

August 29, 2002

LCDR Kirk Schilling  
Commandant (G-OPD)  
U.S. Coast Guard  
2100 Second Street, SW  
Washington, DC 20593-0001

**Reference:** Contract No.: DTCG23-00-D-ADW141  
Delivery Order No.: DTCG23-00-F-DDX046

**Subject:** Transmittal of the Final Environmental Assessment for the Coast Guard  
Location and Operation of Maritime Safety and Security Team in  
Chesapeake, VA

Dear LCDR Schilling:

As required in the Statement of Work dated March 26, 2002, for NEPA Compliance for Coast Guard Location and Operation of Marine (Maritime) Safety and Security Teams in Seattle, WA; Chesapeake, VA; Galveston, TX; and San Pedro, CA, please find enclosed five (5) copies of the Final Environmental Assessment for the Coast Guard Location and Operation of Maritime Safety and Security Team in Chesapeake, VA. Also included are five (5) copies Finding of No Significant Impact (FONSI) for the Proposed Action.

We will hold the press Announcement of Availability until you approve the Final EA and FONSI. Please forward your concurrence to my attention at [klang@e2m.net](mailto:klang@e2m.net).

If you have any questions or need any further information, please contact me at (803) 649-0278 or Ms. Melissa Ellinghaus at (703) 383-1000. We appreciate this opportunity to provide our continued support to the U.S. Coast Guard. Thank you.

Sincerely,  
**engineering-environmental Management, Inc.**

Joan M. Lang  
NEPA Program Manager

LCDR Schilling  
Pg 2 of 2  
August 29, 2002

Encl:  
4 copies of the Final EA  
4 copies of FONSI

Separate Copy to Ms. K. Kelley  
1 copy of Final EA  
1 copy of FONSI

cc w/o copies:

Mr. Brian Hoppy (e<sup>2</sup>M, Inc.)  
Contracting (e<sup>2</sup>M, Inc.)

*FINAL*

**ENVIRONMENTAL ASSESSMENT OF THE  
STAND-UP AND OPERATIONS OF THE  
MARITIME SAFETY AND SECURITY TEAM  
CHESAPEAKE, VIRGINIA**

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**COMMANDANT  
UNITED STATES COAST GUARD (G-OPD)**

**AUGUST 2002**

## *ABBREVIATIONS AND ACRONYMS*

%HA	Percent Highly Annoyed	NEPA	National Environmental Policy Act
°F	degrees Fahrenheit	NERR	National Estuarine Research Reserve
ANSI	American National Standards Institute	NIT	Norfolk International Terminal
APLMRI	Atlantic Protected Living Marine Resources Initiative	NMFS	National Marine Fisheries Service
AQCR	Air Quality Control Region	NO <sub>2</sub>	Nitrogen Dioxide
CAA	Clean Air Act	NOAA	National Oceanic and Atmospheric Administration
CEQ	Council on Environmental Quality	NO <sub>x</sub>	Nitrogen Oxides
CERCLA	Comprehensive, Environmental, Response, Compensation, and Liability Act	NRHP	National Register of Historic Places
		NSGA	Naval Security Group Activity
CFR	Code of Federal Regulations	O <sub>3</sub>	Ozone
CO	Carbon Monoxide	P.L.	Public Law
COMDTINST	Coast Guard Commandant Instructions	Pb	Lead
		PM <sub>10</sub>	particulate Matter ≤ 10 microns in diameter
CWA	Clean Water Act	ppm	Parts per million
dB	decibel	PSD	Prevention of Significant Deterioration
DEIS	Draft Environmental Impact Statement	PSU	Port Security Unit
		RBS	Response Boats-Small
DNL	Day-Night Average Sound Level	ROI	Region of Influence
DoD	Department of Defense	SAR	Search and Rescue
DOT	Department of Transportation	SARA	Superfund Amendments and Reauthorization Act
EA	Environmental Assessment		
EEZ	Exclusive Economic Zone	SAV	Submerged Aquatic Vegetation
EFH	Essential Fish Habitat	SIP	State Implementation Plan
EO	Executive Order	SO <sub>2</sub>	Sulfur Dioxide
EPA	Environmental Protection Agency	SO <sub>x</sub>	Sulfur Oxide
ESA	Endangered Species Act	tpy	tons per year
FEMA	Federal Emergency Management Agency	U.S.	United States
		U.S.C	United States Code
FIP	Federal Implementation Plan	USACE	U.S. Army Corps of Engineers
H.R.	House Resolution	USCG	United States Coast Guard
Hz	Hertz	USFWS	United States Fish Wildlife Service
ISC	Integrated Support Command	USS	United States Ship
lbs	pounds	VADEQ	Virginia Department of Environmental Quality
mg/m <sup>3</sup>	milligrams per cubic meter	VADGIF	Virginia Department of Game and Inland Fisheries
MMPA	Marine Mammal Protection Act		
MOA	Memorandum of Agreement	VOC	Volatile Organic Compound
MOU	Memorandum of Understanding	µg/m <sup>3</sup>	Micrograms per cubic meter
MPA	Marine Protected Area	µPa	microPascal
MSST	Marine Safety and Security Team		
NAAQS	National Ambient Air Quality Standards		

USCG

FINDING OF NO SIGNIFICANT IMPACT

FOR

U.S. COAST GUARD LOCATION AND OPERATIONS OF THE MARITIME SAFETY  
AND SECURITY TEAM INCHESAPEAKE, VIRGINIA

The proposed action includes the standing up and operations of one Maritime Safety and Security Team (MSST) located at the Naval Security Group Activity, Northwest Facility. The MSST will consist of 71 active duty personnel and 33 reserve personnel, minor interior alterations to existing office space, and six Response Boats-Small (RBS). All six RBS can, but will not necessarily be, operating at once. The RBS will have outboard motors, will be no larger than 25 feet, will be highly maneuverable, will be capable of quickly reaching and sustaining high speeds (in excess of 40 knots), and will carry between three and six crewmembers. Other requirements will include, but not be limited to, communication equipment, protection for the crew, and defensive weaponry. When not in use, RBS may be placed on trailers.

The MSST will normally conduct operations in the portion of the Chesapeake Bay bounded to the east by the Chesapeake Bay Bridge and Tunnel and to the west by the Highway 164 Bridge. The MSST is intended for domestic operations, in support of the Group or Captain of the Port (COTP). Operations will closely parallel existing USCG traditional port security operations, but will provide complementary, non-redundant capabilities that will be able to close significant readiness gaps in our nation's strategic ports. The MSST will escort a variety of vessels and maintain specific security zones in Chesapeake Bay. They will be capable of operating seven days a week, 24 hours a day, in all weather conditions. They will also operate with, and be supported by, both military and civilian government organizations, commercial and non-government entities. The MSST will be transportable via land transportation, USCG cutter, and USCG or other military aircraft.

This project has been thoroughly reviewed by the U.S. Coast Guard (USCG) and it has been determined, by the undersigned, that this project will have no significant effect on the human environment.

This finding of no significant impact (FONSI) is based on the attached contractor prepared environmental assessment which has been independently evaluated by the USCG and determined to adequately and accurately discuss the environmental issues and impacts of the proposed project and provides sufficient evidence and analysis for determining that an environmental impact statement is not required. The USCG takes full responsibility for the accuracy, scope, and content of the attached environmental assessment.

9-3-02

Date



Environmental Reviewer

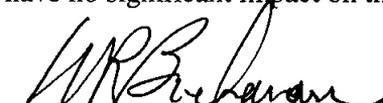
CHIEF, G-SEC-3

Title/Position

I have considered the information contained in the EA, which is the basis for this FONSI. Based on the information in the EA and this FONSI document, I agree that the proposed action as described above, and in the EA, will have no significant impact on the environment.

3 Sep 02

Date



Responsible Official

CHIEF G-OPD

Title/Position

USCG  
ENVIRONMENTAL ASSESSMENT  
FOR  
COAST GUARD LOCATION AND OPERATIONS OF THE  
MARITIME SAFETY AND SECURITY TEAM IN CHESAPEAKE, VIRGINIA

This USCG environmental assessment was prepared in accordance with Commandant's Manual Instruction M16475.1D and is in compliance with the National Environmental Policy Act of 1969 (P.L. 91-190) and the Council of Environmental Quality Regulations dated 28 November 1978 (40 CFR Parts 1500-1508).

This environmental assessment serves as a concise public document to briefly provide sufficient evidence and analysis for determining the need to prepare an environmental impact statement or a finding of no significant impact.

This environmental assessment concisely describes the proposed action, the need for the proposal, the alternatives, and the environmental impacts of the proposal and alternatives. This environmental assessment also contains a comparative analysis of the action and alternatives, a statement of the environmental significance of the preferred alternative, and a list of the agencies and persons consulted during the preparation of the environmental assessment.

<u>9/3/02</u> Date	<u>Keby Kelley</u> Preparer/Environmental Project Manager (as applicable)	<u>env protection specialist</u> Title/Position
<u>9-3-02</u> Date	<u>[Signature]</u> **Environmental Reviewer	<u>CHIEF GSEC-3</u> Title/Position

In reaching my decision/recommendation on the USCG's proposed action, I have considered the information contained in this environmental assessment on the potential for environmental impacts.

<u>3 Sep 02</u> Date	<u>WR Buchanan</u> Responsible Official	<u>Chief, G-OPD</u> Title/Position
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\* The USCG preparer signs for NEPA documents prepared in-house. The USCG environmental project manager signs for NEPA documents prepared by an applicant, a contractor, or another outside party.

\*\* Signature of the Environmental Reviewer for the Bridge Administration Program may be that of the preparer's.

*FINAL*

**ENVIRONMENTAL ASSESSMENT OF THE  
STAND-UP AND OPERATIONS  
OF THE  
MARITIME SAFETY AND SECURITY TEAM  
CHESAPEAKE, VIRGINIA**

Contract No.: DTUSCG23-00-D-ADW141

Task No.: DTUSCG23-02-F-DDX046

Prepared for:

**Commandant  
United States Coast Guard (G-OPD)  
2100 Second Street, SW  
Washington, DC 20593-0001**

Prepared by:



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10331 Democracy Lane  
Fairfax, Virginia 22030

**August 2002**

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**Table of Contents**

**1. PURPOSE OF AND NEED FOR THE ACTION .....1**

1.1 Introduction.....1

1.2 Coast Guard Missions.....2

    1.2.1 Maritime Law Enforcement.....2

    1.2.2 Maritime Safety .....3

    1.2.3 National Defense.....3

    1.2.4 Marine Environmental Protection.....4

1.3 Purpose and Need for the Action .....4

1.4 Project Scope and Area.....6

1.5 Public Involvement Process.....7

1.6 Organization of the EA .....7

**2. PROPOSED ACTION AND ALTERNATIVES .....9**

2.1 Proposed Action.....9

2.2 No Action Alternative.....10

2.3 Comparison of Alternatives .....11

2.4 Alternatives Considered but Eliminated .....12

**3. AFFECTED ENVIRONMENT .....13**

3.1 Introduction.....13

    3.1.1 Resources for Analysis .....13

    3.1.2 Region of Influence .....14

    3.1.3 Environmental Regulations, Laws, and Executive Orders .....16

3.2 Biological Resources .....16

    3.2.1 Definition of the Resource.....16

    3.2.2 Affected Environment.....25

3.3 Air Quality and Climate.....35

    3.3.1 Definition of the Resource.....35

    3.3.2 Affected Environment.....36

3.4 Noise .....38

    3.4.1 Definition of the Resource.....38

    3.4.2 Affected Environment.....42

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3.5	Public Safety.....	43
3.5.1	Definition of the Resource.....	43
3.5.2	Affected Environment.....	44
<b>4.</b>	<b>ENVIRONMENTAL CONSEQUENCES .....</b>	<b>45</b>
4.1	Introduction.....	45
4.2	Biological Resources .....	45
4.2.1	Significance Criteria .....	45
4.2.2	Potential Impacts.....	47
4.3	Air Quality and Climate.....	50
4.3.1	Significance Criteria .....	50
4.3.2	Potential Impacts.....	51
4.4	Noise .....	56
4.4.1	Significance Criteria .....	56
4.4.2	Potential Impacts.....	57
4.5	Public Safety.....	58
4.5.1	Significance Criteria .....	58
4.5.2	Potential Impacts.....	59
<b>5.</b>	<b>CUMULATIVE IMPACTS.....</b>	<b>61</b>
5.1	Cumulative Impacts Methods .....	61
5.1.1	Projects Deleted from Further Consideration .....	61
5.1.2	Pertinent Projects .....	63
5.2	Biological Resources .....	66
5.2.1	Proposed Action.....	66
5.2.2	No Action Alternative.....	68
5.3	Air Quality and Climate.....	69
5.3.1	Proposed Action.....	69
5.3.2	No Action Alternative.....	70
5.4	Noise .....	70
5.4.1	Proposed Action.....	70
5.4.2	No Action Alternative.....	70

5.5	Public Safety .....	71
5.5.1	Proposed Action.....	71
5.5.2	No Action Alternative.....	71
<b>6.</b>	<b>LIST OF PREPARERS .....</b>	<b>73</b>
<b>7.</b>	<b>REFERENCES.....</b>	<b>75</b>

**APPENDICES:**

- A – Interested Party Letter**
- B – Interested Party Mailing List**
- C – Newspaper Announcement**
- D – Responses to Interested Party Letter**
- E – Noise Terminology and Analysis Methodology**
- F – Ocean Steward**
- G – Atlantic Protected Living Marine Resources Initiative (excerpt from Final Environmental Impact Statement)**

**List of Figures**

3-1.	Location Map of Chesapeake MSST Homeport .....	15
3-2.	Typical Example of Estuarine Wetlands. ....	35

**List of Tables**

3-1.	Applicable Regulations, Laws, and Executive Orders .....	17
3-2.	Species of Marine Life and Life Stages Found in the EFH.....	31
3-3.	Species of Waterfowl Found in the Chesapeake Bay Region.....	33
3-4.	National Ambient Air Quality Standards .....	36
3-5.	Current AQCR Annual Emissions Inventory Data for AQCR 223 .....	37
3-6.	Local Climate Summary for the City of Norfolk .....	38
3-7.	Underwater Sound Pressure Levels for Various Vessels .....	42
4-1.	Coast Guard MSST – Chesapeake Emissions from Proposed Action.....	52
4-2.	Proposed Action Emissions in AQCR No. 223.....	52
4-3.	General Conformity Rule <i>de minimis</i> Emission Thresholds .....	54

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## **1. Purpose of and Need for the Action**

### **1.1 Introduction**

The United States Coast Guard (USCG) is this nation's oldest maritime agency. Throughout its long history, the USCG (and its predecessors) has responded when called upon to perform its many and varied missions: from its earliest days as a "tax-collector" for the newly formed United States (U.S.), through its role in every major military conflict, to its activities to stop illegal aliens and narcotics, and its long history of search and rescue. The USCG's multi-mission responsibilities stem from the combined goals of its five core-founding agencies now joined under one agency. The former agencies include the Revenue Cutter Service, the Lighthouse Service, the Steamboat Inspection Service, the Bureau of Navigation, and the Life-saving Service. Prompted by economics, maritime disasters, and war, a series of laws were passed defining each agency's missions and authority.

Today, the USCG operates in all maritime regions:

- Approximately 95,000 miles of U.S. coastlines, including inland waterways and harbors
- More than 3.36 million square miles of Exclusive Economic Zone (EEZ) and U.S. territorial seas
- International waters and other maritime regions of importance to the U.S. for missions such as search and rescue, law enforcement, alien migrant interdiction, and national defense

In October 1995, the Secretaries of Transportation and the Department of Defense (DoD), the Chief of Naval Operations, and the Commandant of the USCG signed a Memorandum of Agreement (MOA) identifying the unique national defense capabilities of the USCG:

- Military Environmental Response Operations
- Peacetime Military Engagement
- Maritime Interception Operations
- Coastal Sea Control Operations
- Port Operations, Security and Defense

Domestic port security and protection has long been a core USCG mission. After the end of the Cold War, and in the wake of Desert Shield/Desert Storm, Combatant Commanders recognized a need for deployable Port Security and Harbor Defense units. The USCG's Maritime Defense Zone mission was expanded to include overseas ports and Port Security Units (PSUs) were formed to meet that need. The PSU missions can be divided into three broad categories:

- Sea Control and Harbor Approach

- Harbor Approach Defense
- Harbor Defense/Port Security

Over the past several years, the PSUs have been deployed multiple times. Last year, PSUs were deployed to the Arabian Gulf in the wake of the United States Ship (USS) Cole incident.

The events of September 11, 2001 significantly changed the nation's homeland security posture. Terrorism is a clear and present danger to the U.S. The USCG and DoD are currently partners in two major actions: Operation Enduring Freedom and Operation Noble Eagle.

Operation Enduring Freedom generally refers to U.S. military operations associated with the war on terrorism outside the U.S. USCG PSUs have deployed in support of this operation.

Operation Noble Eagle generally refers to U.S. military operations associated with homeland defense and civil support to federal, state, and local agencies in the U.S., and includes the increased security measures taken after the September 11, 2001 terrorist attacks. The operation involves joint agency coordination and cooperation to ensure our nation and borders are protected from future attacks. An increased USCG maritime security presence will prevent and deter those who would cause harm to innocent Americans.

The USCG has dramatically shifted its mission activity to reflect its role as a leader in Maritime Homeland Security. The USCG's heightened maritime security posture will remain in place indefinitely.

## **1.2 Coast Guard Missions**

The USCG is unique in that it is the only maritime service with regulatory and law enforcement authority, military capabilities, and humanitarian operations. These missions may occur 24 hours a day in severe environments, from arctic to tropical, whenever and wherever the USCG's presence is required. USCG activities in major theater warfare encompass critical elements of naval operations in littoral regions, including port security and safety, military environmental response, maritime interception, coastal control, and force protection. More than two centuries of littoral warfare operations at home and overseas have honed the USCG's skills most needed in support of the nation's military and naval strategies for the 21st century. The USCG's missions can be described in four general categories: maritime law enforcement (Section 1.2.1), maritime safety (Section 1.2.2), national defense (Section 1.2.3), and marine environmental protection (Section 1.2.4).

### **1.2.1 Maritime Law Enforcement**

Since its creation in 1790 to enforce tariff laws, law enforcement has been a primary responsibility of the USCG. Section 14 United States Code (U.S.C.) 89(a) specifically gives USCG officers and petty officers

the unique authority to make inspections, searches, seizures, and arrests for violations of laws of the U.S. The USCG engages in several areas of law enforcement:

- Living Marine Resources Law Enforcement
- Drug Interdiction
- Alien Migrant Interdiction Operations
- General Law Enforcement

As a lead federal agency for at-sea enforcement of national fisheries and marine resource laws and international treaties, the USCG conducts a number of at-sea enforcement activities. Enforcement is carried out to benefit fisheries, to protect important marine habitat, and to protect threatened and endangered species, including: the northern right whale, Kemp's Ridley sea turtle, Hawaiian monk seal, Steller sea lion, and harbor porpoise. Between September 11, 2001 and March 8, 2002, the USCG responded to 115 pollution cases, interdicted 1,529 illegal immigrants, seized 70,560 pounds (lbs) of cocaine, and seized 19,534 lbs of marijuana (USCG 2002a).

### **1.2.2 Maritime Safety**

The USCG's Search and Rescue (SAR) and International Ice Patrol services are essential to protecting lives and property. The USCG averages 50,000 calls for assistance each year and saved approximately 3,800 lives in 1999. Between September 11, 2001 and March 8, 2002, the USCG conducted over 7,000 SAR cases, assisted over 10,000 mariners, and saved 731 lives (USCG 2002a). The USCG responds to all calls of distress, whether from fishing and recreational boats, downed aircraft, or freighters and tankers. Additionally, the USCG continues to support programs to ensure that boats are safe for public use and that they contain appropriate safety equipment.

### **1.2.3 National Defense**

Today, although included within the Department of Transportation (DOT), the USCG remains an armed force with a national defense mission. Examples of this national defense mission include providing peacetime presence, crisis-response, and combat operations across the spectrum of military engagement scenarios, from small-scale contingencies to major theater wars. These missions are essential military components to support joint and combined forces in peacetime, crisis, and war:

- Military Environmental Response Operations
- Peacetime Military Engagement
- Maritime Interception Operations
- Coastal Sea Control Operations
- Port Operations, Security and Defense

Between September 11, 2001 and March 8, 2002, the USCG conducted over 35,000 port security patrols, conducted over 3,500 air patrols, boarded over 2,000 “high interest” vessels, and escorted 6,000 vessels into and out of port. In addition, they established and maintained 124 Security Zones in our nation’s ports (USCG 2002a).

#### **1.2.4 Marine Environmental Protection**

The USCG protects critical natural resources in the 2.25 million square mile U.S. EEZ and provides a wide range of prevention, protection, containment, and recovery activities and operations. The USCG also responds to oil spills of all sizes, funds and often directs their cleanup, and assists in identifying the responsible parties. In the Post September 11th Era, pollution response activities may be needed even more as suspected terrorist targets and tactics focus on water supply and infrastructure. Between September 11, 2001 and March 8, 2002, the USCG responded to 115 pollution cases (USCG 2002a).

### **1.3 Purpose and Need for the Action**

In addition to meeting its other mandated missions, the USCG’s role in homeland security has recently received extra emphasis. As noted, this mission is not new for the USCG. While it is more visible today than it was prior to the tragic events of September 11, 2001, it remains just as important as when the USCG first began protecting our national sovereignty 211 years ago (USCG 2002b).

As part of Operation Noble Eagle, the USCG is at a heightened state of alert protecting more than 361 ports and 95,000 miles of coastline, America’s longest border. The USCG continues to play an integral role in maintaining the operations of our ports and waterways by providing a secure environment in which mariners and the American people can safely go about the business of living and working (USCG 2002b).

In the wake of the September 11, 2001 terrorist attacks, the USCG immediately mobilized more than 2,000 reservists in the largest homeland defense and port security operation since World War II. The USCG has increased its vigilance, readiness, and patrols to protect the country’s 95,000 miles of coastline, including the Great Lakes and inland waterways.

The USCG has several roles in defense of homeland security:

- Protect ports, the flow of commerce, and the marine transportation system from terrorism.
- Maintain maritime border security against illegal drugs, illegal aliens, firearms, and weapons of mass destruction.
- Ensure that U.S. military assets can be rapidly deployed and re-supplied, both by keeping USCG units at a high state of readiness, and by keeping marine transportation open for the transit assets and personnel from other branches of the armed forces.

- Protect against illegal fishing and indiscriminate destruction of living marine resources, prevention and response to oil and hazardous material spills - both accidental and intentional.
- Coordinate efforts and intelligence with federal, state, and local agencies.

The Maritime Safety and Security Team (MSST) proposal is a direct response to September 11, 2001. The MSSTs are urgently needed to improve existing domestic port security capabilities. While the MSSTs will be used similarly to the PSUs to augment existing USCG forces in the U.S., the MSSTs will not duplicate existing protective measures. They will provide complimentary, non-redundant capabilities that will be able to close significant readiness gaps in our nation's strategic ports (USCG 2002c; USCG 2002d).

Under Public Law (P.L.) 107-87, an emergency response supplemental enacted by Congress, monies were appropriated to fund USCG anti-terrorist activities, including the mandated establishment and operation of four Mobile MSSTs. These funds are available until September 30, 2003. Congress considered this issue carefully. Initially, the Senate suggested six MSSTs:

“While the President's request includes \$9,690,000 for the establishment of two active duty Maritime Safety and Security Teams, the Committee finds this request to be insufficient. The request would provide for only one team for both the Atlantic and Pacific operating areas, providing little permanent relief to regular operating units so that they can, once again, pursue all of their multi-mission responsibilities. As such, the Committee has provided a total of \$29,070,000 and 522 full-time permanent staff years for the establishment of six such teams. This appropriation will allow for one team with area-wide responsibilities on both the East and West coast. In addition, the Committee directs that the four remaining teams be located in those Port areas that present the greatest Port Security challenges, especially those ports with a substantial concentration of critical Department of Defense facilities and a shortage of alternative floating assets. Those units will be responsible solely to the Port Security needs in those ports and should allow the other operating units in those regions to return to their other critical responsibilities” (Congress 2001a).

The final version of the law (P.L. 107-117 [House Resolution (H.R.) 3338]) contained a compromise reached in the conference committee. The report states:

“Maritime safety and security teams. The conferees agree that funding for maritime safety and security teams is for establishment of 348 full-time permanent positions for four new teams, including two teams with area-wide operating responsibility (one each for the Atlantic and Pacific operating areas) and two teams to exclusively serve those port areas presenting the greatest port

security challenges, especially those ports with a substantial concentration of critical Department of Defense facilities and a shortage of alternative floating assets. The Senate bill included funds for two area-wide teams and four teams for specific ports. The conferees have no objection to the Commandant co-locating the area-wide teams with the port specific teams if he believes that economies of scale and programmatic benefits will result” (Congress 2001b).

In order to determine which ports required additional protection, the USCG, working with other agencies, developed a matrix to assess and “grade” each U.S. port to aid in the selection of the four top most critical ports to stand up. The elements (presented in alphabetical order) that were assessed included (but were not limited to) (USCG 2002c):

- Cargo Value
- Cargo Volume
- Domestic Cargo
- Hazardous Cargo
- Military Presence
- Population

As a result, the first four ports to be assigned MSSTs are Seattle, Washington; Chesapeake, Virginia; San Pedro, California; and Galveston, Texas. In addition to these four ports, the USCG is planning to stand up MSSTs in other critical ports around the country. Additional National Environmental Policy Act (NEPA) analysis would be prepared for future stand-ups, as necessary.

#### **1.4 Project Scope and Area**

The MSST will have administrative and boat storage facilities at the U.S. Naval Support Group Activity (NSGA), Northwest Annex at Chesapeake, VA. The USCG MSST personnel will be located in Building 41, which will be shared with the Expeditionary Warfare Training Command – Atlantic, a U.S. Marine Unit. The USCG will occupy the first and third floors. While minor renovations will be necessary, the building is functional. MSST personnel will have additional space in Buildings 268 and 269. When not in use, the Response Boats-Small (RBS) will be stored on trailers at NSGA.

The RBS will be launched from one of three locations: a nearby public marina, Integrated Support Command (ISC) Portsmouth, and USCG Station Little Creek. This station is co-located with the Naval Amphibious Base on the Chesapeake Bay. The MSST is expected to operate in the waters bounded by the Chesapeake Bay Bridge and Tunnel to the east and the Interstate 64 Bridge to the west. Accordingly, the scope of this Environmental Assessment (EA) includes the portion of Chesapeake Bay between the Chesapeake Bay Bridge and the 164 Bridge, the area known as Hampton Roads, and the portion of the

Elizabeth River contained within those boundaries. In general, this area is known as the Port of Virginia. It includes the Norfolk International Terminals, Portsmouth Marine Terminal, and the Newport News Marine Terminal. The MSST will normally conduct operations in the harbor or port to which it is assigned. However, the MSST will also be transportable via land transportation, USCG Cutter, and USCG or other military aircraft. In an emergency, the MSST could be relocated to another port. The location and duration of this relocation is impossible to predict and would depend on a number of currently unknown circumstances. Therefore, potential impacts from these types of operations will also be speculative in nature. There are too many variables to adequately assess all potential ports. However, it is expected that the MSST would operate a majority of the time in its homeport. Therefore, this EA focuses on the potential impacts at the homeport of Chesapeake.

### **1.5 Public Involvement Process**

An advertisement in the *Virginian-Pilot* on May 13, 2002 announced the USCG's intent to prepare an EA, giving information on the proposal and seeking comments. Letters to interested parties also were mailed to appropriate federal, state, and local agencies (See Appendix A [Interested Party Letter]; Appendix B [Mailing List]; Appendix C [Newspaper Announcement in *Virginian-Pilot*]; and Appendix D [Responses to the Interested Party Letter]). However, the USCG will accept comments on this Proposed Action throughout the environmental process. An announcement on the availability of the Final EA will also be placed in a local paper.

### **1.6 Organization of the EA**

Acronyms and abbreviations are used throughout the document to avoid unnecessary length. A list of acronyms and abbreviations used throughout this document can be found on the inside cover of this EA.

**Chapter 1:** Purpose and Need for the Action. As a NEPA-required discussion, this chapter provides an overview of the action, describes the area in which the Proposed Action would occur, and explains the public involvement process.

**Chapter 2:** Proposed Action and Alternatives. This chapter describes the Proposed Action, alternatives considered, and the No Action Alternative.

**Chapter 3:** Affected Environment. This chapter describes the existing environmental conditions in the area in which the Proposed Action would occur.

**Chapter 4:** Environmental Consequences. Using the information in Chapter 3, this chapter identifies the potential for significant environmental impacts on each resource area under both the Proposed Action

and No Action Alternative. Direct and indirect impacts as a result of the Proposed Action are identified on a broad scale as appropriate in an EA.

**Chapter 5:** Cumulative Impacts. This chapter discusses the potential cumulative impacts that may result from the impacts of the Proposed Action, combined with foreseeable future actions.

**Chapters 6 and 7.** These chapters provide references and a list of this document's preparers.

**Appendices:** This EA includes five appendices that provide additional information. Appendix A includes a copy of the Interested Party Letter and its attachment. Appendix B is a copy of the mailing list that provides the names of those to whom the Interested Party Letter was sent. Appendix C is a copy of the language used in the newspaper announcement. Appendix D includes the written responses to the Interested Party Letter. Appendix E provides further explanation of the terminology and methodology used in the noise resource section. Appendix F is a copy of the USCG's Ocean Steward Program. Finally, Appendix G is a summary of the Atlantic Protected Living Marine Resources Initiative (APLMRI).

## **2. Proposed Action and Alternatives**

### **2.1 Proposed Action**

The U.S. Coast Guard (USCG) proposes to stand-up and operate four Maritime Safety and Security Teams (MSST), one of which will be located at the Chesapeake Naval Support Group Activity (NSGA) Northwest Facility, Virginia. The term 'stand-up' is defined as establishing a new activity. The MSST will improve existing Port of Virginia security capabilities on an ongoing basis. The MSST will not duplicate existing protective measures, but will provide complimentary, non-redundant capabilities that will be able to close significant readiness gaps in our nation's strategic ports.

The MSST will include 71 active duty personnel augmented by 33 reservists, support buildings for personnel, and six Response Boats-Small (RBS). Personnel will consist of mostly reassigned personnel, although there may be some newly recruited personnel. It is anticipated that they will reside in Chesapeake and the greater Hampton Roads area: the cities of Hampton, Newport News, Norfolk, Portsmouth, and Suffolk. They will possess the specialized skills, capabilities, and expertise to perform a broad range of port security and harbor defense missions that may be required. Each team will be equipped with six armed RBS powered by outboard motors that can reach speeds of 40 knots in a short period. Depending on operational requirements, there may be between two to six boats operating at any one time. The MSST will be capable of operating 24 hours per day, seven days per week. The RBS and their personnel can be moved by aircraft or other means in order to respond to events in ports other than the Port of Virginia, should an increased presence be required at another port. The MSST will be interoperable with, and supported by, military and civilian government organizations, and commercial and non-government entities.

USCG personnel will follow procedures already familiar to them: establishing port security/port safety zones, moving security zones, and escorting vessels. The USCG performs these traditional port security operations on a daily basis. The MSST will have additional responsibilities:

- Enhance port security and security law enforcement capabilities at economic or military significant ports where they are based.
- Deploy for specific episodic events that require an increased security posture of a limited duration.
- Exercise security contingency plans in major ports.
- Augment the Captain of the Port capabilities.

The MSST will be prepared to conduct operations without the need for supplemental training or additional outfitting through all maritime security levels, and will be capable of operating under the threat of chemical, biological, or radiological attack. The MSST will have limited ability to detect chemical,

biological, or radiological attack, and must be able to evacuate a contaminated environment. They will have the ability to conduct emergency gross decontamination of personnel and equipment. In the U.S., the local emergency response agency is responsible for mitigating incidents involving chemical, biological, and radiological hazardous materials. Overseas support is provided through a Memorandum of Understanding (MOU) with other service branches.

## **2.2 No Action Alternative**

National Environmental Policy Act- (NEPA) implementing regulations require that a No Action Alternative be analyzed to provide a baseline for comparison with the action alternatives. The No Action Alternative identifies and describes the potential environmental impacts if the proponent agency does not take the Proposed Action or one of the other action alternatives, if applicable.

Congress and the Executive Branch must respond to the recent and critical demand for homeland defense. Port security measures, such as MSSTs, must be created immediately. In the case of the stand-up and operations of the MSSTs, Congress strongly indicated its desire that the USCG establish MSSTs on a priority basis. Public Law (P.L.) 107-117 provided money for the express purpose of having the USCG (in consultation with other agencies) establish four MSSTs. In yet another indication of the urgency Congress assumed to be the situation, funds for the first four MSSTs expire at the end of the fiscal year.

Congress directed the Commandant of the USCG to establish four MSSTs to be “located in those Port areas that present the greatest Port Security challenges, especially those ports with a substantial concentration of critical Department of Defense facilities and a shortage of alternative floating assets these units will be responsible solely to the Port Security needs and provide permanent relief to regular operating units so that they can, once again, pursue all of their multi-mission responsibilities” (Congress 2001b). Funding for personnel and equipment was appropriated, but funds for the first four MSSTs expire at the end of the fiscal year. The Commandant of the USCG clearly has no choice, except to stand up the MSSTs as directed by Congress.

The No Action Alternative, as used in this Environmental Assessment (EA), will not fulfill the USCG’s purpose and need to provide additional security to these four ports. Therefore, the No Action Alternative will only be analyzed in this EA to provide a baseline with which to compare environmental impacts of the action alternative. In the event that a No Action Alternative was acceptable, several consequences might occur. Under current operations, vessels and manpower are being diverted from other missions in order to provide the additional security for the nation’s ports. Under the No Action Alternative, this disruption of other missions would continue. The result would be further strain on manpower and current assets. This scenario of vessels and manpower being stretched to their limit would possibly make

it easier for an attack to occur in one of the “critical” ports. The result might be a potential for significant adverse environmental impacts. Terrorists could strike at military or commercial facilities in these ports creating health and safety hazards for the surrounding populace, impacting appropriate emergency responses, impacting employment and trade, and impacting marine life. The impacts could be immediate (loss of life) or long-lasting (disruption of commerce activities) that could impact the long-term economy. Recovery time would be dependent on the severity and extent of the loss.

Other consequences will flow from the USCG being unable to fully perform enforcement missions. For example, the USCG is also responsible for drug and alien interdiction and protection of the nation’s Exclusive Economic Zone (EEZ). Without adequate vessels and manpower, the USCG will not be able to maintain its high level of effectiveness in stopping illegal aliens and drugs from reaching the nation’s shores. The environmental resources in the EEZ, for example, fishing, may also suffer from the USCG’s diminished ability to protect those fishing areas from illegal catches, as discussed in Ocean Guardian. In addition, adverse impacts to threatened and endangered species could occur if the USCG is unable to maintain its current level of effectiveness in enforcing the Endangered Species Act and associated regulation in U.S. waters.

### **2.3 Comparison of Alternatives**

The Proposed Action to stand-up and operate a MSST in Chesapeake, Virginia has the potential for significant positive impacts from both a security and safety viewpoint, as well as easing environmental concerns. First, the additional response boats will provide added security from terrorist attack for the safety of ships entering/leaving the Port of Virginia, for the numerous commercial interests and for the general population who work and live in and near the port. Second, the Proposed Action will add additional protection from potentially significant environmental damage. While the possibility of standing up six boats may appear to be a large increase, this is actually a small number when compared to the number and size of vessels that visit Chesapeake Bay and the Port of Norfolk everyday. It is unlikely that all six boats will be in use at any one time. The boats will usually cruise at 10 to 12 knots, resulting in a small wake that should not negatively impact the surrounding shores. Furthermore, the USCG has existing mitigation in place on the East Coast to guard against adverse vessel impacts to protected species. The USCG currently operates under the Atlantic Protected Living Marine Resources Initiative (APLMRI) and Ocean Steward (a summary of the APLMRI can be found in Appendix G). In 1996, the USCG published the APLMRI Environmental Impact Statement Record of Decision in the Federal Register. It consists of two components: an internal program focusing on the USCG enforcement of the Endangered Species Act (ESA) and the Marine Mammal Protection Act (MMPA) and a conservation program focusing on other USCG activities, including interactions between USCG personnel and the public. The purpose of Ocean Steward, the Protected Living Marine Resources Strategic Plan, is to help the USCG

achieve its strategic goal of Protection of Natural Resources and its goal of enforcing federal regulations that result in all living marine resources achieving healthy, sustainable populations. Therefore, no additional mitigation activities should be necessary for the stand-up and operation of the MSST at Chesapeake.

Under the No Action Alternative, the added safety and security provided by the MSST would not be available. While the USCG will continue with their current level of protection, this level has already been determined to be less than is required for the Port of Virginia. The potential environmental damage from a terrorist attack may be significantly adverse. The No Action Alternative will meet neither Congress's directive nor the USCG's homeland security mission requirements.

#### **2.4 Alternatives Considered but Eliminated**

The emergency response supplemental enacted by Congress to address the emergency situation of a very plausible threat of terrorist attack on our country's ports effectively directs the USCG to establish and operate four mobile MSSTs in four of our "most critical ports." Congress recognized, as did the USCG, that these teams are critical to this country's homeland security and defense, and it is urgent that they be stood-up quickly. The direction and intent of this legislation and congressional conference language allows for little in the way of viable alternatives that would meet the purpose and need. Different ports were examined as alternative locations for the stand-up of the first four MSSTs as discussed in Section 1.3 of this EA, however, based on the criteria used to determine the "most critical ports," these locations were not chosen as one of the first four most critical locations.

Other agencies besides the USCG could have been considered for the Proposed Action. However, domestic port security has been a core mission of the USCG for over 200 years. The Memorandum of Agreement (MOA), signed in October 1995 by the Secretaries of Transportation and Defense, the Chief of Naval Operations, and the Commandant of the USCG, identified those unique national defense capabilities of the USCG as a force provider. In addition, the USCG is the only U.S. maritime agency with regulatory and law enforcement authority, also having U.S. military capabilities. The USCG has been using the same tactics for harbor defense and port security procedures as the MSSTs will be using in the Port of Virginia, Chesapeake Bay, and other U.S. ports. This recognition of the USCG's unique capabilities coupled with the long-time advantage of providing security for U.S. ports makes the USCG the natural choice to fulfill this mission.

### **3. Affected Environment**

#### **3.1 Introduction**

##### **3.1.1 Resources for Analysis**

This chapter describes the environmental and socioeconomic conditions most likely to be affected by the Proposed Action and serves as a baseline from which to identify and evaluate potential impacts from implementation of the Proposed Action. In compliance with National Environmental Policy Act (NEPA) and Council on Environmental Quality (CEQ) guidelines, the description of the affected environment focuses on those conditions and resource areas that are potentially subject to impacts. These resources include water resources, soils and land use, socioeconomics, environmental justice, cultural resources, hazardous materials and waste management, biological resources, air quality and climate, noise, and public safety. Some environmental resources and conditions that are often analyzed in an EA have been omitted from this analysis. The following paragraphs identify the omitted resource areas and the basis for such exclusions:

- *Water Resources.* The Proposed Action does not involve any activities that would significantly increase the demand for water resources or affect surface water and groundwater. No physical disturbances, earth moving, or construction activities would occur, therefore the Proposed Action would not affect surface water flow quantity or quality. Accordingly, the U.S. Coast Guard (USCG) has omitted detailed analysis of water resources. A detailed discussion of wetlands and floodplains is included in Sections 3.2 and 4.2, Biological Resources. The Proposed Action will impact water quality in the Region of Influence (ROI) as a result of the emissions of outboard engines. However, the Port of Virginia is a highly traveled port. In addition, Chesapeake Bay has degraded water quality, severe loss of submerged aquatic vegetation, severe oxygen deficiencies, highly eutrophic conditions, a high concentration of sediment contaminants, and poor benthic community conditions (EPA 2001). The addition of six RBS would not adversely affect the water quality of Chesapeake Bay. Accordingly, the USCG has omitted detailed examination of water resources.
- *Soils and Land Use.* The Proposed Action would not involve any physical disturbances, earth moving, or construction activities. Minor modifications to the interior of the building at Naval Security Group Activity (NSGA), Northwest Facility will be required. This would not involve any actions inconsistent with present and foreseeable land use patterns at NSGA, USCG Station, Little Creek, nor Integrated Support Command (ISC) Portsmouth. Implementation of the Proposed Action would not alter the existing land use at these locations. Accordingly, the USCG has omitted detailed examination of soils and land use.
- *Socioeconomics.* The Proposed Action does not involve any activities that would contribute to significant changes in socioeconomic resources. The 33 reservists are currently in the Chesapeake area. The majority of the 71 active duty personnel would be reassigned personnel and, therefore, are already in the Chesapeake area. Any additional personnel would be located in a five-city area with a combined current population of 725,232. It is unlikely that the addition of 71 personnel would have a significant adverse impact on the

region, due to the relative size of the population affected and the low unemployment rate of the region. Accordingly, the USCG has omitted detailed examination of socioeconomics.

- *Environmental Justice.* Implementation of the Proposed Action would not result in adverse impacts in any environmental resource area that would, in turn, be expected to disproportionately affect minority and low-income populations. Therefore, there are no significant impacts. Accordingly, the USCG has omitted detailed examination of environmental justice.
- *Cultural Resources.* The Proposed Action does not involve any activities that would impact cultural resources. There would be no ground disturbing activities; therefore, there would be no impact to archaeological sites. The NSGA's administration building, designated for the Marine Safety and Security Team (MSST), was constructed in 1964 and is, therefore, not eligible for listing in the National Register of Historic Places (NRHP). MSST personnel will also have space in two other buildings, both constructed in 1981. No construction (other than minor interior modifications to the NSGA building) is required at any location; therefore, no potential visual impacts would occur. Cultural resources present in the ROI have the potential to be affected. However, the Port of Virginia is a large port, has been operating for centuries, and is currently the largest intermodal facility on the U.S. East Coast. The introduction of six RBS would not adversely affect setting, qualities of integrity, or jeopardize a property's eligibility on the NRHP. Accordingly, the USCG has omitted detailed examination of cultural resources.
- *Hazardous Materials and Hazardous Wastes.* The Proposed Action will occur at NSGA, ISC Portsmouth, and USCG Station, Little Creek. All these facilities have existing hazardous materials and hazardous waste management programs. Only minor maintenance and repair work will be performed by MSST personnel. Major maintenance and repair work will occur at a commercial marine facility, which would have similar management plans. The Proposed Action will not require or add a significant amount of hazardous materials or wastes to those already generated by these facilities. The MSST will follow the USCG's procedures as described in the Hazardous Waste Management Manual (COMDTINST M 16478.1B), internally known as the "Red Book." This manual is a compilation of standard operating procedures for employees handling hazardous materials and waste, asbestos, polychlorinated biphenyls, fuel tanks, lead, and biohazardous waste (USCG 1992). As a tenant activity, the MSST will follow the Navy's requirements for the handling, storage, and disposal of hazardous wastes and materials. Accordingly, the USCG has omitted detailed examination of hazardous materials and hazardous wastes.

### **3.1.2 Region of Influence**

The MSST will be homeported at NSGA Northwest Facility, Virginia (see Figure 3-1). The Response Boats-Small (RBS) will be launched from three different locations: a nearby public marina, ISC Portsmouth, and USCG Station Little Creek, co-located on the Naval Amphibious Base. The ROI for the

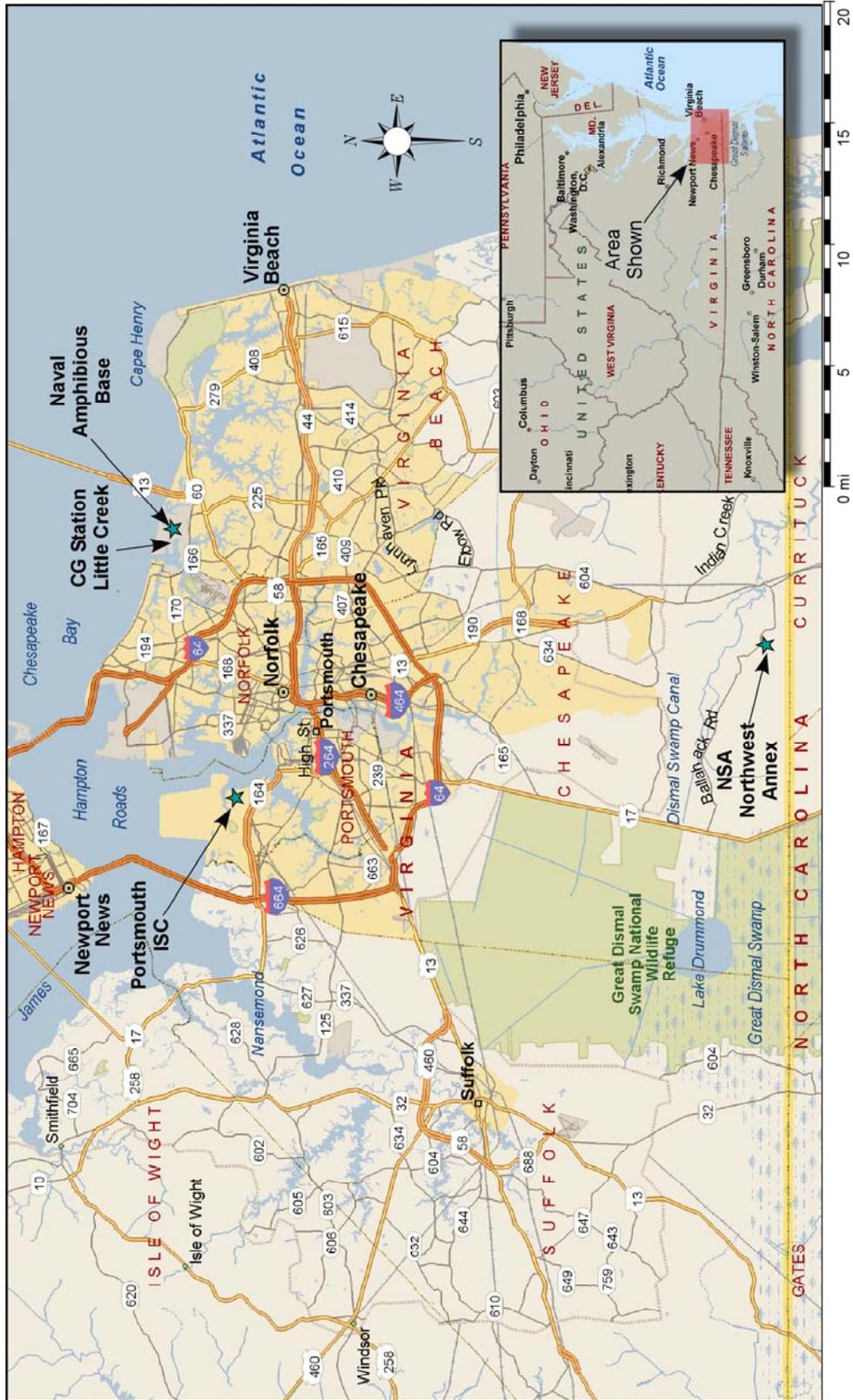


Figure 3-1. Location Map of Chesapeake MSST Homeport

Proposed Action and the No Action Alternative is geographically defined as that area of the Chesapeake Bay from the Chesapeake Bay Bridge and Tunnel to the Highway 164 Bridge. The ROI includes the Virginia cities of Hampton, Newport News, Norfolk, Portsmouth, and Suffolk. This region encompasses the area where the MSST is expected to spend the majority of its operating time. The MSST can be deployed temporarily in emergencies to other ports as needed.

The Port of Virginia has the best natural deepwater harbor on the U.S. East Coast. Fifty-foot deep, unobstructed channels provide easy access and maneuvering room for the largest of today's container ships. The port is located just 18 miles from the ocean sea on a year-round, ice-free harbor. The Virginia Port Authority is an agency of the Commonwealth of Virginia, reporting to the Secretary of Transportation. The agency owns four general cargo terminals: Norfolk International Terminals, Portsmouth Marine Terminal, Newport News Marine Terminal, and the Virginia Inland Port in Front Royal, operated by its affiliate, Virginia International Terminals, Inc. ISC Portsmouth is home to the Maintenance and Logistic Command Atlantic and the Atlantic Area/Fifth District Headquarters, eight cutters, three buoy tenders, and eight tenant commands. USCG Station Little Creek is a small boat station with approximately 12 active duty and six reserve personnel and is co-located with the Naval Amphibious Base. This base is the major operating base for the amphibious forces in the U.S. Atlantic Fleet. It provides support services to over 15,000 personnel, 27 homeported ships, and 78 resident and/or supported activities. When not on patrol, the RBS will be on trailers at NSGA, Northwest Annex.

### **3.1.3 Environmental Regulations, Laws, and Executive Orders**

Table 3-1 is limited to those regulations, laws, and executive orders that may reasonably be expect to apply to the Proposed Action. It is not intended to be a complete description of the entire legal framework under which the USCG conducts its missions.

## **3.2 Biological Resources**

### **3.2.1 Definition of the Resource**

Biological resources include native or naturalized plants and animals, and the habitats, such as wetlands, forests, and grasslands, in which they exist. Sensitive and protected biological resources include plant and animal species listed as threatened or endangered by the U.S. Fish and Wildlife Service (USFWS) or a state. Determining which species occur in an area affected by a proposed action may be accomplished through literature reviews and coordination with appropriate federal and state regulatory agency representatives, resource managers, and other knowledgeable experts.

**Table 3-1. Applicable Regulations, Laws, and Executive Orders**

<b>Executive Orders</b>		<b>Impact on the Proposed Action</b>
<i>Executive Order (EO) 11593, Protection and Enhancement of the Cultural Environment</i>	All federal agencies are required to locate, identify, and record all cultural and natural resources. Cultural resources include sites of archaeological, historical, or architectural significance. Natural resources include the presence of endangered species, critical habitat, and areas of special biological significance.	It is unlikely that the Proposed Action will impact cultural or historical resources.
<i>EO 11990, Protection of Wetlands</i>	Requires federal agencies to avoid undertaking or providing assistance for new construction located in wetlands unless there is no practicable alternative, and all practicable measures to minimize harm to wetlands has been implemented.	Proposed Action will not involve new construction in wetlands.
<i>EO 11988, Floodplain Management</i>	Provides direction regarding actions of federal agencies in floodplains, and requires permits from state and federal review agencies for any construction within a 100-year floodplain.	Proposed Action will not involve construction in floodplains.
<i>EO 12372, Intergovernmental Review of Federal Programs (as amended by EO 12416)</i>	Requires federal agencies to consult with state and local governments when proposed federal financial assistance or direct federal development has an impact on interstate metropolitan urban centers or other interstate areas.	No federal financial assistance will be provided to Chesapeake or Virginia because of this action. No development that might have an impact on Chesapeake will occur as part of the Proposed Action. Appropriate state and local officials were invited to comment during scoping.
<i>EO 12856, Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements</i>	Requires federal agencies to plan for chemical emergencies. Facilities that store, use, or release certain chemicals are subject to various reporting requirements. Reported information is made available to the public.	No additional chemicals will be used or stored because of the Proposed Action.
<i>EO 12898, Environmental Justice</i>	Requires certain federal agencies, including the Department of Defense (DoD), to the greatest extent practicable permitted by law, to make environmental justice part of their missions by identifying and addressing disproportionately high and adverse health or environmental effects on minority and low-income populations.	The Proposed Action will not result in adverse health or environmental effects on minority and low-income populations.

**Table 3-1. Applicable Regulations, Laws, and Executive Orders (continued)**

Executive Orders		Impact on the Proposed Action
<i>EO 13007, Indian Sacred Sites</i>	Requires federal agencies to accommodate access to, and ceremonial use of, sacred sites by practitioners and avoid adversely affecting the physical integrity of such sites.	No Indian sacred sites will be impacted by the Proposed Action.
<i>EO 13045, Protection of Children from Environmental Health and Safety Risks</i>	Makes it a high priority to identify and assess environmental health and safety risks that may disproportionately affect children. It also directs agencies to ensure that policies, programs, activities, and standards address such risks if identified.	The Proposed Action will not create environmental health and safety risks to children.
<i>EO 13158, Marine Protected Areas</i>	Requires federal agencies whose actions affect the natural and cultural resources protected by a marine protected area (MPA) to identify such actions, and, to the extent practicable and permitted by law, to avoid harming the natural and cultural resources that are protected by an MPA.	No MPAs identified within the ROI.
<i>EO 13175, Consultation and Coordination with Indian Tribal Governments</i>	Requires federal agencies to have an accountable process to ensure meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications.	No Indian Tribes were identified within the ROI.
<i>EO 13186, Responsibilities of Federal Agencies to Protect Migratory Birds</i>	Requires federal agencies to take steps to protect migratory birds, including restoring and enhancing habitat, preventing or abating pollution affecting birds, and incorporating migratory bird conservation into agency planning processes whenever possible.	The Proposed Action will not impact migratory birds or their habitats.
<i>American Indian Religious Freedom Act, 42 United States Code (U.S.C.) 1996, Public Law (P.L.) 95-341</i>	Protects and preserves the rights of American Indians, Eskimos, Aleuts, and Native Hawaiians to exercise the traditional religions. These rights include, but are not limited to, access to sites, use and possession of sacred objects, and the freedom to worship through ceremony and tradition rites.	No Indian Tribes were identified within the ROI. No such concerns were raised as a result of scoping.
<i>Antiquities Act of 1906, 16 U.S.C. 431-433, P.L. 59-209</i>	Provides for the protection of historic and prehistoric ruins and objects of antiquity on lands owned or controlled by the federal government. Authorizes scientific investigation of antiquities on federal lands. Authorizes the establishment of national landmarks.	The Proposed Action will not impact historic and prehistoric ruins and objects of antiquity.
<i>Archaeological and Historical Preservation Act, 16 U.S.C. 469</i>	Protects and preserves historical and archaeological data. Requires federal agencies to identify and recover data from archaeological sites threatened by their actions.	The Proposed Action will not result in construction and therefore will not impact historical and archaeological data.

**Table 3-1. Applicable Regulations, Laws, and Executive Orders (continued)**

<p><i>Archaeological Resources Protection Act of 1979, 16 U.S.C. 470 et seq., P.L. 96-95</i></p>	<p>Enacted to preserve and protect resources and sites on federal and Indian lands. Fosters cooperation between governmental authorities, professionals, and the public. Prohibits the removal, sale, receipt, and interstate transportation of archaeological resources obtained illegally from public or Indian lands.</p>	<p>No protected resources or sites were identified as a result of scoping.</p>
<p><i>Clean Air Act, 42 U.S.C. 7401-7671q, July 14, 1955, as amended</i></p>	<p>This Act, as amended, is known as the Clean Air Act (CAA) of 1970. The amendments made in 1970 established the core of the clean air program. The primary objective is to establish federal standards for air pollutants. It is designed to improve air quality in areas of the country, which do not meet federal standards and to prevent significant deterioration in areas where air quality exceeds those standards.</p>	<p>Determine impact, if any, as a result of the proposed project.</p>
<p><i>Coastal Zone Management Act of 1972, 16 U.S.C. 1451-1464, P.L. 92-583</i></p>	<p>Establishes a policy to preserve, protect, develop, and, where possible, restore and enhance the resources of the Nation's coastal zone. Encourages and assists states through the development and implementation of coastal zone management programs.</p>	<p>No concerns were identified as a result of scoping. The Proposed Action will occur in a high trafficked commercial port. The Chesapeake National Estuarine Research Reserve (NERR) is one hour north of the ROI. It is unlikely that the Proposed Action will result in any impacts to the coastal zone.</p>
<p><i>Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. 9601-9675, P.L. 96-510, amended by Superfund Amendments and Reauthorization Act of 1986 (SARA), P.L. 99-499</i></p>	<p>Also known as "Superfund," provides for liability, compensation, cleanup, and emergency response for hazardous substances released into the environment and cleanup of inactive hazardous substances disposal sites. Also established a fund financed by hazardous waste generators to support cleanup and response actions.</p>	<p>MSST will be co-located with the NSGA and launch at ISC Portsmouth and USCG Station Little Creek. The MSST will comply with the appropriate response plans.</p>
<p><i>Department of Transportation Act, Section 4(f)</i></p>	<p>Requires the Department of Transportation (DOT) to avoid or mitigate impacts to public parks and wildlife areas when approving transportation programs or projects.</p>	<p>The Proposed Action will not impact public parks nor result in significant impacts to wildlife areas</p>

**Table 3-1. Applicable Regulations, Laws, and Executive Orders (continued)**

<p><i>Endangered Species Act of 1973, as amended, 16 U.S.C. 1531 et seq., P.L. 93-205</i></p>	<p>Protects threatened, endangered, and candidate species of fish, wildlife, and plants and their designated critical habitats. Under this law, no federal action is allowed to jeopardize the continued existence of an endangered or threatened species. The Endangered Species Act also requires consultation with USFWS and the National Marine Fisheries Service (NMFS) and the preparation of a biological assessment when such species are present in an area that is affected by government activities.</p>	<p>Threatened and endangered species occur in the ROI. USCG informally consulted with NMFS. A copy of the NMFS reply can be found in Appendix D. USCG also coordinated with the Virginia Department of Game and Inland Fisheries (VADGIF).</p>
<p><i>Federal Property and Administrative Services Act of 1949</i></p>	<p>Guides the process for transferring government property.</p>	<p>The Proposed Action will not result in the transfer of government property.</p>
<p><i>Federal Records Act</i></p>	<p>Requires federal agencies to preserve federal records of potential historic value.</p>	<p>No federal records will be impacted as a result of the Proposed Action.</p>
<p><i>Federal Water Pollution Control Act (Clean Water Act), 33 U.S.C. 1251-1387</i></p>	<p>The Clean Water Act is a comprehensive statute aimed at restoring and maintaining the chemical, physical, and biological integrity of the nation's waters. Primary authority for the implementation and enforcement rests with the U.S. Environmental Protection Agency (EPA).</p>	<p>Determine impact, if any, by the Proposed Action.</p>
<p><i>Fish and Wildlife Conservation Act Coordination Act, 16 U.S.C. 661 et seq., P.L. Chapter 55</i></p>	<p>The purpose of this Act is to ensure that wildlife conservation receives equal consideration and be coordinated with other features of water-resources development programs.</p>	<p>No waters or channels will be modified as a result of the Proposed Action.</p>
<p><i>Historic Sites Act of 1935, 16 U.S.C. 461-467, P.L. Chapter 593</i></p>	<p>Establishes a national policy to preserve for public use, historic sites, buildings, and objects of national significance.</p>	<p>No historic sites have been identified at NSGA, ISC Portsmouth or USCG Station, Little Creek.</p>
<p><i>Historical and Archaeological Data-Preservation, 16 U.S.C. 469 et seq., P.L. 93-291</i></p>	<p>Protects and preserves historical and archaeological data caused as a result of federal construction projects. Directs federal agencies to notify the Secretary of the Interior when the construction project may cause irreparable loss or destruction of significant resources or data. Provides a mechanism through which resources can be salvaged from a construction site.</p>	<p>No construction will occur as a result of the Proposed Action.</p>
<p><i>Lacey Act of 1900, 16 U.S.C. 701, 702; 31 Stat. 187, 32 Stat. 285</i></p>	<p>Under this law, it is unlawful to import, export, sell, acquire, or purchase fish, wildlife, or plants taken, possessed, transported, or sold: 1) in violation of U.S. or Indian law, or 2) in interstate or foreign commerce involving any fish, wildlife, or plants taken, possessed, or sold in violation of state or foreign law.</p>	<p>The Proposed Action will not impact the enforcement of this law.</p>

**Table 3-1. Applicable Regulations, Laws, and Executive Orders (continued)**

<p><i>Magnuson-Stevens Fishery Conservation and Management Act, as amended through October 11, 1996, 16 U.S.C. 1801 et seq., P.L. 94-265</i></p>	<p>Establishes regional fisheries councils that set fishing quotas and restrictions in U.S. waters. Federal agencies must consult with NMFS on all actions, authorized, funded, or undertaken by the agency that may adversely affect essential fish habitat (EFH)</p>	<p>Thirteen EFHs have been established in the Chesapeake Bay area.</p>
<p><i>Marine Mammal Protection Act of 1972, 16 U.S.C. 1361 et seq., 1401-1407, 1538, 4107</i></p>	<p>Establishes a moratorium on the taking and importation of marine mammals including harassment, hunting, capturing, collecting, or killing or attempting the above actions. Requires permits for taking marine mammals. Requires consultations with USFWS and NMFS if impacts to marine mammals are possible.</p>	<p>The Proposed Action is not likely to result in the taking of a marine mammal. This does not mean that a strike will never occur. USCG consulted with NMFS. A copy of the NMFS reply can be found in Appendix D. USCG also coordinated with VADGIF.</p>
<p><i>Marine Protection, Research, and Sanctuaries Act of 1972, 33 U.S.C. 1401-1445, P.L.92-532</i></p>	<p>Regulates the dumping of materials into ocean waters. Provides for a permitting process to control the ocean dumping of dredged materials. Establishes the marine sanctuaries program.</p>	<p>There are no marine protected areas in the ROI.</p>
<p><i>Migratory Bird Treaty Act 16 U.S.C. 703-712</i></p>	<p>The Migratory Bird Treaty Act implements various treaties and is for the protection of migratory birds. Under the Act, taking, killing, or possessing migratory birds is unlawful.</p>	<p>The Proposed Action will not impact migratory birds nesting, feeding, or migration habits.</p>
<p><i>National Environmental Policy Act of 1969 (NEPA), as amended; P.L. 91-190, 42 U.S.C. 4321 et seq.</i></p>	<p>Requires federal agencies to utilize a systematic approach when assessing environmental impacts of government activities. NEPA proposes an interdisciplinary approach in a decision-making process designed to identify unacceptable or unnecessary impacts to the environment.</p>	<p>The scope of the Proposed Action requires an Environmental Assessment (EA).</p>
<p><i>National Historic Preservation Act, 16 U.S.C. 470 et seq.</i></p>	<p>Requires federal agencies to take account of the effect of any federally assisted undertaking or licensing on any district, site, building, structure, or object eligible or listed for inclusion in the NRHP. Provides for the nomination, identification (through listing on the National Register), and protection of historical and cultural properties of significance.</p>	<p>No buildings at any of the three locations have been identified as eligible for inclusion in the NRHP.</p>
<p><i>National Invasive Species Act of 1996, 16 U.S.C. 4701 et seq., P.L. 104-332</i></p>	<p>Reauthorizes and amends the Nonindigenous Aquatic Nuisance Prevention Control Act of 1990. Establishes ballast water information and requires guidelines to be issued for the Great Lakes.</p>	<p>The RBS will not require ballast water.</p>

**Table 3-1. Applicable Regulations, Laws, and Executive Orders (continued)**

<i>Noise Control Act of 1972, 42 U.S.C. 4901-4918, P.L. 92-574</i>	Establishes a national policy to promote an environment free from noise that jeopardizes their health and welfare. Authorizes the establishment of federal noise emissions standards and provides information to the public.	Determine impact, if any, as a result of the proposed project.
<i>Nonindigenous Aquatic Nuisance Prevention Control Act of 1990, 16 U.S.C. 4701 et seq., P.L. 101-646</i>	Establishes aquatic nuisance species.	The RBS will not require ballast water.
<i>Northwest Atlantic Fisheries Convention Act</i>	Implements provisions of international conventions and establishes regulatory framework.	The Proposed Action will not impact the enforcement of this regulation.
<i>Occupational Safety and Health Act</i>	Establishes standards to protect workers, including standards on industrial safety, noise, and health standards.	The USCG has an equivalent protective measures for personnel.
<i>Port and Waterways Safety Act</i>	Sets vessel operating and towing safety requirements and sets out enforcement provisions.	The Proposed Action will not impact the enforcement of this Act.
<i>Resource Conservation and Recovery Act, 42 U.S.C. 6901, P.L. 94-580</i>	Establishes requirements for safely managing and disposing of solid and hazardous waste and underground storage tanks. Federal agencies must comply with waste management requirements.	The MSST will comply with the current NSGA, ISC Portsmouth's and USCG Station Little Creek facility's' programs.

Source: USCG 2002e; USCG 2002f

**Protected and Sensitive Habitats.**

Protected and sensitive habitats are usually defined as those regions that are identified as marine sanctuaries, critical habitats, fisheries management areas, national parks, wildlife refuges, and estuarine research reserve sites. These regions and areas can be under federal, state, and in some cases, local jurisdictions.

The USCG has a number of long-standing missions relating to protected and sensitive habitats:

- National Marine Sanctuary Law Enforcement Program: among other activities, provides routine surveillance of marine sanctuaries concurrently with other USCG operations and provides specific, targeted, or dedicated law enforcement as appropriate.
- Ocean Guardian: a long-range fisheries law enforcement strategy to support national goals for fisheries resource management and conservation.
- Ocean Steward: the USCG's national strategy to help the recovery and maintenance of healthy populations of marine protected species.
- Sea Partners: this environmental and outreach program designed to develop community awareness of maritime pollution issue and to improve compliance with marine environmental protection laws and regulations (USCG 2002f).

### **Marine Mammals and Sea Turtles**

Marine mammals are an important consideration for USCG activities. A number of factors may impact the distribution of marine mammals, including environmental, biotic, and impacts generated by humans. Environmental factors may include chemical, climate, or physical (those related to the characteristics of a location). Biotic factors include the distribution and abundance of prey, competition for prey, reproduction, natural mortality, catastrophic events (e.g., die-offs), and predation. Human impacts include noise, hunting pressure, pollution and oil spills, habitat loss and degradation, shipping traffic, recreational and commercial fishing, oil and gas development and production, and seismic exploration. It is the interrelationships of these factors that can affect the location and temporary distribution of prey species. This, in turn, is the major influence on diversity, abundance, and distribution of marine mammals.

The USCG has a long-standing role in protecting marine mammals. It enforces all U.S. laws on all U.S. waters, including laws protecting marine mammals and sensitive species. The USCG enforces the Endangered Species Act (ESA), the Marine Mammal Protection Act (MMPA), the National Marine Sanctuaries Act, and a number of maritime executive orders (EO), and federal and international laws as applicable. The USCG's Commandant Instructions (COMDTINSTs) include a number of policies, directions, and procedures that include specific rules to ensure avoidance with marine mammals and avoid impacts whenever possible. The USCG's Ocean Steward and Ocean Guardian programs, the APLMRI and speed guidance also support these goals (USCG 2002b). The Ocean Steward Plan protects marine mammals by regulating incidental and intentional 'takes' (harassment of marine mammals from close or repeated approach by vessels. Under the ESA, an "endangered species" is defined as any species in danger of extinction throughout all or a significant portion of its range. A "threatened species" is defined as any species likely to become an endangered species in the foreseeable future. The USFWS also maintains a list of species considered candidates for possible listing under the ESA. Although candidate species receive no statutory protection under the ESA, the USFWS has attempted to advise government agencies, industry, and the public that these species are at risk and may warrant protection under the Act.

### **Fish**

Living Marine Resource Protection is an important USCG mission. The USCG undertakes such activities as enforcing domestic fisheries laws, and ensuring the development of practical enforcement plans to protect, conserve, and manage these resources. The USCG enforces several laws pertaining to fish and fisheries management:

- Magnuson-Stevens Fisheries Conservation Act
- Endangered Species Act

- Marine Protection, Research and Sanctuaries Act
- National Fishery Management Program
- Fish and Wildlife Conservation Act
- Lacey Act Amendments of 1981

The USCG also has two initiatives related to fish and fisheries management:

- Ocean Steward
- Ocean Guardian (includes the Fisheries Enforcement Strategic Plan)

### **Coastal and Other Birds**

In enforcing the ESA, the USCG also protects endangered and threatened bird species. The USCG must also comply with the Migratory Bird Treaty Act and EO 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*.

### **Wetlands and Floodplains**

Biological resources also include wetlands. Wetlands are an important natural system and habitat because of the diverse biologic and hydrologic functions they perform. These functions include water quality improvement, groundwater recharge and discharge, pollution mitigation, nutrient cycling, wildlife habitat provision, unique flora and fauna niche provision, storm water attenuation and storage, sediment detention, and erosion protection. Wetlands are protected as a subset of the “waters of the U.S.” under Section 404 of the Clean Water Act (CWA). The term “waters of the United States” has a broad meaning under the CWA and incorporates deep-water aquatic habitats and special aquatic habitats (including wetlands). The U.S. Army Corps of Engineers (USACE) defines wetlands as “those areas that are inundated or saturated with ground or surface water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas” (33 Code of Federal Regulations [CFR] 328).

Section 404 of the CWA authorizes the Secretary of the Army, acting through the Chief of Engineers, to issue permits for the discharge of dredged or fill materials into the waters of the U.S., including wetlands. In addition, Section 404 of the CWA also grants states with sufficient resources the right to assume these responsibilities.

Floodplains are areas of low-level ground along a river or stream channel. These lands may be subject to periodic or infrequent inundation due to rain or melting snow. Risk of flooding is influenced by local topography, the frequency of precipitation events, and the size of the watershed above the floodplain.

Flood potential is evaluated by the Federal Emergency Management Agency (FEMA), which evaluates the floodplain for 100- and 500-year flood events. Federal, state, and local regulations often limit floodplain development to passive uses such as recreational and preservation activities in order to reduce the risks to human health and safety and minimize cost to replace or repair repetitively damaged infrastructure.

### **3.2.2 Affected Environment**

#### **Protected and Sensitive Habitats**

The National Estuarine Research Reserve (NERR) system was established in 1972 under the Coastal Zone Management Act and is administered within the Estuarine Reserves Division of the National Oceanic and Atmospheric Association (NOAA). The NERR System helps to fulfill NOAA's stewardship mission to sustain healthy coasts by improving the nation's understanding and stewardship of estuaries. The reserve system is a network of 25 protected areas that represent different biogeographic regions of the U.S. Through integrated research and education, the reserves help communities develop strategies to successfully address these coastal resource issues. The York River portion (approximately one hour north of Norfolk) of Chesapeake Bay has been designated as a NERR, which includes monitoring sites at Goodwin Islands, Catlett Islands, Taskinas Creek, and Sweet Hall Marsh. Like most of the reserves in the national system, the Chesapeake Bay NERR is diverse ecosystem due to the wide range of salinity gradients. These salinity gradients create a variety of microhabitats and ecological connections for many species of fish, plants, and marine mammals. The range of habitats that the Chesapeake Bay NERR protects includes tidal saltwater, freshwater marshes, submerged aquatic vegetation, upland forest, beaches, and open water (NOAA 2002).

Additional protected habitats in the ROI include a state park and three National Wildlife Refuges. They are:

- Nansemond National Wildlife Refuge
- Plumb Tree Island National Wildlife Refuge
- Fisherman's Island National Wildlife Refuge
- Seashore State Park

#### **Marine Mammals and Sea Turtles**

This section includes a brief description of marine mammals within the ROI. Several endangered species of marine mammals are known to occur off the Virginia Coast. These species frequently occur offshore from the ROI of the Proposed Action. Due to the habitat requirements of these species, they do not occur directly west of the Chesapeake Bay Bridge. Endangered marine mammals that have the potential to occur off the Virginia coast include:

- Right whale (*Eubalaena glacialis*)
- Humpback whale (*Megaptera novaeangliae*)
- Fin whale (*Balaenoptera physalus*)

Right whales exist in mid-Atlantic waters as a migratory population. Once abundant along all major land masses in temperate latitudes of the Northern Hemisphere; right whales are now rare. Remnant populations occur in the North Atlantic (mainly Florida and Gulf of Mexico to Labrador), however the most important areas for this species lie in the Bay of Fundy (RWRT 1990). Generally, right whales spend early summer off the coast of New England and move to waters off southern Canada (lower Bay of Fundy or area between Browns and Baccaro banks) in late summer and fall. Pregnant females move south to winter calving areas off Georgia and Florida. The wintering area for the rest of the population is unknown (RWRT 1990).

Atlantic population numbers of fin whales are uncertain. Fin whales are typically found in Atlantic coastal waters in fall and spring and offshore in winter, however their distribution in mid-Atlantic waters is under review.

Marine mammals that have not been designated as threatened or endangered by the USFWS or the National Marine Fisheries Service (NMFS) also have been observed off the Virginia Coast. Wide varieties of marine mammals visit and inhabit the Virginia coastal waters:

- Atlantic bottlenose dolphin (*Tursiops truncatus*)
- Striped dolphin (*Stenella coeruleoalba*)
- Saddleback (or common) dolphin (*Delphinus delphis*)
- Atlantic spotted dolphin (*Stenella plagiodon*)
- Risso's dolphin (*Grampus griseus*)
- Atlantic white-sided dolphin (*Lagenorhynchus acutus*)
- Short-finned pilot whale (*Globicephala macrorhynchus*)
- Atlantic pilot whale (*Globicephala melaena*)
- Rough-toothed dolphin (*Steno bredanensis*)
- Harbor porpoise (*Phocoena phocoena*)
- Minke whale (*Balaenoptera acutorostrata*)
- Harbor seal (*Phoca vitulina*)
- Hooded seal (*Cystophora cristata*)
- Gray seal (*Halichoerus gryphus*)
- True's beaked whale (*Mesoplodon mirus*)
- Goosebeak whale (*Ziphius cavirostris*)
- Pygmy sperm whale (*Kogia breviceps*)

- Sperm whale (*Physeter macrocephalus*)
- Spotted dolphin (*Stenella plagiodon*)
- Melon headed whale (*Peponocephala electra*)
- Sei whale (*Balaenoptera borealis*)

Atlantic spotted dolphins are distributed in tropical and warm temperate waters of the western North Atlantic (Leatherwood et al. 1976). Their distribution is from southern New England, south through the Gulf of Mexico and the Caribbean to Venezuela (Leatherwood et al. 1976; Perrin et al. 1987). A large heavily spotted form of the Atlantic spotted dolphin occurs as a distinct population along the southeastern and Gulf coasts of the U.S., which may warrant designation as a distinct sub-species (Rice 1998). Spotted dolphins are widely distributed on the continental shelf, along the continental shelf edge, and offshore over the deep ocean south of 40 degrees Fahrenheit (°F) N (CETAP 1982). Atlantic spotted dolphins regularly occur in the inshore waters south of Chesapeake Bay and near the continental shelf edge and continental slope waters north of this region (Payne et al. 1984).

The harbor porpoise is the only true porpoise found in the North Atlantic. The harbor porpoise is a small cetacean, which reaches a maximum length of only about five feet and is somewhat stouter than a dolphin. Coloration is dark brown, black, or dark gray dorsally, shading to lighter gray on the sides (often with speckling) and white to light gray ventrally. The head is small and lacks a beak. The harbor porpoise is a timid creature, and although it frequents inshore habitats, it is not easily sighted. In Virginia, this porpoise occurs in the spring, coincident with the spring shad run. Harbor porpoises are usually found in colder, northern waters and range from Greenland and the Davis Straits in the north to as far south as North Carolina. Their occurrence in the inshore waters of Virginia and North Carolina is seasonal and in small numbers. They are most common in the Bay of Fundy and off southwest Greenland (Blaylock 1985).

The Atlantic bottlenose dolphin may reach a length of 12 feet and weigh over 1,400 lbs. It is generally slate-gray dorsally, shading to white ventrally. The short, stubby snout and dorsal fin distinguish this species from similar species encountered in Virginia waters. There appear to be two distinct types of *Tursiops sp.* in the U.S. Atlantic coastal waters. The offshore type, encountered along the 100-fathom line of the continental shelf, is larger. The inshore type, the most abundant marine mammal along the Virginia and North Carolina coasts, can often be seen just outside the surf line during the summer. Bottlenose dolphins are found in temperate and tropical oceans worldwide. In Virginia, the inshore type ranges the entire ocean coast, within one mile of shore, and the Chesapeake Bay and its tributaries from late spring into the winter (Blaylock 1985).

The saddleback dolphin may reach a length of 8.5 feet, but is usually less than 7.5 feet long. Its body shape is similar to the striped dolphins. The dorsal fin is generally triangular and is usually all black, although it may have a central grayish patch. The saddleback dolphin is common off the Virginia coast where it feeds on squid and a variety of fish such as anchovies, hake, and myctophids (deep-sea lanternfish). Saddleback dolphins often travel in large herds and will ride the pressure wave pushed by the bow of large ships for considerable distances. In the North Atlantic, saddleback dolphins may be found in temperate through tropical waters from Newfoundland to Venezuela (Blaylock 1985).

The Atlantic white-sided dolphin reaches a maximum length of about 9 feet. This is a moderately robust dolphin characterized by a tall, falcate dorsal fin and a small, but distinct beak. Its coloration is black on the back and white on the underside, with elongated white and tan patches on the sides. Although smaller groups are more common, Atlantic white-sided dolphins may congregate in groups of several thousand animals. They do not normally ride bow waves, in fact they usually avoid ships. Virginia is the southern limit of the Atlantic whitesided dolphin's range in the western North Atlantic (Blaylock 1985).

Risso's dolphin reaches a maximum length of 13 feet. Its head is bulbous and lacks a beak. A tall distinct dorsal fin, up to 15 inches in height, is located at the midpoint of the back. Uniformly light gray at birth, adults darken to almost black with distinctive grayish-white areas on the chest and belly. Older adults lighten to cream white or silver gray and are often covered with numerous scars. Risso's dolphin feed on fish and squid and is found offshore in Virginia waters near the outer continental shelf. Occurrence of this dolphin is rare in Virginia, but is not uncommon in North Carolina (Blaylock 1985).

Atlantic pilot whales are large mammals reaching 20 feet in length. The Atlantic pilot whale is black except for a few gray markings on the ventral side. Lacking the "beak" usually associated with dolphins, the head is large and bulbous, and in older males, becomes squared-off. The distinctive dorsal fin is lower in profile than that of other toothed whales, has a longer base, and is set farther back on the body. This species is occasionally found near the edge of the continental shelf off Virginia. They usually occur in herds of 60 or less, although herds of up to 200 animals have been reported for the Atlantic pilot whale. This species frequently strands in large numbers, but mass strandings are not common in Virginia. North Carolina is the southern limit of the Atlantic pilot whale range, which extends north to Iceland and Greenland (Blaylock 1985).

Four species of sea turtles are known to occur along the Virginia Coast. NMSF has recognized the potential for leatherback (*Dermochelys coriacea*), loggerhead (*Acipenser caretta*), Kemp's ridley (*Lepidochelys kempi*), and green (*Chelonia mydas*) turtles to occur within the ROI. The loggerhead turtle is a federally and state listed threatened species. Kemp's ridley is a federally and state listed endangered species. The leatherback and green sea turtles are federally listed endangered species.

The leatherback sea turtle is the largest marine turtle. The carapace length is as great as 244 centimeters, (96 inches) with an average of 155 centimeters and weighs between 290 and 590 kilograms. The breeding season varies with location but is not likely to occur in Virginia. Mating occurs in shallow temperate waters and then the females move to nest on certain tropical beaches. The incubation period is 51-74 days, and nesting occurs every two to three years with six clutches/season, and an inter-nesting period of 10 days. Some females have nested as many as nine times in a season. They nest at night even in rainy weather, and are not easily perturbed. Leatherbacks migrate into boreal waters during warm months to feed but, all nesting areas are tropical (VDNR 2002).

The average carapace length of the loggerhead sea turtle in the Chesapeake Bay is 66.7+/-10.8 centimeters, which is significantly smaller than average carapace length for turtles found in coastal waters (72.3+/-17.4 centimeters). Many of the specimens seen in Virginia waters are juveniles. The breeding season is from April to August in Virginia. Incubation takes 55-70 days, and there are two to three nestings per year. Nesting in Virginia has been reported on the barrier beach islands off the Eastern Shore and in or near Back Bay Wildlife Refuge. This species requires a reproductive site that is a sand beach, which is high enough that is not inundated by high tides nor soaked by ground water rising from below. They cannot cope with many predators on the nest site and almost all nests are on islands. The female goes to shore one to seven times during a nesting season to deposit the eggs in a hole, which she digs on a high beach. A few individuals nest every year but most nest every second or third year. Incubation time is temperature dependent. This species wanders extensively and nests on sandy beaches. They are carnivores and feed mainly on invertebrates, which are crushed by its powerful jaws before swallowing. The loggerhead sea turtle is an opportunistic feeder and has three feeding strategies. They feed in shallow water on mollusks, horseshoe crabs, barnacles, crustaceans, echinoderms and sponges. They also feed pelagically on coelenterates and scallops. They may also feed as a scavenger on shrimp heads, fish, crabs, squid and other discards from the shrimp fleet. In the Chesapeake, this species arrives in June and stays throughout the warmer months of the year. Habitat partitioning was exhibited by the different life stages of the loggerhead turtle in Virginia. The habitat was partitioned to allow immature stages to forage within Chesapeake Bay, while large sub-adults and adults were found offshore during the summer. They are found in the Chesapeake Bay from May to November with peak abundance in mid-June. If nesting females are disturbed before egg laying begins, they will usually abandon the nesting attempt (VDNR 2002).

Kemp's Ridley sea turtle is the smallest sea turtle with a weight of 35-49 kilograms and the length 56-79 centimeters. The largest individual recorded in Virginia was 58.7 centimeters curved carapace length. Kemp's Ridley sea turtles resemble green turtles and hawksbills. Breeding does not occur in Virginia. With few exceptions, breeding occurs only on a 24-kilometer stretch of beach in Tamaulipas, Mexico. This species is an opportunistic feeder on concentrations of portunid crabs and may feed in groups. This

species is mostly diurnal, both in feeding and nesting. Submerged aquatic vegetation is a primary habitat for juvenile Ridleys in the Chesapeake Bay, Virginia, which has the largest concentration of this size class. It has been inferred that males are more pelagic than females, which are restricted to shallow waters just offshore. The average movement of turtles is between 18-37 kilometers per day but individuals have been known to move as much as 35 kilometers in a day, although this may be influenced by the Gulf Stream current. The young drift in a clockwise direction around the Gulf passing by southern Florida and along the Atlantic coast to New England. Foraging juveniles, subadults and adults are found chiefly in the area from the Florida Keys to High Island, Texas in U.S. waters (VDNR 2002).

The shell of the green turtle is broad and heart-shaped and the head small. They have a length from 91-153 centimeters and weigh 100-340 kilograms. Green turtles can be confused with loggerheads, which have a reddish brown carapace, and Ridleys, which are grey or olive. The breeding season varies with location, but all nesting occurs in tropical climates (VDNR 2002).

### **Fish**

Pursuant to the Magnuson-Stevens Fishery Conservation and Management Act, the New England Fishery Management Council, the Mid-Atlantic Fishery Management Council, the South Atlantic Fishery Management Council, and the NMFS the Chesapeake Bay has been designated as an essential fish habitat (EFH). Coastal areas are essential breeding, nursery, and feeding areas for many marine fish and shellfish. In 1996, Congress amended the Magnuson-Stevens Fishery Conservation and Management Act to require that fishery management plans identify the EFH of each fishery and the major threats to that habitat. All fishery management plans must address the impacts of fishing activities on EFH and, to the extent practicable, minimize adverse impacts. Federal agencies also must consult with fishery managers concerning actions (including the issuance of permits for private activities) that may adversely impact EFH.

The New England Fishery Management Council, Mid-Atlantic Fishery Management Council, South Atlantic Fishery Management Council, and NMFS manage the fisheries of 38 species. Thirteen of these species' fisheries have been designated as EFH within the ROI. Table 3-2 lists the species and its life stage(s), which are protected as part of the EFH within the ROI.

**Table 3-2. Species of Marine Life and Life Stages Found in the EFH**

Species	Life Stage			
	Eggs	Larvae	Juveniles	Adults
Atlantic sharpnose shark ( <i>Rhizopriondon terraenovae</i> )				X
Atlantic butterfish ( <i>Peprilus triacanthus</i> )	X	X	X	X
Black sea bass ( <i>Centropristus striata</i> )	n/a		X	X
Bluefish ( <i>Pomatomus saltatrix</i> )			X	X
Cobia ( <i>Rachycentron canadum</i> )	X	X	X	X
Dusky shark ( <i>Charcharinus obscurus</i> )		X	X	
King mackerel ( <i>Scomberomorus cavalla</i> )	X	X	X	X
Red drum ( <i>Sciaenops ocellatus</i> )	X	X	X	X
Sand tiger shark ( <i>Odontaspis stormw</i> )		X		X
Sandbar shark ( <i>Charcharinus plumbeus</i> )		X	X	X
Spanish mackerel ( <i>Scomberomorus stormwate</i> )	X	X	X	X
Summer flounder ( <i>Paralichthys dentatus</i> )		X	X	X
Windowpane flounder ( <i>Scopthalmus aquosus</i> )			X	X

Source: NMFS 2002

Several anadromous fish use the estuary as a migratory corridor, juvenile nursery, and adult habitat. Juvenile and adult white perch are abundant in the estuary. The adults spawn in freshwater upstream of the base, and both juveniles and adults reside in the estuary. Striped bass, particularly juvenile stages, are common in the estuary. Adults may spend time in the area as well, but many move seaward. American shad, blueback herring, and alewife spawn in the freshwater upstream of the base. Juveniles use the estuary as a nursery but usually migrate seaward as adults. Atlantic sturgeon are considered rare near the base and in Chesapeake Bay. The catadromous American eel is found throughout the Chesapeake basin, and juvenile life stages are present near the ROI (Stone et al. 1994).

The estuary provides nursery and adult habitat for many estuarine and marine fish. Estuarine residents include bay anchovy, oyster toadfish, sheepshead minnow, killifishes, silversides, pipefish, gobies and hogchoker. These species spend all life stages within the estuary and several are highly abundant. Species such as bluefish, mullet, pinfish, butterfish, and the sciaenids (croaker, weakfish, seatrout, spot, drum) are coastal spawners; eggs and larval stages drift offshore and later juvenile stages migrate into the estuary. Adults of several of the species also use the estuary seasonally. Bluefish, spot, and Atlantic croaker are particularly abundant in the area (Stone et al. 1994).

The shortnose sturgeon (*Acipenser brevirostrum*) is the only endangered fish species (federally and state listed as endangered) known to occur in the ROI, however it is presumed extirpated within Virginia waters (Natureserve 2002). This species is a large, bony fish that typically lives in fresh tidal water and saline estuaries and migrates upstream in coastal rivers to spawn. Measuring up to four feet in length, it is still the smallest of the three sturgeon species that inhabit eastern North American rivers from Florida to New

Brunswick, Canada. The shortnose sturgeon spends a greater portion of its life in slow-moving, brackish or fresh water than other sturgeon species (NMFS 2001).

There has never been a commercial fishing industry for shortnose sturgeon, but the NMFS suggests that it was often taken incidentally in commercial fishing for Atlantic sturgeon. Pollution of major U.S. river systems resulted in a decline in the population and the listing by the NMFS of the species as endangered in March 1967. The shortnose sturgeon retained its endangered status with the passage of the Endangered Species Act in 1973 and the NMFS was given jurisdiction over it a year later (NMFS 2001).

The NMFS prepared recovery plans for the shortnose sturgeon in 1982 and 1998. One area highlighted was the Chesapeake Bay, which includes the shortnose sturgeon that spawn in the Potomac River. In the recovery plans, the NMFS identified the following as threats to the fish species' recovery: bridge construction and demolition; dam construction; dredging and in-river disposal of dredge soil; removal, licensing and operation of power plants, release of toxic chemical from industrial activities and domestic waste disposal (NMFS 2001).

### **Coastal and Other Birds**

Varieties of bird species inhabit the Chesapeake Bay and its woodland and shoreline habitats. Birds are not specifically tied as intimately to their habitats as benthic species such as blue crabs or oysters, but they require similarly protective nesting, nursery grounds, and foraging habitats.

Bald eagles (*Haliaeetus leucocephalus*)—federally threatened, state endangered—and ospreys (*Pandion haliaetus*) are the Chesapeake Bay's most familiar raptors, or birds of prey. The osprey builds its nests along the shoreline and on navigation markers, utility poles, or dead trees near the water, and dives for finfish. Peregrine falcons—state endangered—also migrate through the region.

There are six species of wading birds that inhabit the Chesapeake Bay region. The great blue heron (*Ardea herodias*), great egret (*Casmerodius albus*), snowy egret (*Egretta thula*), little blue heron (*Egretta caerulea*), green heron (*Butorides striatus*), and black-crowned night heron (*Nycticorax nycticorax*), hunt in the shallows, feeding mainly on small fish, amphibians and arthropods. These species breed in the Chesapeake Bay area, using tall trees or forested areas for nesting habitat, but tend to migrate south in winter. Some night herons and great blue herons remain in the region year-round. None of these birds is known to nest at ISC Portsmouth or USCG Station Little Creek.

Twenty-eight species of waterfowl either reside in or migrate through the Chesapeake Bay region as shown in Table 3-3.

**Table 3-3. Species of Waterfowl Found in the Chesapeake Bay Region.**

Common Name	Scientific Name
<b>SWANS AND GEESE</b>	
Tundra swan	<i>Cygnus columbianus</i>
Mute swan	<i>Cygnus olor</i>
Snow goose	<i>Anser caerulescens</i>
Canada goose	<i>Branta canadensis</i>
Brant	<i>Branta bernicla</i>
<b>DABBLING DUCKS</b>	
Mallard	<i>Anas platyrhynchos</i>
Black duck	<i>Anas rubripes</i>
Gadwall	<i>Anas strepera</i>
Blue-winged teal	<i>Anas discors</i>
Green-winged teal	<i>Anas creca</i>
American wigeon	<i>Anas americana</i>
Northern pintail	<i>Anas acuta</i>
Northern shoveler	<i>Anas clypeata</i>
<b>BAY (DIVING) DUCKS</b>	
Canvasback	<i>Aythya valisineria</i>
Redhead	<i>Aythya americana</i>
Ring-necked duck	<i>Aythya collaris</i>
Lesser Scaup	<i>Aythya affinis</i>
<b>RIVER AND SEA DUCKS</b>	
Goldeneye	<i>Bucephala clangula</i>
Bufflehead	<i>Bucephala albeola</i>
Ruddy duck	<i>Oxyura jamaicensis</i>
Surf Scoter	<i>Smelanitta perspicillata</i>
Oldsquaw	<i>Clangula hyemalis</i>
Mergansers	<i>Mergus sp.</i>

Many other species inhabit the Chesapeake Bay region, including other “aerial gleaners” that consume fish or insects, such as gulls (*Larus sp.*), terns (*Sterna sp.*), brown pelicans (*Pelicanus occidentalis*), and double-crested cormorants (*Phalacrocorax auritus*). A wide variety of shorebirds migrate through Chesapeake Bay including sandpipers (*Calidris sp.*), sanderling (*Calidris alba*), willet (*Catoptrophorus semipalmatus*), black-bellied plover (*Pluvialis squatarola*), ruddy turnstone (*Arenaria interpres*), dowitcher (*Limnodromus sp.*), and glossy ibis (*Plegadis falcinellus*). Piping plover (*Charadrius melodus*)—federally and state listed as threatened—and the roseate tern (*Sterna dougallii*)—federally and state listed as endangered—are also known to occur in the area, however, they do not occur at ISC Portsmouth or USCG Station Little Creek.

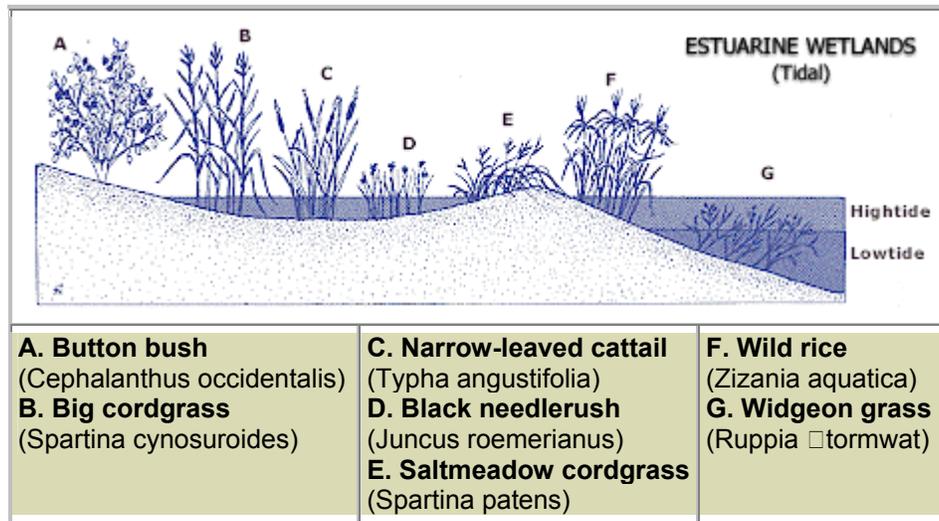
## Wetlands

As a result of the previously cited federal and state regulations, the USCG is responsible for identifying and locating jurisdictional waters of the U.S. (including wetlands) occurring on USCG installations where these resources have the potential to be impacted by mission activities. Such impacts could include construction of roads, buildings, navigation aids, and other appurtenant structures or activities as simple as culvert crossings of small intermittent streams, rip-rap placement in stream channels to curb accelerated erosion, and incidental fill and grading of wet depressions.

There are no wetlands on ISC Portsmouth or USCG Station Little Creek. However, both shores of the Chesapeake Bay have extensive estuarine wetlands. Conversion to non-wetland uses and other causes have resulted in the loss of about 42 percent of Virginia's wetlands since the 1780's. In addition to the Section 404 permits administered by the Corps of Engineers, development in Virginia wetlands is regulated in part by means of the Virginia Water Protection Permit. Local governments may adopt prescribed zoning ordinances and form citizen wetland boards to regulate their own tidal wetlands (Wetlands 2002).

Wetlands and seagrass beds are found in various locations throughout the Chesapeake Bay. Seagrass is often referred to as submerged aquatic vegetation (SAV). Approximately 10 species are found in the seagrass beds in Chesapeake Bay. The three most abundant species are turtle grass (*Thalassia testudinum*), manatee grass (*Syringodium filiforme*), and shoal grass (*Halodule wrightii*). Because seagrass beds are sensitive to strong wave action, they are most often found in calmer, sheltered locations. SAV is also found in very shallow waters due to the need for sunlight (USCG 1996). SAV is often found on the border of wetlands throughout the Chesapeake Bay.

Estuarine wetlands, which include saltwater marshes and cedar swamps, experience periodic flooding by ocean-driven tides. Figure 3-2 provides an example of estuarine wetlands. The most common types of estuarine wetlands in Chesapeake Bay are emergent wetlands. Salt-tolerant grasses, including smooth cordgrass (*Spartina alterniflora*), salt hay grass (*Spartina patens*), giant cordgrass (*Spartina cynosuroides*) and switchgrass (*Panicum spp.*), generally dominate these wetlands. Estuarine wetlands are particularly important habitats for brackish and marine fishes and shellfish, various waterfowl, shorebirds and wading birds and several mammals. Most commercial and game fishes use estuarine marshes and estuaries as nursery and spawning grounds (USGS 2002). These wetlands are not accessible to boat traffic and are often well protected by wave action generated by human activities.



Source: USGS 2002

Figure 3-2. Typical Example of Estuarine Wetlands.

### Floodplains

FEMA has designated areas in Norfolk, subject to a one percent or greater chance of flooding in any given year, as “areas of special flood hazards.” As a result, the City of Norfolk has created Floodplain/Coastal Hazard Overlay Districts to regulate construction in these areas of special flood hazards. ISC Portsmouth and USCG Station Little Creek fall within the 100-year floodplain area.

## 3.3 Air Quality and Climate

### 3.3.1 Definition of the Resource

The air quality in a given region is measured by the concentration of various pollutants in the atmosphere. The Clean Air Act (CAA) National Ambient Air Quality Standards (NAAQS) have been established by the EPA for six criteria pollutants including: ozone (O<sub>3</sub>), carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), particulate matter less than ten microns (PM<sub>10</sub>), and lead (Pb). The measurements of these “criteria pollutants” are expressed in units of parts per million (ppm) or in units of micrograms per cubic meter (µg/m<sup>3</sup>) (see Table 3-4). The CAA directed the EPA to develop, implement, and enforce strong environmental regulations that would ensure cleaner and healthier ambient air quality. In order to protect public health and welfare, the EPA developed numerical concentration-based primary and secondary standards for these criteria pollutants. NAAQS represent maximum levels of background pollution that are considered safe, with an adequate margin of safety to protect public health and welfare. O<sub>3</sub> is not emitted directly from stationary, mobile, or area pollution sources. Rather, it is a product of photochemically reactive compounds such as nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOC). These compounds are inventoried and quantified as precursors of O<sub>3</sub>. Air quality in a region is a

result of not only the types and quantities of atmospheric pollutants and pollutants sources in an area, but also surface topography, and the size of the air basin, and the prevailing meteorological conditions.

federal regulations (40 Code of Federal Regulations [CFR] 81) have defined Air Quality Control Regions (AQCRs), or airsheds, for the entire U.S. AQCRs are based on population and topographic criteria for groups of counties within a state, or counties from multiple states that share a common geographical or pollutant concentration characteristic.

The CAA Section 176 I (1) prohibits federal agencies from undertaking projects that do not conform to an EPA-approved SIP in non-attainment areas. In 1993, the EPA developed the General Conformity Rule, which specifies how federal agencies must determine CAA conformity for sources of non-attainment pollutants in designated non-attainment and maintenance areas. A maintenance area is one that has met federal air quality standards, thus removing it from non-attainment status. This rule and all subsequent amendments may be found in 40 CFR 51 Subpart W and 40 CFR 93 Subpart B. Through the Conformity Determination process specified in the final rule, any federal agency must analyze increases in pollutant emissions directly or indirectly attributable to the Proposed Action. In addition, they may need to complete a formal evaluation that may include modeling for NAAQS impacts, obtaining a commitment from the state regulatory agency to modify the State Implementation Plan (SIP) to account for emissions from the Proposed Action, and/or provision for mitigation for any significant increases in non-attainment pollutants. SIPs are the regulations and other materials for meeting clean air standards and associated CAA requirements. Since the Proposed Action at the Port of Norfolk occurs in a maintenance area, the General Conformity Rule does apply. A conformity analysis is required.

### **3.3.2 Affected Environment**

#### **Air Quality**

The Virginia Department of Environmental Quality (VADEQ) has primary jurisdiction over air quality in Virginia. The Proposed Action is located in the Hampton Roads Intrastate AQCR #223. The air quality in this region is classified as unclassifiable, insufficient ambient air quality data for the EPA to form a basis for attainment status. However, the area was recently redesignated for O<sub>3</sub> from marginal non-attainment to attainment (Federal Register 62 [123], June 26, 1997). Therefore, the area is considered in “transitional attainment” or “maintenance.” The Hampton Roads area has submitted to the EPA a SIP revision as a maintenance plan that provides for continued maintenance of the ozone NAAQS for 12 years after redesignation. Any proposed actions must be either presumed to conform (based on emissions below de minimis levels) or demonstrated to conform to both the NAAQS and SIP provisions. Table 3-4 presents the primary and secondary NAAQS. Table 3-5 presents the current air emissions inventory data for AQCR 223.

**Table 3-4. National Ambient Air Quality Standards**

Pollutant	Standard Value		Standard Type
<b>Carbon Monoxide (CO)</b>			
8-hour Average	9 ppm <sup>a</sup>	(10 mg/m <sup>3</sup> ) <sup>b, c</sup>	Primary & Secondary
1-hour Average	35 ppm	(40 mg/m <sup>3</sup> ) <sup>c</sup>	Primary
<b>Nitrogen Dioxide (NO<sub>2</sub>)</b>			
Annual Arithmetic Mean	0.053 ppm	(100 µg/m <sup>3</sup> ) <sup>b, d</sup>	Primary & Secondary
<b>Ozone (O<sub>3</sub>)</b>			
1-hour Average <sup>e</sup>	0.12 ppm	(235 µg/m <sup>3</sup> ) <sup>e</sup>	Primary & Secondary
8-hour Average <sup>e</sup>	0.08 ppm	(157 µg/m <sup>3</sup> ) <sup>e</sup>	Primary & Secondary
<b>Lead (Pb)</b>			
Quarterly Average		1.5 µg/m <sup>3</sup>	Primary & Secondary
<b>Particulate ≤ 10 microns (PM<sub>10</sub>)</b>			
Annual Arithmetic Mean		50 µg/m <sup>3</sup>	Primary & Secondary
24-hour Average		150 µg/m <sup>3</sup>	Primary & Secondary
<b>Sulfur Dioxide (SO<sub>2</sub>)</b>			
Annual Arithmetic Mean	0.03 ppm	(80 µg/m <sup>3</sup> ) <sup>e</sup>	Primary
24-hour Average	0.14 ppm	(365 µg/m <sup>3</sup> ) <sup>e</sup>	Primary
3-hour Average	0.50 ppm	(1300 µg/m <sup>3</sup> ) <sup>e</sup>	Secondary

Notes:

<sup>a</sup> ppm – parts per million

<sup>b</sup> Parenthetical value is an approximately equivalent concentration.

<sup>c</sup> mg/m<sup>3</sup> – milligrams per cubic meter

<sup>d</sup> µg/m<sup>3</sup> – micrograms per cubic meter

<sup>e</sup> In July of 1997, the 8-hour ozone standard was promulgated and the 1-hour ozone standard was remanded for all areas, excepting areas that were designated non-attainment with the 1-hour standard when the ozone 8-hour standard was adopted. In July of 2000, the ozone 1-hour standard was reinstated as a result of the federal lawsuits that were preventing the implementation of the new 8-hour ozone standard. As of December of 2001, the EPA estimated that the revised 8-hour ozone standard rules will be promulgated in 2003-2004. In the interim, no areas can be deemed to be definitively non-attainment with the new 8-hour standard.

**Table 3-5. Current AQCR Annual Emissions Inventory Data for AQCR 223**

	NO <sub>2</sub> (tpy)	VOC (tpy)	CO (tpy)	SO <sub>2</sub> (tpy)	PM <sub>10</sub> (tpy)
<b>Area Sources</b>	77,858	86,548	427,577	38,227	38,227
<b>Point Sources</b>	26502	5449	29442	2093	2093
<b>Total Emissions Inventory (tpy)</b>	104,360	91,997	457,019	95,181	40,320

Source: EPA 1999

Note: tpy—tons per year

Currently, the USCG operates six 38-foot Fountain boats as interim MSST vessels. These twin board diesel inboard engine boats operate at a maximum speed of 65 knots. No emission factors are currently

available to quantify emissions from these vessels. The Proposed Action will therefore be assessed on impacts to the AQCR current emissions inventory.

**Climate**

The Hampton Roads area enjoys a temperate mid-Atlantic climate moderated by its proximity to the Gulf Stream. Average yearly high temperature is 67.4 °F (degrees Fahrenheit) and the average low is 51°F. The overall percentage of sunshine is 65 percent. Annual precipitation for Norfolk is approximately 40 inches with the majority of the precipitation occurring from March to September. Table 3-6 presents the monthly temperature and precipitation data for Norfolk, Virginia.

**Table 3-6. Local Climate Summary for the City of Norfolk**

Month	Mean Temperature (°F)	Median Precipitation (Inches)
January	39.1	3.5
February	49.0	3.4
March	49.0	3.4
April	57.3	2.8
May	66.4	3.5
June	74.4	3.5
July	78.5	4.5
August	77.6	4.2
September	72.1	3.1
October	63.1	2.7
November	52.7	2.6
December	43.8	3.0

Source: NOAA 1990

**3.4 Noise**

**3.4.1 Definition of the Resource**

This section defines noise standards and methodology, discusses the impacts of noise on humans and marine mammals, and describes the existing noise environment in the ROI. The MSST is expected to operate in the waters defined as the Chesapeake Bay Bridge to the Highway 164 Bridge. The ROI for the noise environment is that part of Chesapeake Bay, known as Hampton Roads, and that portion of the Elizabeth River contained within these boundaries. Webster’s dictionary defines noise as “sound or a sound that is loud, disagreeable, or unwanted.” However, the definition of noise is highly subjective. To some people the roar of an engine is satisfying or thrilling; to others it is an annoyance. Loud music may be enjoyable, depending on the listener and the circumstances. While no absolute standards define the threshold of “significant adverse impact,” there are common precepts about what constitutes adverse noise in certain settings, based on empirical studies. Noise is “adverse” in the degree to which it interferes

with activities such as speech, sleep, and listening to the radio and television and the degree to which human health may be impaired. Noise can also cause “adverse impacts” to marine mammals, depending on the type of noise and duration. Noise can result in stressful situations that disrupt sleep, reproduction, feeding habits, and communication.

### **Overview of Noise Standards and Terminology**

Noise is customarily measured in decibels (dB), a logarithmic unit that accounts for large variations in amplitude and is the accepted standard unit measurement of sound. In order to evaluate the total community noise environment, a time-averaged noise level, or day-night average sound level (DNL), has been developed. DNL is the average A-weighted acoustical energy during a 24-hour period with a 10 dB penalty added to nighttime levels (between 10 p.m. and 7 a.m.). The 10 dB penalty gives extra sensitivity to events occurring during this period when ambient noise levels are generally low. EPA, DoD, and other federal agencies having non-occupational noise regulations, use the DNL as their principal noise descriptor for community assessments.

Ambient sound levels vary based upon the setting in which they are measured. For example, in a wilderness setting, ambient sound levels range from DNL 20 to 30 dB; in residential areas, they range between DNL 30 to 50 dB; and in urban residential areas, they range between DNL 60 to 70 dB (FICON 1992). When sound levels are DNL 55 dB or less in outdoor areas, where the absence of noise is important for functional land use, there is no reason to suspect that the general population would be at risk from any of the identified effects of noise (i.e., activity interference or annoyance) (EPA 1978). The American National Standards Institute (ANSI) has also suggested that land uses in “extensive natural wildlife and recreation areas” are likely to be considered compatible with DNL 60 dB or less (ANSI 1990). The methodology employing DNL and percent highly annoyed (%HA) has been successfully used throughout the U.S. in a variety of settings, ranging from urban to rural (see Appendix E for further explanation on noise metrics).

### **Regulatory Framework for Noise and Standard Operating Procedures**

For USCG facilities, like ISC Portsmouth and USCG Station Little Creek, USCG NEPA Implementing Procedures (COMDTINST M16475.1-D) require a discussion of the existing conditions in the surrounding communities, including noise regulations. Additionally, the USCG Safety and Environmental Health Manual (COMDTINST M5100.47) establishes requirements for noise, which includes compliance with local noise ordinances, and the identification and assessment of hazardous noise sources. Therefore, noise produced by USCG watercraft or at USCG facilities should be in compliance with USCG, state and local guidelines. The USCG recommends 86 dBA as the maximum noise-level that watercraft may generate (PWIA 2002).

Most states and territories have developed land use plans and regulations that incorporate noise thresholds and standards in accordance with the Federal Noise Control Act of 1972 (42 U.S.C. 4901, 4918). In a review of both the Administrative and Legislative Code of Virginia for noise control codes for watercraft, a provision requiring muffling devices on boat engines was found (VGA 1960). In locating specific nuisance noise codes, only general noise control provisions to “protect public health and welfare” were located. Dialog with VADEQ for further state ordinances provided no additional information. According to a VADEQ representative, the state of Virginia leaves noise control enforcement to the discretion of the local authorities (McKie 2002).

An additional confirmation in the USCG’s Reference Guide to State Boating Laws, 6<sup>th</sup> edition, 2000, states that the Commonwealth of Virginia does not have a maximum operational noise level for watercraft. However, according to this document, most states have established a maximum noise level operating range of 75 dBA to 90 dBA at 50 feet, which incorporates the Society of Automotive Engineers SAE J-2005 (stationary test) and SAE J-1970 (shoreline test). EPA uses 75 dBA as an acceptable noise level to protect public health and welfare (PWIA 2002).

The USCG also cooperates with local governments or host agencies to ensure that the facilities comply with local noise standards and land use regulations. The City of Chesapeake has a general noise ordinance for boating noise and requires that the “exhaust of every internal combustion engine used on any motorboat shall be effectively muffled by equipment so constructed and used as to muffle the noise of the exhaust in a reasonable manner.” Its general city noise ordinance “promotes an environment for its citizens free from noise that jeopardizes their health or welfare or degrades the quality of life,” and considers the volume, intensity, duration, frequency, origin and proximity to residential sleeping facilities. Another consideration for these sensitive areas is the density and zoning of the areas and the time of day the event occurs (City of Chesapeake 1970).

### **Human Response to Noise**

Human response to noise varies according to the type and characteristics of the noise source, distance between source and receptor, receptor sensitivity, and time of day. Most people are exposed to sound levels of 50 to 55 dB (DNL) or higher on a daily basis. Studies specifically conducted to determine noise impacts on various human activities show that about 90 percent of the population is not significantly bothered by outdoor sound levels below 65 dB (DNL) (USDOT 1980). Studies of community annoyance in response to numerous types of environmental noise show that DNL correlates well with impact assessments and that there is a consistent relationship between DNL and the level of annoyance.

Human hearing varies in sensitivity for different sound frequencies. The ear is most sensitive to sound frequencies between 800 and 8,000 Hertz (Hz) and is least sensitive to sound frequencies below 400 Hz

or above 12,500 Hz. Several different frequency-weighting metrics have been developed using different dB adjustment values. The most commonly used decibel weighting schemes are the A-weighted and C-weighted scales. The characteristics of sound include parameters such as amplitude, frequency, and duration.

### **Marine Mammal Response to Noise**

Marine mammals spotted in Chesapeake Bay include: Atlantic spotted dolphin, harbor porpoise, Atlantic bottlenose dolphin, saddleback dolphin, Atlantic white-sided dolphin, Risso's dolphin, and Atlantic pilot whale (Blaylock 1985). They are protected under the MMPA. Noise is recognized as a disturbance to whales. Increasingly, attention is being paid to the impacts on whales of anthropogenic (human-generated) noise sources, especially those associated with the military (ONR 2000), as these sources tend to be much louder and can be widespread (Richardson et al. 1995). In addition to human-generated noise, there are numerous natural sound sources in the world's oceans, such as earthquakes, lightening strikes, sea ice activity, precipitation, and waves.

In ocean acoustics, the convention chosen for a reference pressure level is one microPascal (1 $\mu$ Pa) (ONR 2000; Richardson et al. 1995). This unit differentiates dB in water rather than air. The total ambient noise in the open ocean is about 74 dB-referenced 1 $\mu$ Pa (ONR 2000). This ambient noise level is composed of natural and human-generated sounds. Human-generated sound comes from a variety of sources, including vessel traffic, geologic exploration, military projects, and aircraft. Sound radiated by the many large ships throughout the world's oceans is the single largest contributor to the increased sound levels (ONR 2000). The effects of these vessels are both local, affecting specific limited areas, and global, contributing to an overall increase in ambient noise. Noise levels throughout the world's ocean at frequencies below 500 Hz have increased over the last three decades (Richardson et al. 1995).

Most marine animals can perceive underwater sounds over a broad range of frequencies from about 10 Hz to more than 10,000 Hz. Peak acoustic sensitivity of most invertebrates, fish, sea turtles, and baleen whales is below about 1000 Hz; for most toothed cetaceans, pinnipeds, manatees, and sea birds, hearing is best at frequencies greater than 1000 Hz (USCG 1996).

### **Existing Noise Outputs for Ships**

Since the effects of both human and marine effects on watercraft noise are of concern, above-water (engine) noise will first be discussed, and then underwater (vessel) noise.

**Above-water Noise**

Although the USCG has a variety of vessel types in use in the Port of Virginia and Chesapeake Bay, the type of watercraft being evaluated for noise in this EA is a 38-foot Fountain boat. This patrol boat has a capacity of four persons, and has a twin 420 Yanmar diesel (inboard) two-stroke motor. These boats are temporarily being used for the MSST. Within the next year, the six RBS will replace these boats. These boats will be powered by 4-stroke engines and will be EPA-compliant. Data on airborne noise generation by marine vessels generally is not available. In discussing vessel generated above-water noise, qualitative statements will be made.

**Underwater Noise**

Vessel size, hull construction, speed, maintenance, and other factors all affect the noise a vessel produces. Vessel noises, caused by the turning of the screws, engine noise and noises of operating machinery on board, generally fall within the range of 5-2000 Hz (USCG 1996). Sound intensity, particularly at higher frequencies, tends to increase with the size of the vessel. Supertankers and large container ships may have a maximum broadband sound source level of 190-200 dB-referenced 1µPa at one meter. Small outboard motor vessels produce broadband sounds of 150 dB-referenced 1µPa at one meter; these sounds are attenuated to the range of 85 to 140 dB-referenced 1µPa at a distance of 50 meters from the source (USCG 1996). Most USCG vessels are generally less than 100 feet in length and, therefore, generate sound pressure source levels of 160 dB-referenced 1µPa at one meter or less (USCG 1996). Table 3-7 lists sound pressure source levels for various vessels (Richardson et al. 1995; USCG undated).

**Table 3-7. Underwater Sound Pressure Levels for Various Vessels**

Vessel (length) and Description	Frequency	Source Level (dB referenced 1µPa-meter)
Outboard drive – 23 feet (2 engines, 80 horsepower each)	630, 1/3 octave	156
Twin Diesel – 112 feet	630, 1/3 octave	159
Small Supply Ships – 180 to 279 feet	1000, 1/3 octave	125-135 (at 50 meters)
Freighter – 443 feet	41, 1/3 octave	172

Source: Richardson et al. 1995

Note: CG cutters range from 110 to 387 feet. These underwater sound pressure levels cannot be directly compared to airborne decibel levels.

**3.4.2 Affected Environment**

Currently the vessels stationed at the ISC Portsmouth and at the USCG Station Little Creek, co-located with the Naval Amphibious Base on Chesapeake Bay, are adjacent to compatible areas, zoned industrial and commercial land uses. The base is equipped with a variety of piers that meet the needs of roll-

on/roll-off, break bulk cargo, and other large vessels. The Chesapeake Bay is an important transportation route, serving the ports of Baltimore and Annapolis, MD. The Port of Virginia also is an important gateway to markets in the Midwest.

Noise produced by water vessels and supporting facilities while home ported or in transit to off-shore areas can combine with other noise sources to affect nearby communities and natural resources. Industrial and commercial land uses border the Naval Amphibious facilities. The USCG has established guidelines and developed cooperative agreements to mitigate impacts on neighboring communities. As a tenant activity, the USCG will cooperate with the Naval Amphibious Base in meeting community noise goals. Federal and state laws and local ordinances establish standards and limitations for noise output from ports, airfields, heliports, helipads, power generating plants, and motor vehicles.

### **Current Operations**

An interim administrative unit to support this MSST is currently operating out of Yorktown, Virginia. In addition to the traditional roles of the USCG, protecting ports, the flow of commerce, and the marine transportation system from terrorism, this MSST will ensure that U.S. military assets can be rapidly deployed and re-supplied, and perform coordination of efforts and intelligence with federal, state and local agencies. The type of vessel currently in use is a 38-foot Fountain patrol boat, with a capacity of four persons and a twin 420 Yanmar diesel (inboard) two-stroke engine. A two-stroke engine is commonly found in lower-power equipment such as chain saws and other lawn/garden equipment, jet skis, and outboard motors. Two-stroke motors do not have valves, which simplify their construction, and makes them less expensive to produce. This construction also has them fire once every revolution, instead of once every other revolution as in a four-stroke engine, giving it a significant power boost. However, two-stroke engines also produce more noise since the engine is fired more frequently than with a four-stroke engine. Another type of watercraft engine is a direct fuel injected 2-stroke carburetor engine that sounds similar to a 4-stroke engine at full throttle, but louder than a 4-stroke engine at idle (Evinrude 2002). For purposes of discussion, the motor currently used is a 2-stroke, and the planned replacement is a 4-stroke engine.

## **3.5 Public Safety**

### **3.5.1 Definition of the Resource**

A safe environment is one in which there is no, or an optimally reduced, potential for death, serious bodily injury or illness, or property damage. Safety and accident hazards can often be identified and reduced or eliminated. Necessary elements for an accident-prone situation or environment include the presence of the hazard itself together with the exposed (and possibly susceptible) population. The degree of exposure depends primarily on the proximity of the hazard to the population. Activities that can be

hazardous include transportation, maintenance and repair activities, and the creation of highly noisy environs. The proper operation, maintenance, and repair of vehicles and equipment carry important safety implications. Any facility or human-use area with potential explosive or other rapid oxidation process creates unsafe environments for nearby populations. Extremely noisy environments can also mask verbal or mechanical warning signals such as sirens, bells, or horns.

### **3.5.2 Affected Environment**

Public safety is one of the USCG's primary missions, as the USCG is the prominent overseer of maritime safety in all U.S. waters, including the high seas. The U.S. maritime transportation system is diverse. Geography, environmental conditions, and the amount and types of vessel traffic are all aspects of the U.S. maritime system.

U.S. ports must provide safe and efficient rapid turnaround capabilities to accommodate expanding trade and the increasing size and speed of oceangoing ships, many of which are foreign. U.S. ports also handle a large volume of coastal and inland traffic. Major members of the U.S. maritime transportation system include federal agencies, commercial groups, state and local groups, and public and community groups (USCG 2002b). Since the events of September 11, 2001, the safety of the country's ports and its maritime system has received increased scrutiny and concern. It is due to these concerns that the Proposed Action is being considered.

The Port of Virginia has the best natural deepwater harbor on the U.S. East Coast. Fifty-foot deep, unobstructed channels provide easy access and maneuvering room for the largest of today's container ships. The port is located just 18 miles from the ocean sea on a year-round, ice-free harbor. The Virginia Port Authority owns three general cargo terminals: Norfolk International Terminals, Portsmouth Marine Terminal, and Newport News Marine Terminal. During the last nine years, approximately 10,089,780 tons of cargo passed through the port annually. The port is also home to the Norfolk Navy Yard and the Naval Amphibious Base.

## **4. Environmental Consequences**

### **4.1 Introduction**

This chapter will present the potential environmental impacts of the Proposed Action and the No Action Alternatives. U.S. Coast Guard (USCG) personnel and cutters currently perform security duties in and around the Port of Virginia, and parts of Chesapeake Bay.

The Proposed Action is the stand-up and operation of a Maritime Safety and Security Team (MSST) at the Chesapeake Naval Support Group Activity (NSGA) Northwest Facility, Virginia. The MSST will consist of six Response Boats-Small (RBS) and approximately 71 active duty personnel and 33 reservists. The Region of Influence (ROI) is geographically defined as that area of the Chesapeake Bay from the Chesapeake Bay Bridge and Tunnel to the Route 64 Bridge. The ROI includes the Virginia cities of Hampton, Newport News, Norfolk, Portsmouth, and Suffolk. This region encompasses the area where the MSST is expected to spend the majority of its operating time.

Currently, vessels and manpower are being diverted from other missions in order to provide the additional security for the nation's ports, including the Port of Virginia. The No Action Alternative fails to meet the Purpose and Need of the USCG mission. Under the No Action Alternative, disruption to other missions would continue resulting in further strain on manpower and current assets. This scenario of vessels and manpower being stretched to their limit would possibly make it easier for an attack to occur. The result might be a potential for significant adverse environmental impacts. Terrorists could strike at military or commercial facilities in these ports creating health and safety hazards for the surrounding populace, impacting appropriate emergency responses, employment and trade, and marine life. The impacts could be immediate (loss of life) or long lasting (disruption of commerce activities that could impact the long-term economy). Recovery time would be dependent on the severity and extent of the loss.

Potential impacts are addressed in the context of the scope of the Proposed Action as described in Section 2.0 and in consideration of the potentially affected environment as characterized in Section 3.0.

### **4.2 Biological Resources**

#### **4.2.1 Significance Criteria**

This section evaluates the potential impacts to the biological resources under the Proposed Action and the No Action Alternative. The significance of impact to biological resources is based on: (1) the importance (i.e., legal, commercial, recreational, ecological, or scientific) of the resource; (2) the proportion of the resource that would be affected relative to its occurrence in the region; (3) the sensitivity of the resource

to proposed activities; and (4) the duration of ecological ramifications. The impacts to biological resources are significant if species or habitats of high concern are adversely affected over relatively large areas. Impacts are also considered significant if disturbances cause reductions in population size or distribution of a species of high concern.

### **Protected and Sensitive Habitats**

Although a number of wildlife refuges, parks and National Estuarine Research Reserve (NERR) sampling sites are in the general area, there are no protected areas within the ROI. Laws relating to protected and sensitive habitats include the Marine Protection, Research, and Sanctuaries Act, the Magnuson-Stevens Conservation and Management Act, the Oil Pollution Act, and the Endangered Species Act (ESA). Under either alternative, the USCG would continue to enforce these living marine resource protection laws.

Impacts to protected and sensitive habitats would be significant if MSST activities resulted in any of the following outcomes:

- Temporary or permanent loss of any sensitive, protected, or reporting area habitat
- Direct loss or damage of any sensitive resource within a protected or sensitive habitat
- Excessive noise or presence from normal USCG activities that lessens the habitat value

### **Marine Mammals and Sea Turtles**

Impacts to marine mammals and sea turtles would be significant if MSST activities resulted in any of the following outcomes:

- Temporary or permanent loss of any habitat
- Direct loss (take) of a substantial number of a specific species that would affect the species ability to survive
- Harassment, either Level A (MMPA) defined as pursuit, torment, or annoyance that has the potential to injure, or Level B, defined as causing disruption of behavioral patterns
- Permanent loss of breeding areas and habitat
- Substantial interference with movement of any resident species

### **Fish**

Fisheries may be impacted by a number of factors. The most important factors within the ROI are disturbance from direct contact between USCG vessels, enforcement of applicable fishing laws, and impacts to fish habitat. Additional impacts may result from accidental pollution emissions. The USCG

enforces a number of fishing and fisheries laws. In addition, USCG has developed its own initiatives to protect fisheries and their habitat.

Impacts to fisheries would be significant if MSST activities resulted in any of the following outcomes:

- Overfishing resulting in the species ability to survive
- Permanent loss of breeding areas and habitat
- Substantial interference with movement of any resident species

### **Coastal and Other Birds**

Impacts to coastal and other birds would be significant if MSST activities resulted in any of the following outcomes:

- Harassment of nesting and foraging areas resulting in the species ability to survive
- Permanent loss of breeding areas and habitat
- Substantial interference with migration

### **Wetlands and Floodplains**

The significance of impacts on wetland resources is proportional to the functions and values of the wetland complex. Wetlands function as habitat for plant and wildlife populations, including threatened and endangered species that depend on wetlands for their survival. Wetlands are valuable to the public for flood mitigation, stormwater runoff abatement, aquifer recharge, water quality improvement, and aesthetics. Quantification of wetlands functions and values, therefore, is based on the ecological quality of the site as compared with similar sites, and the comparison of the economic value of the habitat with the economic value of the proposed activity that would modify it. A significant adverse impact on wetlands would occur should either the major function or value of the wetland be significantly altered. Significance criteria for impacts to floodplains are based on the existence of floodplains and associated regulations. The impact of flood hazards on a proposed action is significant if such an action is proposed in an area with a high probability of flooding.

## **4.2.2 Potential Impacts**

### **Protected and Sensitive Habitats**

***Proposed Action.*** Although a number of wildlife refuges, parks, and NERR sampling points are in the general area, no protected or sensitive habitats are within the ROI. Based on the purpose of, and projected operations of the MSST, they would not normally patrol in or near these areas. An exception to these normal operations would be in the case of an unusual occurrence (i.e., pursuit). Under a normal

operational scenario, there would be no loss of sensitive habitats. Therefore, there are no anticipated adverse impacts on sensitive habitats or protected areas because of the Proposed Action.

***No Action Alternative.*** Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined to be insufficient. Increased strain to vessels and manpower and disruption to other missions would continue. Under this scenario, it would possibly make it easier for an attack on the port to occur. Impacts of selecting this alternative would be considered significantly adverse due to the potential of a terrorist attack, with the potential for significant adverse impacts to protected and sensitive habitats.

### **Marine Mammals and Sea Turtles**

***Proposed Action.*** The USCG's current COMDTINSTs, regulations, and procedures to avoid marine mammals would continue under the Proposed Action. While the purpose of the MSST is not to provide marine resource protection and law enforcement, the MSST would continue to comply with these regulations. Although several species of marine mammals and sea turtles are known to occasionally utilize Chesapeake Bay, the increase in the number of total USCG operations is not expected to result in more than minor adverse impacts. An exception to these normal operations would be in the case of an unusual occurrence (i.e., pursuit).

The USCG MSST vessels will represent only a small increase when compared to the existing traffic already using the port. These boats are designed to be highly maneuverable which will assist them in avoiding collisions with protected species. To guard against any adverse impacts of the MSST vessel operation on protected species, the USCG would continue to adhere to the protective measures in place in the APLMRI. Moreover, the USCG would continue to adhere to the policies and goals stated in the Ocean Steward (Appendix F). Because of the APLMRI and Ocean Steward, the small number and size of vessels, the boats' high level of maneuverability, and their low level of speed during normal operations, the addition of the MSST boats and their operations will not likely result in adverse effects to protected marine species. The USCG consulted with NMFS. NMFS concluded that the proposed establishment of a MSST in Chesapeake, Virginia is not likely to adversely affect listed species or habitat under their jurisdiction. The USCG also coordinated with the Virginia Department of Game and Inland Fisheries (VADGIF); they concurred that the MSST operations would not pose a serious threat (Moyer 2002).

***No Action Alternative.*** Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined to be insufficient. Increased strain to vessels and manpower and disruption to other missions would continue. Under this scenario, it would possibly make it easier for an attack on the port

to occur or an attack that could spread from the port to areas frequented by marine mammals. Impacts of selecting this alternative would be considered significantly adverse due to the potential of a terrorist attack with the potential for significant adverse impacts to marine mammals and sea turtles. Recovery would depend on the extent of loss.

### **Fish**

***Proposed Action.*** As part of the Proposed Action, the stationing and operations conducted by the MSST would result in minor adverse impacts on fisheries or EFHs. Minor adverse impacts have been designated for the potential of boats to take individuals or to cause minor disruptions in feeding or reproduction. Although, there is no indication in the published literature that collisions with vessels are a significant source of injury or mortality for invertebrates and fish (USCG 1996). The USCG coordinated with VADGIF; they concurred that the MSST operations would not pose a serious threat (Moyer 2002.)

***No Action Alternative.*** Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined to be insufficient. Increased strain to vessels and manpower and disruption to other missions would continue. Under this scenario, it would possibly make it easier for an attack on the port to occur. Impacts of selecting this alternative would be considered significantly adverse due to the potential of a terrorist attack or an attack that might result in a loss or degradation of fishing areas. The potential for loss of EFH's and fish species would also impact the nation's economy. Recovery would depend on the amount and extent of loss.

### **Coastal and Other Birds**

***Proposed Action.*** Neither ISC Portsmouth nor USCG Station Little Creek provide suitable habitat for threatened and endangered species or migratory birds. The MSST normal operations will not be within or adjacent to nesting and foraging habitat for threatened and endangered species, or migratory birds. It is anticipated that only minor adverse impacts, if any, might occur. The USCG coordinated with VADGIF; they concurred that the MSST operations would not pose a serious threat (Moyer 2002).

***No Action Alternative.*** Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined to be insufficient. Increased strain to vessels and manpower and disruption to other missions would continue. Under this scenario, it would possibly make it easier for an attack on the port to occur or an attack that might impact birds' habitats. Impacts of selecting this alternative would be considered significantly adverse due to the potential of a terrorist attack, with the potential for significant

adverse impacts to coastal and migratory birds. Recovery would depend on the amount and extent of loss.

### **Wetlands and Floodplains**

***Proposed Action.*** The ISC Portsmouth and USCG Station Little Creek are located within 100-year floodplains. However, there are no modifications to the floodplain area. There are no wetlands on or adjacent to the ISC Portsmouth or USCG Station Little Creek. Seagrass beds and associated estuarine wetlands will not be utilized during MSST operations. Due to the shallow water depth in these areas, MSST boats will not be able to operate in the area. Operations in proximity to estuarine wetland areas will have to be conducted at low speeds due to the shallow nature of the water and the high likelihood of submerged obstacles. Therefore, there would be no impacts from the Proposed Action.

***No Action Alternative.*** Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined to be insufficient. Increased strain to vessels and manpower and disruption to other missions would continue. Under this scenario, it would possibly make it easier for an attack on the port to occur or an attack that might impact wetlands. Impacts of selecting this alternative would be considered significantly adverse due to the potential of a terrorist attack, with the potential for loss of wetlands and their unique ecosystems. Recovery would depend on the extent and type of damage.

## **4.3 Air Quality and Climate**

### **4.3.1 Significance Criteria**

The potential impacts to local and regional air quality conditions near a proposed federal action are determined based upon the increases in regulated pollutant emissions relative to existing conditions and ambient air quality. Impacts to air quality in National Ambient Air Quality Standards (NAAQS) “attainment” areas are considered significant if the net changes project-related emissions result in one of the following situations:

- Violation of any national or state ambient air quality standards
- Exposure of sensitive receptors to substantially increased pollutant concentrations
- An increase of 10 percent or more in an affected Air Quality Control Region (AQCR) emissions inventory

Impacts to air quality in NAAQS “non-attainment” areas are considered significant if the net changes in project-related emissions result in one of the following situations:

- Violating any national or state ambient air quality standards
- Increasing the frequency or severity of a violation of any ambient air quality standard
- Exceeding any significance criteria established in a State Implementation Plan (SIP)
- Delaying the attainment of any standard or other milestone contained in the SIP

With respect to the General Conformity Rule, impacts to air quality would be considered significant if the Proposed Action would result in an increase of a non-attainment or maintenance area's emission inventory by ten percent or more for one or more non-attainment pollutants, or if such emissions exceed *de minimis* threshold levels established in 40 Code of Federal Regulations (CFR) 93.153(b) for individual non-attainment pollutants or for pollutants for which the area has been designated as a non-attainment or maintenance area. The Proposed Action would occur in an attainment area, therefore the General Conformity Rule does not apply.

Federal Prevention of Significant Deterioration (PSD) regulations also define air pollutant emissions to be "significant" if: 1) a proposed project is within 10 kilometers of any Class I area; and 2) regulated pollutant emissions would cause an increase in the 24-hour average concentration of 1  $\mu\text{g}/\text{m}^3$  or more of any regulated pollutant in the Class I area (40 CFR 52.21(b)(23)(iii)). PSD regulations also define ambient air increments – limiting the allowable increases to any area's baseline air contaminant concentrations, based on the area's designation as Class I, II, or III (40 CFR 52.21(c)).

Local and regional pollutant impacts of direct and indirect emissions from stationary emission sources from the Proposed Action are addressed through federal and state permitting program requirements under the NSR and PSD regulations (40 CFR Parts 51 and 52).

#### **4.3.2 Potential Impacts**

The potential sources of increased criteria pollutant emissions under the Proposed Action would be from: 1) watercraft operations, 2) fuel storage and handling emissions, 3) maintenance and support activities; and 4) personnel travel.

##### **Watercraft Operations**

**Proposed Action.** The vessels and engines to be used for the RBS must meet specific requirements, including the capability of sustaining speeds of 40+ knots in calm seas. The proposed engines to be used would be similar to the Yamaha or Honda 200 or 225 horsepower engines. These four-stroke engines would meet the speed requirements of the USCG and would fulfill federal EPA 2006 emission requirements.

Under the Proposed Action, a minor impact to air quality would be realized. Calculations of air pollutant emissions from the proposed MSST operations were performed based on two boats operating 24 hours a day, 365 days a year, at approximately 20 hours power. Table 4-1 presents emissions factors used and emissions from the Proposed Action. Table 4-2 compares the Proposed Action emissions to the total AQCR No. 223 emissions inventory.

**Table 4-1. Coast Guard MSST – Chesapeake Emissions from Proposed Action**

Output (horsepower)	Hours of Operation	VOC Emissions (lb/yr)	NO <sub>2</sub> Emissions (lb/yr)	CO Emissions (lb/yr)	SO <sub>2</sub> Emissions (lb/yr)	PM <sub>10</sub> Emissions (lb/yr)
20.00	17,520	65,673.72	38.63	193,158.00	378.59	0.00
<b>Total Emissions in tpy</b>		<b>32.84</b>	<b>0.02</b>	<b>96.58</b>	<b>0.19</b>	<b>0.00</b>

Notes:

tpy – tons per year

Emissions factors were obtained from AP-42, Volume II non-road mobile emissions sources. No available emission factors for PM<sub>10</sub>.

Assumptions: Boats would operate at about 20 horsepower during trolling operations.

Two boats would operate 24 hours a day, 365 days per year.

**Table 4-2 Proposed Action Emissions in AQCR No. 223**

	Net Emissions Changes for AQCR No. 223 Under the Proposed Action <sup>1</sup>				
	VOC	NO <sub>2</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>
AQCR No. 223 Inventory (tpy): <sup>1</sup>	91,997	104,360	457,019	95,181	40,320
Proposed Action Net Change (tpy):	32.84	0.02	96.58	0.19	0.00
% of AQCR No. 223 Inventory:	0.04%	<0.01%	0.02%	<0.01%	0.0%

Note: <sup>1</sup> Data obtained from USEPA Airs Database.

**Conformity** As a federal agency and proponent of a “Federal Action”, USCG must complete a conformity analysis to determine if the standup of response boats and associated regulated pollutant emissions for the proposed operation would conform to the requirements of the Clean Air Act (CAA).

In November 1993, the U.S. Environmental Protection Agency (EPA) promulgated regulations and requirements that clarify the applicability, procedures, and analyses necessary to ensure that federal facilities comply with the CAA. By establishing the Final General Conformity Rule, EPA requires federal agencies to evaluate proposed federal actions in non-attainment areas and ensure conformance with an

approved SIP or a Federal Implementation Plan (FIP) – key elements of the CAA. More specifically, conformity with the CAA is assured when a federal action does not:

- Cause a new violation of a NAAQS
- Contribute to an increase in the frequency or severity of violations of NAAQS
- Delay the timely attainment of any NAAQS, interim progress milestones, or other milestones toward achieving compliance with the NAAQS

The General Conformity Rule and applicable procedures apply only to proposed federal actions that are in USEPA-designated non-attainment or maintenance areas for NAAQS.

In developing the CAA, it was determined that certain pollutants have the potential to cause adverse effects on public health and the environment when certain concentrations are exceeded in ambient air. In order to control and regulate these “criteria pollutants” and better maintain healthful air, NAAQS were established for six criteria pollutants. These pollutants include: carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter less than 10 microns in diameter (PM<sub>10</sub>), sulfur oxides (SO<sub>x</sub>) and lead (Pb). Ozone is not typically emitted directly from emission sources but rather, is formed in the atmosphere by photochemical reactions involving sunlight and other emitted pollutants or “ozone precursors”. Ozone precursors consist primarily of oxides of nitrogen (NO<sub>x</sub>) and volatile organic compounds (VOCs), which are common pollutants emitted directly from a wide range of stationary and mobile sources. Therefore, ozone is controlled through the control of NO<sub>x</sub> and VOC pollutants.

The General Conformity Rule requires that federal agencies consider total direct and indirect emissions of criteria pollutants in non-attainment areas and maintenance areas (i.e., where an area has been re-designated from non-attainment to attainment and must “maintain” this status). The General Conformity Rule is satisfied for actions where the direct and indirect emissions do not exceed *de minimis* threshold levels promulgated in 40 CFR 93.153(b). Therefore, the comparison of a proposed action to the *de minimis* threshold levels is the first and often only analysis required to show that an action conforms to applicable CAA requirements.

Additionally, the General Conformity Rule exempts ongoing activities that are currently being conducted at a facility, as long as the federal action does not increase non-attainment pollutants above *de minimis* levels. Table 4-3 presents the applicable *de minimis* thresholds under the General Conformity Rule.

If the net increases in direct and indirect non-attainment pollutant emissions do not exceed these *de minimis* thresholds levels, the General Conformity Rule also requires an analysis of “regional significance”. This includes a comparison of the net emissions changes to the total baseline inventory of non-attainment pollutants for an affected AQCR or non-attainment area. If the action would not increase regional

emissions by 10 percent, the action is not considered regionally significant and is exempt from further General Conformity Rule requirements.

When applicable, another required analysis is a comparison of the federal action's emissions to any existing SIP/FIP emission budgets that have been established for the federal facility or affected region. If the action would cause an increase in emissions so that the established SIP budgets or rate of progress is exceeded, a conformity determination and other applicable rule requirements would apply.

**Table 4-3. General Conformity Rule *de minimis* Emission Thresholds**

Criteria Pollutant	Status	Degree or Classification	<i>de minimis</i> Threshold (tons per year)
Ozone (NO <sub>x</sub> or VOCs)	Non-attainment	Extreme	10
		Severe	25
		Serious	50
		Moderate/marginal (inside ozone transport region)	50 (VOCs)/100 (NO <sub>x</sub> )
		All others	100
	Maintenance	Inside ozone transport region	50 (VOCs)/100 (NO <sub>x</sub> )
		Outside ozone transport region	100
Carbon Monoxide (CO)	Non-attainment/ maintenance	All	100
Particulate Matter (PM <sub>10</sub> )	Non-attainment/ maintenance	Serious	70
		Moderate	100
		Not Applicable	100
Sulfur Dioxide (SO <sub>2</sub> )	Non-attainment/ maintenance	Not Applicable	100
Nitrogen Dioxide (NO <sub>2</sub> )	Non-attainment/ maintenance	Not Applicable	100

Source: 40 CFR 93.153 (b)(2)

Based on the emission calculations and analyses completed for the Proposed Action, it is clear that the net change in NO<sub>x</sub>, and VOC, emissions would be well below the *de minimis* threshold requirements and the regional significance requirements of the General Conformity Rule. As such, this federal action is exempt from a Conformity Determination and all other requirements that are specified under the General Conformity Rule and applicable regulations (40 CFR 93).

**No Action Alternative.** Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has

been determined not to be sufficient. Under this alternative, disruption to other missions would continue. The result would be further strain on manpower and current assets. This scenario of vessels and manpower being stretched to their limit would possibly make it easier for an attack to occur. Impacts of selecting this alternative would be considered significantly adverse due to the potential of a terrorist attack. Terrorists could strike at military or commercial facilities in these ports creating the potential for impacts to the environment. The impacts could be immediate or long lasting. Recovery time would be dependent on the severity and extent of the impact.

### **Maintenance and Support Activities**

***Proposed Action.*** Under the Proposed Action, only minor maintenance will be performed at the NSGA. All major maintenance and repair will occur at either other military or commercial facilities. Since the maintenance schedule is not known, it is anticipated that there would be minor adverse impacts on air quality in the region. No additional support facilities (beyond the minor modifications to the administration building) will be required to support the MSST.

***No Action Alternative.*** Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined not to be sufficient. Under this alternative, disruption to other missions would continue. This scenario of vessels and manpower being stretched to their limit would possibly make it easier for an attack to occur. Impacts of selecting this alternative would be considered significantly adverse due to the potential of a terrorist attack. Terrorists could strike at military or commercial facilities in these ports creating the potential for impacts to the environment. The impacts could be immediate or long lasting. Recovery time would be dependent on the severity and extent of the impact.

### **Personnel Travel**

***Proposed Action.*** Parking at NWGA is sufficient. The number of additional personnel is comparatively small and would result in minor adverse impacts to air quality.

***No Action Alternative.*** Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined not to be sufficient. Under this alternative, disruption to other missions would continue. This scenario of vessels and manpower being stretched to their limit would possibly make it easier for an attack to occur. Impacts of selecting this alternative would be considered significantly adverse due to the potential of a terrorist attack. Terrorists could strike at military or commercial facilities in these ports creating the potential for impacts to the environment. The impacts could be immediate or long lasting. Recovery time would be dependent on the severity and extent of the impact.

## **Fuel Storage and Handling Emissions**

***Proposed Action.*** No new fuel storage or dispensing facilities will be required under the Proposed Action. Response boats will be refueled at existing marina facilities or gas stations. All dispensing facilities would have regulated vapor controls to reduce evaporative emissions. It is anticipated that there would be minor adverse impacts on air quality in the region.

***No Action Alternative.*** Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined not to be sufficient. Under this alternative, disruption to other missions would continue. This scenario of vessels and manpower being stretched to their limit would possibly make it easier for an attack to occur. Impacts of selecting this alternative would be considered significantly adverse due to the potential of a terrorist attack. Terrorists could strike at military or commercial facilities in these ports creating the potential for impacts to the environment, as well as loss of petroleum storage tanks and delivery systems, thus impacting the economy. The impacts could be immediate or long lasting. Recovery time would be dependent on the severity and extent of the impact.

## **4.4 Noise**

### **4.4.1 Significance Criteria**

Noise produced by water vessels and supporting facilities while homeported or in transit can combine with other noise sources to affect nearby communities and natural resources. This section addresses the noise impacts from the Proposed Action and the No Action Alternative. Examples of noise impacts from MSST operations include noise from vessels, construction equipment (temporary), and traffic. Noise impacts were only considered within the ROI. This section also discusses general noise impacts to marine mammals. The USCG has established guidelines and develops cooperative agreements to mitigate impacts on neighboring communities. As a tenant activity, the USCG will cooperate with the Naval Amphibious Base in meeting community noise goals. Federal and state laws and local ordinances establish standards and limitations for noise output from ports, airfields, heliports, helipads, power generating plants, and motor vehicles.

Currently, the Naval Amphibious Base and the NSGA Northwest Annex is adjacent to compatible areas, which are zoned industrial, commercial, or residential. USCG activities are operated in accordance with all federal and state laws and local ordinances.

Noise impact criteria normally are based partly on land use compatibility guidelines and partly on factors related to duration and magnitude of the noise level itself, including the time of day and the conduct of operations. Specific boats and engines have not been identified for the Proposed Action. It is only

known that the current two-stroke engines used on the interim MSSTs will be replaced with a four-stroke engine, to reduce air emissions and environmental noise. In making the qualitative statements, engines commonly used by the USCG were chosen. A description of two-stroke engines is provided in Section 3.4.2. Four-stroke engines have four cycles: intake stroke, compression stroke, combustion stroke, and exhaust stroke. The first three cycles generate the majority of engine noise, with interaction of the piston and crankshaft.

#### **4.4.2 Potential Impacts**

**Proposed Action.** The Proposed Action is to stand up and operate six RBS. It is anticipated that the MSSTs will operate 24 hours a day, seven days per week and that one boat per MSST will be on station performing basic maintenance. Under normal conditions, there will only be two to three boats operating at any given period.

**Above-water Noise.** It has not yet been determined what type of engine will be used, and therefore sound exposure levels could not be calculated for noise sensitive areas in the ROI. Research was done on two-stroke and four-stroke engines commonly used by the USCG, however, data on airborne noise generation by marine vessels generally is not available. Manufacturer literature states that new four-stroke engines are quieter than two-stroke engines, which is likely because of the incorporation of muffling devices into design and the reduced number of combustion cycles (Evinrude 2002).

In addition, the ROI is a large geographic area in a busy commercial port and it would not be significant to provide numerical noise level estimates that would be representative of any noise impacts at any one specific location. Airborne noise from marine vessel operations is rarely an issue of concern because the majority of the population near the waterways and the port is familiar with the sound of passing boats and ships. While noise data for USCG vessels is not available, speeds in port areas would be expected to continue to be generally low (10 to 12 knots) except during an unusual event (i.e., pursuit). Based on limited knowledge, it is anticipated that noise impacts would be minor adverse within the port.

**Underwater Noise.** In regard to noise impacts by vessels to marine mammals, there is no scientific consensus regarding absolute thresholds for significance. However, this section applies current scientific knowledge to the assessment of impacts from ocean going vessels on marine mammals. As previously discussed in Section 3.4, underwater dB measurements are not equivalent to dB measurements of airborne sounds. The reference pressure used for underwater noise measurement (one microPascal [ $1\mu\text{Pa}$ ]) is much lower than that used for airborne sound measurements ( $20\mu\text{Pa}$ ).

The impact that a human-made sound can have on sea life depends on its loudness, the specific acoustic frequency pattern at the location where the marine organisms detect the sound, and the distance from the

noise source. High frequency components of the noise decrease more rapidly with distance than do low frequency components.

Although the Proposed Action would produce an increase in the overall level of boat operations, the size of the vessels proposed are smaller than the existing commercial vessels operating in the Port of Virginia and Chesapeake Bay. RBS noises are most likely well below sound intensities associated with severe disturbance or injury to marine mammals at normal operating procedures. In addition, the number of marine mammals that frequent the ROI is low. Disturbance from USCG vessels is likely to be short-term and, therefore, will not significantly impact cetaceans (USCG 1996). Furthermore, USCG vessel noises are well below sound intensities associated with severe disturbance or injury to whales, and it is unlikely that the vessel noise will cause significant impact to whales (USCG 1996). Since there is no conclusive scientific information concluding that the noise levels emitted by existing larger USCG vessels have direct significant adverse impacts on marine mammals, it is not anticipated that the noise generated by the RBS will create greater than minor adverse impacts.

***No Action Alternative.*** Under the No Action Alternative, existing conditions would remain as is and the MSST RBS would not be fully implemented. The USCG would maintain the current level of protection, which has been determined to be insufficient. Under this alternative, disruption to other missions would continue. This scenario of vessels and manpower being stretched to their limit would possibly make it easier for an attack to occur. Impacts of selecting this alternative would be considered significantly adverse due to the potential of a terrorist attack. Terrorists could strike at military or commercial facilities in these ports creating the potential for impacts to the environment. The impacts could be immediate or long lasting. Recovery time would be dependent on the severity and extent of the impact.

## **4.5 Public Safety**

### **4.5.1 Significance Criteria**

If implementation of the Proposed Action were to substantially increase risks associated with the safety of Naval or Coast Guard personnel (including MSST personnel), Port workers and visitors, or the local community, or substantially hinder the ability to respond to an emergency, it would represent a significant impact. Furthermore, if implementation of the Proposed Action would result in incompatible land use with regard to safety criteria, impacts to safety would be significant. Public safety is one of the USCG's primary missions, as the USCG is the prominent overseer of maritime safety in all U.S. waters, including the high seas. The U.S. maritime transportation system is diverse. Geography, environmental conditions and the amount and types of vessel traffic are all aspects of the U.S. maritime system. Since the events of

September 11, 2001, the safety of the country's ports and its maritime system has received increased scrutiny and concern. It is due to these concerns that this Proposed Action is being considered.

It is extremely difficult to determine the level of significance and degree of impact in losing one (or more ships) and loss of life; therefore, no attempt to do so is made in this section.

#### **4.5.2 Potential Impacts**

***Proposed Action.*** The Proposed Action will increase the USCG's ability to protect critical domestic ports and the U.S. Maritime Transportation System from warfare and terrorist attacks. The MSST's operations will closely parallel USCG traditional port security operations, but will provide complementary, non-redundant capabilities that will be able to close significant readiness gaps in our nation's strategic ports. The MSST will escort a variety of vessels and maintain specific security zones in each port. It is capable of operating seven days a week, 24 hours a day, in all weather conditions. It will operate with and be supported by both military and civilian government organizations, commercial, and non-government entities. Significant beneficial impacts may be reasonably expected from the Proposed Action.

***No Action Alternative.*** Under the No Action Alternative, the USCG will continue to provide port security at the current level. Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined to be insufficient. Additional boats and personnel would only be assigned to the port under unusual circumstances. Under this alternative, disruption to other missions would continue. This scenario of vessels and manpower being stretched to their limit would possibly make it easier for an attack to occur. Impacts of selecting this alternative would be considered significantly adverse due to the potential of a terrorist attack. Terrorists could strike at military or commercial facilities in these ports creating health and safety hazards for the surrounding populace, impacting appropriate emergency responses, and the potential for impacts to the environment. The impacts could be immediate or long lasting. Recovery time would be dependent on the severity and extent of the impact.

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## 5. Cumulative Impacts

### 5.1 Cumulative Impacts Methods

Cumulative impacts are defined as the impacts that result from the incremental impact of the action, when added to other past, present, and foreseeable future action (40 CFR 1508.7). Cumulative impacts can result from individually minor but collective impacts occurring over time.

This cumulative impact analysis considers reasonably foreseeable programs, projects, or policies that may impact MSST operations, add to the MSST operations, or create a significant impact in the ROI. For the purposes of this EA, only those projects identified in Chapter 3 that may be impacted by the Proposed Action will be carried over into the Cumulative Impacts discussion. Information about ongoing and future projects and programs has been identified from web searches, other NEPA documents, and local newspaper articles.

All projects are identified and briefly discussed in Table 5-1. Projects that are currently in the planning stages, or have been delayed until further studies have been completed and have no target dates, have been dismissed from further consideration. These projects, if completed, will be concluded at some future unknown date, long after the MSST has become operational. Based on professional judgment, potential impacts are identified as minor, moderate, or high and beneficial and adverse whenever possible.

#### 5.1.1 Projects Deleted from Further Consideration

Atlantic Intracoastal Waterway Bridge at Deep Creek (near Chesapeake, Virginia): This is a joint project of the U. S. Corps of Engineers (USACE) and the City of Chesapeake, Virginia. Due to changing requirements, USACE announced that further work on the project would be delayed until the completion of a federal economic analysis. No target date for the analysis has been released.

Deepwater Program: The award for this program was made in July 2002. It is not known if additional and/or new assets will be added to the ISC Portsmouth. It is anticipated that additional NEPA documentation will be required.

New Terminals (Maersk Sealand Containers) at Portsmouth Marine Terminal: The 568 acres necessary for this project were purchased October 2001. As of this date, no further plans have been identified.

Nauticus Cruise Terminal: Funds approved by the Virginia Port Authority in July 2002 to study cruise terminal possibilities. Study may be partially delayed because of new priorities for U.S. Customs Service and Immigration and Naturalization Service buildings because of September 11, 2001. No projected date for study completion or project implementation is known at this time.

**Table 5-1. Programs and Projects Evaluated for Potential Cumulative Impacts**

<b>Proposed (or Existing) Action</b>	<b>Potential Cumulative Impacts</b>
Virginia Beach: Erosion Control and Hurricane Protection	Short-term impacts during construction of higher seawall, beach restoration and dune enhancement.
Atlantic Intracoastal Waterway Bridge at Deep Creek (near Chesapeake), Virginia	Potential delays on bridge crossing during construction. Potential short-term impacts to air and water quality during construction.
Deepwater Program	ISC Portsmouth may receive new and/or additional cutters because of this program. The number, types and time frame are unknown at this time. Additional NEPA documentation may be required.
Pinners Point Interchange	Potential delays at interchange until work completed in 2005.
New Terminals (Maersk Sealand Containers) at Portsmouth Marine Terminal	This potential large project could impact water and air quality during construction. Potential permanent impact to air quality because of operations. The project could also potentially add to number and types of container ships in and out of Port; thereby causing an increase to the number of MSST projected operations.
Shipments of Nuclear Waste	Potential additional environmental concerns from accidents and terrorist threats. It could also cause an increase to the number of MSST projected operations. The current status of the plans is unknown.
Expansion of Existing Craney Island Dredged Material Management Area, Hampton Roads, Virginia	Air and water quality impacts during dredging activities. Potential impacts to floating port security zones. Also could cause an increase to the number of MSST project operations.
Nauticus Cruise Terminal	Currently under study. Short-term impacts to air and water quality because of construction. Potential long-term impacts to air quality (expect 3,000 or more vacationers twice a day for 6 to 7 months) could also cause an increase to the number of MSST project operations.
Norfolk International Terminal (NIT) South Renovation	Short term impacts to water and air quality during demolition and construction of new wharf.
Maintenance and New Work Dredging at NIT South	This is a separate project from the renovation work. Impacts to air and water quality during activities. Potential increased number of MSST operations.
Construction of new U.S. Customs Service and Immigration and Naturalization Service Buildings	Project currently under study. Short-term impacts to air quality during construction. Potential long term impacts to air quality with increased personnel (no projected numbers at this time).

**Table 5-1. Programs and Projects Evaluated for Potential Cumulative Impacts (continued)**

<b>Proposed (or Existing) Action</b>	<b>Potential Cumulative Impacts</b>
334.8 Million Dollars for Port Improvements	Conceptually identified in the Virginia Port Authority 2010 Plan as additional terminals, rail access, update existing facilities. No target dates for any specific projects. Projects will depend on funding availability. Short-term air and water quality impacts from construction; potential long-term impacts from operations. Potential impacts to number of MSST operations.
Port Security Measures	Radiation sensors added to container cranes, new identification system for all personnel entering state-owned marine terminals and additional 19 million dollars in other security upgrades. These measures should provide an overall positive impact for MSST operations.

Construction of new U.S. Customs Service and Immigration and Naturalization Service Buildings: In May 2001, the Virginia Port Authority provided funds for construction of these buildings. Originally, the study for these additional buildings was based on the potential increase of cruise ship passengers (3000 twice per day for six to seven months). Added emphasis for these buildings is a result of September 11, 2001. No target date for construction has been identified.

Port Security Measures: Many of these measures are currently in place (i.e., radiation sensors on cranes and new identification system for state employees). Other measures are being put in place, although due to sensitivity of information, specifics are not available. Overall, these measures should result in significant positive impacts for the MSST.

**5.1.2 Pertinent Projects**

It should be noted that several different channels were used to attempt to obtain environmental analyses for the following projects; however, as of the date of the publication of this EA, no objective data was obtained. In most cases, while a specific project has been identified, funded, and has a target date for completion, the environmental data has yet to be produced. In other cases, internal studies have concluded that potential impacts are short-lived and outweigh the long-term benefits of the project. Therefore, based on previous experience with these types of projects, reasonable potential impacts have been identified, and when possible, identified as minor, moderate, or adverse. In all cases, and in comparison to these large projects, the potential impacts from the stand-up and operations of the MSST must be considered minor.

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Virginia Beach: Erosion Control and Hurricane Protection: This is a joint project of the USACE and the City of Virginia Beach. Federal funding for this and similar projects was provided under the Energy and Water Resources Development Appropriation Act of 2000. This project includes the construction of a higher seawall and a wider boardwalk and bicycle path, the installation of two storm water-pumping stations and beach restoration and dune enhancement. The project is designed to protect Virginia Beach from a 140-year storm event. Potential short-term minor impacts may include a slight degradation of air and water quality immediately offshore. Potential impacts may also occur to marine mammals, particularly the Right whale which migrates along the Virginia coast on a biannual basis. The USACE released a Shore Protection Benefits Study which showed “that beach restoration has minimal, temporary environmental impact and is actually beneficial to the environment: ‘Periodic beach re-nourishment often has beneficial environmental effects. Many USACE beach nourishment projects have produced environmental benefits, such as providing new nesting area for sea turtles, spawning grounds for horseshoe crabs, and habitat for piping plover, least terns and sea-beach amaranth. Furthermore, it concluded that beach nourishment projects ‘have no significant impact in the long-run’ as ‘the plant and animal species existing in littoral areas are adapted to survive in the dynamic environment’ of sand erosion and accretion. The USACE protocols also require the use of ‘engineering and monitoring practices to avoid detrimental impacts’ (USACE 2002). The location and movement of the barge(s) used in this type of operation may require scrutiny by the MSST.

Pinners Point Interchange: This construction project has temporarily closed a beach along five blocks of Bayview Road in Norfolk and has caused temporary traffic delays due to construction. Anticipated benefits from the construction include improved traffic flow and sound buffering for adjacent neighbors. Temporary impacts include minor degradation to air quality and potentially moderate adverse noise impacts from construction equipment. Until the project is completed (anticipated 2005), neither the beach nor the interchange will provide reliable access for the MSST. However, based on the number of other potential launch locations in the Norfolk area, this impact is considered minor adverse.

Shipments of Nuclear Waste: Although there are no specific dates for nuclear waste shipments from the Surry Nuclear Power Plant, this proposed project is retained for further analysis. Potential avenues for shipments include water, rail, and/or bridge. Accidents can occur during transfer and shipment of nuclear materials, with potentially significant adverse impacts to both the public and the environment. Such shipments may also be considered a target for terrorists, resulting in similar impacts. Additional scrutiny may be required by the MSST during these shipments.

Expansion of Existing Craney Island Dredged Material Management Area, Hampton Roads, Virginia: This is a joint project of the USACE and the Commonwealth of Virginia through the Virginia Port Authority. A notice of intent to prepare a Draft Environmental Impact Statement (DEIS) for an Expansion of the Existing Craney Island Dredged Material Management Area in Hampton Roads,

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Virginia was placed in the Federal Register on March 2, 2001. “The proposed expansion would provide dredged material placement capacity and port facilities to support port commerce in Hampton Roads.” The notice also acknowledges that “a State permit pursuant to Section 401 (b) (1) will be required and be part of the DEIS.” As no notice of the DEIS has since been published, the potential impacts from this project are unknown. However, it is reasonable to assume that temporary minor adverse impacts to air and water quality and marine animals may result during dredging and disposal activities. The Proposed Action will be completed and operating before the EIS is completed. Also, in comparison to this project, any potential impacts from the stand-up and operations of the MSST will be minor in comparison. Impacts to MSST operations may include scrutiny of the barges used for these operations.

Norfolk International Terminal (NIT) South Renovation: The contract award for this project is scheduled for August 15, 2002. It will include the demolition and reconstruction of 4,230 linear feet of the existing facility. No projected start/end dates were included in the information. Temporary minor air and water quality impacts may be reasonably expected. The Proposed Action will be completed and operating before the completion of this work. In addition, in comparison to this project, any potential impacts from the stand-up and operations of the MSST will be minor in comparison. However, potential operational impacts to the MSST may include scrutiny of the barges used for this work.

Maintenance and New Work Dredging at NIT South: This is a separate project from the renovation referenced above. The dredged materials will be deposited at the USACE Craney Island Dredged Material Management Area. The contract award is expected on August 8, 2002. No projected start/end dates were included in the information. It is unclear if, or how the results of the Expansion of Craney Island Dredged Material Management Area EIS reference above will impact this work. The Proposed Action will be completed and operating before the completion of the dredging work. In addition, in comparison to this project, any potential impacts from the stand-up and operations of the MSST will be minor in comparison. However, potential operational impacts to the MSST may include scrutiny of the barges used for this work.

Funding for Port Improvements: This funding requirement is based on the Virginia Port Authority 2010 Plan. The plan is conceptual (e.g., additional terminals and rail lines) and does not identify specific projects or specific locations. Therefore, it is not possible to reasonably identify the projects, their scopes and locations, or potential environmental impacts. However, potential operational impacts to the MSST may include scrutiny of the anticipated increase of ships entering/exiting the port.

Port Security Measures: Since September 11, 2001, the Port of Virginia has taken a series of steps to provide for the safety and security of the port. These measures include the installation of radiological sensors on cranes and a new security system for state employees. Based on a reasonable understanding of the nature of these improvements, there should have been no environmental impacts during their

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implementation. Other measures are anticipated, but due to their sensitive nature, are not available at this time. These improvements should result in a significant positive impact to MSST operations.

## **5.2 Biological Resources**

### **5.2.1 Proposed Action**

#### **Protected and Sensitive Habitats**

The stand-up and operations of the MSST will occur simultaneously with the Virginia Beach replenishment projects. This project should not impact that portion of the Chesapeake Bay identified as the York River NERR, which is one hour north of Norfolk. According to the USACE study cited above, beach replenishment projects have minimal and temporary environmental impacts. In comparison, the stand-up and operations of the MSST will be a minor action. Therefore, the potential for the MSST to add to adverse cumulative impacts must also be considered minor. However, the increased level of protection from MSST patrols could be considered an indirect moderate beneficial impact. In addition, the MSST will follow relevant COMDTINSTs regarding protected and sensitive habitats, except in emergencies.

Attempts were also made to acquire environmental analyses for the dredging project and the replacement of NIT South. Based on previous experience, both of these projects will typically produce minor adverse impacts to the air and water quality of protected and sensitive habitats in the immediate areas of these projects. These projects typically produce long-term impacts to air quality because of the increase of ship, rail, and vehicular traffic. Since no estimates on the percent of increased use are available, the amount and types of emissions cannot be neither quantitatively nor qualitatively projected. In comparison, the potential for the MSST to add to adverse cumulative impacts must be considered minor. In addition, these projects will be completed after the Proposed Action.

#### **Marine Mammals and Sea Turtles**

The MSST stand-up and initial operations of the Proposed Action will occur simultaneously with the Virginia Beach replenishment and dune enhancement projects. While Virginia Beach is within the ROI, it is not immediately adjacent to the existing port facilities where the majority of MSST operations may be expected to occur. Therefore, the Virginia Beach project would not expect to generate a high degree of interest from the MSST. However, the MSST may observe the dredges on an occasional basis. According to the USACE study referenced above, "Many Corps beach nourishment projects have produced environmental benefits, such as providing new nesting area for sea turtles, spawning grounds for horseshoe crabs."

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According to the APLMRI and the Integrated Deepwater System Project Final Programmatic EIS, marine mammals, particularly the Right whale, migrate near this area. These mammals may need additional protection from the USCG during the Virginia Beach projects. Under the APLMRI, the USCG has committed to various procedures to avoid interaction with these whales and other mammals. The MSST will comply with those procedures, except in emergency circumstances. The MSST Action Alternative might result in minor adverse impacts to marine mammals, although the increased level of protection from the additional MSST patrols would offset any impacts. In comparison to this project, the stand-up and operations of the MSST is a minor action. Therefore, the potential for the MSST to add to adverse cumulative impacts must be considered minor. The other pertinent projects, (i.e., dredging, replacement of NIT South, etc.) will occur within the port area. This area does not have a significant number of marine mammal visitations, and these other projects are not expected to have minor, if any, adverse impacts to marine mammals and sea turtles. .

### **Fish**

The MSST stand-up and initial operations of the Proposed Action will occur simultaneously with the Virginia Beach replenishment and dune enhancement projects. According to the USACE study cited above, beach replenishment projects have minimal and temporary environmental impacts. In comparison, the stand-up and operations of the MSST will be a minor action. Therefore, the potential for the MSST to add to adverse cumulative impacts must also be considered minor. In addition, the USCG coordinated with VADGIF; they concurred that the MSST operations would not pose a serious threat (Moyer 2002.) However, the increased level of protection from MSST patrols could be considered an indirect moderate beneficial impact. As noted above, attempts were also made to acquire environmental analyses for the dredging project and the replacement of NIT South; however, no objective data was obtained. Based on previous experience, both undertakings typically produce minor adverse impacts to fish due to disruptions in feeding or reproduction in the immediate areas. In comparison to the magnitude of these two projects, the potential for the MSST to add to adverse cumulative impacts must be considered minor. In addition, these projects will be completed after the Proposed Action will be operating.

### **Coastal and Other Birds**

Neither ISC Portsmouth nor USCG Station Little Creek provide suitable habitat for threatened and endangered species or migratory birds. The MSST normal operations will not be within or adjacent to nesting and foraging habitat for threatened and endangered species, nor migratory birds. The USCG coordinated with VADGIF; they concurred that the MSST operations would not pose a serious threat (Moyer 2002).

The MSST stand-up and initial operations of the Proposed Action will occur simultaneously with the Virginia Beach replenishment and dune enhancement projects. According to the COE study cited above,

beach replenishment projects have minimal and temporary environmental impacts. “Many Corps beach nourishment projects have produced environmental benefits, such as habitat for piping plover, least terns.” In comparison to this project, the potential for the Proposed Action to add adverse cumulative impacts must be considered minor.

### **5.2.2 No Action Alternative**

The No Action Alternative, as used in this EA, will not fulfill the USCG’s purpose and need to provide additional security to the nation’s ports, including the Port of Virginia. Should a No Action Alternative be acceptable, several consequences may occur. Currently, vessels and manpower are being diverted from other missions in order to provide the additional security for the nation’s ports, including the Port of Virginia. Under the No Action Alternative, disruption to other missions would continue resulting in further strain on manpower and current assets. This scenario of vessels and manpower being stretched to their limit would possibly make it easier for an attack to occur. The result might be a potential for significant adverse environmental impacts. Terrorists could strike at military or commercial facilities in these ports creating health and safety hazards for the surrounding populace, impacting appropriate emergency responses, employment and trade, and marine life. The impacts could be immediate (i.e., loss of life) or long lasting (i.e., loss of fishing habitats that could impact the economy on a long-term basis). Recovery time would be dependent on the severity to the resource, the extent of the loss and the resource’s ability to recover.

As noted above, numerous attempts were made to locate objective environmental data for the pertinent projects; however, as of the date of the publication of this EA, no objective data was obtained. Impacts from the other proposed projects would remain essentially the same as identified in the Proposed Action.

### **Protected and Sensitive Habitats**

If the No Action Alternative is selected, the other projects will continue with the same type and level of impacts as noted under the Action Alternative. The No Action Alternative will not fulfill the USCG’s purpose and need to provide additional security to the Port of Virginia and the ROI. Terrorists could strike at military or commercial facilities in the Port of Virginia creating the potential for significant adverse environmental impacts to protected and sensitive habitats. In addition, the nation might experience some loss to threatened and endangered species. Recovery time would be dependent on the severity and extent of the loss. Protected and sensitive habitats would also not receive any indirect beneficial impacts from MSST patrols.

### **Marine Mammals and Sea Turtles**

If the No Action Alternative is selected, the other projects will continue with the same type and level of impacts as noted under the Action Alternative. . As noted above, the No Action Alternative will not fulfill

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the USCG's purpose and need to provide additional security to the Port of Virginia. Terrorists could strike at military or commercial facilities creating the potential for significant adverse environmental impacts to marine mammals may result. The impacts could be immediate or long lasting (loss of marine mammals that might result in other related environmental impacts). Recovery time would be dependent on the severity and extent of the loss. In addition, marine mammals and sea turtles would not receive indirect beneficial impacts from MSST patrols.

### **Fish**

If the No Action Alternative is selected, the other projects will continue with the same type and level of impacts as noted under the Action Alternative. As noted above, the No Action Alternative will not fulfill the USCG's purpose and need to provide additional security to the Port of Virginia. Terrorists could strike at military or commercial facilities in the Port of Virginia creating the potential significant for adverse environmental impacts to fish and their habitats. The impacts could be immediate (loss of fisheries) or long lasting (loss of fishing habitats that could impact the long-term economy). Recovery time would be dependent on the severity and extent of the loss. In addition, fish and EFHs will not receive the indirect beneficial impacts from the MSST patrols.

### **Coastal and Other Birds**

If the No Action Alternative is selected, the other projects will continue with the same type and level of impacts as noted under the Action Alternative.

The No Action Alternative will not fulfill the USCG's purpose and need to provide additional security to the Port of Virginia. Terrorists could strike at military or commercial facilities in the Port of Virginia creating the potential significant for adverse environmental impacts to coastal and other birds. The impacts could be immediate or long lasting. Recovery time would be dependent on the severity and extent of the loss.

## **5.3 Air Quality and Climate**

### **5.3.1 Proposed Action**

The Proposed Action will not significantly impact air quality in the ROI. The Port of Virginia is very large and conducts a considerable amount of commercial activity on a daily basis. Both the 2-stroke engines and the proposed 4-stroke engines comply with EPA regulations. Based on experience with previous projects, the Virginia Beach projects may result in a minor adverse impact to air quality in the immediate location, but this is expected to cease at the completion of this project. The construction of the Pinnars Point Interchange will also cause short-term minor impacts to air quality during construction. The increases in the number of vehicles that will utilize the interchange after completion of the

construction are unknown; therefore, it is impossible to predict long-term air quality impacts from vehicular traffic. Similarly, the various proposed construction projects may result in short-term minor impacts to air quality. As with the increase in the number of ships, vehicular and rail traffic that would result from the completion of any or all of these projects are also unknown, the long-term impact to air quality cannot be projected. These other projects, (i.e., dredging, replacement of NIT South, etc.) will be completed after implementation of the Proposed Action. In addition, any potential impacts from the stand-up and operations of the MSST are minor. Therefore, the potential for the MSST to add to adverse cumulative impacts must also be considered minor.

### **5.3.2 No Action Alternative**

If the No Action Alternative is selected, the other projects will continue with the same type and level of impacts as noted under the Action Alternative. In general, it can be reasonably expected that air quality will be somewhat negatively impacted during the demolition and construction of these other projects and will recover when these projects are completed.

The No Action Alternative will not fulfill the USCG's purpose and need to provide additional security to the Port of Virginia. Terrorists could strike at military or commercial facilities in the Port of Virginia resulting in an attack that would impact air quality creating the potential for significant adverse environmental impacts. The impacts could be immediate or long lasting. Recovery time would be dependent on the severity and extent of the loss.

## **5.4 Noise**

### **5.4.1 Proposed Action**

The expected noise from the Proposed Action might create a minor adverse impact to the immediate local area where the RBS are operating. Personnel on the RBS will wear protective hearing if required. As discussed in the APLMRI, USCG vessels do not have a long-term impact to marine mammals nor to fish. The ROI and the Port of Virginia are large and commercially active areas. The amount of noise generated from the Virginia Beach and the Pinnars Point projects are unknown. Any of the proposed construction projects would generate an unknown amount of noise. These other pertinent projects, (i.e., dredging, replacement of NIT South, etc) will be completed after the Proposed Action will be operating. In comparison to these other projects, the potential impacts from the stand-up and operations of the MSST are minor. Therefore, the potential for the MSST to add to adverse cumulative impacts must also be considered minor.

### **5.4.2 No Action Alternative**

Under the No Action Alternative, the other projects will continue with the same type and level of impacts as noted under the Action Alternative. .

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The No Action Alternative will not fulfill the USCG's purpose and need to provide additional security to the Port of Virginia.

## **5.5 Public Safety**

### **5.5.1 Proposed Action**

The Proposed Action will increase the USCG's ability to protect critical domestic ports and the U.S. Maritime Transportation System from warfare and terrorist attacks. Additional time will be required for boarding and inspecting suspicious vessels and may result in a minor economic impact, however, the increased safety and security for the Port of Virginia and the ROI will out way these potential negative impacts. In addition, the Proposed Action will help to deter attacks on the Maritime Transportation System and more effectively respond if a terrorist attack of that nature should be successful. One of the goals of the Virginia Beach project is to protect the town from a 140-year storm event. One of the goals of the Pinnars Point Interchange is to increase the safety for vehicular traffic. These projects will result in positive impacts to public safety and transportation. Although specific details are not known regarding the proposed projects, it is assumed that their designs will include appropriate public safety and transportation elements.

### **5.5.2 No Action Alternative**

If the No Action Alternative is selected, the other projects will continue with the same type and level of impacts as noted under the Action Alternative. It can reasonably be inferred from their goals, that the Virginia Beach Replenishment and Dune Enhancement Project and the Pinnars Point Interchange Project will improve public safety.

The No Action Alternative will not fulfill the USCG's purpose and need to provide additional public safety and security to the Port of Virginia. Terrorists could strike at military or commercial facilities in the Port of Virginia creating health and safety hazards, impacting appropriate emergency responses, and potential significant adverse impacts to the Marine Transportation System. The impacts could be immediate (loss of existing terminal facilities and infrastructure) or long lasting (loss facilities and infrastructure and subsequent economic impacts). Recovery time would be dependent on the severity of the attack and extent of the loss.

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USCG 1996	U.S. Coast Guard (USCG). 1996. <i>NEPA Final Environmental Impact Statement (Volume I) for the U. S. Coast Guard Living Marine Resources (APLMR) Initiative</i> . Prepared by Battelle Ocean Sciences. October 31, 1996.
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USCG 2002b	U.S. Coast Guard (USCG). 2002b. U.S. Coast Guard/G-IPA Web page "Homeland Security." <a href="http://www.uscg.mil/news/homeland_security/homeland_security.htm">http://www.uscg.mil/news/homeland_security/homeland_security.htm</a> . Accessed May 18, 2002.
USCG 2002c	U.S. Coast Guard (USCG). 2002c. U.S. Coast Guard (G-OPD) Handout provided by Lt. Galman. April 26, 2002.

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USCG 2002d	U.S. Coast Guard (USCG). 2002d. U.S. Coast Guard (G-OP) “Concept of Operations” presentation and handout.
USCG 2002e	U.S. Coast Guard (USCG). 2002e. <i>Statement of Work: NEPA Compliance for Coast Guard Location and Operation of Marine Safety and Security Teams in Seattle, WA, Chesapeake, VA, Galveston, TX, and San Pedro, CA.</i>
USCG 2002f	U.S. Coast Guard (USCG). 2002f. <i>U.S. Coast Guard Final Programmatic Environmental Impact Statement for the Integrated Deepwater System Project.</i> March 22, 2002.
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USDOT 1980	U.S. Department of Transportation (USDOT). 1980. <i>Guidelines for Considering Noise in Land Use Planning and Control, Federal Interagency Committee on Urban Noise.</i> June 1980.
USGS 2002	U.S. Geological Survey (USGS). 2002. <i>Our Living Resources: A Report to the Nation on the Distribution, Abundance, and Health of U.S. Plants, Animals, and Ecosystems.</i> U.S. Department of the Interior, National Biological Service.
VDNR 2002	Virginia Department of Natural Resources (VDNR) 2002. <i>The Virginia Fish and Wildlife Information Service.</i> Available: <a href="http://vafwis.org/bova/lists/CAT03.htm">http://vafwis.org/bova/lists/CAT03.htm</a> . Accessed August 9, 2002.
VGA 1960	Virginia General Assembly (VGA). 1970. The State of Virginia Assembly. 1960. Code of Virginia. Code 29.1-737: Muffling Devices. <a href="http://leg1.state.va.us/cgi-bin/legp504.exe?000+cod+29.1-737">http://leg1.state.va.us/cgi-bin/legp504.exe?000+cod+29.1-737</a> . Accessed July 24, 2002.
Wetlands 2002	Wetlands in Virginia (Wetlands). 2002. <a href="http://virginiaplaces.org/wetlands.html">http://virginiaplaces.org/wetlands.html</a> . Accessed on 8/14/02

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**APPENDIX A**

**INTERESTED PARTY LETTER**

U.S. Department  
of Transportation

United States  
Coast Guard



Commandant  
U. S. Coast Guard

2100 2<sup>nd</sup> Street, SW  
Washington, DC 20593-0001  
Staff Symbol: G-OPD  
Phone: 202-267-2039  
FAX: 202-267-4278

16475

MAY 13 2002

Dear Interested Party:

The United States Coast Guard is announcing its intent to prepare an Environmental Assessment (EA) for the establishment of Maritime Safety and Security Teams (one each) in Seattle, WA; Chesapeake, VA; Galveston, TX; and San Pedro, CA. Preparation of the EAs is being conducted in accordance with the National Environmental Policy Act (NEPA) of 1969 (Section 102[2][c]) and its implementing regulations at 40 Code of Federal Regulations, Part 1500. These first four Maritime Safety and Security Teams (MSSTs) are being established to increase the Coast Guard's ability to protect critical domestic ports and the U.S. Maritime Transportation System from warfare and terrorist attacks. The MSSTs' operations will closely parallel Coast Guard traditional port security operations, but will provide complementary, non-redundant capabilities that will be able to close significant readiness gaps in our nation's strategic ports. In addition to the four MSSTs mentioned above, the Coast Guard is planning to stand up MSSTs in other critical ports around the country. Additional NEPA analysis will be prepared for any future ports as necessary.

The EAs will address the overall environmental impacts of establishing and operating each of the first four MSSTs including the implementation of minor shore side infrastructure to accommodate 106 MSST personnel, equipment and the operation of 6 new 25' response boats in each of the above-mentioned ports. The urgency of the MSST security mission has resulted in an implementation schedule that directs the Seattle, WA MSST to be operational by July 1, 2002; Chesapeake, VA MSST to be operational by August 1, 2002; Galveston, TX MSST to be operational by September 1, 2002; and San Pedro, CA to be operational by September 1, 2002. Public input is important in the preparation of these EAs. Your concerns and comments regarding the implementation of these MSSTs and their possible environmental impacts are important to the Coast Guard. You are invited to submit comments by May 31, 2002 using only one of the following means:

(1) By mail to:

Headquarters, U.S. Coast Guard  
Captain Wayne Buchanan  
Chief, Office of Defense Operations (G-OPD)  
Room 3121  
2100 Second Street, SW  
Washington, DC 20593

(2) Or, by fax to LCDR Kirk Schilling at (202) 267-4278.

(3) Or by E-mail to [KSchilling@comdt.uscg.mil](mailto:KSchilling@comdt.uscg.mil).

In choosing among the above means for submitting your comments, please give due regard to the recent difficulties and delays associated with delivery of mail through the U.S. Postal Service to Federal facilities in the Washington area.

Written comments should include your name, address, and the specific location to which the comment relates. The Coast Guard will consider all comments received by May 31, 2002 in the development and completion of each EA.

Sincerely,

A handwritten signature in black ink, appearing to read 'W. Buchanan', written in a cursive style.

W. BUCHANAN  
Captain, U. S. Coast Guard  
Chief, Office of Defense Operations

Encl: (1) MSST Overview

## Maritime Safety and Security Team (MSST) Overview

### Background:

In October 1995, the Secretaries of Transportation and the Department of Defense, the Chief of Naval Operations and the Commandant of the Coast Guard (CG) signed a Memorandum of Agreement that identified the unique national defense capabilities of the CG. Domestic port security and protection has long been a core CG mission. However, in the wake of September 11<sup>th</sup>, emerging threats to the U. S. homeland has prompted an increased CG focus on protecting domestic ports and the U.S. Maritime Transportation System from warfare and terrorist threats.

### Maritime Safety and Security Teams:

The CG's answer is Maritime Safety and Security Teams (MSSTs). While other solutions are underway or being considered, the stand-up (establishment and operations) of the MSSTs at Seattle, WA; Chesapeake, VA; San Pedro, CA and Galveston, TX are the actions that will be considered in these Environmental Assessments.

Each MSST will consist of 73 active duty personnel and 33 reserve personnel (these will consist of mostly reassigned personnel although there may be some newly recruited personnel as well), support buildings for personnel, and six response boats for each MSST. All six boats can, but will not necessarily, be operating at once. The response boats will have outboard motors, will be no larger than 25 feet, will be highly maneuverable, will be capable of quickly reaching and sustaining high speeds (40 knots), and will carry between three and six crewmembers. Other requirements will include, but not be limited to, communication equipment, protection for the crew, and appropriate weaponry. When not in use, the response boats are capable of being placed on boat trailers.

Maritime Safety and Security Teams will normally conduct operations in protected waters such as a harbor or port. MSSTs are primarily intended for domestic operations, in support of the Coast Guard Group commanders or Captains of the Port (COTP). Operations will closely parallel existing CG traditional port security operations, but will provide complementary, non-redundant capabilities that will be able to close significant readiness gaps in our nation's strategic ports. The MSSTs will escort a variety of vessels and maintain specific security zones in each port. They are capable of operating 7 days a week, 24 hours a day, in weather conditions from tropical climates to near arctic conditions. They will operate with, and be supported by, both military and civilian government organizations, commercial and non-government entities. MSSTs will be transportable via land transportation, Coast Guard cutter, and Coast Guard or other military aircraft worldwide. MSST personnel will be employed for operations consistent with training and readiness. In summary, the MSST will:

- Augment a Coast Guard Group or COTP to enhance port safety and security, and law enforcement capabilities at economic or military significant ports.
- Deploy for specific episodic events that require an increased security posture for a limited duration.

- Transport all equipment and material via aircraft or ground or cutter transportation. Exercise security contingency plans in major ports.
- Detachments may also augment COTPs as Sea Marshals and deploy for port familiarization and training.

Locations:

Each MSST will be located at or near an existing Coast Guard command in the vicinity of a regionally significant economic or military port. The criteria used to select these ports and the priority in which the MSSTs are stood up is based on a number of factors, including, but not limited to, the level of current port protection available, the amount and type of cargo transiting the port facilities, and the concentration of critical Department of Defense facilities. Additional ports are currently being evaluated.

Co-locating MSSTs with or near existing Coast Guard commands, will maximize the use of existing infrastructure (i.e.: electric, water and communications) and already assigned personnel, although in some cases, additional personnel may be necessary. We anticipate maximizing the use of existing facilities for MSST personnel during working hours (e.g., leasing existing facilities, renovating existing buildings, etc.); however, in San Pedro, CA, there is the possibility that we will stand up some temporary trailers on already developed property. We do not anticipate any new construction. We anticipate MSST personnel will reside in the local area.

**APPENDIX B**

**INTERESTED PARTY MAILING LIST**

***Establishment of Marine Safety and Security Teams at Chesapeake, VA  
Environmental Assessment  
Interagency and Intergovernmental Coordination for Environmental Planning List***

---

Ms. Nancy Gloman  
Fish and Wildlife Service  
Division of Endangered Species  
4401 N. Fairfax Drive, Room 420  
Arlington, VA 22203

Ms. Becky Norton Dunlap  
Department of Environmental Quality  
P.O Box 1475  
Richmond, VA 23212

Kimberley DePaul  
Office of Chief of Naval Operations/N456  
Dept. of the Navy, US Dept. of Defense  
Crystal Plaza 5, Room 680  
2211 S. Clark Place  
Arlington, VA 22202-3735

Ms. Ellie Irons  
Virginia Department of Environmental Quality  
P.O. Box 10009  
Richmond, VA 23240-0009

Raymond Davis  
Virginia Dept. of Game and Inland Fisheries  
4010 W. Broad St.  
P.O. Box 11104  
Richmond, VA 23230

Mr. A. Forester Einarson  
US Army Corps of Engineers  
Office of Environmental Policy  
7701 Telegraph Road  
Alexandria, VA 22315-3681

Mr. John Warner  
Commonwealth of Virginia  
225 Russell Senate Office Building  
Washington, DC 20510

Mr. George Allen  
Commonwealth of Virginia  
204 Russell Senate Office Bldg  
Washington, DC 20510

Honorable Mark R. Warner  
Commonwealth of Virginia  
State Capitol  
3rd floor  
Richmond, VA 23219

Mr. Randy Forbes  
Commonwealth of Virginia  
636 Cedar Rd  
Suite A  
Chesapeake, VA 23322

Mr. Edward Schrock  
Commonwealth of Virginia  
POB 62996  
Virginia Beach, VA 23466

Mr. Bobby Scott  
Commonwealth of Virginia  
2600 Washington Ave  
Suite 1010  
Newport News, VA 23607

Mr. E. Massie Valentine, Jr  
Virginia Port Authority  
600 World Trade Center  
Norfolk, VA 23510

Mr. J.Robert Bray  
Virginia Port Authority  
600 World Trade Center  
Norfolk, VA 23510

Mr. Donald Boyd  
Virginia Port Authority  
600 World Trade Center  
Norfolk, VA 23510

Mr. Douglas Fuller  
International Terminals  
600 World Trade Center  
Norfolk, VA 23510

Mr. Gene Ferguson  
Norfolk International Terminal  
600 World Trade Center  
Norfolk, VA 23510

Mr. Mike Wilder  
Portsmouth Marine Terminal  
600 World Trade Center  
Norfolk, VA 23510

Mr. Jim Wade  
Newport News Marine Terminal  
600 World Trade Center  
Norfolk, VA 23510

Mr. Stan Crockett  
Virginia Inland Port  
600 World Trade Center  
Norfolk, VA 23510

Mr. Michael Cline  
Commonwealth of Virginia  
10501 Trade Court  
Richmond, VA 23236

Mr. Robert Green  
Hampton Division of Fire & Rescue  
22 Lincoln Street  
Hampton, VA 23669

Mr. Kenneth Jones  
Newport News Fire Department  
2400 Washington Ave  
6th floor  
Newport News, VA 23607

Mr. Dennis Ruben  
Norfolk Fire and Paramedical Dept  
100 Brooke Ave  
Suite 500  
Norfolk, VA 23501

Mr. Hugh Osborne  
Portsmouth Fire and Rescue  
300 Country St  
Suite 100  
Portsmouth, VA 23704

Mr. R. Stephen Best, Sr  
Chesapeake Fire Administration  
304 Albermarle Dr  
Chesapeake, VA 23322

Ms. Charlotte Herbert  
FEMA  
One Independence Mall, 6th floor  
615 Chestnut St  
Philadelphia, PA 19106

## **APPENDIX C**

### **NEWSPAPER ANNOUNCEMENT**

## **PUBLIC NOTICE**

### **Environmental Assessments for Maritime Safety Security Teams (MSSTs) US Coast Guard**

The United States Coast Guard is announcing its intent to prepare an Environmental Assessment (EA) for the establishment of Maritime Safety and Security Teams (one each) in Seattle, WA; Chesapeake, VA; Galveston, TX; and San Pedro, CA. Preparation of the EAs is being conducted in accordance with the National Environmental Policy Act (NEPA) of 1969 (Section 102[2][c]) and its implementing regulations at 40 Code of Federal Regulations, Part 1500. These first four Maritime Safety and Security Teams (MSSTs) are being established to increase the Coast Guard's ability to protect critical domestic ports and the U.S. Maritime Transportation System from warfare and terrorist attacks. The MSSTs' operations will closely parallel Coast Guard traditional port security operations, but will provide complementary, non-redundant capabilities that will be able to close significant readiness gaps in our nation's strategic ports. In addition to the four MSSTs mentioned above, the Coast Guard is planning to stand up MSSTs in other critical ports around the country. Additional NEPA analysis will be prepared for future ports as necessary.

The EAs will address the overall environmental impacts of establishing and operating each of the first four MSSTs including the implementation of minor shore side infrastructure support to accommodate MSST personnel and equipment and the operation of approximately 6 new Response Boats-Small (RB-S) in each of the above-mentioned ports. The urgency of the MSST national security mission has resulted in an implementation schedule that directs the Seattle, WA MSST to be operational by July 1, 2002; Chesapeake, VA MSST to be operational by August 1, 2002; Galveston, TX MSST to be operational by September 1, 2002; and San Pedro, CA to be operational by September 1, 2002. Public input is important in the preparation of these EAs. Your concerns and comments regarding the implementation of these MSSTs and their possible environmental impacts are important to the Coast Guard. You are invited to submit comments by May 31, 2002 using only one of the following means:

(1) By mail to: Headquarters, U.S. Coast Guard  
Captain Wayne Buchanan  
Chief, Office of Defense Operations (G-OPD)  
Room 3121  
2100 Second Street, SW  
Washington, DC

(2) Or, by fax to LCDR Kirk Schilling at (202) 267-4278.

(3) Or by E-mail to [KSchilling@comdt.uscg.mil](mailto:KSchilling@comdt.uscg.mil).

In choosing among the above means for submitting your comments, please give due regard to the recent difficulties and delays associated with delivery of mail through the U.S. Postal Service to Federal facilities.

Written comments should include your name, address, and the specific port(s) to which the comment relates. The Coast Guard will consider all comments received by May 31, 2002 in the development and completion of each EA.

\* An Affidavit of Publication verifies that the above Public Notice was posted in the Virginian Pilot on May 16, 2002.

**APPENDIX D**

**RESPONSES TO INTERESTED PARTY LETTER**

**City of Chesapeake**

Chesapeake Fire Department  
Special Operations Division  
304 Albemarle Drive  
Chesapeake, Virginia 23320  
(757) 382-6495  
FAX (757) 382-6517

May 24, 2002

Headquarters, U. S. Coast Guard  
Captain Wayne Buchanan  
Chief, Office of Defense Operations (G-OPD)  
Room 3121  
2100 Second Street, SW  
Washington, D. C. 20593

Attn: LCDR Kirk Schilling  
Fax No. (202)267-4278

Dear Captain Buchanan:

We have received your correspondence of May 13, 2002 introducing the Maritime Safety and Security Team (MSST) that is scheduled to stand-up in our city by August 2, 2002. The Chesapeake Fire Department, as Chesapeake's first line of response for homeland security welcomes this addition to our city. We look forward to partnering with the Coast Guard and its Office of Defense Operations to ensure our shorelines are secure and our port safe.

The Chesapeake Fire Department (CFD) would like to offer for your consideration when needed, the following resources. A CFD Marine Fleet consisting of one (1) 30 ft. fireboat; one (1) 19 ft. rigid hull inflatable craft; and three (3) 15 ft. inflatable crafts. Additionally, the following specialty teams are available: HazMat Team, Technical Rescue Team, Foam Fire Fighting Team, and Environmental Inspectors. Our Marine Fleet and specialty teams are highly qualified members of the department ready to assist whenever and wherever necessary.

I have enclosed my business card and hope that you will not hesitate to call if I can offer any assistance to your agency. The Chesapeake Fire Department stands ready to assist in any way that we can and looks forward to meeting with the members of Chesapeake's MSST.

Sincerely,

E. E. Elliott  
Acting Fire Chief

Cc Clarence V. Cuffee, Acting City Manager  
R. Stephen Rest, Sr., Acting Asst. City Manager



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
NORTHEAST REGION  
One Blackburn Drive  
Gloucester, MA 01930-2298

JUL 30 2002

W.R. Buchanan  
Captain, U.S. Coast Guard  
Chief, Office of Defense Operations  
2100 2<sup>nd</sup> Street, SW  
Washington, DC 20593-0001

Dear Captain Buchanan:

This correspondence is in response to the information submitted by your office on July 11, 2002 regarding the establishment of a Maritime Safety and Security Team (MSST) in Chesapeake, Virginia by the United States Coast Guard (USCG). On June 13, 2002, the National Marine Fisheries Service (NOAA Fisheries) responded via electronic mail to a public notice pertaining to the MSSTs issued by the USCG's Office of Defense Operations. NOAA Fisheries informed the USCG that the proposed action may affect the following endangered and threatened species: shortnose sturgeon (*Acipenser brevirostrum*); leatherback (*Dermochelys coriacea*), loggerhead (*Caretta caretta*), Kemp's ridley (*Lepidochelys kempi*) and green (*Chelonia mydas*) sea turtles; and humpback (*Megaptera novaeangliae*), fin (*Balaenoptera physalus*), and North Atlantic right (*Eubalaena glacialis*) whales. As such, NOAA Fisheries stated that a consultation pursuant to section 7 of the Endangered Species Act (ESA) of 1973, as amended was required for the proposed action.

In response to the events on September 11, 2001, the USCG has been directed by Congress to establish MSSTs in the most critical ports. Chesapeake, Virginia has been identified as one of the first four ports in which a MSST will be established. The USCG has indicated that the six boats that will be operated by the Chesapeake MSST are 25 feet and will use four-stroke outboard motors. While capable of going 40 knots, the normal transit range for these boats will be 10-15 knots. Also, these boats are designed to be highly maneuverable, which will assist them in avoiding collisions with protected species. Although the MSST will operate on a 24-hour, seven day a week schedule, there will typically only be two boats operating at any one time. There is the potential for four boats to be used under specific conditions. The expected area of operations is from the Chesapeake Bay Bridge at the mouth of the Chesapeake Bay to the Highway 164 Bridge near Portsmouth, Virginia, and occasionally, a boat may go beyond these boundaries if necessary.

To guard against any adverse impacts of the MSST vessel operations on protected marine species, the USCG has indicated that they plan on continuing to adhere to the protective measures included in the Atlantic Protected Living Marine Resources Initiative (APLMRI) as described in the Coast Guard Atlantic Protected Living Marine Resources Initiative Environmental Impact Statement completed on October 31, 1996. Also, it is



NOAA Fisheries' understanding that the USCG would continue to comply with the policies and goals set forward in the *Ocean Steward: Coast Guard Protected Living Marine Resource Strategic Plan*, which is part of the USCG's goal to protect natural marine resources and to enforce federal laws and regulations that prevent ecosystem degradation. As part of the Ocean Steward Plan, the USCG protects marine mammals by regulating incidental and intentional takes of marine mammals from close or repeated approach by vessels.

Due to the number, normal operating speed, and maneuverability of the vessels used by the MSSTs and the USCG's commitment to comply with existing measures to minimize any potential adverse effects to listed species, NOAA Fisheries concludes that the proposed establishment of a MSST in Chesapeake, Virginia is not likely to adversely affect listed species or designated critical habitat under our jurisdiction. As such, no further consultation pursuant to section 7 of the ESA is required. Should project plans change or new information become available that changes the basis for this determination, consultation should be reinitiated.

Should you have any questions about these comments, please contact Kim Damon-Randall at (978) 281-9112.

Sincerely,



Patricia A. Kurkul  
Regional Administrator

cc: Colligan, F/NER3  
Williams, GCNE  
Nichols, F/NER4-OX

File Code: 1514-05 (A) USCG

## **APPENDIX E**

### **NOISE TERMINOLOGY AND ANALYSIS METHODOLOGY**

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## APPENDIX E

This Appendix presents a detailed discussion of noise and its effects on people and the environment. An assessment of noise requires a general understanding of how sound is measured and how it affects people in the natural environment. The purpose of this appendix is to address public concerns regarding noise impacts.

Section E.1 is a general discussion on the properties of noise. Section E.2 summarizes the noise metrics discussed throughout this Environmental Assessment (EA). Section E.3 summarizes Land-Use Compatibility.

### E.1 General

Noise, often defined as unwanted sound, is one of the most common environmental issues associated with aircraft operations. Of course, aircraft are not the only source of noise in an urban or suburban surrounding. Interstate and local roadway traffic, rail, industrial, and neighborhood sources also intrude on the everyday quality of life. Nevertheless, aircraft are readily identifiable to those affected by their noise, and typically are singled out for special attention and criticism. Consequently, aircraft noise problems often dominate analyses of environmental impacts.

Sound is a physical phenomenon, and consists of minute vibrations that travel through a medium, such as air, and are sensed by the human ear. The interpretation of that sound as pleasant or unpleasant depends largely on the listener's current activity, past experience, and attitude toward the source of that sound. It is often true that one person's music is another person's noise.

The measurement and human perception of sound involves two basic physical characteristics, intensity and frequency. The intensity is a measure of the strength or amplitude of the sound vibrations and is expressed in terms of sound pressure. The higher the sound pressure, the more energy is carried by the sound and the perception of that sound is louder. The second important physical characteristic is sound frequency that is the number of times per second the air vibrates or oscillates. Low-frequency sounds are characterized as rumbles or roars, while sirens or screeches typify high-frequency sounds

The loudest sounds that can be detected comfortably by the human ear have intensities that are 1,000,000,000,000 times larger than those of sounds that can just be detected. Because of this vast range, any attempt to represent the intensity of sound using a linear scale becomes very unwieldy. As a result, a logarithmic unit known as the decibel (dB) is used to represent the intensity of a sound. Such a representation is called a sound level.

Because of the logarithmic nature of the decibel unit, sound levels cannot be added or subtracted directly and are somewhat cumbersome to handle mathematically. However, some simple rules of thumb are useful in dealing with sound levels. First, if a sound's intensity is doubled, the sound level increases by 3 dB, regardless of the initial sound level. For example:

$$60 \text{ dB} + 60 \text{ dB} = 63 \text{ dB, and}$$

$$80 \text{ dB} + 80 \text{ dB} = 83 \text{ dB}$$

The total sound level produced by two sounds of different levels is usually only slightly more than the higher of the two. For example:

$$60.0 \text{ dB} + 70.0 \text{ dB} = 70.4 \text{ dB}$$

Because the addition of sound levels behaves differently than that of ordinary numbers, such addition is often referred to as “decibel addition” or “energy addition.” The latter term arises from the fact that what we are really doing when we add decibel values is first converting each decibel value to its corresponding acoustic energy, then adding the energies using the normal rules of addition, and finally converting the total energy back to its decibel equivalent.

An important facet of decibel addition arises later when the concept of time-average sound levels is introduced to explain Day-Night Average Sound Level (DNL). Because of the logarithmic units, the louder levels that occur during the averaging period dominate the time-average sound level. As a simple example, consider a sound level which is 100 dB and lasts for 30 seconds, followed by a sound level of 50 dB which also lasts for 30 seconds. The time-average sound level over the total 60-second period is 97 dB, not 75 dB.

A sound level of 0 dB is approximately the threshold of human hearing and is barely audible under extremely quiet listening conditions. Normal speech has a sound level of approximately 60 dB. Sound levels above about 120 dB begin to be felt inside the human ear as discomfort and eventually pain at still higher levels.

The minimum change in the time-average sound level of individual events that an average human ear can detect is about 3 dB. A change in sound level of about 10 dB is usually perceived by the average person as a doubling (or halving) of the sound's loudness, and this relation holds true for loud sounds and for quieter sounds.

Sound frequency is pitch measured in terms of hertz (Hz). The normal human ear can detect sounds that range in frequency from about 20 Hz to about 15,000 Hz. All sounds in this wide range of frequencies, however, are not heard equally well by the human ear, which is most sensitive to frequencies in the 1,000 to 4,000 Hz range. To account for the varied frequency sensitivity of people, we use the A-weighted scale that approximates the average, healthy human ear. The A-weighting de-emphasizes the low and high frequency portion of the noise signal and emphasizes the mid-frequency portion. Sound levels measured using A-weighting are most properly called A-weighted sound levels, while sound levels measured without any frequency weighting are most properly called sound levels. However, since most environmental impact analysis documents deal only with A-weighted sound levels, the adjective “A-weighted” is often omitted, and A-weighted sound levels are referred to simply as sound levels. In some instances, the author will indicate that the levels have been A-weighted by using the abbreviation dBA or dB(A), rather than the abbreviation dB, for decibel. As long as the use of A-weighting is understood to be used, there is no difference implied by the terms “sound level” and “A-weighted sound level” or by the units dB, dBA, and dB(A). The A-weighting function de-emphasizes higher and, especially, lower frequencies to which humans are less sensitive. Because the A-weighting is closely related to human hearing characteristics, it is appropriate to use A-weighted sound levels when assessing potential noise effects on humans and many terrestrial wildlife species. In this document, all sound levels are A-weighted and are reported in dB.

Sound levels do not represent instantaneous measurements but rather averages over short periods of time. Two-measurement time-periods are most common – 1 second and 1/8 of a second. A measured sound level averaged over 1 second is called a slow response sound level; one averaged over 1/8 of a second is called a fast response sound level. Most environmental noise studies use slow response measurements, and the adjective “slow response” is usually omitted. It is easy to understand why the proper descriptor “slow response A-weighted sound level” is usually shortened to “sound level” in environmental impact analysis documents.

## E.2 Noise Metrics

A “metric” is defined as something “of, involving, or used in measurement.” As used in environmental noise analyses, a metric refers to the unit or quantity that measures or represents the effect of noise on people. Noise measurements typically have involved a confusing proliferation of noise metrics as individual researchers have attempted to understand and represent the effects of noise. As a result, past literature describing environmental noise or environmental noise abatement has included many different metrics. Recently, however, various federal agencies involved in environmental noise mitigation have agreed on common metrics for environmental impact analyses documents, and both the Department of Defense (DoD) and the Federal Aviation Administration (FAA) have specified those which should be used for federal aviation noise assessments. These metrics are as follows.

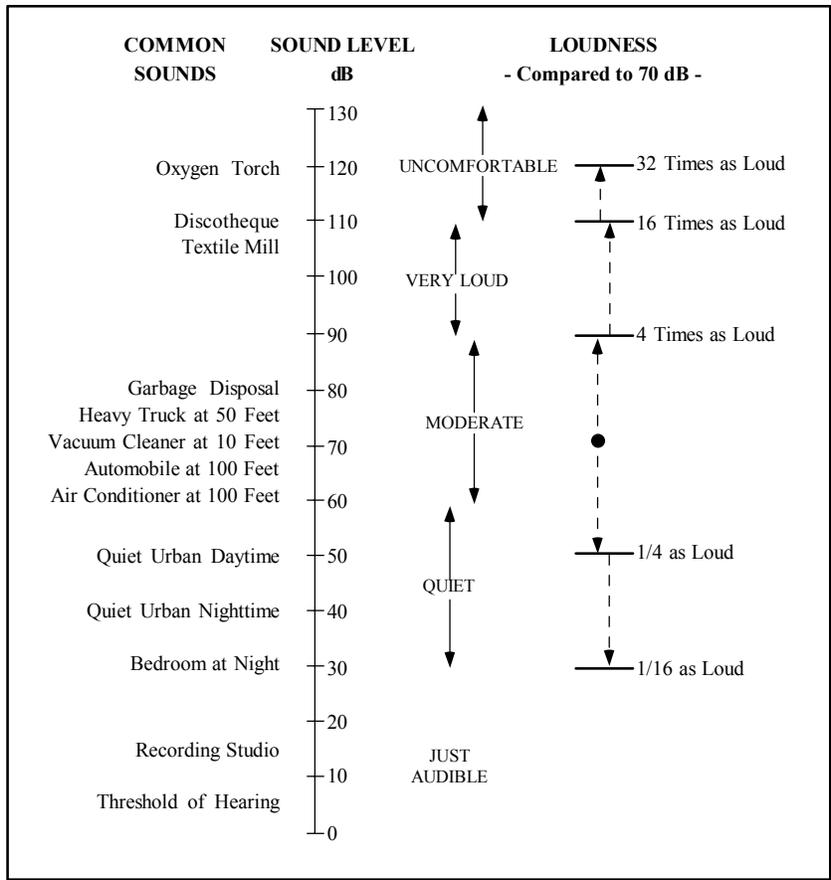
### E.2.1 Maximum Sound Level

The highest A-weighted sound level measured during a single event in which the sound level changes value as time goes on (e.g., an aircraft overflight) is called the maximum A-weighted sound level or maximum sound level, for short. It is usually abbreviated by ALM,  $L_{max}$ , or  $LA_{max}$ . The typical A-weighted levels of common sounds are shown in Figure E-1. The maximum sound level is important in judging the interference caused by a noise event with conversation, TV or radio listening, sleep, or other common activities.

### E.2.2 Sound Exposure Level

Individual time-varying noise events have two main characteristics: 1) a sound level which changes throughout the event, and 2) a period of time during which the event is heard. Although the maximum sound level, described above, provides some measure of the intrusiveness of the event, it alone does not completely describe the total event. The period of time during which the sound is heard is also significant. The sound exposure level (abbreviated SEL or LAE) combines both of these characteristics into a single metric.

Sound exposure level is a logarithmic measure of the total acoustic energy transmitted to the listener during the event. Mathematically, it represents the sound level of the constant sound that in one second would generate the same acoustic energy, as did the actual time-varying noise event. For example, since aircraft overflights usually last longer than one second, the SEL of an overflight is usually greater than the maximum sound level of the overflight.



Source: Harris 1979

Figure E-1. Typical A-Weighted Sound Levels of Common Sounds

Sound exposure level is a composite metric that represents both the intensity of a sound and its duration. It does not directly represent the sound level heard at any given time, but rather provides a measure of the net impact of the entire acoustic event. It has been well established in the scientific community that SEL measures this impact much more reliably than just the maximum sound level. Because the SEL and the maximum sound level are both A-weighted sound levels expressed in dBs, there is sometimes confusion between the two, so the specific metric used should be clearly stated.

E.2.3 Day-Night Average Sound Level

Time-average sound levels are the measurements of sound levels that are averaged over a specified length of time. These levels provide a measure of the average sound energy during the measurement period.

For the evaluation of community noise effects, and particularly aircraft noise effects, the day-night average sound level (abbreviated DNL or  $L_{dn}$ ) is used. Day-night average sound level averages aircraft sound levels at a location over a complete 24-hour period, with a 10-dB adjustment added to those noise events that take place between 10:00 p.m. and 7:00 a.m. (local time) the following morning. This 10-dB

“penalty” represents the added intrusiveness of sounds that occur during normal sleeping hours, both because of the increased sensitivity to noise during those hours and because ambient sound levels during nighttime are typically about 10 dB lower than during daytime hours.

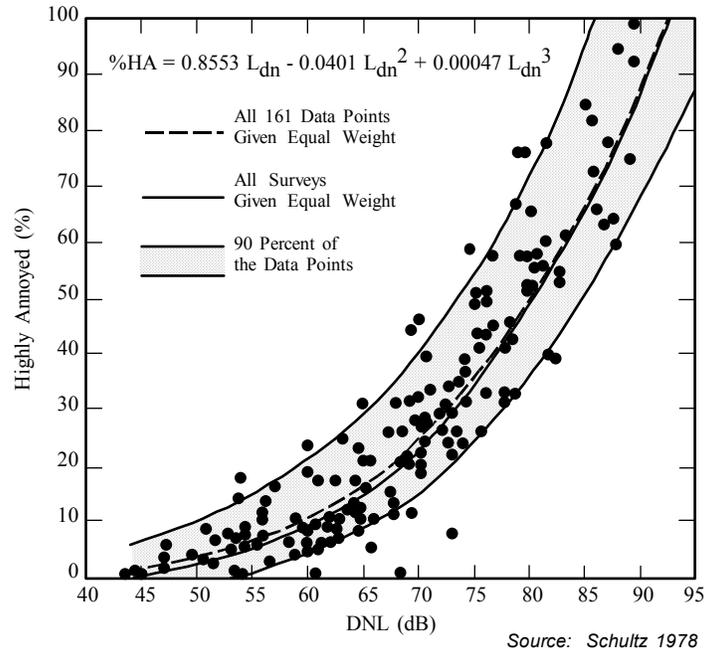
Ignoring the 10-dB nighttime adjustment for the moment, DNL may be thought of as the continuous A-weighted sound level that would be present if all of the variations in sound level that occur over a 24-hour period were smoothed out so as to contain the same total sound energy.

Day-night average sound level provides a single measure of overall noise impact, but does not provide specific information on the number of noise events or the individual sound levels that occur during the day. For example, a DNL of 65 dB could result from a very few noisy events, or a large number of quieter events.

As noted earlier for SEL, DNL does not represent the sound level heard at any particular time, but rather represents the total sound exposure. Scientific studies and social surveys that have been conducted to appraise community annoyance to all types of environmental noise have found the DNL to be the best measure of that annoyance. Its use is endorsed by the scientific community (American National Standards Institute [ANSI] 1980, 1988; U.S. Environmental Protection Agency [EPA] 1974; Federal Interagency Committee on Urban Noise [FICUN] 1980; Federal Interagency Committee on Noise [FICON] 1992).

The results of attitudinal surveys, conducted in different countries, show a remarkable consistency in the percentages of groups of people who express various degrees of annoyance when exposed to different levels of DNL. This is illustrated in Figure E-2, which summarizes the results of a large number of social surveys relating community responses to various types of noises, measured in DNL.

Figure E-2, taken from Schultz (1978), shows the original curve fit. A more recent study has reaffirmed this relationship (Fidell et al. 1991). Figure E-3 shows an updated form of the curve fit (Finegold et al. 1992) in comparison with the original. The updated fit, which does not differ substantially from the original, is the current preferred form. In general, correlation coefficients of 0.85 to 0.95 are found between the percentages of groups of people highly annoyed and the level of average noise exposure. The correlation coefficients for the annoyance of individuals are relatively low, however, on the order of 0.5 or less. This is not surprising, considering the varying personal factors that influence the manner in which individuals react to noise. Nevertheless, findings substantiate that community annoyance to aircraft noise is represented quite reliably using DNL.



**Figure E-2. Community Surveys of Noise Annoyance**

### E.3 Land-Use Compatibility

As noted above, the inherent variability between individuals makes it impossible to predict accurately how any individual will react to a given noise event. Nevertheless, when a community is considered as a whole, its overall reaction to noise can be represented with a high degree of confidence. As described above, the best noise exposure metric for this correlation is the DNL. In June 1980, an ad hoc Federal Interagency Committee on Urban Noise (FICUN) published guidelines for considering noise in land use planning (FICUN 1980). These guidelines related DNL to compatible land uses in urban areas. The committee was composed of representatives from the DoD, Department of Transportation, Department of Housing and Urban Development; the EPA; and the Veterans Administration. Since the issuance of these guidelines, federal agencies have generally adopted these guidelines to make recommendations to the local communities on land use compatibilities.

The FAA included the committee's guidelines in the Federal Aviation Regulations (Harris 1984). These guidelines are reprinted in Table E-1, along with the explanatory notes included in the regulation. Although these guidelines are not mandatory (see Notes in Table E-1), they provide the best means for evaluating noise impact in airport communities. In general, residential land uses normally are not compatible with outdoor DNL (Ldn values) above 65 dB. The extent of land areas and populations exposed to DNL of 65 dB and higher provides the best means for assessing the noise impacts of alternative aircraft actions.

**Table E-1. Land Use Compatibility Guidelines  
with Yearly Day-Night Average Sound Level**

LAND USE	YEARLY DAY-NIGHT AVERAGE SOUND LEVELS IN DECIBELS					
	BELOW 65	65-70	70-75	75-80	80-85	OVER 85
<b>Residential</b>						
Residential, other than mobile homes and transient lodgings	Y	N(1)	N(1)	N	N	N
Mobile home parks	Y	N	N	N	N	N
Transient lodgings	Y	N(1)	N(1)	N(1)	N	N
<b>Public Use</b>						
Schools	Y	N(1)	N(1)	N	N	N
Hospitals & nursing homes	Y	25	30	N	N	N
Churches, auditoria, & concert halls	Y	25	30	N	N	N
Government services	Y	Y	25	30	N	N
Transportation	Y	Y	Y(2)	Y(3)	Y(4)	Y(4)
Parking	Y	Y	Y(2)	Y(3)	Y(4)	N
<b>Commercial Use</b>						
Offices, business, & professional	Y	Y	25	30	N	N
Wholesale & retail-building materials, hardware, and farm equipment	Y	Y	Y(2)	Y(3)	Y(4)	N
Retail trade-general	Y	Y	25	30	N	N
Utilities	Y	Y	Y(2)	Y(3)	Y(4)	N
Communication	Y	Y	25	30	N	N
<b>Manufacturing and Production</b>						
Manufacturing, general	Y	Y	Y(2)	Y(3)	Y(4)	N
Photographic & optical	Y	Y	25	30	N	N
Agriculture (except livestock) & forestry	Y	Y(6)	Y(7)	Y(8)	Y(8)	Y(8)
Livestock farming & breeding	Y	Y(6)	Y(7)	N	N	N
Mining & fishing, resource production & extraction	Y	Y	Y	Y	Y	Y
<b>Recreational</b>						
Outdoor sports arenas & spectator sports	Y	Y(5)	Y(5)	N	N	N
Outdoor music shells, amphitheaters	Y	N	N	N	N	N
Nature exhibits & zoos	Y	Y	N	N	N	N
Amusements, parks, resorts, & camps	Y	Y	Y	N	N	N
Golf courses, riding stables, & water recreation	Y	Y	25	30	N	N
<p><b>Key:</b>  Y (Yes) = Land use and related structures compatible without restrictions.  N (No) = Land use and related structures are not compatible and should be prohibited.  NLR = Noise Level Reduction (outdoor to indoor) to be achieved through incorporation of noise attenuation into the design and construction of the structure.  25 or 30 = Land use and related structures generally compatible; measures to achieve NLR of 25, 30, or 35 dB must be incorporated into design and construction of structures.</p> <p><b>Notes:</b>  (1) Where the community determines that residential or school uses must be allowed, measures to achieve outdoor-to-indoor NLR of at least 25 and 30 dB should be incorporated into building codes and be considered in individual approvals. Normal residential construction can be expected to provide an NLR of 20 dB; thus, the reduction requirements often are stated as 5, 10, or 15 dB over standard construction and normally assume mechanical ventilation and closed windows year-round. However, the use of NLR criteria will not eliminate outdoor noise problems.  (2) Measures to achieve NLR of 25 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low.  (3) Measures to achieve NLR of 30 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low.  (4) Measures to achieve NLR of 35 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas, or where the normal level is low.  (5) Land-use compatible, provided special sound reinforcement systems are installed.  (6) Residential buildings require an NLR of 25 dB.  (7) Residential buildings require an NLR of 30 dB.  (8) Residential buildings not permitted.</p>						

Source: USDOT 1984 and FAA 1985

In 1990, the FICON was formed to review the manner in which aviation noise effects are assessed and presented. This group released its report in 1992 and reaffirmed the use of DNL as the best metric for this purpose (FICON 1992).

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**APPENDIX F**  
**OCEAN STEWARD**

U.S. Department  
of Transportation

United States  
Coast Guard



Commandant  
United States Coast Guard

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Washington, DC 20593-0001  
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16214

SEP 28 2000

## LETTER OF PROMULGATION

From: Commandant  
To: Distribution

1. Protecting our nation's natural resources is one of the Coast Guard's five strategic goals. Along with Maritime Safety, Maritime Security, Maritime Mobility, and National Defense, Protection of Natural Resources is one of the basic reasons the taxpayers fund the Coast Guard each year. Hence, it is one of the outcomes to which our entire organizational effort – programs, policies, and assets – should be dedicated. In our Strategic Plan 1999, I defined the Protection of Natural Resources Strategic Goals as "the elimination of environmental damage and natural resource degradation associated with all maritime activities." A vital aspect of achieving this goal is helping the nation recover and maintain healthy populations of marine protected species. OCEAN STEWARD is our strategic plan for making that happen.

2. OCEAN STEWARD provides the emphasis operational commanders, training commands, and administrative staffs need to prioritize and execute this increasingly important mission. The core idea behind OCEAN STEWARD is the premise that all of us, as members of the Coast Guard, have a responsibility to be good stewards of the ocean. If we adhere to this premise as individuals, then the Coast Guard, as an organization, will make great progress toward achieving OCEAN STEWARD's objectives.

3. As we enter the 21<sup>st</sup> century, our nation is becoming increasingly concerned about the ocean and the state of its living marine resources. Coast Guard leadership in protecting marine species, however, is nothing new; it dates back as far as the Fur Seal Act of 1897. The Coast Guard remains committed to continuing that tradition of leadership, and OCEAN STEWARD is your guide in this important endeavor.

A handwritten signature in black ink, appearing to read "James H. Loy".

**JAMES H. LOY**

Encl: (1) OCEAN STEWARD, Protected Living Marine Resources Strategic Plan

Dist: CG LANTAREA (A, Am, Ao), CG PACAREA (P, Pm, Po), CG DISTRICTS (d, m, o), CG ACADEMY, CG INSTITUTE, CG TRACEN Yorktown, CG TRACEN Cape May, CG TRACEN Petaluma, CG PACAREA TRATEAM, CG RFTC Cape Cod MA, CG RFTC Charleston SC, CG RFTC New Orleans LA, CG RFTC Kodiak AK, CG R&DC

## COMMANDANT'S PREAMBLE

The Coast Guard's Strategic Plan 1999 states the nation's waterways and their ecosystems are vital to our economy and health. This is why we made the protection of natural resources, specifically the elimination of environmental damage and natural resource degradation associated with maritime activities, one of our five strategic goals, and made enforcing the federal regulations that result in all living marine resources achieving healthy, sustainable populations one of our performance goals. We already have formal plans in place to help us achieve some of these goals, particularly in the areas of pollution response and fisheries law enforcement. However, if we are to fully achieve our protection of natural resources strategic goal, we must become more involved in the efforts to recover and maintain our nation's marine protected species and the habitats on which they depend.

In recent years, there has been a dramatic increase in public and governmental concern about the state of our oceans and their living resources. Evidence of this includes:

- Increasing fishery management measures designed to reduce bycatch of non-targeted species, such as turtle excluder devices (TEDs), fixed-net pingers, and bycatch reduction devices (BRDs).
- Rising conflicts between advocates for species protection and resource users, such as those existing between Steller sea lion protection advocates and Bering Sea/Gulf of Alaska pollock fishers, and between northern right whale protection advocates and New England fixed gear fishers.
- The recent formation of federal and state government task forces to protect coral reefs, northern right whales, Pacific salmon, and other endangered species.
- National Marine Fisheries Service Report to Congress (1999) concluding, of the 230 stocks for which the status can be determined, 98 are overfished and five are approaching overfished - an increase from 86 overfished stocks in 1997 and 90 in 1998.
- Fisheries closures and restrictions in the Gulf of Maine and the West Coast that have had a devastating economic impact on groundfish fleets.
- Increasing litigation against government agencies (including the Coast Guard) by organizations trying to influence marine resource management policy.
- Funding for the Lands Legacy Initiative, which included \$27 million to protect ocean and coastal resources in FY 2000 and a request for \$266 million for FY 2001.
- The recent signing, by President Clinton, of Executive Order 13158, strengthening and expanding the nation's system of marine protected areas (MPAs).

The Coast Guard already has effective, coordinated strategies for enforcing our nation's fisheries management regulations, protecting the marine environment from oil pollution, and responding to maritime disasters. However, our approach to marine protected species (MPS), specifically those species and geographic areas that are protected under the Endangered Species Act, the Marine Mammal Protection Act, the National Marine Sanctuaries Act, or similar regulations or executive orders, is less clearly defined. Problems resulting from this include:

- Initial delay in establishing a coordinated plan for accomplishing assigned Atlantic Protected Living Marine Resources Initiative (APLMRI) tasks.

- Difficulty in addressing potential conflicts between high-speed craft and marine protected species in New England.
- Low funding priority for funding assessments to address the impact Coast Guard operations have on marine protected species throughout the Pacific Area.
- Inconsistency in handling cross-directorate MPS issues such as working with the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) on marine mammal protection initiatives and responding to the Coral Reef Initiative (Executive Order 13089).
- Working level frustration with lack of guidance for dealing with endangered species lawsuits, creation of Memorandums of Understanding (MOU) with NMFS, potential regulation of high-speed craft and whale watch industry vessels, and other MPS issues.

A robust ocean environment is essential to our nation's prosperity, and healthy populations of marine protected species are essential to maintaining a robust ocean environment. Just as protecting our water and air became top national priorities during the last decades of the 20<sup>th</sup> century, protecting our oceans is becoming a top priority of the 21<sup>st</sup> century. In the coming years, the nation will look for leaders to exercise responsible stewardship of our ocean resources. The Coast Guard is stepping forward and embracing this role, it is one of the most important roles we will ever undertake.

## OCEAN STEWARD PURPOSE

The purpose of Ocean Steward is to help the Coast Guard achieve its strategic goal Protection of Natural Resources and its performance goal of enforcing federal regulations that result in all living marine resources achieving healthy, sustainable populations. Ocean Steward provides a clearly defined strategy for our role in helping the nation recover and maintain healthy populations of marine protected species; it captures the things we are already doing and provides a comprehensive list of objectives we can achieve if we are provided the necessary resources. Ocean Steward complements our fisheries enforcement strategic plan, Ocean Guardian. Together, Ocean Steward and Ocean Guardian provide a roadmap for the Coast Guard's efforts in ensuring our nation's waterways and their ecosystems remain productive by protecting all our nation's living marine resources from degradation.

### COAST GUARD STRATEGIC GOAL: PROTECTION OF NATURAL RESOURCES

*Eliminate environmental damage and natural resource degradation associated with all maritime activities*

The nation's waterways and their ecosystems are vital to our economy and health. If the United States is to enjoy a rich, diverse and sustainable ocean environment, then we must halt the degradation of our ocean's natural resources associated with maritime activities. This includes ensuring our country's marine protected species are provided the protection necessary to help their populations recover to healthy, sustainable levels. Providing adequate protection will require the United States to enact and enforce a wide range of regulations to govern marine resource management and use. Ocean Steward will enable the Coast Guard, as the nation's primary at sea law enforcement agency, to develop and enforce those regulations necessary to help recover and maintain our country's marine protected species. Moreover, Ocean Steward will ensure the Coast Guard is viewed as a leader in regional, national and international efforts to protect the nation's marine ecosystems.

### OCEAN STEWARD VISION STATEMENT

*The Coast Guard will be a leader in the effort to recover and maintain our nation's marine protected species*

## OCEAN STEWARD MISSION STATEMENT

***We will enforce and comply with marine protected species regulations, work with other agencies and organizations to develop appropriate regulations for marine protected species recovery, and publicize our efforts to gain the support and resources necessary to fully implement Ocean Steward***

The Coast Guard will implement a formal MPS strategy, Ocean Steward, with a clear, focused vision. We will educate and train our members to make certain every individual understands that stewardship of the ocean environment is a fundamental part of their duty. We will use existing enforcement authorities, and seek new authorities as necessary, to help reduce the risks of extinction and recover marine protected species populations. We will conduct our own operations so as to minimize our impact on marine protected species. We will assess the impact on marine protected species when developing both internal and external regulations and policies. We will work closely with other federal, state and local governments, as well as environmental and research organizations, to carry out the nation's MPS policies. We will inform the public of both the importance of the mission and the ways in which they can help lessen the impact of human activities on marine protected species. We will widely publicize our strategy and results to inform policymakers and the public of the value of our MPS efforts.

## GUIDING PRINCIPLE

***We are Stewards of the Ocean***

The guiding principle behind Ocean Steward is instilling in every member of the Coast Guard the belief that each individual is a steward of the ocean. This concept must be promoted throughout the entire organization. Our training commands – Training Center Cape May, the Coast Guard Academy, Training Center Yorktown, Training Center Petaluma, and the Regional Fisheries Training Centers – should produce graduates who understand and believe preservation of marine protected species is a fundamental Coast Guard responsibility. Our boarding officers and marine inspectors should know, and want to know, what marine protected species exist in their AORs, the regulations that exist to protect them, and how his or her actions can promote species recovery. Our operations and marine safety units should know, and want to know, the concerns of federal, state and local officials, and should work cooperatively with them. Our stations, cutters and marine safety offices should distribute appropriate educational literature. At every opportunity Coast Guard personnel should let the public know we are on watch protecting their oceans and waterways, and inform them of what they can do to help eliminate the degradation of natural resources associated with maritime activities. Our deck watch officers, aircrews and coxswains should be able to recognize the marine protected species they are likely to

encounter and report sightings to interested organizations. Our staff officers and port operations personnel should ensure, and want to ensure, recovery of marine protected species is taken into account when making policy decisions, and they should prioritize the workloads of their personnel to reflect this emphasis. In short, every member of the Coast Guard must think of himself or herself as a steward of the ocean. Committing to that, both organizationally and individually, we will enable us to reach our overarching Protection of Natural Resources strategic goal.

## OCEAN STEWARD STRATEGIES

**Raise the Profile of the MPS Mission:** We will raise the profile of the MPS mission to the status of missions such as maritime drug interdiction, marine pollution prevention and fisheries enforcement.

**Obtain Necessary Resources and Authorities:** We will prioritize existing resources, use existing authorities, and seek additional resources and authorities as necessary to implement Ocean Steward.

**Partner with Other Agencies:** We will work closely with other agencies and organizations involved in the preservation and recovery of marine protected species to eliminate redundancy, and provide a clear link between enforcement and management.

**Publicize Our Efforts:** We will stress the importance of the Coast Guard's role as part of a comprehensive management scheme and highlight our successful efforts to the public.

Each of these strategies contains sets of near, mid, and long-term objectives. Near-term objectives are those that can be achieved without a major reallocation of resources. Mid-term objectives require addition resources or a significant reallocation of resources. Long-term objectives are those objectives that will require institutional changes such as seeking additional authorities or creation of program offices.

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### STRATEGY: RAISE THE PROFILE OF THE MPS MISSION

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#### 1. DISCUSSION

If the Coast Guard is to be truly committed to protecting the ocean and its resources, then, in the eyes of our own people, recovery of marine protected species must be just as important as traditional missions such as maritime drug interdiction, marine pollution prevention, and fisheries enforcement. We must go beyond development of single initiatives in response to pressure or crisis. We should approach MPS issues with the same proactive, integrated, long-term strategy we use for addressing counterdrug operations, fisheries law enforcement, and commercial vessel safety. Every member of the Coast Guard must know it is part of our job to help recover and maintain our marine

protected species, just as they know it is our job to rescue those in distress. If we understand this concept individually, we will certainly convey that image organizationally.

## 2. KEY OBJECTIVES

### a. Near Term

1) Incorporate MPS issues into CG performance planning.	G-CCS
2) Develop Area and District MPS operating and enforcement guidance.	G-O/Areas/ Districts
3) Emphasize area specific MPS issues in the curriculum of all 5 Regional Fisheries Training Centers (RFTC).	G-O/G-W/ Areas/RFTCs
4) Identify ways to increase CG Auxiliary participation in MPS mission.	G-O
5) Identify ways to increase focus on MPS issues in Sea Partners program.	G-M
6) Measure the effectiveness of current MPS initiatives such as compliance with the Mandatory Ship Reporting System (MSR) and manatee speed zone regulations.	G-O
7) Designate MPS points of contact (POC) at HQ/Areas/Districts, and create a CG network for information flow on MPS issues.	G-O/Areas/ Districts

### b. Mid Term

1) Increase Endangered Species Act/Marine Mammal Protection Act enforcement pulse ops during critical seasons.	G-O/Areas/ Districts
2) Ensure current and potential MPS missions (patrol of remote coral reefs, removal of derelict fishing gear, assisting in disentanglement of whales, etc.) are included in Deepwater decision making process.	G-O
3) Increase CG participation in environmental cleanup events such as the Center for Marine Conservation's annual International Coastal Clean Up.	G-M/G-O
4) Incorporate MPS mission into curriculum of all entry-level and accession training programs (e.g., Officer Candidate School, the Academy, Cape May, and Civilian Indoctrination).	G-W
5) Incorporate MPS issues into International Maritime Officers Course and Mobile Training Teams.	G-CI
6) Designate MPS POC at appropriate CG units.	Districts
7) Include MPS guidance in Maritime Law Enforcement Manual updates.	G-O
8) Include MPS guidance in Marine Safety Manual updates.	G-M

c. Long Term

1) Create HQ cross-directorate MPS office.	G-M/G-O
2) Incorporate MPS questions into Servicewide Examinations.	G-W
3) Add MPS material to appropriate A School curricula (e.g., BM, QM, and MST).	G-W
4) Add MPS material to appropriate C School curricula (e.g., Boarding Officer Course, Boarding Team Member Course, and Marine Safety Petty Officer Course).	G-W

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**STRATEGY: OBTAIN NECESSARY RESOURCES AND AUTHORITIES**

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1. DISCUSSION

As national sentiment builds for increasing the protection of our oceans, the Coast Guard should be at the top of the list of agencies that the public demands to be adequately funded. We should reinforce this by documenting our need for, and requesting, the additional resources required to meet the increasing enforcement and regulatory demands in the oceans environment. The public must view the Coast Guard as a leader in preserving our oceans and their protected species. When it is the right thing to do, we should seek to expand our enforcement and regulatory roles, and not shy away for fear of acquiring additional mandates or becoming the target of legal action. If we can be leaders in maritime search and rescue, drug interdiction and pollution prevention, then we can also become leaders in the recovery of marine protected species.

2. KEY OBJECTIVES

a. Near Term

1) Request funding for implementation of Ocean Steward through annual budgeting and resource allocation processes.	G-I/G-M/ G-O/G-
2) Include resource hour requests for implementation of Ocean Steward in input to the annual Operational Guidance letter.	G-O/Areas
3) Assess the need for more enforcement authority to protect resources of various marine protected areas and sanctuaries.	G-I/G-M/ G-O
4) Monitor and evaluate effectiveness of the Mandatory Ship Reporting System (MSR).	G-M/G-O
5) Monitor R&D efforts to develop new technologies for marine mammal detection and avoidance in order to plan for possible acquisition of feasible technologies.	G-O/G-S

b. Mid Term

1) Develop better measures of effectiveness for MPS enforcement efforts.	G-O
2) Support Resource Proposals that address requirements for MPS activities.	G-CCS
3) Allocate resources required to implement Ocean Steward in the annual Operational Guidance letter.	G-O
4) Propose statutory changes and new regulations to improve CG ability to support the nation's MPS objectives.	G-L/G-M/ G-O

c. Long term

1) Consider seeking expanded authority for regulation of vessels in order to protect marine protected species.	G-L/G-M/ G-O
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**STRATEGY: PARTNER WITH OTHER AGENCIES AND ORGANIZATIONS**

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1. DISCUSSION

Our leadership should seek opportunities to help recover and maintain the nation's marine protected species (MPS) by working more closely with the National Oceanic and Atmospheric Administration (NOAA), the National Marine Fisheries Service, the National Marine Sanctuaries (NMS), the U.S. Fish and Wildlife Service, the Department of State, the Department of Defense, state and local governments, non-governmental organizations, industry, research institutions, and international organizations. We should partner with concerned agencies and organizations to ensure MPS issues are considered whenever agencies propose new regulations. We should work closely with NOAA, NMFS, the NMS, state and local governments, and international organizations to ensure we are doing all we can to provide enforcement for various marine protected areas, and to assist them with their education and outreach initiatives. We should reach out to other management agencies and research institutions to assist in providing the data needed to answer important questions about marine protected species.

## 2. KEY OBJECTIVES

### a. Near Term

1) Maximize assistance to NMFS in investigation and prosecution of protected MPS incidents.	G-O
2) Work closely with NMFS on MPS issues such as fishing gear conflicts, vessel traffic management, and bycatch reduction.	G-M/G-O
3) Work closely with the Navy to monitor research and development efforts to use acoustics for tracking and avoiding endangered whales.	G-O/G-C
4) Use MOUs, as appropriate, to define relations with the National Marine Sanctuaries and other marine protected areas.	G-L/G-M/ G-O
5) Engage other agencies in a discussion of remote marine protected areas.	G-M/G-O
6) Increase our role in federal and international recovery teams and task forces (e.g., the Coral Reef Task Force, the Manatee Recovery Team, and Right Whale Recovery Plan Implementation Teams).	G-M/G-O
7) Emphasize ship-riding opportunities for NMFS and NMS personnel on CG fisheries/MPS patrols.	G-O

### b. Mid Term

1) Establish a senior officer liaison billet to NOAA to increase CG input and interaction in developing MPS issues and regulations.	G-M/G-O
2) Establish a senior officer liaison billet to Council on Environmental Quality (CEQ).	G-M/G-O
3) Create opportunities for undergraduate/graduate level marine affairs students to experience CG fisheries and MPS operations.	G-O

### c. Long term

1) Consider engaging other agencies in joint rulemaking for MPS regulations.	G-L/G-M
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## STRATEGY: PUBLICIZE OUR EFFORTS

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### 1. DISCUSSION

The Coast Guard already has many marine protected species success stories to tell. We are partnering with the USFWS to educate the boating public and reduce manatee deaths by enforcing speed zone regulations in Florida. We are working closely with NMFS and environmental agencies to help protect the highly endangered northern right whale. In Hawaii, we remove tons of derelict fishing nets from coral reefs that are critical habitat of the endangered Hawaiian monk seal. Conducting this work, however, is only half of the job.

If the public is to perceive us as stewards of the ocean, then we must highlight our efforts and successes to the press and the public at every opportunity. Local units need to let communities know what we are doing to protect their waters. Districts should emphasize the importance of our MPS mission in maintaining healthy, sustainable ecosystems. Area and Headquarters staffs must cultivate relationships with the press, civic leaders, stakeholders and legislators to ensure they are aware of the valuable work the Coast Guard is doing. The public must recognize we are the nation's most valuable maritime asset in the effort to protect and sustain our oceans and their resources. The more we are seen taking positive, decisive action and producing good results, the more the public will demand we be properly resourced to perform this vital mission.

## 2. KEY OBJECTIVES

### a. Near Term

1) Maximize publicity of cooperative MPS efforts with federal and state agencies and non-governmental organizations.	G-I/G-L/ G-M/G-O
2) Maximize publicity of Sea Partners MPS initiatives.	G-I/G-M
3) Use inspections and examinations as opportunities to provide MPS information packages to vessels.	G-M/G-O

### b. Mid Term

1) Use publicity to generate interest in, and develop ideas for, future marine environment cleanups and other initiatives.	G-I
2) Optimize publicity of CG role in MPS task forces.	G-I
3) Maximize publicity of CG Auxiliary public education efforts in MPS identification, sensitivity, and avoidance measures.	G-I/G-O

### c. Long term

1) Develop an interactive forum for public comment and ideas regarding MPS protection.	G-I
2) Raise the profile of the MPS mission to attract recruits with interest in environmental issues.	G-W

## **APPENDIX G**

**ATLANTIC PROTECTED LIVING MARINE RESOURCES INITIATIVE  
(EXCERPT FROM FINAL ENVIRONMENTAL IMPACT STATEMENT)**

The USCG's participation with NMFS and other agencies in enforcement of provisions of the following Federal statutes would continue.

- The Marine Mammal Protection Act (16 USC 1361, *et seq.*)
- The Endangered Species Act (16 USC 1536, *et seq.*)
- The Whaling Convention Act (16 USC, 916, *et seq.*)
- The Magnuson Fishery Conservation and Management Act of 1986, as amended (16 USC 1801, *et seq.*)

The USCG actively participates in enforcement of other Federal and international regulations that deal with protection of threatened or endangered species of marine animals and their critical habitats. Continued enforcement of these regulations results in numerous benefits for living marine resources.

In addition to the protective measures described above, the USCG would use current guidance for safe speed as described in the Inland and International Rules. Under these rules, "safe speed" is defined as "every vessel shall at all times proceed at a safe speed so that she can take proper and effective action to avoid collision and be stopped within a distance appropriate to the prevailing circumstances". In determining "safe speed," mariners use the following factors: (1) the state of visibility; (2) the traffic density; (3) the maneuverability of the vessel with special reference to stopping distance and turning ability in the prevailing conditions; (4) the presence of background light at night, such as from shore lights or from backscatter; (5) the state of the wind, sea, and currents, and the proximity of hazards; and (6) the draft in relation to the available depth of water. This guidance directs mariners to adjust speeds to accommodate hazards that they may encounter during the course of operation. The guidance emphasizes that whales, just like other hazards, require course and speed adjustments.

As described above, the USCG, under the No Action Alternative, would continue with current efforts to protect the marine environment. However, the No Action Alternative does not include a coordinated effort between all organizational components and across all Area and District areas of responsibility (AOR) to oversee and direct activities to protect the marine environment. In addition, the No Action Alternative does not have the organizational structure to evaluate and implement new limits on vessel and aircraft movements nor would a formal Conservation Program be adopted. Observations of protected species would be reported and individual animals would be avoided, but without any regimen or protocol to maximize effectiveness. Given the requirement for the USCG to effectively comply with all environmental laws, determine how it will respond to the July 1996 Biological Opinion (BO), and enhance its compliance with MOUs designed to encourage USCG protection of endangered species and marine mammals, the No Action alternative is not practical or reasonable. Nevertheless, the No Action alternative is analyzed in this DEIS to serve as a baseline that will allow decision makers and the public to compare the environmental effects of the No Action Alternative with the other alternatives.

### **3.2 Preferred Alternative: Adoption and Implementation of the USCG Atlantic Protected Living Marine Resources Initiative**

The Preferred Alternative is the adoption of a formal USCG Atlantic Protected Living Marine Resources Initiative (the Initiative) which has two main components: the Internal Program and the Conservation Program. The Initiative is a mitigation plan that is composed of individual elements to protect and conserve living marine resources more effectively. The Preferred Alternative is an "umbrella" program that encompasses all organizational components of the USCG. The proposed undertakings are developed from recommendations in the Biological Opinions (BO) issued by NMFS in September 1995 and July 1996, the September 1995 USCG EA, and the comments received in response to the EA and DEIS. The implementation of the Initiative would enable the USCG to more effectively comply with environmental

laws and to fulfill the commitments made in MOUs while effectively fulfilling USCG missions. Beginning on 1 January 1997, the USCG would provide an annual progress report to jurisdictional agencies (e.g., NMFS) on implementing the Initiative.

### 3.2.1 Internal Program

The USCG Internal Program is the first part of the proposed Initiative. This program consists of two distinct elements: operational directives and operating procedures.

#### Operational Directives

The Internal Program would use USCG directives to establish USCG policy and procedures that support the Conservation Program and protect living marine resources.

A USCG directive is a written communication that initiates or governs action, conduct or procedure. Directives promote consistency, continuity, planning, understanding, and teamwork, and ensure that delegation of authority is followed. Often, Districts will issue regionally appropriate directives to implement USCG policy or general procedure contained in a directive issued from USCG Headquarters. Within the USCG, directives are issued to do the following:

- Establish policy,
- Prescribe a method or procedure,
- Establish standards of conduct,
- Establish or change organizational structure,
- Delegate authority,
- Assign responsibility,
- Establish a form or report, or
- Revise, supplement or cancel a directive.

USCG directives can come in several different forms such as circulars, notices, instructions, regulations, orders, and handbooks. Each type of directive is designed for a particular situation. For example, an "Instruction" is a directive prescribing authority and/or containing information with continuing reference value or that requires continuing action. An instruction remains in effect until it is replaced or canceled by the originator or higher authority. A "Notice", while it has the same force as an Instruction, is a directive of a one time or brief nature which has a self canceling provision.

Under the Preferred Alternative, USCG Atlantic Area (LANTAREA) and District commands would use the Commandant Instruction on Protected Living Marine Resources Program as the basis for developing operating procedures for their respective areas and units (Appendix I). The Commandant's Instruction on the Protected Living Marine Resources Program (PLMRP) would be formally issued because it will provide all USCG commands with a written communication that initiates or governs action, conduct, or procedures, and it prescribes authority, contains information with continuing reference value, and requires continuing action. As an instruction, it would remain in effect until it is replaced or canceled by the Commandant. The USCG Atlantic Area (LANTAREA) and District Commanders would use this Instruction as the basis for the development of more specific operational directives for their respective areas and units discussed in the following paragraphs.

The interim protection programs currently in effect in the USCG Atlantic Coast Districts in the form of District Law Enforcement Bulletins (LEBs) and Instructions (see Appendices J and K ) would be revised and adopted into formal Marine Mammal and Endangered Species Act Protection Programs for the Atlantic Coast area Districts (First, Fifth, and Seventh) and the LANTAREA. Guidelines developed for these programs would include requirements to provide (1) a description of areas of special interest, including designated critical habitat and marine sanctuaries (note: Environmental Sensitivity Index Maps have been developed by NOAA, USCG and/or cognizant state agencies for Area Contingency Plans, and are available at all USCG Marine Safety Offices), (2) enforcement procedures, (3) marine animal stranding response protocols, (4) operational control (OPCON) and monitoring responsibilities, and (5) procedures for the disposition of dead or injured protected species. Standardized forms for reporting boat collisions with marine animals, or entangled turtles or whales would be included, as well as the names and telephone numbers for stranding network personnel. Additionally, where USCG units assist in the salvage, rescue, or disposal of a marine mammal, they would be required to submit a letter report to the USFWS and/or NMFS with a copy to the appropriate District. LANTAREA and the Districts would conduct annual verification and updating of USCG procedures related to stranding and phone contacts at NMFS regional offices and stranding networks.

The USCG would complete and implement a Commandant Notice addressing "Endangered Species Act and Marine Mammal Protection Act Consultation on Response Activities". This Notice will require consultation with USFWS or NMFS when pollution response activities could affect species protected by ESA and/or MMPA, and will require changes to Area Contingency Plans to include special spill-response protocols to be used when operating in critical habitats or in proximity to where the spill has the potential to impact a potential resource. This Notice will apply to all USCG units including those in LANTAREA.

### Enforcement

As reflected in the LEBs and Instructions, the USCG would refocus its enforcement of the ESA and the MMPA by formally adopting the enforcement guidance described in the First District Instruction, dated 1 July 1996, Prohibitions and Enforcement, section 2 (pages 7 through 10), the Fifth District LEB 20-96, section C, part 2 (pages 8 through 10), and the Seventh District Instruction 16214.5, dated 14 April 1995, section 6 (pages 6 through 8). This enforcement guidance would apply to the Atlantic Coast area Districts (First, Fifth, and Seventh) and the LANTAREA. In addition, these USCG Districts and LANTAREA would intensify their efforts to protect threatened and endangered species by engaging in "pulse operations" that focus enforcement activities on times when waterways are most heavily used (e.g., holiday weekends when recreational boating increases). Pulse operations would be conducted based upon the availability of USCG resources. The availability would be determined by the Area and District Commanders and their staffs (e.g., pulse operations focusing on ESA and MMPA enforcement might not be feasible while USCG resources are responding to emergencies such as the recent TWA flight 800 crash, a major spill such as the recent oil spill off Rhode Island, or during periods of increased illegal migration such as the Muriel boatlift from Cuba).

The USCG would formally implement the interim protective measure developed in the LEBs and Instructions and continue enhanced enforcement of the ESA and MMPA. USCG units would be directed to target significant violators or those vessel operators that act in a manner that may result in injury or harassment of protected species (Appendices J and K ). Educating the public about proper boat handling techniques around whales, sea turtles, and manatees would be a fundamental part of the USCG-enhanced compliance efforts. Education would be conducted during outreach programs, such as boat safety training courses.

### Lookouts

Standard operating procedures aboard USCG vessels include posting a lookout and identifying and avoiding objects in the water. This measure ensures the safety of the crew, minimizes potential vessel damage, and protects wildlife in the area. Operational directives to USCG vessels would be revised to specify that lookouts who have successfully completed marine mammal training would be posted during all emergency and non-emergency USCG transits made within 20 nm of shore. For example, trained lookouts would be posted during transits in all seasonal high-use areas; areas of known whale concentrations; and critical habitats in Cape Cod Bay, the Great South Channel, and in the calving grounds off the Florida coast and other special areas off Florida and Georgia that are delineated in the conservation recommendations of the 15 September 1995 BO. Exceptions would be made during periods of low visibility (e.g., dense fog or night travel) when posting a lookout would be ineffective. Operational directives to USCG operational commanders would be revised to clearly state that marine mammal training is applicable to bridge watch personnel and boat crews.

### Training

To obtain NMFS curriculum certification, the USCG would provide NMFS with the current classroom marine mammal identification training course (Appendix L). After obtaining certification, the Districts would use the course to train lookouts and the USCG would work with NMFS to provide copies to interested organizations, agencies, and individuals. It is expected that training of all lookouts would be completed within one year of curriculum certification.

The USCG would work with NMFS, USFWS, and the established Recovery Plan Implementation Team for each species to develop and implement a field training program that would augment the classroom marine mammal training course. Spotting whales, manatees, and turtles, and maneuvering around them is an acquired skill that is developed through education and experience. Periods of normal onboard duty would be used to conduct field training for sighting techniques, identification, and common behavioral patterns of endangered whales and other species as they are encountered during operations. Cross-agency training programs would also help to increase awareness of the marine environment and its inhabitants. In turn, wildlife observation skills would be enhanced and potential for collisions with wildlife would be minimized.

The USCG would train VTS and Group personnel regarding endangered species in their AOR so that USCG personnel can issue, in a timely manner, NAVTEX and Notices to Mariners when sightings of endangered species are reported in addition to the standard notices described in the No Action Alternative. This training would require a detailed NMFS-developed protocol and information on which species pose a risk of collision or require exclusion zones.

### Speed

Operational directives to USCG vessel commanding officers and coxswains have been revised — as interim protective measures — to clearly state that, for non-emergency transits, a speed standard would be followed. Implementation of the Initiative would formally adopt this protective measure. During non-emergency operations, vessels transiting critical habitats, high-use areas, and migratory routes would use a speed that allows the lookout to see and report whales and other endangered or threatened species in a timely manner to allow the vessel to vary course and speed to reduce the potential for a strike. If a whale is spotted, USCG vessels would avoid approaching the whale, and would utilize a speed and course

necessary to permit the vessel to open the distance from the whale or to allow the whale to successfully evade the vessel. Observations by researchers have indicated that right whales can travel at speeds of 5 kt; thus, vessel speeds of 5 kt or less could allow a right whale to successfully evade a vessel. Unless and until another whale species is positively identified, the USCG would treat any large whale sighted as a right whale.

The operational guidance for vessels should use language that mariners are familiar with, understand, and accept by convention. In Inland and International Rules, "safe speed" is defined as "every vessel shall at all times proceed at a safe speed so that she can take proper and effective action to avoid collision and be stopped within a distance appropriate to the prevailing circumstances." In determining "safe speed," mariners use the following factors: (1) the state of visibility; (2) the traffic density; (3) the maneuverability of the vessel with special reference to stopping distance and turning ability in the prevailing conditions; (4) the presence of background light at night, such as from shore lights or from backscatter; (5) the state of the wind, sea, current, and the proximity of hazards; and (6) the draft in relation to the available depth of water. The guidance should also reflect that mariners recognize that speeds must be adjusted to accommodate hazards that they may encounter during the course of operation. The guidance emphasizes that whales, just like other hazards, require course and speed adjustments that may include reducing speed. Terms such as "slow safe speed" and "slowest safe speed," which are used in the BO, have been interpreted for USCG vessel operators (Appendix T) as an interim protective measure who, like other U.S. and foreign-flag mariners, must operate their vessels following the International Rules or Inland Rules. Practical impediments to using specific speed limits include the fact that the "clutch-in speed" of vessels varies. For example, most 110-ft USCG patrol boats "clutch in" at 9 knots. For this reason, a safe speed standard, rather than a strict nautical-mile-per-hour standard, is appropriate.

In response to the 22 July 1996 BO, the USCG worked with NMFS to develop appropriate speed guidance to comply with that portion of the reasonable and prudent alternative that addresses speed and issued that guidance on 15 August 1996. The USCG interim vessel speed guidance which was issued on 15 August 1996 is as follows: To avoid a collision with a whale during the course of normal operations, USCG vessels transiting critical habitat, migratory routes and high-use areas shall use extreme caution, be alert, and reduce speeds, as appropriate. Appropriate reduced speeds should be based on the factors identified in Rule 6 (Safe Speed) of the International/Inland Navigation Rules (COMDTINST M16672.2C). Additional reductions in speed should be considered when a whale is sighted or known to be in the immediate vicinity or within 5 nm of the vessel. In these situations, vessels shall use those courses and speeds as appropriate, yet navigationally prudent, to avoid a collision with a whale, clear the area and, if necessary, reduce speed to the minimum at which the vessel can be kept on course or come to all stop (Appendix T).

### **Approach Distance**

Until such time as NMFS can establish a detailed protocol regarding approaches to whales, operational directives developed as an interim protective measure in response to the 22 July 1996 BO specify that USCG vessels would maintain a safe minimum distance of 500 yd from right whales. In addition, unless another whale species is positively identified, any large whale would be considered and treated as a right whale. The USCG will also maintain a minimum distance of 100 yards from all whale species as another protective measure to avoid accidental interactions with whales. Adjustments to these distances would be made if the USCG is assisting in the rescue of a protected species, including right whales, or performing its duties to enforce the ESA and MMPA. In response to the Reasonable and Prudent Alternative (RPA) discussed in the 22 July 1996 BO, the USCG, after obtaining NMFS approval, issued the interim approach guideline to all USCG vessels (Appendix M)

### Notices

The USCG would notify mariners by publishing and broadcasting seasonal notices to all mariners advising caution in endangered or threatened species critical habitat. If a threatened or endangered whale is spotted and reported, USCG would notify other vessels in the vicinity of the whales via VHF radio and advise those vessels to proceed through the area with caution. One disadvantage of such notices is that some people may use those notices to locate whales for closer viewing. The USCG would participate in NAVTEX posting of right whale locations and other whale and turtle concentrations in the southeast and the northeast and investigate expanding NAVTEX to cover all areas of the Atlantic coast.

### Charts

The USCG would plot critical habitat and marine sanctuary boundaries on locally held unit navigational, aeronautical, and law enforcement working charts. This procedure would alert the crews of USCG vessels and aircraft to sensitive areas and locations where encounters with wildlife are likely, thereby assisting crews in avoiding harmful interactions with protected species and habitats.

### Operating Procedures

The Internal Program's operating procedures for USCG vessels and aircraft in the Atlantic area is designed to prevent, to the maximum extent possible, harmful interactions with protected living marine resources. The operating procedures would allow USCG personnel to conduct mission-fulfilling activities such as marine environmental protection, search and rescue, law enforcement, vessel traffic services, and marine safety while helping to avoid harmful interactions of USCG vessels and aircraft with protected living marine resources.

The USCG would provide guidance and directions to USCG vessels and aircraft during non-emergency operations, when transiting or overflying marine sanctuaries, critical habitats, and areas of intermittent protected species concentrations (e.g., nesting areas, seasonal high-use areas, migratory routes). Guidance would be issued as USCG directives (e.g., by message or Commandant Notice or Commandant Instruction). The areas of intermittent protected species concentrations, such as bald eagle nests and cetacean feeding areas, would be identified during informal consultation with regional USFWS and NMFS offices. (Note: emergency operations are operations for which rapid response is required such as SAR to avoid the loss of life and property, urgent law enforcement incidents, and urgent matters of national security as defined by operational commanders on a case by case basis.)

In addition to the operating procedures mentioned above, both USCG vessels and aircraft would avoid, whenever possible, sensitive pinniped (seal) rookeries two hours before and after low tide. When passing a haul-out site, vessels and aircraft would use appropriate speeds and increase distance altitude if animals appear to be startled. None of the five species of pinnipeds found in Atlantic waters along the United States is endangered or threatened. This measure would be implemented once NMFS has exercised its authority to protect sites that are very sensitive to vessel or aircraft traffic.

**Vessels** — The USCG would continue to post a lookout. Posting a lookout and identifying and avoiding objects in the water are standard operating procedures aboard USCG vessels of all sizes. This measure ensures the safety of the crew, minimizes vessel damage, and protects wildlife in the area. The Initiative additionally proposes that the USCG would post lookouts who have successfully completed marine mammal training. These lookouts would be posted during all transits, both emergency and non-

emergency, that occur within 20 nm of shore. This would be in addition to posting lookouts during transits in all high-use areas, areas of whale concentrations and critical habitats in Cape Cod Bay, the Great South Channel, and in the calving grounds off the Florida coast and other special areas off Georgia and Florida that are delineated in the conservation recommendations of the 15 September 1995 BO. Exceptions would be made for periods of low visibility such as dense fog or night travel when this practice would be ineffective. During non-emergency operations, vessels transiting critical habitats, high-use areas, areas of known whale concentrations, and migratory routes would be directed to use extreme caution and be alert for marine animals. If a whale is sighted, vessels would (1) give whales a wide berth, (2) use the speed and approach distance protocols developed in consultation with NMFS, per the 22 July 1996 BO, to reduce the possibility of a whale strike, and (3) notify all vessels (USCG and non-USCG vessels) in the vicinity about the locations of whales via VHF radio, and direct them to proceed through the area with caution (operational security measures may require not disclosing the location of the vessel or aircraft, therefore the vessel or aircraft would relay information to a USCG shore facility that would then issue the notification). USCG vessels in the vicinity of sea turtle nesting beaches primarily located in the Seventh USCG District AOR would use extreme caution during April through October, the months when females are abundant just offshore.

As stated previously, USCG vessels would maintain a safe minimum distance of 500 yd from right whales. In addition, unless another whale species is positively identified, any large whale would be considered and treated as a right whale. The USCG also would maintain a distance of 100 yards from all whale species as another protective measure to avoid accidental interactions with whales. Adjustments to these distances would be made if the USCG is assisting in the rescue of an endangered whale, including right whales, or performing its duties to enforce the ESA and MMPA. The USCG approach distance guidance is an interim protective measure which would be adjusted to take into account any NMFS promulgated approach distance regulation (Appendix X).

**Aircraft** — Pursuant to the guidance in the Air Operations Manual, Commandant Instruction 3710.1., aircraft must maintain an altitude of at least 3000 ft when flying over wildlife habitat. The USCG will modify the Air Operations Manual to bring it in line with current Federal Aviation Regulations (FAR) and the USCG will comply with whatever altitude restrictions are in place (note: NMFS has proposed a 1500 ft protective altitude for northern right whales at 61 Federal Register 41116, published 7 August 1996). As specified in the FAR, USCG aircraft are prohibited from flying over sensitive areas at less than 2000 ft, unless engaged in emergency operations such as an emergency SAR, law enforcement, or spill response operation. At the current FAR altitude of 2000 feet, like the 3000 ft current altitude guidance, the momentary disturbance of marine mammals, turtles, and birds is expected to be negligible. However, during some USCG operations, particularly SAR missions and missions which require surveillance and identification of vessels, it may be necessary to fly below 2000 ft, and often below 500 ft. Such operations have the potential to disturb cetaceans, birds, and mammals. Because low-altitude flying is dangerous for the aircraft and crew, this altitude is maintained for the minimum time necessary to complete the objective of the mission and aircraft time at low altitudes would be limited. The operational impact of directing aircraft to maintain an altitude of 2000 ft in offshore critical habitats and high-use areas except in emergency missions is that more vessels will be required to patrol those areas because the aircraft's capability to identify vessels is diminished. Therefore, aircraft guidance would be written to indicate that a 2000 ft altitude would be maintained in the critical habitat (except during those portions of non-emergency missions requiring surveillance and identification of vessels) wherever possible.

USCG aviation will continue to enhance and update flight charts with regard to wildlife habitat. Most, if not all, USCG aviation charts are approved by the Federal Aviation Administration. These charts include information regarding sensitive areas, such as wildlife reserves. The usefulness of these charts varies, but

most are effective for between 3-6 months. This rapid update ensures accurate charts which promote flight safety. During this regular update, wildlife areas also are updated.

Each air station operations center also maintains a chart depicting the local flying area. This chart is updated on a continuous basis, as changes occur. Operations center personnel would incorporate any pertinent information received from local agencies regarding wildlife areas. Such information would also be distributed directly or through the chain of command, including support organizations such as the USCG Civil Engineering Unit.

### **Mission Impacts of Operational Directives**

Formal restrictions on USCG vessel speeds, whale approach distances, and USCG aircraft altitude may result in major impacts on the USCG's ability to perform its missions. For example, limiting vessel speeds and approaches to large marine mammals will likely detract from the USCG's ability to conduct fisheries enforcement, particularly in areas such as the northwest Atlantic where the closed fisheries areas overlap with the designated critical habitat. This decrease in fisheries enforcement may lead to a rise in violations that would place fisheries resources at risk. Similarly, requiring USCG vessels to travel more slowly will increase the time needed to perform all missions or decrease the time available to perform those missions. Overall, implementing the Initiative may lead to the need to extend the time existing personnel and equipment are employed. Increasing the average work week of USCG personnel could result in a decrease in the effectiveness of overtaxed personnel and equipment. As an indication of potential adverse consequences, the USCG recently decreased the average work week for USCG stations from an average of 90 hours to an average of 68 hours by internally reorganizing and reassigning 500 personnel. It will prove difficult if not impossible to maintain a reasonable average work week if additional hours are needed to implement the Initiative.

Presently, the USCG has made a qualitative determination (based on quantitative estimates - see Appendix W) that implementing the Initiative will have an overall negative impact on USCG operations. Actual quantification of the Initiative's impacts will require establishing and implementing a program to monitor the internal and external impacts. The monitoring program will require at least two years to conduct - the development and implementation phase taking up to six months, the monitoring phase taking at least one year, and the analysis phase taking approximately six months. The monitoring program would measure the impact on the use of USCG resources (*e.g.*, measurements would include the resource hours currently measured in the abstract of operations reporting system that will indicate the amount of time various USCG assets perform their missions) as well as the impact on environmental resources (*e.g.*, the USCG would continue to provide NMFS with data and obtain NMFS assessment of the impacts on marine resources based on their stock assessments and takings data). The analysis phase will provide the USCG the opportunity to reassess the effectiveness and necessity of the various protective measures and determine if adjustments are necessary, whether those adjustments require reinitiation of consultation, and whether the monitoring period should be extended.

#### **3.2.2 Conservation Program**

The Conservation Program, which would help promote the conservation of protected living marine resources, consists of procedures involving other USCG activities, including interaction between USCG personnel, other Federal and state entities, and the public, which would help promote the conservation of protected living marine resources.

### Sea Partners

Sea Partners Program is a program that was instituted to educate communities at large in developing awareness of marine pollution issues and improving compliance with marine environmental protection laws and regulations. Since 1994 the Sea Partners program has conducted over 4,800 activities involving 20,500 contact hours with the public. This has been done by USCG reservists who have been assigned to each of the 47 USCG Marine Safety Offices located in port communities throughout the nation. The Sea Partners Program provides educational messages on 1) the effects of oil, hazardous chemicals, waste and debris on the marine environment, 2) how marine environmental protection laws and regulations apply to various marine users, and 3) various ways groups and individuals can take action to protect the environment. The Sea Partners Program has targeted a wide range of audiences, including state, local and Federal officials, merchant mariners, offshore industry personnel, ferry operators, recreational boaters, sport and commercial fisherman, seafood processors, local business owners, marina operators, students, scouts, and teachers. Through the Sea Partners program, the USCG has been able to launch a public education and outreach program with the potential to make substantial contribution to protecting the marine environment, and at the same time, has broadened USCG Reserve training opportunities to enhance military readiness and ability to respond to contingencies. The program has been funded by the Department of Defense (DOD) Civil-Military Program during fiscal years 1994-1996 due to its reserve training value, however, for Fiscal Year 1997 the funding for this program was dropped by DOD. The USCG will attempt to regain funding for this program because the service recognizes the merits of the program in educating the public on marine environmental issues. The USCG has included sea turtle conservation information in the Program outreach material and did anticipate incorporating whale and other protected species conservation information in the program as well.

### Training/Education of Non-USCG Personnel

The USCG would work with NMFS, recovery implementation teams, and other agencies to develop public information manuals on critical habitats, sanctuaries, and endangered species migration patterns for use by mariners.

- The USCG would include protected species awareness information in basic boat safety training provided to the public.
- The USCG would incorporate whale and turtle conservation information in the USCG Sea Partners marine pollution prevention education efforts (see text box).
- There are two established publications commonly used by mariners for voyage planning purposes. These publications are *Sailing Directions* and the *Coast Pilot*. Depending upon vessel size and areas of operation, most U.S. vessels would have one, if not both, of these publications on board. *Sailing Directions* are maintained and published by the Defense Mapping Agency (DMA) and the *Coast Pilot* is maintained and published by the National Oceanic and Atmospheric Administration (NOAA). The USCG would work with NMFS to develop an educational fact sheet describing critical habitats, whale concentrations and high-use areas, photos of whales, applicable regulations, and reporting procedures. The USCG would then work with DMA (DMA will become the National Imagery and Mapping Agency, NIMA, after 29 October 1996) and NOAA to include this information in *Sailing Directions* and the *Coast Pilot*. Another advantage to using these two publications is that foreign-flagged vessels transiting U.S. waters or operating in and out of U.S. ports carry these publications for voyage planning purposes. The USCG would provide input to the publications and inform NMFS of the status of conservation measures in an annual progress report. The annual progress report for 1996 would be submitted to NMFS by 1 January 1997.

- The USCG would work with NMFS to include protected species awareness information in Commercial Fishing Vessel examination and outreach programs.
- The USCG would work with NMFS to provide copies of USCG training curricula, that has been certified by NMFS, to other agencies (such as the U.S. Navy) organizations, and individuals.

It has been suggested that the USCG consider and adopt an alternative requiring whale species identification and critical habitat information, as well as all regulations applicable to the protection of right whales, be a part of the testing criteria for the public applying for USCG licenses to operate vessels (licensing alternative). Currently all U.S. deck officers are tested using the *Coast Pilot* and, in addition, holders of licenses authorizing extended international voyages may be tested on *Sailing Directions*. Examinations for deck officer licenses are maintained by the USCG National Maritime Center. When protected species information is included in the *Coast Pilot* and in *Sailing Directions*, the USCG would then test license applicants on that material. It should be noted, however, that once an individual is tested for a particular license, there is no requirement for retesting on renewals for that particular license. Therefore, in an effort to provide measures that contribute to the protection of endangered and threatened species, the USCG considers the placement of updated species and habitat information in voyage planning documents (e.g., the *Coast Pilot* and *Sailing Directions*), which are used extensively by mariners throughout their careers, to be more significant and environmentally beneficial than only modifying testing for licenses.

It also has been suggested that as part of this licensing alternative, the USCG make compliance with regulations designed to protect threatened and endangered species a specific condition in the issuance of licenses for operation of vessels. The USCG does not excuse holders of licenses from compliance with any laws or regulations. If any vessel is found to be in non-compliance with the threatened and endangered species regulations, enforcement action would be taken.

#### **Cooperation with Other Agencies and Recovery Teams**

- The USCG would continue to actively participate in and support Regional Multi-Agency Recovery Implementation Teams, groups, and task forces .
- The USCG would maintain active membership in the Southeastern Implementation Team for the Recovery of the northern right whale and would continue to contribute to Southeastern United States (SEUS) early warning right whale system (Appendix N). A program of regular reconnaissance flights is one measure that is the subject of a Memorandum of Agreement (MOA) between the First USCG District and the NMFS (Appendix O). USCG aircraft from AIRSTATION Cape Cod currently perform overflights with NMFS personnel aboard. The USCG would continue to participate in the Southeast U.S. Recovery Implementation Team Early Warning System aerial survey program, which it has been part of since 1993. The USCG would work with the New England Implementation Team to address the feasibility of a similar multi-agency effort in the north Atlantic.
- The USCG Districts would develop MOUs with NMFS, the National Marine Sanctuaries Program, and the New England and Southeastern Regional Implementation Teams regarding proposals to develop and implement protective measures described in the Right and Humpback Whale Recovery Plans.

- The USCG would work with NMFS, the New England Right Whale Recovery Plan Implementation Team and the Southeastern Right Whale Recovery Plan Implementation Team regarding the development of a Mid-Atlantic Implementation Team and also consider expanding the areas covered by these teams to include the Mid-Atlantic. Specifically, the USCG would help develop a survey program, organize reports of whale sightings in the area, and develop a system to provide these sightings reports for broadcast.
- The USCG would participate with NMFS, USFWS, and Recovery Plan Implementation Teams to develop and implement a notification program to provide commercial vessels entering major U.S. Atlantic coast ports with timely information on current whale locations and critical habitats. The USCG would also cooperate in development of a plan to alert commercial traffic through port pilots, Captains of the Port, Vessel Traffic Services (where available), and others who are aware of ships' locations and port arrival times. The USCG would develop such a plan with NMFS by 1 January 1997.
- The USCG would continue to work with NMFS, USFWS, the Recovery Plan Implementation Teams, and other Federal agencies to determine the feasibility and applicability of new technology or research and development efforts in recovery strategies for endangered and protected species. The implementation teams and multi-agency efforts provide synergy of effort and resources and, most importantly, the teams can evaluate the potential impacts of any initiative on the marine environment.
- The USCG would continue to participate in the ESA Inter-Agency Working Group (Washington, DC.) currently headed by USFWS.
- The USCG would work with NMFS and USFWS to investigate facility lighting at all beachside USCG stations where turtle nesting occurs. The USCG would ensure, in consultation with NMFS and USFWS, that USCG facility lighting would not have a significant adverse impact on turtle nesting sites. Currently, in Florida, where most known USCG controlled turtle nesting sites occur on the Atlantic Coast, the USCG adheres to local Florida lighting ordinances for marine turtle protection. These ordinances are designed to protect turtles from the effects of artificial light. Additionally, in Florida, lighting is currently evaluated at USCG sites during USCG Environmental Compliance Evaluations (ECEs) (conducted on a three year rotational basis). Under the Preferred Alternative, the use of ECE analyses to examine lighting at beachside stations would be expanded where appropriate.
- On 25 January 1996 an MOA among the USCG, NMFS, the U.S. Navy, and the U.S. Army Corps of Engineers was finalized (Appendix U). The purpose of the MOA is to facilitate right whale conservation efforts along the Georgia and Florida coasts.

### **Controlling Non-USCG Vessels**

A comment on the DEIS proposed that the USCG place environmental conditions or other constraints on the permitting process for regatta or marine events or deny permits for such events in or near whale habitat. Under the Act of April 28, 1908 (codified as 33 U.S.C. 1233), the USCG is authorized to issue regulations to promote the safety of life on navigable waters during regattas and marine parades. Although the USCG currently implements section 1233 through a permitting process, the law neither mentions nor mandates issuing permits as the necessary or appropriate procedure to use. Additionally, the authority for the current marine event permitting process relies on possible hazard to the safety of life on navigable

waters of the United States as the basis for exercising authority to regulate marine events. Currently, USCG policy allows issuing authorities to add conditions or deny permits for marine events based on consideration of environmental concerns (see Appendix V, copy of COMDTINST 16751.3A, Regattas and Marine Parades).

Under NEPA and the ESA, the USCG currently must evaluate each marine event requiring a permit on a case-by-case basis to determine whether the event will be held in or near environmentally sensitive areas (including areas where the presence of endangered/threatened species is likely). If the event is planned in an environmentally sensitive area possibly involving endangered species, the USCG must enter into consultation under Section 7 of the ESA and may have to prepare an EA or EIS depending on the possible impacts to the species. Under the current system, the permit applicant is notified of the results of the consultation and any NEPA documentation that must be completed. For those events requiring a marine event permit under the current procedures, the USCG uses the results of the Section 7 consultation to notify a marine event sponsor of protections for endangered/threatened whales or other protected species. The USCG cannot and will not issue a permit for an event that violates the ESA.

At present, the USCG is responding to the need to reduce the regulatory burden on the public and is considering changing the definition of marine events requiring a USCG permit which would result in fewer events to be permitted by the USCG. However, those events that would still require a USCG permit would continue to be reviewed on a case-by-case basis as described above. Further, the USCG would still require sponsors of certain types of events to notify the USCG of the event and thereby enable the USCG to provide a copy of the notice to other Federal, State, and local agencies regarding navigational and environmental concerns. The information provided would allow the USCG to determine whether or not a permit with appropriate conditions, navigation safety regulations, notice to mariners, or some combination, should be required for the event. These pending changes to the marine event permitting procedures are embodied in an Interim Rule and an announcement of availability of the associated EA published in the Federal Register on 26 June 1996 (61 FR 33027). In consideration of all comments received, the USCG is delaying a decision on the marine event permit procedural changes by postponing the effective date and by reopening and extending the comment period. The USCG will announce the dates by publishing a notice in the Federal Register. The USCG will examine the comments, including expert comments on possible interactions with endangered species, and decide whether to proceed with the pending rule, modify it, or withdraw it. The USCG will also consider the resulting increases in the information collection and reporting burden on additional event sponsors related to broadening the definition of when notice of an event or a permit application must be submitted to the USCG. The USCG will continue the ongoing IR consultation and NEPA processes and address these issues (see also Appendix Q, comment number 6).

The USCG has been asked to consider an alternative to promulgate minimum approach and/or distance regulations — pursuant to the ESA — to keep vessels and aircraft separated from protected species (see Appendix Q, comment number 10b). Specifically, the USCG has been requested to promulgate a 500-yard protection zone around every northern right whale, and a similar 100-yard rule for all other whales (Appendix P). The NMFS, which has the biologists and the resources needed to consider and develop these rules, has already undertaken this proposal and the USCG would continue to support the NMFS efforts to develop a workable protective distance rule. The USCG has specific responsibility for enforcing the ESA and, in the case of whales, NMFS has responsibility for giving marine species their protected status — by listing them as endangered or threatened — and by issuing protective regulations.

Unfortunately, there will be impediments to strict enforcement such as: (1) northern right whales cannot always be identified at 500 yards or, under some conditions of limited visibility, at 100 yards; and (2) distance estimates will be subjective (best estimate based on enforcement officer's training) with no electronic means to validate or support the infraction. Under the existing international regime,

enforcement would be limited to U.S. flag vessels — a small minority of vessels — beyond 3 nautical miles. The International Maritime Organization (IMO), the entity that addresses international vessel traffic and establishes voluntary guidelines has, because of its diverse membership that includes nations opposing any limitations on freedom of navigation or on whaling, been reluctant to address protective zones for whales. The Department of State is the lead U.S. agency for IMO initiatives, and the USCG would endeavor to use that forum (the IMO) to sensitize members of the international community to protect species and habitat.

As an example of this international effort, the USCG would work with other U.S. agencies (*e.g.*, Department of State, U.S. Navy) to develop proposals to designate critical habitat and high-use areas as Particularly Sensitive Sea Areas (PSSAs) and/or Areas To Be Avoided (ATBA) that protect species habitats beyond 3 nautical miles through the IMO.

PSSAs are defined as areas which need special protection through action by IMO because of their significance for recognized ecological or socioeconomic or scientific reasons and which may be vulnerable to damage by marine activity. It should be understood, however, that being designated as a PSSA does not mandate protective action, it is simply an identification of an area in which some IMO measure may have a positive effect.

An ATBA is defined as a routing measure comprising an area within defined limits in which either navigation is particularly hazardous or it is exceptionally important to avoid casualties and which should be avoided by all ships or certain classes of ships. The USCG has created five ATBAs in U.S. coastal waters; each was designed to provide some measure of environmental protection. The common theme of the ATBAs, whether primarily for casualty prevention or environmental protection, is that they define a specific geographic area. There are no ATBAs that are intended to protect migrating marine life and it is difficult to envision how one might be instituted for that purpose without creating dangerous confusion in the marine community. The USCG would investigate whether seasonal ATBAs would meet the IMO criteria, and will initiate a Port Access Route Study (PARS) if it appears to be feasible.

There are also a number of other IMO adopted routing measures, for the most part traffic separation schemes (TSSs) associated with precautionary areas, which guide mariners in the approaches to many of our ports. They are intended to separate opposing streams of traffic and require vessels to operate with particular caution where they must converge. There is presently a TSS in the approach to Boston. Although there appears to be no way to completely avoid the whale habitat while entering the Port of Boston, the USCG would investigate whether any modification to the TSS would be beneficial. The USCG would conduct similar investigations in other areas of the coast considered to be high use areas or critical habitat and, if warranted, initiate a PARS to determine whether an IMO adopted routing measure would aid in the protection of endangered marine life.

To create or change a routing measure, the USCG is required by the Ports and Waterways Safety Act to consult with appropriate Federal agencies and states to ensure other uses of the area under consideration are taken into account. This is done by initiating a PARS, which also gathers information from any other interested party. PARS generally take about 18 months to complete. Once the information is gathered, a proposal is developed for submission to IMO. If the proposal is for a TSS, rulemaking is also required, but can be done in parallel with the IMO process. A proposal is submitted to the IMO Subcommittee on Safety of Navigation (NAV), which normally meets annually. If approved at NAV, it is then submitted to the subsequent session of the Maritime Safety Committee (MSC), which meets three times each biennium. The routing measure may enter into force six months after adoption by the MSC.

