687	0.0850	0.0015	0.0000	- 1		l			1	5.25	31.88	0.00	0.00	70.13	36.1		- 1	1.04	0.9	0.0	0.0	0.0						31.88	0.00	0.00	70.15				1.04	0.9	0.0	0.0	0.0	0.0	0.0	
Large Caliber (High Explosive)	Northeast / Newport		3,687	132	0.0970	0.0160	0.0000	0.0000	0.1700	0.093	0 1.400	0.000	12	2.80	2.11	0.00	0.00	22.44	12.2	8 18	1.80	0.09	96.2 0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1280	2.11	0.00	0.00	22.44	12.28	184.	.80	0.09	96.2 0.0	0.0	0.0	0.0	0.0	0.0	0.1
	Vinginia Cape Cherry Pt. Jackson ville	8	88	6,261 888 7,496		0.0160		0.0000.0	0.1700 0.1700 0.1700	0.093	0 1.400 0 1.400 0 1.400	0.000	86	7.32 1/ 5.14 1.29 1	00.18 14.21 18.98	0.00 0.00	0.00	1064.37 150.96 1264.12	582.2 82.5 691.5	8 1243	3.20	4.32 0.61	0.3 0.0	0.1 0.0	0.0	0.0	0.5 0.1	0.3 0.0	8 4.4 0 0.6	0.0	86.14	100.18 14.21 118.98	0.00 0.00 0.00	0.00 0.00 0.00	1064.37 150.96 1264.12	582.27 82.58 691.55	1243.	.20	4.32 0.61 5.13	0.3 0.0	0.1 0.0	0.0	0.0	0.5 0.1	0.3 0.0 0.3	4.4 ( 0.6 ( 5.2 (
	Key West		436 32	7,436 832	0.0970	0.0160	0.0000	0.0000	0.1700	0.093	1.400	0.000	80	0.70	13.31	0.00	0.00	218.11	691.5 77.3 119.3		1.80	0.57	0.0	0.0	0.0	0.0	0.1	0.0	0.6	0.0	80.70 124.45	118.98 13.31 20.53	0.00	0.00	141.44 218.11	77.38	1164	80	0.57	0.0	0.0	0.0	0.0	0.1	0.0	0.6
	Panarna City Other AFTT	1,	28.3 96 128	1,283 296 17,128		0.0160		0.0000	0.1700		0 1.400				4.74	0.00	0.00	50.32	27.5			0.20	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	28.71	4.74	0.00	0.00	50.32	27.53	414.		0.20	0.0	0.0	0.0	0.0	0.0	0.0	0.2 (
Large Caliber (Non- Explosive Practice Munition)	Northeast / Newport	iuwo	76.1	1.761	0.0000	0.0000	0.0000	0.0000	0.0000	0.000	0.000	0.000		0.00	0.00	0.00	0.00	0.00	0.0	0 (	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0	.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Wallbolly	Virginia Cape Cherry Pt. Jackson ville	s 11,		11,9 49 3,5 34 15,9 12	0.0000 0.0000 0.0000	0.0000	0.0000 0.0000 0.0000	0.0000	0.0000	0.000	0.000	0.0001	0	0.00	0.00	0.00	0.00 0.00	0.00	0.0	0 (	0.00 0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00 0.00 0.00	0.00	0.00	0.00	0.00	0.00	0	.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Key West	3,	190	3,190	0.0000	0.0000	0.0000	0.000.0	0.0000	0.000	0.000	0.0001	0 0	0.00	0.00	0.00	0.00	0.00	0.0	0 (	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0	.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Panama City Other AFTT	3,1	59 2 96	3,692 196 40,234	0.0000	0.0000	0.0000	0.0000	0.0000	0.000	0.000	0.0000		0.00	0.00	0.00	0.00	0.00	0.0	0 0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0	.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rockets (High Explosive)	Northeast / Newport		0	0	1.5000	0.0260	0.0000	0.0000	0.1100	0.100	2.400	0 0.0510	0	0.00	0.00	0.00	0.00	0.00	0.0	0 (	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0	.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Virginia Cape Cherry Pt. Lacksonville		460 76 530	1,460 76 1,530	1.5000	0.0250 0.0250 0.0260	0.0000	0.000.0 0.000.0 0.000.0	0.1100 0.1100 0.1100	0.100	2.400	0.0510	114	0.00 4.00 5.00	37.96 1.98 39.78	0.00 0.00 0.00	0.00 0.00	160.60 8.36 168.30	146.0 7.6 153.0	0 18:	2.40	74.46 3.88 78.03	1.1 0.1	0.0	0.0	0.0	0.1	0.0	1.8 0.1	0.0	2190.00 114.00 2295.00	198	0.00 0.00 0.00	0.00 0.00 0.00	150.60 8.36 168.30	145.00 7.60 153.00	182.	.40	74.46 3.88 78.03	0.1	0.0	0.0	0.0	0.1	0.1	1.8 ( 0.1 ( 1.8 (
	Key West	-	0	0	1.5000	0.0260	0.0000	0.000.0	0.1100	0.100	2.400	0.0510	114	0.00	0.00	0.00	0.00	0.00	7.6	0 (	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	114.00	0.00	0.00	0.00	0.00	0.00	182	.00	3.88	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Panama City Other AFTT		76 0 142	76 0 3,142		0.0260		0.0000	0.1100					0.00	0.00	0.00	0.00	0.00	0.0		0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00		0	.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0 (
Rockets (Non- Explosive)	Northeast / Newport		0	0	0.5300	0.0000	0.0000	0.0000	0.1600	0.170	4.800	0 0.0700	0	0.00	0.00	0.00	0.00	0.00	0.0	0 (	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0	.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Vinzinia Cape	s 3) 3	846 04 595	3,8 46 30 4 3,6 95	0.5300 0.5300 0.5300 0.5300	0.0000 0.0000 0.0000	0.0000	0.0000 0.0000 0.0000	0.1600 0.1600 0.1600	0.170 0.170 0.170	0 4.800 0 4.800 0 4.800	0 0.0700 0 0.0700 0 0.0700	20 38 161 1958	3.38 1.12 3.35	0.00	0.00 0.00 0.00	0.00	615.36 48.64 591.20	653.8 51.6 628.1	2 18460 8 1459 5 17736	.20	269.22 21.28 258.65	1.0 0.1 1.0	0.0 0.0	0.0	0.0	0.3 0.0 0.3	0.3 0.0 0.3	9.2 0.7 8 8.9	0.1 0.0 0.1	20 38.38 161.12 1958.35	0.00 00.0 00.0	0.00 0.00 0.00	0.00 0.00 0.00	615.36 48.64 591.20	653.82 51.68 628.15	18 460 1 459 17736		59.22 21.28 58.65	1.0 0.1 1.0	0.0 0.0	0.0 0.0	0.0	0.3 0.0 0.3	0.3 0.0 0.3	9.2 ( 0.7 ( 8.9 (
			0	0											0.00	0.00	0.00	0.00	0.0	0 (	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0	.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	GOMEX / NS Panama City Other AFTT	3	04	304	0.5300	0.0000	0.0000	0.0000	0.1600	0.170	0 4.800 0 4.800	0 0.0700	161	1.12		0.00	0.00	48.6 4 0.00	51.6	8 1459	- 1	0.00	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	161.12		0.00	0.00				- 1	0.00	0.1	0.0		0.0	0.0	0.0	0.0
Pyrotechnic Buoys (e.g. MK-58 Marine	Mosth over / A	iuwo .			0.8900	0.0028	0.0220	0.0032	30.0000	23.000	0.510	0.0160	170	- 1	- 1	4.22	- 1	5760.00	4416.0		- 1	3.07	0.1	0.0	0.0	0.0	2.9	2.2	19.6 0.0	0.3	170.88	l		0.61	5 760.00	4415.00	97	92	3.07	0.1	0.0	0.0	0.0	2.9	2.2	0.0
(Marker)	Virginia Cape Cherry Pt.	s 10,	196 32 263	10,196 332 1,263	0.8900 0.8900 0.8900 0.8900	0.0028 0.0028 0.0028	0.0220 0.0220 0.0220	0.0032 0.0032 0.0032	30,0000 30,0000 30,0000	23,000 23,000 23,000	0.510 0.510	0 0.016	90.74 295	5 48	0.93	7.30 27.79	32.63 3 1.06 4.04 0.00	9960.00	234508.0 7636.0 29049.0	0 169	0.32	163.14 5.31 20.21	4.5 0.1 0.6	0.0	0.1 0.0	0.0		3.8	2.5 0.1 0.3	0.0	90.74.44 295.48 11.24.07 0.00	28.55 0.93 35.4	224.31 7.30 27.79 0.00	32.63 1.06 4.04 0.00	305880.00 9960.00 37890.00	234508.00 7636.00 29049.00	169	32	5.31 5.31	4.5 0.1 0.6	0.0 0.0	0.1 0.0	0.0	15 2.9 5.0 18.9	117.3 3.8 14.5 0.0	2.6 0 0.1 0 0.3 0
	Jacksonville Key West GOMEX / NS		0	0	l I	0.0028		0.0032	30.0000		1				0.00 0.85	27.79 0.00 6.67	0.00	9090.00	29049.0 0.0 6969.0	0 (	0.00	20.21 0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	269.67			0.00	9090.00	29049.00 0.00 6969.00	644. 0 154.		0.21 0.00 4.85	0.0	0.0	0.0	0.0	0.0	0.0	0.3 (
	Panarna City Other AFTT	3	03 24	303 24 12,310	0.8900										0.07			720.00	552.0		2.24	0.38	0.0	0.0	0.0		0.4	0.3	0.0		21.36			0.08	720.00				0.38	0.0	0.0	0.0	0.0	0.4	0.3 141.6	0.0
Gren ades	Northeast / Newport	iuwo			0.0008	0.0007	0.0000	0.0260	0,0700	0.049	0.011	0.000		0.24	0.20	0.00	7.88	21.21	14.8	s	3.33	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.03	0.07	0.05	. 0	.01	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Virginia Cape Cherry Pt.		70 28 28 0	70 28 28 0	8000.0 8000.0 8000.0 8000.0 8000.0	0.0007 0.0007 0.0007	0.0000 0.0000 0.0000	0.0260 0.0260 0.0260	0.0700 0.0700 0.0700	0.049 0.049 0.049	0 0.011 0 0.011 0 0.011	0.000 0.000 0.000	0	0.24 0.24 0.24	0.20 0.20 0.20 0.20	0.00 0.00 0.00 0.00	7.88 7.88 7.88 7.88	21.21 21.21 21.21	14.8 14.8 14.8	5	3.33 3.33 3.33 3.33	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00.0	0.00 0.00 0.00 0.00	00.0 00.0 00.0	0.03 0.03 0.03	0.07	0.05	0	01 01	00.0 00.0 00.0	0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0	0.0
I	Jacksonville Key West		0	0	0.0008	0.0007	0.0000	0.0260	0.0700	0.049	0.011	0.000	l è	0.24	0.20	0.00	7.88 7.88	21.21 21.21	14.8 14.8	s :	3.33	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.03	0.07	0.05	0	.01	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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																																				Т	Т	Т			-	
	GOMEX / NSWC	1										0.24	0.20	0.00	7.88	21.21	14.85	3.33	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0								1	0.0	.0 0	0.0	0.0	0.0	0.0	0.0
	Panarna City	28	28	0.0008	0.0007	0.0000	0.0260	0.0700	0.049	0.011	0.0000																	0.00	0.00	0.00	0.03	0.07	0.05	0.0	1 0	.00		$oldsymbol{}$			-	
	Other AFTT	0	0	0.0008	0.0007	0.0000	0.0260	0.0700	0.049	0 0.011	0.0000	0.24	0.20	0.00	7.88	21.21	14.85	3.33	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.03	0.07	0.05	0.0	1 0	0.0		J.0 0.0	4 0.0	0.0	0.0	0.0
	Tota	210	210																	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0									0.5	.0 0	0.0	0.0	0.0	0.0	0.0
Flares	Northeast / NUW	o c	1				l					l		1						l I															1		٠ امد	00 00	al ac	اه ا	1 00	0.0
		0	0	0.0013	0.0001	0.0004	0.0000	0.0062	0.006	2 0.011	0.0000	0.39	0.04	0.12	0.00	1.88	1.88	3.33	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.	30			0.0	1 0.0		0.0
	Virginia Capes	1,000	1,000	0.0013	0.0001	0.0004	0.0000	0.0062	0.006	2 0.011	0.0000	0.39	0.04	0.12	0.00	1.88	1.88	3.33	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.	JO 0.1	, O r	J.0 0.C	3.0	0.0	0.0	0.0
	Virginia Capes Cherry Pt.	22,300	22,300	0.0013	0.0001	0.0004	0.0000	0.0052	0.006	2 0.011	0.0000	0.39	0.04	0.12	0.00	1.88	1.88	3.33	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.	JO 0.1	.0 r	J.0 0.0	0.0	0.0	0.0	0.0
	Jacksonville	38,000	38,000	0.0013	0.0001	0.0004	0.0000	0.0062	0.006	2 0.011	0.0000	0.39	0.04	0.12	0.00	1.88	1.88	3.33	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.	JO 0.1	, <u>0</u> r	0.0	9.0	0.0	0.0	0.0
	Key West	31,000	31,000	0.0013	0.0001	0.0004	0.0000	0.0062	0.006	2 0.011	0.0000	0.39	0.04	0.12	0.00	1.88	1.88	3.33	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.	JO 0.1	, <u>o</u>	0.0	9.0	0.0	0.0	0.0
		1	1				l					l		1						l I															1		1			,		
	GOMEX / NSWC	1										0.39	0.04	0.12	0.00	1.88	1.88	3.33	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0								1	0.1	.0 r	3.0 0.0	3.0	0.0	0.0	0.0
	Panarna City	1,840	1,840	0.0013	0.0001	0.0004	0.0000	0.0062	0.006	2 0.011	0.0000			1						l I								0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.	.00	1			,		
	Other AFTT	0	0	0.0013	0.0001	0.0004	0.0000	0.0062	0.006	2 0.011	0.0000	0.39	0.04	0.12	0.00	1.88	1.88	3.33	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.	JO 0.1	, <u>0</u> _ r	0.0	9.0	0.0	0.0	0.0
	Tota	94,140	94,140																	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0									0.0	.0 0	0.0	0.0	0.0	0.0	0.0
Illumination Flares	North east / NUW	0																																		T					1 00	
	Newport	0	0	0.0110	0.0031	0.0003	0.0001	0.1200	0.120	0.140	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.	.00	″I °		0.0	0.0	0.0	0.0
1	Newport Virginia Capes	20,235	20,235	0.0110	0.0031	0.0003	0.0001	0.1200	0.120	0.140	0.0000	222.59	62.73	6.68	1.48	2428.20	2428.20	2832.90	0.09	0.1	0.0	0.0	0.0	1.2	1.2	1.4	0.0	222.59	62.73	6.68	1.48	2428.20	2428.20	2832.9	0.	.05 0	.1 (	J.0 0.0	0.0	1.2	1.2	1.4
1	Cherry Pt.	48	48	0.0110	0.0031	0.0003	0.0001	0.1200	0.120	0.140	0.0000	0.53	0.15	0.02	0.00	5.76	5.76	6.72	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.53	0.15	0.02	0.00	5.76	5.76	6.7	2 0)	.00 0	10 r	J.0 0.0	1.0	0.0	0.0	0.0
1	Jacksonville	48	48	0.0110	0.0031	0.0003	0.0001	0.1200	0.120	0.140	0.0000	0.53	0.15	0.02	0.00	5.76	5.76	6.72	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.53	0.15	0.02	0.00	5.76	5.76	6.7	2 0	JO 0.1	,0 r	J.0 0.C	3.0	0.0	0.0	0.0
1	Key West	0	0	0.0110	0.0031	0.0003	0.0001	0.1200	0.120	0.140	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0)	JO 0.	.0 0	J.0 0.0	0.0	0.0	0.0	0.0
1											1									1																				1 7		
1	GOMEX / NSWC	I	1			1	1		l	1	1	I		1	i I					I I															1	0.1	.a r	J.0 0.0	J 0.E	0.0	0.0	0.0
		6.28	628	0.0110	0.0031	0.0003	0.0001	0.1200	0.120	0.140	0.0000	6.91	1.99	0.21	0.05	75.36	75.36	87.92	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.91	195	0.21	0.05	75.36	75.36	87.9	2 0	.00				1 '		
1	Panarna City Other AFTT	0	0	0.0110	0.0031	0.0003	0.0001	0.1200	0.120	0.140	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0)	JO 0	r	J.0 0.r	J 0.r	0.0	0.0	0.0
		20,959	20 959																			0.0																0.0 0.0	0.0	1.3		1.5

MUNITION EMISSIO	N ESTIMATES - STAT	E WATERS																																									_
Category	Location – Range Complex	Testing	tems (Annual) for Training & Testing			Emission Fa	octors (lb/ite	m)						Emission Alterr	i (lb/year) ative 1							Emissions Alternat								Emissions Altern								Emissions Alternat					
		Activities	Activities Alternative 2	60	No.	L woc	I 60.	PM10	I DMAG	L con	I 04	~	I No.	I was	I co-	05410	PM2.5	L 603	n.	- 00	No.	wac I	SO x	05430 I	DMA C I	600 I	DL DL	· · ·	No. I	wac I	60 × 1	D1430	nwar I	con I		60	No. I	уос	co. I r	00410 L r	Mar I	coa I na	4
Small Caliber		ARE MATINE 1	Afternative 2	co	NO x	Aoc	50 x	PENTO	PM2.5	CO2	Pb	w	NO x	voc	SOx	NEW TO	PM2.5	C02	Pb	co	NOx	Aoc	501	PEALU	PM2.5	CO 2	PB	co	NOx	Aoc	50 x	PMIU	PM2.5	CO2	Pb	CO	NUX	70C	SUE I	78A 10 P	m2.5	CO2 Pb	Э.
	North east / NUWC											14.98	0.23	0.00	0.00	0.82	0.73	17.47	0.1	0								14.98	0.23	0.00	0.00	0.82	0.73	17.47	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Newport	8,320	8,320	1.80E-03	280E-05	0.00E+0	0.00E+00	9.80E-05	8.80E-05	2.10E-0	3 1.20E-05									0.0075	0.0001	0.0000	0.0000	0.0004	0.0004	0.0087	0.0000									1 1							
	Virginia Capes/											235.44	366	0.00	0.00	1282	11 51	274.68	15	7								235.44	366	0.00	0.00	12.82	11 51	274 68	15	7 0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0
	ChesBay + Trib	130,800	130,800	1.80E-03	2.80E-05	0.00E+0	0.00E+00	9.80E-0	8.80E-05	2.10E-0	3 1.20E-05		1	1						0.1177	0.0018	0.0000	0.0000	0.0064	0.0058	0.1373	8000.0									1				$\rightarrow$			7
	Pt./Charleston	5,100	5,100	1.80E-03	280E-05	0.00E+0	0.006+00	9.80E-05	8.80E-05	2.10E-0	3 1.206-05	9.18	0.14	0.00	0.00	0.50	0.45	10.71	0.0	0.0046	0.0001	0.0000	0.0000	0.0002	0.0002	0.0054	0.0000	9.18	0.14	0.00	0.00	0.50	0.45	10.71	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Jacksonville/ C											23.04	0.30	0.00	0.00	1.20	1.12	26.88	0.1	c								23.04	0.26	0.00	0.00	1.26	1 19	20.00	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Canaveral	12,800	12,800	1.80E-03	280E-05							23.0	0.30	0.00	0.00	123	1.10		0.1	0.0115	0.0002	0.0000	0.0000	0.0006	0.0006	0.0134	0.0001	200	0.50	0.00	0.00	1.2	1.15	20.00	0.1	1 "	0.0	0.0	0.0	0.0	0.0	0.0	
	Key West	-	0	1.80E-03	280E-05	0.00E+0	0.00E+00	9.80E-0	8.80E-05	2.10E-0	3 1.20E-05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	GDMEX / NSWC											0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0								0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Panarna City			1.80E-03		0.00E+0		9.80E-0	8.80E-05	2.10E-0	3 1.20E-05									0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000																_
	Other AFTT Total	157,020	157,020		280E-05	5 0.00E+0	0.00E+00	9.80E-0	8.80E-05	2.10E-0	3 1.20E-05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.0000		0.0000	0.0000	0.0000	0.0000		0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pyrotechnic Buoys	10.00	157,02	157,020	1 1		1	1	1	1	1	1		1	1	1 1	1		ı		0.3	I "I	1 0.0	0.0	0.0	0.0	0.2	0.0	1	1	- 1	- 1	1	- 1	- 1		0.1	0.0	0.0	0.0	0.0	0.0	0.2	7.0
(e.g. MK-58 Marine	Northeast / NUWC Newport	65	. 69	0.8900	0.0028	0.022	0.0032	20,000	28,000	0.510	0.0160	57.85	0.18	1.43	0.21	1950.00	1495.00	33.15	1.0	0.0389	0.0001	0.0007	0.0001	0.9750	0.7475	0.0166	0.0005	57.85	0.18	1.43	0.21	1950.00	1495.00	33.15	1.0	0.0289	0.0001	0.0007	0.0001	0.9750	0.7475	0.0166 0.00	0.05
Marker)	Virginia Capes/	0.	1		0.0020		0.000		25.000	0.520	0.0100	605.20	100		0.40	20400.00	15640.00	346.80	40.0	0.0200	0.0000	0.0007	0.0002	0.5750	0.7475	0.0200	0.0003	605.20	4.00	4405	040	20 400.00	15640.00	346.80	40.0		0.0002	0.0007	0.0001	0.5750	0.7475	0.0100	~
	Ches Bay + Trib	680	680	0.8900	0.0028	0.022	0.0032	30.000	23.0000	0.510	0.0160	005.20	1.50	14.50	2.10	20400.00	15040.00	346.60	10.0	0.3026	0.0010	0.0075	0.0011	10.2000	7.8200	0.1734	0.0054	605.20	1.90	14.96	2.10	20400.00	15040.00	340.00	10.0	0.3026	0.0010	0.0075	0.0011	10.2000	7.8200	0.1734 0.00	<i>i</i> 54
	Pt./Charleston			0.8900	0.0028	0.022	0.0032	30,000	23,000	0.510	0.0160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	ann
	Jacksonville/ C											53.40	0.13	1 12	0.19	1800.00	1380.00	30.60	0.0									53.40	0.17	1 22	0.19	1800.00	1380.00	30.60	0.0								_
	Canaveral Key West	60	60	0.8900	0.0028		0.0032		23,0000			33.40		1.5	0.15	1500.00	1360.00	30.00	0.9	0.0267	0.0001		0.0001	0.9000	0.6900	0.0153	0.0005	0.00	0.17	2.02	0.19		1360.00	0.00	0.54	0.0267	0.0001	0.0007	0.0001			0.0153 0.00	
	Key West	,	1	0.8900	0.0028	8 0.022	0.0032	30,000	23,000	0.510	0.0160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000 0.00	,00
	GOMEX / NSWC											0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0								0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0								
	Panama City		0	0.8900	0.0028	0.022	0.0032	30.000	23.0000	0.510	0.0160									0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000									0.0000	0.0000	0.0000				0.0000 0.00	JOD
	Other AFTT	000	000	0.8900	0.0028	0.022	0.0032	30.000	23.0000	0.510	0.0160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.0000		0.000.0			0.0000			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.0000	0.0000		0.0000		0.0000	0.0000 0.00	/00
Flares (Illumin at ion)	1011	805	805										1	1		1		ı		0.4	I 0.0	I 0.0	0.0	12.1	9.3	0.2	0.0									0.4	0.0	0.0	0.0	12.1	9.3	0.2	1.0
	Northeast / NUWC							0.120			0.0000		0.00	0.00	0.00	0.00																											
	Newport Virginia Capes/			0.0110	0.0031	1 0.000	3 0.0001	0.120	0.120	0.140	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000 0.00	/00
	Ches Bay + Trib	20,400	20,400	0.0110	0.0031	0.000	0.0001	0.120	0.120	0.140	0.0000	224.40	63.24	6.73	1.49	2448.00	2448.00	2856.00	0.0	0.1122	0.0316	0.0034	0.0007	1.2240	1.2240	1.4280	0.0000	224.4000	63.2400	6.7320	1.4892	2448.0000	2448.0000	2856.0000	0.046	0.11.22	0.0316	0.0034	0.0007	1.2240	1.2240	1.4280 0.00	JOD
	Cherry												I		I																												]
1	Pt./Charleston Jacksonville/ C	-	4	0.0110	0.0031	1 0.000	3 0.0001	0.120	0.120	0.140	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	U.U000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000 0.00	-00
	Canaveral			0.0110	0.0031	0.000	0.0001	0.120		0.140		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000 0.00	
1	Key West		0	0.0110	0.0031	0.000	3 0.0001	0.120	0.120	0.140	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000 0.00	/00
1	GDMEX / NSWC	ı	1			1				1			1							I																1							
	Panama City			0.0110	0.0031							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000	0.0000	0.0000	0.0000				0.0000 0.00	
1	Other AFTT	(	0	0.0110	0.0031	0.000	3 0.0001	0.120	0.120	0.140	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0			0.0000						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000				0.0000			0.0000 0.00	100
	Total																			0.1		0.0		1.2	1.2	1.4													0.0	1.2	1.2	1.41	

Munitions Usage Estimates provided by US Navy, AFTT Training Air Analysis.xisx (March 29), AFTT Inshare Events\_08Feb 2017\_NAEMO Web.xisx, Appendix F, Draft AFTT ElS May 2017

| Cherry Pt. | 178 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0

Ship/Boat Type	Vessel Mode			Emission Propulsion E	ns Factors (I Ingines + Ge				221	
pp book rape	Lozimode	HC	co	NOx		PM10/2.5	CO2	Engine model <sup>1</sup>	Engines	Use <sup>1</sup>
Nuclear Aircraft Carrier - Nimitz Class	CVN-1	0.31	1.23	16.73	1.39	0.12	683.62			
Carrier - Nimitz Class	CVN-R	0.03	0.12	1.65	0.14	0.01	67.61	16-645E5	4	Emergency Diesel Generator
Guided Missile									_	Shire Conductor Con Turking Consented
Cruiser - Ticonderoga	CG-68	4.32	61.51	79.58	54.5	2.25	24,190.71	501-K17 LM2500	4	Ship Service Gas Turbine Generator Gas Turbines
Guided Missile	CG-R	2.46	27.73	285.54	109.99	10.04	69,838.52			
Destroyer - Arleigh	DDG-51	4.01	59.72	114.52	62.15	2.96	27,564.55	501-K34	Ι.	Chia Cantan Car Turkina Carana
Burk Class	DDG-51R	2.39	30.57	374.80	134.53	12.27	85141	LM2500	4	Ship Service Gas Turbine Generator Gas Turbines
Guided Missile Destroyer - Zumwalt	DDG-1000	1.90	33.45	158.67	59.76	5.75	37,074.37	MT-5	2	Emergency Diesel Generator  Auxiliary Turbine Generator Main
Class	DDG-1000R	2.86	45.65	64.80	29.91	4.05	24,051.17	MT-30	2	Turbine Generator
								16PA6B-STC	1 2	Main Propulsion Diesel Engine
Littoral Combat Ship	LCS-1	3.19	46.14	186.77	49.63	6.67	25,512.41	MT-30 V1708	4	Main Turbine Generator Ship Service Diesel Generator
Torpdeo Retrieval	LCS-1R	6.12	79.12	152.6	23.27	7.40	11,115.68			
Boats Replaced by	LSD 44	10.84	21.25	334.51	24.6	2.17	16,263.96	38D8-1/8	4	Ship Service Diesel Generator
Dock Landing Ship	LSD 44R	20.43	40.02	604.28	45.39	2.17	21,126.47	PC2.5V	4	Main Propulsion Diesel Engine
Amphibious Assault Ship - America Class	LHA-6	14.48	8.38	277.87	66.87	8.38	35,922.07	12PA6B	6	Ship Service Diesel Generator
snip- America class					47.97		28/5916	LM2500+	2	Main Turbine Generator
Amphibious Assault	LHA-6R LHD-5	15.15 5.77	18.73	199.99 47.83	47.97 95.12	5.84 28.57	28,05 9.16 47,632.68	Boiler	_	
Ship - Wasp	LHD-5R	5.10	7.66	47.63	120.70	24.23	47,490.25	16-251C	2	Emergency Diesel Generator
Landing Transport	LPD-19	16.86	31.61	272.28	37.54	3.29	16,767.15	3608 (Tier I)		Ship Service Diesel Generator
Dock - San Antonio Class								PC25STC	4	Main Propulsion Diesel Engine
Patrol Coastal	LPD-19R	14.95	28.08	263.75	32.98	2.81	15,025.58		4	Main Propulsion Diesel Engine Ship
	PC-14 PC-14R	6.02 7.22	43.15	74.18 78.36	16.43 17.51	2.24	7,676.62 8,054.32	16RP200M 3306B	2	Service Diesel Generator
Joint High Speed	POIAN	1.22	45.15	76.30	17.31	2.37	0,004.32			
Vessel (JHSV) or Expeditionary Fast	JHSV-1	17.13	384.26	745.63	113.53	36.23	54,28750		4	Main Propulsion Diesel Engine
Transport (FRF)	JHSV-1R	4.65	100.83	200.57	30.32	9.80	14,530.65	20V8000M71L 3406	4	Ship Service Diesel Generator
Amphibious Combat	LCC 20				36.49	10.96		Boiler 3808-		
Command (LCC)		2.23	2.96	19.10			20,27 2.00	1/8	2	Emergency Diesel Generator
MV Deloros Chouest	LCC 20R	2.19	2.96	17.38	36.40	10.95	18,217.39	3306	- 2	Ship Service Diesel Generator
	MV DC	3.73 2.64	6.82 4.95	133.74 86.92	11.60 36.40	2.04	5,072.73 18.217.39	3608TA	2	Main Propulsion Diesel Engine
SS GN	SS GN-728	0.07	0.11	4.05	0.23	0.02	132.35	38D8-1/8	1	Emergency Diesel Generator
SSN	SSGN-728R SSN-774	0.01	0.01	0.40	0.02	0.00	12.98 81.42	35128 (Tier I)	1	Emergency Diesel Generator
T-AH	SSN-774R	0.00	0.01	0.09	0.02	0.00	8.00	Boiler		
I-AH	AH-19	6.82	13.73	103.87	72.21	20.28	35,773.75	12V 25/30	a	Ship Service Diesel Generator
	AH-19R	6.83	13.71	101.56	71.91	20.05	35,663.29	18V 20/27 3508	1	Auxiliary Diesel Generator
TAKE	T-AKE-5	29.73	10.28	302.32	36.75	4.67	17,236.10	35168 HD 8L48/60 9L	1 2	Emergency Diesel Generator
	T-AKE-5R	12.00	5.31	86.45	11.23	0.99	5,368.46	48/60	2	IPG
TAO	. , , , , , , , , , , , , , , , , , , ,		0.00			0.00		16V-92IA 8163-7305	1	Emergency Diesel Generator
	T-AO-189	23.26	51.51	713.11	47.19	4.18	20,880.33	18-251F PC4.2V	2 2	Ship Service Diesel Generator Main Propulsion Diesel Engine
TAGE	T-AO-189R	17.96	35.91	538.70	39.08	3.45	15,482.22	3608	-	Ship Service Diesel Generator
IAOL	T-AOE-8	10.60	109.76	311.32	84.23	8.32	6,744.69	LM2500	4	Main Propulsion Gas Turbine
TARS	T-AOE-8R T-ARS-52	5.85 1.27	35.08	445.24 32.21	134.08	12.22	81,478.38 3,410.91	D399(M)	4	Main Propulsion Diesel Engine
	T-ARS-52R	0.82	3.20	38.12	8.10	0.69	3,975.10	D399(S)	3	Ship Service Diesel Generator
TATF	T-ATF-172	2.11	18.41	104.32	7.82	0.91	3,594.48	16V-71T 7163-7305	3	Ship Service Diesel Generator
	T-ATF-1.72R	259	13.35	139.75	10.24	1.07	4,845.75	20-645E7	2	Main Propulsion Diesel Engine
Landing Craft Air	LCAC	3.49	18.32	11455	38.34	4.30	20697	Legacy: 4- Allied-Signal	TF-40 gas ti	urbines (2 propulsion / 2 lift); 16,000 h
Cushion Landing Craft Utility	LCU	0.52	36.21	44.95	3.11	1.57	1,683.91			win shaft, 690 hp sustained,
Amphibious Assault Vehicle	AAV-2	0.82	0.76	6.22	1.25	0.26				ins VT 400 903 (P-7A1)
Mark V Rigid Inflatable Boat	MK V-3	1.05	13.22	71.48	15.65	1.15	5,658.42	2x 2285 HP MTU 12V3		
(zodiac)	RIB-4	0.06	0.34	9.14	1.44	0.15	1,163.88	Dual Caterpillar 31260	OITA, 6 in-lin	e cylinder diesel, turbocharged, after
Combat Rubber Raiding Craft	CRRC	0.0244	0.1808	0.9945	0.1166	0.0814	87.23	55	HP 2-stroke	engine gas diesel
Ulah Encod			_					1		-

GPH = specific fuel consumption constant X HP/ Fuel specific weight

SFC diesel = 0.4

SFC gas = 0.5

FSW diesel = 7.2

FSW gas = 6.1

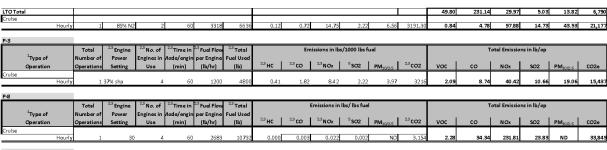
0.138 MM8tu/gal diesel 161.5 lb/MM8tU 22.287 lb CO2/gal diesel

Ship/Boat Type	Vessel Mode				ns Factors (II Engines + Ge				# <sup>1</sup>	
		HC	co	NOx	SOx	PM10/2.5	CO2	Engine model <sup>1</sup>	Engines	Use <sup>1</sup>
LCU	76	GPH								
										<b>I</b>
MKV	254	GPH								
MK V RIB		GPH GPH								
		GPH	lb/hp-hr							
RIB	52	GPH		\$02	PM	002				
RIB  EFs for small craft <sup>2</sup>	52	GPH CO	NOx			002 1.0654218				

TAB I: MUNITION EMISSION FACTORS<sup>1</sup>

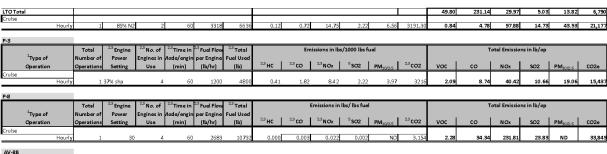
	Study Area					<b>Emission Facto</b>	r (lb/item)			
Туре	Category	DODEC ID	CO <sub>2</sub>	со	NO <sub>x</sub>	voc	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	Pb
.50 CAL Blank	Small cal	A557	0.0021	0.0018	0.000028	0	0	0.000098	0.000088	0.000012
25 MM	medium cal	M793	0.043	0.085	0.0015	0	0	0.0033	0.0017	0.000049
81 MM HE Cartridge	large cal	C256	1.4	0.097	0.016	0	0	0.17	0.093	0.00069
2.75 In Rocket HE	rocket	H163	0.7	0.4	0.0056	0	0	0.24	0.12	0.0006
2.75 in Rocket (Practice)	rocket	H974	4.8	0.53	0	0	0	0.16	0.17	0.07
Floating Smoke Pot	for marine marker	K867	0.51	0.89	0.0028	0.022	0.0032	30	23	0.016
Grenade	grenade	G900	0.021	0.0008	0.00067	0.00000032	0.026	0.07	0.049	0.011
Flare	CM flare	L410	0.011	0.0013	0.00013	0.0004	0.0000079	0.0062	0.0062	0
Flare	III. Flare	L311	0.14	0.011	0.0031	0.00033	0.000073	0.12	0.12	0.0000023
2.75 In Rocket fleschette	rocket	H459	2.4	1.5	0.026	0	0	0.11	0.1	0.051

<sup>&</sup>lt;sup>1</sup>Emission Factors from USEPA AP-42 Section 15 (various dates)



AV-8B																		
	Total	<sup>2</sup> Engine	<sup>2</sup> No. of	<sup>2</sup> Time in	<sup>2</sup> Fuel Flow	<sup>2</sup> Total		Emission	s in lbs/100	lbs fuel				Te	otal Emissio	nsin Ib/op		
<sup>3</sup> Type of	Number of	Power	Engines in	/lode/engin	per Engine	Fuel Used												
Operation	Operations	Setting	Use	(min)	(lb/hr)	(IЬ)	<sup>2</sup> HC	<sup>2</sup> co	<sup>2</sup> NOx	<sup>4</sup> SO2	PM <sub>10/2.5</sub>	³co2	voc	co	NOx	SO2	PM <sub>10/2.5</sub>	CO2e
Short Takeoff																		
APU Use		ON	1	. 5	197	16.4	0.25	2	6.25	2.22	0.22	3170	0.0	0.0	0.1	0.0	0.0	53
Start/Warm-up	1	26% RPM	1	10	1137	189.5	19.66	106.3	1.8	2.22	11.1	2919	3.7	20.1	0.3	0.4	2.1	55
Unstick		40% RPM	1	0.3	1786	8.9	3.67	65.7	2.5	2.22	9.1	3040	0.0	0.6	0.0	0.0	0.1	2
Taxi Out	1	26% RPM	1	. 5	1137	94.8	19.66	106.3	1.8	2.22	11.1	2919	1.9	10.1	0.2	0.2	1.1	27
Engine Run-up	1	59% RPM	1	0.5	3321	27.7	1.26	25.5	4.5	2.22	6.4	3114.5	0.0	0.7	0.1	0.1	0.2	8
Takeof	1	91% RPM	1	0.5	9441	78.7	0.35	3.6	12.7	2.22	2.5	3151.8	0.0	0.3	1.0	0.2	0.2	24
Climbout	. 1	95% RPM	1	0.5	7037	58.6	0.49	6.4	9.5	2.22	3.5	3153.6	0.0	0.4	0.6	0.1	0.2	18.
Vertical Landing Straight In														0.0				
Approach	1	79% RPM	1	2.5	6381	265.9	0.54	7.7	8.6	2.22	3.8	3144	0.1	2.0	2.3	0.6	1.0	836
Set up for VL	. 1	84% RPM	1	1.5	5785	144.6	0.61	9.3	7.8	2.22	4.2	3141.2	0.1	1.3	1.1	0.3	0.6	454
VL Landing	1	99% RPM	1	0.75	12258	153.2	0.26	2.2	16.5	2.22	1.9	3155	0.0	0.3	2.5	0.3	0.3	483
On Runway	1	26% RPM	1	0.3	1137	5.7	19.66	106.3	1.8	2.22	11.1	2919	0.1	0.6	0.0	0.0	0.1	17
Unstick	1	40% RPM	1	0.3	1786	8.9	3.67	65.7	2.5	2.22	9.1	3040	0.0	0.6	0.0	0.0	0.1	27
Taxi In/Shut down	1	26% RPM	1	. 5	1137	94.8	19.66	106.3	1.8	2.22	11.1	2919	1.9	10.1	0.2	0.2	1.1	27
LTO Total													8.5	47.2	8.5	2.5	6.9	3,522
Cruise																		
Hourly	1	67% RPM	1	60	4313	4313.0	0.88	16	5.9	2.22	5.3	3130	4.0	69.0	25.4	9.6	22.9	13,499

MV-22													
		Emission Indi	ces (lb per 1	,000 lb fuel)				Total	missions in	lb/op			
	Fuel Used												
Flight Mode	(lbs)	HC	co	NOx	SO <sub>2</sub>	PM <sub>10/2.5</sub>	CO <sub>2</sub>	VOC	co	N Ox	SO <sub>2</sub>	PM <sub>10/2.5</sub>	CO2
Short Take Off													
APU	103.3	0.19	5.89	5.95	2.22	0.22	3,235	0.02	0.61	0.61	0.23	0.02	334
Start/Warm up	60	0.1	8.9	4.09	2.22	1.58	3,221	0.01	0.53	0.25	0.13	0.09	193
Warm up	220	0.02	3.33	6.02	2.22	1.58	3,219	0.00	0.73	1.32	0.49	0.35	708
Taxi Out	110	0.02	3.33	6.02	2.22	1.58	3,219	0.00	0.37	0.66	0.24	0.17	354
Engine Run up	17.2	0.02	1.58	8.41	2.22	1.58	3,216	0.00	0.03	0.14	0.04	0.03	55
Takeoff	68.7	0.01	0.45	15.06	2.22	1.58	3,208	0.00	0.03	1.03	0.15	0.11	220
FW Climbout	54.7	0.01	0.69	12.35	2.22	1.58	3,211	0.00	0.04	0.68	0.12	0.09	176
Vertical Landing													
FW Approach	121.0	0.02	1.20	9.57	2.22	1.58	3,215	0.00	0.15	1.16	0.27	0.19	389
Transition (90°) Landing	43.7	0.02	1.04	10.22	2.22	1.58	3,214	0.00	0.05	0.45	0.10	0.07	140
Taxi to apron	66.0	0.02	3.33	6.02	2.22	1.58	3,219	0.00	0.22	0.40	0.15	0.10	212
Cool/Shut down	24.0	0.1	8.90	4.09	2.22	1.58	3,221	0.00	0.21	0.10	0.05	0.04	77
APU	34.4	0.19	5.89	5.95	2.22	0.22	3,235	0.01	0.20	0.20	0.08	0.01	111



AV-8B																		
	Total	<sup>2</sup> Engine	<sup>2</sup> No. of	<sup>2</sup> Time in	<sup>2</sup> Fuel Flow	<sup>2</sup> Total		Emission	s in lbs/100	) lbs fuel				Т	otal Emissio	ns in Ib/op		
<sup>1</sup> Type of	Number of	Power	Engines in	/lode/engin	per Engine	Fuel Used												
Operation	Operations	Setting	Use	(min)	(lb/hr)	(ІЬ)	<sup>2</sup> HC	<sup>2</sup> co	<sup>2</sup> NOx	4 SO2	PM <sub>10/2.5</sub>	³co2	voc	co	NOx	SO2	PM <sub>10/2.5</sub>	CO2e
Short Takeoff																		
APU Use	1	ON	1	5	197	16.4	0.25	2	6.25	2.22	0.22	3170	0.0	0.0	0.1	0.0	0.0	52
Start/Warm-up		26% RPM	1	10	1137	189.5	19.66	106.3	1.8	2.22	11.1	2919	3.7	20.1	0.3	0.4	2.1	553
Unstick		40% RPM	1	0.3	1786	8.9	3.67	65.7	2.5	2.22	9.1	3040	0.0	0.6	0.0	0.0	0.1	27
Taxi Out		26% RPM	1	5	1137	94.8	19.66	106.3		2.22	11.1	2919	1.9	10.1	0.2	0.2	1.1	277
Engine Run-up		59% RPM	1	0.5	3321	27.7	1.26	25.5	4.5	2.22	6.4	3114.5	0.0	0.7	0.1	0.1	0.2	86
Takeoft		91% RPM	1	0.5	9441	78.7	0.35	3.6	12.7	2.22	2.5	3151.8	0.0	0.3	1.0	0.2	0.2	248
Gimbout Company Compan	1	95% RPM	1	0.5	7037	58.6	0.49	6.4	9.5	2.22	3.5	3153.6	0.0	0.4	0.6	0.1	0.2	185
Vertical Landing Straight In														0.0				
Approach		79% RPM	1	2.5	6381	265.9	0.54	7.7		2.22	3.8	3144	0.1	2.0	2.3	0.6	1.0	836
Set up for VL		84% RPM	1	1.5	5785		0.61	9.3		2.22	4.2	3141.2	0.1	1.3	1.1	0.3	0.6	454
VL Landing		99% RPM	1	0.75	12258		0.26	2.2		2.22	1.9	3155	0.0	0.3	2.5	0.3	0.3	483
On Runway		26% RPM	1	0.3		5.7	19.66	106.3	1.8	2.22	11.1	2919	0.1	0.6	0.0	0.0	0.1	17
Unstick		40% RPM	1	0.3	1786	8.9	3.67	65.7	2.5	2.22	9.1	3040	0.0	0.6	0.0	0.0	0.1	27
Taxi In/Shut down	1	26% RPM	1	5	1137	94.8	19.66	106.3	1.8	2.22	11.1	2919	1.9	10.1	0.2	0.2	1.1	277
LTO Total													8.5	47.2	8.5	2.5	6.9	3,522
Cruise																		
Hourly	1	67% RPM	1	60	4313	4313.0	0.88	16	5.9	2.22	5.3	3130	4.0	69.0	25.4	9.6	22.9	13,499

MV-22													
		Emission Indi	ces (lb per 1	,000 lb fuel)				Total	Emissions in	lb/op			
Flight Mode	Fuel Used (lbs)	нс	со	NOx	SO <sub>2</sub>	PM <sub>10/2.5</sub>	CO <sub>2</sub>	voc	со	NOx	<b>SO</b> <sub>2</sub>	PM <sub>10/2.5</sub>	CO <sub>2</sub>
Short Take Off													
APU	103.3	0.19	5.89	5.95	2.22	0.22	3,235	0.02	0.61	0.61	0.23	0.02	33-
Start/Warm up	60	0.1	8.9	4.09	2.22	1.58	3,221	0.01	0.53	0.25	0.13	0.09	19
Warm up	220	0.02	3.33	6.02	2.22	1.58	3,219	0.00	0.73	1.32	0.49	0.35	708
Taxi Out	110	0.02	3.33	6.02	2.22	1.58	3,219	0.00	0.37	0.66	0.24	0.17	354
Engine Run up	17.2	0.02	1.58	8.41	2.22	1.58	3,216	0.00	0.03	0.14	0.04	0.03	5.
Takeoff	68.7	0.01	0.45	15.06	2.22	1.58	3,208	0.00	0.03	1.03	0.15	0.11	220
FW Climbout	54.7	0.01	0.69	12.35	2.22	1.58	3,211	0.00	0.04	0.68	0.12	0.09	176
Vertical Landing													
FW Approach	121.0	0.02	1.20	9.57	2.22	1.58	3,215	0.00	0.15	1.16	0.27	0.19	389
Transition (90°) Landing	43.7	0.02	1.04	10.22	2.22	1.58	3,214	0.00	0.05	0.45	0.10	0.07	140
Taxi to apron	66.0	0.02	3.33	6.02	2.22	1.58	3,219	0.00	0.22	0.40	0.15	0.10	213
Cool/Shut down	24.0	0.1	8.90	4.09	2.22	1.58	3,221	0.00	0.21	0.10	0.05	0.04	7.
APLI	34.4	0.19	5.89	5.95	2.22	0.22	3.235	0.01	0.20	0.20	0.08	0.01	111



Learjet		Emission Indi	(11 1	000 II. EII				F11	rom 1 Hour i	- Fli-le Mar-	de la Decembr		_
	Fuel Used	Emission Indi	ces (10 per 1,	ooo is rueij	1	1		Emissions	rom 1 Hour I	n riight iviot	ie in rounds	1	
Flight Mode	(lbs)	нс	co	NOx	SO <sub>2</sub>	PM <sub>10/2.5</sub>	CO <sub>2</sub>	voc	со	NΟx	SO <sub>2</sub>	PM <sub>10/2.5</sub>	CO2
Cruise - Hourly	1,476	0.07	1.62	16.08	2.22	0.085	3252.46	0.10332	2.39	23.73	3.28	0.13	4,801

F-35										
				Time		Flig	ht Emissions	(lb/operat	ion)	
Mode/Starting Point for Leg			P <i>o</i> wer	(min)	HC	СО	NOx	SO <sub>2</sub>	PM10/2.5	CO2
IPP Use			Main Engine	0.58	< 0.000	0.00	0.01	0.00	0.00	4
Start/Warm Up			GI (10% ETR	6.00	< 0.098	3.74	0.43	0.19	0.02	647
Unstick			35% ETR	0.08	< 0.000	0.01	0.10	0.01	0.00	32
Taxi			GI (10% ETR	6.00	< 0.098	3.74	0.43	0.20	0.02	649
Unstick			35% ETR	0.08	< 0.000	0.01	0.10	0.01	0.00	32
Taxi to position & hold							0.04	0.02	0.00	54
P3-F-35B Short Takeoff (STO)		Departure	1	< 0.002	0.18	12.12	0.46	0.05	1,537	
P25-F-35B STOVL Pattern Takeoff Portion (Austere	5-F-35B STOVL Pattern Takeoff Portion (Austere Ops)					0.06	3.56	0.14	0.02	471
P13-F-35B Overhead Break/Carrier Break Arrival to	ا) Vertical Landing	VL)	Arrival	1	< 0.014	0.68	14.07	0.84	0.08	2,803
Rollout to taxiway			FI (15% ETR	0.55	< 0.005	0.10	0.16	0.03	0.00	100
Weapon check			GI (10% ETR	3.00	< 0.049	1.87	0.21	0.10	0.01	323
Unstick			35% ETR	0.08	< 0.000	0.01	0.11	0.01	0.00	34
Taxi			GI (10% ETR	3.00	< 0.048	1.82	0.22	0.10	0.01	326
Hot refuel			GI (10% ETR	7.00	< 0.114	4.37	0.50	0.23	0.02	754
Unstick							0.11	0.01	0.00	34
Taxi to park & shutdown		GI (10% ETR	0.60	< 0.010	0.36	0.04	0.02	0.00	65	
	Tota	al for 1 LTO	1		< 0.446	17.29	32.20	2.37	0.22	7,866
			Fuel Use							
*Cruise - 1 hour			ITAR	60	10.95	979.86	448.54	124.16	69.99	188,608

<sup>\*</sup>from Lemoore Op AQ Calcs 2012 (ITAR protected)

Flight	Fuel used			Emissions	in lbs/1000	lbs fuel				Flig	ht Emission	ıs (lb/operat	ion)	
Operation	lb	HC	co	NOx	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO2	voc	co	NOx	SO <sub>2</sub>	PM <sub>10/2.5</sub>	CO2
Departure:														
Warm Up	74.0	6.21	28.36	3.13	2.22	4.20	4.20	3,145	0.49	2.10	0.23	0.16	0.31	23
TaxiOut	33.8	0.13	1.11	5.67	2.22	4.20	4.20	3,207	0.00	0.04	0.19	0.08	0.14	10
Hover	23.1	0.13	1.01	5.79	2.22	4.20	4.20	3,207	0.00	0.02	0.13	0.05	0.10	7.
Climbout	36.3	0.13	0.88	6.02	2.22	4.20	4.20	3,207	0.01	0.03	0.22	0.08	0.15	11
Arrival:														
Descent	24.1	0.28	5.76	4.3	2.22	4.20	4.20	3,202	0.01	0.14	0.10	0.05	0.10	7
Approach	25.8	0.20	4.22	4.54	2.22	4.20	4.20	3,204	0.01	0.11	0.12	0.06	0.11	8
Faxi to Sdrn	22.5	0.13	1.11	5.67	2.22	4.20	4.20	3,207	0.00	0.02	0.13	0.05	0.09	7.
Shut Down	4.9	6.21	28.36	3.13	2.22	4.20	4.20	3,145	0.03	0.14	0.02	0.01	0.02	1
							Tota	l in Pounds	0.55	2.60	1.14	0.54	1.03	77:
1- hr Cruise:	692	0.13	1.01	5.79	2.22	4.20	4.20	3,207	0.10	0.70	4.01	1.54	2.91	2,22

Flight	Fuel used			Emissions	in lbs/1000	lbs fuel				Flig	ht Emission	s (lb/operat	ion)	
Operation	lb	нс	co	NOx	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2</sub>	VOC	co	NOx	SO <sub>2</sub>	PM <sub>10/2.5</sub>	CO2
Departure:														
Warm Up	79.5	0.98	22.49	4.29	2.22	4.20	4.20	3,162	0.08	1.79	0.34	0.18	0.33	251
TaxiOut	39.32	0.57	11.7	5.37	2.22	4.20	4.20	3,213	0.02	0.46	0.21	0.09	0.17	126
Hover	13.11	0.57	11.7	5.37	2.22	4.20	4.20	3,213	0.01	0.15	0.07	0.03	0.06	42
Climbout	29.19	0.56	10.13	5.61	2.22	4.20	4.20	3,217	0.02	0.30	0.16	0.06	0.12	94
Arrival:														
Approach	113.8	0.61	14.04	5.07	2.22	4.20	4.20	3,205	0.07	1.60	0.58	0.25	0.48	365
Taxito Sdrn	39.3	0.57	11.7	5.37	2.22	4.20	4.20	3,213	0.02	0.46	0.21	0.09	0.17	126
Shut Down	10.9	2.54	39.81	3.28	2.22	4.20	4.20	3,060	0.03	0.44	0.04	0.02	0.05	33
							Tota	l in Pounds	0.26	5.19	1.61	0.72	1.37	1,038
1- hr Cruise:	850	0.56	10.54	5,55	2,22	4.20	4.20	3,216	0.50	8,96	4.72	1.89	3,57	2,734

<sup>&</sup>lt;sup>1</sup> for information on aircraft references, see Tab N, Aircraft References

#### TAB K: AIRCRAFT ACTIVITY - TESTING<sup>1</sup>

H-60								Alt	emative 1 T	otal Hrs						Panama							Alternati	ve 2 Total H	Irs					Panama
	#a/c	Hr/event	# Events	GOMEX	# Events	JAX	# Events	VACAPES	# Events	кw	# Events	NE	# Events	CHERRY PT	# Events	City	# Events	GOMEX	# Events	JAX	# Events	VACAPES	# Events	KW	# Events	NE	# Events	CHERRY PT	# Events	City
Anti-Submarine Warfare Torpedo Test	1	. 3	.0		) 2	9 870	72	2,160	0	C	) (	0	C		) (	C		0 0	43	3 1,290	121	3,630			0 0	) c		0	0	0
Anti-Submarine Warfare Tracking Test — Helicopter	1	. 3	.0	5 15	0	6 180	190	5,700	9	240	6:	1,830	C		0	C	) 6	18	12	2 360	280	8,400	27	810	110	3,300			0	0
Kilo Dip	1		1	3	3	3 3	30	30	3	9	1	2	C		) (	C	) 6	5 6	5 6	5 6	40	40	6	5	5 4	4		0	0	0
Chaff Test	3	3	.0 2	1,80	0 -	4 360	24	2,160	0	C	)	0	C		) (	C	20	1,800	) 4	4 360	24	2,160	) (			0		D	0	0
Flare Test	1	. 3	.0 1	.0 30	0	0 0	20	600	0	C	) (	0	C		0	C	10	300		0 0	20	600				) с		0	0	0
Airborne Dipping Sonar Minehunting Test	1	. 3	.0	0	)	0 0	8	240	0	C	) (	0	C		19	570				0 0	18	540				0		0	0 3	9 2ز
Airborne Laser Based Mine Detection System Test	1		2	0	0	0 0	50	100	0	C	) (	0	C		40	80	0	) (	) (	0 0	50	100	) (			0		D	0 4	<del>1</del> 0
Airborne Mine Neutralization System Test	1		2	0	0	0 0	29	58	0	C	) (	0	C		21	42	2			0 0	50	100				) с		0	0 3	<b>;</b> 2
Airborne Sonobuoy Minehunting Test	1	. 3	.0	0	)	0 0	24	720	0	C	) (	0	C		52	1,560				0 0	24	720				0		0	0 5	2 1,5
Air-to-Surface Gunnery Test	1		2	0	) 4	3 86	128	256	0	C	)	0	C		) (	C	0	) (	55	5 110	280	560	) (			0		D	0	0
Air-to-Surface Missile Test	1		3	5 1	5 3	3 99	133	399	0	C	) (	0	C		0	C	10	30	38	3 114	444	1,332				) с		0	0	0
High-Energy Laser Weapons Test	1		2	0	0	0 0	108	216	0	C	) (	0	C		0	C				0 0	108	216				0		0	0	0
Laser Tangeting Test	3	0.	.5	0	0	0 0	8	12	. 0	C	)	0	C		0	C		) (	0	0 0	8	12				0	)	0	0	0
Rocket Test	1		3	0	5	1 153	33	99	0			0			) (	C			5.	7 171	35	105				0			0	0
Maritime Security	1		4	0	1	2 48	3 20	80	0		) (	0	12	2 48		0		) (	12	2 48	20	80				0	1	2 4	18	0
	Alternat	tive 1 Tota	ls	2,26	8	1,799	9	12,830		243	3	1,832		41	3	2,252	Alt ernativ	€ 2,310	5	2,459		18,595		81	5	3,304		1 4	.8I	2,60

<sup>&</sup>lt;sup>1</sup> Provided by US Navy, NAVAIR Assumptions.docx, March 30, 2017

#### TAB L: AIRCRAFT ACTIVITY - TRAINING1

#### 5 yrs presented annually

UH-1								A	Iternative To	tal Hrs					
	# a/c	Hr/event	# Events	GOMEX	# Events	JAX	# Events	VACAPES	# Events	KW	# Events	NE	# Events	CHERRY PT	# Events
Missile Exercise Air-to-Air	15	5 1	0	0	2	24	- 8	120	2	24	0	0	2	24	
Missile Exercise Surface-to-Air	15	5 1	0	0	0	C	0.4	6	0	0	0	0	0	0	
Antitsubmarine Warfare Torpedo Exercise - Ship	8	3 2	0	0	3	51	8	128	0	0	0	0	0	0	
Anti submarine Warfare Torpedo Exerci se - Submarine	(	5 3	0	0	2	43	8	144	. 0	0	1	. 22	0	0	
Gunnery Exercise Air-to-Surface Small Caliber	1	. 1	0	0	0	C	0	0	0	0	0	0	3	3	
	Alteri	native Totals		C		118		398		24		22		27	

Learjet								А	Iternative To	ital Hrs					
	# a/c	Hr/event	# Events	GOMEX	# Events	JAX	# Events	VACAPES	# Events	KW	# Events	NE	# Events	CHERRY PT	# Events
Gunnery Exercise Surface-to-Air Medium Caliber	1	. 1	0	0	0	C	1	. 1	0	0	0	0	(	0	) 0
Gunnery Exercise Surface-to-Air Large Caliber	1	. 1	0	C	0	C	5	5	0	0	0	0	(	0	) 0
Gunnery Exercise Surface-to-Air Medium Caliber	1	. 1	0	C	0	C	7	7	0	0	0	0	(	0	) 0
	Alternative Totals							13		0				C	1

H-60								А	Iternative To	tal Hrs					
	# a/c	Hr/event	# Events	GOMEX	# Events	JAX	# Events	VACAPES	# Events	KW	# Events	NE	# Events	CHERRY PT	# Events
Gunnery Exercise Air-to-Surface Small Caliber	1	1	. (	0	40	40	112	112	. 0	0	C	0	24	24	0
Missile Exercise Air-to-Surface - Rocket	1	1	. 2	. 2	20	20	20	20	0	0	C	0		0	0
Missile Exercise Air-to-Surface	1	1	. (	0	18	18	14	14	. 0	0	C	0	3	3	0
Laser Targeting - Aircraft	1	1	. (	0	55	55	27	27	0	0	0	0		0	0
Antisubmarine Warfare Tracking Exercise - Helicopter	1	3	1	. 2	74	222	2	5	0	0	C	0	2	7	0
Antisubmarine Warfare Torpedo Exercise - Helicopter	1	3		0	3	8	1	2	. 0	0	(	0	0	0	0
Antisubmarine Warfare Torpedo Exercise - Submarine	3	3	. (	0	0	0	0	0	0	0	1	11		0	0
Airborne Mine Countermeasures - Mine Detection	1	2	62	124	63	127	308	616	0	0	C	0	74	148	0
Mine Countermeasure Mine Neutralization Remotely	1	2	. 26	53	14	28	126	252	. 0	0	C	0	14	28	0
Search and Rescue	1	1	. (	0	125	125	200	200	0	0	C	0	0	0	0
Personnel Insertion/Extraction - Air	1	2	10	20	2	4	36	71	. 0	0	C	0	0	0	0
PMINT	1	63.8	(	0	0	0	0	0	0	0	C	0	1	64	0
ARGMEUEX	1	149.3	. (	0	0	0	0	0	0	0	C	0	1	149	
CERTEX	1	139.4	. (	0	0	0	0	0	0	0	0	0	1	139	0
	Alterna	rtive Totals		201		648		1,319		0		11		564	

H-53								A	ternative To	tal Hrs					
	# a/c	Hr/event	# Events	GOMEX	# Events	JAX	# Events	VACAPES	# Events	KW	# Events	NE	# Events	CHERRY PT	# Events
Airborne Mine Countermeasures - Towed Mine															
Neutralization	1	. 2	0	0	31	62	176	352	0	0	0	0	37	73	0
Airborne Mine Countermeasures - Mine Detection	1	. 2	0	0	63	127	308	616	0	0	0	0	74	148	0
Mine Countermeasure Mine Neutralization Remotely	1	. 2	0	0	14	28	126	252	0	0	0	0	14	28	0
Search and Rescue	1	. 1	0	0	125	125	200	200	0	0	0	0		0	0
	Altern	natīve Totals		C		342		1,420		0		0		250	

F-18 E/F								Al	ternative To	tal Hrs					
	# a/c	Hr/event	# Events	GOMEX	# Events	JAX	# Events	VACAPES	# Events	KW	# Events	NE	# Events	CHERRY PT	# Events
Gunnery Exercise Air-to-Surface Medium Caliber	2.5	0.33	6	5	49	40	44	36	0	0	0	(	29	24	0
Mine Laying	2.5	0.33	0	0	0.2	0.2	1	1	0	0	0	(	0.4	0.3	0
Alternative Totals 5 41 37 0 0 24															

F-35								β	Iternative To	otal Hrs					
	# a/c	Hr/event	# Events	GOMEX	# Events	JAX	# Events	VACAPES	# Events	KW	# Events	NE	# Events	CHERRY PT	# Events
Gunnery Exercise Air-to-Surface Medium Caliber	2.5		6		5 49		0 44	36	6 (	0	0	0	29		
Mine Laying	2.5				0.2	_		. 1	. (	0		0	0.4		
	Alterr	native Totals			5		1	37	7					24	
P-3									lternative T						
	# a/c	Hr/event	# Events	GOMEX	# Events	JAX	# Events	VACAPES	# Events	KW	# Events	NE	# Events	CHERRY PT	# Events
Antisubmarine Warfare Tracking Exercise - Maritime															
Patrol Aircraft Anti submarine Warfare Torpedo Exerci se - Maritime	2.5	1	0		0 18		6 6	15	6	0	3	8	2	4	0
										Ι.		Ι.			
Patrol Aircraft	2.5		-		0 3		3	15	,			8	0	- 0	U
	Alteri	native Totals			U .		3	15	PI		1			4	
P-8								В	Iternative To	ntal Hrs					
7-6	#a/c	Hr/event	# Events	Ідомех	# Events	IIAX	# Events	IVACAPES			# Events	INF	# Events	CHERRY PT	# Events
Anti submarine Warfare Tracking Exercise - Maritime	,.	,													
Patrol Aircraft	2.5	1	0		0 74	18	4 25	62	2 (	) c	13	32	6	16	0
Anti submarine Warfare Torpedo Exerci se - Maritime															
Patrol Aircraft	2.5	1	0		o o		0 1	. 2	2 (	) c	) 0	0	0	0	0
Anti submarine Warfare Torpedo Exercise - Submarine	3	3	0		0 0		0 0				1	11	. 0	0	0
Mine Laying	2.5	0.33	0		0 0	0	.2 1	. 1	. (	0	0	0	0.4	0.3	0
	Alterr	native Totals			0	18	:5	64	1			42		16	
***									h 2 =						
AV-8B	# 0/6	Hr/event	# Events	Ідомех	# Events	JAX	# Events		lternative To		# Events	INE	# Events	ICHERRY PT	# Events
Gunnery Exercise Air-to-Surface Medium Caliber	# a/c 2.5				0 # Events 5	JAX	# Events	VACAPES	# Events	) C		IVE	# Events	CHERRY PT	# Events
duffilery Exercise All-to-surface Medium Caliber		native Totals			0  S		4 (		,	, ,			4	3	U
	Aiteii	lative i Otals			<u> </u>		4	,	1		1		1		
AH-1								В	Iternative To	ntal Hrs					
,	# a/c	Hr/event	# Events	GOMEX	# Events	JAX	# Events	VACAPES			# Events	INE	# Events	CHERRY PT	# Events
Gunnery Exercise Air-to-Surface Small Caliber	1	. 1	0		0 0		0 (	(		0		0	2	2	0
Missile Exercise Air-to-Surface - Rocket	1	. 1	0		0 2		2 (	(		0	0	0	2	2	0
Missile Exercise Air-to-Surface	1	. 1	0		0 0		0 (	(	) (	0	0	0	3	3	0
	Alterr	native Totals			0		2			C		C		5	
1 Provided by US Navy, AFTT Training Air Analysis.xlsx	March 30	2017: IKE C2	Cxisx Marc	h 29 2017:	C2X Sorties be	ours visv. I	Aarch 13 201	: Marine Co	ros trainina	cvcle.xlsx . M	larch 29 201	7.			

<sup>1</sup> Provided by US Navy, AFTT Training Air Analysis.xlsx, March 30 2017; IKE C2X.xlsx, March 29 2017; C2X Sorties hours.xlsx, March 13 2017; Marine Corps training cycle.xlsx, March 29 2017

AIRCRAFT ACTIVITY BY REGION<sup>1</sup> VA CAPES Annual Hours Flight Below 3,000 Ft.

TAB M:

64 Flight Below 3,	Alt 2 H-60 0 000 Ft - State W Alt 2 H-60	H-53 0 /aters	F-18 58	F-35 58	P-3 0	P-8 0	E-2C 0	0 AV-8B 0	AH-1 0	MV-22
64 Flight Below 3, H-60	0 000 Ft - State W Alt 2 H-60	0 /aters H-53	58 F-18	58	0	0	0	<b>AV-8B</b> 0	AH-1 0	
64 Flight Below 3, H-60	0 000 Ft - State W Alt 2 H-60	0 /aters H-53	58 F-18	58	0	0	0	AV-8B 0	AH-1 0	
Flight Below 3, H-60	000 Ft - State W Alt 2 H-60	H-53	F-18			0	, ,	0	0	0
H-60	Alt 2 H-60	H-53		F-35	P-3	2.0				
				F-35	P-3					
523	0	392	0			P-8	E-2C	AV-8B	AH-1	MV-22
				0	0	0	0	0	0	0
light Below 3,00	00 Ft.									
		H-53	F-18	F-35	P-3	P-8	E-2C	AV-8B	AH-1	MV-22
			5	5	0	0	0	0	0	0
H-60	Alt 2 H-60	H-53	F-18	F-35	P-3	P-8	E-2C	AV-8B	AH-1	MV-22
0	0	0	0	0	0	0	0	0	0	0
light Below 3,0	00 Ft - State Wa	iters								
H-60	Alt 2 H-60	H-53	F-18	F-35	P-3	P-8	E-2C	AV-8B	AH-1	MV-22
20	0	0	0	0	0	0	0	0	0	0
	Alt 1 H-60 2,469 H-60 0 19 0 H-60 H-60 20	Alt 1 H-60	Alt 1 H-60	Alt 1 H-60	Alt 1 H-60	Alt 1 H-60	Alt 1 H-60	Alt 1 H-60	Alt 1 H-60	Alt 1 H-60

KW Annua	al Hours Fligh	t Below 3,000 F1	:									
UH-1	Learjet	Alt 1 H-60	Alt 2 H-60	H-53	F-18	F-35	P-3	P-8	E-2C	AV-8B	AH-1	MV-22
2	!4 (	243	816	0	0	0	0	0	0	0	0	0
KW LTOs												
UH-1	Learjet	H-60	Alt 2 H-60	H-53	F-18	F-35	P-3	P-8	E-2C	AV-8B	AH-1	MV-22
	0 (	0	0	0	0	0	0	0	0	0	0	0
KW Annua	KW Annual Hours Flight Below 3,000 Ft - State Waters											
UH-1	Learjet	H-60	Alt 2 H-60	H-53	F-18	F-35	P-3	P-8	E-2C	AV-8B	AH-1	MV-22
	0 1	1 0	0	Λ	Δ.			0	0	_	_	_

UH-1	Learjet	Below 3,000 Ft. Alt 1 H-60		H-53	F-18	F-35	P-3	P-8	E-2C	AV-8B	AH-1	MV-22
	0 (	1,843	3,315	0	0	0	8	42	0	0	0	C
NE LTOs												
UH-1	Learjet	H-60	Alt 2 H-60	H-53	F-18	F-35	P-3	P-8	E-2C	AV-8B	AH-1	MV-22
	0 (	0	0	0	0	0	0	0	0	0	0	(
NE Annual	Hours Flight	Below 3,000 Ft	- State Waters									
UH-1	Leariet	H-60	Alt 2 H-60	H-53	F-18	F-35	P-3	P-8	E-2C	AV-8B	AH-1	MV-22

CHERR	Y PT	Annual Ho	urs Fligh	t Below 3	3,000 Ft.											
UH-1		Learjet	Alt 1 H	I-60	Alt 2 H-60	H-53	F	18	F-35		P-3	P-8	E-2C	AV-8B	AH-1	MV-22
	27		0	612	6:	12	250	24		24	4	1	6 0	3	5	0
CHERR'	Y PT	LTOs														
UH-1		Learjet	H-60		Alt 2 H-60	H-53	F	-18	F-35		P-3	P-8	E-2C	AV-8B	AH-1	MV-22
	0		0	233.5		0	0	157		157	0		0 (	107	0	110
CHERR'	Y PT	Annual Ho	urs Fligh	t Below	3,000 Ft - Sta	te Wate	rs									
UH-1		Learjet	H-60		Alt 2 H-60	H-53	F	-18	F-35		P-3	P-8	E-2C	AV-8B	AH-1	MV-22
	0		0	2.4		0	0	0		0	0		0 (	) (	22	0

UH-1	Learjet	Alt 1 H-60	Alt 2 H-60	H-53	F-18	F-35	P-3	P-8	E-2C	AV-8B	AH-1	MV-22
	0	0 2,252	2,664	0	0	0	0	0	0	0	0	
OTHER L	.TOs											
UH-1	Learjet	H-60	Alt 2 H-60	H-53	F-18	F-35	P-3	P-8	E-2C	AV-8B	AH-1	MV-22
	0	0 0	0	0	0	0	0	0	0	0	0	
OTHER A	Annual Hours I	light Below 3,00	00 Ft - Starte War	ters								
UH-1	Learjet	H-60	Alt 2 H-60	H-53	F-18	F-35	P-3	P-8	E-2C	AV-8B	AH-1	MV-22
	Λl .	0 2.252	2,664	n	n	n	n	U	n	n	U	

Provided by US Navy, AFTT Training Air Analysis.xksx, March 30 2017; KKE CZX.xksx, March 29 2017; CZX Sorties hours .xksx, March 13 2017; Marine Corps training cycle.xksx, March 29 2017, NAVAIR Assumptions.docx, March 30 2017.

AH-1

MV-22

#### TAB N: AIRCRAFT ENGINE EMISSION FACTOR SOURCES

	cruise based on 1 hour
Aircraft	Source of Emissions Indices Information
AH-1W	AESO Memorandum Report No. 9824, Revision C, November 2015.
AV-8B - LTO AV-8B - Cruise	AESO Memorandum Report No. 9913, Revision D, November 2009. AESO Memorandum Report No. 9963, Revision C, November 2009.
CH-53 - LTO CH-53 - cruise	AESO Memorandum Report No. 2015-01 Revision B, September 2015.
E-2 / E-2C - Cruise	AESO Memorandum Report No. 9920, Revision E. September 2015.
P-8 - Cruise	Engine Datasheet 8CM051, ICAO Engine Exhaust Emissions Data Bank (ICAO, 2013)
F-35B - LTO	JSF Emissions Package_2011-12-28.xls from Flint Webb, 2013.
F-35B Cruise	From "Demonstration Sortie Cruise" from F-35 West-Coast Basing EIS, 2014
FA-18E/F & EA-18G - LTO FA-18E/F & EA-18G Cruise	AESO Memorandum Report No. 9815, Revision H. November 2015 AESO Memorandum Report No. 9933, Revision E, November 2015
Learjet	Air Emissions Guide for Air Force Mobile Sources, Air Force Civil Engineer Center, August 2013
HH-60 - LTO HH-60 - cruise	AESO Memorandum Report No. 9929 Revision C. January 2016
P-3	AESO Memorandum Report No. 9911, Revision C, Feb 2010.
V-22 - LTO V-22 - Cruise	AESO Memorandum Report No. 9946, Revision G, April 2016
UH-1N - LTO	AESO Memorandum Report No. 9904, Revision A, May 1999
UH-1N - Cruise	AESO Memorandum Report No. 9962, Rev A November 2009
PM10 Ratio for Aircraft Emitted	
AESO Report 2012-01D, Decemb	er 2014. Sulfur Dioxide Emission Index Using JP-5 and JP-8 Fuel.
	Received updated Memoranda too late to update for this version, will incorporate for Final EIS.

#### TAB O: MUNITION ACTIVITY DATA

Inshore Munitions - Alternatives 1 ar			
	Ma	nitions/Mate	rials
	Projec	ctiles	Counter measure
Location	Small Caliber (Non- explosive)	Marine Marker	Flare
	Number	Number	Number
Boston, MA	0	0	0
Narragansett Bay, Ri	8,320	65	0
Earle, NJ	0	0	0
Delaware Bay, DE	0	0	0
Wilmington, DE	0	0	0
Hampton Roads, VA	0	0	0
James River and Tributaries, VA	102,000	660	20,400
York River, VA	0	20	0
Lower Chesapeake Bay	28,800	0	0
Morehead City, NC	0	0	0
Cooper River, SC	5,100	0	0
Savannah, GA	0	0	0
Kings Bay, GA	0	0	0
Mayport, FL	0	0	0
Port Canaveral, FL	12,800	60	0
Tampa, FL	0	0	0

				Range I	Complex			
Munitions/Materials	Northeast	VACAPES	Cherry Point	JAX	Key West	GOMEX	Other RC	SINKEX Area
	Number	Number	Number	Number	Number	Number	Number	Number
Bombs								
Bombs (Explosive)	0	76	0	50	0	4	0	12
Bombs (Non-Explosive)	0	2,248	596	1,366	0	270	0	0
Projectiles								
Small-Caliber (Non-Explosive)	36,600	3,806,350	833,675	1,436,275	0	237,500	200,000	0
Small-Caliber (Casing Only)	0	3,400	0	1,000	0	0	0	0
Medium-Caliber (Explosive)	0	65,312	23,200	58,952	0	6,250	1,350	0
Medium Caliber (Non-Explosive)	1,000	800,769	358,574	4 39, 234	56,000	32,000	21,250	0
Large-Caliber (Explosive)	0	2,998	756	1,160	0	260	96	200
Large-Caliber (Non-Explosive)	0	3,802	1,134	1,388	0	638	196	0
Large-Caliber (Casing only)	0	0	960	0	0	0	0	0
Missiles					-			•
Missiles (Explosive)	4	155		136	8	8	0	4
Rockets (Explosive)	0	1,254		1,330		76		0
Rockets (Non-Explosive)	0	2,708	289	2,996	0	289	0	0

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		Range Complex					Testing Ranges		
Munitions/Materials	Northeast	VACAPES	Cherry Point	JAX	Key West	GOMEX	NUWC Newport	SFOMF	NSWC Panama City
	Number	Number	Number	Number	Number	Number	Number	Number	Number
Bombs									
Bambs (Explasive)	0	2	0	0	0	0	0	0	C
Bombs (Non-Explosive)	0	964	0	12	0	0	0	0	
Projectiles									
Small-Caliber (Non-Explosive)	4,800	77,800	4,800	4,800	4,800	17,800	0	0	7,000
Medium-Caliber (Explosive)	3,860	17,270	3,360	14,860	3,360	3,360	0	0	
Medium Caliber (Non-Explosive)	9,060	239,660	8,160	237,360	32,660	22,860	0	0	5,100
Large-Caliber (Explosive)	132	3,263	132	6,276	832	923	0	4	100
Large-Caliber (Non-Explosive)	1,761	8,147	1,440	14,524	3,190	2,774	0	0	280
Missiles									
Missiles (Explosive)	10	176	0	70	0	12	0	0	
Missiles (Non-Explosive)	24	899	24	136	31	24	0	0	C
Rockets (Explosive)	0	206	0	200	0	0	0	0	C
Rockets (Non-Explosive)	0	746	0	406	0	0	0	0	(
Rockets (Non-Explosive): Flechette	0	249	0	135	0	0	0	0	
Countermeasures									
Flares	0	20,195	0	0	0	600	0	0	

Flares 0 20,155 0 0 0 600 0 0 0 0 0 1 1 Munitions Usage Estimates provided by US Navy, AFTT Training Air Analysis.xisx (March 29), AFTT histore Events\_08 Feb 2017\_NAEMO Web.xisx, Appendix F, Draft AFTT EIS May 2017.

TAB P. BASELINE (V2 PREFERRED ALTERNATIVE) MUNITION SUMMARY<sup>1</sup>

TOTALS BY		СО	NOx	VOC	SOx	PM10	PM2.5
COITH EEN TOI	Northeast / NUWC Newport	0.0685	0.0018	0.0000	0.0000	0.0344	0.0063
TESTING	Virginia Capes	26.8013	1.1019	0.0000	0.0000	1.9281	1.2623
COMBINED (TPY)	Navy Cherry Pt.	5.5601	0.1465	0.0000	0.0000	0.1426	0.0755
1	Jacksonville	14.1096	0.5870	0.0000	0.0001	1.4573	0.8805
1	Key West	1.0447	0.0405	0.0000	0.0000	0.0221	0.0155
	GOMEX / Panama City	1.9943	0.0437	0.0000	0.0000	0.1222	0.0739
	Other AFTT	0.8713	0.0820	0.0000	0.0000	0.0262	0.0159
	Grand Total for ALT 2	50.4497	2.0034	0.0000	0.0001	3.7328	2.3300

<sup>&</sup>lt;sup>1</sup>Atlantic Fleet Forces Training and Testing Final Environmental Impact Statement/Overseas Environmental Impact Statement, August 2013

# C.2 RECORD OF NON-APPLICABILITY FOR CLEAN AIR ACT CONFORMITY

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

## **Proposed Action.**

Action Proponent: US Navy, Fleet Forces

Location: Jacksonville, FL and surrounding area Proposed Action Name: Atlantic Fleet Testing and Training

Proposed Action & Emissions Summary:

The action involves operation of military aircraft, vessels, and small boats in order to achieve requisite training and testing requirements. Small boats and vessels would be operational in the riverine environment in the Jacksonville Florida locality. These nearshore activities generate emissions primarily through fossil fuel combustion from engine operation. Part of Nassau County, which is adjacent to Jacksonville, is nonattainment for sulfur dioxide. As a result, proposed action emissions were evaluated to assess compliance with the General Conformity Rule *de minimis* thresholds. Table C.C.2-1 provides a summary of the evaluation.

Table C.C.2-1: Proposed Action Sulfur Dioxide Emissions Compared to General Conformity Rule *de Minimis Thresholds* 

Annual Emissions	SO <sup>2</sup>
Alternative 1	11.39
Baseline	10.50
Net Change	0.89
de minimis thresholds	100
Potential Exceedance	No
Alternative 2	12.58
Baseline	10.50
Net Change	2.08
de minimis thresholds	100
Potential Exceedance	No

Included with this RONA is a summary of the calculations and data used. 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. Formal Conformity Determination procedures are not required, resulting in this RONA. The emissions data supporting that conclusion is shown in Table C.C.2-1, which is a summary of the calculations, methodology, and data attached to this RONA.

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

Date RONA prepared:

RONA prepared by:

RONA Approval:

Signature:

Name/Rank:

Date:

Atlantic Fleet	
Training and Testing Draft EIS/OEIS	June 2017
Position:	