

ENVIRONMENTAL ASSESSMENT
STAND-UP AND OPERATIONS OF THE
MARITIME SAFETY AND SECURITY TEAM
ST. MARY'S, GEORGIA



COMMANDANT
UNITED STATES COAST GUARD (G-OPD)



JANUARY 2004

ABBREVIATIONS AND ACRONYMS

°F	Degrees Fahrenheit	EIS	Environmental Impact Statement
%HA	Percent Highly Annoyed	EO	Executive Order
ALCOASTS	All coasts – message sent to all USCG installations and vessels	EPA	U.S. Environmental Protection Agency
APLMRI	Atlantic Protected Living Marine Resources Initiative	EPD	Environmental Protection Division
AQCR	Air Quality Control Region	ESA	Endangered Species Act
CAA	Clean Air Act	FBI	Federal Bureau of Investigation
CEQ	Council on Environmental Quality	FEMA	Federal Emergency Management Agency
CFR	Code of Federal Regulations	FONSI	Finding of No Significant Impact
CO	Carbon Monoxide	FY	Fiscal Year
COMDTINST	Coast Guard Commandant Instruction	GEMA	Georgia Emergency Management Agency
CUIS	Cumberland Island National Seashore	HAPC	Habitat Areas of Particular Concern
CWA	Clean Water Act	hp	horsepower
dB	Decibel	Hz	Hertz
dBA	A-weighted decibel	Leq(24)	24-hour Equivalent Sound Level
dBC	C-weighted decibel	m/s	meters per second
DEIS	Draft Environmental Impact Statement	mg/m ³	milligrams per cubic meter
DHS	Department of Homeland Security	MMPA	Marine Mammal Protection Act
DNL	Day-Night Average Sound Level	MOA	Memorandum of Agreement
DoD	U.S. Department of Defense	MOU	Memorandum of Understanding
DOT	Department of Transportation	MSST	Marine Safety and Security Team
EA	Environmental Assessment	MTSA	Maritime Transportation Security Act
EEZ	Exclusive Economic Zone	NAAQS	National Ambient Air Quality Standards
EFH	Essential Fish Habitat		<i>Continued on back cover ➔</i>

	← Continued from front cover	SAV	Submerged Aquatic Vegetation
		SIP	State Implementation Plans
NEPA	National Environmental Policy Act	SO ₂	Sulfur Dioxide
NFIP	National Flood Insurance Program	tpy	tons per year
NMFS	National Marine Fisheries Service	U.S.	United States
NMSA	National Marine Sanctuaries Act	U.S.C.	United States Code
NO ₂	Nitrogen Dioxide	USACE	U.S. Army Corps of Engineers
NOAA	National Oceanic and Atmospheric Administration	USCG	United States Coast Guard
NOAA Fisheries	National Oceanic Atmospheric Administration's National Marine Fisheries Service	USFWS	U.S. Fish and Wildlife Service
NOAA Fisheries HMS	National Oceanic and Atmospheric Administration Fisheries Highly Migratory Species Division	VOC	Volatile Organic Compound
		μg/m ³	micrograms per cubic meter
		μPa	microPascal
NO _x	Nitrogen Oxide(s)	μPa-m	microPascal – meters
NPS	National Park Service		
NSB	Naval Submarine Base		
NSR	New Source Review		
O ₃	Ozone		
P.L.	Public Law		
Pb	Lead		
PM ₁₀	Particulate Matter ≤ 10 microns in diameter		
ppm	parts per million		
PSD	Prevention of Significant Deterioration		
RB-HS	Response Boat-Homeland Security		
ROI	Region of Influence		
SAE	Society of Automobile Engineers		
SAFMC	South Atlantic Fisheries Management Council		

USCG

DRAFT FINDING OF NO SIGNIFICANT IMPACT

FOR

U.S. COAST GUARD LOCATION AND OPERATIONS OF THE MARITIME SAFETY AND SECURITY TEAM IN ST. MARYS, GEORGIA

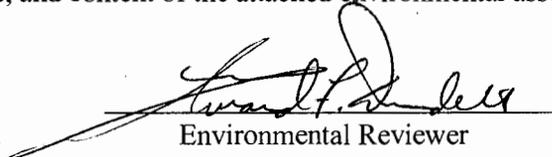
The Proposed Action includes the stand up and operations of one Maritime Safety and Security Team co-located with the St. Marys Police Department at 563 Point Peter Road, St. Marys, GA. The MSST will consist of 71 active duty personnel and 33 reserve personnel, and six Response Boats-Homeland Security (RB-HS). All six RB-HS can, but will not necessarily, be operating at once. The RB-HS will have two 225 horsepower outboard motors, will be 25 feet in length, will be highly maneuverable, will be capable of quickly reaching and sustaining high speeds (in excess of 40 knots), and will carry three crewmembers, plus a maximum of seven passengers. Other requirements will include, but not be limited to, communication equipment, protection for the crew, and defensive weaponry. When not in use, RB-HS may be placed on trailers. An open shelter for the boats would be constructed in the parking lot of 563 Point Peter Road. Modifications to offices in the St Marys Police Station would also occur. The MSST would normally launch and retrieve from an existing public boat ramp in downtown St. Marys.

The MSST will normally conduct operations in the mouth of the St. Marys River, Kings Bay and the intercoastal waterway between St. Marys and Kings Bay. The MSST is intended for domestic operations. 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 the Region of Influence. It will be capable of operating seven days a week, 24 hours a day, in all weather conditions. It will also operate with, and be supported by, both military and civilian government organizations and commercial and non-governmental 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 (EA) 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.

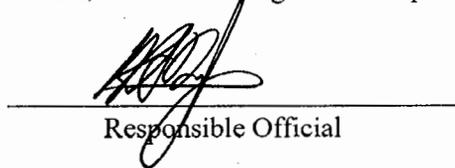
2 FEB 04
Date


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.

1/30/04
Date


Responsible Official

CAF- G-OPD
Title/Position

USCG

ENVIRONMENTAL ASSESSMENT

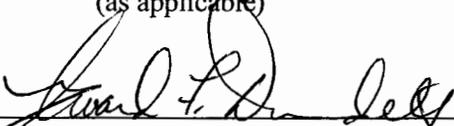
FOR

COAST GUARD STAND-UP AND OPERATION OF MARITIME SAFETY AND SECURITY TEAM IN ST. MARYS, GEORGIA

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>1/29/04</u> Date	 Preparer/Environmental Project Manager (as applicable)	<u>LCDR/G-OPD</u> Title/Position
<u>2-4-04</u> Date	 **Environmental Reviewer	<u>CHIEF, G-SEC-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>1/30/04</u> Date	 Responsible Official	<u>LCDR/G-OPD</u> Title/Position
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**ENVIRONMENTAL ASSESSMENT OF THE
STAND-UP AND OPERATIONS
OF THE
MARITIME SAFETY AND SECURITY TEAM
ST. MARYS, GA**

Contract No.: DTCG23-02-D-EXB001

Prepared for:

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January 2004

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1. Purpose of and Need for the Action

1.1 Introduction

The United States Coast Guard (USCG), one of the country's five armed services, is this nation's oldest maritime agency, and is one of the most unique agencies of the Federal government. The USCG began on August 4, 1790, when the first Congress authorized the construction of ten vessels to enforce tariff and trade laws, prevent smuggling, and protect the collection of the Federal revenue. Known variously as the Revenue Marine and the Revenue Cutter Service, the USCG expanded in size and responsibilities as the nation grew. These added responsibilities included humanitarian duties such as aiding mariners in distress, enforcing laws against slavery and piracy, protecting the marine environment, exploring and policing Alaska, and charting the growing nation's coastlines, all well before the turn of the 20th century.

The service received its present name in 1915 when the Revenue Cutter Service merged with the Life-Saving Service. The nation now had a single maritime service dedicated to saving life at sea and enforcing the nation's maritime laws. The USCG has continued to protect the nation throughout its long history and has served proudly in every one of the nation's conflicts. National defense responsibilities remain one of the USCG's most important functions.

Today, the USCG operates in all maritime regions for missions such as search and rescue, law enforcement, alien migrant interdiction, and national defense including:

- Approximately 95,000 miles of United States (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.

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. Since the events of September 11, 2001, the USCG has dramatically shifted its mission activity to reflect its role as a leader in Maritime Homeland Security. On March 1, 2003, in response to growing national security demands, the newly formed Department of Homeland Security (DHS) assumed control of the USCG from the Department of Transportation (DOT) in the largest reorganization of the Federal government since the 1940s (Public Law [P.L.] 107-296). The USCG is the lead Federal agency for 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. USCG activities in 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 include: maritime law enforcement, maritime safety, national defense, and marine environmental protection.

Under the newly formed DHS, one of the USCG's primary missions is to protect the U.S. Maritime Domain and the U.S. Marine Transportation System and deny their use and exploitation by terrorists as a means for attacks on U.S. territory, population, and critical infrastructure. The Maritime Transportation Security Act (MTSA) of 2002 contains several provisions relating to the USCG's role in maritime homeland security. It creates a U.S. maritime security system and requires Federal agencies, ports, and vessel owners to take numerous steps to upgrade security. The MTSA required the USCG to develop national and regional area maritime transportation security plans and required ports, waterfront terminals, and certain types of vessels to submit security and incident response plans to the USCG for approval.

The USCG has several additional 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 resupplied, both by keeping USCG units at a high state of readiness, and by keeping marine transportation open for the transit of assets and personnel from other branches of the armed forces.
- Protect against illegal fishing and indiscriminate destruction of living marine resources
- Prevent and respond to oil and hazardous material spills—both accidental and intentional.
- Coordinate efforts and intelligence with Federal, state, and local agencies.

In response to the increased homeland security threat level, the USCG is engaged in Operation Liberty Shield. Operation Liberty Shield is a multi-department, multi-agency, national team effort to protect America's citizens and infrastructure while minimizing disruption to our economy and way of life. The USCG is integrating its efforts within DHS and closely coordinating its efforts with those of the Department of Defense (DoD); DOT; the Federal Bureau of Investigations (FBI); and other Federal, state, and local security and law enforcement agencies to ensure the security of our nation's ports, waterways, and facilities. Hundreds of USCG cutters, aircraft, and small boats manned by thousands of USCG active duty and reserve members are guarding our coasts, ports, and waterways around the clock during this heightened state of alert.

In addition, 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.

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. The increased USCG maritime security presence prevents and deters those who would cause harm to innocent Americans.

1.3 Purpose and Need for the Action

1.3.1 Purpose of the Action

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 2002a).

The establishment of additional Maritime Safety and Security Teams (MSSTs) would better allow the USCG to perform all of its missions, especially the newly acquired homeland security missions. The MSSTs are needed to improve existing domestic port security capabilities. While the MSSTs would be to augment existing USCG forces in the U.S., they would not duplicate existing protective measures. They would provide complimentary, non-redundant capabilities

that would be able to close significant readiness gaps in our nation's strategic ports (USCG 2002b, c).

In order to determine which ports required additional protection, the USCG and other agencies developed a matrix to assess and "grade" each U.S. port to aid in the selection of the most critical ports to stand up. Elements (presented in alphabetical order) that were assessed included (USCG 2002b)

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

The first four MSSTs were established in Seattle, WA; Chesapeake, VA; San Pedro, CA; and Galveston, TX. The next two MSSTs would be established in New York, NY and St. Marys, GA. If additional MSSTs were established around the country, additional National Environmental Policy Act (NEPA) analysis would be prepared for future stand-ups, as necessary.

1.3.2 Need for the Action

The USCG has a broad-range of environmental and geographic responsibilities throughout the EEZ. In the wake of the events of September 11, 2001, the USCG assumed homeland security duties in addition to their current missions. Unfortunately, manpower and vessels to perform all missions, including these additional operations, also remained the same. Currently, USCG resources are at maximum capacity and all missions (e.g., search and rescue, alien and drug interdiction, fisheries enforcement, and endangered species) suffer from the USCG's attempt to maintain the previous level of effectiveness and efficiency. If implemented, the Proposed Action would increase security and allow other USCG assets to focus on their intended missions more effectively and efficiently, since the MSST's primary responsibility would be dedicated to security.

In 2002, under P.L. 107-87, an emergency response supplemental enacted by Congress, funds were appropriated to support USCG anti-terrorist activities, including the mandated establishment and operation of four MSSTs to be completed in Fiscal Year (FY) 2002. The establishment of MSSTs in Seattle, WA; San Pedro, CA; Galveston, TX; and Chesapeake, VA helped relieve some

of the strain on USCG units. However, a number of ports require further protection. Therefore, Congress appropriated additional funds and manpower positions in the FY 03 budget for the establishment of additional MSSTs.

In the *Programmatic Environmental Assessment for the U.S. Coast Guard Acquisitions* (USCG 2003a), the USCG assessed the need to acquire standard Response Boats-Homeland Security (RB-HS) to add to or replace the aging and increasingly inefficient assets with standard, more reliable, and more environmentally sound assets. The RB-HS acquisition, intended to take place over the next several years, will also help alleviate homeland security needs in the long-term. The RB-HS are boats that can be acquired and modified in the very short-term, thus responding to current security concerns. The establishment of MSSTs in these new locations (New York, NY, and St. Marys, GA) would further alleviate the strain of the existing units to perform all required missions equitably and provide additional protection for these ports.

1.4 Project Scope and Area

This Environmental Assessment (EA) addresses the MSST to be located in St. Marys, GA (see Figure 1-1). The MSST would normally conduct the majority of its operations in Kings Bay. The RB-HS would be dropped in the water in St. Marys and travel through the intercoastal waterway to Kings Bay. The Region of Influence (ROI) for the St. Marys MSST would include the mouth of the St. Marys River, the intercoastal waterway, and Kings Bay (see Figure 1-2). However, because a majority of the operating time would be spent in Kings Bay, the ROI will hereafter be referred to as Kings Bay. The Naval Submarine Base (NSB) Kings Bay is located in Kings Bay. The MSST would normally conduct operations in the harbor or port to which it is assigned. However, the MSST would also be transportable via land transportation, USCG cutter, or 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 would 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 on the homeport of St. Marys and Kings Bay.

Figure 1-1. Location Map of St. Marys MSST Homeport

Figure 1-2. Location Map of St. Marys MSST Region of Influence

1.5 Public Involvement Process

An advertisement published in the Tribune and Georgian on October 8, 2003, announced the USCG's intent to prepare an EA, giving information on the proposal and seeking comments. Letters to interested parties were also mailed to appropriate Federal, state, and local agencies (See Appendix A [Interested Party Letter]; Appendix B; [Mailing List]; Appendix C [Newspaper Announcement]; 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 and Finding of No Significant Impact (FONSI) will also be placed the same 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 might 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 nine 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 and agency correspondence regarding Endangered Species Act (ESA) and essential fish habitat (EFH) consultations. Appendix E is a summary of the Atlantic Protected Living Marine Resources Initiative (APLMRI). Appendix F is a list of those regulations, laws, and executive orders that may reasonably be expected to apply to the Proposed Action. Appendix G provides further explanation of the terminology and methodology used in the noise resource section. Appendix H is a copy of the USCG's Ocean Steward Program. Finally, Appendix I provides the calculations used for the air quality analysis.

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2. Proposed Action and Alternatives

2.1 Proposed Action

The U.S. Coast Guard (USCG) proposes to stand-up and operate two Maritime Safety and Security Teams (MSSTs), one of which would be located in St. Marys, GA. The other would be located in Staten Island, NY. The term “stand-up” is defined as establishing a new activity. The MSST would improve existing security capabilities on an ongoing basis. The MSST would not duplicate existing protective measures, but would provide complimentary, non-redundant capabilities that would be able to close significant readiness gaps.

The MSST would include 71 active duty personnel augmented by 33 reservists, a support building for personnel, and six Response Boats-Homeland Security (RB-HS). Personnel would consist of mostly reassigned personnel, although there may be some newly recruited personnel. It is anticipated that they would reside either in St. Marys, Camden County, or in northern Florida. MSST personnel would 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 would be equipped with six armed RB-HS 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 would be capable of operating 24 hours per day, seven days per week. The MSST can be moved by aircraft or other means in order to respond to events in locations other than the Kings Bay and St. Marys area, should an increased presence be required at another port. The MSST would be interoperable with, and supported by, military and civilian government organizations, and commercial and non-government entities.

USCG personnel would follow procedures already familiar to them including: 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 would 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 would be prepared to conduct operations through all maritime security levels, and would be capable of operating under the threat of chemical, biological, or radiological attack. The MSST would have limited ability to detect chemical, biological, or radiological attack, and must be able to evacuate a contaminated environment. They would have the ability to conduct emergency gross decontamination of personnel and equipment. In the United States (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.

The continuation of the existing conditions without implementation of the Proposed Action is referred to as the No Action Alternative. For the purposes of this project, the No Action Alternative is defined as not establishing an MSST in St. Marys. The No Action Alternative serves as the benchmark against which Federal actions can be evaluated. Inclusion of the No Action Alternative is prescribed by the Council on Environmental Quality (CEQ) regulations and, therefore, will be carried forward for further analysis in this Environmental Assessment (EA).

Congress and the Executive Branch must respond to the recently critical demand for homeland defense. Port security measures, such as MSSTs, must be created immediately. In the case of the establishment of the MSSTs, Congress strongly indicated its desire that the USCG establish MSSTs on a priority basis. P.L. 107-117 provided money for the express purpose of having the USCG (in consultation with other agencies) establish four MSSTs before Fiscal Year (FY) 2003, which have been established. The Senate Appropriations Committee has recently approved a \$76 million budget for the next seven MSSTs in the upcoming fiscal year (Senate Report 108-086).

If the No Action Alternative was selected, as described in this EA, it would not fulfill the USCG's purpose and need to provide additional port security. 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 a further strain on manpower and current assets. This scenario of vessels and manpower at maximum capacity would facilitate an attack at 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 and 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 affect the long-term economy. Recovery time would be dependent on the severity and extent of the loss.

Other consequences would flow from the USCG being unable to perform enforcement missions fully. 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 would 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, such as 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 (ESA) and associated regulation in U.S. waters.

2.3 Comparison of Alternatives

The Proposed Action to stand-up and operate a MSST in St. Marys, GA has the potential for positive impacts from both a security and safety viewpoint, as well as easing environmental concerns. First, the additional response boats would provide added security from terrorist attack for the safety of ships entering or leaving Kings Bay. Second, the Proposed Action would 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 Kings Bay. It is unlikely that all six boats would be in use at any one time. The boats would 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) (a summary of the APLMRI can be found in Appendix E) and Ocean Steward and other long-standing initiatives and programs related to living marine resource

protection. In 1996, the USCG published the APLMRI Environmental Impact Statement Record of Decision in the Federal Register. The APLMRI provides guidance for actions during USCG operations to support the recovery of protected living marine resources. It consists of two components: an internal program focusing on the USCG enforcement of the 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 is the USCG's national strategic goal to help the recovery and maintenance of marine protected species to achieve healthy, sustainable populations. APLMRI and Ocean Steward will help ensure that no significant impacts on marine protected species would occur from MSST vessel operations.

Under the No Action Alternative, the added safety and security provided by the MSST would not be available. While the USCG would continue with their current level of protection, this level has already been determined to be less than is required for St. Marys River and King's Bay. The potential environmental damage from a terrorist attack may be significantly adverse.

2.4 Alternatives Considered but Eliminated

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 would be using in St. Marys and Kings 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. Therefore, this EA will assess the potential impacts of the USCG establishing and operating an MSST in St. Marys.

2.5 Comparison of Environmental Effects of All Alternatives

Table 2-1 summarizes the impacts of the Proposed Action and No Action Alternative.

Table 2-1. Impact Summary Matrix

Resource Area	Proposed Action	No Action Alternative
Biological Resources	Implementation of the Proposed Action would have minor adverse impacts to biological resources in the St. Marys Region of Influence (ROI). Current USCG environmental policies, regulations, and programs designed to protect living marine species (e.g., the APLMRI – Appendix E, Ocean Steward – Appendix H and speed guidance designed to avoid collisions with marine mammals) would continue to be followed. Additionally, these boats are designed to be highly maneuverable. Therefore, the addition of six RB-HS (although only two would operate under normal conditions) would not have major adverse impacts to biological protected marine resources or habitats.	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 demand on vessels and manpower and disruption to other missions would continue. Under this scenario, it would make it easier for a terrorist attack to occur or an attack that could spread to areas frequented by marine mammals. Significant adverse impacts would be expected should this alternative be selected due to the increased risk of a terrorist attack and the potential for significant adverse effects on marine mammals. Recovery would depend on the extent of loss.
Air Quality	Under the Proposed Action, minor adverse impacts 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. The number of additional personnel is comparatively small (71 active duty and 33 reservists) and would result in minor adverse impacts to air quality. Based on the emission calculations and analyses completed for the Proposed Action, it is clear that the net change in nitrogen oxide (NO _x), and volatile organic compounds (VOC), emissions would be well below the <i>de minimis</i> threshold requirements and the regional significance requirements of the General Conformity Rule.	Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. Significant adverse impacts would be expected should this alternative be selected due to the increased risk of a terrorist attack and the potential for significant adverse effects on air quality. Recovery time would depend on the severity and extent of the impact.

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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 Environmental Assessment (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. The small number of additional personnel who may be relocated to the region would not significantly increase water demand. Although the principle artesian aquifer, the Floridian Aquifer, is endangered by saltwater intrusion from heavy pumping, no physical disturbances, earth moving, or major construction activities would occur as a result of the Proposed Action. Therefore, surface water flow quantity or quality would not be affected. 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 would impact water quality in the Region of Influence (ROI) as a result of the emissions of outboard engines. As defined in the U.S. Environmental Protection Agency's (EPA) *Condition of the Coast*, the overall condition of Georgia ranges from fair to good on all environmental factors (EPA 2001). The addition of two Response Boats-Homeland Security (RB-HS) (under normal operations) would not adversely affect the water quality of St. Marys or Kings Bay. Accordingly, the USCG has omitted detailed examination of water resources.
- *Soils and Land Use.* The Proposed Action would involve minor construction with less than a 2,500-square foot building footprint for boat maintenance and storage (USCG 2003b). The minor construction activities would involve use of best management practices to prevent any negative effects from erosion. 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 area. The majority of the 71 active duty personnel would be reassigned personnel. The population in Camden County has been estimated by the U.S. Census Bureau at 44,061 people (Census Bureau 2003). Camden County also has a low unemployment figure of 3.6 percent (NOAA 2003). In mid-2003, the Durango-Georgia Paper Plant closed, resulting in lay-offs of 900 people. The addition of 71 personnel would have a minor beneficial impact. 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 affect minority and low-income populations disproportionately. 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. The MSST personnel would be located in the St. Marys Police Department in leased space in an industrial area near the airport. The building was constructed in the 1980s. An open shelter for the boats would be constructed in an adjacent parking lot. There would be no ground-disturbing activities; therefore, there would be no impact to archaeological sites. There are a number of cultural and historical resources in the ROI. Most notably is Cumberland Island, administered by the National Park Service (NPS). While within the ROI, the Maritime Safety and Security Team (MSST) would ordinarily not conduct operations on Cumberland Island or other cultural sites in the area. Accordingly, the USCG has omitted detailed examination of cultural resources.
- *Hazardous Materials and Hazardous Wastes.* The MSST would be housed in a maintenance building at the police station. Minor maintenance would occur at the police facilities or at a commercial marine facility, which would have similar management plans. The engines are under a three-year maintenance agreement, therefore, all major maintenance will be done at a Honda authorized facility. The Proposed Action would not require or add a significant amount of hazardous materials or wastes to those already generated by these facilities. The MSST would follow the USCG's procedures as described in the Hazardous Waste Management Manual (Coast Guard Commandant Instruction [COMDTINST] M16478.1B), 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). The MSST would appoint a hazardous material specialist who would coordinate disposal of hazardous wastes with the Public Works Department of the City of St. Marys. Accordingly, the USCG has omitted detailed examination of hazardous materials and hazardous wastes.

- *Coastal Zone Management Act.* Under NOAA's Federal Consistency provisions (15 Code of Federal Regulations [CFR] 930), Federal agencies must determine if their proposed project directly affects Georgia's coastal zone. The new construction for the support building (co-located with the St. Marys Police Department) is not visible from the shore. Although six RB-HS would be homeported at that location, under normal conditions, only two boats would be launched at any one time. Cumulative and secondary effects must be included. Camden County is included in Georgia's coastal zone. The stand-up and operations of the St. Marys MSST should not present any reasonably foreseeable effects. Nor should it impact applicable coastal enforceable policies. Whether the number of vessel trips potentially generated by the MSST operations would also negatively impact the coastal zone is not as clearly identified. However, it is not anticipated that St. Marys MSST would present any foreseeable effects in any of these areas. This EA will be forwarded to the Georgia Coastal Resources Commission for concurrence in a Negative Determination. Therefore, the USCG has omitted any further discussion of the Coastal Zone Management Act from this EA.

3.1.2 Region of Influence

The MSST would be homeported at St. Marys (see Figure 1-1). The MSST personnel and RB-HS would be co-located with the St. Marys Police Department at 563 Point Peter Road. The MSST would use a public boat ramp in downtown St. Marys to launch the RB-HS. The ROI for the Proposed Action and the No Action Alternative is defined geographically as the mouth of the St. Marys River, the intercoastal waterway between St. Marys and Kings Bay, and Kings Bay. The MSST would operate a majority of the time in Kings Bay; the MSST would only operate in the intercoastal waterway while in transit from the boat ramp to Kings Bay. The ROI includes the Town of St. Marys, Kings Bay, and the Cumberland Island National Seashore. The MSST is expected to spend the majority of its operating time in this area. The MSST can be deployed temporarily in emergencies to other areas as needed.

St. Marys, the second oldest city in the United States (U.S.), is a small coastal village located in southeast Georgia. There are a number of historic sites throughout the town, including Lang's East and West Marinas, the Waterfront Pavilion, the Public Boat Ramp, the NPS Cumberland Island Ferry and the Howard Gilman Memorial Park. St. Marys is also known as the gateway to Cumberland Island National Seashore.

The Naval Submarine Base (NSB) Kings Bay started construction in 1978 on land the Army had originally acquired in 1954. The Base comprises 16,000 acres and is home to the Navy College universities, the Trident Training Facility, and the Trident Refit Facility.

The Cumberland Island National Seashore (CUIS) was established as a result of Public Law (P.L.) 02-536 (the Act of October 23, 1972). CUIS consists of approximately 40,000 acres and represents one of the finest examples of barrier islands along the Atlantic Coast.

3.1.3 Environmental Regulations, Laws, and Executive Orders

A table containing a listing of regulations, laws, and executive orders that might reasonably be expected to apply to the Proposed Action is included in Appendix F. 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 protected and sensitive habitats, and plant and animal species listed as threatened or endangered by the U.S. Fish and Wildlife Service (USFWS), National Oceanic Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries), state regulatory agency, or protected under other Federal or state laws. Determining which habitats or 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.

The USCG has a number of long-standing initiatives and programs relating to Living Marine Resource Protection, a primary mission of the USCG:

- *National Marine Sanctuary Law Enforcement Program.* Among other activities, this provides routine surveillance of marine sanctuaries concurrent with other USCG operations and provides specific, targeted, or dedicated law enforcement as appropriate.
- *Ocean Guardian.* This long-range fisheries law enforcement strategy supports national goals for fisheries resource management and conservation.
- *Ocean Steward.* This is 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 is designed to develop community awareness of maritime pollution issue and to improve compliance with marine environmental protection laws and regulations (USCG 2002d).
- *Commandant Instructions (COMDTINSTs) and ALCOASTS.* This is the USCG's implementation and guidance for policy and procedures.

- *Conservation Program*. This program promotes USCG involvement with outside Federal and state agencies, and public and non-government organizations to conserve and protect living marine resources (USCG 1996).
- *Atlantic Protected Living Marine Resources Initiative (APLMRI)*. This initiative provides guidance for actions, during USCG operations, to support the recovery of protected living marine resources through internal compliance with and enforcement of Federal, state, and international laws designed to preserve marine protected species.

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.

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 United States” under 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 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. Section 401 of the CWA authorizes states to use their water quality standards to protect wetlands. The permit provided by the state under Section 401 is generally referred to as a 401 Water Quality Certification.

Georgia state laws that address coastal wetland and barrier issues include the Georgia Water Quality Control Act, Coastal Marshlands Protection Act, Shore Protection Act, Georgia Erosion

and Sedimentation Act, Mountain and River Corridor and Protection Act, and Wildflower Protection Act. Development or activities that affect coastal marshlands and barrier islands are subject to restrictions under these authorities. State Marsh Permits, Shore Permits, and Revocable Licenses are administered by the Coastal Resources Division. A Revocable License is issued for private use of State-owned tidal water bottoms in the coastal area. This license is often issued in conjunction with a Marsh Permit or Shore Permit. Together, these programs give direct management authority over critical coastal habitats such as marshlands, beaches, navigable waters, and freshwater wetlands (NOAA 2003).

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.

Marine Mammals and Sea Turtles

Protection of marine protected species such as mammals, sea turtles, or other threatened or endangered marine species, is an important USCG mission. A number of factors may impact the distribution of marine mammals and sea turtles, 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 but are not limited to noise, hunting pressure, pollution, 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 environmental and biotic factors and human impacts that can affect the location and temporary distribution of prey species. This, in turn, influences diversity, abundance, and distribution of marine mammals and sea turtles.

The USCG has a long-standing role in protecting marine mammals and sea turtles. It enforces all U.S. laws in the Economic Exclusive Zone (EEZ), including laws protecting marine protected species. The USCG enforces the ESA, the MMPA, the National Marine Sanctuaries Act

(NMSA), a number of maritime executive orders (EO), and Federal and international laws as applicable. COMDTINSTs include a number of USCG policies, directions, and procedures that include specific rules to ensure avoidance with marine mammals and sea turtles and avoid impacts whenever possible. The USCG's Ocean Steward and Ocean Guardian initiatives, the APLMRI, and speed guidance also support these goals (USCG 2002b). Additionally, the Ocean Steward initiative protects marine mammals by regulating incidental and intentional "takes" (harassment of marine mammals from close or repeated approach by vessels).

The Endangered Species Act (ESA) of 1973 (16 U.S.C. 1531-1534) establishes protection and conservation of threatened and endangered species and the ecosystems upon which they depend. The ESA is administered by USFWS and NOAA Fisheries. 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. Section 7 of the ESA requires that all Federal agencies consult with USFWS or NOAA Fisheries, as applicable, before initiating any action that could affect a listed species. Section 7 of the ESA states that any project authorized, funded, or conducted by any Federal agency should not "... jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined to be critical."

Under the Marine Mammal Protection Act (MMPA) of 1972 (16 U.S.C. 1361 et seq.), the Secretary of Commerce is responsible for the protection of all cetaceans (whales, porpoises, and dolphins) and pinnipeds (seals and sea lions) except walruses, and has delegated authority for implementing the MMPA to NOAA Fisheries. The Secretary of the Interior is responsible for walruses, polar bears, sea otters, manatees, and dugongs and has delegated the responsibility of conservation and protection of these marine mammals to USFWS. These responsibilities include providing overview and advice to regulatory agencies on all Federal actions that may affect these species.

The MMPA prohibits the "take" of marine mammals, with certain exceptions, in waters under U.S. jurisdiction and by U.S. citizens on the high seas. Under Section 3 of the MMPA, "take" of marine mammals is defined as "harass, hunt, capture, or kill or attempt to harass, hunt, capture, or kill any marine mammal" and "harassment" is defined as any act of pursuit, torment, or annoyance that has the potential to injure marine mammal stock in the wild; or has the potential to disturb a marine mammal or marine mammal stock in the wild by disrupting behavioral

patterns, including migration, breathing, nursing, breeding, feeding, or sheltering. In cases where U.S. citizens are engaged in activities, other than fishing, that result in “unavoidable,” incidental take of marine mammals, the Secretary of Commerce can issue a “small take authorization.” The authorization can be issued after notice and opportunity for public comment, if the Secretary of Commerce finds negligible impacts.

Fish

Under their Living Marine Resource Protection mission, the USCG undertakes activities such as enforcing domestic fisheries laws, and ensuring the development of practical enforcement plans to protect, conserve, and manage these resources. Examples of laws that the USCG enforces pertaining to fish and fisheries management include

- Atlantic Coastal Fisheries Cooperative Management Act (16 U.S.C. 2431 et seq.)
- Atlantic Salmon Convention Act (16 U.S.C. 971 et seq.)
- Lacey Act Amendments of 1981 (16 U.S.C. 1531 et seq.)
- Magnuson-Stevens Fisheries Conservation Act (16 U.S.C. 1801, et seq.)
- Northwest Atlantic Fisheries Compliance Act of 1995 (16 U.S.C. 5001 et seq.)
- Tuna Conventions Act (16 U.S.C. 973 et seq.)

Additionally, the Ocean Guardian initiative includes the Fisheries Enforcement Strategic Plan to support national goals for fisheries resource management and conservation.

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*.

3.2.2 Affected Environment

The ROI for the Proposed Action and the No Action Alternative is defined geographically as the mouth of the St. Marys River, the intercoastal waterway between St. Marys and Kings Bay, and Kings Bay. The MSST would operate a majority of the time in Kings Bay; the MSST would only operate in the intercoastal waterway while in transit from the boat ramp to Kings Bay.

Protected and Sensitive Habitats

Two formally protected and sensitive habitats that may occur within or near the ROI include Right Whale Critical Habitat and Cumberland Island National Seashore.

Right Whale Critical Habitat has been designated along portions of the Georgia coast between 31°15' N latitude (approximately the mouth of the Altamaha River, GA) and 30°15' N latitude (approximately Jacksonville, FL) from the coast out to 15 nautical miles offshore. Also included are the coastal waters between 30°15' N latitude and 28°00' N latitude (approximately Sebastian Inlet, FL) from the coast out to 5 nautical miles (59 FR 28793 June 3, 1994).

CUIS is 17.5 miles long, totals 36,415 acres, and is one of the largest undeveloped barrier islands in the world. Established by P.L. 97-250 (the Act of September 8, 1982), the Cumberland Island Wilderness comprises about 8,840 acres of the island. CUIS is nationally significant for a number of reasons. It is one of the largest undeveloped barrier islands in the world and possesses a broad diversity of biological communities, including habitat for three endangered species. CUIS also provides an opportunity to enjoy a wilderness experience within 300 miles of several metropolitan areas including Atlanta, GA and Orlando and Jacksonville, FL. The United Nations Economic Security Council Bureau of the International Coordinating Council for Man and the Biosphere designated CUIS as part of the Carolina-South Atlantic Biosphere Reserve-Sea Island Unit in 1986 (NPS 2000).

Other protected and sensitive habitats that occur near the ROI include (GADNR 2003):

- Crooked River State Park
- Georgia Coastal Land Trust Conservation Easements (6 easements ranging from 8 acres to 266 acres)
- Satilla River Marsh Island Natural Area
- Satilla River Mitigation Bank
- U.S. Army Corps of Engineers' Restrictive Covenant (1 restrictive covenant, 240 acres)

Wetlands and Floodplains

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.

The Georgia coast is characterized by an extensive system of salt marshes, tidal estuaries, and sounds that separate a series of eight major and several smaller barrier islands from the mainland.

All major elements of the island-marsh-tidal system are interrelated: sand beaches and dunes protect the islands from erosion and flooding, the islands protect the marshes from the force of storms, and the marshes provide feeding and nursery grounds for aquatic life (NOAA 2003). Wetlands in Georgia comprise approximately 701,000 acres (about one-third of all of the salt marshes on the Atlantic Coast). Cumberland Island contains 16,850 acres of marsh, mud flats, and tidal creeks. It is well known for its sea turtles, abundant shore birds, dune fields, maritime forest, salt marshes, and historic structures (NPS 2003). NSB Kings Bay encompasses about 16,000 acres, of which 4,000 are protected wetlands.

Seagrass is often referred to as submerged aquatic vegetation (SAV). Georgia does not have SAV in tidal waters because of high tidal amplitude and very turbid waters (FLDEP 2003).

Portions of the ROI may be in a 100-year floodplain area. All of the counties within the St. Marys River basin currently participate in the National Flood Insurance Program (NFIP) (GADNR 2002a). Flooding is the number one natural disaster in Georgia according to the Georgia Emergency Management Agency (GEMA) (GADNR 2002a). As such, one of the goals of the St. Marys River Basin Management Plan is to identify and protect flood-prone areas within each river basin, and encourage local and state compliance with Federal floodplain management guidelines (GADNR 2002a).

Marine Mammals

Species of endangered marine mammals that have the potential to occur in the ROI are the right whale (*Balaena glacialis*), fin whale (*Balaenoptera physalus*), humpback whale (*Megaptera novaengliae*), and Florida manatee (*Trichechus manatus*) (FLDEP 2003). Right, fin, and humpback whales are common in nearshore waters, but are currently considered rare in bays and sounds (FLDEP 2003, Dodd 2003). Historical records indicate that these whales occurred in the bays and sounds of Georgia (Dodd 2003). As such, the Florida manatee is the only endangered marine mammal likely to occur in the ROI.

Northern right whales are now the rarest of all the great whales. Recently, the North Atlantic population is estimated to be around 291 individuals (Waring et al. 2003). Northern right whales use shallow coastal Georgia as a calving ground from November through March (primarily January through March) (GADNR 2002b). Critical habitat is designated from the shoreline 5 to 15 nautical miles out between the mouth of the Altamaha River and Sebastian River Inlet, FL (USFWS 2003).

The Florida manatee is a subspecies of the West India manatee and inhabits rivers and coastal waters of southern Georgia (USCG 2003c). Manatees are most frequently sighted in Georgia waters from April through October in the waters of Camden, Glynn and McIntosh Counties (GADNR 2002b). Manatees have also been sighted at NSB Kings Bay (USN 2003). Minimum estimates suggest that there may be fewer than 2,640 manatees left in the U.S. Human-related impacts such as boat/barge collisions, loss of habitat, pollution, and ingestion of fish hooks and lines threaten the continued existence of the manatee here in the U.S. (GADNR 2002b).

The only non-endangered or non-threatened species likely to occur in the ROI is the Atlantic bottlenose dolphin (*Turisops truncatus*). Other species that may be encountered include the Minke whale and various dolphins and seals (USCG 2002e).

The Atlantic bottlenose dolphin is found in temperate and tropical oceans worldwide. The preferred habitat for this species is coastal shallow waters such as bays, estuaries, passes, inlets, and offshore waters within the 100-fathom (600 foot) depth line (Defender's of Wild Cumberland 2001). There appear to be two distinct types of bottlenose dolphins in the U.S. Atlantic waters. The offshore type, encountered along the 100-fathom (600-foot) line of the continental shelf, is larger. The inshore type occurs along the coast from Long Island around peninsular Florida, and the Gulf of Mexico. Recent studies indicate that the coastal inshore stock of bottlenose dolphins is actually comprised of more than seven separate stocks and NOAA Fisheries now recognizes seven management units (Waring et al. 2003). NOAA Fisheries winter survey estimates approximately 767 bottlenose dolphins in the Georgia Management Unit (Waring et al. 2003). The dolphins that make up this management unit are likely distributed in Georgia waters throughout the year (Waring et al. 2003).

Sea Turtles

Five species of threatened or endangered sea turtles have the potential to occur in the ROI (FLDEP 2003, Dodd 2003). The hawksbill sea turtle (*Eretmochelys imbricata*), Kemp's ridley sea turtle (*Lepidochelys kempii*), and leatherback sea turtle (*Dermochelys coriacea*) are listed as endangered. The green sea turtle (*Chelonia mydas*) and Atlantic loggerhead sea turtle (*Caretta caretta*) are listed as threatened (FLDEP 2003). The loggerhead sea turtle is the most common sea turtle in the ROI, while the hawksbill sea turtle is the least common in the ROI.

The loggerhead sea turtle is the most common sea turtle in Georgia waters. Loggerheads frequent Georgia's marine and estuarine waters in the spring, summer, and fall (Stripling 2003). Nesting

occurs from mid-May to mid-July along the Georgia coast. The nesting population of loggerhead sea turtles at Cumberland Island is one of the most significant along the Georgia Coast (Stripling 2003).

The smallest and most endangered of all sea turtles is the Kemp's ridley (Stripling 2003). The Kemp's ridley is the second most abundant sea turtle along the Georgia coast (Stripling 2003). Juveniles can be found throughout the Atlantic Ocean and may be found in Georgia during the months of April through October. Stranding of Kemp's ridleys in Georgia begins in April and continues through the summer, peaking in June and July and tapering off in early November. Very few Kemp's ridley sea turtles are found on Georgia beaches in the winter.

Leatherback sea turtles can be found in Georgia waters in early spring, fall, and early winter during their migrations to and from the tropics (Stripling 2003). Stranded leatherback sea turtles are most likely to wash up on Georgia beaches from March to June and October to December. Leatherback sea turtle nesting has been documented on Cumberland Island (Dodd 2003).

Green sea turtles occur in Georgia periodically throughout the year (Stripling 2003). Green sea turtles are generally found in the shallow waters of bays, reefs, and inlets. They feed on marine algae, seagrasses, small mollusks, sponges, crustaceans, and jellyfish (Stripling 2003).

The most uncommon sea turtle in Georgia inland waters is the hawksbill sea turtle (Dodd 2003). Two hawksbill turtles were found in 1998 for the first time on Cumberland and Jekyll Islands (Stripling 2003). They are thought to be possible strays from the Caribbean or south Florida.

Fish

The shortnose sturgeon (*Acipenser brevirostrum*) is the only federally listed endangered fish species known to occur in the ROI. The St. Marys River provides habitat for the shortnose sturgeon, which is an anadromous fish (i.e., a fish that migrates between salt and fresh water) (NOAA 2003). 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 NOAA Fisheries 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 NOAA Fisheries of the species as endangered in March 1967. The shortnose sturgeon retained its endangered status with the passage of the ESA in 1973 and NOAA Fisheries was given jurisdiction over it a year later (NMFS 2001).

NOAA Fisheries prepared recovery plans for the shortnose sturgeon in 1982 and 1998. In the recovery plans, threats to the fish species' recovery that were identified included: bridge construction and demolition; dam construction; dredging and in-river disposal of dredge soil; removal, licensing, and operation of power plants; release of toxic chemicals from industrial activities; and domestic waste disposal (NMFS 2001).

Federally managed fisheries in the ROI are managed by the South Atlantic Fisheries Management Council (SAFMC) and NOAA Fisheries Highly Migratory Species Division (NOAA Fisheries HMS). Species managed by SAFMC that have essential fish habitat (EFH) in the ROI include brown shrimp, white shrimp, red drum, gray snapper, Spanish mackerel, cobia, and sargassum (a floating species of marine algae) (SAFMC 1998). Table 3-1 lists the species and life stage(s), which have EFH within the ROI. EFH types, which may occur within the ROI, include intertidal marshes, subtidal and intertidal non-vegetated flats, tidal creeks, inlets, adjoining channels, sounds, oyster/shell habitat, pelagic sargassum, and the water column (SAFMC 1998). Habitat areas of particular concern (HAPC) (i.e., a subset of EFH, which serves an important ecological function, is sensitive to degradation, and/or is rare) are also designated within the ROI. HAPC within the ROI include tidal creeks, salt marshes, high marsh areas with shell hash bottoms, barrier islands, passes between barrier islands, deep holes, inlets, adjoining channels, sounds, and oyster/shell habitat (SAFMC 1998). No species managed by NOAA Fisheries HMS have EFH in the ROI.

Table 3-1. Species and life stages that have EFH within the ROI.

Species	Life Stage			
	Eggs	Larvae	Juveniles	Adults
White shrimp		X	X	
Brown shrimp		X	X	
Red drum	X	X	X	X
Gray snapper			X	
Spanish mackerel		X	X	
Cobia		X	X	
<i>Sargassum</i>	n/a	n/a	n/a	n/a

The top five species commercially harvested in Georgia in 2001 were white shrimp (30 percent of the landings), blue crabs (30 percent), brown shrimp (16 percent), conchs (13 percent), and unidentified shellfish (4 percent) (NOAA Fisheries 2003a). The top five recreationally harvested species in Georgia in 2001 were kingfish (22 percent of the landings), spotted seatrout (18 percent), sheepshead (16 percent), king mackerel (8 percent), and red drum (8 percent) (NOAA Fisheries 2003b).

Coastal and Other Birds

Four threatened and/or endangered birds in Georgia and that may occur in the ROI are the piping plover (*Charadrius melodus*) (threatened), bald eagle (*Haliaeetus leucocephalus*) (threatened), wood stork (*Mycteria americana*) (endangered), and Bachman's warbler (*Vermivora Bachmanii*) (endangered) (USFWS 2003).

The piping plover winters on Georgia's coast (USFWS 2003). Their preferred habitat is areas with expansive sand or mud flat for foraging in proximity to sand beaches for roosting. Bald eagles inhabit inland waterways and estuarine areas in Georgia (USFWS 2003). Wood storks primarily feed in brackish wetlands and nest in cypress or other wooded swamps (USFWS 2003). The NSB Kings Bay established a foraging and rookery project to encourage growth among the 125 wood storks found on base (USN 2003). Bachman's warbler was last sited in Georgia in 1878 and is thought to be extinct. Historical records indicate that Bachman's warblers inhabit wooded areas (USFWS 2003).

Over 300 bird species, including songbirds, shorebirds, wading birds, waterfowl, and gull-like birds, use CUIS at various times of the year (GADNR 2002c). Over 100 species are known to nest there. CUIS also provides habitat for several state-listed (Georgia) species, including the endangered peregrine falcon, the threatened gull-billed tern, the rare Wilson's plover, American oystercatcher, least tern, and swallow-tailed kite. Peregrine falcons are fall migrants. Least terns, Wilson's plovers, American oystercatchers, and gull-billed terns are all known to nest on the island, although the gull-billed tern has not been observed nesting in recent years (CRSP 2003). Black-crowned night heron and glossy ibis are also state species of special concern that have been reported in the ROI (GADNR 2003).

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 EPA for six criteria pollutants: ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter less than ten microns (PM₁₀), 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/m³). The CAA directed 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, 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. O₃ 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_x) and volatile organic compounds (VOC). These compounds are inventoried and quantified as precursors of O₃. 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 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 State Implementation Plan (SIP) in non-attainment areas. In 1993, 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 a 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 SIP to account for emissions from a 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 St. Marys occurs in a maintenance area, the General Conformity Rule does apply. A conformity analysis is required.

3.3.2 Affected Environment

The Environmental Protection Division (EPD) of the Georgia Department of Natural Resources has primary jurisdiction over air quality in the State of Georgia. The Proposed Action is located in the Jacksonville (FL)-Brunswick (GA) Interstate AQCR. The air quality in this region is designated as being in attainment for all criteria pollutants. Table 3-2 presents the primary and secondary NAAQS.

Table 3-2. National Ambient Air Quality Standards

Pollutant	Standard Value		Standard Type
Carbon Monoxide (CO)			
8-hour Average	9 ppm ^a	(10 mg/m ³) ^{b,c}	Primary & Secondary
1-hour Average	35 ppm	(40 mg/m ³) ^c	Primary
Nitrogen Dioxide (NO₂)			
Annual Arithmetic Mean	0.053 ppm	(100 µg/m ³) ^{b,d}	Primary & Secondary
Ozone (O₃)			
1-hour Average	0.12 ppm	(235 µg/m ³) ^e	Primary & Secondary
8-hour Average	0.08 ppm	(157 µg/m ³) ^e	Primary & Secondary
Lead (Pb)			
Quarterly Average		1.5 µg/m ³	Primary & Secondary
Particulate ≤ 10 microns (PM₁₀)			
Annual Arithmetic Mean		50 µg/m ³	Primary & Secondary
24-hour Average		150 µg/m ³	Primary & Secondary
Sulfur Dioxide (SO₂)			
Annual Arithmetic Mean	0.03 ppm	(80 µg/m ³) ^e	Primary
24-hour Average	0.14 ppm	(365 µg/m ³) ^e	Primary
3-hour Average	0.50 ppm	(1300 µg/m ³) ^e	Secondary

Notes: a ppm – parts per million

b Parenthetical value is an approximately equivalent concentration.

c mg/m³– milligrams per cubic meter.

d µg/m³– micrograms per cubic meter.

e 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, EPA estimated that the revised 8-hour ozone standard rules would be promulgated in 2003-2004. In the interim, no areas can be deemed to be definitively non-attainment with the new 8-hour standard.

Climate

The Jacksonville (FL)-Brunswick (GA) Interstate AQCR area is located in a humid climate and experiences moderately warm summers and warm winters. Precipitation remains moderate and fairly evenly divided throughout the year, with the exception of the fall when there is less precipitation. The average yearly high temperature is 64.2 °F (degrees Fahrenheit) and the average yearly low is 63.7 °F. Annual precipitation for Georgia is approximately 50.04 inches with the majority of the precipitation occurring from January to March. Table 3-3 presents the monthly temperature and precipitation data for Georgia.

Table 3-3. Local Climate Summary for the State of Georgia

Month	Mean Temperature (°F)	Median Precipitation (Inches)
January	46.79	4.33
February	49.08	4.50
March	56.07	5.13
April	63.40	3.80
May	71.24	3.62
June	77.68	4.50
July	79.98	5.63
August	79.35	4.95
September	74.80	3.96
October	64.69	2.79
November	54.92	2.88
December	47.83	4.05

Source: NOAA Fisheries 2003b

Note: Mean temperature and precipitation data obtained from average of 1895 to 2002.

3.4 Noise

3.4.1 Definition of the Resource

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 in marine mammals.

This section defines noise standards and methodology; discusses the impacts of noise on humans, marine mammals, and sea turtles; and describes the existing ambient sound level in the ROI (the mouth of the St. Marys River, Kings Bay, and the intercoastal waterway between St. Marys and Kings Bay and the Cumberland Island National Seashore). In order to understand the impact of noise on humans, marine mammals, and sea turtles it is necessary to understand the properties of noise in air and water and the existing ambient noise levels in the ROI.

Noise is customarily measured in decibels (dB) (a dB is defined as the ratio between a measured pressure and a reference pressure); it is a logarithmic unit that accounts for large variations in amplitude and is the accepted standard unit measurement of sound. The ambient sound level of a region is defined by the total noise generated, including sounds from both natural and artificial sources. The magnitude and frequency of environmental noise may vary considerably over the course of the day and throughout the week, due in part to changing weather conditions.

Above-water Noise

In order to evaluate the total community noise environment (above-water noise), two measurements are used by some Federal agencies to relate the time-varying quality of environmental noise to its known effect on people, the 24-hour equivalent sound level (Leq(24)) and the day-night sound level (DNL). The Leq(24) is the level of steady sound with the same total (equivalent) energy as the time-varying sound of interest, averaged over a 24-hour period. DNL is the average acoustical energy during a 24-hour period with a 10 dB penalty added to nighttime levels (i.e., hours between 10 p.m. and 7 a.m.) to account for people’s greater sensitivity to sound during nighttime hours. When measuring sound to determine its effects on the human population, A-weighted sound levels (dBA) are typically used to account for the response of the human ear. A-weighted sound levels represent adjusted sound levels. The adjustments are made according to the frequency content of the sound. Another sound scale is the C-weighted scale (dBC). In contrast to the A-weighted scale, the C-weighted scale provides no adjustment to the noise signal over most of the audible frequency range. The C-weighted scale is generally used to measure impulsive noise such as airblasts from explosions, sonic booms, and gunfire.

Underwater Noise

Underwater sound measurements are different from above-water sounds. Because of these differences in reference standards, noise levels cited in air do not equal underwater levels. The reference pressure used for underwater noise measurements is 1 micro-Pascal (μPA) at 1 meter (re $1\mu\text{PA-m}$), which is lower than that used for airborne sound measurements. In addition, underwater noise measurements typically do not have any frequency weighting applied (i.e., A-weighted or C-weighted), while airborne noise is often measured using one of several frequency weighting scales. In many cases, underwater noise levels are reported only for limited frequency bands, while airborne noise is usually reported as an integrated value over a very wide range of frequencies. To compare noise levels in water to noise levels in air, one must subtract 26 dB from the noise level referenced in water in order to account for the difference in reference pressure (USCG 2003d). For example, a supertanker that emits 164 dB in air (20 re $1\mu\text{PA-m}$) would sound more like 190 dB in water (1 re $1\mu\text{PA-m}$) (USCG 2003d).

Furthermore, because the mechanical properties of water differ from those of air, sound moves at a faster speed in water (1,500 meters per second [m/s]) than in air (about 340 m/s) (USCG 2003d). Temperature also affects the speed of sound, traveling faster in warm water than in cold water, which is very significant in some parts of the ocean. A lower frequency sound has a longer wavelength, and the wavelength of a sound equals the speed of sound in either air or water divided by the frequency of the wave. Therefore, a 20-Hertz (Hz) sound wave is 75 meters long in the water, whereas a 20 Hz sound wave in air is only 17 meters long (USCG 2003d).

Regulatory Framework for Noise and Standard Operating Procedures

USCG NEPA Implementing Procedures (COMDTINST M16475.1-D) require a discussion of the existing conditions in the surrounding communities, including noise regulations. EPA, the Department of Defense (DoD), and other Federal agencies having non-occupational noise regulations, use the DNL as their principal noise descriptor for community assessments (Cowan 1994).

The USCG Safety and Environmental Health Manual (COMDTINST M5100.47) establishes requirements for noise, which include compliance with local noise ordinances and the identification and assessment of hazardous noise sources. USCG defines a hazardous noise as continuous sound levels exceeding 84 dBA or impact noises exceeding 140 dBA. Noise produced by USCG watercraft or by other USCG facility activities should comply with USCG,

state, and local noise guidelines. Using Society of Automotive Engineers (SAE) J34 method, USCG recommends 86 dBA as the maximum noise-level that watercraft may generate at 50 feet at full speed (PWIA 2002).

EPA has determined 75 dBA at 50 feet as an acceptable noise level to protect public health and welfare (PWIA 2002). For analysis purposes of this EA, EPA standard will be used.

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). The State of Georgia, per State Code 52-7-10, requires the internal combustion engines of all water vessels to be muffled. The USCG would follow this regulation when applicable.

The USCG's *Reference Guide to State Boating Laws, 6th edition, 2000*, states that the State of Georgia does not have a maximum operational noise level for watercraft. Although the State of Georgia did not institute a maximum noise level, most states have established a maximum noise level operating range of 75 dBA to 90 dBA at 50 feet, which incorporates the SAE J-2005 (stationary test) and SAE J-1970 (shoreline test).

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 St. Marys, GA, has a general noise ordinance that prohibits any noise disturbance or noise in excess of approved levels (within residential areas). Another consideration for these sensitive areas is the density and zoning of the areas and the time of day the event occurs.

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. Human hearing varies in sensitivity for different sound frequencies. The ear is most sensitive to sound frequencies between 800 and 8,000 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, as described above.

Most people are exposed to sound levels of DNL 50 to 55 dB 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 DNL 65 dB (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. 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 G for further explanation on noise metrics).

Marine Mammal and Turtle Response to Noise

Increasing attention is being paid to the impacts of anthropogenic (human-generated) noise sources on marine mammals and sea turtles, especially those associated with the military, as these sources tend to be much louder and can be widespread (ONR 2000, Richardson et al. 1995). Both above-water (e.g., helicopters) and underwater (e.g., vessels) noise is recognized as a disturbance to marine mammals and sea turtles. 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 1,000 Hz. For most toothed cetaceans, pinnipeds, manatees, and sea birds, hearing is best at frequencies greater than 1,000 Hz (USCG 1996). Little is known about sea turtle hearing ability.

Marine mammals spotted in the ROI include: manatees (although rarely cited), and blue whales (as far south as Florida). Other species that may be encountered include the Minke whale and various dolphins and seals (USCG 2002e). There are six sea turtles found in the southeast and all are protected under the ESA. The five most common species are the green sea turtle, the loggerhead sea turtle (listed as threatened) and the hawksbill sea turtle, the Kemp's ridley, and the leatherback sea turtle (listed as endangered) (USCG 2003c). The nesting population of the federally threatened loggerhead sea turtle at Cumberland Island is one of the most significant along the Georgia Coast (NPS 2003). They are protected under the MMPA.

3.4.2 Affected Environment

The MSST personnel and RB-HS would be located at the St. Marys Police Department at 563 Point Peter Road. The ROI for the Proposed Action and the No Action Alternative is defined geographically as the mouth of the St. Marys River, the intercoastal waterway between St. Marys and Kings Bay, and Kings Bay. The MSST would operate a majority of the time in Kings Bay; the MSST would only operate in the intercoastal waterway while in transit from the boat ramp to

Kings Bay. Above-water ambient sound levels are not available for the ROI. Above-water 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).

Underwater Noise

Underwater ambient sound levels are not available for the ROI. Underwater noise in the ocean is a result of natural and human-generated sound sources. Natural sound sources include earthquakes, lightening strikes, sea ice activity, precipitation, and waves. 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 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).

Vessel size, hull construction, speed, maintenance, and other factors all affect the noise a vessel produces underwater. 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 to 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 to 200 dB-referenced 1 μ Pa at 1 meter. Small outboard motor vessels produce broadband sounds of 150 dB-referenced 1 μ Pa at 1 meter; these sounds are attenuated to the range of 85 to 140 dB-referenced 1 μ Pa 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 1 μ Pa at 1 meter or less (USCG 1996). Table 3-4 lists sound pressure source levels for various vessels (Richardson et al. 1995; USCG 1996).

Table 3-4. 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

Notes: These underwater sound pressure levels cannot be directly compared to airborne decibel levels.

db – decibel

μ Pa-meter – microPascal – meters

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 in a safe environment. 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 highly noisy environments. 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 processes 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 2002a). 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 MSST would be located at the St. Marys Police Station at 563 Point Peter Road. The ROI for the Proposed Action and the No Action Alternative is defined geographically as the mouth of the St. Marys River, the intercoastal waterway between St. Marys and Kings Bay, and Kings Bay. The MSST would operate a majority of the time in Kings Bay; the MSST would only operate in the intercoastal waterway while in transit from the boat ramp to Kings Bay. NSB Kings Bay is the only base of its kind on the east coast of the U.S. (GJDA 2003). NSB Kings Bay supports the Navy's submarine-launched ballistic missile program and is the only East Coast Naval base capable of supporting the Trident II missile (Kings Bay 2003).

4. Environmental Consequences

4.1 Introduction

This chapter will present the potential environmental impacts of the Proposed Action and the No Action Alternatives. The Proposed Action is the stand-up and operation of a Maritime Safety and Security Team (MSST) at St. Marys, GA. The MSST would consist of six Response Boats-Homeland Security (RB-HS) and approximately 71 active duty personnel and 33 reservists. Under normal operations, only two boats would be operating. The Region of Influence (ROI) for the Proposed Action and the No Action Alternative is defined geographically as the mouth of the St. Marys River, the intercoastal waterway between St. Marys and Kings Bay, and Kings Bay. The MSST would operate a majority of the time in Kings Bay; the MSST would only operate in the intercoastal waterway while in transit from the boat ramp to Kings Bay. The ROI includes Camden County. Under normal operations, this region encompasses the area where the MSST is expected to spend the majority of its operating time. An exception to normal operations would be an unusual occurrence (e.g., pursuit).

Currently, vessels and manpower are being diverted from other missions in order to provide the additional security for the nation's ports. The No Action Alternative fails to meet the Purpose and Need of the U.S. Coast Guard (USCG) mission. Under the No Action Alternative, disruption to other missions would continue to result in further strain on manpower and current assets. This scenario of vessels and manpower at maximum would possibly make it easier for a terrorist 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 population, impacting appropriate emergency responses, employment and trade, and marine life. The impacts could be immediate (e.g., loss of life) or long lasting (e.g., disruption of commerce activities that could impact the long-term economy). Recovery time would depend 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

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

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 on 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.

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 Marine Mammal Protection Act (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 impacts could result primarily from impacts to fish habitat, direct contact between USCG vessels, and enforcement of applicable fishing laws. Additional impacts may result from accidental pollution emissions.

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

- Overfishing resulting in the species' inability to survive
- Permanent loss of breeding areas, essential fish habitat (EFH) and/or habitat areas of particular concern (HAPC)
- Substantial interference with movement of any resident species or migration of anadromous species (i.e., species that migrate from saltwater to freshwater)

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' inability to survive
- Permanent loss of breeding areas and habitat
- Substantial interference with migration

4.2.2 Potential Impacts

Based on the analysis completed for this Environmental Assessment (EA), minor adverse impacts would be expected for biological resources. A detailed explanation of the analyses is below.

Protected and Sensitive Habitats

Proposed Action. Although the Cumberland Island National Seashore (CUIS) is in the ROI and Right Whale Critical habitat are located near (but not within) the ROI, the Proposed Action would not result in significant adverse impacts to protected and sensitive habitats. Proposed construction consists of the addition of a building to the parking lot of the St. Marys, GA Police Department at 563 Point Peter Road and internal renovation of the police headquarters building to create separate administrative and meeting rooms. Additionally, RB-HS would launch from existing boat ramps in previously disturbed areas. The proposed construction project would not impact these habitats.

While the purpose of the MSST is not to provide marine resource protection, laws relating to protected and sensitive habitats, including the Marine Protection, Research, and Sanctuaries Act; the Magnuson-Stevens Conservation and Management Act; the Oil Pollution Act; the Endangered Species Act (ESA), and USCG programs, Ocean Steward and Ocean Guardian, would continue to be enforced.

Additionally, based on the purpose of, and projected operations of, the MSST, normal patrol operations would not disturb these areas. An exception to normal operations would be in the case of an unusual occurrence (e.g., pursuit). Under a normal operational scenario, there would be no loss of sensitive habitats. Therefore, the Proposed Action would result in minor adverse impacts to sensitive or protected habitats.

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 demand on vessels and manpower and disruption to other missions would continue. Under this scenario, it would possibly be easier for a terrorist attack on military and commercial assets to occur. Significant adverse impacts would be expected should this alternative be selected due to the increased risk of a terrorist attack and the potential for significant adverse effects to protected and sensitive habitats. Recovery would depend on the extent and type of damage.

Wetlands and Floodplains

Proposed Action. The stationing and operations conducted by the MSST would not result in major adverse effects to wetlands, floodplains, and barrier islands. Proposed construction consists of the addition of a building in the parking lot of the St. Marys, GA Police Department

and internal renovation of the police headquarters building to create separate administrative and meeting rooms. There are no wetlands on or adjacent to the area proposed for construction. Additionally, RB-HS would primarily launch from the public ramp in St. Marys or at existing boat ramps in previously disturbed areas. Estuarine wetlands and barrier islands would not be used during MSST operations. Due to the shallow water depth in these areas, MSST boats would not be able to operate in the area. Operations in proximity to estuarine wetland areas would be conducted at low speeds due to the shallow nature of the water and the high likelihood of submerged obstacles. Modifications to the floodplain area are not proposed (Tinsley 2003). None of the permits listed in Section 3.2.1 would be required for this action. Therefore, there would be minor adverse impacts to wetlands or floodplains as a result 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 a terrorist attack on the port to occur or an attack that might impact wetlands and floodplains. Significant adverse impacts would be expected should this alternative be selected due to the increased risk of a terrorist attack and the potential for significant adverse effects due to the potential for loss of wetlands and floodplains and their unique ecosystems. Recovery would depend on the extent and type of damage.

Marine Mammals

Proposed Action. Although several species of marine mammals are known to occasionally utilize St. Marys River and Kings Bay, the stationing and operations conducted by the MSST would not result in more than minor adverse impacts to these species. Additionally, RB-HS would not operate in Right Whale Critical Habitat during normal operations. An exception to normal operations would be in the case of an unusual occurrence (e.g., pursuit).

The USCG has protocols in place for protecting the right whale and other marine mammals and sea turtles. Strategies the USCG uses to reduce right whale ship strikes are discussed in the Atlantic Protected Living Marine Resources Initiative (APLMRI) Environmental Impact Statement (EIS). These strategies allow for right whale monitoring, as well as for generally protecting and conserving marine animals and their habitats. The APLMRI EIS includes protocols and collaborations with various Federal and state agencies to implement major actions, including the Federal Right Whale Recovery Plan (USCG 2003a). The USCG's current

Commandant Instructions (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 USCG living marine resources protection programs, initiatives, and guidance.

Recently, the U.S. Navy, Kings Bay, published instructions to all vessels (military and civilian) that established ‘no access areas’ and speed limitations within specific areas in Kings Bay in order to protect manatees. The MSST would adhere to these instructions except in case of emergency.

The RB-HS are designed to be highly maneuverable, which would assist them in avoiding collisions with marine mammals. To guard against any adverse impacts of the RB-HS operation on marine mammals, 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 H). 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 RB-HS and their operations would not result in more than minor adverse impacts to marine mammals.

Agency correspondence regarding threatened and endangered species, Endangered Species Act (ESA) Section 7(a)(2) consultation, and other sensitive species protected under the MMPA is provided in Appendix D. In a letter dated December 16, 2003, NOAA Fisheries concluded that the project would have no effect on listed species or critical habitat protected by the ESA under NOAA Fisheries’ purview and that no further consultation is required pursuant to Section 7(a)(2) of the ESA.

No Action Alternative. Under the No Action Alternative, existing conditions would remain as is and the MSST would not be established. 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 a terrorist attack on the port to occur or an attack that could spread from the port to areas frequented by marine mammals. Significant adverse impacts would be expected should this alternative be selected due to the increased risk of a terrorist attack and the potential for significant adverse effects on marine mammals. Recovery would depend on the extent of loss.

Sea Turtles

Proposed Action. Although five species of sea turtles are known to occasionally utilize St. Marys River and Kings Bay, the stand-up and operations conducted by the MSST would not result in more than minor adverse impacts to these species. An exception to these normal operations would be in the case of an unusual occurrence (e.g., pursuit). The USCG's current COMDTINSTs, regulations, and procedures to avoid protected species 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.

The RB-HS are designed to be highly maneuverable which would assist them in avoiding collisions with protected sea turtles. To guard against any adverse impacts of the RB-HS 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 H) and the U.S. Navy's instructions regarding manatees in Kings Bay. 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 RB-HS and their operations would not result in more than minor adverse impacts to sea turtles. Additionally, proposed onshore construction would not alter sea turtle nesting habitat or impact nesting sea turtles. Agency correspondence regarding threatened and endangered species and ESA Section 7(a)(2) consultation is provided in Appendix D. In a letter dated December 16, 2003, NOAA Fisheries concluded that the project would have no effect on listed species or critical habitat protected by the ESA under National Oceanic and Atmospheric Administration Fisheries Service (NOAA Fisheries) purview and that no further consultation is required pursuant to Section 7(a)(2) of the ESA.

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 a terrorist attack on the port to occur or an attack that could spread from the port to areas frequented by sea turtles. Significant adverse impacts would be expected should this alternative be selected due to the increased risk of a terrorist attack and the potential for significant adverse effects on 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 not result in more than minor adverse impacts to EFH or fisheries. The proposed construction consists of the addition of a building in the parking lot of the St. Marys Police Department and would not impact fish habitat. RB-HS would launch from existing boat ramps in previously disturbed areas. While the purpose of the MSST is not to provide marine resources protection and law enforcement, the USCG would continue to enforce a number of fishing and fisheries laws. In addition, USCG has developed its own initiatives to protect fisheries and their habitat. As such, the Proposed Action would not result in greater than minor adverse impacts to EFH or HAPC.

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 a terrorist attack on the port to occur. Significant adverse impacts would be expected should this alternative be selected due to the increased risk of a terrorist attack or an attack that might result in a loss or degradation of fishing areas. The potential for loss of EFH and fish species would also indirectly impact the nation's economy by impacting commercial fisheries. Recovery would depend on the amount and extent of loss. Agency correspondence regarding EFH is provided in Appendix D. In a letter dated November 25, 2003 NOAA Fisheries concluded that direct and long-term impacts to EFH would be limited and unavoidable impacts could be minimized via operational and other safeguards.

Coastal and Other Birds

Proposed Action. While several species of threatened, endangered, coastal, and migratory birds are known to occur and nest within the ROI, neither the stationing site nor the launch sites provide suitable habitat for these bird species. The MSST normal operations would not be within nesting and foraging habitat for threatened, endangered, coastal, or migratory birds. It is anticipated that only temporary, minor adverse impacts, if any, might occur. Agency correspondence regarding endangered or threatened species and Section 7(a)(2) ESA consultation is provided in Appendix D.

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 a terrorist attack on the port to occur or an attack that might impact birds' habitats. Significant adverse impacts would be expected should this alternative be selected due to the increased risk of a terrorist attack, with the potential for significant adverse impacts to threatened, endangered, coastal, and migratory birds. Recovery would depend on the amount and extent of loss.

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 NAAQS "attainment" areas are considered significant if the net changes to 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)

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 Code of Federal Regulations [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 New Source Review (NSR) and PSD regulations (40 CFR 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.

Based on the analysis completed for this Environmental Assessment (EA), minor adverse impacts to air quality would be expected. However, the net change in nitrogen oxide (NO_x) and volatile organic compound (VOC) emissions would be minimal and well below the 10 percent regional significance requirements of the General Conformity Rule. A detailed explanation of the analyses is below.

Watercraft Operations

Proposed Action. The vessels and engines to be used for the RB-HS must meet specific requirements of the MSST, including the capability of sustaining speeds of 40+ knots in calm seas. The proposed engines would be the Honda 225 horsepower engines. These four-stroke engines would meet the speed requirements of the USCG and would fulfill U.S. Environmental Protection Agency (EPA) 2006 emission requirements. The Proposed Action was assessed based on impacts to the AQCR current emissions inventory.

Under the Proposed Action, a minor impact to air quality would be realized. Calculations of air pollutant emissions from the proposed watercraft operations were performed based on two boats operating 24 hours a day, 365 days a year, at approximately 20 horsepower (see Appendix I).

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. Under this alternative, disruption to other missions would continue. This scenario of vessels and manpower at maximum capacity would possibly be easier for a terrorist attack to occur. Significant adverse impacts would be expected should this alternative be selected due to the increased risk of a terrorist attack. Terrorists could strike at military or commercial facilities in the ROI creating the potential for impacts to the environment. The impacts could be immediate or long lasting. Recovery time would depend on the severity and extent of the impact.

Personnel Commuter Travel

Proposed Action. The number of additional personnel is comparatively small (71 active duty and 33 reservists) and would result in minor adverse impacts to air quality. Calculations of air pollutant emissions from the proposed personnel commuter travel operations, commuting an average of 20 miles each way to the St. Marys MSST facility, 365 days a year (see Appendix I), were performed based on an average fleet model from 1995.

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. Under this alternative, disruption to other missions would continue. This scenario of vessels and manpower at maximum capacity would possibly make it easier for a terrorist attack to occur. Significant adverse impacts would be expected should this alternative be selected due to the increased risk of a terrorist attack. Terrorists could strike at military or commercial facilities in the ROI 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, minor maintenance would be performed at the police facility. As the boat engines are under a three-year maintenance agreement, all major maintenance would occur at 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 construction of a building at the St. Marys Police Department) would 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 to be insufficient. Under this alternative, disruption to other missions would continue. This scenario of vessels and manpower at maximum capacity would possibly make it easier for a terrorist attack to occur. Significant adverse impacts would be expected should this alternative be selected due to the increased risk of a terrorist attack. Terrorists could strike at military or commercial facilities in the ROI creating the potential for impacts to the environment. The impacts could be immediate or long lasting. Recovery time would depend on the severity and extent of the impact.

Fuel Storage and Handling Emissions

Proposed Action. No new fuel storage or dispensing facilities would be required under the Proposed Action. RB-HS would 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 at maximum capacity would possibly make it easier for an attack to occur. Significant adverse impacts would be expected should this alternative be selected due to the increased risk of a terrorist attack. Terrorists could strike at military or commercial facilities in the ROI 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 depend on the severity and extent of the impact.

Conformity

The Federal General Conformity Rule (40 CFR 93) is not applicable to the Proposed Action, since there are no EPA-designated non-attainment areas affected. However, an analysis has been completed to ensure that, given the changes in direct and indirect emissions of the ozone (O₃) precursors (nitrogen oxide [NO_x] and volatile organic compounds [VOCs]), particulate matter less than 10 microns (PM₁₀), and carbon monoxide (CO), the Proposed Action would be in conformity with applicable Clean Air Act (CAA) requirements. For purposes of determining conformity in this attainment area, projected regulated pollutant emissions associated with the Proposed Action were estimated using available construction emissions and other non-permitted emission source information. The emission calculations are collectively presented in Appendix I.

Based on the emission calculations and analyses completed for the Proposed Action, it is clear that the net change in NO_x and VOC emissions would be minimal and well below the 10 percent 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).

Table 4-1 presents total air quality emissions from the Proposed Action.

Table 4-1. USCG MSST – St. Marys Emissions from Proposed Action

Vehicle Category	VOC Emissions (tpy)	NO _x Emissions (tpy)	CO Emissions (tpy)	SO _x Emissions (tpy)	PM ₁₀ Emissions (tpy)
Watercraft Operations	6.33	2.77	27.68	0.25	0.26
Commuter and Tow Vehicles	1.30	1.13	15.84	0.08	1.09
Total Emissions:	7.63	3.90	43.52	0.33	1.35

Note: tpy – tons per year

Table 4-2 compares the Proposed Action emissions to the total Jacksonville (FL)-Brunswick (GA) Interstate AQCR emissions inventory.

Table 4-2. Net Emissions for Jacksonville (FL)-Brunswick (GA) Interstate AQCR Under the Proposed Action

Net Emissions Changes for Jacksonville (FL)-Brunswick (GA) Interstate AQCR under the Proposed Action					
FL-GA AQCR	VOC	NO _x	CO	SO ₂	PM ₁₀
Jacksonville (FL)-Brunswick (GA) Interstate AQCR Inventory (tpy)	185,085	237,745	1,244,517	152,369	201,615
Proposed Action Net Change (tpy)	7.63	3.90	43.52	0.33	1.35
Percent (%) of Jacksonville (FL)-Brunswick (GA) Interstate AQCR Inventory	0.0041%	0.0016%	0.0035%	0.0002%	0.0007%

Source: EPA 1999

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 establishes

guidelines and develops cooperative agreements to mitigate impacts on neighboring communities. 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. USCG activities are operated in accordance with all Federal and state laws and local ordinances.

Noise impact criteria normally are based on a combination of land use compatibility guidelines and factors related to duration and magnitude of the noise level, including the time of day and the conduct of operations. The RB-HS is equipped with two 225 hp four-stroke engines which would be used for the Proposed Action. 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.

Above-Water Noise

The significance of above-water noise impact criteria normally is based on a combination of land use compatibility guidelines and factors related to duration and magnitude of the noise level, including the time of day and the conduct of operations. EPA has determined DNL 75 dB at 50 feet as an acceptable noise level to protect public health and welfare (PWIA 2002).

Underwater Noise

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

- 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
- Substantial interference with movement of any resident species

4.4.2 Potential Impacts

The Proposed Action would result in minor adverse noise impacts to human health and welfare under normal operating conditions. A detailed description of the analysis is presented below.

Above-Water Noise

Proposed Action. The Proposed Action would result in minor adverse noise impacts to human health and welfare under normal operating conditions. It is anticipated that the MSST would operate 12 hours a day, seven days per week and that there would be two boats operating at any given period. All operations of the MSST would be in accordance with all Federal and state laws and local noise ordinances.

The ROI is a large geographic area off the coast of Georgia. Airborne noise impacts from marine vessel operations is rarely an issue of concern because the majority of the population lives near waterways and have become familiar with the sound of passing boats and ships. Speeds in the waterways would be expected to continue to be generally low (10 to 12 knots) except during an unusual event (i.e., pursuit). It is anticipated that the proposed USCG operation within the ROI would be indistinguishable from existing vessel activity and the ambient noise environment. Noise impacts during unusual events would be minor adverse within the ROI dependent upon the specific location of the unusual event to a sensitive noise receptor.

Additionally, the RB-HS would be equipped with the quieter four-stroke engine (compared to the two stroke engine). This is likely because of the incorporation of muffling devices into design and the reduced number of combustion cycles (Evinrude 2002).

Minor noise impacts may result from the construction of the storage and maintenance facility at St. Marys Police Department. These impacts would only persist during construction of the facility and thus would be short-term in nature.

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. Under this alternative, disruption to other missions would continue. This scenario of vessels and manpower at maximum capacity would possibly make it easier for an attack to occur. Significant adverse impacts would be expected should this alternative be selected due to the increased risk 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.

Underwater Noise

Proposed Action. Cetacean (whale) reaction to boat traffic varies by species and, within species, according to their current behavior patterns and previous experience. Toothed whales and dolphins show tolerance of vessel traffic. Many dolphin species are attracted to vessels, and spend periods of time following them or swimming within these vessels' bow pressure waves, apparently to reduce energetic costs of swimming (USCG 2002c). Resting dolphins tend to avoid boats, foraging dolphins ignore boats, and socializing dolphins may approach the vessels (Richardson et al. 1995). It is known that bottlenose dolphins inhabit channels in many areas that

are used by vessels including large tankers as well as small pleasure craft (USCG 2002c). In Mexico, bottlenose dolphins exposed to frequent boat traffic exhibited little discernable reaction unless the boat approached within five miles of the animal (USCG 2002c).

The most likely effects of noise on sea turtles would be short-term behavioral changes such as diving and evasive swimming, disruption of activities, or departure from the area of disturbance. Areas with heavy vessel traffic may be avoided by sea turtles, although generally most species appear to exhibit some tolerance to noise.

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 Kings Bay and the RB-HS would be equipped with the quieter four-stroke engines (compared to the two stroke engine). It is anticipated that the proposed USCG operation within the ROI would be indistinguishable from existing vessel activity and the ambient noise environment. Disturbance from USCG vessels would be transient and, should not significantly impact marine mammals and sea turtles (USCG 1996). Therefore, it is unlikely that the increased noise from the RB-HS would result in minor, adverse impacts to manatees, blue whales, Minke whales or other marine mammals that occur in the area, or the green, loggerhead, hawksbill, Kemp's ridley, or leatherback sea turtles.

The USCG has protocols in place for protecting the right whale and other marine mammals and sea turtles. While the purpose of the MSST is not to provide marine resource protection and law enforcement, the MSST would continue to comply with USCG living marine resources protection programs, initiatives, and guidance.

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. Under this alternative, disruption to other missions would continue. This scenario of vessels and manpower at maximum capacity would possibly make it easier for a terrorist attack to occur. Significant adverse impacts would be expected should this alternative be selected due to the increased risk of a terrorist attack. Terrorists could strike at military facilities in the ROI 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

Impacts to public safety would be significant if the Proposed Action were to substantially increase risks associated with the safety of Navy or USCG personnel (including MSST personnel), workers or visitors, or the local community, or substantially hinder the ability to respond to an emergency. Furthermore, if implementation of the Proposed Action would result in incompatible land use with regard to safety criteria, impacts to safety would be significant. It is extremely difficult to determine the level of significance and degree of impact from 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

Based on the analysis completed for this EA, beneficial impacts would be expected to public safety. The establishment of the MSST would provide additional security to the military and commercial assets in the ROI. A detailed explanation of the analyses are below.

Proposed Action. The Proposed Action would increase the USCG's ability to protect critical domestic ports, NSB Kings Bay, and the U.S. Maritime Transportation System from warfare and terrorist attacks. 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.

The MSST's operations would closely parallel USCG traditional port security operations, but would provide complementary, non-redundant capabilities that would be able to close significant readiness gaps in our nation's strategic ports. The MSST would escort a variety of vessels and maintain specific security zones. It is capable of operating seven days a week, 24 hours a day, in all weather conditions. It would operate with and be supported by both military and civilian government organizations and commercial and non-governmental entities. Beneficial impacts may be reasonably expected from the Proposed Action.

No Action Alternative. Under the No Action Alternative, the USCG would continue to provide 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 St. Marys area under unusual circumstances. Under this alternative, disruption to other missions would continue. This scenario of vessels and manpower at maximum capacity would possibly make it easier for an attack to occur. Significant adverse impacts would be expected should this alternative be selected due to the increased risk of a terrorist attack. Terrorists could strike at military or commercial facilities in the ROI 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.

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 Code of Federal Regulations [CFR] 1508.7). Cumulative impacts can result from individually minor but collectively significant impacts occurring over time.

This cumulative impact analysis considers reasonably foreseeable programs, projects, or policies that may impact Maritime Safety and Security Teams (MSST) operations, add to the MSST operations, or create a significant impact in the ROI. For the purposes of this Environmental Assessment (EA), only one project was identified in Section 3 that may be impacted by the Proposed Action and was carried over into the Cumulative Impacts discussion. Information about ongoing and future projects and programs has been identified from web searches, other National Environmental Policy Act (NEPA) documents, and local newspaper articles.

5.2 Cumulative Impacts Analysis

During research for this EA, only one project was identified that might impact the stand-up and operations of the MSST. The Cumberland National Seashore Draft Environmental Impact Statement (DEIS) identifies programmatic changes to the operations of the Cumberland Island National Seashore; one of these changes includes an increase of ferry trips to the island. Currently the ferry conducts two trips per week October through February and seven trips per week the remainder of the year. Each ferry carries a maximum of 150 visitors. However, this increase in ferry traffic (and visitors) is dependent upon funding to add to and modify existing concession and other facilities on the island.

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6. List of Preparers

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APPENDIX A

INTERESTED PARTY LETTER



16475
SEP 30 2003

Dear Interested Party:

The U.S. Coast Guard (USCG) is announcing its intent to prepare Environmental Assessments (EA) of the establishment of Maritime Safety and Security Teams (MSSTs) (one each) in Staten Island, NY and St. Mary's, GA. 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 two MSSTs are being established to increase the USCG's ability to protect critical domestic ports and the U.S. Maritime Transportation System from illegal activity, sabotage, and other subversive acts including terrorism. While the MSSTs' operations will closely parallel USCG traditional port security operations, they also will provide complementary, non-redundant capabilities that will be able to close significant readiness gaps in our nation's strategic ports. Should the USCG stand up MSSTs in other critical ports around the country, additional NEPA analysis would be prepared for any future ports, as necessary.

The EAs will address the overall environmental impacts of establishing and operating each of the two MSSTs including the implementation of minor shore side infrastructure support to accommodate MSST personnel and equipment and the operation of six new Response Boats-Homeland Security (RB-HS) in each of the above-mentioned ports. 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 USCG. You are invited to submit comments by October 20, 2003 using only one of the following means:

- (1) By mail to:
Headquarters, U.S. Coast Guard
Captain Kevin Quigley
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

In choosing among the above means for submitting your comments, please give due regard to the 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 USCG will consider all comments received by October 20, 2003 in the development and completion of each EA.

Sincerely,

K. G. QUIGLEY
Captain, U.S. Coast Guard
Chief, Office of Defense Operations

**ENVIRONMENTAL ASSESSMENT (EA) OF THE
ESTABLISHMENT OF MARITIME SAFETY AND SECURITY TEAMS (MSSTs)**

New York, NY and St. Mary's, GA

Background

On November 25, 2002, the President signed into law the Homeland Security Act of 2002, P.L. 107-296, which creates the new Department of Homeland Security (DHS). Under this legislation, the USCG was transferred from the Department of Transportation to the DHS. In the wake of the events of September 11, 2001, emerging threats to the U.S. homeland has prompted an increased USCG focus on protecting domestic ports and the U.S. Maritime Transportation System from warfare and terrorist threats.

Maritime Safety and Security Teams

The USCG's answer is Maritime Safety and Security Teams (MSSTs). MSSTs are specifically organized, trained, and equipped to counter current and emerging threats to our nation's seaports. While other solutions are underway or being considered, the stand-up (establishment and operations) of the MSSTs at New York, NY and St. Mary's, GA are the actions that will be considered in these Environmental Assessments.

Each MSST will consist of 71 active duty personnel and 33 reserve personnel (these will consist of mostly reassigned personnel although there may be some new personnel as well), support buildings for personnel, and six Response Boats-Homeland Security (RB-HS) for each MSST. All six RB-HSs can, but will not necessarily, be operating at once. RB-HSs are 25-foot boats with outboard engines. They are highly maneuverable, capable of quickly reaching and sustaining high speeds (in excess of 40 knots), and can carry three crewmembers, plus an additional seven passengers. The RB-HSs are equipped with radar, depth sounder, differential Global Positioning System (DGPS), and defensive weaponry. When not in use, RB-HSs are capable of being placed on trailers.

MSSTs will normally conduct operations in protected waters such as a harbor or port. Our seaports are a vital hub and central to our nation's defense and economic security. Considerable critical infrastructure, and thousands of commercial and military ships located in our seaports move over 90 percent of America's foreign trade and military cargo to overseas locations. MSSTs will provide a dedicated force focused on mastering the advanced tactics, techniques and procedures associated with port security and defense missions in ports that are also engaged in legitimate commercial and recreational activities. These advanced skills and specialized capabilities required the development of a new capability, the MSST, which is specifically organized, trained, and equipped to counter current and emerging threats to our nation's seaports. 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, USCG cutter, and USCG or other military aircraft worldwide. MSST personnel will be employed for operations consistent with training and readiness. In summary, the MSST will:

- Augment a USCG Group or the Captain of the Port (COTP) as a force multiplier; enhancing 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.

Location

Each MSST will be located at or near an existing USCG Group 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 protection, the amount and type of cargo and the concentration of critical Department of Defense facilities. Additional ports are currently being evaluated.

Co-locating MSSTs with or near existing USCG Groups 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. The use of existing facilities will be maximized as much as possible to house MSST personnel during working hours (e.g., leasing existing facilities, renovating existing buildings, etc.). We anticipate that the housing for MSST personnel will be leased and based in the nearby area.

Staten Island, NY

The NY MSST would be homeported at Station New York and personnel would be located in a National Park Service building at Fort Wadsworth. The MSST would include the implementation of minor shore side infrastructure support to accommodate MSST personnel and equipment. The RB-HS would operate in New York Bay, Newark Bay, Jamaica Bay, Arthur Kill, Kill Van Kull, the Hudson River to West Point, and the East River to Long Island Sound.

St. Mary's GA

The St. Mary's MSST would be homeported in St. Mary's GA. The MSST would include the implementation of minor shore side infrastructure support to accommodate MSST personnel and equipment. The RB-HSs and personnel would be located at the St. Mary's Police Station at 563 Point Peter Road. The RB-HS would operate in the mouth of the St. Mary's River and Kings Bay.

APPENDIX B

INTERESTED PARTY MAILING LIST

**MSST 91106 – ST. MARY’S, GA
INTERESTED PARTY MAILING LIST**

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U.S. Department of the Interior
Office of Environmental Policy and Compliance
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Washington, DC 20240

Mr. A. Forester Einarsen
NEPA Coordinator
U.S. Army Corps of Engineers
Office of Environmental Policy (CECW-AR-E)
20 Massachusetts Avenue
Washington, DC 203141000

Ms. Anne Norton Miller
Director
U.S. Environmental Protection Agency
Office of Federal Activities
Federal Liason Division, 2251-A
401 M Street, SW
Washington, DC 20460

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

Head, Environmental Planning & NEPA Compliance
Office of Chief of Naval Operations/N456
Dept. of the Navy, US Dept. of Defense
Crystal Plaza 5, Room 680
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Heinz Mueller
Environmental Review Coordinator
U.S. Environmental Protection Agency Region 4
Sam Nunn Atlanta Federal Center
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Atlanta, GA 303033104

Mr. Keith Taniguchi, Chief
U.S. Fish and Wildlife Service Region 4
Division of Habitat Conservation
1875 Century Blvd., Suite 200
Atlanta, GA 30345

Mr. Kenneth O. Burris, Jr.
Regional Director
Federal Emergency Management Agency Region 4
3003 Chamblee-Tucker Rd.
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Dr. Roy Crabtree
Regional Administrator
National Marine Fisheries Service
Southeast Regional Office
9721 Executive Center Drive North
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Commanding Officer
U.S. Coast Guard
Maritime Safety and Security Team 91108
563 Point Peter Road
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Honorable Zell Miller
Senator
State of Georgia
257 Dirksen Senate Office Building
Washington, DC 20510

Honorable Jack Kingston
Congressman
State of Georgia, 1st District
2242 Rayburn House Office Building
Washington, DC 20515

Honorable Sonny Perdue
Governor of Georgia
State of Georgia
203 State Capitol
Atlanta, GA 30334

Mr. Lonice C. Barrett
State Historic Preservation Officer
Georgia Historic Preservation Division/DNR
156 Trinity Avenue, SW, Suite 101
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Director
Georgia Department of Natural Resources
Wildlife Resources Division
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Social Circle, GA 30025

Ms. Susan Shipman
Director
Georgia Department of Natural Resources
Coastal Resources Division
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Mr. James Setser
Chief, Program Coordination Branch
Georgia Department of Natural Resources
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Atlanta, GA 30334

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Mayor
City of St. Mary's
202 Barkentine Drive
St. Mary's, GA 31558

Mr. Jim Wilson
Deputy Chief
St. Mary's Police Department
563 Point Peter Road
St. Marys, GA 31558

Chief
Camden County Fire Rescue Department
125 N. Gross Road
Kingsland, GA 31548

Mr. Robby Horton
Fire Chief
St. Mary's Fire Department
201 N. Dandy Street
St. Mary's, GA 31558

Sheriff
Camden County Sheriff's Office
P.O. Box 698
Woodbine, GA 31569

Ms. Nancy Stasinis
Chairman of the Board of Directors
Camden/King's Bay Area Chamber of Commerce
2603 Orbourne Road, Suite R
St. Mary's, GA 31558

Camden County Department of Planning and Building
1411 Highway 40 East, Suite 3
Kingsland, GA 31548

Wiley King
City of St. Mary's Planning Department
418 Osborne Street
St. Mary's, GA 31558

Council on American Indian Concerns
2 Martin Luther King, Jr. Drive, Suite 1352
Atlanta, GA 30334

Georgia Tribe of Eastern Cherokee
P.O. Box 915
Cumming, GA 30028

Chief, Endangered Species
U.S. Fish and Wildlife Service
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Portsmouth, VA 23703

RADM Sally Brice-O'Hara
Commander, Fifth District
U.S. Coast Guard
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Portsmouth, VA 23704

Facility Engineer
U.S. Coast Guard
CEU Providence
300 Metro Center Blvd
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APPENDIX C

NEWSPAPER ANNOUNCEMENT

PUBLIC NOTICE

Environmental Assessment for Maritime Safety Security Team (MSST) US Coast Guard

The United States Coast Guard (USCG) is announcing its intent to prepare an Environmental Assessment (EA) for the establishment of Maritime Safety and Security Team in St. Marys, GA. 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. The MSST is being established to increase the USCG's ability to protect critical domestic ports and the U.S. Maritime Transportation System from illegal activity, sabotage, and other subversive acts including terrorism. In addition to the St. Marys MSST mentioned above, the USCG is planning to stand up additional 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 the St. Marys MSST including the implementation of minor shore side infrastructure support to accommodate MSST personnel and equipment and the operation of approximately 6 new Response Boats-Homeland Security (RB-HS). The RB-HSs would be homeported at St. Marys, GA. The boats and personnel would be located at the St. Marys Police Station at 563 Point Peter Road. The RB-HS would operate in the mouth of the St. Marys River and Kings Bay. Public input is important in the preparation of these EAs. Your concerns and comments regarding the implementation of this MSST and the possible environmental impacts are important to the USCG. You are invited to submit comments by October 20, 2003 using only one of the following means:

- (1) By mail to:
Headquarters, U.S. Coast Guard
Captain K.G. Quigley
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.

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 USCG will consider all comments received by October 31, 2003 in the development and completion of each EA.

APPENDIX D

**RESPONSES TO INTERESTED PARTY LETTER AND
AGENCY CORRESPONDENCE**

U.S. Department of
Homeland Security

United States
Coast Guard



Commandant
United States Coast Guard

2100 Second Street, S.W.
Washington, DC 20593-0001
Staff Symbol: G-OPD
Phone: (202) 267-2039
Fax: (202) 267-4278

16475

OCT 30 2003

Mr. Greg Krakow
Georgia Natural Heritage Program
2117 US Hwy 278 SE
Social Circle, Georgia 30025

Subject: Environmental Assessment of the Establishment and Operation of a Maritime Safety and Security Team in St. Marys, Georgia

Dear Mr. Krakow:

The U.S. Coast Guard (USCG) is preparing an Environmental Assessment (EA) for the establishment and operation of a Maritime Safety and Security Team (MSST) in St. Marys, Georgia. Preparation of the EA is being conducted in accordance with the National Environmental Policy Act (NEPA) of 1969 (Section 102[2][c]) and its implementing regulations, 40 Code of Federal Regulations, Part 1500. The MSST is being established to increase the USCG's ability to protect critical domestic ports and the U.S. Maritime Transportation System from illegal activity, sabotage, and other subversive acts including terrorism. While the MSST's operations will closely parallel USCG traditional port security operations, it also will provide complementary, non-redundant capabilities that will be able to close significant readiness gaps in our nation's strategic ports.

The EA will address the overall environmental impacts of establishing and operating the MSST including the implementation of minor shore side infrastructure support to accommodate MSST personnel and equipment and the operation of six new Response Boats-Homeland Security (RB-HS) in St. Marys, Georgia. It is anticipated that two to four boats will be operating at any one time, although all 6 may be necessary under specific threat scenarios.

Enclosed for your review is a brief description of the Proposed Action (including figures showing the locations). In order to fully assess the potential impacts associated with the Proposed Action on state species of concern we are requesting a list of species of concern that occur within the region of influence (ROI) and a list of any additional concerns that the Georgia Natural Heritage Program may have regarding the potential impacts of the Proposed Action on state-listed species.

We will also consult with the U.S. Fish and Wildlife Service and NOAA Fisheries Protected Resources Division regarding the presence of threatened and endangered species under their jurisdiction and NOAA Fisheries' Habitat Conservation Division regarding essential fish habitat within the ROI.

We look forward to working with your office on this project. Please send any comments/correspondence to the USCG through one of the following methods:

- (1) By mail to:
Headquarters, U.S. Coast Guard
Captain Kevin Quigley
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

Thank you for your assistance. If you have questions about the proposed establishment of the MSST or about the EA, please contact Ms. Kebby Kelley at (202) 267-6034.

Sincerely,



K.G. QUIGLEY
Captain, U.S. Coast Guard
Chief, Office of Defense Operations

Encl as stated



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
9721 Executive Center Drive North
St. Petersburg, Florida 33702-2432

November 25, 2003

Captain Kevin Quigley
Chief, Office of Defense Operations (G-OPD)
U.S. Coast Guard
Room 3121
2100 Second Street, S.W.
Washington, D.C. 20539

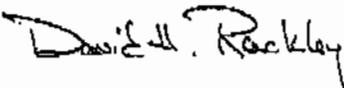
Dear Captain Quigley:

The National Marine Fisheries Service (NOAA Fisheries) has reviewed your letter dated October 30, 2003, concerning plans by the U.S. Coast Guard to prepare an Environmental Assessment (EA) for the Establishment and Operation of a Maritime Safety and Security Team in St. Marys, Camden County, Georgia. According to your letter, a preliminary determination has been made that the proposed action will not adversely impact Essential Fish Habitat (EFH) and that EFH Consultation is not required at this time. Furthermore, any potential impacts to EFH will be fully addressed in the EA.

Based on the limited information provided to us, it appears that direct and long-term impacts to EFH would be limited and any unavoidable impacts could be minimized through operational and other safeguards. In view of this, we do not have specific comments or recommendations to provide at this time. Since you also intend to comply with provisions of the Endangered Species Act of 1973, as amended, via the EA, you may wish to coordinate with our Protected Resources Division at the letterhead address. The appropriate contact person for that office is Ms. Georgia Cranmore, Assistant Regional Administrator for Protected Resources.

Should you need additional assistance in this matter, please contact Mr. David Rackley, at our Charleston Field Office. He may be contacted at 219 Fort Johnson Road, Charleston, South Carolina 29412-9110, or at (843) 762-8574.

Sincerely,


Miles M. Croom
Assistant Regional Administrator
Habitat Conservation Division





APPENDIX E

**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.



APPENDIX F

SUMMARY TABLE OF ENVIRONMENTAL REGULATIONS, LAWS, AND EXECUTIVE ORDERS

Table F-1. Applicable Regulations, Laws, and Executive Orders

Executive Orders	
<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.
<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.
<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.
<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.
<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.
<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.
<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.

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

Executive Orders	
<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.
<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.
<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.
<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.
<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.
<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.
<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.

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

Executive Orders	
<i>Archaeological Resources Protection Act of 1979, 16 U.S.C. 470 et seq., P.L. 96-95</i>	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.
<i>Clean Air Act, 42 U.S.C. 7401-7671q, July 14, 1955, as amended</i>	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.
<i>Coastal Zone Management Act of 1972, 16 U.S.C. 1451-1464, P.L. 92-583</i>	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.
<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>	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.
<i>Department of Transportation Act, Section 4(f)</i>	Requires the Department of Transportation (DOT) to avoid or mitigate impacts to public parks and wildlife areas when approving transportation programs or projects.
<i>Endangered Species Act of 1973, as amended, 16 U.S.C. 1531 et seq., P.L. 93-205</i>	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.

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

Executive Orders	
<i>Federal Property and Administrative Services Act of 1949</i>	Guides the process for transferring government property.
<i>Federal Records Act</i>	Requires Federal agencies to preserve Federal records of potential historic value.
<i>Federal Water Pollution Control Act (Clean Water Act), 33 U.S.C. 1251-1387</i>	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).
<i>Fish and Wildlife Conservation Act Coordination Act, 16 U.S.C. 661 et seq., P.L. Chapter 55</i>	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.
<i>Historic Sites Act of 1935, 16 U.S.C. 461-467, P.L. Chapter 593</i>	Establishes a national policy to preserve for public use, historic sites, buildings, and objects of national significance.
<i>Historical and Archaeological Data-Preservation, 16 U.S.C. 469 et seq., P.L. 93-291</i>	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.
<i>Lacey Act of 1900, 16 U.S.C. 701, 702; 31 Stat. 187, 32 Stat. 285</i>	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.
<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>	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)

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

Executive Orders	
<i>Marine Mammal Protection Act of 1972, 16 U.S.C. 1361 et seq., 1401-1407, 1538, 4107</i>	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.
<i>Marine Protection, Research, and Sanctuaries Act of 1972, 33 U.S.C. 1401-1445, P.L.92-532</i>	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.
<i>Migratory Bird Treaty Act 16 U.S.C. 703-712</i>	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.
<i>National Environmental Policy Act of 1969 (NEPA), as amended; P.L. 91-190, 42 U.S.C. 4321 et seq.</i>	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.
<i>National Historic Preservation Act, 16 U.S.C. 470 et seq.</i>	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.
<i>National Invasive Species Act of 1996, 16 U.S.C. 4701 et seq., P.L. 104-332</i>	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.
<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.
<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.

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

Executive Orders	
<i>Northwest Atlantic Fisheries Convention Act</i>	Implements provisions of international conventions and establishes regulatory framework.
<i>Occupational Safety and Health Act</i>	Establishes standards to protect workers, including standards on industrial safety, noise, and health standards.
<i>Port and Waterways Safety Act</i>	Sets vessel operating and towing safety requirements and sets out enforcement provisions.
<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.

APPENDIX G

NOISE TERMINOLOGY AND ANALYSIS METHODOLOGY

APPENDIX G

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

G.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.

G.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.

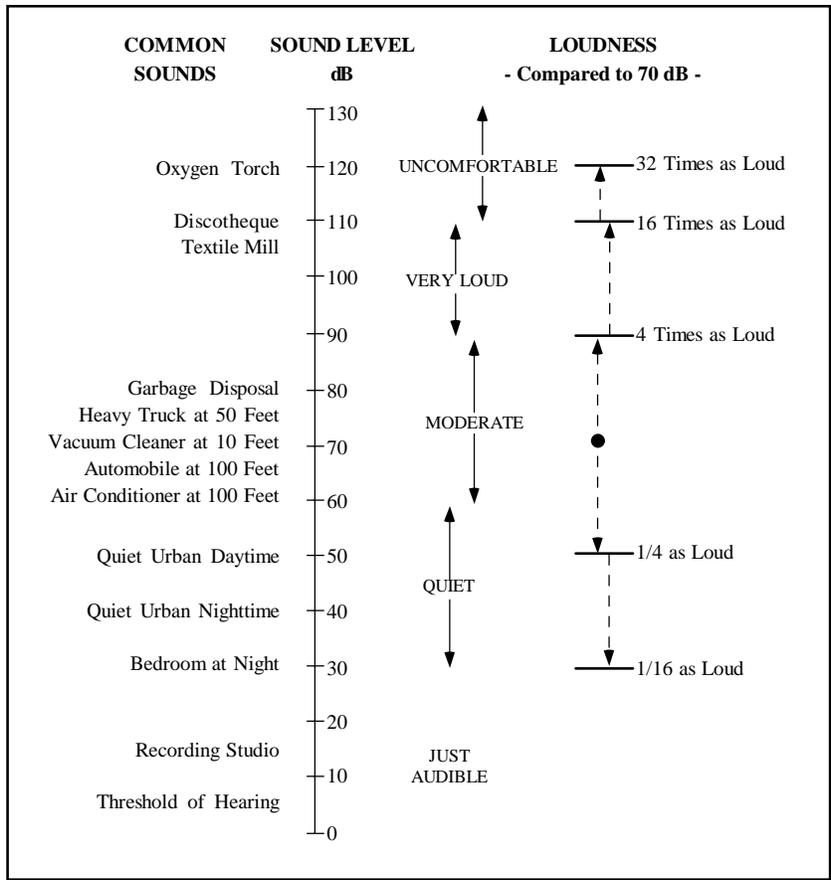
G.2.1 Maximum Sound Level

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 G-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.

G.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 G-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.

G.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 G-2, which summarizes the results of a large number of social surveys relating community responses to various types of noises, measured in DNL.

Figure G-2, taken from Schultz (1978), shows the original curve fit. A more recent study has reaffirmed this relationship (Fidell et al. 1991). Figure G-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.

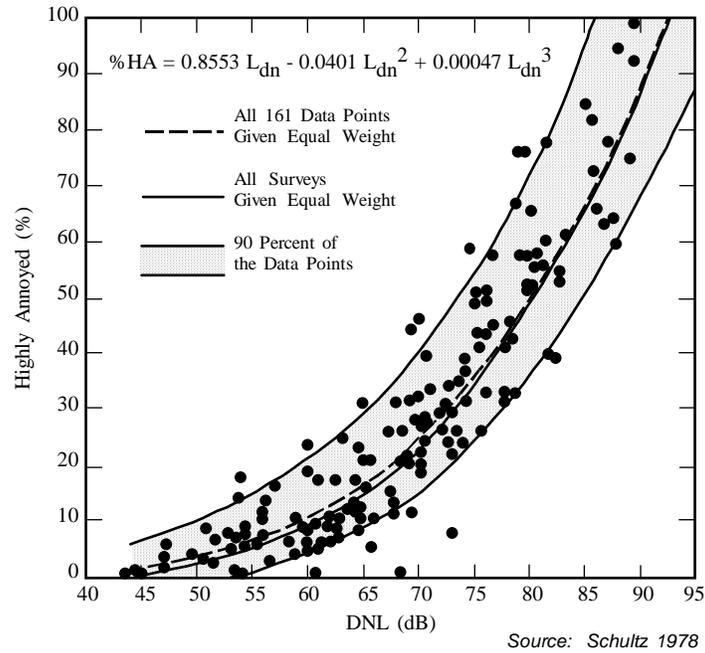


Figure G-2. Community Surveys of Noise Annoyance

G.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 G-1, along with the explanatory notes included in the regulation. Although these guidelines are not mandatory (see Notes in Table G-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.

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).

**Table G-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
Residential						
<i>Residential, other than mobile homes and transient lodgings</i>	Y	N(1)	N(1)	N	N	N
<i>Mobile home parks</i>	Y	N	N	N	N	N
<i>Transient lodgings</i>	Y	N(1)	N(1)	N(1)	N	N
Public Use						
<i>Schools</i>	Y	N(1)	N(1)	N	N	N
<i>Hospitals & nursing homes</i>	Y	25	30	N	N	N
<i>Churches, auditoria, & concert halls</i>	Y	25	30	N	N	N
<i>Government services</i>	Y	Y	25	30	N	N
<i>Transportation</i>	Y	Y	Y(2)	Y(3)	Y(4)	Y(4)
<i>Parking</i>	Y	Y	Y(2)	Y(3)	Y(4)	N
Commercial Use						
<i>Offices, business, & professional</i>	Y	Y	25	30	N	N
<i>Wholesale & retail-building materials, hardware, and farm equipment</i>	Y	Y	Y(2)	Y(3)	Y(4)	N
<i>Retail trade-general</i>	Y	Y	25	30	N	N
<i>Utilities</i>	Y	Y	Y(2)	Y(3)	Y(4)	N
<i>Communication</i>	Y	Y	25	30	N	N
Manufacturing and Production						
<i>Manufacturing, general</i>	Y	Y	Y(2)	Y(3)	Y(4)	N
<i>Photographic & optical</i>	Y	Y	25	30	N	N
<i>Agriculture (except livestock) & forestry</i>	Y	Y(6)	Y(7)	Y(8)	Y(8)	Y(8)
<i>Livestock farming & breeding</i>	Y	Y(6)	Y(7)	N	N	N
<i>Mining & fishing, resource production & extraction</i>	Y	Y	Y	Y	Y	Y
Recreational						
<i>Outdoor sports arenas & spectator sports</i>	Y	Y(5)	Y(5)	N	N	N
<i>Outdoor music shells, amphitheaters</i>	Y	N	N	N	N	N
<i>Nature exhibits & zoos</i>	Y	Y	N	N	N	N
<i>Amusements, parks, resorts, & camps</i>	Y	Y	Y	N	N	N
<i>Golf courses, riding stables, & water recreation</i>	Y	Y	25	30	N	N
<p><u>Key:</u> 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. <u>Notes:</u> (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

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APPENDIX H

OCEAN STEWARD

U.S. Department
of Transportation

United States
Coast Guard



Commandant
United States Coast Guard

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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 21st 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 20th century, protecting our oceans is becoming a top priority of the 21st 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.

STRATEGY: RAISE THE PROFILE OF THE MPS MISSION

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

STRATEGY: OBTAIN NECESSARY RESOURCES AND AUTHORITIES

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

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

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 I

CLEAN AIR ACT

GENERAL CONFORMITY ANALYSIS

AIR QUALITY CALCULATIONS

