Environmental Assessment

Stand-Up and Operations of the

Maritime Safety and Security Team

Miami, Florida

Commandant
United States Coast Guard (G-OPC)

February 2005

Abbreviations and Acronyms

°F	degrees Fahrenheit
APLMRI	Atlantic Protected Living Marine Resources Initiative
AQCR	Air Quality Control Region
BRAC	Base Realignment and Closure
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFMC	Caribbean Fishery Management Council
CFR	Code of Federal Regulations
CO	carbon monoxide
COMDTINST	Commandant Instruction
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
dBC	C-weighted decibel
DHS	U.S. Department of Homeland Security
DNL	Day-night average sound level
DOD	U.S. Department of Defense
EA	Environmental Assessment
EEZ	Exclusive Economic Zone
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EO	Executive Order
ESA	Endangered Species Act
FDEP	Florida Department of Environmental Protection
FEMA	Federal Emergency Management Agency
FFMZ	Federal Fishery Management Zone
FONSI	Finding of No Significant Impact
ft	feet
ft^2	square feet
FW	Fighter Wing
FY	fiscal year
hp	horsepower
Hz	Hertz
JARB	Joint Air Reserve Base
kHz	kilo-Hertz
Leq(24)	24-hour Equivalent Sound Level
m/s	meters per second
mg/m^3	milligrams per cubic meter
MHLS	Maritime Homeland Security
MMPA	Marine Mammal Protection Act
MSFCMA	Magnuson-Stevens Fisheries Conservation and Management Act
MSST	Marine Safety and Security Team
MTS	Marine Transportation System
MTSA	Maritime Transportation Security Act
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NERR	National Estuarine Research Reserve
NMS	National Marine Sanctuary
NO_2	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NO_x	nitrogen oxide
NP	National Park
NWR	National Wildlife Refuge
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
ROI	Region of Influence
SAFMC	South Atlantic Fishery Management Council
SIP	State Implementation Plan
SO_2	sulfur dioxide
SP	State Park
tpy	tons per year
U.S.C.	United States Code
USACE	U.S. Army Corps of Engineers
USAF	U.S. Air Force
USCG	U.S. Coast Guard
USDOT	U.S. Department of Transportation
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VOC	Volatile Organic Compounds
$\mu g/m^3$	micrograms per cubic meter
µPa	microPascal

USCG

FINDING OF NO SIGNIFICANT IMPACT (FONSI)

FOR

U.S. COAST GUARD STAND-UP AND OPERATIONS OF THE MARITIME SAFETY AND SECURITY TEAM IN MIAMI, FLORIDA

The Proposed Action includes the stand up and operations of one Maritime Safety and Security Team (MSST) located at the Port of Miami, Florida. The MSST will consist of up to 100 active duty personnel and six Response Boats-Small (RB-S). All six RB-S 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.

The MSST will normally conduct operations in the Port of Miami to 20 miles offshore, south to Tavernier at the south end of key Largo, and Puerto Rico. The MSST RB-S would be launched from a public boat ramp at the Homestead Bayfront Park. The MSST is intended for domestic operations, in support of the Group or Captain of the Port (COTP). Operations will closely parallel existing U.S. Coast Guard (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. 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.

Homestead JARB is also within the 100-year and 500-year floodplains, as defined by the Federal Emergency Management Agency (FEMA). This project has been thoroughly reviewed by the USCG and it has been determined by the undersigned that this project will have no significant impact on the human environment, and would not stimulate further development in a floodplain.

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.

22 FEB 05		CHIEF, G-SEC-3
Date	Environmental Reviewer	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.

25 FEB 05		Chief, G-OPC
Date	Responsible Official	Title/Position

USCG

ENVIRONMENTAL ASSESSMENT

FOR

Stand up and Operations of the Marine Safety and Security Team, Miami

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 EA preparation.

2/22/05		Env. Protection Spec.
Date	*Preparer/Environmental Project Manager (as applicable)	Title/Position
22 FEB 05		CHIEF, G-SEC-3
Date	**Environmental Reviewer	Title/Position

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

25 FEB 05		Chief G-(OPC)
Date	Responsible Official	Title/Position

*The USCG preparer signs for NEPA documents prepared in-house. The USCG environmental project manager signs for NEPA documents prepared by an applicant, a contractor, or another outside party. **Signature of the Environmental Reviewer for the Bridge Administration Program may be that of the preparer's.

ENVIRONMENTAL ASSESSMENT OF THE STAND-UP AND OPERATIONS OF THE MARITIME SAFETY AND SECURITY TEAM MIAMI, FLORIDA

Contract No.: DTCG23-02-D-EXB001

Prepared for

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

Prepared by

e^{2}M, Inc.
3949 Pender Drive, Suite 120
Fairfax, VA 22030

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ENVIRONMENTAL ASSESSMENT OF THE STAND-UP AND OPERATIONS OF THE MARITIME SAFETY AND SECURITY TEAM MIAMI, FLORIDA

TABLE OF CONTENTS

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

1.1 Introduction 1-1
1.2 Coast Guard Missions 1-2
1.3 Purpose and Need for the Action 1-4
1.3.1 Purpose of the Action 1-4
1.3.2 Need for the Action 1-5
1.4 Project Scope and Area 1-6
1.5 Agency and Public Involvement Process 1-6
1.6 Summary of Key Environmental Compliance Requirements 1-9
1.6.1 National Environmental Policy Act of 1969 1-9
1.6.2 Integration of Other Environmental Statutes and Regulations 1-9
1.7 Organization of the EA 1-10

2. PROPOSED ACTION AND ALTERNATIVES 2-1

2.1 Proposed Action 2-1
2.1.1 Overview of the Proposed Action 2-1
2.1.2 MSST Personnel and Operations 2-1
2.1.3 Standard MSST Boats and Equipment 2-3
2.2 Onshore Homeport Facilities 2-5
2.3 No Action Alternative 2-7
2.4 Comparison of Alternatives 2-7
2.5 Comparison of Environmental Effects of All Alternatives 2-9
2.6 Alternatives Considered but Eliminated 2-9

3. AFFECTED ENVIRONMENT 3-1

3.1 Introduction 3-1
3.1.1 Resources for Analysis 3-1
3.1.2 Region of Influence 3-3
3.1.3 Environmental Regulations, Laws, and Executive Orders 3-3
3.2 Biological Resources 3-4
3.2.1 Definition of the Resource 3-4
3.2.2 Affected Environment 3-8
3.3 Air Quality and Climate 3-18
3.3.1 Definition of the Resource 3-18
3.3.2 Affected Environment 3-19
3.4 Noise 3-20
3.4.1 Definition of the Resource 3-20
3.4.2 Affected Environment 3-24
3.5 Public Safety 3-25
3.5.1 Definition of the Resource 3-25
3.5.2 Affected Environment 3-25

4. ENVIRONMENTAL CONSEQUENCES 4-1

4.1 Introduction 4-1
4.2 Biological Resources 4-1
4.2.1 Significance Criteria 4-1
4.2.2 Potential Impacts 4-5
4.3 Air Quality and Climate 4-13
4.3.1 Significance Criteria 4-13
4.3.2 Potential Impacts 4-14
4.4 Noise 4-19
4.4.1 Significance Criteria 4-19
4.4.2 Potential Impacts 4-20
4.5 Public Safety 4-22
4.5.1 Significance Criteria 4-22
4.5.2 Potential Impacts 4-22

5. CUMULATIVE IMPACTS 5-1

5.1 Cumulative Impacts Methods 5-1
5.2 Cumulative Impacts Analysis 5-1
5.3 Relationship between the Short-term Use of the Environment and Long-term Productivity 5-2
5.4 Unavoidable Impacts 5-2
5.5 Irreversible and Irretrievable Commitment of Resources 5-4

6. PREPARERS 6-1

7. REFERENCES 7-1

APPENDICES

A – Interested Party Letter, Mailing List, Newspaper Announcement, and Supplement
B – Responses to Interested Party Letters
C – Agency Consultation Letters
D – Environmental Regulations, Laws, and Executive Orders
E – USCG Protected Living Marine Resources Guidance
F – Air Quality Analysis

FIGURES

1-1. Miami MSST Homeport Location Map 1-7
1-2. Miami MSST Region of Influence 1-8
2-1. Public Boat Ramp at Homestead Bayfront Park 2-2
2-2. Typical Defender Class Boats 2-4
2-3. Photograph of Building 736 at Homestead, Florida 2-6
2-4. Photograph of Building 718 at Homestead, Florida 2-6

TABLES

2-1. Impact Summary Matrix 2-10
3-1. Fish and Invertebrate Species with EFH in the ROI 3-16
3-4. National Ambient Air Quality Standards 3-19
3-5. Local Climate Summary for State of Florida 3-20
3-6. Underwater Sound Pressure Levels for Various Vessels 3-24
3-7. Waterborne Cargo Handled by the Ports of Miami and San Juan in 2002 3-26
4-1. General Conformity Rule *de minimis* Emission Thresholds 4-18
4-2. Coast Guard MSST – Homestead Emissions from Proposed Action 4-18
4-3. Net Emissions for Southeast Florida Intrastate Air Quality Control Region Under the Proposed Action 4-19
5-1. Cumulative Effects on Resources 5-3

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1. Purpose of and Need for the Action

1.1 Introduction

The U.S. Coast Guard (USCG) is proposing to stand up (establish and operate) a Maritime Safety and Security Team (MSST) at the Port of Miami, Florida, to be stationed at the Homestead Joint Air Reserve Base (JARB) in Homestead, Florida. MSSTs provide waterborne, and a modest level of shoreside, antiterrorism force protection for strategic shipping, high-interest vessels, and critical infrastructure. MSSTs are a quick response force capable of rapid, nationwide deployment via air, ground, or sea transportation in response to changing threat conditions and evolving Maritime Homeland Security (MHLS)[1] mission requirements. The primary missions of MSSTs are port safety and security, and maritime law enforcement. Secondary missions are search and rescue, and naval coastal warfare (USCG 2004). The MSST would consist of 70 to 80 active-duty personnel (eventually up to 100), installation of a modular building, interior modifications to existing support buildings, six Defender Class Boats and other support equipment (see Section 2.1 for a detailed description of the Proposed Action).

The USCG, one of the country's five armed services, is this Nation's oldest maritime agency, and is a unique agency of the Federal government. The USCG was formed 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 previously 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 then had a single maritime service dedicated to saving lives 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.

[1] MHLS is the concerted national effort lead by the U.S. Coast Guard to secure the homeland associated with or in the U.S. Maritime Domain from terrorist attacks.

Today, the USCG operates in all maritime regions:

- Approximately 95,000 miles of U.S. coastlines, including inland waterways and harbors.
- More than 3.36 million square miles of Exclusive Economic Zone (EEZ) and U.S. territorial seas.
- International waters and other maritime regions of importance to the United States.

The events of September 11, 2001, significantly changed the Nation's homeland security posture. Terrorism is a clear and present danger to the United States. On March 1, 2003, in response to growing national security demands, the newly formed U.S. Department of Homeland Security (DHS) assumed control of the USCG from the U.S. Department of Transportation (USDOT) 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 and has dramatically shifted its mission activity to reflect this role. 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[2] and the U.S. Marine Transportation System[3] (MTS) 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

[2] The U.S. Maritime Domain encompasses all U.S. ports, inland waterways, harbors, navigable waters, Great Lakes, territorial seas, contiguous waters, custom waters, coastal seas, littoral areas, the U.S. Exclusive Economic Zone, and oceanic regions of U.S. national interest, as well as the sea lanes to the United States, U.S. maritime approaches, and high seas surrounding the nation.

[3] The U.S. MTS consists of waterways, ports, and their intermodal connections, vessels, vehicles, and system users, as well as Federal maritime navigation systems.

USCG's role in MHLS. 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. It also 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:

- Protect ports, the flow of commerce, and the U.S. MTS 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 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 Operations Liberty Shield and Iraqi Freedom. Operation Liberty Shield is a multi-department, multi-agency, national team effort to protect American 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 U.S. Department of Defense (DOD); USDOT; the Federal Bureau of Investigation; and other Federal, state, and local security and law enforcement agencies to ensure the security of national ports, waterways, and facilities. Hundreds of USCG cutters, aircraft, and small boats manned by thousands of USCG active-duty and reserve members are guarding coasts, ports, and waterways around the clock during this heightened state of alert.

Overseas, the USCG is playing a crucial role supporting the other military services in the implementation of Operation Iraqi Freedom. Several USCG cutters, aircraft, reserve, and active-duty personnel are deployed in the Persian Gulf region and in the Mediterranean to perform waterside security, maritime force protection, and environmental response duties.

In addition, the USCG and DOD are 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 United States. 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 United States, and includes the increased security measures taken after the terrorist attacks on September 11, 2001. The operation involves joint agency coordination and cooperation to ensure our Nation and its 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, the Nation'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 live and work (USCG 2002a).

The establishment of additional MSSTs would 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 used to augment existing USCG forces in the United States, the MSSTs would not duplicate existing protective measures. They would provide complementary, nonredundant capabilities that would be able to close significant readiness gaps in the Nation's strategic ports (USCG 2002b, USCG 2002c). USCG forces must accomplish this mission without adversely impacting the environment or unduly interfering with legitimate trade and commerce.

To determine which ports require 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. Elements that were assessed included (USCG 2002b)

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

The first eight MSSTs are in Seattle, Washington; Chesapeake, Virginia; San Pedro, California; Galveston, Texas; Staten Island, New York; Boston, Massachusetts; St. Mary's, Georgia; and San

Francisco, California. The next round of ports to be assigned MSSTs are Miami, Florida; New Orleans, Louisiana; San Diego, California; Honolulu, Hawaii; and Anchorage, Alaska. In addition to these ports, the USCG is planning to stand up MSSTs in other critical ports around the country. If additional MSSTs are established around the country, additional National Environmental Policy Act (NEPA) analysis will 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, remained the same. Currently, USCG resources are at maximum capacity and all missions (e.g., maritime border security, fisheries enforcement, and living marine resources protection) are suffering, despite the USCG's attempt to maintain the previous level of effectiveness and efficiency. In some cases, current detachments of MSSTs have been temporarily assigned to other ports, leaving a detachment at the homeport to perform "double duty." When the away detachment returns, neither detachment has had the ability to rotate through a rest period, resulting in an increased demand on manpower resources. If implemented, the Proposed Action would increase port security within the Port of Miami and allow other USCG assets to focus on their intended missions more effectively and efficiently, since the MSST's primary responsibility would be port security and maritime law enforcement. The Proposed Action would also allow more MSSTs to remain in their homeports and maintain a regular work/rest cycle.

In 2002, under P.L. 107-87, an emergency response supplemental enacted by Congress, funds were appropriated to support USCG antiterrorist activities, including the mandated establishment and operation of four MSSTs to be completed in fiscal year (FY) 2002. The establishment of MSSTs in Seattle, Washington; San Pedro, California; Galveston, Texas; and Chesapeake, Virginia, helped relieve some of the demand on USCG units. However, a number of ports require further protection. 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 FY 2003. The Senate Appropriations Committee approved a $76 million budget for seven MSSTs in FY 2004 (Senate Report 108-086).

1.4 Project Scope and Area

The MSST would be homeported at the Homestead JARB, 29050 Coral Sea Boulevard, Homestead, Florida 33039. Its temporary location would be Building 736, but after about a year, it would move into its permanent location in Building 718, which sits on a 22.4-acre parcel adjacent to Homestead JARB (see Figure 1-1). The MSST Defender Class Boats would be launched from public boat ramps at the Homestead Bayfront Park and Black Point Marina. Other public boat ramps could be used, but they have not yet been identified.

The Region of Influence (ROI) for the Proposed Action and the No Action Alternative is geographically defined as the Port of Miami region, which includes the Port of Miami to 20 miles offshore, south to Tavernier at the south end of Key Largo, and Puerto Rico (the MSST unit would be transported by aircraft or helicopter) (see Figure 1-2). The MSST would routinely patrol the Port of Miami to Tavernier, and the waters near Turkey Point Nuclear Power Plant. Although the MSST is expected to spend the majority of its operating time in this area, it could be deployed temporarily in emergencies to protect any port facility or asset outside of the ROI. The location and duration of each individual event would depend on a number of currently unknown circumstances. There are too many variables to adequately assess all potential ports to which the MSST might be temporarily assigned. Therefore, this Environmental Assessment (EA) focuses on the potential environmental impacts within the ROI.

1.5 Agency and Public Involvement Process

An advertisement published in the *South Dade News Leader* on August 31, 2004, announced the USCG's intent to prepare an EA, giving information on the proposal and seeking comments. Letters to interested parties were also mailed on September 2, 2004 to more than 30 Federal, state, and local agencies (see Appendix A [interested party with attachments, distribution list, and newspaper announcement], Appendix B [responses to the interested party letter], and Appendix C [agency consultation letters]). The USCG will accept comments on this Proposed Action throughout the NEPA process (discussed in Section 1.6.1). A Notice of Availability (NOA) of the EA and the Draft Finding of No Significant Impact (FONSI) was published in the *South Dade News Leader* on December 31, 2004.

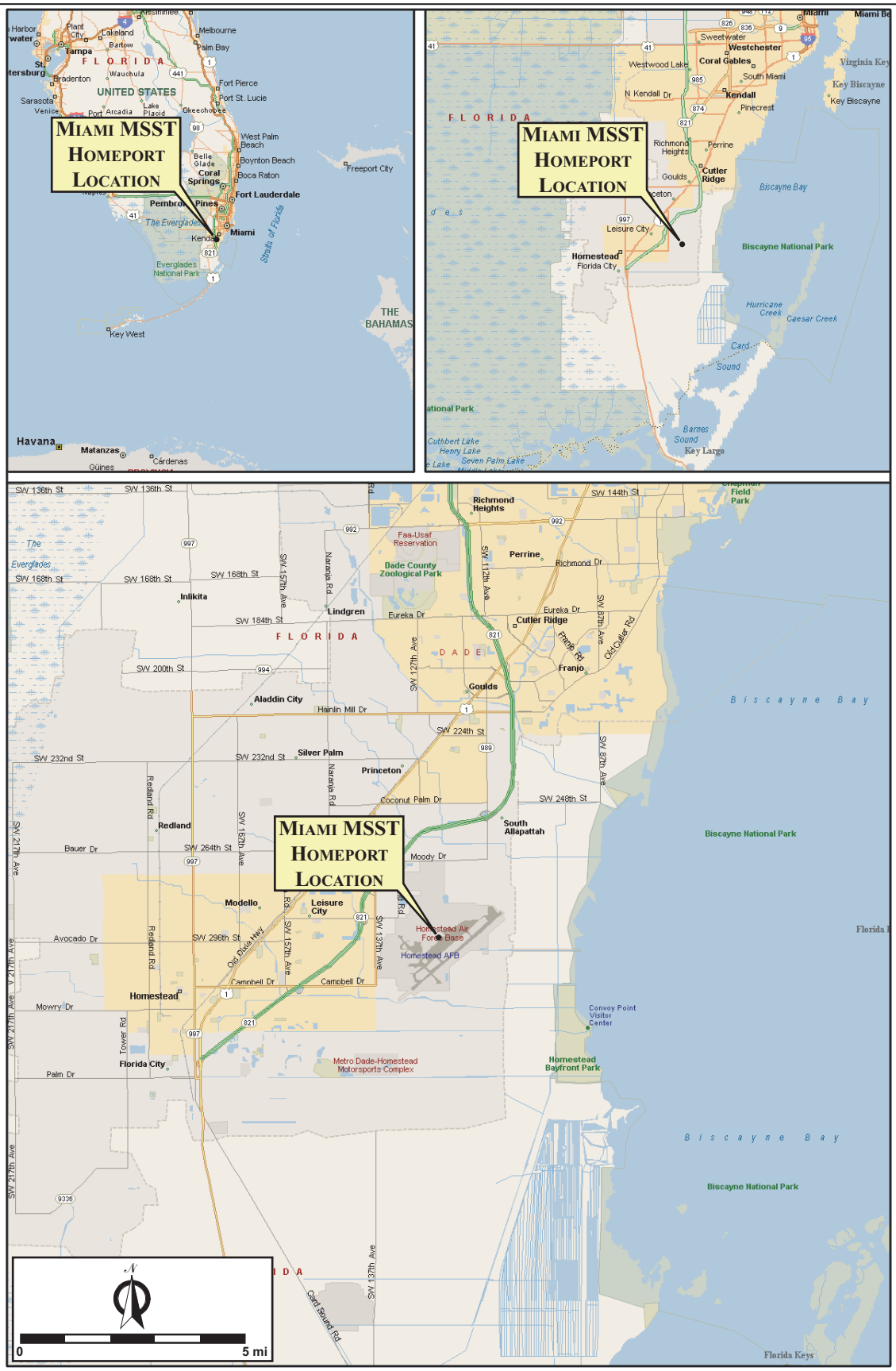

Figure 1-1. Miami MSST Homeport Location Map

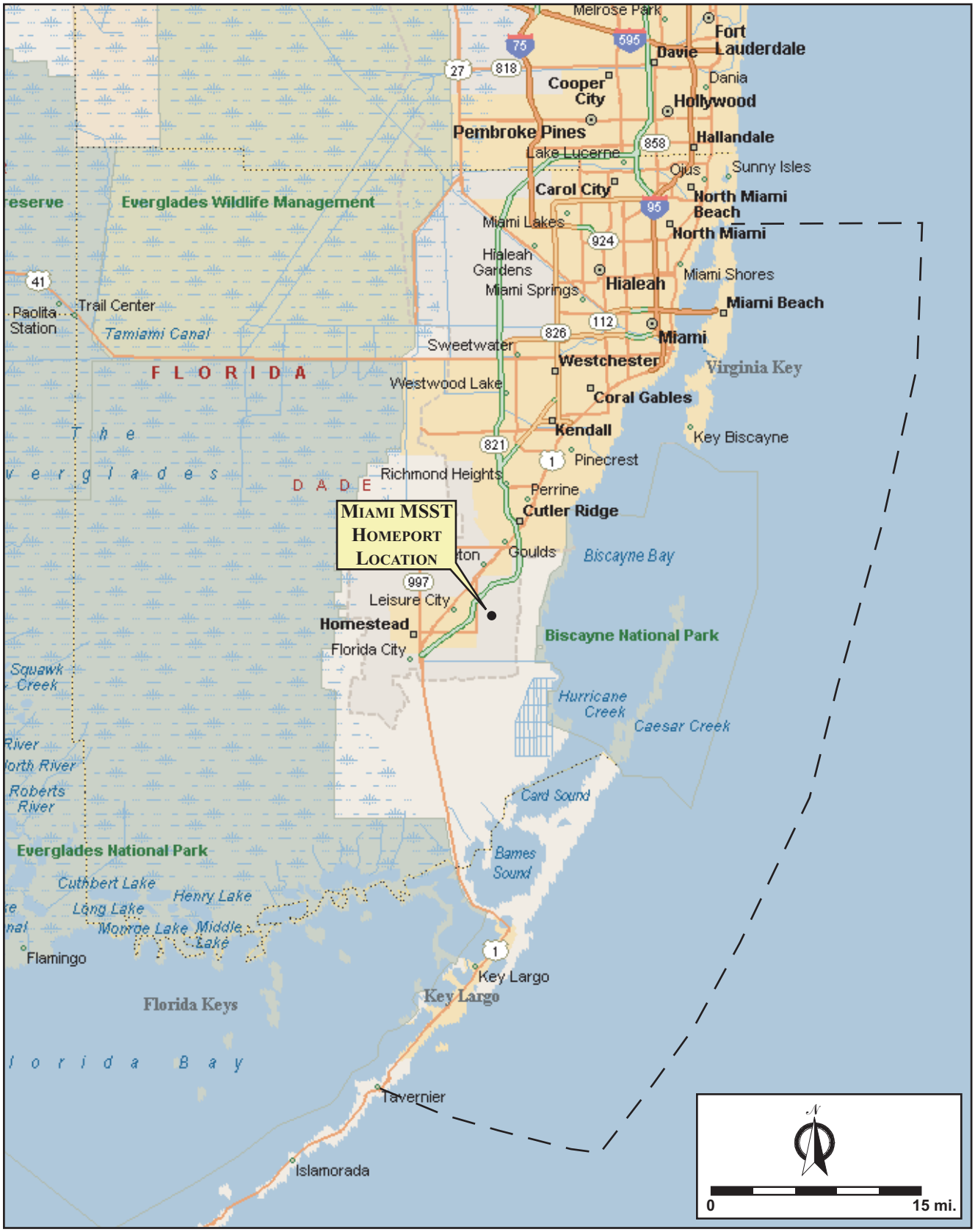

Figure 1-2. Miami MSST Region of Influence

1.6 Summary of Key Environmental Compliance Requirements

1.6.1 National Environmental Policy Act of 1969

The National Environmental Policy Act of 1969, commonly known as NEPA, is a Federal statute requiring the identification and analysis of potential environmental impacts of proposed Federal actions before those actions are taken. NEPA also established the Council on Environmental Quality (CEQ) that is charged with the development of implementing regulations and ensuring agency compliance with NEPA. CEQ regulations mandate that all Federal agencies use a systematic interdisciplinary approach to environmental planning and the evaluation of actions that might affect the environment. This process evaluates potential environmental consequences associated with a proposed action and considers alternative courses of action. The intent of NEPA is to protect, restore, or enhance the environment through well-informed Federal decisions.

The process for implementing NEPA is codified in Title 40 of the Code of Federal Regulations (CFR) Parts 1500–1508, *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act*. The CEQ was established under NEPA to implement and oversee Federal policy in this process. CEQ regulations specify that the following must be accomplished when preparing an EA:

- Briefly provide evidence and analysis for determining whether to prepare an Environmental Impact Statement (EIS) or a FONSI.
- Aid in an agency's compliance with NEPA when an EIS is unnecessary.
- Facilitate preparation of an EIS when one is necessary.

This document has been prepared to comply with NEPA requirements, the CEQ regulations for implementing NEPA and USCG policy (Commandant Instruction [COMDTINST] M16475.1D).

1.6.2 Integration of Other Environmental Statutes and Regulations

To comply with NEPA, the planning and decisionmaking process for actions proposed by Federal agencies involves a study of other relevant environmental statutes and regulations. The NEPA process, however, does not replace procedural or substantive requirements of other environmental statutes and regulations. It addresses them collectively in the form of an EA or EIS, which enables the decisionmaker to have a comprehensive view of major environmental issues and requirements associated with the Proposed Action. According to CEQ regulations, the requirements of NEPA must be integrated "with other planning and environmental review procedures required by law or by

agency so that all such procedures run concurrently rather than consecutively." Resources that will be analyzed in the EA were those identified as being potentially affected by the Proposed Action, and include applicable critical elements of the human environment whose review is mandated by Executive Order (EO), regulation, or policy (see Appendix D).

1.7 Organization of the EA

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

Chapter 1: Purpose of and Need for the Action. As a NEPA-required discussion, this chapter provides an overview of the action and the purpose of and need 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 potential direct and indirect environmental impacts on each resource area under the Proposed Action and the No Action Alternative. Direct and indirect impacts that could result from 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 six appendices that provide additional information. Appendix A is a copy of the Interested Party distribution list, letter with attachments, and a copy of the newspaper announcement. Appendix B includes responses to the Interested Party letter. Appendix C includes the correspondence relating to Endangered Species Act (ESA) consultation, Essential Fish Habitat (EFH) consultation, National Historic Preservation Act, and Federal Coastal Zone Management Consistency determination. Appendix D is a list of those regulations, laws, and EOs that might reasonably be expected to apply to the Proposed Action. Appendix E contains a description of the USCG's Ocean Steward Plan and COMDTINSTs regarding the Protected Living Marine Resource and National Marine Sanctuary Programs. Appendix F includes the calculations used for the air quality analysis.

2. Proposed Action and Alternatives

2.1 Proposed Action

2.1.1 Overview of the Proposed Action

The USCG proposes to stand up an MSST at Miami, Florida. The term "stand up" is defined as establishing and operating a new activity. The Proposed Action consists of the following components:

- Assignment of 70 to 80 active-duty personnel (eventually up to 100) to operate the MSST within the Port of Miami and the ROI.
- Standard MSST equipment to include six Defender Class Boats and trailers, four F-350 pickup trucks, four F-550 stake-bed trucks, three 15-passenger vans, and other minor support equipment.
- Minor interior upgrades to Building 736 at Homestead JARB for the MSST temporary homeport, construction of a fence, installation of a modular building, and interior modifications to Building 718 on a 22.4-acre parcel adjacent to Homestead JARB for the MSST permanent homeport.

2.1.2 MSST Personnel and Operations

The MSST would consist mostly of reassigned personnel, although there might be some newly recruited personnel. MSST personnel would possess the specialized skills, capabilities, and expertise to perform a broad range of port security and harbor defense missions that might be required. The MSST would be interoperable with, and supported by, military and civilian government organizations, and commercial and nongovernmental entities.

The MSST would operate primarily in the ROI, which includes the Port of Miami to 20 miles offshore, south to Tavernier at the south end of Key Largo, and Puerto Rico (MSST unit would be transported by aircraft or helicopter) (see Figure 1-2 and Section 3.1.2). The MSST could also be deployed temporarily in emergencies to other ports as needed. Depending on operational requirements, there could be two to six boats operating at any time. However, it is anticipated that the Defender Class Boats would operate 12 hours a day, 7 days per week, and that there would be two to three boats operating at any given period. Most MSST operations would be conducted at 10 to 12 knots. The Defender Class Boats would be launched from a public boat ramp at the Homestead Bayfront Park, approximately 8 miles from the MSST homeport at Homestead JARB (see Figure 2-1). A second boat ramp that might be used would be the Black Point Marina, approximately 9 miles from the MSST homeport.

Figure 2-1. Public Boat Ramp at Homestead Bayfront Park

The MSST would primarily be responsible for patrolling the established ship channels, escorting tankers and cruise ships, and patrolling around nuclear power stations (specifically the Turkey Point Nuclear Power Station).

The MSST has not established training range, but anticipates some offshore training. USCG personnel would follow procedures already familiar to them, including establishing port security and 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 as follows:

- Enhance port security and security law enforcement capabilities at economic or military significant ports.
- 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; be capable of operating under the threat of chemical, biological, or radiological attack; and be able to evacuate a contaminated environment. The MSST would have the ability to conduct emergency gross decontamination of personnel and equipment. In the United States, 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 with other service branches.

2.1.3 Standard MSST Boats and Equipment

The MSST would be equipped with six Defender Class Boats and standard support vehicles and equipment. Each Defender Class Boat is 25-feet (ft) long with an 8-foot beam and a 4-foot navigational draft and would be equipped with two 225-horsepower (hp) Honda outboard motors, radar, depth sounder, differential global positioning system, and two mounted M240 machine guns (see Figure 2-2). The Defender Class Boats are highly maneuverable, capable of quickly reaching and sustaining high speeds (in excess of 40 knots), and can carry three crewmembers, plus seven passengers. MSST equipment would also include boat trailers, four Ford F-350 pickup trucks and four F-550 stake-bed trucks with trailers, and three 15-passenger vans. When not in use, the Defender Class Boats would be stored on trailers at their on-shore support facility.

Figure 2-2. Typical Defender Class Boats

2.2 Onshore Homeport Facilities

The Miami MSST would be temporarily located at Homestead JARB in Building 736. Establishment of the MSST would include minor interior upgrades to Building 736. These upgrades would include the installation of modular furniture units, and telephone and computer cabling (see Figure 2-3). Building 736 was built in the 1980s. There would be no interior or exterior construction or alterations to Building 736. The MSST would be assigned space in an existing parking lot for the boats and trailers. All boat maintenance and washing would occur at existing U.S. Air Force (USAF) maintenance facilities and there would be no maintenance or washing of the boats at Building 736.

After approximately 1 year, the MSST would move to its permanent homeport at Building 718 at Homestead JARB, which would be renovated for the MSST's needs (see Figure 2-4). Building 718 is approximately 10,000 square feet (ft^2) and was constructed in 1985. The 22.4-acre parcel (Parcel 11) was once part of Homestead JARB but was given to Miami-Dade County during Base Realignment and Closure (BRAC). Building 718 would undergo substantial renovations for the MSST including gutting the building and completely renovating the interior. An environmental baseline survey was conducted for the BRAC in 1993. The baseline survey indicated that nonfriable asbestos was present in Building 718.

The Defender Class Boats would be trailered, stored, and maintained in a Boat Maintenance Facility, an approximately 4,850-ft^2, pre-engineered structure installed on a pre-existing concrete slab just to the South of Building 718. It would consist of two boat bays, shop, and storage space. The site for construction of the Boat Maintenance Facility is currently a parking lot. The facilities would acquire water and sewer through the USAF utility systems. There is a water line supplying Building 718 that would be abandoned and a new waterline would be installed from the flight line loop. There are no lakes or streams in the vicinity, and no firing range on the property. No new parking areas would be constructed. The 22.4-acre parcel includes a pump house built in the 1940s and a hydrazine building constructed in the 1950s. The proposed Boat Maintenance Facility would be approximately 100 yards from these two buildings. The USAF conducted a hazardous material survey (Phase I survey) of the property and found no contamination.

The Proposed Action includes constructing an approximately 1,750-foot fence around Building 718 and connecting it to existing USAF fences surrounding Homestead JARB. The USCG has obtained a permit from USAF to construct the fence. The installation of the fence would disturb previously developed grounds.

Figure 2-3. Photograph of Building 736 at Homestead, Florida

Figure 2-4. Photograph of Building 718 at Homestead, Florida

2.3 No Action Alternative

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 implement 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 EA, the No Action Alternative is defined as not establishing an MSST at the Port of Miami. 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 CEQ regulations and, therefore, will be carried forward for further analysis in this EA.

Selection of the No Action Alternative would not meet Congressional intent for increased homeland defense. Congress strongly indicated its desire that the USCG establish MSSTs on a priority basis. As stated previously, P.L. 107-117 provided money for the express purpose of having the USCG (in consultation with other agencies) establish four MSSTs before FY 2003. The Senate Appropriations Committee approved a $76 million budget for seven MSSTs in FY 2004 (Senate Report 108-086).

2.4 Comparison of Alternatives

The Proposed Action to stand up and operate an MSST in Homestead, Florida, has the potential for beneficial impacts on security and safety. First, the MSST would provide added security from terrorist attacks for ships entering or leaving the Port of Miami, numerous commercial interests, and the general population who work and live in and near the port. Second, the Proposed Action would provide additional protection from potentially significant environmental damage resulting from infrastructure damaged or destroyed in a terrorist attack. While the addition of six boats in the ROI might appear to be a large increase, this is actually a small number when compared to the number and size of vessels that visit the Port of Miami. It is unlikely that all six boats would be in use at any one time. The boats would normally cruise at 10 to 12 knots, resulting in a small wake that should not negatively impact the surrounding shores. Furthermore, the USCG has existing measures in place, such as the Atlantic Protected Living Marine Resources Initiative (APLMRI) and the Ocean Steward Program, to guard against adverse vessel impacts on marine protected species (see Appendix E). The purpose of these measures is to help the recovery and maintenance of marine protected species to achieve healthy, sustainable populations.

The MSST would improve existing USCG security capabilities throughout the ROI. The MSST would not duplicate existing protective measures, but would provide complementary capabilities that would be able to close significant readiness gaps in our nation's strategic ports.

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 inadequate for the Port of Miami. The potential environmental damage from a terrorist attack might be adverse.

If the No Action Alternative was selected, as described above, 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 to provide additional security for the nation's ports. Under the No Action Alternative, this disruption of other missions would continue. The result would be further demand on manpower and current assets. This scenario of vessels and manpower at maximum capacity could 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) and could impact the long-term economy. Recovery time would depend on the severity and extent of the loss.

Other consequences would result from the USCG being unable to fully perform enforcement missions. For example, the USCG is responsible for drug and alien interdiction and protection of the nation's 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. Similarly, the USCG would not be able to adequately protect fisheries resources from illegal catches, as directed by its Ocean Guardian Program. Ocean Guardian is a long-range fisheries law enforcement strategy that supports national goals for fisheries resource management and conservation (see Appendix E). In addition, adverse impacts on threatened and endangered species could occur if the USCG is unable to maintain its current level of effectiveness in enforcing the ESA and associated regulation in U.S. waters as directed by its Ocean Steward Program. Ocean Steward is the USCG's national strategy to help the recovery and maintenance of healthy populations of marine protected species (Appendix E).

2.5 Comparison of Environmental Effects of All Alternatives

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

2.6 Alternatives Considered but Eliminated

The CEU Miami Planning and Real Property Team worked with USCG units, other government agencies and local governments to create a preliminary list of potential facilities based on generic planning factors derived from the stand up of previous MSSTs.

The homeport location assessment criteria included 1) availability and schedule, 2) ability to accommodate space and security requirements, 3) functionality, 4) proximity to firing range, boat ramp, highway access, airfield access, and pool for water survival training; 5) proximity to USCG or DOD personnel/administrative support, medical services, affordable housing, and a USCG exchange or commissary; and 6) cost.

Six locations in the Miami-Dade County area were initially identified

- The USCG Communication Station was evaluated but eliminated due to direct support of their operations, which cannot be economically moved to a new building in order to house the MSST.
- The Port of Miami Terminal Seven Property was evaluated but eliminated due to access problems from the passenger terminal, security restrictions and lack of parking for personnel and boats. Furthermore, there is no land available for construction of a boat maintenance building.
- The Miami-Dade Aviation Building was evaluated but eliminated because it would require a lease with build-out through Miami-Dade County. The building is partially occupied by a tenant and the County is reluctant to relocate them. Furthermore, there are six other interested parties for the building and the County cannot complete the build-out within the required time frames.
- The USCG Card Sound Property was evaluated but is not viable due to marginal functionality (connectivity to the USCG network and telephone system was not available and significant trenching would be required for adequate communications); distance to an available firing range and boat ramp; and high costs to make the site suitable.
- The USCG Air Station Miami was eliminated due to the lack of suitable space.
- Homestead ARB meets the USCG's need for location needs and offered exceptional facility alternatives. Four facilities were evaluated on Homestead ARB: 1) Building 718 and adjacent property, 2) Building 736 and adjacent property, 3) The "600" Building Complex, and 4) Triple Hangar Facility. Building 718 was identified as the preferred alternative as the three other facilities were not in as good condition and would not meet space requirements.

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 more than 200 years. A Memorandum of Agreement, 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 that also has military capabilities. The USCG already uses the same tactics for harbor defense and port security that the MSSTs would be using. 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.

This EA will assess the potential impacts of the USCG establishing and operating an MSST in the Miami region.

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 on biological resources in the Miami ROI. Current USCG environmental policies, regulations, and programs designed to protect living marine species (e.g., Ocean Steward in Appendix E 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 stand up and operations of the MSST would not have major adverse impacts on biological protected marine resources or habitats.	Under the No Action Alternative, it would be easier for a terrorist attack to occur. Short-term, significant adverse impacts from a successful terrorist attack could occur, and might be more likely to occur, should this alternative be selected since existing conditions are not sufficient to adequately protect against terrorist attack. Recovery time would depend on the extent of loss.
Water Quality	Under the Proposed Action, minor adverse impacts on water quality would occur as a result of the Defender Class Boat's engines.	Under the No Action Alternative, ambient water quality conditions would not be impacted. Short-term, significant adverse impacts from a successful terrorist attack could occur, and might be more likely to occur, should this alternative be selected since existing conditions are not sufficient to adequately protect against terrorist attack. Recovery time would depend on the severity and extent of the impact.

Table 2-1. Impact Summary Matrix (continued)

Resource Area	Proposed Action	No Action Alternative
Air Quality	Under the Proposed Action, minor adverse impacts on air quality would occur. Calculations of air pollutant emissions from the proposed MSST operations were performed based on transporting boats from Building 736 or 718 to the public boat ramp, and operating two boats 24 hours a day, 365 days a year. The net change in nitrogen oxide (NO_x) and volatile organic compounds (VOC) emissions would be well below the *de minimis* 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. Short-term, significant adverse impacts from a successful terrorist attack could occur, and might be more likely to occur, should this alternative be selected since existing conditions are not sufficient to adequately protect against terrorist attack. Recovery time would depend on the severity and extent of the impact.
Noise	Implementation of the Proposed Action would result in minor adverse impacts. However, due to low-speed approach, docking at USCG facilities and the fact that most operations would be conducted at 10 to 12 knots, the potential noise from the addition of six Defender Class Boats would have minor adverse impacts on humans or marine life. Sound levels created by the Defender Class Boats would be well below sound intensities associated with disturbance to marine animals.	Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. Short-term, adverse impacts from a successful terrorist attack could occur, and might be more likely to occur, should this alternative be selected since existing conditions are not sufficient to adequately protect against terrorist attack.
Public Safety	Beneficial impacts might be expected from the Proposed Action. The Proposed Action would increase the USCG's ability to protect critical domestic ports and the U.S. MTS from warfare and terrorist attacks. While the MSST's operations would closely parallel USCG traditional port security operations, they would also provide complementary, nonredundant 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.	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. Significant adverse impacts from a successful terrorist attack could occur, and might be more likely to occur, should this alternative be selected since existing conditions are not sufficient to adequately protect against terrorist attack. Terrorists could strike at military or commercial facilities in the ROI creating health and safety hazards for the surrounding populace. The impacts could be immediate or long-lasting. 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 NEPA, CEQ and USCG regulations and 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 and historic resources, hazardous materials and hazardous wastes, biological resources, air quality and climate, noise, and public safety. Some environmental resources and conditions that are often analyzed in an EA have been omitted from this analysis. The following paragraphs identify the omitted resource areas and the basis for such exclusions:

- ***Water Resources.*** The Proposed Action does not involve any activities that would significantly increase the demand for water resources or affect surface water and groundwater. No significant physical disturbances, earth moving, or major construction activities would occur; therefore, the Proposed Action would not affect surface water flow quantity or quality. Minor disturbances to improved grounds would result from the construction of a fence around Building 718. The Proposed Action could have minor impacts on water quality in the ROI as a result of the emissions of outboard engines. As reported in the U.S. Environmental Protection Agency's (USEPA) National Coastal Condition Report, coastal water quality in the southeast United States typically ranges from fair to good. However, highly-developed areas such as Biscayne Bay and the Port of Miami are impaired by pollution, nutrient loading, and habitat degradation. Similarly, the South Florida Water Management Department reports that Biscayne Bay is showing signs of environmental distress, including increased pollution and fisheries declines (SFWMD 2004). Compared to the high volume of boat traffic and other activities within the Port of Miami, potential impacts from Defender Class Boat operations would be relatively small. No significant impacts would occur as a result of the implementation and use of the MSST. Accordingly, the USCG has omitted detailed analysis of water resources.
- ***Soils and Land Use.*** The Proposed Action would not involve any significant physical disturbances, earth moving, or major construction activities. The Proposed Action would include two minor construction projects, entailing interior renovations to Buildings 736 and 718 at Homestead JARB. The construction of a fence around Building 718 would result in minor physical disturbance to previously developed grounds. 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 would not involve any activities that would contribute to changes in socioeconomic resources. Approximately 75 percent of the personnel are from outside the Miami-Dade County area and approximately 25 percent are

from the Miami-Dade County area. It is unlikely that the reassignment of personnel, and influx of approximately 60 families, impact area economic or social conditions. 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. There are no residences near the ROI. Therefore, no significant impacts would be expected. Accordingly, the USCG has omitted detailed examination of environmental justice.
- ***Cultural and Historic Resources.*** The Proposed Action would not involve any activities that would impact cultural resources. MSST personnel, vessels, vehicles, and supplies would be located in existing buildings at Homestead JARB that are not eligible for listing in the National Register of Historic Places. Onshore new construction would occur on previously disturbed land. Accordingly, the USCG has omitted detailed examination of cultural and historic resources. The USCG sent a letter to the Florida State Historic Preservation Office regarding the Proposed Action on September 2, 2004, and received a letter of concurrence on September 23, 2004 (see Appendix C).
- ***Hazardous Materials and Hazardous Wastes.*** The Proposed Action would occur at the Homestead JARB. Routine vessel and vehicle maintenance would be performed onsite in the MSST Boat Storage facility. A local commercial contractor would be hired to remove and dispose of hazardous waste materials (e.g., used oil and engine coolant). The washing of all vehicles would occur at an established wash rack at Homestead JARB. The MSST would follow the USCG's procedures as described in the Hazardous Waste Management Manual (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). Accordingly, the USCG has omitted detailed examination of hazardous materials and hazardous wastes. Homestead JARB has a Hazardous Material plan, and the MSST would be required to abide by the USAF policies as a tenant of Homestead JARB.
- ***Coastal Zone Management Act.*** The Federal Coastal Zone Management Act of 1972 requires Federal agency activities to be consistent with the state's federally approved Coastal Management Program. Under Florida's Coastal Zone Management Act (Title XXVIII, Section 380.23), the Florida Department of Environmental Protection (FDEP) may review all "federal development projects and activities of federal agencies which significantly affect coastal waters and the adjacent shorelands of the state" to ensure that they "are conducted in accordance with the state's coastal management program." As assessed in this EA, no significant impacts on coastal resources are anticipated as a result of the Proposed Action. As such, the Proposed Action is deemed consistent with the guidelines that are provided under the 23 Florida Statutes administered by the Florida Coastal Zone Management Act (Title XXVII, Chapter 380, Section 23). Based upon the preceding information, data, and analysis, the USCG finds that the stand-up and operation of MSST Miami is consistent to the maximum extent practicable with the enforceable policies of the Florida Coastal Management Program. The USCG sent its Federal Consistency Determination to the FDEP on September 2, 2004, and received a letter of concurrence on September 16, 2004 (see Appendix C). Since the Proposed Action is consistent with the state's Coastal Management Program, the USCG has omitted further detailed examination.

3.1.2 Region of Influence

The MSST would be permanently homeported at the Homestead JARB, about 25 miles south of Miami near the southern end of the Florida peninsula. Homestead JARB is maintained and operated by the USAF's 482nd Fighter Wing (FW), a fully combat-ready unit capable of deploying F-16C fighter aircraft, along with mission ready pilots and support personnel, worldwide on short notice. The unit has more than 1,500 members, including approximately 1,200 reservists and 300 full-time civilian personnel. Utilizing its abundant training airspace and state-of-the-art Air Combat Maneuvering Instrumentation, the 482nd FW supports and trains civil engineering, communication, medical, logistics, aircraft maintenance, mission support, aerial port, and security police squadrons, which can be used interchangeably with active-duty units around the world. It also provides operational support to several tenant units, including the "scrambling" mission of a detachment of North American Air Defense Command F-15 fighter interceptors, the U.S. Customs Miami Air and Marine Branch drug enforcement air interdiction mission, and the USAF Reserve's "Hurricane Hunters" weather reconnaissance mission. Additionally, the 482nd FW regularly hosts combat units from all over the world and provides the DOD with an efficient, cost-effective air base to support contingency and training operations associated with the U.S. Southern Command area of responsibility (HJARB 2004).

The ROI for the Proposed Action and the No Action Alternative is geographically defined as the Port of Miami (to 20 miles offshore and south to Tavernier on the south end of Key Largo) and Puerto Rico. The MSST would spend the majority of its operating time patrolling the Port of Miami, but it could be deployed temporarily in emergencies to other ports as needed. The Defender Class Boats would be launched from a public boat ramp at Homestead Bayfront Park, with another public boat ramp at Black Point Marina designated as a secondary launch site.

3.1.3 Environmental Regulations, Laws, and Executive Orders

A table containing examples of regulations, laws, and EOs that might reasonably be expected to apply to the Proposed Action is included in Appendix D. 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 (e.g., wetlands, forests, and grasslands) in which they exist. Sensitive and protected biological resources include plant and animal species listed as threatened or endangered by the U.S. Fish and Wildlife Service (USFWS), National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries), or a state regulatory agency, or otherwise protected under Federal or state laws. Determining which species or habitats occur in an area affected by a proposed action can 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 program provides routine surveillance of marine sanctuaries concurrently 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 (see Appendix E).
- ***Ocean Steward.*** This is the USCG's national strategy to help the recovery and maintenance of healthy populations of marine protected species (see Appendix E).
- ***Sea Partners.*** This environmental and outreach program is designed to develop community awareness of maritime pollution issues and to improve compliance with marine environmental protection laws and regulations (USCG 2002d).
- ***COMDTINSTs.*** This is the USCG's implementation and guidance document for policy and procedures.
- ***Conservation Program.*** This program promotes USCG involvement with other Federal and state agencies, and public and nongovernmental organizations to conserve and protect living marine resources (USCG 1996).

Protected and Sensitive Habitats

Protected habitats are biologically sensitive marine habitats that are managed by Federal, state, or local agencies. Protected habitats in the Miami region include National Marine Sanctuaries (NMSs), National Estuarine Research Reserves (NERRs), Federal Fishery Management Zones (FFMZs), National Wildlife Refuges (NWRs), National Parks (NPs), State Parks (SPs), coral reefs, and critical habitat. These habitats are offered varying degrees of protection from agencies such as NOAA Ocean

Services, NOAA Fisheries, the Department of the Interior, the USFWS, the National Park Service, the USCG, state agencies, and, in some cases, local jurisdictions.

Wetlands, Floodplains, and Seagrasses

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 deepwater 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 United States, including wetlands. In addition, Section 404 of the CWA also grants states with sufficient resources the right to assume these responsibilities. The FDEP Environmental Resource Permitting Program is responsible for certifying compliance with applicable state water quality standards for Section 404 permits issued by the USACE.

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. The FDEP Office of Submerged Lands and Environmental Resources issues 401 Water Quality Certifications for the state of Florida.

EO 11988, *Floodplain Management*, requires Federal agencies to determine whether a proposed action would occur within a floodplain. The determination of whether a proposed action occurs within a floodplain typically involves consultation of appropriate Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps, which contain enough general information to determine the relationship of the project area to nearby floodplains. EO 11988 directs Federal agencies to avoid floodplains unless the agency determines that there is no practical alternative to undertaking the

action in a floodplain. Where the only practicable alternative is to site in a floodplain, a specific step-by-step process must be followed to comply with EO 11988. This "eight-step" process is detailed in the FEMA document Further Advice on EO 11988, *Floodplain Management*. The eight steps in floodplain compliance are

1. Determine whether the action will occur in or stimulate development in a floodplain.
2. Public review/input of the proposed action.
3. Identify and evaluate practicable alternatives to locating in the floodplain.
4. Identify the impacts of the proposed action (when it occurs in a floodplain).
5. Minimize threats to life, property, and to natural and beneficial floodplain values, and restore and preserve natural and beneficial floodplain values.
6. Reevaluate alternatives in light of any new information that might have become available.
7. Issue findings and a public explanation.
8. Implement the action.

Steps 1 through 6 have been undertaken as part of this EA. Step 7 will be undertaken simultaneously with public comments on this EA.

Marine Mammals and Threatened and Endangered Reptiles

Protection of marine protected species, such as mammals, sea turtles, the American crocodile, or other threatened or endangered marine species, is an important USCG mission. Biotic and environmental factors, as well as human impacts, influence the distribution of marine mammals and sea turtles. Environmental factors include chemical, climate, or physical (those related to the characteristics of a location) factors. Biotic factors include the distribution and abundance of prey, competition for prey, reproduction, natural mortality, catastrophic events (e.g., die-offs), and predation. Human impacts include noise, hunting pressure, pollution, 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 plays an important role in protecting marine mammals and sea turtles and other threatened and endangered marine species because it enforces all U.S. laws within the EEZ. Several of these laws protect marine species, including the ESA, the Marine Mammal Protection Act (MMPA), the National Marine Sanctuaries Act, a number of maritime EOs, and various Federal and international

laws. The USCG's Protected Living Marine Resources Program (COMDTINST 16475.7) includes a number of USCG policies, directions, and procedures that establish specific rules to ensure that impacts on marine protected species are avoided whenever possible. The USCG's Ocean Steward and Ocean Guardian initiatives, APLMRI, and guidance regarding vessel speed also support these goals (USCG 2002a). Additionally, the Ocean Steward initiative protects marine mammals from being harassed by nearby or repetitively approaching vessels. Information about Ocean Steward, Ocean Guardian, and the Protected Living Marine Resources Programs is presented in Appendix D.

The ESA of 1973 (16 United States Code [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. "Critical habitat" includes geographic areas "on which are found those physical or biological features essential to the conservation of the species and which require special management consideration or protection." 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 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 the USFWS. These responsibilities include providing overview and advice to regulatory agencies on all Federal actions that might 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, and 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 pertaining to fish and fisheries management that the USCG enforces are

- 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 and Management Act (MSFCMA) (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 threatened and endangered 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 includes the Port of Miami (to 20 miles offshore and south to Tavernier on the south end of Key Largo) and Puerto Rico (Figure 1-2).

Protected and Sensitive Habitats

The protected habitats in the coastal area of the ROI include Biscayne NP, Florida Keys NMS, Crocodile Lake NWR, and various state parks and recreation areas in the Miami region, as well as

Lobos Bay NERR and the Cabo Rojo, Culebra Island, Descheco, Laguna Cartegena, and Vieques NWRs in Puerto Rico.

Coral reefs are complex marine ecosystems characterized by high productivity and biodiversity, and are economically important to the United States because of the role they play in tourism, fisheries, and the pharmaceutical industry. Globally, coral reefs account for only 0.2 percent of the ocean's area, but they support one-third of all marine fish species and tens of thousands of other species (i.e., invertebrate crustaceans, mollusks, echinoderms). Coral reefs provide EFH and yield 6 million metric tons of fish each year, while supporting protected marine mammals, sea turtles, and other endangered and threatened species. Additionally, coral reefs protect coastlines from storm damage, erosion, and flooding by reducing wave action (NOAA 2004a). Medicines obtained from coral reefs include the antiviral drugs Ara-A and AZT and the anticancer agent Ara-C. These are developed from extracts of sponges found on a Caribbean reef. Other medicines being developed include a cancer therapy made from algae and a painkiller taken from the venom in cone snails (Bruckner 2002).

Critical habitat is designated under the ESA as "a specific geographic area that is essential for the conservation of a threatened or endangered species and that may require special management or protection." Critical habitat can include an area that is not currently occupied by a species, but is needed for the recovery of that species. Within the ROI, critical habitat has been designated for the West Indian manatee, green sea turtle, and hawksbill sea turtle.

On U.S. reefs, more than 500 commercially valuable fish and invertebrate species are federally managed, including two candidate ESA species that occur throughout ROI, elkhorn coral [*Acropora palmata*] and staghorn coral [*Acropora cervicornis*]) (NOAA 2004a).

Both elkhorn and staghorn coral are large branching corals that grow quickly and reach their maximum size in approximately 10 to 12 years. They are hermaphroditic (colonies are both male and female at the same time) broadcast spawners (i.e., broadcast eggs and sperm into the water column for fertilization) that reproduce once annually in either August or September. Both elkhorn and staghorn corals inhabit the surf zone, so their branches are frequently broken off by waves. This process, known as fragmentation, is important to the corals, because the branches reattach to the reef and grow into new coral, allowing populations to recover quickly from storm damage (NOAA 2004a).

Elkhorn coral was once the dominant species in the shallow waters of the Caribbean and Florida Reef Tract. Its northern limit is Florida's Biscayne Bay and its range extends south to the Venezuelan

coast. Staghorn coral is found throughout the Florida Keys, the Bahamas, and the Caribbean. Its northern limit is near Boca Raton, Florida, north of Miami and Fort Lauderdale. Since the 1980s, both coral species have suffered extensively from disease, storm damage, predation, pollution, and other factors, and decreases in their abundance range from 50 to 95 percent. Both elkhorn and staghorn coral have been considered as candidates for endangered species status since 1999 (NOAA 2004a).

Wetlands, Floodplains, and Seagrasses

Florida once contained an estimated 20 million acres of wetlands; but over the past 200 years, more than 46 percent (or 9.3 million acres) of these original wetlands have been lost (UF IFAS 2004). Florida's wetlands provide ecological benefits in their ability to protect and maintain water quality in nearshore habitats, particularly coral reefs. Wetlands also protect nearshore habitats from sediment, turbidity, and freshwater intrusion during storms. In turn, these areas provide important habitat, food and prey for Florida's recreational and commercial fisheries.

Although the overall condition of estuaries in the southeast United States is fair, Biscayne Bay (the Bay) is showing increasing signs of environmental degradation (USEPA 2001). Intensive urban development associated with the Port of Miami has altered freshwater flow cycles within the northern and central portions of the Bay, while canals and agricultural activities have inhibited drainage from the Everglades in the southern portion of the Bay. This has transformed the Bay from a freshwater estuary into a brackish lagoon that alternates between marine conditions and extremely low salinities near the major canals. This transition has negatively impacted coral reef, mangrove, and sponge communities, and has caused changes in fish diversity and abundance. For example, red and black drum populations are no longer sustainable in the Bay and once-common oysters are rarely found (SFWMD 2004).

Seagrass ecosystems are among the most productive benthic habitats in estuarine and nearshore waters. Seagrass meadows provide food and important spawning, foraging, and refuge habitat for numerous species of recreationally and commercially important fish. They also allow for the attachment of epiphytes and benthic organisms, and they support threatened and endangered species such as sea turtles (Handley 1995). Seven species of seagrass occur in the coastal waters of southern Florida, including turtle grass (*Thalassia testudinum*), manatee grass (*Syringodium filiforine*), shoal grass (*Halodule wrightii*), widgeon grass (*Ruppia maritime*), star grass (*Halophila englemanni*), paddle grass (*Halophila decipiens*), and Johnson's seagrass (*Halophila johnsonii*). Increasingly saline conditions have caused seagrass populations in Biscayne Bay to decrease, while eutrophication,

dredging, and propeller scarring have caused seagrass declines throughout the ROI (FMNH undated). In 1998, Johnson's seagrass became the first marine plant species to be listed as "threatened" under the ESA (NOAA 2004b).

Marine Mammals

Several species of marine mammals have been known to inhabit the ROI, including the humpback whale (*Megaptera novaeangliae*), Minke whale (*Balaenoptera acutorostrata*), northern right whale (*Eubalaena glacialis*), killer whale (*Orcinus orca*), bottlenose dolphin (*Tursiops truncatus*), common dolphin (*Delphinus delphis*), and West Indian manatee (*Trichechus manatus*). The humpback whale, northern right whale, and West Indian manatee are federally listed as endangered under the ESA.

Humpback Whales. Humpback whales inhabit all of the world's oceans, but they typically feed and breed in nearshore and near-island habitats. The global humpback whale population can be divided into groups based on the region in which they live. The humpback whales occurring in the ROI belong to a large group that feeds along the northeast coast of North America (including the Gulf of Maine, Gulf of Saint Lawrence, Newfoundland, Labrador, and western Greenland) during the spring, summer and fall. During the cold winter months, a large portion of this group migrates south through the ROI to mate and calve in the West Indies. During their stay, they do not feed, but rely on the energy stored in their blubber to sustain them. After breeding is complete, the group returns to the cool, nutrient-rich waters of the northeast to feed.

Humpback whales have been federally listed as endangered throughout their range since 1970, and are further protected under the MMPA. No critical habitat has been designated for humpback whales in the ROI.

Northern Right Whale. Northern Atlantic right whales reside in shallow waters bordering islands and coastlines, where they feed on populations of krill and copepods. Historically, the western population has ranged from the Labrador coast to Delaware Bay, and south to the Gulf of Mexico, Florida, and Bermuda. Today, right whales are usually found in one of five areas: the Bay of Fundy; the Browns and Baccaro Banks (south of Nova Scotia); and off the shores of Massachusetts, Georgia, and Florida. Each year in the late fall, pregnant females migrate from cold-water feeding and nursery grounds to winter in the warm-water breeding and calving grounds off the southeastern United States and the Caribbean. Females give birth every 3 to 5 years. Between 7 and 17 calves are born along the coasts of Florida and Georgia each year. It is not known where the rest of the population winters, but up to 20 percent might remain in the coastal waters off Massachusetts (CRS 1995).

Of all the large whale species, the northern right whale is the most endangered. In the early 1900s, 10,000 to 50,000 right whales lived in the northern Atlantic Ocean, but fewer than 350 remain in today's northwestern Atlantic population. Primary factors inhibiting right whale recovery include collisions with ships, entrapment or entanglement in fishing gear, and habitat degradation (CRS 1995). The northern right whale has been federally listed as an endangered species since 1973; no critical habitat has been designated for the northern right whale in the ROI.

West Indian Manatee. West Indian manatees are large, grayish-brown, herbivorous marine mammals that inhabit the warm coastal waters of the southeastern United States, the Gulf of Mexico, the Caribbean, and Central and South America. Calves reach sexual maturity at 3 to 6 years of age, and mature females give birth every 2 to 5 years. Births occur throughout the year, with a slight decline in winter months. During the summer, individuals in the U.S. West Indian manatee population can migrate as far north as coastal Virginia and as far west as the Louisiana coast. In the winter, they typically confine themselves to the warm waters off the southern half of the Florida peninsula. In Puerto Rico, they occur around the southern and eastern end of the main island and in the vicinity of Vieques Island. The Florida population contains at least 1,865 individuals, and an additional 60 to 100 individuals comprise the Puerto Rico population. In the past ten years, mortality in the Florida population has averaged nearly 150 individuals per year, double that of the preceding decade (USFWS 1993).

The West Indian manatee has been federally listed as endangered since March 1967. Within the ROI, critical habitat for the West Indian manatee has been designated as Biscayne Bay (comprising all adjoining and connected lakes, rivers, canals, and waterways from the southern tip of Key Biscayne northward to, and including, Maule Lake, Dade County) and all of the waters of Card, Barnes, Blackwater, Little Blackwater, Manatee, and Buttonwood Sounds between Key Largo (Monroe County) and the mainland of Dade County (USFWS 1993).

Sea Turtles and Other Protected Marine Reptiles

Five species of sea turtles inhabit Florida's coastal waters, including the green (*Chelonia mydas*), hawksbill (*Eretmochelys imbricata*), Kemp's ridley (*Lepidochelys kempii*), leatherback (*Dermochelys coriacea*), and loggerhead (*Caretta caretta*). A sixth species, the olive ridley (*Lepidochelys oliveacea*), also inhabits the ROI in the coastal waters surrounding Puerto Rico. All six species are federally listed as either threatened or endangered, with the loggerhead being the most common species found in Florida and the Kemp's ridley being the rarest (FFWCC 2004).

Loggerhead Sea Turtle. Named for their massive, block-like heads, loggerheads are among the larger sea turtle species, with adults weighing an average of 275 pounds (FFWCC 2004). Loggerheads occur circumglobally, inhabiting continental shelves, bays, estuaries, and lagoons in temperate, subtropical, and tropical regions. Four nesting subpopulations of loggerheads have been identified in the western North Atlantic, and primary nesting sites are along the east coast of Florida, with additional sites in Georgia, the Carolinas, and the Gulf Coast of Florida. Loggerheads reach sexual maturity between 16 and 40 years of age; mating takes place between late March and early June, and eggs are laid throughout the summer (NOAA 2004c).

In 1978, the loggerhead sea turtle was federally listed as threatened throughout its range. Recent evidence suggests that the number of nesting females in Florida appears to be stable, and that the number of adults in the south Florida subpopulation has increased significantly over the past 25 years. However, there does not appear to be an associated increase in the number of benthic immature loggerheads, and nesting trends are generally thought to be declining (NOAA 2004c).

No critical habitat has been designated for loggerhead sea turtles in the ROI.

Green Sea Turtle. Named for the color of their body fat, green sea turtles weigh an average of 350 pounds and have streamlined, oval-shaped shells about 3.3 feet in length. During the day, they are found in shallow flats and seagrass meadows; at night, they retreat to rock ledges, oyster bars, and coral reefs to sleep. Adult green turtles are unique among sea turtles in that they are primarily herbivorous, feeding on seagrasses and algae (FFWCC 2004).

Green sea turtles are found throughout the world's oceans and are federally listed as threatened or endangered throughout their range. Total population estimates are unavailable, and general population trends are difficult to assess because of the widely fluctuating numbers of nesting females each year. Present estimates for the Florida green turtle population range between 200 and 1,100 nesting females. The majority of these females come ashore to lay their eggs from early June through late September (NOAA 2004c).

The Florida population of green sea turtles is considered to be endangered, and critical habitat designated within the ROI includes all water extending 3 nautical miles from the mean high water line at Isla de Culebra (Culebra Island), Puerto Rico (NOAA 2004c).

Leatherback Sea Turtle. Leatherback sea turtles, distinctive because their firm, leathery shells, are typically black with white, pink or blue splotches and have seven ridges running down them.

Averaging 5 feet (155 centimeters) in length and 400 to 1,500 pounds (200 to 700 kilograms) in weight (NOAA 2004c), leatherbacks are the largest, deepest diving, most migratory, widest ranging, and most pelagic of the sea turtles (USFWS 2002). They undergo extensive migrations from feeding grounds to nesting beaches and, once they nest, they move offshore and use both coastal and pelagic waters. Nesting grounds are found around the world and about 30 to 60 leatherbacks nest in Florida each year (FFWCC 2004).

The leatherback sea turtle was federally listed as endangered throughout its range in 1970. No critical habitat for leatherback sea turtles has been designated in the ROI.

Hawksbill Sea Turtle. Hawksbill sea turtles are small to medium in size, weighing between 100 to 200 pounds and measuring about 30 inches in length. They are the most tropical of the sea turtles and are typically found in lagoons, reefs, bays, and estuaries throughout the Atlantic, Pacific, and Indian Oceans (FFWCC 2004). Because of their small size and great agility, hawksbill sea turtles can utilize both low- and high-energy nesting beaches, and can traverse fringing reefs that are otherwise inaccessible to sea turtles. Within the United States, hawksbills are most common in Puerto Rico, but they are also sited with some regularity in southeast Florida and the Florida Keys, where they nest in small numbers (NOAA 2004c).

Hawksbill sea turtles are widely prized for their tortoise-colored shell and, although international trade in hawksbill products is prohibited, their shells are still used to make jewelry, hair ornaments, and other decorative items (FFWCC 2004). They have been federally listed as endangered since 1970. Within the ROI, critical habitat for the hawksbill has been designated as all waters extending seaward three NM from the mean high water line at Isla de Mona (Mona Island) and Isla Monito (Monito Island), Puerto Rico (NOAA 2004c).

Kemp's Ridley Sea Turtle. Kemp's ridley sea turtles are small, averaging 85 to 100 pounds in weight and measuring between 2 to 2.5 feet in length, but they are tough individuals who feed primarily on crabs and other crustaceans (FFWCC 2004). The Kemp's ridley is the rarest and most endangered of the sea turtles. Since 1947, the number of nesting females has declined from about 42,000 to 1,000 and, although they occur throughout the Caribbean, Gulf of Mexico, and northwestern Atlantic Ocean (particularly Florida), they nest exclusively in a small area along the northeastern coast of Mexico.

The Kemp's ridley sea turtle has been federally listed as endangered throughout its range since 1970. No critical habitat has been designated for Kemp's ridley sea turtles within the ROI.

Olive Ridley Sea Turtle. The olive ridley is a small, hard-shell sea turtle that occupies oceanic habitats and nests primarily in the tropical waters of the Pacific Ocean. There are little data regarding their feeding habits, but their diet is thought to include crabs, shrimp, rock lobsters, jellyfish, and tunicates, as well as algae. Mature females might nest one to three times per season and typically produce between 100 and 110 eggs on each occasion.

Olive ridley sea turtles occur in small numbers throughout the Atlantic Ocean, but do not inhabit the waters of coastal Florida. They have been documented in the coastal waters off Puerto Rico, but their occurrence there is rare. Olive ridley sea turtles have been federally listed as threatened throughout their range, with the exception of the Mexican population, which is listed as endangered. No critical habitat has been designated for olive ridley sea turtles in the ROI.

American Crocodile. The American crocodile (*Crocodylus acutus*) is listed as endangered by the USFWS. It ranges from the southern tip of Florida, through both the Atlantic and Pacific coasts of southern Mexico, Central America, northern South America; and the Caribbean islands of Cuba, Jamaica, and Hispaniola. American crocodile habitat consists of fresh water or brackish water coastal habitats such as the saltwater sections of rivers, coastal lagoons, and mangrove swamps. However, populations are known to occur in inland freshwater areas, including a number of reservoirs (USFWS 2000).

The species has a commercially valuable hide and the principal reason for the past decline in population is commercial overexploitation from the 1930s into the 1960s. Current threats are habitat destruction and in some areas continued hunting and collection of adult breeders to stock farms (USFWS 2000).

Fish

The NOAA Fisheries Southeast Regional Office, South Atlantic Fishery Management Council (SAFMC), and Caribbean Fishery Management Council (CFMC) manage fisheries within the Miami area and Puerto Rico. Commercial fishery landings on the east coast of Florida totaled 32.2 million pounds and were valued at $38.9 million in 2002 (NOAA Fisheries 2003). Commercial fishery landings in Puerto Rico totaled 3.2 million pounds and were valued at $7.5 million in 2002 (NOAA Fisheries 2003). No threatened or endangered species of fish occur in the ROI; federally managed finfish, shellfish (crustaceans and mollusks), and coral species that have EFH in the ROI are presented in Table 3-1.

Table 3-1. Fish and Invertebrate Species with EFH in the ROI

Fishery Management Plan	Common Name	Scientific name	Region of Influence	Management Authority
Snapper-Grouper	Blackfin snapper	*Lutjanus buccanella*	SE-SEA	SAFMC
Snapper-Grouper	Blueline tilefish	*Caulolatilus microps*	SE-SEA	SAFMC
Snapper-Grouper; Reef Fish	Gray snapper*	*Lutjanus griseus*	SE-SEA; SE-USC	SAFMC; CFMC
Snapper-Grouper	Greater amberjack	*Seriola dumerili*	SE-SEA	SAFMC
Snapper-Grouper	Jewfish	*Epinephelus itajara*	SE-SEA	SAFMC
Snapper-Grouper; Reef Fish	Mutton snapper*	*Lutjanus analis*	SE-SEA; SE-USC	SAFMC; CFMC
Snapper-Grouper	Red porgy	*Pagrus pagrus*	SE-SEA	SAFMC
Snapper-Grouper	Red snapper	*Lutjanus campechanus*	SE-SEA	SAFMC
Snapper-Grouper	Scamp	*Mycteroperca phenax*	SE-SEA	SAFMC
Snapper-Grouper; Reef Fish	Silk Snapper*	*Lutjanus vivanus*	SE-SEA; SE-USC	SAFMC; CFMC
Snapper-Grouper	Snowy grouper	*Epinephelus niveatus*	SE-SEA	SAFMC
Snapper-Grouper	Speckled hind	*Epinephelus drummondhayi*	SE-SEA	SAFMC
Snapper-Grouper	Vermilion snapper	*Rhomboplites aurorubens*	SE-SEA	SAFMC
Snapper-Grouper	Yellowedge grouper	*Epinephelus flavolimbatus*	SE-SEA	SAFMC
Snapper-Grouper	Warsaw grouper	*Epinephelus nigritus*	SE-SEA	SAFMC
Snapper-Grouper; Reef Fish	White grunt*	*Haemulon plumieri*	SE-SEA; SE-USC	SAFMC; CFMC
Snapper-Grouper	Wreckfish	*Polyprion americanus*	SE-SEA	SAFMC
Reef Fish	Coney*	*Epinephelus fulvus*	SE-USC	CFMC
Reef Fish	Red hind*	*Epinephelus guttatus*	SE-USC	CFMC
Reef Fish	Nassau grouper*	*Epinephelus striatus*	SE-USC	CFMC
Reef Fish	Schoolmaster*	*Lutjanus apodus*	SE-USC	CFMC
Reef Fish	Yellowtail snapper*	*Ocyurus chrysurus*	SE-USC	CFMC
Reef Fish	Banded butterfly fish*	*Chaetodon striatus*	SE-USC	CFMC
Reef Fish	Queen triggerfish*	*Balistes vetula*	SE-USC	CFMC
Reef Fish	Squirrelfish*	*Holocentrus ascensionis*	SE-USC	CFMC
Reef Fish	Sand tile fish*	*Malacanthus plumieri*	SE-USC	CFMC
Reef Fish	Redtail parrotfish*	*Sparisoma chrysopterum*	SE-USC	CFMC
Reef Fish	Trunkfish*	*Lactophrys quadricornis*	SE-USC	CFMC
Coastal Migratory Pelagic	Cobia	*Rachycentron canadum*	SE-SEA	SAFMC
Coastal Migratory Pelagic	Dolphin	*Coryphaena hippurus*	SE-SEA	SAFMC
Coastal Migratory Pelagic	King mackerel	*Scomberomorus cavalla*	SE-SEA	SAFMC
Coastal Migratory Pelagic	Spanish mackerel	*Scomberomorus maculates*	SE-SEA	SAFMC

Table 3-1. Fish and Invertebrate Species with EFH in the ROI (continued)

Fishery Management Plan	Common Name	Scientific name	Region of Influence	Management Authority
Shrimp	Brown shrimp	*Farfantepenaeus aztecus*	SE-SEA	SAFMC
Shrimp	Pink shrimp	*Farfantepenaeus duorarum*	SE-SEA	SAFMC
Shrimp	Rock shrimp	*Sicyonia brevirostris*	SE-SEA	SAFMC
Shrimp	Royal red shrimp	*Pleoticus robustus*	SE-SEA	SAFMC
Shrimp	White shrimp	*Litopenaeus setiferus*	SE-SEA	SAFMC
Red Drum	Red drum	*Sciaenops ocellatus*	SE-SEA	SAFMC
Calico Scallop	Calico scallop	*Argopecten gibbus*	SE-SEA	SAFMC
Golden Crab	Golden crab	*Chaceon fenneri*	SE-SEA	SAFMC
Spiny Lobster	Spiny lobster	*Panulirus argus*	SE-SEA; SE-USC	SAFMC; CFMC
Queen conch	Queen conch	*Strombus gigas*	SE-USC	CFMC
Coral, Coral Reefs and Live/Hard-Bottom Habitat	Offshore (15–90 feet) hard-bottom areas in Biscayne Bay, Biscayne NP, and the Florida Keys NMS		SE-SEA	SAFMC
Coral and Reef Associated Plants and Invertebrates	Includes more than 100 species of coral (including stony corals, sea fans, and gorgonians) and more than 60 species of plants (including seagrasses) and invertebrates.		SE-USC	CFMC

Notes: SE–USC – Southeast-United States Caribbean
SE-SEA – Southeast-Southeastern Atlantic
SAFMC – South Atlantic Fishery Management Council
CFMC – Caribbean Fishery Management Council
*The selected species represent some of the key species managed by the CFMC. CFMC believes that the EFH designated for these species fairly represents the EFH for the remaining species in the Reef Fish Management Unit.

Coastal areas are essential breeding, nursery, and feeding areas for many marine fish and shellfish. Pursuant to the MSFCMA, Federal agencies must consult with fishery managers concerning actions (including the issuance of permits for private activities) that might adversely impact EFH.

Coastal and Other Birds

Seven threatened and endangered coastal and marine bird species are found in the Miami area and Puerto Rico, including the yellow-shouldered blackbird (*Agelaius xanthomus*), whooping crane (*Grus americana*), bald eagle (*Haliaeetus leucoephalus*), brown pelican (*Pelecanus occidentalis*), piping plover (*Charadrius melodus*), wood stork (*Mycteria americana*), and roseate tern (*Sterna dougalli dougalli*). Critical habitat for the endangered yellow-shouldered blackbird has been designated on Puerto Rico and on Isla Mona west of Puerto Rico. The endangered whooping crane has been reintroduced in Florida as an Experimental Nonessential population. The Florida brown pelican is currently delisted as a recovered population, but the species is still listed as endangered in Puerto

Rico. Within the ROI, no critical habitat has been designated for the whooping crane, brown pelican, threatened piping plover, endangered wood stork, or threatened roseate tern.

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 USEPA for six criteria pollutants: ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter less than ten microns (PM_{10}), 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 ($\mu g/m^3$). The CAA directed USEPA to develop, implement, and enforce strong environmental regulations that would ensure cleaner and healthier ambient air quality. To protect public health and welfare, USEPA developed numerical concentration-based primary and secondary standards for these criteria pollutants. NAAQS represent maximum levels of background pollution that are considered safe, with an adequate margin of safety to protect public health and welfare. O_3 is not emitted directly from stationary, mobile, or area pollution sources. Rather, it is a product of photochemically reactive compounds such as NO_x and VOC. These compounds are inventoried and quantified as precursors of O_3. 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, the prevailing meteorological conditions.

Federal regulations (40 CFR 81) have defined Air Quality Control Regions (AQCRs), or airsheds, for the entire United States. 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 USEPA-approved State Implementation Plan (SIP) in nonattainment areas. In 1993, USEPA developed the General Conformity Rule, which specifies how Federal agencies must determine CAA conformity for sources of nonattainment pollutants in designated nonattainment and maintenance areas. A maintenance area is one that has met Federal air quality standards, thus removing it from nonattainment status. This rule and all subsequent amendments can 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 might need to complete a formal evaluation that

might 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, or provide for mitigation for any significant increases in nonattainment pollutants. SIPs are the regulations and other materials for meeting clean air standards and associated CAA requirements. Since the Proposed Action at Homestead JARB occurs in a maintenance area, the General Conformity Rule does apply and a conformity analysis is required. In 1996, the USEPA published regulations requiring a 75 percent reduction in hydrocarbon emissions from new outboard marine engines by 2006. The Honda engines that would be used by the MSST meet the USEPA requirements.

3.3.2 Affected Environment

Air Quality

The FDEP has primary jurisdiction over air quality in the state of Florida. The Proposed Action is located in the Southeast Florida Intrastate Air Quality Control Region. The air quality in this region is designated as being in attainment for all criteria pollutants. Table 3-4 presents the primary and secondary NAAQS.

Table 3-4. National Ambient Air Quality Standards

Pollutant	Standard Value		Standard Type
Carbon Monoxide (CO)			
8-hour Average	9 ppm	(10 mg/m^3) [a]	Primary and Secondary
1-hour Average	35 ppm	(40 mg/m^3)	Primary
Nitrogen Dioxide (NO_2)			
Annual Arithmetic Mean	0.053 ppm	(100 µg/m^3) [a]	Primary and Secondary
Ozone (O_3)			
1-hour Average	0.12 ppm	(235 µg/m^3) [b]	Primary and Secondary
8-hour Average	0.08 ppm	(157 µg/m^3) [b]	Primary and Secondary
Lead (Pb)			
Quarterly Average		1.5 µg/m^3	Primary and Secondary
Particulate ≤ 10 microns (PM_{10})			
Annual Arithmetic Mean		50 µg/m^3	Primary and Secondary
24-hour Average		150 µg/m^3	Primary and Secondary
Sulfur Dioxide (SO_2)			
Annual Arithmetic Mean	0.03 ppm	(80 µg/m^3) [b]	Primary
24-hour Average	0.14 ppm	(365 µg/m^3) [b]	Primary
3-hour Average	0.50 ppm	(1300 µg/m^3) [b]	Secondary

Notes:

[a] Parenthetical value is an approximately equivalent concentration.

[b] In July 1997, the 8-hour ozone standard was promulgated and the 1-hour ozone standard was remanded for all areas, excepting areas that were designated nonattainment with the 1-hour standard when the ozone 8-hour standard was adopted. In July 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 2001, USEPA 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 nonattainment with the new 8-hour standard.

Climate

The Southeast Florida Intrastate AQCR is in a semitropical climate and experiences warm, humid summers and mild winters. Brief periods of precipitation occur almost every day, with less precipitation in the winter. The average yearly high temperature is 83 degrees Fahrenheit (°F) and the average yearly low is 56 °F. Annual precipitation for Florida is approximately 48 inches with the majority of the precipitation occurring from May to September. Table 3-5 presents the monthly temperature and precipitation data for the state of Florida.

Table 3-5. Local Climate Summary for State of Florida

Month	Mean Temperature (°F)	Median Precipitation (Inches)
January	58.3	2.92
February	60.0	3.18
March	64.8	3.68
April	69.6	2.92
May	75.5	3.85
June	79.8	7.06
July	81.3	7.53
August	81.3	7.29
September	79.3	6.74
October	72.8	3.83
November	65.0	2.33
December	59.5	2.71

Source of Data: Southeast Regional Climate Center

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 might 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 might be impaired. Noise can also cause "adverse impacts" on 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, the properties of noise in air and water, and describes the existing noise in the ROI (ambient noise level). To understand the impact of noise on humans and marine animals it is necessary to understand the properties of noise in air and water and the existing ambient noise levels in the ROI.

A primary component of noise is wave amplitude or loudness, which is typically measured in decibels (dB). A dB is the ratio between a measured pressure (with sound) and a reference pressure (without sound). It is a logarithmic unit that accounts for large variations in amplitude; therefore, relatively small changes in dB ratings correspond to significant changes in 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 might vary considerably over the course of the day and throughout the week, due in part to changing weather conditions.

Airborne Noise

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 average 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.

Waterborne Noise

Waterborne (underwater) sound measurements are different from airborne sound measurements. Because of the differences in reference standards, noise levels cited for air do not equal underwater

levels. The reference pressure used for underwater noise measurements is 1 micro-Pascal (μPa) at 1 meter (1μPa-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 61.5 dB from the noise level referenced in water to account for the difference in reference pressure (USN undated).

Because the mechanical properties of water differ from those of air, sound travels faster through water (1,500 meters per second [m/s]) than air (about 340 m/s) (USCG and MARAD 2003). Temperature also affects the speed of sound, which travels faster in warm water than in cold water. Since the wavelength of a sound equals the speed of sound divided by the frequency of the wave (measured in Hertz [Hz]), lower frequency sounds have longer wavelengths than higher frequency sounds. For example, a 20-Hz sound wave is 75 meters long in the water, but only 17 meters long in the air (USCG and MARAD 2003a). In sea water, the rate at which sound is absorbed is proportional to the square of sound frequency; therefore, high-frequency sounds are absorbed quickly and do not travel as far through the water as low-frequency sounds.

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. USEPA, DOD, and other Federal agencies having nonoccupational 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. The 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 the Society of Automotive Engineers J34 method, the USCG recommends 86 dBA as the maximum noise level that watercraft may generate while operating at full speed at a distance of 50 feet from a receiver (PWIA 2002).

Most states and territories have developed land use plans and regulations that incorporate noise thresholds and standards in accordance with the Federal Noise Control Act of 1972 (42 U.S.C. 4901, 4918). According to the USCG's Reference Guide to State Boating Laws, 6th edition, 2000, the state of Florida does not have a muffler alteration law, but it does require that vessel-related noise not exceed 90 dB at a distance of 50 ft from the source. USEPA has determined 75 dB at 50 ft as an acceptable noise level to protect public health and welfare (PWIA 2002). For analysis purposes of this EA, the USEPA standard will be used.

Human Response to Noise

Human response to noise varies according to the type and characteristics of the noise, the distance between the source and the 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 frequency-weighting metrics have been developed using different dB adjustment values. The most commonly used decibel-weighting schemes are the dBA and dBC 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 annoyance level has been successfully used throughout the United States in a variety of settings, ranging from urban to rural.

Marine Animals' Response to Noise

Increasing attention is being paid to the impacts of anthropogenic (human-generated) noise sources on marine animals, 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 animals. Information on species response to noise is presented in Section 4.2.2 of this EA.

3.4.2 Affected Environment

Airborne Noise

Airborne 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) (USEPA 1978). The City of Miami does not currently regulate vessel noise and ambient airborne sound levels are not available for the ROI.

Waterborne Noise

Anthropogenic noise sources in the ROI include shipping, recreational boating, dredging, shoreline construction, urban and industrial development, helicopters, and sonar use. Noise generated from these activities can originate in water or air and might be stationary or transient. The intensity and frequency of these noise emissions vary significantly, both between and among industry sources. In general, the frequencies of anthropogenic sounds are below 1 kilo-Hertz (kHz); however, shipping is a major contribution to underwater noise and ranges in frequency from 0.005 to 0.5 kHz (NRC 2003). Sound pressure levels for various types of ships are presented in Table 3-6.

Table 3-6. Underwater Sound Pressure Levels for Various Vessels

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

Source: Richardson et al. 1995

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

Due to the relatively large number of cargo vessels that visit the area each year, commercial shipping is a prominent source of waterborne noise in the ROI. According to the USACE, the Port of Miami accommodated 11,235 cargo vessel trips in 2002 (USACE 2002). The cruise industry is also an important source of noise, as the Port of Miami received 735 cruise visits in 2003 (MARAD 2004).

Recreational boating is probably a large contributor, as well, given than over 922,000 recreational motorboats are registered in the state of Florida (USCG 2003). Similarly, the Port of San Juan accommodated 7,270 cargo vessel trips and 225 cruise visits in 2003 (USACE 2002, MARAD 2004). Puerto Rico has more than 59,000 registered recreational motorboats (USCG 2003).

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. Public safety is one of the USCG's primary missions, as the USCG is the prominent overseer of the safety of the MTS. Major members of the U.S. MTS include Federal agencies, commercial groups, state and local groups, and public and community groups (USCG 2002a). The MTS contains physical elements, including the waterways, ports, and the network of railroads, roadways, and pipelines that connect the waterborne portions of the system to the rest of the Nation (USDOT 1999). The physical elements also include the vessels and vehicles that move goods and people within the system. The physical network is supported by a series of systems that facilitate the movement of goods and people, and provide access for recreation and to natural resources. Aspects such as geography, environmental conditions, and the number and types of vessels make the MTS diverse.

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. Since the events of September 11, 2001, the safety of the country's ports and its maritime system have received increased scrutiny and concern.

3.5.2 Affected Environment

The MSST would be homeported at the Homestead JARB, 29050 Coral Sea Boulevard, Homestead, Florida 33039. Its temporary location would be Building 736, but after about a year, it would move into Building 718, which sits on a 22.4-acre parcel adjacent to Homestead JARB (see Figure 1-1). The MSST Defender Class Boats would typically be launched from public boat ramps at the Homestead Bayfront Park and Black Point Marina. The ROI is geographically defined as the Port of Miami region (which includes the Port of Miami to 20 miles offshore, and south to Tavernier on the south end of Key Largo) and Puerto Rico (see Figure 1-2). The MSST would routinely patrol the Port of Miami to Tavernier, and the waters near the Turkey Point Nuclear Power Plant. Although the

MSST is expected to spend the majority of its operating time in this area, it could be deployed temporarily in emergencies to protect any port facility or asset outside of the ROI.

The Port of Miami, which accommodated more than 9 million tons of cargo and 4 million cruise passengers in FY 2003, is promoted as both the Cargo Gateway of the Americas and the Cruise Capital of the World. The Port is ranked eighth among the nation's leading seaports, supporting approximately 98,000 jobs and contributing more than $12 billion to the Miami-Dade County economy. The Port emerged in 1896 when a wealthy railroad pioneer, Henry Flagler, extended his East Coast Railroad to Miami and began collecting dockage fees at a waterfront facility he paid to construct. Passenger cruise service to the Bahamas commenced in 1897 and, in 1915, the City of Miami adopted plans for the construction and maintenance of a public cruise terminal. Over the next 60 years, the Port steadily added to its facilities and, in 1976, it became the first port in history to accommodate more than 1 million passengers in a single year. In 2003, Miami was the homeport to 18 cruise ships and 5 major cruise lines. Meanwhile, significant investments in capital infrastructure enable the Port of Miami to meet the rapid expansion of cargo levels, and, in 1991, it handled a record 3.9 million tons of cargo. Since then, the Port of Miami has grown to accommodate more than 9 million total tons of cargo each year from 100 countries and 250 ports around the world (Miami-Dade 2004) (see Table 3-7).

Table 3-7. Waterborne Cargo Handled by the Ports of Miami and San Juan in 2002

Commodity	Cargo (measured in thousands of short tons)	
	Miami	San Juan
Coal	0	96
Petroleum and Related Products	1,678	4,617
Chemicals and Related Products	392	329
Crude Materials	424	339
Manufactured Goods	1,524	1,383
Food and Farm Products	2,108	2,325
Equipment & Machinery	2.232	3,060
Other	570	230
TOTAL:	**8,927**	**12,378**

Source: Miami-Dade 2004

Note: A zero represents a value of less than 500 tons but more than zero.
Columns might not add up exactly to the total given.

Founded in 1521, the nearly landlocked Port of San Juan is one of the largest and best natural harbors in the Caribbean and is the second oldest city in the Americas. It has been an important maritime center since the early 16th century, when Spanish explorers used the walled city as a departure point for expeditions throughout the New World. During the 1900s, the port city grew beyond its walled confines and incorporated suburban areas such as Miramar, Santurce, Condado, Hato Rey, and Rio Peidras. Modern day San Juan is the largest processing center in Puerto Rico and has facilities to refine petroleum and sugar; brew and distill assorted libations; and produce cement, metal products, clothing, and pharmaceuticals. The Port of San Juan is Puerto Rico's financial capital and ranks behind New York City as the second largest commercial seaport in the region. The Port of San Juan accommodates more than 200 cruise visits and handles more than 12 million tons of cargo each year (see Table 3-7).

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4. Environmental Consequences

4.1 Introduction

This chapter presents the potential direct and indirect environmental impacts of the Proposed Action and the No Action Alternative. Direct effects are caused by the action and occur at the same time and place. Indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Cumulative effects are impacts that result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7). The cumulative impact analysis is provided in Section 5 of this EA.

As described in Section 2.1, the Proposed Action is the stand up and operation of the Miami MSST. Currently, vessels and manpower are being diverted from other missions to provide the additional security for the Nation's ports, including the Port of Miami. The No Action Alternative fails to meet the purpose and need of the USCG mission. Under the No Action Alternative, disruption to other missions could continue to result in further demand on manpower and current assets. This scenario of vessels and manpower at maximum capacity would possibly make it easier for a terrorist attack to occur. The result might be a potential for adverse environmental impacts. Terrorists could strike at military or commercial facilities in these ports, creating health and safety hazards for the surrounding populace, impacting appropriate emergency responses, employment and trade, and marine life. The impacts could be immediate (loss of life) or long-lasting (disruption of commerce activities that could impact the long-term economy). Recovery time would 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 2.1, 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 on biological resources under the Proposed Action and the No Action Alternative. The significance of impact on biological resources is based on the following four factors:

- Importance (i.e., legal, commercial, recreational, ecological, or scientific) of the resource
- Proportion of the resource that would be affected relative to its occurrence in the region
- Sensitivity of the resource to proposed activities
- Duration of ecological ramifications

Impacts on 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 importance. Threatened or endangered species, if present, will be discussed under each biological resource area.

There is no scientific consensus regarding absolute thresholds for significance regarding noise (MMS 2000). Assessment of potential risk to a particular species must often begin with an estimate of frequency ranges to which the animal's hearing is most sensitive, and the associated thresholds. The range of sounds produced by a species is generally associated with ranges of good hearing sensitivity, but many species exhibit good hearing sensitivity well outside the frequency range of sounds they produce (USN 2002). Scientific research indicates that best hearing thresholds for marine vertebrates range from about 60 dB re 1 μPa at 0.1 kHz to about 40 dB re 1 μPa at 10 kHz.

Protected and Sensitive Habitats

Impacts on 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, Floodplains, Seagrass

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, storm water 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 the value of the wetland be significantly altered.

Significance criteria for impacts on floodplains are based on EO 11988 and the protection of public health and safety. Impacts on floodplains would be significant if the Proposed Action involved major construction in a floodplain that would substantially damage floodplain resources or would risk public health and safety due to flooding.

Significance criteria for impacts on seagrass are based on the temporary or permanent loss of seagrass and the impact on species that seagrass in the ROI supports.

Marine Mammals

Impacts on marine mammals 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.
- Level A Harassment, defined in the MMPA as pursuit, torment, or annoyance that has the potential to injure.
- Permanent loss of breeding areas and habitat.
- Substantial interference with movement of any resident species.

Marine mammal hearing varies among species; however, as a group, marine mammal hearing ranges from 0.01 to 200 kHz. Broad generalizations can be made about groups of marine mammals. For example, most toothed whales (odontocetes) hear well in ultrasonic ranges, with functional hearing from 0.2 to 100 kHz. Some toothed whales are able to hear frequencies as high as 200 kHz (NRC 2003). Models indicate that baleen whales (mysticetes) have lower frequency hearing and cannot hear frequencies above 20 to 30 kHz (NRC 2003). It is predicted that blue, fin, and bowhead whales are predicted to hear best in the range of 0.01 to 0.015 kHZ and Bryde's whales vocalize using frequencies ranging from 0.07 to 0.245 kHz. Most pinnipeds have peak hearing sensitivities between 1 and 20 kHz. Sea otters vocalize in the range of 3 to 5 kHz and manatees vocalize in the range of 2.5 to 5 kHz.

The general consensus is that 180 dB re 1 μPa is the threshold above which some potentially serious problems in marine mammals' hearing capability could occur (USN 2002). The U.S. Navy concluded

that a sound in the 0.1 to 0.5 kHz frequency band could cause serious problems in marine mammal's hearing capability from the following exposures:

- 1 second at 204 dB
- 1 minute at 186 dB
- 20 minutes at 172 dB
- 8 continuous hours at 160 dB

Sea Turtles and Other Protected Marine Reptiles

Impacts on sea turtles and the American crocodile would be significant if the stand-up and operation of the MSST resulted in any of the following outcomes:

- Temporary or permanent loss of critical habitat.
- Direct loss (take) of a substantial number of a specific species that would affect the species' ability to survive.
- Permanent loss of breeding and nesting areas and habitat.
- Substantial interference with movement of any species.

There is little known about sea turtle or American crocodile hearing. Past research based on brain physiology indicates that sea turtles are able to hear sounds with frequencies ranging from 0.08 to 2 kHz, with maximum sensitivity levels reported between 0.1 and 0.8 kHz and 0.3 and 0.4 kHz (Lenhardt 1994, NRC 2003). Loggerhead sea turtles are capable of hearing sound from 0.25 to 1 kHz (Moein et al. 1994). Preliminary data from continuing research on green sea turtles indicate that they are capable of hearing tones ranging from 0.1 kHz to 0.5 kHz, with a threshold between 107 dB and 119 dB at 0.2 kHz and a threshold between 121 dB and 131 dB at 0.4 kHz (ONR Undated).

Fish

Fisheries impacts could result primarily from impacts on fish habitat or changes to fish populations. Impacts on fisheries would be significant if the stand-up and operation of the MSST resulted in any of the following outcomes:

- Overfishing resulting in the species' inability to survive.
- Permanent loss of breeding areas, EFHs or Habitat Area of Particular Concern.
- Substantial interference with movement of any resident species or migration of anadramous species (i.e., species that migrate from salt water to fresh water).

Generally, fish hearing ranges from 0.5 to 1 kHz, although some fish can hear frequencies as high as 200 kHz.

Coastal and Other Birds

Impacts on coastal and other birds, particularly diving birds, would be significant if the stand-up and operation of the MSST resulted in any of the following outcomes:

- Temporary or permanent loss of critical habitat, including breeding and nesting areas.
- Direct loss (take) of a substantial number of a specific species that would affect the species' ability to survive.
- Harassment of nesting and foraging areas resulting in the species' inability to survive.
- Substantial interference with migration.

Studies with other (noncoastal) species indicate that birds are sensitive to low-frequency sounds in the air. However, there are little data on seabird hearing underwater, and there is no evidence that seabirds are affected by changes in underwater sound (USN 2001).

4.2.2 Potential Impacts

Under the Proposed Action, minor adverse impacts would be expected on protected and sensitive habitats, wetlands and floodplains, marine mammals, sea turtles or the American crocodile, EFH, fisheries, and threatened and endangered species and their critical habitat.

MSST operations would comply with laws relating to protected and sensitive habitats, marine mammals, and threatened and endangered species (including the Marine Protection, Research, and Sanctuaries Act; the MSFCMA; the Oil Pollution Act; and the ESA) would continue to be enforced, and USCG programs such as the APLMRI, Ocean Steward, and Ocean Guardian.

Protected and Sensitive Habitats

Proposed Action. No significant direct or indirect impacts on protected and sensitive habitats would occur from implementation of the Proposed Action. Proposed construction would be short-term and would consist of the installation of a modular building on an existing parking lot. Homestead Bayfront Park is within manatee critical habitat. However, the USCG already has a presence at this park and within manatee critical habitat and is familiar with the precautions necessary to operate within this critical habitat.

The Defender Class Boats are similar to other boats in the highly trafficked areas that they patrol; therefore, they would not introduce new or unanticipated impacts on marine resources within the ROI. Based on the purposed of and projected operations of the MSST, under normal patrol operations the Defender Class Boats would operate at 10-12 knots and would not disturb these areas. An exception to normal operation would be in the case of an unusual occurrence, such as when pursuing a threat. Under a normal operational scenario, the Proposed Action has no potential to significantly impact sensitive habitats.

Speeds in excess of 12 knots are only expected to be utilized in emergency situations, where public safety or national security is at risk. An MSST would not enter a protected or sensitive habitat unless pursuing a threat. A boat being pursued by an MSST may be deterred from entering shallow, sensitive habitats to avoid becoming damaged or grounded and thus apprehended. Boats traveling at high speed have the potential for direct, adverse impacts to seagrass beds, coral reefs or protected animals from boat hull or propeller strikes. As boats travel faster, they typically ride higher in the water, possibly lessening the potential for direct impacts. Such impacts are expected to be rare, and therefore would not be significant. Potential direct impacts to animals are discussed further in the following sections. High speed boats might also have indirect, adverse impacts by producing large wakes that would cause sand to bury or partially bury seagrass beds. Such impacts would also be rare and short-term, and therefore would be minimal.

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. This would not meet the USCG's requirement to provide maritime security and would possibly make it easier for an attack to occur. Significant adverse impacts from a successful terrorist attack could occur, and might be more likely to occur, should this alternative be selected since existing conditions are not sufficient to adequately protect against terrorist attack. Recovery would depend on the extent and type of damage.

Wetlands, Floodplains, and Seagrass

Proposed Action. No significant impacts on wetlands and floodplains are expected from implementation of the Proposed Action. Onshore construction associated with the Proposed Action would be short-term and would consist of the installation of a modular building on an existing parking lot and security fence. The proposed onshore construction would not occur in wetlands and would not affect seagrass. Although much of the cities of Miami and Homestead are within the 100-

year and 500-year floodplains, the proposed construction would not stimulate further development in a floodplain and is consistent with EO 11988. The eight-step process for compliance with EO 11988 was conducted in conjunction with the USCG's public involvement process for this EA (see Section 1.5). The USCG will issue its findings and a public explanation pursuant to the EO in conjunction with the Decision Record for this EA.

The Defender Class Boats are similar to other boats in the highly trafficked areas which they patrol; therefore they would not introduce new or unanticipated impacts within the ROI. Shallow-water estuarine wetland areas would not be used during MSST operations, and the low speeds used during normal operations would minimize impacts to benthic habitat or submerged obstacles. Under a normal operational scenario with the Defender Class Boats operating at 10-12 knots, the Proposed Action would have no potential to disturb wetlands, floodplains or seagrass.

Speeds in excess of 12 knots are only expected to be utilized in emergency situations, where public safety or national security is at risk. An MSST would not enter a seagrass bed unless pursuing a threat. A boats being pursued by an MSST may be deterred from entering seagrass beds to avoid becoming damaged or grounded and thus apprehended. Boats traveling at high speed have the potential for direct, adverse impacts to seagrass beds from boat hull or propeller strikes. As boats travel faster, they typically ride higher in the water, possibly lessening the potential for direct impacts. Such impacts are expected to be rare, and therefore would not be significant. High speed boats might also have indirect, adverse impacts by producing large wakes that would cause sand to bury or partially bury seagrass beds. Such impacts would also be rare and short-term, and therefore would be minimal.

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. This would not meet the USCG's requirement to provide maritime security and would possibly make it easier for an attack to occur. Significant adverse impacts from a successful terrorist attack could occur, and might be more likely to occur, should this alternative be selected since existing conditions are not sufficient to adequately protect against terrorist attack. Recovery would depend on the extent of loss.

Marine Mammals

Proposed Action. Although several species of marine mammals have been known to inhabit the ROI, including three endangered species, no significant adverse impacts on marine mammals are expected to occur from implementation of the Proposed Action. Proposed onshore construction would be minor short-term, and has no potential to impact marine mammals or marine mammal habitat.

The USCG has protocols in place to protect whales, other marine mammals, sea turtles, and other protected marine species. These protocols allow for the general protection and conservation of various marine species, and include specific measures to prevent injury or death due to ship strikes. These protocols also allow for strategic collaboration with various Federal and state agencies to implement major actions (USCG and MARAD 2003b). The USCG's current COMDTINSTs, regulations, and procedures to avoid marine mammals would continue under the Proposed Action. MSST operations would comply with all Federal and state environmental laws and USCG protocols, including Ocean Steward.

To guard against any adverse impacts of the Defender Class Boat operation on marine mammals, the USCG would continue to adhere to the protective measures in place including the policies and goals stated in the Ocean Steward (see Appendix F). Therefore, there would be no significant adverse impacts on marine mammals as a result of the operation of the six Defender Class Boats.

Elements of the Proposed Action that involve construction would be short-term and would consist of constructing a fence, installation of a modular building, and interior modifications to an existing building, and therefore have no potential to impact marine mammals.

Under a normal operational scenario with the Defender Class Boats operating at 10-12 knots, MSST operations has the potential for direct, adverse impacts to marine mammals from collisions with the animals. The Defender Class Boats are similar to other boats in the highly trafficked areas they patrol; therefore, they would not introduce new or unanticipated impacts within the ROI. The Defender Class Boats are also designed to be highly maneuverable, which would assist them in avoiding collisions with marine mammals. Furthermore, to prevent the Defender Class Boats from adversely impacting marine mammals, the USCG would continue to adhere to the protective measures described in the APLMRI, Protected Living Marine Resources Program (COMDTINST 16475.7) and the USCG Participation in the Marine Sanctuaries Program (COMDTINST 16004.3A) (Appendix E).

The six new Defender Class Boats would be a negligible addition to the large number of commercial and recreational vessels that utilize the Port of Miami on a daily basis. It is likely that only two to four Defender Class Boats would be utilized under normal operations. Even though the Defender Class Boats are capable of traveling up to 40 knots, this speed would not be used on a continuous basis and would usually be reserved for emergency security operations that necessitate high speed. Normal transit speeds would be in the range of 10 to 12 knots.

Speeds in excess of 12 knots are only expected to be utilized in emergency situations, where the MSST would be responding to a specific threat and public safety or national security is at risk. In emergency situations where the boat speed exceeds 13 knots, the risk of a collision with marine mammals would increase. Such impacts are expected to be rare, and therefore would not be significant. In the unlikely event that there was a collision between an MSST vessel and a threatened or endangered marine mammal, the USCG would follow the emergency consultation procedures under 50 CFR Section 402.05.

The operation of the MSST would not result in significant adverse impacts on marine mammals from airborne or waterborne noise. Responses will vary depending on factors such as hearing sensitivity; past exposure to the noise; individual noise tolerance; age, sex, and presence of offspring; the loudness of the noise; whether the sound is stationary or moving; sound transmission; and location (e.g., confinement). Short-term responses of marine mammals to audible sound could range from swimming away from the source; changes in surfacing, breathing and diving patterns; changes in group composition; changes in vocalization; or changes in behaviors such as breeding, feeding, sheltering, or nursing. Long-term responses could include abandonment of a portion of a habitat or tolerance to a noise. A general increase in ambient noise could reduce an animal's ability to hear important sounds, such as communication and the sound of prey. Additional indirect effects of ocean noise could result from changes in the distribution prey. Noise might also case direct acoustic trauma. For example, mid-frequency (1–10 kHz) sonar have been implicated as the cause of mass strandings of beached whales. Pursuant to Section 7 of the ESA, USCG initiated informal consultation with NOAA Fisheries, Protected Resources Division and USFWS on September 2, 2004. All correspondence relating to the Section 7, ESA consultation is presented in Appendices A and C.

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. This alternative would not meet the USCG's requirement to provide

maritime security and would possibly make it easier for an attack to occur. Significant adverse impacts from a successful terrorist attack could occur, and might be more likely to occur, should this alternative be selected since existing conditions are not sufficient to adequately protect against terrorist attack. Recovery would depend on the extent of loss.

Sea Turtles and Other Protected Marine Reptiles

Proposed Action. Although six species of sea turtles and the American crocodile inhabit the ROI, no significant adverse impacts on these threatened and endangered reptiles are expected to occur from implementation of the Proposed Action. Proposed onshore construction would be minor short-term and has no potential to impact sea turtles, sea turtle nesting, or the American crocodile.

The USCG has protocols in place to protect whales, other marine mammals, sea turtles, and other protected species. These protocols allow for the general protection and conservation of various marine species, and include specific measures to prevent injury or death due to ship strikes. These protocols also allow for strategic collaboration with various Federal and state agencies to implement major actions (USCG and MARAD 2003b). While the purpose of the MSST is not to provide marine resource protection or law enforcement, the Proposed Action would comply with all Federal and state environmental laws and all USCG protocols, including Ocean Steward.

Under a normal operational scenario with the Defender Class Boats operating at 10-12 knots, MSST operations has the potential for direct, adverse impacts to sea turtles from collisions with the animals. The Defender Class Boats are similar to other boats in the highly trafficked areas they patrol; therefore, they would not introduce new or unanticipated impacts within the ROI. The Defender Class Boats are also designed to be highly maneuverable, which would assist them in avoiding collisions with sea turtles. Furthermore, to prevent Defender Class Boat operation from adversely impacting threatened and endangered reptiles, the USCG would continue to adhere to the protective measures described in the Protected Living Marine Resources Program (COMDTINST 16475.7) and the USCG Participation in the Marine Sanctuaries Program (COMDTINST 16004.3A) (Appendix E).

The six new Defender Class Boats would be a negligible addition to the large number of commercial and recreational vessels that utilize the Port of Miami on a daily basis. It is likely that only two to four Defender Class Boats would be utilized under normal operations. Even though the Defender Class Boats are capable of traveling up to 40 knots, this speed would not be used on a continuous basis and would usually be reserved for emergency security operations that necessitate high speed. Normal transit speeds would be in the range of 10 to 12 knots.

Speeds in excess of 12 knots are only expected to be utilized in emergency situations, where the MSST would be responding to a specific threat and public safety or national security is at risk. In emergency situations where the boat speed exceeds 13 knots, the risk of a collision with sea turtles would increase. Such impacts are expected to be rare, and therefore would not be significant. In the unlikely event that there was a collision between an MSST vessel and a threatened or endangered sea turtle, the USCG would follow the emergency consultation procedures under 50 CFR Section 402.05.

Localized, short-term increases in airborne and waterborne noise are expected, but are not expected to be significant. It is anticipated that only temporary, minor adverse impacts on threatened and endangered reptiles, if any, would occur. Given the small number and size of the Defender Class Boats involved in the Proposed Action, as well as their high level of maneuverability and relatively slow operating speed (during normal operations), only minor adverse impacts on sea turtles and the American crocodile would be expected from the stand-up and operation of an MSST in the Port of Miami.

Pursuant to Section 7 of the ESA, USCG initiated informal consultation with NOAA Fisheries, Protected Resources Division and USFWS on September 2, 2004. All correspondence relating to the Section 7 ESA consultation is presented in Appendices A and C.

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. This alternative would not meet the USCG's requirement to provide maritime security and would possibly make it easier for an attack to occur. Significant adverse impacts from a successful terrorist attack could occur, and might be more likely to occur, should this alternative be selected since existing conditions are not sufficient to adequately protect against terrorist attack. Recovery would depend on the extent of loss.

Fish

Proposed Action. No significant impacts on fish or EFH are expected to occur from implementation of the Proposed Action. Proposed construction would be minor short-term and has no potential to impact fish or EFH.

Although the purpose of the MSST is not to provide marine resources protection and law enforcement, the USCG would continue to enforce fisheries laws under its Ocean Guardian, Ocean Steward, and Protected Living Marine Resources Programs (COMDTINST 16475.7).

The Defender Class Boats are similar to other boats in the highly trafficked areas which they patrol; therefore, they would not introduce and new or unanticipated impacts to fisheries or EFH within the ROI. Implementation of the Proposed Action could result in minor adverse impacts on fish resulting from localized, short-term increases in airborne and waterborne noise, or collision with the Defender Class Boats or its propellers. It is anticipated that only temporary, minor adverse impacts, if any, would occur. However, vessels produce pressure waves around them which reach the fish and generally cause them to move away from the boat. Therefore, the potential for collisions is reduced and the impact would be negligible.

Pursuant to Section 305(b) of the MSFCMA, the USCG initiated an EFH consultation with NOAA Fisheries' Habitat Conservation Division on September 2, 2004. All correspondence relating to EFH and ESA Section 7 consultation is included in Appendices A and C. Pursuant to Section 7 of the ESA, the USCG initiated informal consultation with NOAA Fisheries Protected Resources Division and the USFWS. All correspondences related to the Section 7 ESA and EFH consultations are presented in Appendices A and C.

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. This alternative would not meet the USCG's requirement to provide maritime security and would possibly make it easier for an attack to occur. Significant adverse impacts from a successful terrorist attack could occur, and might be more likely to occur, should this alternative be selected since existing conditions are not sufficient to adequately protect against terrorist attack. The potential for loss of EFH and fish species could also impact the Nation's economy. Recovery would depend on the extent of the loss.

Coastal and Other Birds

Proposed Action. Implementation of the Proposed Action would have no significant adverse impacts on coastal and other bird species that occur in the ROI.

Proposed construction would be short-term and would consist only of installation of a modular building on an existing parking lot and a security fence; therefore, it would have no impact on coastal or other bird species.

Implementation of the Proposed Action could result in minor adverse impacts on coastal and other birds resulting from localized, short-term increases in airborne and waterborne noise. Normal MSST

operations would not be within nesting and foraging habitat for threatened or endangered coastal or migratory birds. It is anticipated that only temporary, minor adverse impacts, if any, would occur. Speeds in excess of 12 knots are only expected to be utilized in emergency situations, where the MSST would be responding to a specific threat and public safety or national security is at risk. In emergency situations the noise produced from the boats would increase and might cause birds to flush from their nesting, roosting, or foraging sites. However, the effect from the passing boats would be temporary and therefore not significant.

Pursuant to Section 7 of the ESA, USCG initiated consultation with USFWS on September 2, 2004. All correspondence relating to the Section 7 ESA consultation is presented in Appendix B.

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. This would not meet the USCG's requirement to provide maritime security and would possibly make it easier for an attack to occur. Significant adverse impacts from a successful terrorist attack could occur, and might be more likely to occur, should this alternative be selected since existing conditions are not sufficient to adequately protect against terrorist attack. Recovery would depend on the extent of loss.

4.3 Air Quality and Climate

4.3.1 Significance Criteria

The potential impacts on local and regional air quality conditions near a proposed Federal action are determined based on the increases in regulated pollutant emissions relative to existing conditions and ambient air quality. Impacts on air quality in NAAQS "attainment" areas are considered significant if the net changes in 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 AQCR

Emissions inventory Impacts to air quality in NAAQS "nonattainment" and 'maintenance" areas are considered significant if the net changes in project-related emissions result in one of the following situations:

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

With respect to the General Conformity Rule, impacts to air quality would be considered significant if the Proposed Action would result in an increase of a nonattainment or maintenance area's emission inventory by ten percent or more for one or more nonattainment pollutants, or if such emissions exceed *de minimis* threshold levels established in 40 CFR 93.153(b) for individual non-attainment pollutants or for pollutants for which the area has been designated as a non-attainment or maintenance area. The General Conformity Rule applies, since the Proposed Action occurs in a maintenance area for O_3.

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 $\mu g/m^3$ or more of any regulated pollutant in the Class I area (40 CFR 52.21(b)(23)(iii)). PSD regulations also define ambient air increments – limiting the allowable increases to any area's baseline air contaminant concentrations, based on the area's designation as Class I, II, or III (40 CFR 52.21(c)). Local and regional pollutant impacts of direct and indirect emissions from stationary emission sources from the Proposed Action are addressed through federal and state permitting program requirements under the NSR and PSD regulations (40 CFR Parts 51 and 52).

4.3.2 Potential Impacts

The potential sources of increased criteria pollutant emissions under the Proposed Action would be from (1) watercraft operations, (2) personnel commuter travel, (3) maintenance and support activities, and (4) fuel storage and handling emissions. No significant impact on air quality is expected from implementation of the Proposed Action.

Watercraft Operations

Proposed Action. The vessels and engines to be used for the Defender Class Boats must meet specific requirements, including the capability of sustaining speeds of 40+ knots in calm seas. The Defender Class Boats would be equipped with two 225-hp Honda engines. These four-stroke engines would meet the speed requirements of the USCG and would fulfill Federal USEPA 2006 emissions requirements.

Under the Proposed Action, a minor impact on 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 hp (see Appendix F).

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. Impacts of selecting this alternative would be considered significantly adverse due to the potential of a terrorist attack. Terrorists could strike at military or commercial facilities in these ports creating the potential for impacts on the environment. The impacts could be immediate or long-lasting. Recovery time would be dependent on the severity and extent of the impact.

Personnel Commuter Travel

Proposed Action. The number of additional personnel is comparatively small (70 to 80 active-duty personnel, eventually up 100 active-duty personnel) and would result in minor adverse impacts on air quality. Calculations of air pollutant emissions from the proposed personnel commuter travel operations were performed based on an average fleet model from 1995, commuting an average of 20 miles each way to the Homestead MSST facility 365 days a year (see Appendix F).

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. Impacts of selecting this alternative would be considered significantly adverse due to the potential of a terrorist attack. Terrorists could strike at military or commercial facilities in these ports creating the potential for impacts on the environment. The impacts could be immediate or long-lasting. Recovery time would depend on the severity and extent of the impact.

Maintenance and Support Activities

Proposed Action. Under the Proposed Action, routine vessel and vehicle maintenance would be performed in the MSST Boat Storage facility. A local commercial contractor would be hired to

remove and dispose of hazardous waste materials (e.g., used oil and engine coolant); and the MSST armory would use only nonhazardous, orange-based cleaners. The MSST would follow the USCG's procedures as described in the Hazardous Waste Management Manual (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).

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. Impacts of selecting this alternative would be considered significantly adverse due to the potential of a terrorist attack. Terrorists could strike at military or commercial facilities in these ports creating the potential for impacts on the environment. The impacts could be immediate or long-lasting. Recovery time would be dependent on the severity and extent of the impact.

Fuel Storage and Handling Emissions

Proposed Action. No new fuel storage or dispensing facilities would be required under the Proposed Action. The Defender Class Boats 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 neglible 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.

The result would put further demand on manpower and current assets. This scenario of vessels and manpower at maximum capacity would possibly make it easier for an attack to occur. Impacts of selecting this alternative would be considered significantly adverse due to the potential of a terrorist attack. Terrorists could strike at military or commercial facilities in these ports creating the potential for impacts on the environment. The impacts could be immediate or long-lasting. Recovery time would depend on the severity and extent of the impact.

Conformity

Since a USEPA-designated maintenance area is affected by this Proposed Action, the USAF must comply with the Federal General Conformity Rule (40 CFR, Part 93). To do so, an analysis has been completed to ensure that, given the changes in direct and indirect emissions of the O_3 precursors (NO_x and VOCs), PM_{10}, and CO, the Proposed Action would be in conformity with applicable CAA requirements. The Conformity Determination requirements specified in this rule can be avoided if the project-related non-attainment pollutant emission rate increases are below *de minimis* thresholds levels for each pollutant and are not considered regionally significant. For purposes of determining conformity in this maintenance 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 and *de minimis* threshold comparisons are collectively presented in Appendix B.

With respect to the General Conformity Rule, impacts to air quality would be considered significant if the proposed Federal action would result in an increase of a non-attainment or maintenance area's emission inventory by ten percent or more for one or more non-attainment pollutants, or if such emissions exceed *de minimis* threshold levels established in 40 CFR 93.153(b) for individual non-attainment pollutants or for pollutants for which the area has been designated as a non-attainment or maintenance area.

The *de minimis* threshold emission rates were established by the USEPA in the General Conformity Rule in order to focus analysis requirements on Federal actions with the potential to have "significant" air quality impacts. Table 4-3 presents these thresholds, by regulated pollutant. These *de minimis* thresholds are similar, in most cases, to the definitions for major stationary sources of criteria and precursors to criteria pollutants under the CAA's New Source Review (NSR) Program (CAA Title I). As shown in Table 4-1, *de minimis* thresholds vary depending upon the severity of the non-attainment area designation by USEPA.

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 well below the *de minimis* threshold requirements and the regional significance requirements of the General Conformity Rule. As such, this federal action is exempt from a Conformity Determination and all other requirements that are specified under the General Conformity Rule and applicable regulations (40 CFR Part 93).

Table 4-1. General Conformity Rule *de minimis* Emission Thresholds

Pollutant	Status	Non-Attainment Classification	*de minimis* Threshold (tpy)
Ozone (measured as – "precursors": Nitrogen Oxides (NO_x) or Volatile Organic Compounds (VOCs))	Non-attainment	Extreme Severe Serious Moderate/marginal (inside ozone transport region) All others	10 25 50 50 (VOCs)/100 (NO_x) 100
	Maintenance	Inside ozone transport region Outside ozone transport region	50 (VOCs)/100 (NO_x) 100
Carbon Monoxide (CO)	Non-attainment/ Maintenance	All	100
Particulate Matter <10 microns (PM_{10})	Non-attainment/ Maintenance	Serious Moderate Not Applicable	70 100 100
Sulfur Dioxide (SO_2)	Non-attainment/ maintenance	Not Applicable	100
Nitrogen Dioxide (NO_2)	Non-attainment/ maintenance	Not Applicable	100

Source: 40 CFR 93.153(b)

Table 4-2 presents total air quality emissions from the Proposed Action and Table 4-3 compares the Proposed Action emissions to the total Southeast Florida Intrastate Air Quality Control Region emissions inventory.

Table 4-2. Coast Guard MSST – Homestead 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 MSST Vehicles	2.35	2.15	29.56	0.07	2.82
Total Emissions:	**8.68**	**4.92**	**57.24**	**0.40**	**3.08**

Notes: tpy – tons per year

Table 4-3. Net Emissions for Southeast Florida Intrastate Air Quality Control Region Under the Proposed Action

	VOC	NO_x	CO	SO_2	PM_{10}
Southeast Florida Intrastate AQCR Inventory (tpy)	286,959	234,227	1,983,767	114,316	139,900
Proposed Action Net Change (tpy):	8.68	4.92	57.24	0.40	3.08
Percent of Southeast Florida Intrastate AQCR Inventory:	0.0030	0.0021	0.0029	0.00035	0.0022

Source: USEPA 1999

4.4 Noise

4.4.1 Significance Criteria

This section addresses the noise impacts from the Proposed Action and the No Action Alternative. Examples of noise impacts from the Proposed Action include noise from vessels, construction equipment (temporary), and traffic. 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. Noise impacts were only considered within the ROI. The impacts of noise on marine animals are discussed in Section 4.2.2.

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.

Airborne 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. USEPA has determined that 75 dB at 50 ft is an acceptable noise level to protect public health and welfare (PWIA 2002).

Waterborne Noise

The significance of waterborne (underwater) noise is based on the duration and magnitude of the noise level and is relative to the existing ambient noise level. The significance criteria of impacts of waterborne noise on marine organisms and other biological resources are discussed in Section 4.2.1.

4.4.2 Potential Impacts

Minor adverse impacts on ambient noise levels are expected from implementation of the Proposed Action, under normal operating conditions. A detailed description of the analysis is presented below.

Airborne Noise

Proposed Action. Test data for the Honda 225-hp outboard engine, running at full throttle on a standard boat hull, found that the airborne noise produced was 72.2 dbA at 82 ft (25 m) from the source (Honda 2004). Test data was not available for the engines at 50 ft (15 m); however the engine speed was higher than the normal operation speed of 10-12 knots. Therefore, noise emissions from the MSST should be below the threshold of 75 dB at 50 ft (15 m) to protect public health and welfare.

It is anticipated that the additional airborne noise created by the Proposed Action would be indistinguishable from existing vessel activity and ambient noise in the ROI. Minor adverse noise impacts could occur in the ROI during unusual events (i.e., high-speed pursuits), depending on the location of the event relative to the location of sensitive noise receptors. The potential for such impacts would be minimized by the use of four-stroke engines on the Defender Class Boats.

No significant adverse impacts on human health and welfare are expected from implementation of the Proposed Action under normal operating conditions. Since there are no identified noise sensitive areas in the ROI, sound exposure levels were not calculated. The ROI is a large geographic area comprising the Port of Miami and the coastal waters surrounding southeast Florida and Puerto Rico (see Figure 1-2). Airborne noise impacts from marine vessel operations is rarely an issue of concern because the majority of the population lives near waterways and has become familiar with the sound of passing boats and ships. Under normal operating conditions, vessel speeds would be expected to be low (10 to 12 knots). It is anticipated that the MSST would operate 12 hours a day, 7 days per week and that there would be two to three 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.

Minor noise impacts might result from the construction of the MSST storage and administrative facilities. These impacts would be localized and would be short-term in nature.

No Action Alternative. Under the No Action Alternative, existing conditions would remain unchanged and the MSST would not be stood up. Because of the important role that the Port of Miami plays in the local, state, and regional economy, the Port would continue to pursue its major economic duties. Since thousands of ships navigate the Port annually, existing noise conditions would persist in their current state. The USCG would maintain its current level of protection, which has been determined to be insufficient. Under this alternative, disruptions to other missions would continue and the utilization of vessels and manpower at maximum capacity could possibly make it easier for an attack to occur. Short-term temporary noise impacts could occur if the selection of this alternative results in a terrorist attack on military or commercial facilities in the Port. Recovery time would depend on the severity and extent of the impact.

Waterborne Noise

Proposed Action. No significant impact on existing ambient noise levels would result from implementation of the Proposed Action. Increase in vessel traffic from the addition of six Defender Class Boats would be negligible relative to the number of vessels that already utilizes the ROI. Underwater noise generated by existing vessels is variable and pervasive, and would not be significantly increased by the addition of six Defender Class Boats. MSST vessel operations would be conducted at relatively low speeds (10 to 12 knots), except during an unusual event (i.e., high-speed pursuit). It is anticipated that the proposed USCG operation within the ROI would be indistinguishable from existing vessel activity and the ambient noise environment. During unusual events, minor short-term adverse noise impacts could occur in the ROI, depending on the location of the event relative to a sensitive noise receptor. The likelihood of such impacts would be minimized by the use of four-stoke engines on the Defender Class Boats.

No Action Alternative. Under the No Action Alternative, existing conditions would remain unchanged and the MSST would not be stood up. Because of the important role that the Port of Miami plays in the local, state, and regional economy, the Port would continue to pursue its major economic duties. Since thousands of ships navigate the Port annually, existing noise conditions would persist in their current state. The USCG would maintain its current level of protection, which has been determined to be insufficient. Under this alternative, disruptions to other missions would continue and the utilization of vessels and manpower at maximum capacity could possibly make it easier for an attack to occur. Short-term temporary noise impacts could occur if the selection of this alternative results in a terrorist attack on military or commercial facilities in the Port. Recovery time would depend on the severity and extent of the impact.

4.5 Public Safety

4.5.1 Significance Criteria

This section addresses the impacts on public safety as a result of the Proposed Action. If implementation of the Proposed Action were to substantially increase risks associated with the safety of USCG personnel (including MSST personnel), workers and visitors, or the local community, or substantially hinder the USCG's ability to respond to an emergency, it would represent a significant impact. Furthermore, if implementation of the Proposed Action would result in incompatible land use with respect to safety criteria, impacts on safety would be significant. This document assumes that the loss of one or more ships or the loss of life would be significant.

4.5.2 Potential Impacts

The establishment of the MSST would provide beneficial impacts on public safety through additional security to the military and commercial assets within the ROI.

Proposed Action. The Proposed Action would increase the USCG's ability to protect the critical Port of Miami, Puerto Rico, and the U.S. MTS from warfare and terrorist attacks. The MSST's operations would closely parallel USCG traditional port security operations, and would provide complementary, nonredundant 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 in each port. It is capable of operating 7 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 nongovernmental entities. Beneficial impacts would be expected from implementation of the Proposed Action.

No Action Alternative. Under the No Action Alternative, existing security conditions would remain unchanged and the MSST would not be stood up. The USCG would maintain its current level of protection, which has been determined to be insufficient. Additional boats and personnel would only be assigned to the Miami MSST under unusual circumstances. Under this alternative, disruptions to other missions would continue and the utilization of vessels and manpower at maximum capacity could possibly make it easier for an attack to occur. Significant adverse impacts from a successful terrorist attack could occur on military, commercial, or residential facilities in the ROI, and might be more likely to occur, should this alternative be selected since existing conditions are not sufficient to adequately protect against terrorist attack. Such an attack could create health and safety hazards for the surrounding populace, and impact appropriate emergency responses. The impacts would be

immediate, and could be temporary or long-lasting. Recovery time would depend on the severity and extent of the impact.

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5. Cumulative Impacts

5.1 Cumulative Impacts Methods

Cumulative impacts on environmental resources result from incremental effects of proposed actions, when combined with other past, present, and reasonably foreseeable future projects in the area. Cumulative impacts can result from individually minor, but collectively substantial actions undertaken over a period of time by various agencies (Federal, state, and local) or individuals. Informed decisionmaking is served by consideration of cumulative impacts resulting from projects that are proposed, under construction, recently completed, or anticipated to be implemented in the reasonably foreseeable future.

Other projects evaluated in this section include planned or reasonably foreseeable projects by the USCG, other agencies, and businesses. Planned or reasonably foreseeable projects were identified through a review of public documents, Internet searches, other NEPA documents, and local newspaper articles.

5.2 Cumulative Impacts Analysis

The Port of Miami, promoted as the Cruise Capital of the World and the Cargo Gateway of the Americas, is a world-class port that is among an elite group of ports on the globe. The Port of Miami is an important contributor to the local and state economies. During FY 2003, nearly 4 million cruise passengers passed through the Port and more than 9 million tons of cargo and more than 1 million twenty-foot equivalent unit containers transited through the seaport. This combination of cruise and cargo activities supported approximately 98,000 jobs, and has an economic impact in Miami-Dade County of more than $12 billion. To retain the Port's competitive rank as a world-class port, development plans of more than $250 million are moving along to accommodate the changing demands of cruise vessel operators, passengers, shippers, and carriers. The infrastructure that will be required to meet projected increases in cargo and cruise during the next 20 to 30 years is being addressed in a capital improvement program that includes 37 projects and more than $250 million. In 2003, two new parking garages were constructed and completed to accommodate the increased number of drive-in cruise passengers. Among the projects scheduled for completion in 2004 are two new cruise terminals and the remodeling of two existing ones, a new cruise entry gate, two new parking garages, construction of a new cargo shed, two new wharves, a new cargo and security gate facility, and a new refrigerated container yard.

Compared to other ongoing and planned activities in the Port of Miami, the Proposed Action is a relatively small initiative that would have negligible adverse impacts on the Port of Miami. The Proposed Action would not stimulate additional economic growth in the region, but would enhance current and future maritime activity by providing increased port security. Given the large number of recreational and commercial vessels that utilize the Port, the Proposed Action would cause a negligible increase in vessel traffic. Airborne and waterborne noise created by the Proposed Action would also be negligible compared to the existing ambient noise conditions.

Table 5-1 summarizes potential cumulative effects on resources from the Proposed Action when combined with other past, present, and future activities.

5.3 Relationship between the Short-term Use of the Environment and Long-term Productivity

Short-term uses of the biophysical components of human environment include direct construction-related disturbances and direct impacts associated with an increase in population and activity that occurs over a period of less than 5 years. Long-term uses of human environment include those impacts that occur over a period of more than 5 years, including permanent resource loss.

Several kinds of activities could result in short-term resource uses that compromise long-term productivity. Filling of wetlands or loss of other especially important habitats and consumptive use of high-quality water at nonrenewable rates are examples of actions that affect long-term productivity.

The Proposed Action would not result in a change of land use and does not represent a significant loss of open space. The Proposed Action would not consume large amounts of material. The Proposed Action would result in additional protection for the Port of Miami and vicinity.

5.4 Unavoidable Impacts

Unavoidable adverse impacts would result from implementation of the Proposed Action. Unavoidable adverse impacts are anticipated to be primarily short-term and localized.

Water Quality. The Proposed Action would result in increased use of the Port of Miami and water bodies in the vicinity. The Defender Class Boats would be equipped with two 225-hp engines that meet USEPA's 2006 emission standards. In addition, considering the type and number of vessels that frequent the Port of Miami, significant impacts are not expected.

Table 5-1. Cumulative Effects on Resources

Resource	Past Actions	Current Background Activities	Proposed Action	Known Future Actions	Cumulative Effects
Noise	On-site construction activities and road noise are dominant noise sources.	On-site construction activities, road noise, and vessel traffic are dominant noise sources.	Increased noise from construction activities, traffic, and MSST operations.	None.	Existing road noise and vessel traffic will be dominant noise sources. Effect not significant.
Land Use	Development as Homestead ARB and BRAC.	On-site construction, shipping, and commercial activities, and development of the area.	No change in overall land use.	Continued use of the Port of Miami as industrial facilities.	Creation of new terminals and wharves might result in increased use of facility.
Air Quality	Attainment area for all criteria pollutants.	Emissions from construction equipment and vehicles.	Increased vehicle and MSST traffic.	Continued growth in the Southeast Florida Intrastate AQCR.	Continued maintenance area. Effect not significant.
Biological Resources	Degraded historic habitat of sensitive and common wildlife species.	Development of Port of Miami impacts wildlife and their habitat.	Under the Proposed Action, minor adverse impacts would be expected.	Continued development of the Port of Miami would impact terrestrial and aquatic communities and their habitat.	Continued development of the Port of Miami would impact low-quality habitat. Effect not significant.
Socioeconomics and Environmental Justice	Industrial facilities at the Port of Miami contribute to local economic community.	Continued growth and diversification of the regional economy.	Negligible contribution to local economy, employment, and construction industry.	Continued growth and diversification of regional economy.	Minor short-term stimulation of local economic in context of increased development within Miami-Dade County.

Biological Resources. The Proposed Action would result in minor adverse impacts on biological resources. The increase in airborne and waterborne noise could impact biological resources. The impacts would be temporary in nature. Although unavoidable, impacts on biological resources are not considered significant.

Geological Resources. Under the Proposed Action, no impacts on geological resources are anticipated.

Socioeconomics. Under the Proposed Action, no impacts on socioeconomics are anticipated.

Air Quality. The Proposed Action would have unavoidable impacts due to emissions from the new Defender Class Boats.

Noise. The Proposed Action would result in minor adverse impacts from noise. There would be an increase in waterborne and airborne noise. Although unavoidable, noise impacts are not considered significant.

5.5 Irreversible and Irretrievable Commitment of Resources

An irreversible or irretrievable commitment of resources refers to impacts on or losses to resources that cannot be reversed or recovered. Examples are when a species becomes extinct or when wetlands are permanently converted to open water. In either case, the loss is permanent.

The irreversible environmental changes that would result from implementation of the Proposed Action involve the consumption of material resources, energy resources, land, biological habitat, and human resources. The use of these resources is considered to be permanent.

Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects that use of these resources will have on future generations. Irreversible effects primarily result from use or destruction of a specific resource that cannot be replaced within a reasonable time frame (e.g., energy and minerals).

Material Resources. Material resources used for the Proposed Action include building materials (for construction of fence and modular building), concrete and asphalt (for roads), and various material supplies and would be irreversibly lost. None of the materials that would be consumed are considered scarce and would not limit other unrelated construction activities.

Energy Resources. Energy resources used for the Proposed Action would be irretrievably lost. These include petroleum-based products and electricity. MSST operations would consume gasoline. During construction, gasoline and diesel would be used for the operation of construction vehicles. Consumption of these energy resources would not place a significant demand on their availability in the region. Therefore, no significant impacts would be expected.

Human Resources. The use of human resources for construction and operation is considered an irretrievable loss, only in that it would preclude such personnel from engaging in other work activities. However, the use of human resources for the Proposed Action represents employment opportunities, and is considered beneficial.

6. Preparers

Suanne O. Collinsworth
M.S. Environmental Sciences and Engineering
B.S. Geology
Years of Experience: 7

Shari Currey
B.S. Biology/Marine Ecology
M.S. Oceanography/Marine Resource Management
Years of Experience: 7

Timothy Demorest
A.M. Classical Studies
B.A. Classical Studies
Years of Experience: 3

Melissa Ellinghaus
M.S. Environmental Science
B.S. Biology
Years of Experience: 5

Brian K. Hoppy
B.S. Biology
Years of Experience: 14

Ron Lamb
M.S. Environmental Science
M.A. Political Science/International Economics
B.S. Political Science
Years of Experience: 19

Sean McCain
M.B.A. Business Administration
B.S. Forestry and Natural Resources Management
Years of Experience: 10

Rachel Schneider
B.A. Chemistry
Years of Experience: 4

Lauri Watson
B.S. Environmental Science
Years of Experience: 2

Valerie Whalon
M.S. Fisheries Science
B.S. Marine Science
Years of Experience: 10

Mary Young
B.S. Environmental Science
Years of Experience: 2

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APPENDIX A

INTERESTED PARTY LETTER, MAILING LIST, NEWSPAPER ANNOUNCEMENT, AND SUPPLEMENT

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
2211 S. Clark Place
Arlington, VA 22202-3735

Ms. Cherie Trainor
Coordinator, Florida State Clearinghouse Department of Community Affairs
2555 Shumard Oak Boulevard
Tallahassee, FL 32399-2100

Keith Taniguchi
Chief, Division of Habitat Conservation
1875 Century Blvd., Suite 200
Atlanta, GA 30345

J. I. Palmer, Jr, Regional Administrator
U.S. Environmental Protection Agency
Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303-3104

Mr. Kenneth O. Burris, Jr.
Regional Director
Federal Emergency Management Agency
3003 Chamblee Tucker Road
Atlanta, GA 30341

Florida Division of Emergency Management
2555 Shumard Oak Blvd.
Tallahassee, Florida 32399-2100

Carlos Mercado, LCDR
Commanding Officer
U.S. Coast Guard
Maritime Safety & Security Team 91114
29050 Coral Sea Blvd.
Homestead, FL 33039

The Honorable Bob Graham
U.S. Senator
524 Hart Senate Office Building
Washington, D.C. 20510-0903

The Honorable Bill Nelson
U.S. Senator
716 Hart Senate Office Building
Washington DC 20510

The Honorable Ileanna Ros-Lehtinen
Representative
2160 Rayburn House Office Building
Washington, D.C. 20515-0918

The Honorable Jeb Bush
PL 05 The Capitol
400 South Monroe Street
Tallahassee, FL 32399-0001

Mr. Frederick Gaske
Deputy SHPO & Acting Division Director
Division of Historical Resources, Department of State
500 South Bronough Street
Room 305
Tallahassee, FL 32399-0250

Ms. Colleen M. Castille
Secretary, Department of Environmental Protection
3900 Commonwealth Blvd.
Tallahassee, FL 32399-3000

Mr. Ken Haddad
Executive Director
Fish and Wildlife Conservation Commission
620 S. Meridian St.
Tallahassee, FL 32399-1600

Mr. Craig Fugate
Director
Florida Division of Emergency Management
2555 Shumard Oak Boulevard
Tallahassee, Florida 32399-2100

Mayor Manuel A. Diaz
3500 Pan American Drive
Miami, Florida 33133

Mr. Joe Arriola, City Manager
3500 Pan American Drive
Miami, Florida 33133

Mr. William W. Bryson, Fire Chief
Director, Department of Fire-Rescue
City of Miami
Department of Fire-Rescue
444 SW 2nd Avenue
Miami, Florida 33133

Mr. John F. Timoney, Police Chief
Department of Police
444 SW 2nd Avenue
Miami, Florida 33133

Ms. Sarah Eaton, Preservation Officer
Historic Preservation Section
444 S.W. 2nd Ave., 3rd Floor
Miami, FL 33130

Mayor Alex Penelas
Stephen P. Clark Center
111 N.W. 1st Street, 29th Floor
Miami, Florida 33128

Mr. George M. Burgess
County Manager
Stephen P. Clark Center
111 N.W. 1st Street, Suite 2910
Miami, Florida 33128

Ms. Susanne M. Torriente
Assistant County Manager – Public Safety
Stephen P. Clark Center
111 N.W. 1st Street, Suite 2910
Miami, Florida 33128

Mr. Nelson Oramas
Assistant Director for Security
Port of Miami-Dade
Administrative Offices
1015 N. America Way
2nd Floor
Miami, FL 33132

Chief Carlos Castillo
Director
Office of Emergency Management
9300 NW 41st Street
Miami, FL 33178

Mr. Robert Parker
Miami-Dade Police Department
9105 Northwest 25th Street
Doral, FL 33172-1500

Mr. Antonio Bared
Fire Chief
Fire Rescue Department
9300 N.W. 41st Street
Miami, Florida 33178-2414

Ms. Diane O'Quinn Williams
Director
Stephen P. Clark Center
111 N.W. 1st Street, 11th Floor
Miami, Florida 33128

Director's Office
DERM Main Building
33 SW 2nd Avenue
Miami, Florida 33128

Miccosukee Tribe
P O Box 440021
Tamiami Station
Miami, FL 33144-

Seminole Tribe of Florida
Mitchell Cypress
Chairman
6300 Stirling Road
Hollywood, Florida 33024

VADM James D. Hull
Commander, Atlantic Area
U.S. Coast Guard
4000 Coast Guard Blvd
Portsmouth, VA 23703

Commander
Seventh Coast Guard District
909 SE 1st Avenue
Miami, FL 33131-3050

Mr. Rob Kappel
Environmental Planning
Civil Engineering Unit (CEU) Miami
15608 SW 117th Ave
Miami, FL 33177

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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-OT
Phone: (202) 267-1162
Fax: (202) 267-1171

16475

Dear Interested Party:

The United States Coast Guard (USCG) is announcing its intent to prepare an Environmental Assessment (EA) for the stand-up and operations of a Maritime Safety and Security Team (MSST) at Miami, FL. 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 (Title 40 Code of Federal Regulations, Part 1500), Department of Transportation (DOT) Order 5610.1C and USCG policy (Commandant's Instruction M16475.1D, *NEPA Implementing Procedures and Policy for Considering Environmental Impacts*).

The MSST is being established to increase the USCG's ability to protect critical domestic ports and the U.S. Marine 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, they also will provide complementary, non-redundant capabilities that will be able to close significant readiness gaps in our nation's strategic ports. The MSST would consist of 80 active duty personnel, six new Response Boats-Small (RB-S), trailers, support trucks, and passenger vans. It is anticipated that the RB-Ss would operate 12 hours per day, 7 days per week and that there would be two to three boats operating at any one time, although all six boats may operate under specific threat scenarios. RB-Ss are 25-foot boats with outboard engines. The RB-Ss can carry 3 crewmembers plus up to 7 passengers. They are equipped with radar, depth sounder, differential Global Positioning System, and defensive weaponry. The MSST is expected to operate in the Port of Miami, the coastal waters south to Tavernier, and Puerto Rico (see enclosure); however, the MSST may be deployed to other ports or harbors to provide additional protection for specific targets throughout the region. Operations associated with the MSST are similar to on-going USCG operations.

Enclosed for your review is a brief description of the Proposed Action (including a figure showing the location). Public input is important to the preparation of the EA. Your concerns and comments regarding the stand-up and operations of the MSST and the possible environmental impacts are important to the USCG. You are invited to submit comments by August 30, 2004 using only one of the following means:

By mail to:

Commandant (G-OT)
2100 Second Street, SW
Washington, DC 20593
Attn: Captain S. D. Austin

Or by fax to LT Ty Nagie at (202) 267-1171 (MSST)
Or by E-mail to tnagie@comdt.uscg.mil (MSST)

In choosing from these options, please give due regard to the continuing difficulties and delays associated with delivery of mail through the U.S. Postal Service to federal facilities. Written comments should include your name and address. The USCG will consider all comments received by the close of business on August 30, 2004 in the development and completion of the EA.

Sincerely,

S. D. AUSTIN
Captain, U.S. Coast Guard
Director, Maritime Homeland Security Operations & Tactics

Enclosures: (1) Supplemental Information
(2) ROI map

FACT SHEET

Environmental Assessment (EA) of the Stand-Up and Operations of a Maritime Safety & Security Team (MSST) at Miami, Florida

Background

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

To meet its increasing mission needs and challenges, the USCG is establishing Maritime Safety and Security Teams (MSSTs). MSSTs are specifically organized, trained, and equipped to counter current and emerging threats to our nation's seaports. The MSST would 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 American's foreign trade and military cargo to overseas locations. The MSST would 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. They would operate with, and be supported by, both military and civilian government organizations, commercial, and non-governmental entities. The MSST would be transportable via land transportation, USCG cutter, and USCG or other military aircraft worldwide. In summary, the MSST would:

- 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 to conduct Port State Control Boardings and deploy for port familiarization and training.

The USCG is preparing an Environmental Assessment (EA) to comply with the National Environmental Policy Act (NEPA), and other related environmental laws, regulations, and Executive Orders.

Maritime Safety and Security Teams

The stand-up (establishment and operations) of the MSST at Miami, Florida, would consist of 80 active duty personnel (these would consist of mostly reassigned personnel although there may be some new personnel), onshore construction of boat storage, dive shop and administrative support facilities, six Response Boats-Small (RB-Ss), trailers, eight pickup trucks, and three passenger vans.

RB-Ss 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-Ss are equipped with radar, differential Global Positioning System (DGPS), and defensive weaponry. The MSST would also include boat trailers, four Ford F-350 pickup trucks, four Ford F-550 stakebed trucks, and three 15-passenger vans. When not in use, RB-Ss would be located on trailers at its on-shore support facility.

The MSST would be capable of operating 24 hours per day, seven days per week. However, it is anticipated that the RB-Ss would operate 12 hours per day, 7 days per week and that there would be two to three boats operating at any one time.

The Region of Influence (ROI) for the MSST, presented in Attachment 1, is defined as the area where the MSST would typically conduct its operations. Under normal circumstances, the ROI is the Port of Miami, the coastal waters south to Tavernier, and Puerto Rico; however, the MSST may be deployed to other ports or harbors. The MSST would launch the RB-Ss from a boat ramp at Homestead Bayfront Park. The ROI is expected to be limited to existing harbor infrastructure and adjacent waters within the MSSTs primary operating area.

On-shore MSST Support Facilities

Each MSST would be located at or near an existing USCG Group in the vicinity of a regionally significant economic or military port. Co-locating the MSST with or near existing USCG Groups maximizes the use of existing infrastructure (i.e., electric, water and communications) and already assigned personnel. The criteria used to select these ports and the priority in which the MSST 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.

The Miami MSST would be temporarily located at Building 736 and permanently at Building 718, Homestead Air Force Base, 29050 Coral Sea Blvd., Homestead, FL 33039 (Attachment 2). Establishment of the MSST would involve interior renovations to Buildings 718 and 736, construction of a pre-engineered building (approximately 5000 square feet by 20 feet high) adjacent to Building 718 for boat storage, and construction of a security fence around Building 718.

Construction of the boat storage facility would occur on an area that is currently paved, and would entail: site preparation; excavation and fill; concrete foundation; concrete floor slab; floor drains; gutters; roll-up doors; windows; louvers; lighting, electrical, communication/data, ventilation and air conditioning systems; interior office and toilet space; a utility areas for a breathing air compressor unit and SCUBA tanks; exterior security lighting and hose bibs; exterior utility connections for sewer, water, electrical and communication/data systems; and miscellaneous related work required for a complete and useable facility. The facility will provide a storage/maintenance/shop area for 3 trailered boats with drive through capability and a dive shop/drying area.

Figure 1. Miami MSST ROI

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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 a Maritime Safety and Security Team in Miami, FL. 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 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. The MSST would allow the USCG to perform all of its missions, especially the newly acquired homeland security missions.

The EA will address the overall environmental impacts of establishing and operating the Miami MSST, including interior renovations to Buildings 718 and 736, construction of a pre-engineered building adjacent to Building 718 for boat storage, and the operation of 6 new Response Boats-Small (RB-S). The RB-Ss and personnel would be homeported at Homestead Air Force Base, 29050 Coral Sea Blvd., Homestead, FL 33039). The RB-S would operate in the Port of Miami, coastal waters south to Tavernier, and Puerto Rico. Public input is important in the preparation of this EA. 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 September 30, 2004 using only one of the following options:

(1) By mail to: Commandant (G-OT)
2100 Second Street, SW
Washington, DC 20593
Attn: Capt S. D. Austin
(2) Or, by fax to LT Ty Nagie at (202) 267-1171
(3) Or by E-mail to tnagie@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 September 30, 2004 in the development and completion of this EA.

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APPENDIX B

RESPONSES TO INTERESTED PARTY LETTERS

Miami-Dade Police Department

Director's Office

An Internationally Accredited Police Service

We Care | We Protect | We Serve

September 24, 2004

Captain S. D. Austin
United States Coast Guard
Commandant (G-OT)
2100 Second Street, SW
Washington, DC 20593

Dear Captain Austin:

Thank you for your recent letter and request for input from the Miami-Dade Police Department concerning the Environmental Assessment for the stand-up and operation of a Maritime Safety and Security Team (MSST) at Miami, Florida.

The United States Coast Guard's (USCG) proposed MSST appears to be an outstanding endeavor that will increase already effective security measures at the Dante B. Fascell Port of Miami-Dade (DBFPOM). We look forward to working with the additional USCG personnel that will staff the MSST operation. Please be assured that our law enforcement and seaport security personnel will be ready to assist your agency in seaport security endeavors consistent with each of our agencies' missions.

Concerning your request for our input on environmental impacts that your proposed MSST may have, our agency cannot identify any specific concerns that bear directly on this question.

Our Department looks forward to the opportunity to participate in this process with the USCG and its new complement of officers and support staff at the DBFPOM. If you require further assistance or information, please contact Captain Kenneth Christopher of our Seaport Operations Section, at telephone number 305-347-4882.

Sincerely,

Robert Parker
Director

9105 NW 25 Street • Miami, Florida • 33172-1500
Telephone (305) 471-2100 • Fax (305) 471-2163 • Website http://www.mdpd.com

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From: Smith, Nevin [mailto:NevinSmith@fdle.state.fl.us]
Sent: Monday, September 27, 2004 1:32 PM
To: Nagie, Ty LT
Subject: EA for MSST at Miami FL

To whom it may concern:
The implementation of the MSST at Miami is an important element in the protection and safety of the citizens of the United States traveling in Florida, the citizens of Florida and the economy of Florida.

As the individual in charge of seaport security at the seaports throughout the State of Florida I support the implementation of the MSST.

Nevin Smith
Seaport Security Administrator
Florida Department of Law Enforcement
Domestic Security
850-410-7067

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Port of Miami

OFFICE OF THE DIRECTOR • 1015 NORTH AMERICA WAY • 2ND FLOOR • MIAMI, FLORIDA 33132-2081 • PHONE (305) 371-PORT (371-7678) • FAX (305) 347-4843

September 30, 2004

S. D. Austin, Captain
U.S. Coast Guard
Director, Maritime Homeland Security Operations & Tactics
2100 Second Street, S.W.
Washington, DC 20593-0001

Dear Captain Austin:

Thank you for advising us of your Environmental Assessment and allowing the Miami-Dade County Seaport Department to provide comments regarding the stand-up and operations of the Maritime Safety and Security Team (MSST). As you may be aware, the Miami-Dade Seaport Department participated in the site selection process for MSST operations. We believe that a site located on the Port of Miami would be beneficial to both the U.S. Coast Guard and the Port of Miami. Should your site selection of Homestead prove not to be feasible or should facts come to your attention which would cause you to reconsider the Port of Miami as your MSST site, we would be happy to work with you toward that end.

Sincerely,

Charles A. Towsley, P.P.M.
Director, Port of Miami

c: George Burgess, County Manager
Bill Johnson, Assistant County Manager
Robert Parker, Director, Miami-Dade Police Department
Carlos Castillo, Director, Miami-Dade Office of Emergency Management
Nelson Oramas, Assistant Director, Miami-Dade Seaport Department
Gerry Cafiero, Assistant Director, Miami-Dade Seaport Department
Captain James Maes, COTP United States Coast Guard

portofmiami@co.miami-dade.fl.us
MIAMI-DADE COUNTY FLORIDA SEAPORT DEPARTMENT
www.co.miami-dade.fl.us/portofmiami

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City of Miami

JOHN F. TIMONEY
Chief of Police

JOE ARRIOLA
City Manager

OCT 15 2004

Commandant (G-OT)
2100 Second Street, SW
Washington, DC 20593
Attn: Captain S. D. Austin

Dear Captain Austin:

I have reviewed your announcement of the stand-up of a Maritime Safety and Security Team (M.S.S.T.) for Miami, Florida, and am very pleased with the proposal. As you are aware, the Miami Police Department is tasked with security along the Port of Miami River. This is a daunting task and we are looking forward to fostering a close working relationship with the new M.S.S.T.

Protecting the Port of Miami River is a vital mission of the Miami Police Department and the Marine Safety and Security Team's ability to assist with the protection of the port against illegal activity, sabotage and terrorism is most welcomed.

Captain Anne Childress of the Miami Police Marine Patrol will be the point of contact for port security issues. She is available to assist the M.S.S.T. with questions they may have about the Port of Miami River and is looking forward to working and training with the new Maritime Safety and Security Team. She can be contacted at (305) 579-6181.

Sincerely,

John F. Timoney
Chief of Police

JFT:rc

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APPENDIX C

AGENCY CONSULTATION LETTERS

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-OT
Phone: (202) 267-1162
Fax: (202) 267-1171

16475

Mr. Miles Croom
U.S. Department of Commerce
National Oceanic and Atmospheric Administration
9721 Executive Center Drive, North
St. Petersburg, FL 33702

Subject: Environmental Assessment of the Establishment and Operation of a Maritime Safety and Security Team in Miami, FL

Dear Mr. Croom:

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) Miami, FL. 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, Title 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. Marine 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 shore side infrastructure support to accommodate 80 active duty personnel and MSST equipment in Miami, FL. MSST equipment would include six new Response Boats-Small (RB-S). It is anticipated that the RB-Ss would operate 12 hours per day, 7 days per week and that there would be two to three boats operating at any one time, although all six boats may operate under specific threat scenarios.

RB-Ss are 25-foot boats with outboard engines. The RB-Ss can carry 3 crewmembers plus up to 7 passengers. They are equipped with radar, depth sounder, differential Global Positioning System, and defensive weaponry. The MSST is expected to operate in the Port of Miami, the coastal waters south to Tavernier, and Puerto Rico (see enclosure); however, the MSST may be deployed to other ports or harbors to provide additional protection for specific targets throughout the region. Operations associated with the MSST are similar to on-going USCG operations.

Enclosed for your review is a brief description of the Proposed Action (including a figure showing the location). We do not believe that the Proposed Action, the establishment and operations of the MSST in Miami, FL would have an adverse impact on essential fish habitat. As such, and in accordance with Section 305(b) of the Magnuson-Stevens Act, as amended, we do not believe an EFH consultation is required at this time. As stated above, we are currently

preparing an EA, and we intend to fully assess the potential impacts associated with the Proposed Action on EFH within the region of influence (ROI). Your concerns and comments regarding the implementation of the MSST and its possible impacts on EFH are important to the USCG.

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 respective jurisdictions.

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:
Commandant (G-OT)
2100 Second Street, SW
Washington, DC 20593
Attn: Captain S. D. Austin
(2) Or, by fax to LT Ty Nagie at (202) 267-1171 (MSST)
(3) Or by E-mail to tnagie@comdt.uscg.mil (MSST)

Thank you for your assistance. If you have questions about the proposed establishment of the MSST, please contact LT Ty Nagie at (202) 267-1162, or about the EA, please contact Ms. Kebby Kelley at (202) 267-6034.

Sincerely,

S. D. Austin
Captain, U.S. Coast Guard
Director, Maritime Homeland Security Operations & Tactics

Enclosures: (1) Supplemental Information
(2) ROI map

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-OT
Phone: (202) 267-1162
Fax: (202) 267-1171

16475

Mr. Robert Hoffman
U.S. Department of Commerce
NOAA Fisheries Southeast Region
Protected Resources Division
9721 Executive Center Dr. North
St. Petersburg, FL 33702

Subject: Environmental Assessment of the Establishment and Operation of a Maritime Safety and Security Team Miami, FL

Dear Mr. Hoffman:

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 Miami, FL. 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, Title 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. Marine 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 shore side infrastructure support to accommodate 80 active duty personnel and MSST equipment in Miami, FL. MSST equipment would include six new Response Boats-Small (RB-S). It is anticipated that the RB-Ss would operate 12 hours per day, 7 days per week and that there would be two to three boats operating at any one time, although all six boats may operate under specific threat scenarios.

RB-Ss are 25-foot boats with outboard engines. The RB-Ss can carry 3 crewmembers plus up to 7 passengers. They are equipped with radar, depth sounder, differential Global Positioning System, and defensive weaponry. The MSST is expected to operate in the Port of Miami, the coastal waters south to Tavernier, and Puerto Rico (see enclosure); however, the MSST may be deployed to other ports or harbors to provide additional protection for specific targets throughout the region. Operations associated with the MSST are similar to on-going USCG operations.

Enclosed for your review is a brief description of the Proposed Action (including a figure showing the location). In accordance with Section 7 of the Endangered Species Act, as amended, we seek to informally consult with NOAA Fisheries regarding the proposed establishment and operation of the MSST in Miami, FL. We intend to have the EA stand as our Biological Assessment (BA) for this proposal. In order to fully assess the potential impacts associated with the Proposed Action on protected resources, we are requesting a list of species of

concern that occur within the ROI and a list of any additional concerns that NOAA Fisheries may have regarding the potential impacts of the Proposed Action on federally listed species or other marine mammals.

We will also consult with the U.S. Fish and Wildlife Service 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:
Commandant (G-OT)
2100 Second Street, SW
Washington, DC 20593
Attn: Captain S. D. Austin

(2) Or, by fax to LT Ty Nagie at (202) 267-1171 (MSST)
(3) Or by E-mail to tnagie@comdt.uscg.mil (MSST)

Thank you for your assistance. If you have questions about the proposed establishment of the MSST, please contact LT Ty Nagie at (202) 267-1162, or about the EA, please contact Ms. Kebby Kelley at (202) 267-6034.

Sincerely,

S. D. Austin
Captain, U.S. Coast Guard
Director, Maritime Homeland Security Operations & Tactics

Enclosures: (1) Supplemental Information
(2) ROI map

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

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

Subject: Environmental Assessment of the Establishment and Operation of a Maritime Safety and Security Team in Miami, FL

Dear Ms. Gloman:

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 Miami, FL. 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, Title 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. Marine 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 shore side infrastructure support to accommodate 80 active duty personnel and MSST equipment in Miami, FL. MSST equipment would include six new Response Boats-Small (RB-S). It is anticipated that the RB-Ss would operate 12 hours per day, 7 days per week and that there would be two to three boats operating at any one time, although all six boats may operate under specific threat scenarios.

RB-Ss are 25-foot boats with outboard engines. The RB-Ss can carry 3 crewmembers plus up to 7 passengers. They are equipped with radar, depth sounder, differential Global Positioning System, and defensive weaponry. The MSST is expected to operate in the Port of Miami, the coastal waters south to Tavernier, and Puerto Rico (see enclosure); however, the MSST may be deployed to other ports or harbors to provide additional protection for specific targets throughout the region. Operations associated with the MSST are similar to on-going USCG operations.

Enclosed for your review is a brief description of the Proposed Action (including a figure showing the location). In accordance with Section 7 of the Endangered Species Act, as amended, we seek to informally consult with the U.S. Fish and Wildlife Service regarding the proposed establishment and operation of the MSST in Miami, FL. We intend to have the EA stand as our Biological Assessment (BA) for this proposal. In order to fully assess the potential impacts associated with the Proposed Action on protected resources, we are requesting a list of endangered, threatened or candidate species or their habitat that occur within the ROI, and any

additional concerns that the U.S. Fish and Wildlife Service may have regarding the potential impacts of the Proposed Action on federally listed species or other marine mammals.

We will also consult with National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries), Protected Resources Division regarding the presence of species of concern 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:
Commandant (G-OT)
2100 Second Street, SW
Washington, DC 20593
Attn: Captain S. D. Austin
(2) Or, by fax to LT Ty Nagie at (202) 267-1171 (MSST)
(3) Or by E-mail to tnagie@comdt.uscg.mil (MSST)

Thank you for your assistance. If you have questions about the proposed establishment of the MSST, please contact LT Ty Nagie at (202) 267-1162, or about the EA, please contact Ms. Kebby Kelley at (202) 267-6034.

Sincerely,

S. D. Austin
Captain, U.S. Coast Guard
Director, Maritime Homeland Security Operations & Tactics

Enclosures: (1) Supplemental Information
(2) ROI map

cc w/enclosures: Ken Hollingshead

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-OT
Phone: (202) 267-1162
Fax: (202) 267-1171

16475

Mr. Frederick Gaske
Deputy SHPO & Acting Division Director
Division of Historical Resources, Department of State
500 South Bronough Street
Room 305
Tallahassee, FL 32399-0250

RE: Finding of No Historic Properties Affected for Establishing a US Coast Guard Maritime Safety and Security Team (MSST) in Miami, FL

Dear Mr. Gaske:

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 Miami, Florida. This undertaking is subject to Section 106 of the National Historic Preservation Act, as amended in 1992 (16 USC 470 *et seq*.). This letter is to fulfill the USCG's obligation under Section 106 by providing the information required for Title 36 Code of Federal Regulations (CFR) Part 800.11 to make a determination under 800.4(d)(1), *Finding of No Historic Properties Affected*.

The EA will address the overall environmental impacts of establishing and operating the MSST including the implementation of shore side infrastructure support to accommodate 80 active duty personnel and MSST equipment at Homestead, FL. MSST equipment would include six new Response Boats-Small (RB-S). It is anticipated that the RB-Ss would operate 12 hours per day, 7 days per week and that there would be two to three boats operating at any one time, although all six boats may operate under specific threat scenarios.

The MSST is being established to increase the USCG's ability to protect critical domestic ports and the U.S. Marine Transportation System from illegal activity, sabotage, and other subversive acts, including terrorism. While the MSST's operations would closely parallel USCG traditional port security operations, they also would provide complementary, non-redundant capabilities that would be able to close significant readiness gaps in our nation's strategic ports. RB-Ss are 25-foot boats with outboard engines. The RB-Ss can carry 3 crewmembers plus up to 7 passengers. They are equipped with radar, depth sounder, differential Global Positioning System, and defensive weaponry. The MSST is expected to operate in the Port of Miami, the coastal waters south to Tavernier, and Puerto Rico (see enclosure); however, the MSST may be deployed to other ports or harbors to provide additional protection for specific targets throughout the region. Operations associated with the MSST are similar to on-going USCG operations.

Enclosed for your review is a brief description of the Proposed Action (including a figure showing the location). The Proposed Action is not expected to affect any historic properties.

Please provide comments on our determination of no historic properties affected. If your comment indicates a difference of opinion on this determination, please feel free to contact Ms.

Kebby Kelley at 202-267-6034 in order to continue consultation and hopefully resolve the difference of opinion. Please provide your comments within 15 days from the date your office receives this letter.

Thank you in advance.

Sincerely,

S. D. Austin
Captain, U.S. Coast Guard
Director, Maritime Homeland Security Operations & Tactics

Enclosures: (1) Supplemental Information
(2) ROI map

FLORIDA DEPARTMENT OF STATE
Glenda E. Hood
Secretary of State
DIVISION OF HISTORICAL RESOURCES

Captain S.D. Austin
Director, Maritime Homeland Security Operations & Tactics
United States Coast Guard
2100 Second Street, S.W.
Washington, DC 20593-0001

September 23, 2004

RE: DHR Project File Number: 2004-8918
Received by DHR September 9, 2004
16475 - Establishment of a US Coast Guard Maritime Safety and Security Team (MSST)
Miami-Miami-Dade County

Dear Captain Austin:

Our office received and reviewed the above referenced project in accordance with Section 106 of the *National Historic Preservation Act of 1966*, as amended and *36 CFR Part 800: Protection of Historic Properties*. The State Historic Preservation Officer is to advise Federal agencies as they identify historic properties (listed or eligible for listing in the *National Register of Historic Places*), assess effects upon them, and consider alternatives to avoid, minimize or mitigate adverse effects.

Based on the information provided, this office concurs with the finding that the proposed undertaking will have no effect on historic properties.

If you have any questions concerning our comments, please contact Scott Edwards, Historic Preservationist, by electronic mail *sedwards@dos.state.fl.us*, or at 850-245-6333 or 800-847-7278.

Sincerely,

Laura A. Kammerer, Deputy SHPO

for Frederick Gaske, Director, and
State Historic Preservation Officer

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-OT
Phone: (202) 267-1162
Fax: (202) 267-1171

16475

Mr. Lynn Griffin
Florida Coastal Management Program
Department of Environmental Protection
Mail Station #47
3900 Commonwealth Boulevard
Tallahassee, FL 32399-3000

Subject: Environmental Assessment of the Establishment and Operation of a Maritime Safety and Security Team in Miami, FL

Dear Mr. Griffin:

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) Miami, FL. 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, Title 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. Marine 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 shore side infrastructure support to accommodate 80 active duty personnel and MSST equipment in Miami, FL. MSST equipment would include six new Response Boats-Small (RB-S). It is anticipated that the RB-Ss would operate 12 hours per day, 7 days per week and that there would be two to three boats operating at any one time, although all six boats may operate under specific threat scenarios.

RB-Ss are 25-foot boats with outboard engines. The RB-S can carry 3 crewmembers plus up to 7 passengers. They are equipped with radar, depth sounder, differential Global Positioning System, and defensive weaponry. The MSST is expected to operate in the Port of Miami, the coastal waters south to Tavernier, and Puerto Rico (see enclosure); however, the MSST may be deployed to other ports or harbors to provide additional protection for specific targets throughout the region. Operations associated with the MSST are similar to on-going USCG operations.

Enclosed for your review is the USCG's Consistency Determination under the Coastal Zone Management Act (CZMA) Section 307(c)(1) and Title 15 Code of Federal Regulations (CFR) Part 930, subpart C, for the Proposed Action. We believe that the Proposed Action is consistent to the maximum extent practicable with the enforceable policies of the Florida Coastal Zone Management Program. As stated above, we are currently preparing an EA, and we intend to fully assess the potential impacts associated with the Proposed Action on environmental

resources within the region of influence (ROI). Your concerns and comments regarding the implementation of the MSST and its possible impacts particularly in coastal zones are important to the USCG.

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:
Commandant (G-OT)
2100 Second Street, SW
Washington, DC 20593
Attn: Captain S. D. Austin

(2) Or, by fax to LT Ty Nagie at (202) 267-1171 (MSST)
(3) Or by E-mailto tnagie@comdt.uscg.mil (MSST)

Thank you for your assistance. If you have questions about the proposed establishment of the MSST, please contact LT Ty Nagie at (202) 267-1162, or about the EA, please contact Ms. Kebby Kelley at (202) 267-6034.

Sincerely,

S. D. Austin
Captain, U.S. Coast Guard
Director, Maritime Homeland Security Operations & Tactics

Enclosures:
(1) Consistency Determination
(2) Supplemental Information
(3) ROI map

USCG COASTAL ZONE MANAGEMENT ACT (CZMA) CONSISTENCY DETERMINATION

This document provides the Florida Department of Environmental Protection, Office of Intergovernmental Programs, Coastal Zone Management Program with the United States Coast Guard's (USCG) Consistency Determination under CZMA Section 307(c)(1) and 15 CFR Part 930, subpart C, for the standup and operation of the Maritime Safety and Security Team (MSST) in Miami, FL.

Necessary Data and Information:

1. 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 Miami, FL. 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. Marine 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.

Enclosed for your review is a Fact Sheet on the EA (including a figure showing the location). The EA will address the overall environmental impacts of establishing and operating the MSST, including onshore facilities and infrastructure to accommodate 70 to 80 active duty personnel, MSST equipment, and the operation of six new Response Boats-Small (RB-S). It is anticipated that the RB-Ss would operate 12 hours per day, 7 days per week and that there would be two to three boats operating at any given period, although all six may be necessary under specific threat scenarios.

RB-Ss are 25-foot boats with outboard engines. The RB-Ss can carry 3 crewmembers plus up to 7 passengers. They are equipped with RADAR, depth sounder, differential Global Positioning System, and defensive weaponry. The MSST is expected to operate in the Port of Miami; however, the MSST may be deployed to other ports and harbors throughout the Southeast U.S. and Puerto Rico area to provide additional protection for specific targets.

2. Under Florida's Coastal Zone Management Act (Title XXVIII, Chapter 380, Section 23), the Florida Department of Environmental Protection may review all "federal development projects and activities of federal agencies which significantly affect coastal waters and the adjacent shorelands of the state" to ensure that they "are conducted in accordance with the state's coastal management program." The EA will assess the impacts of the Proposed Action on coastal resources that are provided under the 23 State Statutes that compose the Florida Coastal Management Plan. The draft EA will be provided to you once it is available.

3. However, at this time no significant impacts on Florida's coastal resources are anticipated. The Proposed Action is consistent with state policies regarding living resources, water resources and beach and shore preservation, and should not present any foreseeable effects on

these resources. Furthermore, in accordance with Florida's legislative policy for conservation (Title XXXV, Chapter 582, Section 5), the Proposed Action serves to "protect the tax base, protect public lands, and protect and promote the public health, safety and general welfare of the people" by providing enhanced port security.

Based upon the preceding information, data and analysis, the Coast Guard finds that the establishment and operation of MSST Miami is consistent to the maximum extent practicable with the enforceable policies of the Florida Coastal Management Program.

Pursuant to 15 CFR Section 930.41, the Florida Coastal Management Program has sixty days from the receipt of this letter and accompanying information in which to concur with or object to this U.S. Coast Guard's Consistency Determination, or to request an extension 930.41(b). The State's concurrence will be presumed if the State's response is not received by the Coast Guard on the 60th day from receipt of this Determination. The State's response should be sent to:

LT Ty Nagie
Headquarters, United States Coast Guard
Commandant (G-OPD)
2100 Second Street, SW
Washington, DC 20593-0001

Telephone: (202) 267-6064; fax (202) 267-1171

Department of Environmental Protection

Jeb Bush
Governor

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Colleen M. Castille
Secretary

September 16, 2004

Commandant (G-OT)
U. S. Coast Guard
2100 Second Street, SW
Washington, DC 20593
Attn: Captain S. D. Austin

RE: U. S. Coast Guard – Notice of Intent to Prepare an Environmental Assessment – Establishment and Operation of a Maritime Safety and Security Team (MSST) – Miami, Miami-Dade County, Florida.
SAI # FL200409159940C

Dear Captain Austin:

Florida State Clearinghouse staff, pursuant to Presidential Executive Order 12372, Gubernatorial Executive Order 95-359, the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1464, as amended, and the National Environmental Policy Act, 42 U.S.C. §§ 4321, 4331-4335, 4341-4347, as amended, has reviewed the referenced Notice of Intent.

Based on the information contained in the public notice, the state has determined that the proposed federal action is consistent with the Florida Coastal Management Program. Please note that the construction of any new building pads, parking lot areas, or in-water docking facilities may require issuance of an environmental resource permit(s). For further information on the state's permitting requirements, please contact the DEP Southeast District office in West Palm Beach at (561) 681-6600.

Thank you for the opportunity to review this proposal. If you have any questions regarding this letter, please contact Ms. Lauren P. Milligan at (850) 245-2161.

Sincerely,

Sally B. Mann

Sally B. Mann, Director
Office of Intergovernmental Programs

SBM/lm

FACT SHEET

Environmental Assessment (EA) of the Stand-Up and Operations of a Maritime Safety & Security Team (MSST) at Miami, Florida

Background

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

To meet its increasing mission needs and challenges, the USCG is establishing Maritime Safety and Security Teams (MSSTs). MSSTs are specifically organized, trained, and equipped to counter current and emerging threats to our nation's seaports. The MSST would 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 American's foreign trade and military cargo to overseas locations. The MSST would 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. They would operate with, and be supported by, both military and civilian government organizations, commercial, and non-governmental entities. The MSST would be transportable via land transportation, USCG cutter, and USCG or other military aircraft worldwide. In summary, the MSST would:

- 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 to conduct Port State Control Boardings and deploy for port familiarization and training.

The USCG is preparing an Environmental Assessment (EA) to comply with the National Environmental Policy Act (NEPA), and other related environmental laws, regulations, and Executive Orders.

Maritime Safety and Security Teams

The stand-up (establishment and operations) of the MSST at Miami, Florida, would consist of 80 active duty personnel (these would consist of mostly reassigned personnel although there may be some new personnel), onshore construction of boat storage, dive shop and administrative support facilities, six Response Boats-Small (RB-Ss), trailers, eight pickup trucks, and three passenger vans.

RB-Ss 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-Ss are equipped with radar, differential Global Positioning System (DGPS), and defensive weaponry. The MSST would also include boat trailers, four Ford F-350 pickup trucks, four Ford F-550 stakebed trucks, and three 15-passenger vans. When not in use, RB-Ss would be located on trailers at its on-shore support facility.

The MSST would be capable of operating 24 hours per day, seven days per week. However, it is anticipated that the RB-Ss would operate 12 hours per day, 7 days per week and that there would be two to three boats operating at any one time.

The Region of Influence (ROI) for the MSST, presented in Attachment 1, is defined as the area where the MSST would typically conduct its operations. Under normal circumstances, the ROI is the Port of Miami, the coastal waters south to Tavernier, and Puerto Rico; however, the MSST may be deployed to other ports or harbors. The MSST would launch the RB-Ss from a boat ramp at Homestead Bayfront Park. The ROI is expected to be limited to existing harbor infrastructure and adjacent waters within the MSSTs primary operating area.

On-shore MSST Support Facilities

Each MSST would be located at or near an existing USCG Group in the vicinity of a regionally significant economic or military port. Co-locating the MSST with or near existing USCG Groups maximizes the use of existing infrastructure (i.e., electric, water and communications) and already assigned personnel. The criteria used to select these ports and the priority in which the MSST 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.

The Miami MSST would be temporarily located at Building 736 and permanently at Building 718, Homestead Air Force Base, 29050 Coral Sea Blvd., Homestead, FL 33039 (Attachment 2). Establishment of the MSST would involve interior renovations to Buildings 718 and 736, construction of a pre-engineered building (approximately 5000 square feet by 20 feet high) adjacent to Building 718 for boat storage, and construction of a security fence around Building 718.

Construction of the boat storage facility would occur on an area that is currently paved, and would entail: site preparation; excavation and fill; concrete foundation; concrete floor slab; floor drains; gutters; roll-up doors; windows; louvers; lighting, electrical, communication/data, ventilation and air conditioning systems; interior office and toilet space; a utility areas for a breathing air compressor unit and SCUBA tanks; exterior security lighting and hose bibs; exterior utility connections for sewer, water, electrical and communication/data systems; and miscellaneous related work required for a complete and useable facility. The facility will provide a storage/maintenance/shop area for 3 trailered boats with drive through capability and a dive shop/drying area.

Figure 1. Miami MSST ROI

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APPENDIX D

ENVIRONMENTAL REGULATIONS, LAWS, AND EXECUTIVE ORDERS

Table of Applicable Laws and Executive Orders [1]

Title, Citation	Summary
Archaeological and Historical Preservation Act, 16 U.S.C. 469	Protects and preserves historical and archaeological data. Requires Federal agencies to identify and recover data from archaeological sites threatened by a proposed action(s).
Clean Air Act, 42 U.S.C. 7401-7671q, as amended	Establishes Federal standards for air pollutants. Prevents significant deterioration in areas of the country where air quality fails to meet Federal standards.
Clean Water Act, 33 U.S.C. 1251-1387 (also known as the Federal Water Pollution Control Act)	Comprehensively restores and maintains the chemical, physical, and biological integrity of the Nation's waters. Implemented and enforced by the U.S. Environmental Protection Agency (USEPA).
Coastal Barrier Resources Act, 16 U.S.C. 3501-3510	Discourages coastal barrier island degradation by prohibiting direct or indirect Federal financial funds (including flood insurance) for development, except for emergency life-saving activities.
Coastal Zone Management Act of 1972, 16 U.S.C. 1451-1464	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 in developing and implementing coastal zone management programs.
Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. 9601-9675 (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. Establishes a fund financed by hazardous waste generators to support cleanup and response actions.
Deepwater Port Act of 1974, 33 U.S.C. 1501-1524	Assigns responsibility to the Secretary of Transportation to license the construction and operation of all oil and natural gas deepwater ports located beyond the U.S. territorial sea and off the U.S. coast.
Endangered Species Act of 1973, 16 U.S.C. 1531-1543, as amended	Protects threatened, endangered, and candidate species of fish, wildlife, and plants and their designated critical habitats. Prohibits Federal action that jeopardizes the continued existence of endangered or threatened species. Requires consultation with U.S. Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration (NOAA) Fisheries and a biological assessment when such species are present in an area affected by government activities.

Table of Applicable Laws and Executive Orders (continued)

Title, Citation	Summary
Fish and Wildlife Coordination Act, 16 U.S.C. 661-667e, as amended	Authorizes the Secretaries of Interior and Commerce to provide assistance to and cooperate with Federal and State agencies to protect, rear, stock, and increase the supply of game and fur-bearing animals, as well as to study the effects of domestic sewage, trade wastes, and other polluting substances on wildlife. The 1946 amendments require consultation with the USFWS and the state fish and wildlife agencies involving any waterbodies that are proposed or authorized, permitted or licensed to be impounded, diverted or otherwise controlled or modified by any agency under a Federal permit or license.
Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S.C. 1801-1883, as amended	Establishes regional fisheries councils that set fishing quotas and restrictions in U.S. waters. Requires Federal agencies to consult with NOAA Fisheries on all actions (authorized, funded, or undertaken) that might adversely affect essential fish habitat.
Marine Mammal Protection Act of 1972, 16 U.S.C. 1361-1389, 1401-1407, 1538, 4107	Establishes a moratorium on the taking and importation of marine mammals. Prohibits harassing, hunting, capturing, collecting, or killing of marine mammals or attempting such actions. Requires permits for taking marine mammals. Requires consultations with USFWS and NOAA Fisheries if impacts on marine mammals are possible.
Marine Protection, Research, and Sanctuaries Act of 1972, 33 U.S.C. 1401-1445	Regulates dumping of materials into ocean waters. Provides a permitting process to control ocean dumping of dredged materials. Establishes the marine sanctuaries program.
Maritime Transportation Security Act of 2002, Pub. L. 107-295	Extends the Deepwater Port Act application to include facilities and operations related to natural gas.
Migratory Bird Treaty Act, 16 U.S.C. 703-712	Implements various treaties for protecting migratory birds; the taking, killing, or possession of migratory birds is unlawful.
National Environmental Policy Act of 1969, 42 U.S.C. 4321-4370e, as amended	Requires Federal agencies to use a systematic approach when assessing environmental impacts of government activities. Proposes an interdisciplinary approach in a decision-making process designed to identify unacceptable or unnecessary impacts to the environment.
National Historic Preservation Act, 16 U.S.C. 470-470x-6	Requires Federal agencies to consider the effect of any federally assisted undertaking or licensing on any district, site, building, structure, or object eligible for inclusion, or listed in the National Register of Historic Places (NRHP). Provides for the nomination, identification (through NRHP listing), and protection of significant historical and cultural properties.

Table of Applicable Laws and Executive Orders (continued)

Title, Citation	Summary
National Marine Sanctuaries Act, 16 U.S.C. 1431 *et seq.*	Authorizes the Secretary of Commerce to designate national marine sanctuaries based on statutory criteria and stipulated factors to be considered by the Secretary as a basis for designation. Stipulates consultation requirements with various Federal agencies, Congressional committees, state agencies and regional fishery councils.
Natural Gas Act of 1938, 15 U.S.C. 717	Designates the Federal Energy Regulatory Commission—an independent agency within the Department of Energy—to regulate the transmission and sale of natural gas for resale in interstate commerce.
Natural Gas Pipelines and Safety Act of 1968 and Hazardous Liquid Pipeline Safety Act of 1979, as amended, 49 U.S.C. 601	The Natural Gas Pipelines and Safety Act of 1968 authorizes the Department of Transportation to regulate pipeline transportation of natural (flammable, toxic, or corrosive) gas and other gases as well as the transportation and storage of liquefied natural gas (LNG). The Hazardous Liquid Pipeline Safety Act of 1979 authorizes the Department of Transportation to regulate pipeline transportation of hazardous liquids (crude oil, petroleum products, anhydrous ammonia, and carbon dioxide). Both of these Acts have been recodified as 49 U.S.C. Chapter 601.
Noise Control Act of 1972, 42 U.S.C. 4901-4918	Establishes a national policy to promote an environment free from noise that jeopardizes health and welfare. Authorizes the establishment of Federal noise emissions standards and provides relevant information to the public.
Nonindigenous Aquatic Nuisance Prevention Control Act of 1990, 16 U.S.C. 4701-4751	Establishes aquatic nuisance species.
Northwest Atlantic Fisheries Convention Act of 1995, 16 U.S.C. 5601-5610	Implements provisions of international conventions and establishes regulatory framework.
Occupational Safety and Health Act of 1970, 29 U.S.C. 651-678	Establishes standards to protect workers, including standards on industrial safety, noise, and health standards.
Outer Continental Shelf Lands Act of 1953, 43 U.S.C. 1331-1356, as amended	Defines the Outer Continental Shelf as all submerged lands lying seaward of State coastal waters that are three miles offshore. Delegates leasing authority to the Secretary of the Interior to promulgate regulations in an effort to reduce waste and conserve natural resources.

Table of Applicable Laws and Executive Orders (continued)

Title, Citation	Summary
Port and Waterways Safety Act, 33 U.S.C. 1221-1232	Sets boat operating and towing safety requirements and established enforcement provisions. Authorizes the U.S. Coast Guard (USCG) to establish vessel traffic service/separation schemes for ports, harbors, and other waters subject to congested vessel traffic.
Resource Conservation and Recovery Act, 42 U.S.C. 6901-6992k	Establishes requirements for safely managing and disposing of solid and hazardous waste and underground storage tanks.
Executive Order (EO) 12372, *Intergovernmental Review of Federal Programs*, July 14, 1982, 47 FR 30959 (6/16/82), as supplemented	Requires Federal agencies to consult with state and local governments when proposed Federal financial assistance or direct Federal development impacts interstate metropolitan urban centers or other interstate areas.
EO 12898, *Environmental Justice*, February 11, 1994, 59 FR 7629 (2/16/94), as amended	Requires certain Federal agencies, 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.
EO 13089, *Coral Reef Protection*, June 11 1998, 64 FR 232 (12/3/99)	Mandates that all Federal agencies whose actions may affect U.S. coral reef ecosystems (1) identify their actions that may affect U.S. coral reef ecosystems; (2) use their programs and authorities to protect and enhance the conditions of such ecosystems; and (3) to the extent permitted by law, ensure that any actions they authorize, fund, or carry out will not degrade the conditions of such ecosystems. Federal agencies shall, subject to the availability of appropriations, provide for the implementation of measures needed to research, monitor, manage, and restore affected ecosystems, including measures reducing impacts from pollution, sedimentation, and fishing.
EO 13148, *Greening the Government Through Leadership in Environmental Management*, April 21, 2000, 65 FR 24595 (4/26/00)	Designates the head of each Federal agency to ensure that all necessary actions are taken to integrate environmental accountability into agency day-to-day decision making and long-term planning processes, across all agency missions, activities, and functions. Establishes goals for environmental management, environmental compliance, right-to-know (informing the public and their workers of possible sources of pollution resulting from facility operations) and pollution prevention, and similar matters.
EO 13175, *Consultation and Coordination with Indian Tribal Governments*, November 6, 2000, 65 FR 67249 (11/09/00)	Requires Federal agencies to establish an accountable process that ensures meaningful and timely input from tribal officials in developing policies that have tribal implications.

Table of Applicable Laws and Executive Orders (continued)

Title, Citation	Summary
EO 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*, January 10, 2001, 66 FR 3853 (1/17/01)	Requires each agency to ensure that environmental analyses of Federal actions (required by the National Environmental Policy Act or other established environmental review processes) evaluate the effects of actions and agency plans on migratory birds, emphasizing species of concern. Agencies must support the conservation intent of migratory bird conventions by integrating bird conservation principles, measures, and practices into agency activities, and by avoiding or minimizing, to the extent practicable, adverse impacts on migratory bird resources when conducting agency actions.
EO 11593, *Protection and Enhancement of the Cultural Environment*, May 13, 1971, 36 FR 8921 (5/15/71)	Requires all Federal agencies to locate, identify, and record all cultural resources, including significant archaeological, historical, or architectural sites.

[1] This table only reflects those laws and EOs that may reasonably be expected to apply to the Proposed Action and alternatives.

Other laws and Executive Orders relevant to consideration of licensing of deepwater ports include, but are not limited to:

- Abandoned Shipwreck Act, 43 U.S.C. 2102, et seq.
- American Indian Religious Freedom Act, 42 U.S.C. 1996, et seq.
- Antiquities Act, 16 U.S.C. 433, et seq.; Archeological Resources Protection Act, 16 U.S.C. 470 aa-ll, et seq.
- Architectural Barriers Act, 42 U.S.C. 4151, et seq.
- Community Environmental Response Facilitation Act, 42 U.S.C. 9620, et seq.
- Department of Transportation Act, P.L. 89-670, 49 U.S.C. 303, Section 4(f), et seq.
- Emergency Planning and Community Right-to-Know Act, 42 U.S.C. 11001-11050, et seq.
- Environmental Quality Improvement Act, P.L. 98-581, 42 U.S.C. 4371, et seq.
- Farmlands Protection Policy Act, P.L. 97-98, 7 U.S.C. 4201, et seq.
- Federal Insecticide, Fungicide, and Rodenticide Act, P.L. 86-139, 7 U.S.C. 135, et seq.
- Federal Records Act, 44 U.S.C. 2101-3324, et seq.
- Fish and Wildlife Act of 1956, P.L. 85-888, 16 U.S.C. 742, et seq.
- Flood Disaster Protection Act, 42 U.S.C. 4001, et seq.
- Native American Graves Protection and Repatriation Act, 25 U.S.C. 3001, et seq.
- Pollution Prevention Act of 1990, 42 U.S.C. 13101-13109, et seq.
- Safe Drinking Water Act, P.L. 93-523, 42, U.S.C. 201, et seq.

- Toxic Substances Control Act, 7 U.S.C. 136, et seq.
- Wild and Scenic Rivers Act, P.L. 90-542, 16 U.S.C. 1271, et seq.
- EO 12902, dated March 8, 1994, *Energy Efficiency and Water Conservation at Federal Facilities*, 59 FR 11463
- EO 12114, dated January 9, 1979, *Environmental Effects Abroad of Major Federal Actions*, 44 FR 1957
- EO 12088, dated October 13, 1978, *Federal Compliance with Pollution Control Standards*, 43 FR 47707, as amended by EO 12580, dated January 23, 1987, and revoked (in part) by EO 13148, dated April 21, 2000
- EO 13132, dated August 4, 1999, *Federalism*, 64 FR 43255
- EO 11988, dated May 24, 1977, *Floodplain Management and Protection*, 42 FR 26951, as amended by EO 12148, dated July 20, 1979, 44 FR 43239
- EO 13007, dated May 24, 1996, *Historic Sites Act*, 16 U.S.C. 46, et seq.; Indian Sacred Sites, 61 FR 26771
- EO 12372, dated July 14, 1982, *Intergovernmental Review of Federal Programs*, 47 FR 30959, as amended by EO 12416, April 8, 1983, 48 FR 15587; supplemented by EO 13132, August 4, 1999, 64 FR 43255
- EO 13112, dated February 3, 1999, *Invasive Species*, 64 FR 6183, as amended by EO 13286, February 28, 2003, 68 FR 10619
- EO 13158, dated May 26, 2000, *Marine Protected Areas*, 65 FR 2490
- EO 11514, dated March 5, 1970, *Protection and Enhancement of Environmental Quality*, 35 FR 4247, as amended by EO 11541, July 1,1970, 35 FR 10737 and EO 11991, May 24, 1977, 42 FR 26967
- EO 13045, dated April 21, 1997, *Protection of Children from Environmental Health and Safety Risks*, 62 FR 19885, as amended by EO 13229, October 9, 2001, 66 FR 52013 and EO 13296, April 18, 2003, 68 FR 19931
- EO 11990, dated May 24, 1977, *Protection of Wetlands*, 42 FR 26961, as amended by EO 12608, September 9, 1987, 52 FR 34617
- EO 12962, dated June 7, 1995, *Recreational Fisheries*, 60 FR 307695
- EO 13123, *Greening the Government Through Efficient Energy Management*, dated June 3, 1999, 64 FR 30851

APPENDIX E

USCG PROTECTED LIVING MARINE RESOURCES GUIDANCE

U.S. Department of Transportation
United States Coast Guard

Commandant
United States Coast Guard

2100 Second Street, S.W.
Washington, DC 20593-0001
Staff Symbol: G-OPL-4
Phone: (202) 267-2041
FAX: (202) 267-4082

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.

JAMES M. 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

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1. DISCUSSION

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

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

2. Key Objectives

a. Near Term

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

b. Mid Term

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

c. Long Term

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

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-L/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

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

Strategy: **Publicize our Efforts**

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1. Discussion

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

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

2. KEY OBJECTIVES

a. Near Term

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

b. Mid Term

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

c. Long term

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

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U.S. Department of Homeland Security
United States Coast Guard

Command
United States Coast Guard

2100 Second Street, S.W.
Washington, DC 20593-0001
Staff Symbol: G-OPL-5
Phone: (202) 267-2085
Fax: (202) 267
Email:

COMDTINST 16475.7
MAY 27 2003

COMMANDANT INSTRUCTION 16475.7

Subj: PROTECTED LIVING MARINE RESOURCES PROGRAM

Ref:
(a) National Environmental Policy Act, 42 U.S.C. Sections 4321-4335
(b) Endangered Species Act of 1973, 16 U.S.C., Sections 1531-1544
(c) Marine Mammal Protection Act of 1972 16 U.S.C., Sections 1361-1421
(d) National Sanctuaries Act, 16 U.S.C. 1431 et seq.
(e) Migratory Bird Treaty Act, 16 U.S.C. Sections 703-712
(f) National Environmental Policy Act Implementing Procedures and Policy for Considering Environmental Impacts Manual, COMDTINST M16475 (series)
(g) Maritime Law Enforcement Manual, COMDTINST M16247.1 (series)
(h) Final Environmental Impact Statement for the U.S. Coast Guard Atlantic Protected Living Marine Resources (APLMR) Initiative (NOTAL)
(i) Ocean Steward, Protected Living Marine Resources Strategic Plan
(j) COMDT COGARD (G-OPL) Washington DC 261302Z Sep 02 (NOTAL)
(k) COMDT COGARD (G-OPL) Washington DC 251923Z Oct 02 (NOTAL)
(l) Final Baseline Assessment of U.S. Coast Guard Operations in the Gulf of Mexico of 15 Dec 97
(m) Final Baseline Assessment of U.S. Coast Guard Operations in Alaska of 27 Apr 01
(n) Final Endangered Species Act Biological Assessment for the U.S. Atlantic Coast of 1 Aug 95
(o) COMPACAREA COGARD (PO) Alameda CA 031922Z Jul 02 (NOTAL)

1. PURPOSE. Outline Coast Guard actions, during Coast Guard 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. District Commanders are required, as part of the Coast Guard wide effort, to establish, maintain and update their Protected Living Marine Resources Program (PLMRP). The PLMRP will ensure Coast Guard operations

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comply with references (a) thru (h) and other applicable Federal regulations and guidance such as Executive Orders. Additionally, to supplement the general enforcement guidance provided by reference (g) the PLMRP will provide specific enforcement guidance, when appropriate, that will address the unique environment and population of protected species of the District. The PLMRP focuses on Coast Guard cutter, boat and aircraft operations; not on the activities involved in construction, maintenance and repair of shore facilities.

2. ACTION. District Commanders shall establish and maintain a Protected Living Marine Resources Program. Internet release is authorized.

3. DIRECTIVES AFFECTED. None.

4. BACKGROUND. Reference (h) is the Coast Guard Environmental Impact Statement (EIS) delineating the potential threat of Coast Guard operations to protected species in the Atlantic Ocean, which includes the preferred alternative to mitigate negative interactions between Coast Guard units and marine protected species. One of the EIS mitigation measures contained in the preferred alternative requires the establishment of a Commandant Instruction on Protected Living Marine Resources and the development of District protected living marine resources programs. In addition, the Marine Protected Species Division (G-OPL-5) was established within the Office of Law Enforcement (G-OPL) and the Commandant issued reference (i): the Coast Guard's Strategic Plan for Marine Protected Species (Ocean Steward). Ocean Steward is a vital element in the Coast Guard's strategic goal of protecting our natural resources.

5. DISCUSSION. In recent years, there has been a dramatic increase in public and governmental concern about the state of our oceans and their living resources. The Coast Guard already has effective, coordinated plans for enforcing our nation's fisheries management regulations, protecting the marine environment from oil pollution, and responding to maritime disasters. There is a need to adapt the same approach to marine protected species, specifically those species and geographic areas that are protected under the Endangered Species Act, the Marine Mammal Protection Act, the National Marine Sanctuaries Act, and similar regulations or executive orders.

6. PROCEDURES. Ocean Steward's goal is to help the nation recover and maintain healthy populations of marine protected species. Baseline Assessments (BA) for all oceanic environments in which the Coast Guard operates will be prepared and updated to assist the process of identifying possible interactions with protected species. Thereafter, Environmental Assessments (EA) and EISs will be prepared as appropriate. Headquarters, working with the affected Area, will prepare BAs, EAs and EISs, with assistance of field units, as needed. These documents will serve to support each District PLMRP. Consistent with these documents Districts shall:

   a. Identify local and migratory/seasonal populations of protected species and take action as appropriate to reduce potential opportunities for conflict between the protected species and Coast Guard vessel or aircraft operations.

      (1) In identifying populations of indigenous and migratory protected species, districts should consider guidance provided in Biological Assessments (references l thru n), local knowledge, National Marine Sanctuaries, and any formally designated and/or candidate Marine Protected Areas. (Enclosure (1) is a current list of marine protected species)

Districts should also consider partnering or coordinating with the local offices of the Fish and Wildlife Service and National Oceanic and Atmospheric Administration Fisheries in identifying populations of indigenous and migratory protected species in the area.

(2) In striving to reduce potential opportunities for conflict between protected species and operations, districts should encourage area avoidance, promulgate speed/approach guidance similar to reference (o), ensure the posting of properly trained lookouts aboard cutters, and other similar measures where appropriate.

b. Participate in multi-agency planning groups to identify potential for non-regulatory cooperative efforts designed to lessen or eliminate future impact upon regional and migratory protected and candidate species. Planning groups appropriate for district participation might include take reduction teams, sanctuary advisory committees, and stranding networks.

c. Record PLMR efforts in appropriate databases (i.e., AOPS, MISLE) and message traffic (i.e., LMR Enforcement Summary, SITREPs) to ensure accurate archiving of Coast Guard activities and Auxiliary response.

(1) AOPS - Record resource hours dedicated to activities involving protected living marine resources. Additional guidance is provided in reference (j) and the AOPS Users Guide. The latter is available on the intranet at http://aops.osc.uscg.mil.

(2) MISLE – Record boardings and enforcement actions involving protected living marine resources. Additional guidance is provided in reference (k) and the MISLE Users Guide. The latter is available on the intranet at http://mislenet.osc.uscg.mil/user_guides.aspx.

(3) LMR Enforcement Summary – Record significant events involving protected living marine resources, including assistance to other agencies and incidents where other operational commitments prevented Coast Guard units from responding to legitimate requests for assistance involving marine protected species recovery activities. Additional guidance is provided in reference (k) and enclosure (4) to reference (g).

(4) SITREP – Law Enforcement SITREPS for events involving protected living marine resources should be prepared in accordance with and when prescribed by enclosure (4) to reference (g).

d. Protected living marine resources programs that support the Coast Guard's Strategic Plan and meet the objectives delineated in reference (i) shall include:

(1) Description of areas of special interest, including designated critical habitats and marine sanctuaries;

(2) Enforcement procedures; Districts should develop specific guidance, taking into account the particularities of the natural environment in which they operate, to supplement the general enforcement guidance already provided in chapter 8, paragraph 3 of reference (g);

(3) Marine animal stranding response protocols to include Area Contingency Plan for Oil and Hazardous Waste Spill Control;

(4) Operational control (OPCON) and monitoring responsibilities;

(5) Procedures for disposition of dead or injured protected species; and

(6) Forms for reporting boat collisions with marine animals, entangled turtles or whales as well as the names and telephone numbers for stranding network personnel. Generic forms, enclosure (2), can be downloaded from the G-OPL-5 website (http://cgweb.uscg.mil/g-o/g-opl/) and customized to meet District specific needs.

Note: (Enclosure (3) is a sample PLMRP instruction, that is illustrative only, and can be downloaded from the G-OPL-5 website (http://cgweb.uscg.mil/g-o/g-opl/) to assist the development of a District instruction tailored for the particular environment)

7. ENVIRONMENTAL ASPECT and IMPACT CONSIDERATIONS. Environmental considerations were examined in the development of this directive. This document falls under categorical exclusion number 33 (figure 2-1) of reference (f) as it is a guidance document that implements applicable statutory, regulatory and other guidance documents without substantive change.

8. FORMS/REPORTS. None.

//S//

D. S. BELZ
Assistant Commandant for Operations

Encl: (1) Listing of Protected Species
(2) Sample Forms
(3) Sample PLMRP Instruction (based on D17 Instruction)

LISTING OF PROTECTED SPECIES

(Current as of 3 April 2003)

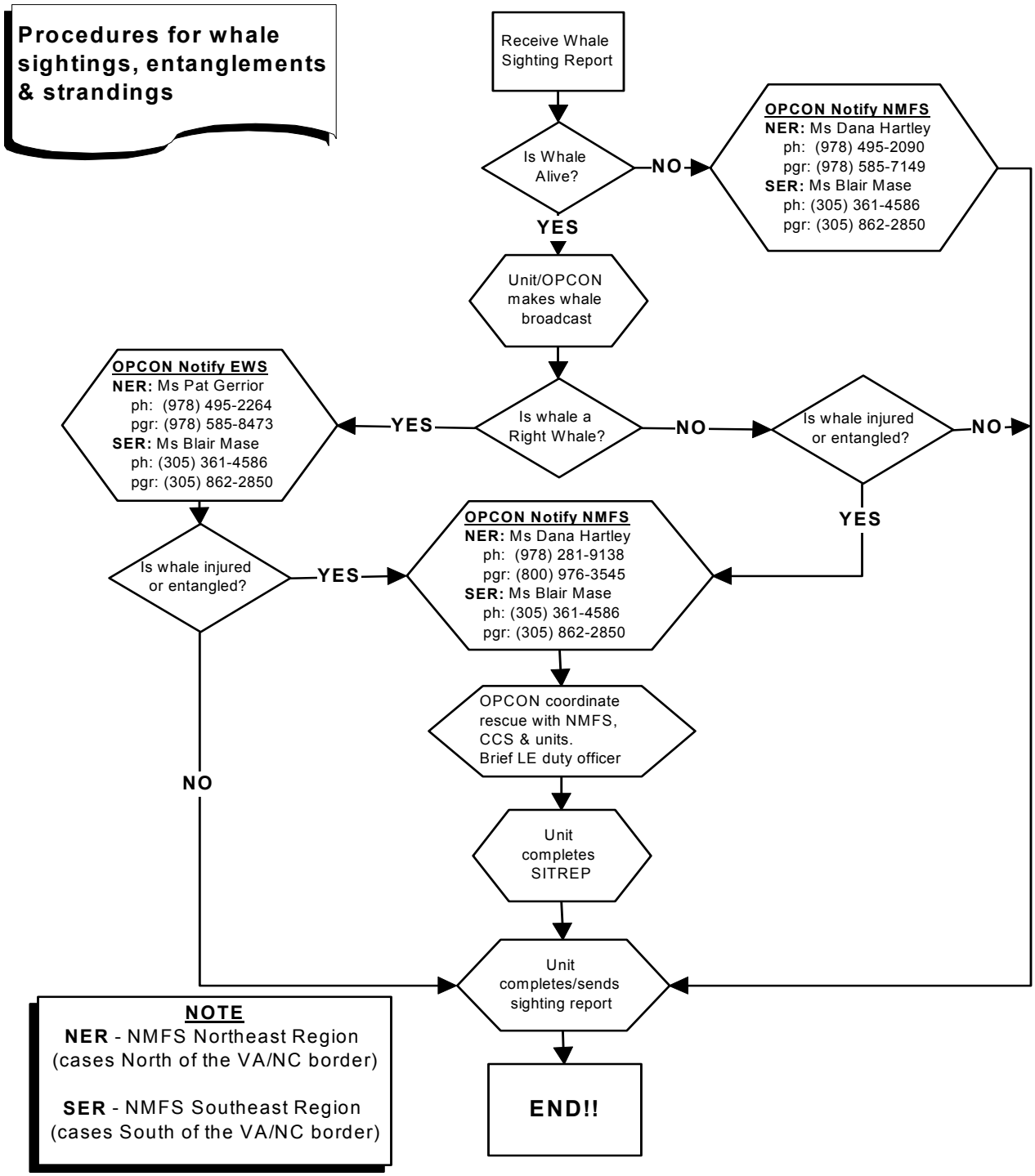
Sea Turtles
Green Turtle
Hawksbill Turtle
Kemp's Ridley Turtle
Leatherback Turtle
Loggerhead Turtle
Olive Ridley Turtle

Cetaceans
Blue Whale
Sei Whale
Fin Whale
Gray Whale
Sperm Whale
Northern Right Whale
Humpback Whale
Beluga Whale
Spinner Dolphin
Spotted Dolphin
Bottlenose Dolphin
Harbor Porpoise

Pinnipeds
Caribbean Monk Seal
Guadalupe Fur Seal
Hawaiian Monk Seal
Steller Sea Lions

* The most current list of protected species is available at <http://www.nmfs.noaa.gov/prot_res/overview/es.html>

Whale Sighting, Entanglement, Stranding Procedures



Whale Sighting Form

Name of Reporter:_____

Vessel Name or Aircraft Number:_____

Date and time of sighting:_____

Position (Lat/Long):_____

Species observed:_____

ID Certainty: ☐ Definite ☐ Probable ☐ Possible

Number identified:_____

Distinguishing Characteristics:
[Key features - size, body shape, color, blow, natural markings, (spots, blazes) dorsal fin and flippers (size and shape)]

Comments:
[calf present, injuries/wounds, behavior, other species present]

Photos taken:
[roll & frame numbers, tape number]

After completing form mail to:

New Jersey through Virginia
Protected Species Branch
National Marine Fisheries Service
166 Water Street
Woods Hole, MA 02543
(508) 495-2087 Fax: (508) 495-2258

North Carolina
Blair Mase
SouthEast Fisheries Science Center
75 Virginia Beach Drive
Miami, FL 33149
(305) 361-4586 Fax: (305) 361-4562

ENTANGLEMENT AND BOAT COLLISION REPORTING FORM

I. REPORTING SOURCE

Time/Date: _____

Reporting Source: _____

Vessel Name: _____

Doc/Reg Number: _____

Radio Call: _____

Cell Phone: _____

1st or 2nd hand Report: _____

How long can R/S remain O/S?: _____

II. DETAILS OF INCIDENT

Position: _____

Geographic Desc: _____

O/S Wx: Winds _____T/_____KTS,

Swell _____T/_____FT

Seas _____T/_____FT, Vis _____NM, Temp _____F, Baro_____._____(R/F/S)

Species: _____

Number of Animals: _____

Dorsal Fin: _____

Color: _____

Size: _____

Dead/Alive: _____

Distinguishing Marks: _____

Photo/Video Taken: _____

Type of Entanglement: _____

Nature of Injury: _____

Traveling or Anchored by Gear: _____

Course/Speed: _____

III. ENTANGLEMENT

Type of Gear & Identifying Features (color, reg #, etc) _____

Type of Line (Dia, color, material) _____

Mesh Visible?: YES/NO

Float/Other Gear Trailing?: _____

Part of Body Entangled?: _____

Wraps around Tail/Body: _____

Life Threating?/Describe: _____

IV. ANIMAL'S APPEARANCE

First Impression of Condition: _____

Skin Condition (peeling, color, whale lice, etc): _____

Obvious Bleeding/Wounds: _____

Marks Fresh or Healing?: _____

Weight (robust, emanciated, ribs or vertebrae showing): _____

V. ANIMAL'S BEHAVIOR

General Description: _____

Breathing (pattern, sound, smell?): _____

Struggling to Breathe?: _____

Lifting Head/Flukes above water?: _____

Effects on movement (flexibility, bouyancy, surfacing angle, ability to dive, appendage movement, etc):

_____

_____

VI. COLLISION

Type of Wound (prop wound, part cut off, etc)?: _____

Location: _____

Severity: _____

Vessel Involved: _____

Doc/Reg #: _____

Operator: _____

Homeport: _____

COAST GUARD DISTRICT INSTRUCTION 16XXX.X

Subj: PROTECTED LIVING MARINE RESOURCES PROGRAM

Ref: (a) 50 CFR Part 216 - Regulations Governing the Taking and Importing of Marine Mammals
(b) 50 CFR Part 222 - Endangered Fish and Wildlife
(c) 50 CFR Part 226 - Designated Critical Habitats
(d) 50 CFR Part 227 - Threatened Fish and Wildlife
(e) Maritime Law Enforcement Manual, COMDTINST 16247.1 (series)

1. PURPOSE. This instruction directs Coast Guard units within XXXXXX District waters to further federally mandated protection and recovery objectives for marine mammals and endangered marine species. It is intended to minimize the impact of Coast Guard operations on such species and to prevent, detect, and initiate enforcement action on, violations of those U.S. laws protecting Marine Mammals and Endangered Species.

2. ACTION. All XXXXX District units, cutters, and aircraft operating within the XXXXX District shall comply with the provisions of references (a) through (e) and enclosure (1) of this instruction.

3. DIRECTIVES AFFECTED. None

4. DISCUSSION. The National Oceanic and Atmospheric Administration (NOAA) Fisheries is the primary federal agency responsible for the conservation and management of Living Marine Resources (with the exception of sea otters, polar bears and walrus which are under the jurisdiction of the U.S. Fish and Wildlife Service). The Coast Guard has authority to perform law enforcement activity upon the high seas and waters subject to U.S. Jurisdiction for the prevention, detection, and suppression of violations of U.S. Law, as well as to provide support to NOAA Fisheries to meet management goals for protected marine mammals. The Coast Guard and NOAA Fisheries are both responsible for enforcing violations of the Endangered Species Act (ESA).

5. ENVIRONMENTAL ASPECT and IMPACT CONSIDERATIONS. Environmental considerations were examined in the development of this directive, and have been determined not to be applicable.

6. FORMS/REPORTS. None.

XXXXXXXXXXX
Chief of Staff

Encl: (1) Marine Mammal & Endangered Species Protection Program

PROTECTED LIVING MARINE RESOURCES PROGRAM
(Enclosure (1) to Sample DISTINST)

1. AREAS OF SPECIAL INTEREST. The XXXXX District Protected Living Marine Resources Program applies to littoral and offshore waters. However, designated critical habitats are of special importance. Units should review reference (c) to become familiar with those habitats designated as critical to endangered and threatened species under Section 7 of the Endangered Species Act (ESA). Within the XXXXX District, specific areas of concern include steller sea lion rookeries, haulouts and associated areas as listed in part 226.12(a) and 227.12, and three proposed special aquatic foraging areas as listed in part 226.12(c).

2. CUTTER TRANSITS. Whales can be expected to be encountered in inshore and offshore waters of the XXXXX District throughout the year.

   A. During the course of non-emergent operations all vessels will incorporate the following speed guidance:
      Reductions in vessel speed should be considered when a whale is sighted, known to be in the immediate area, or known to have been sighted within five nautical miles. In these situations, vessels shall use those courses and speeds as appropriate, yet navigationally prudent, to avoid a collision with a whale, and if necessary, reduce speed to a minimum at which the vessel can be kept on course or come to all stop.

   B. During the course of non-emergent operations all vessels will incorporate the following approach guidance:
      Do not approach whales head-on, nor approach within 100 yards. Approach distances may vary if the Coast Guard vessel is assisting in the rescue of an endangered whale or performing duties to enforce the Endangered Species Act or Marine Mammal Protection Act.

   C. These guidelines should not influence the conduct of emergency operations: those that require rapid response such as SAR to avoid loss of life and property, urgent law enforcement incidents, and situations involving national security.

3. UNIT RESPONSIBILITIES:

A. NOTIFICATIONS:

(1) ENTANGLEMENTS, BOAT COLLISIONS, AND STRANDINGS - In cases of entanglement, boat collisions or strandings units shall complete the appropriate form and pass the information to the command center immediately. A copy of the Entanglement & Boat Collision Reporting Form is provided as enclosure (2). Coast Guard units should not attempt to remove debris from entangled whales. A Marine Mammal Stranding Report is provided as enclosure (3). The Command Center shall notify the appropriate authorities as outlined below:

(a) Entangled or stranded whales. The DXX Command Center shall immediately notify the NOAA Fisheries Protected Resource Management Division's Stranding Coordinator at (907)586-7235 (fax: 586-7012).

(b) Stranded/entangled Steller Sea Lions. Steller Sea Lion stocks west of 144° W longitude have recently been listed on the endangered species list. The DXX Command Center shall immediately notify the NOAA Fisheries Protected Resource Management Division's Stranding Coordinator at (907)586-7235 (fax: 586-7012).

B. LOGISTICAL SUPPORT. Units are authorized and may be tasked by OPCON to provide logistical support for NOAA Fisheries-approved disentanglement and stranding teams and their equipment.

C. SITREP. All cases involving protection of endangered species will be documented via SITREP.

D. LETTER REPORT. Units which assist in the salvage, rescue or disposal of a marine mammal shall submit a letter report to the U.S. Fish and Wildlife Service in accordance with chapter 8 of the Maritime Law Enforcement Manual, with an information copy to CGDXX (moc).

4. DISPOSAL OF PROTECTED SPECIES. There is no specific U.S. Coast Guard responsibility for the salvage or disposal of dead whales. Only situations that pose a safety, health or navigation hazard, or involve significant public affairs interest should be pursued. Units shall not tow or attempt to sink dead marine mammals without OPCON concurrence. If there is no follow-up determined to be necessary by appropriate organizations after having been notified about the location of a dead whale or other protected species, abandon the

carcass and continue with normal operations.

5. DXX WHALE SIGHTING PROGRAM:

A. UNIT PREPARATIONS. Units operating in the DXX AOR should review references (a) through (d) and follow the guidelines outlined in this instruction to establish an effective unit sighting program. The program will include reporting sightings to the National Marine Mammal Laboratory (NMML) for inclusion in their national data base. NMML distributed sighting forms to all cutters in PACAREA in June 1996. Additional forms may be obtained by calling the NMML at 206-526-4030. They will also answer any questions about the national sighting program.

B. IDENTIFICATION GUIDES. Units should ensure that appropriate personnel are able to identify protected species. The Guide to Marine Mammals of Alaska is available from the Alaska Sea Grant College Program at the University of Alaska Fairbanks for $15.00. This publication has pages which are water resistant in spiral bound format. NMML also recommends the Sierra Club Handbook of Whales and Dolphins and the Sierra Club Handbook of Seals and Sirenians, both available from the Sierra Club Bookstore, San Francisco (415)977-5600.

C. COLLATERAL DUTY ASSIGNMENT. Units should identify a person onboard that has primary responsibility for photographing, videotaping and submitting completed sighting forms for endangered marine mammals.

D. SIGHTING PRIORITIES. All sightings of marine mammals should be documented on the NMML Marine Mammal Sighting form. The specific priorities of the DXX sighting program are:

(1) Entangled or injured whales;

(2) "Floaters" - dead whales;

(3) Large groups of whales.

E. PROBABLE LOCATIONS OF WHALES. Historical sighting data from aerial and shipboard surveys indicates whales are normally found in the vicinities of:

(1) West Coast of Alexander Archipelago (March-June) - gray whale seasonal migrants seen close to shore on the northbound transit.

(2) Shelikof Bay (Kruzof Island) (July-August) - a few gray whales are seen in and near this bay.

(3) Davidson Bay (Chichagof Island) (July-August) - a few gray whales are seen in and near this bay.

(4) West coasts of Prince of Wales Island, Baranof Island and Chichagof Island (March-September) - humpback whales are found in scattered distribution. (September-early February) - humpback whales are found in clumped distribution in areas where herring overwinter (Ullola Channel, Sitka Sound, Tenakee Inlet and sometimes Salisbury Sound and Lisianski Inlet).

(5) Ketchikan Area (Revillagigedo Channel and lower Clarence Strait) (December) - a few humpback whales, with increasing sightings in the past 2-3 years.

(6) Seymour Canal (October-early February) humpback whales.

(7) Lower Lynn Canal and upper Stephens Passage (May-September and January) - humpback whales in increasing numbers in the past 2-3 years.

(8) Upper Lynn Canal (May) - humpback whales.

(9) Frederick Sound and Stephens Passage (late July-September) - humpback whales.

(10) Chatham Strait (May-October) - humpback whales. Tenakee Inlet has sightings into October most years.

(11) Icy Strait and Glacier Bay (May-September) humpback whales.

(12) Coastal corridor Cape St. Elias to Unimak Pass (March-June) - migrating gray whales.

(13) Middleton Island to shelf edge SE of Kodiak (Summer) - sperm whales.

(14) Stevenson Entrance (between Afognak and Barren Islands) and Marmot Bay (June-October) - humpback and fin whales.

(15) Unimak Pass (Spring-Fall) - migrating gray whales. (Summer and possibly year-round) - humpback whales.

(16) Western Aleutians (Buldir, Seguam Pass) (Summer) - sperm whales and beaked whales.

(17) Shelikof Strait to Chirikof Is. (spring-fall) - humpback and fin whales.

(18) Upper Cook Inlet (May-September) - beluga whales.

(19) Kenai River (September-October) - beluga whales.

(20) Kachemak Bay (May) - beluga whales.

(21) Kotzebue (June-July) - beluga whales.

(22) Point Lay (July) - beluga whales.

(23) Yakutat (Winter) - beluga whales.

(24) Norton Sound beluga whales follow the icepack north.

(25) Bowhead whales are found on the North Slope and also in the North/Northwestern Bering Sea.

F. FORWARDING OF SIGHTING REPORTS. Whale sighting information shall be documented on the NMML Marine Mammal Sighting form, and forwarded to the address on the form at the end of patrol. Use of 35-mm photographs and VHS video to supplement reports is encouraged.

6. ENFORCEMENT OF MMPA AND ESA VIOLATIONS

A. PHILOSOPHY. Enforcement of Marine Mammal Protection Act (MMPA) and Endangered Species Act (ESA) regulations will target significant violators. The MMPA prohibites the take of all marine mammal species in U.S. waters. "Take" is defined as "to harass, hunt, capture, collect or kill, or attempt to harass, hunt, capture, collect or kill any marine mammal." Education is recognized as being a fundamental part of enforcement efforts.

B. HARASSMENT DEFINITIONS. The term "harassment" is an element of taking under the MMPA and includes two levels:

(1) LEVEL A - An act of pursuit, torment, or annoyance that has the potential to injure a marine mammal or marine mammal stock in the wild.

(2) LEVEL B - An act of pursuit, torment, or annoyance that has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns including, but not limited to, migration, breathing, nursing, breeding, feeding or sheltering, but which does not have the potential to injure a marine mammal or marine mammal stock in the wild.

C. EXAMPLES OF HARASSMENT:

(1) Human Interactions - Diving or swimming, throwing objects, human feeding (disrupts natural eating habits), high speed approaches by a vessel, and deliberately maneuvering a vessel close to a whale are clear examples of harassment.

(2) More Subtle Violations - Units should also be aware of more subtle violations.

Persistent engagement of a vessel in a manner that results in a recognizable and articulable disturbance of the marine mammal or endangered marine species is also a violation. Detailed narratives, videotapes, and/or photographs are essential in thoroughly documenting these cases.

D. STANDARD FOR DOCUMENTING VIOLATIONS. Evidence of the following elements of a violation should be obtained to establish a violation of the MMPA or ESA:

(1) Personal knowledge of the guidelines contained in references (a) through (d) (this can be assumed of whale watching boat operators).

(2) Refusal to observe the guidelines contained in references (a) through (d) once advised/reminded.

(3) Documented behavior (observed, photographed, videotaped, etc.) fitting the harassment definition above.

(4) Distances between the violator and whale before, during, and after the incident.

(a) Buffer Zone. There is a buffer zone surrounding all whales which consists of an area outward from the whale a distance of 100 yards in all directions. Northern right whales have a 500 yard buffer zone.

(b) Approaches. Vessels may not approach a whale or turn in any manner to intercept a whale within a buffer zone.

(c) Interference. No vessel may disrupt the behavior of a whale within a buffer zone.

(d) Exceptions. Any person issued a federal scientific research permit may conduct scientific research, observation or management as authorized under the permit.

(e) Commercial Fishing. Commercial fishing vessels hauling back, towing gear or fishing at anchor within a buffer zone created by a surfacing whale may complete the haul, tow or fishing operation, provided it does so with minimum disruption to the whale, does so in a direction away from the whale and departs the buffer zone immediately after the haul, tow or fishing operation.

E. ISSUING A VIOLATION

(1) Standards Present - If "harassment" as discussed in paragraph 6 is observed, board the vessel (if weather/operations permit) and attempt to educate the vessel

operator. Issuing a written warning for minor infractions is authorized at the boarding officer's discretion if it is deemed that the mariner's actions were unintended or due to ignorance of the law and will be corrected.

(2) Persistence - If the master of the vessel persists in harassment, or the actions of the vessel are plainly dangerous or involve a significant act of harassment, issue a violation to the master.

(3) Documentation - In documenting a violation, it is critical to identify distances as well as marine mammal behavior before, during, and after the incident. Submit the Enforcement Action Report (EAR) and documentation in the same manner as MFCMA violations to the local NMFS agent. A list of all witnesses to the incident with phone numbers and/or addresses is also very important. Identify individuals or other vessels who are potential witnesses in your Offense Investigation Report (OIR) statements.

F. SPECIAL CIRCUMSTANCES INVOLVING WHALE WATCHING BOATS. Commercial whale watching boats need not be boarded for all perceived violations. If apparent violations are observed, document the suspected violations (obtain necessary information via radio) and forward the completed case package (if appropriate) to NMFS, with a copy to the appropriate MSO for possible licensing sanctions.

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-OPL
Phone: (202) 267-1770
Fax: (202) 267-4082
Email:

COMDTINST 16004.3A
OCT 15 2003

COMMANDANT INSTRUCTION 16004.3A

Subj: COAST GUARD PARTICIPATION IN THE MARINE SANCTUARY PROGRAM

Ref: (a) Abstract of Operations Reports, COMDTINST M3123.7 (series)
(b) Maritime Law Enforcement Manual (MLEM), COMDTINST M16247.1 (series)
(c) COMDT COGARD Washington DC 261302Z SEP 02

1. PURPOSE. To provide policy guidance for Coast Guard participation in the National Marine Sanctuary Program.

2. ACTION. Area and district commanders, commanders of maintenance and logistics commands, commanding officers of headquarters units, assistant commandants for directorates, Chief Counsel, and special staff offices at Headquarters shall ensure compliance with the provisions of this Instruction. Internet release is authorized.

3. DIRECTIVES AFFECTED. Coast Guard Participation in the National Marine Sanctuary Program, COMDTINST 16004.3, and National Marine Sanctuary Law Enforcement Program, COMDTINST 16214.2, are cancelled.

4. BACKGROUND.

a. In 1972, in response to a growing awareness of the intrinsic environmental and cultural value of our coastal waters, Congress passed the Marine Protection, Research, and Sanctuaries Act (16 U.S.C. 1431, et seq.). The Marine Protection, Research, and Sanctuaries Act (NMSA) authorizes the Secretary of Commerce to designate discrete areas of the marine environment as national marine sanctuaries to promote comprehensive management of their unique ecological, historical, recreational and aesthetic resources.

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A	1	1				1	1		1	1			1	1												
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b. The National Marine Sanctuary Program (NMS) is administered by the Secretary of Commerce through the National Oceanic and Atmospheric Administration's (NOAA) National Ocean Service (NOS). The program provides a coordinated and comprehensive approach to identify, designate and manage areas of the maritime environment of special national significance.

c. The goals of the NMS program are:

(1) To enhance resource protection through the implementation of a comprehensive, long-term management plan tailored to specific resources;

(2) To promote and coordinate research to expand the scientific knowledge of significant marine resources and improve interagency decision making;

(3) To enhance public awareness, understanding, and wise use of the marine environment through public interpretive and recreational programs; and

(4) To provide, to the extent compatible with the primary objective of resource protection, the optimum public and private use of special marine areas.

d. NOS is responsible for carrying out these goals through cooperative partnerships between Federal, state and local agencies, educational and research institutions, and nongovernmental organizations. The Coast Guard contributes to this effort through waterways management responsibilities, marine environmental protection activities, and the enforcement of sanctuary regulations as a part of its law enforcement activities.

e. Thirteen national marine sanctuaries are currently designated and a fourteenth is proposed. The contact information for each of these sanctuaries is listed in enclosure (1).

5. DISCUSSION.

a. Enforcement Authority.

(1) Where marine sanctuaries lie in state waters, NOS primarily coordinates enforcement with state enforcement agencies. In waters beyond state jurisdiction, the Coast Guard is the primary maritime enforcement agency.

(2) The Coast Guard has authority to enforce the NMSA under 14 U.S.C. 2 and 14 U.S.C. 89. Section 1437(h) of the NMSA specifically states that nothing shall be considered to limit the Coast Guard's authority to enforce the NMSA or any other Federal law. The Coast Guard may enforce all applicable Federal laws within the boundaries of national marine sanctuaries.

(3) Violations of marine sanctuary regulations are prosecuted by the NOAA General Counsel.

b. Enforcement Philosophy. NOS's sanctuary management philosophy is based primarily upon an educational approach. Their objective is to foster voluntary compliance by those who use the Nation's marine sanctuaries, and to promote a feeling of stewardship toward the various living and cultural resources these sanctuaries were created to protect. The Coast Guard supports this philosophy. Nevertheless, sanctuaries require routine presence of law enforcement resources to deter and detect violations.

c. Sanctuary Management Plans. Each marine sanctuary is unique and is managed and regulated by NOS with regard to its location and the specific nature of, and threats to, its resources. Individual sanctuary management plans establish the framework to achieve long term resource protection by tailoring management programs to the needs of the particular site.

6. PROCEDURES.

a. Effective coordination of waterways management issues, marine environmental protection issues, and the enforcement of sanctuary regulations are important components of the National Marine Sanctuary Program. To that end, the Coast Guard will work closely with NOS to ensure the comprehensive and coordinated conservation and management of these special areas of the marine environment. Particularly, the Coast Guard will work with NOS to ensure its enforcement efforts complement those of other Federal, state and local agencies.

b. The Coast Guard will actively participate at all levels with NOS and other Federal, state and local agencies in evaluating proposals for new sanctuaries, developing management plans and regulations for designated sanctuaries, and coordinating Coast Guard operations within sanctuary boundaries. The Coast Guard's early involvement in the development stage of management plans is particularly important to effectively integrating Coast Guard programs within the sanctuaries.

c. The Coast Guard will assist NOS in its efforts to educate the boating public with regard to marine sanctuary regulations by involving the Coast Guard Auxiliary. By incorporating information provided by NOS on the sanctuary program, the Auxiliary can significantly contribute to the goal of enhancing public awareness of sanctuary regulations and promoting public stewardship of these unique national resources.

d. Area commanders shall:

(1) Designate an appropriate office to coordinate area and district participation in the National Marine Sanctuary Program.

(2) Ensure units under their command properly document marine sanctuary enforcement efforts per reference (a).

e. District commanders shall:

(1) Establish close liaison with the regional NOAA Fisheries Special Agent in Charge and local sanctuary managers to determine appropriate levels of enforcement activity and ensure timely analysis of enforcement needs. Procedures for coordinating enforcement activity shall be set out in a Memoranda of Agreement (MOA). Copies of such agreements shall be provided to Commandant (G-OPL) and the cognizant area commander.

(2) Provide routine surveillance of the marine sanctuaries concurrently with other Coast Guard operations, and provide specific, targeted or dedicated law enforcement as appropriate. Sanctuary surveillance and enforcement should be incorporated into routine patrol orders where feasible.

(3) Keep NOAA Fisheries and the local sanctuary managers informed of Coast Guard operations occurring within sanctuary boundaries.

(4) Participate with NOS and other Federal, state and local agencies in the development of sanctuary management plans and regulations to provide advice on the enforceability and safety of regulatory proposals and impacts on Coast Guard operations within sanctuary boundaries.

(5) Assist NOAA Fisheries and the local sanctuary managers in assessing the level and nature of user activity in the sanctuaries through coordinated surveillance patrols.

(6) Review violations of sanctuary regulations as documented by Coast Guard units on Enforcement Action Reports and Offense Investigation Reports. Forward completed enforcement case documentation to NOAA Fisheries for processing and final adjudication by NOAA General Counsel per reference (b).

(7) Coordinate cooperation of the Auxiliary with the local sanctuary managers in providing NOS educational material to the boating public during Auxiliary boating safety courses, courtesy safety examinations, and other activities as deemed appropriate.

f. The Assistant Commandant for Operations (G-O) shall, through the Office of Law Enforcement (G-OPL):

(1) Participate at the national level as the central headquarters point of contact for the National Marine Sanctuary Program and law enforcement issues.

(2) Coordinate with the Office of Response (G-MOR) for marine environmental protection and contingency planning issues.

(3) Coordinate with the Office of Aids to Navigation (G-OPN) and the Office of Vessel Traffic Management (G-MWV) for navigation and waterways management issues.

7. ENVIRONMENTAL ASPECT and IMPACT CONSIDERATIONS. Environmental considerations were examined in the development of this directive. This Instruction falls under categorical exclusion number 33 (figure 2-1) of National Environmental Policy Act Implementing Procedures and Policy for Considering Environmental Impacts Manual COMDTINST M16475.1 (series) as it is a guidance document that implements applicable statutory, regulatory and other guidance documents without substantive change.

8. FORMS/REPORTS.

   a. Marine sanctuary enforcement effort shall be documented as ELT-PLMR mission/employment category in aircraft, boat and cutter abstract of operation reports per references (a) and (c).

   b. Violations of marine sanctuary regulations shall be documented on the Enforcement Action Report (CG-5201) and the Fisheries Boarding Investigation Report (FBIR four page form) or Offense Investigation Report (CG-5202) per reference (b), and reported in MISLE.

D. S. BELZ/s/
Assistant Commandant for Operations

Encl: (1) List of designated and proposed National Marine Sanctuaries

LIST OF DESIGNATED AND PROPOSED NATIONAL MARINE SANCTUARIES

CHANNEL ISLAND NATIONAL MARINE SANCTUARY

Santa Barbara Office
113 Harbor Way, Suite 150
Santa Barbara, CA 93109
Phone: (805) 966-7107
Fax: (805) 568-1582

Southern Office
Channel Islands Harbor
3600 S. Harbor Blvd., Suite 217
Oxnard, CA. 93035
Phone: (805) 382-6149
Fax: (805) 382-9791
Sanctuary Manager: Chris Mobley
E-mail: Chris.Mobley@noaa.gov
Web: http://channelislands.noaa.gov/

CORDELL BANK NATIONAL MARINE SANCTUARY

1 Bear Valley Rd.
Point Reyes Station, CA 94956
Mailing address:
PO Box 159
Olema, CA 94950
Phone: (415) 663-0314
Fax: (415) 663-0315
Sanctuary Manager: Dan Howard
E-mail: cordellbank@noaa.gov
Web: http://cordellbank.noaa.gov/

FAGATELE BAY NATIONAL MARINE SANCTUARY

Fagatele Bay National Marine Sanctuary
P.O. Box 4318
Pago Pago, American Samoa 96799
Phone: (684) 633-7354
Fax: (684) 633-7355
Sanctuary Coordinator: Nancy Daschbach
E-mail: fagatelebay@noaa.gov
Web: http://fagatelebay.noaa.gov/

FLORIDA KEYS NATIONAL MARINE SANCTUARY

P.O. Box 500368
Marathon, FL 33050
Phone: (305) 743-2437
Fax: (305) 743-2357
Sanctuary Superintendent: Billy Causey
E-mail: billy.causey@noaa.gov
Web: http://floridakeys.noaa.gov/

FLOWER GARDEN BANKS NATIONAL MARINE SANCTUARY

1200 Briarcrest, Suite 4000
Bryan, TX 77802
Phone: (979) 846-5942
Fax: (979) 846-5959
Sanctuary Manager: George Schmahl
E-mail: george.schmahl@noaa.gov
Web: http://flowergarden.noaa.gov/

GRAY'S REEF NATIONAL MARINE SANCTUARY

10 Ocean Science Circle
Savannah, GA 31411
Phone: (912) 598-2345;
Fax: (912) 598-2367
Sanctuary Manager: Reed Bohne
E-mail: graysreef@noaa.gov
Web: http://graysreef.noaa.gov/

GULF OF THE FARALLONES NATIONAL MARINE SANCTUARY

Fort Mason, Bldg. 201
San Francisco, CA 94123
Phone: (415) 561-6622
Fax: (415) 561-6616
Sanctuary Manager: Ed Ueber
E-mail: farallones@noaa.gov
Web: http://farallones.nos.noaa.gov

HAWAIIAN ISLANDS HUMPBACK WHALE NATIONAL MARINE SANCTUARY

Maui Headquarters Office
726 South Kihei Road
Kihei, Hawaii 96753
Phone: (800) 831-4888 or (808) 879-2818
Fax: (808) 874-3815
Sanctuary Manager: Naomi McIntosh
E-mail: hihumpbackwhale@noaa.gov
Web: http://hawaiihumpbackwhale.noaa.gov/

MONITOR NATIONAL MARINE SANCTUARY

The Mariners' Museum
100 Museum Drive
Newport News, VA 23606
Phone: (757) 599-3122
Sanctuary Manager: John Broadwater
E-mail: monitor@noaa.gov
Web: http://monitor.noaa.gov/

MONTEREY BAY NATIONAL MARINE SANCTUARY

MBNMS Main Office
299 Foam Street
Monterey, California 93940
Phone: (831) 647-4201
Fax: (831) 647-4250
Sanctuary Superintendent: William Douros
E-mail: william.douros@noaa.gov
Web: http://montereybay.noaa.gov/

(Proposed 14th sanctuary) NORTHWESTERN HAWAIIAN ISLANDS CORAL REEF ECOSYSTEM RESERVE

6700 Kalanianaole Hwy, #215
Honolulu, HI 96825
Phone: (808) 397-2668
Sanctuary Designation Coordinator: Sean Corson
E-mail: sean.corson@noaa.gov

OLYMPIC COAST NATIONAL MARINE SANCTUARY

115 East Railroad Ave
Suite 301
Port Angeles WA 98362
Phone: (360) 457-6622
Sanctuary Superintendent: Carol Bernthal
E-mail: olympiccoast@noaa.gov
Web: http://olympiccoast.noaa.gov/

STELLWAGEN BANK NATIONAL MARINE SANCTUARY

175 Edward Foster Road
Scituate, MA 02066
Phone: (781) 545-8026
Fax: (781) 545-8036
Sanctuary Superintendent: Craig MacDonald, Ph.D.
E-mail: craig.macdonald@noaa.gov
Web: http://stellwagen.nos.noaa.gov/welcome.html

THUNDER BAY NATIONAL MARINE SANCTUARY AND UNDERWATER PRESERVE

145 Water Street
Alpena, Michigan 49707
Phone: (989) 356-8805
Fax: (989) 354-0144
Sanctuary Manager: Jeff Gray
E-mail: jeff.gray@noaa.gov
Web: http://thunderbay.noaa.gov/

APPENDIX F

AIR QUALITY ANALYSIS

Homestead MSST

Southeast Florida Intrastate Air Quality Control Region

Scenario

Based on estimates from San Pedro Coast Guard Facility (11/27/02)

2 boats in harbor, 6 hrs/day 7 days/wk
3 boats on trailers for remote assignments; assume maximum of two in water 6 hrs/day, all outside Southeast Florida Intrastate Air Quality Control Region
1 spare boat
4 F-350 Ford gasoline pickups tow the trailers. Used about 15 days per month.
4 F-550 Ford gasoline stake-bed trucks with trailers. Used about 15 days per month.
3 15 passenger gasoline vans. Used about 15 days per month.

During military load-outs, the Harbor boats will patrol 12 hr/day for 1-2 days. The frequency of such events is dependent on world events, but will be at least 1-2 per month for the near future.

The trailered boats could be deployed to any location on the east coast of the United States, but their duties will be primarily located from Port of Miami to Tavernier, and in the waters near Turkey Point Nuclear Power Plant

The 12 knot speed mentioned in the Description of Proposed Action is an average speed rather than an actual speed. The boats would rarely actually travel at 10-12 knots because that is a transition speed between displacement and planing for a boat of this size. As a result, that speed generates a significant wake, and results in unnecessary fuel consumption and emissions.

Boats will patrol at 7-8 knots in the harbor, with occasional periods of travel of approximately 35 knots to relocate, or to go out or return from escort assignments. Staff estimate 80% of the time is spent at low speed, and 20% of the time is spent a cruising speed. There are also occasional momentary bursts of up to 50 knots to intercept other watercraft. Boats patrolling the Florida coast will spend most of their time at cruising speed (approximately 35 knots) with a smaller fraction of time at low speed.

One new modular building will be constructed for boat storage and will include a small maintenance shop. Emissions from transporting and erecting the modular building will be minimal and temporary, and have been neglected.

There will be up to 100 active duty personnel associated with the Proposed Action. These will all be new staff to the Homestead Air Reserve Station facility.

Assumptions:

Assume that the two harbor patrols will be in Southeast Florida Intrastate Air Quality Control Region 100% of the time, running 6 hr/day, 329 days/yr.
Assume that the two harbor patrols will be on 12 hour Military Load-out patrols the other 36 days/yr

Assume that the boats that patrol the coastline will operate only in Miami Harbor and Miami-Dade County.

Assume that all commuter vehicles are in Southeast Florida Intrastate Air Quality Control Region 100% of the time.
Assume that F-350s, F-550s, and passenger vans will commute out of Southeast Florida Intrastate Air Quality Control Region 15 days per month.

No historical data on fuel use for comparable Coast Guard watercraft were available for Homestead Florida. However according to Chief Petty Officer Mark Wilkins (telecon 11/26/02) Coast Guard MSST patrols use about 45 gal in a 12-hour day.

Based on mileage data from comparable engines, see "Power Requirements" worksheet, these outboard motors have a thermal efficiency of approximately 22.6%.

$$\frac{(3.75\ \text{gal/hr})\ (130{,}000\ \text{Btu/gal})\ (22.6\%\ \text{thermal efficiency})}{3413\ \text{Btu/kW-hr}} = 32\ \text{kW}$$

Based on tests of outboard boat efficiency, see "Power Requirements" worksheet, a 24 foot boat uses approximately 10.3 gal/hr at a cruising speed of 32 MPH. If we assume 80:20 ratio of cruising to idle speed for the deployed boats, as opposed to 20:80 for the Harbor Patrol boats, then the deployed boats would be expected to consume approximately 8.75 gallons per hour.

$$\frac{(8.75\ \text{gal/hr})\ (130{,}000\ \text{Btu/gal})\ (22.6\%\ \text{thermal efficiency})}{3413\ \text{Btu/kW-hr}} = 75\ \text{kW}$$

Assume that the average total power demand for patrol boats over their 12-hour shifts will be:

50	HP avg. engine load to patrol harbor =	37 kW
100	HP avg. engine load to cruise along coast =	75 kW

Boat Activity in Southeast Florida Intrastate Air Quality Control Region:

	Two harbor patrol boats, 6 hr/day, 329 days/yr	
	Two harbor patrol boats, 12 hr/day, 36 days/yr	
Totals	4,812 boat-hrs in SEFI AQCR	**179,367 kW-hrs**

On-Road Motor Vehicles
This analysis will compute emissions associated with 71 active duty staff vehicles commuting an average of 40 miles per day (20 miles each way), one person per car, 240 days per year.
Reservists will be assumed to originate outside of SE Florida Intrastate AQCR, so their mileage will be based on 12 round trips per year from the edge of the air basin (approximately 320 miles in the Southeast Florida Intrastate Air Quality Control Region each round trip)
The three Ford F-350 pickups will be assumed to travel to the edge of Southeast Florida Intrastate Air Quality Control Region 15 times per month (approximately 320 miles in the Southeast Florida Intrastate Air Quality Control Region each round trip).
Fleet makeup and age assumptions are listed and emission factors are computed on the "Commute" sheet in this workbook.

Motor Vehicle Activity in SOCAB:

Up to 100 active duty staff, 40 mi/day, 240 days/yr.	960,000 vehicle miles traveled
4 Ford F-350s, 320 miles/trip, 180 trips/yr	230,400 vehicle miles traveled
4 Ford F-550s, 320 miles/trip, 180 trips/yr	230,400 vehicle miles traveled
3 15 passenger vans, 320 miles/trip, 180 trips/yr	172,800 vehicle miles traveled

Motor vehicle activity in air basins outside of Southeast Florida Intrastate Air Quality Control Region will be negligible and has not been evaluated.

Emissions From Watercraft

The specification for the Proposed Action motor procurement requires that current and future MSST engines meet federal 2006 model year emission standards for outboard motors (= California 2001-2003 MY standards).

Emission Factors **Not** Used in This Analysis - Presented for Comparison Purposes Only

Emission Factors from U.S. EPA NonRoad Model Version 2.2.0
For 4-Stroke Inboard Engines, Technology M3

Exhaust Emissions				Refuel	Diurnal
NOx g/kW-hr	HC g/kW-hr	CO g/kW-hr	PM10 g/kW-hr	HC g/day	HC g/day
10.36	5.41	173.75	0.08	1.8	3.0

The NonRoad Model does not include emission factors for 4-stroke outboard motors.
Furthermore, the NonRoad Model emission factors do not anticipate the federal MY2006 outboard engine emission standards (which the Proposed Action motors must meet).
These factors are moderately lower than the factors used in this analysis for NOx and HC, and moderately higher than the factor used in this analysis for CO. This PM10 factor

is significantly lower than the factor used in this analysis, and may be more representative of a 4-stroke outboard than the factor used in this analysis. However, if the currently-selected engines were to be replaced by 2-stroke engines at some time during the life of the Proposed Action, the NonRoad Model PM10 factor listed above would likely underestimate 2-stroke outboard engine emissions.

Emission Certification Data Submitted by Honda Motor Corp. to EPA and CARB for the BF200A/BF225A Series engines.

NOx g/kW-hr	HC g/kW-hr	CO g/kW-hr
6.39	3.54	139.05

These factors are representative of the engines selected this year for the MSST watercraft. However, they may not be representative of any future engines that may replace these engines.

The emission factors to be used for this analysis are generic factors which are higher than the engine certification factors for the particular engines selected for the Proposed Action. The generic factors are computed to correspond to the federal 2006 emission standards, as discussed on the following page.

Federal 2006 Outboard Engine Emission Standard (Ref: 40 CFR 91.104

$$NO_x \& HC\ (g/kW\text{-}hr) = [0.25 \times (151 + 557/Ptx^{0.9})] + 6$$

where Ptx = engine rated output in kW

The emission standard is a NOx+HC standard that is expressed by an exponential formula based on the engine horsepower rating. For a 200 HP engine, the formula works out to 46 g/kW-hr NOx+HC. The ratio of NOx to HC used to allocate this 46 g/kW-hr to individual pollutant emission factors is based on the measured emissions from seven MY2002 engine families in the 140 kW+ (200 HP+) size range that meet California 2001-2003 (same as federal 2006) emission standards. The CO factor is based on the highest three CO measurements out of the seven engine families that meet the standard.

Emission Factors Used for Outboard Motors

NOx g/kW-hr	HC g/kW-hr	CO g/kW-hr	PM10 g/kW-hr	SOx g/kW-hr
14	32	140	1.3	1.2

A comparison of these default 'compliant' emission factors to the actual certification data for the engines selected for these boats indicates that this estimate will conservatively over-estimate NOx, HC and CO for these new engines, and should be conservatively high for any future engines that may replace these engines during the life of the Proposed Action.
Available references documenting emission factors for outboard motors generally provide data for NOx, HC, and CO only. For this analysis, PM10 and SOx factors for gasoline engines were taken from U.S. EPA AP-42 Table 3.3-1 dated 10/96.

Estimated Emissions From Watercraft

	NOx ton/yr	HC ton/yr	CO ton/yr	PM10 ton/yr	SOx ton/yr	
Annual Southeast Florida Intrastate Air Quality Control Region	2.77	6.33	27.68	0.26	0.25	Note (1)

(1) 179,367 kW-hrs per year in Southeast Florida Intrastate Air Quality Control Region, see Assumptions section of this worksheet.

Diurnal and refueling emissions for these watercraft are estimated to be only 17 lbs per year.

Emissions From Commuter and Tow Vehicles

Emission Factors Used for the Commuter Fleet

	NOx g/mi	HC g/mi	CO g/mi	PM10 g/mi	SOx g/mi	
Commuter Vehicles	1.1	1.3	16.5	0.96	0.1	Note (1)
MSST Trucks and Vans	1.4	1.4	17.4	2.58	0.1	Note (2)

(1) These are national average emission factors using a fleet mix that is typical of commuter traffic.
These factors have not been refined to reflect local smog check programs, etc.
The fleet mix and emission factor calculation is done on the "Commute" sheet in this workbook.

(2) These are emission factors for Light-duty gasoline trucks (LDGV2, GVW 6000-8500 lbs)
The emission factor calculation is done on the "Commute" sheet in this workbook.

Estimated Emissions From Commuters in Southeast Florida Intrastate Air Quality Control Region

	NOx ton/yr	HC ton/yr	CO ton/yr	PM10 ton/yr	SOx ton/yr	
Commuter Vehicles	1.21	1.41	17.44	1.02	0.08	(active duty and reservists)
MSST Trucks and Vans	0.94	0.94	12.12	1.80	0.07	
Totals	2.15	2.35	29.56	2.82	0.15	

See Assumptions section of this worksheet for discussion of vehicle miles traveled.

Total Estimated Annual Emissions From Proposed Action

	NOx ton/yr	HC ton/yr	CO ton/yr	PM10 ton/yr	SOx ton/yr
Annual Southeast Florida Intrastate Air Quality Control Region	4.92	8.68	57.24	3.08	0.40

General Conformity De Minimis Thresholds

	NOx ton/yr	HC ton/yr	CO ton/yr	PM10 ton/yr	SOx ton/yr	
Annual Southeast Florida Intrastate Air Quality Control Region	100.00	100.00	--	--	--	Attainment

Cells with "--" in them indicate federal attainment for this pollutant in this area. No conformity determination is necessary for this pollutant in this air basin.

General Conformity Regional Significance Thresholds (10% of regional budget)

Since future year budgets were not readily available, actual 1999 air emissions inventories for the counties were used as an approximation of the regional inventory. Because the Proposed Action is several orders of magnitude below significance, the conclusion would be the same, regardless of whether future year budget data set were used.

Southeast Florida Intrastate Air Quality Control Region Target Year Emissions Budgets

	Point and Area Sources Combined				
Year	**NOx (tpy)**	**VOC (tpy)**	**CO (tpy)**	**PM10 (tpy)**	**SO2 (tpy)**
1999	234,227	286,959	1,983,767	139,900	114,316

Source: USEPA-AirData NET Tier Report (http://www.epa.gov/air/data/nettier.html). Site visited on 8/13/2004

Determination Significance (Significance Threshold = 10%)					
Minimum - 1999	234,227	286,959	1,983,767	139,900	114,316
Proposed Action %	**0.0021%**	**0.0030%**	**0.0029%**	**0.0022%**	**0.00035%**

ASSUMPTIONS Based on estimates from San Pedro Coast Guard Facility (11/27/02)

Commute: Active duty staff live anywhere from 5 to 40 miles from the station.
An estimate of 20 miles commute each way should be conservative.

Boats: Six Safeboats International 25' Response Boat Small (RBS)

Motors: twin 225 HP Honda outboard motors

Fuel Use: Not enough experience to estimate daily fuel consumption, but they know that these boats consume 15 gal/hr when cruising at 35 knots. They expect to cruise at 35 knots up to 20% of the time as they go out to pick up escorts or return from escort missions, and as they relocate within the harbor area.
The boat holds 125 gallons of fuel.

Duty: Two boats on harbor duty. 6 hr/day each would be a realistic estimate of how much time they will be running, rather than 12 hr/day.
Patrols may increase to 8-12 hours per day during military loadouts, but he would not anticipate a patrol of 48 consecutive hours (as previously assumed)
Two or three boats will be subject to deployment outside of Southeast Florida Intrastate Air Quality Control Region. These boats will generally NOT cruise to their assignments but will be trailered to their assignments behind Ford F-350 gasoline pickups.
I should assume that the trucks with boat trailers will travel out and back 15 days per month.

Tier Emissions Report - Criteria Air Pollutants Southeast Florida Intrastate Air Quality Control Region

SOURCE:
http://www.epa.gov/air/data/nettier.html
USEPA - AirData NET Tier Report
Site visited on 8-13, 2004

Geographic Area: Broward Co, Indian River Co, Martin Co, Miami-Dade Co, Monroe Co, Okeechobee Co, Palm Beach Co, St. Lucie Co, FL
Pollutant: Carbon Monoxide, Nitrogen Oxides, Particulate (size < 10 micrometers), Particulate (size < 2.5 micrometers), Sulfur Dioxide, Volatile Organic Compounds
Year: 1999
Emissions In Tons Per Year

				Area Source Emissions						Point Source Emissions					
Row #	State	County	Tier-1	CO	NOx	PM10	PM2.5	SO2	VOC	CO	NOx	PM10	PM2.5	SO2	VOC
SORT															
1	FL	Broward Co	01-Fuel Comb. Elec. Util.	0	0	0	0	0	0	1,604	19,087	622	601	21,680	147
2	FL	Indian River Co	01-Fuel Comb. Elec. Util.	0	0	0	0	0	0	43.9	230	9.53	9.45	291	2.8
3	FL	Martin Co	01-Fuel Comb. Elec. Util.	0	0	0	0	0	0	7,447	7,419	509	467	11,476	119
4	FL	Miami-Dade Co	01-Fuel Comb. Elec. Util.	0	0	0	0	0	0	2,319	9,831	302	278	12,788	161
5	FL	Monroe Co	01-Fuel Comb. Elec. Util.	0	0	0	0	0	0	767	144	11	10.6	57	35.7
6	FL	Palm Beach Co	01-Fuel Comb. Elec. Util.	0	0	0	0	0	0	2,358	10,962	467	421	30,468	166
7	FL	St. Lucie Co	01-Fuel Comb. Elec. Util.	0	0	0	0	0	0	11.3	259	25.3	25.2	31.2	12.7
8	FL	Broward Co	02-Fuel Comb. Industrial	337	1,729	208	110	4,884	102	63.7	63.5	2.33	2.14	1.35	13.6
9	FL	Indian River Co	02-Fuel Comb. Industrial	13.9	79.4	1.34	1.24	3.15	1.36	0.07	7.78	1.41	1.27	0.69	0
10	FL	Martin Co	02-Fuel Comb. Industrial	5.67	32.1	0.53	0.51	1.62	0.38	0.01	10.1	0.01	0.01	0	0
11	FL	Miami-Dade Co	02-Fuel Comb. Industrial	514	2,639	318	167	7,456	156	292	624	46.4	36.9	117	155
12	FL	Monroe Co	02-Fuel Comb. Industrial	6.42	39.3	0.61	0.59	1.63	0.38	35.4	74.8	5.65	4.91	2.32	4.5
13	FL	Okeechobee Co	02-Fuel Comb. Industrial	2.26	14.4	0.2	0.2	0.01	0.38	0	0	0	0	0	0
14	FL	Palm Beach Co	02-Fuel Comb. Industrial	127	591	57	31.9	1,287	9.36	22,034	2,062	10,750	10,161	869	1,918
15	FL	St. Lucie Co	02-Fuel Comb. Industrial	22	132	2.17	2.04	5.03	1.73	11.6	67	1.75	1.65	0.77	1.55
16	FL	Broward Co	03-Fuel Comb. Other	2,465	1,011	507	455	2,818	1,056	6.04	11.5	9.33	9.25	0.23	0.37
17	FL	Indian River Co	03-Fuel Comb. Other	847	49.2	120	118	77.1	248	1.51	6.08	2.3	2.3	0.12	0.23
18	FL	Martin Co	03-Fuel Comb. Other	831	50.8	118	116	76	244	0	0	0	0	0	0
19	FL	Miami-Dade Co	03-Fuel Comb. Other	10,271	1,667	1,646	1,566	4,359	2,998	27.4	57.7	1.69	1.69	29.8	12.5
20	FL	Monroe Co	03-Fuel Comb. Other	649	48.1	92.5	91.4	66.9	190	0	0	0	0	0	0
21	FL	Okeechobee Co	03-Fuel Comb. Other	182	13.2	25.6	25.4	13	52.9	0	0	0	0	0	0
22	FL	Palm Beach Co	03-Fuel Comb. Other	1,868	449	321	303	1,010	795	14.5	35.7	4.59	4.5	12.4	4.27
23	FL	St. Lucie Co	03-Fuel Comb. Other	434	54.5	65.4	64.1	75.9	190	67.2	253	0.86	0.86	7.6	22.6
24	FL	Broward Co	04-Chemical & Allied Product Mfg	0	0	0	0	0	0	0	0	0.19	0.08	0	6.36
25	FL	Miami-Dade Co	04-Chemical & Allied Product Mfg	0	0	0	0	0	0	0	0	0	0	0	0.01
26	FL	Palm Beach Co	04-Chemical & Allied Product Mfg	0	0	0	0	0	0	0	0	0	0	0	1.23
27	FL	Indian River Co	05-Metals Processing	0	0	0	0	0	0	0.01	0.06	0.009	0.008	0	0
28	FL	Miami-Dade Co	05-Metals Processing	0	0	0	0	0	0	383	3.34	38.5	36	29.5	6.04

29	FL	Palm Beach Co	05-Metals Processing	0	0	0	0	0	0	0.38	2.74	3.27	3.19	0.02	0.15
30	FL	Broward Co	06-Petroleum & Related Industries	0	0	0	0	0	0	31.7	24.8	5.48	2.84	57.5	12.6
31	FL	Indian River Co	06-Petroleum & Related Industries	0	0	0	0	0	1.53	3.16	6.58	2.75	0.68	4.91	6.05
32	FL	Miami-Dade Co	06-Petroleum & Related Industries	0	0	0	0	0	0	31.5	77.8	17.8	4.08	47.8	42.3
33	FL	Monroe Co	06-Petroleum & Related Industries	0	0	0	0	0	4.6	0.93	2.31	0.13	0.03	0.32	0.38
34	FL	Okeechobee Co	06-Petroleum & Related Industries	0	0	0	0	0	0	0.02	0.04	0.08	0.02	0.03	0.04
35	FL	Palm Beach Co	06-Petroleum & Related Industries	0	0	0	0	0	0	12.2	27.4	4.36	1.61	19.1	27.1
36	FL	St. Lucie Co	06-Petroleum & Related Industries	0	0	0	0	0	0	8.21	17.1	6.14	1.33	12.8	15.7
37	FL	Broward Co	07-Other Industrial Processes	0	0	0	0	0	475	0	0	20.5	12.1	0	44.4
38	FL	Indian River Co	07-Other Industrial Processes	0	0	0	0	0	0	44.3	0	5.35	3.8	0	87.3
39	FL	Martin Co	07-Other Industrial Processes	0	0	0	0	0	0	55.9	0	28.9	13.6	0	65.1
40	FL	Miami-Dade Co	07-Other Industrial Processes	0	0	3.06	2.12	0	540	1,810	7,243	464	245	2,413	432
41	FL	Monroe Co	07-Other Industrial Processes	0	0	0	0	0	0.96	0	0	0	0	0	0
42	FL	Palm Beach Co	07-Other Industrial Processes	0	0	0	0	0	276	0.22	0.05	15.9	6.31	0	1.35
43	FL	St. Lucie Co	07-Other Industrial Processes	0	0	3.06	2.12	0	90.2	772	0	29.4	20	0	674
44	FL	Broward Co	08-Solvent Utilization	0	0	0	0	0	18,932	0	0	32.4	32.4	0	459
45	FL	Indian River Co	08-Solvent Utilization	0	0	0	0	0	1,490	0	0	0	0	0	103
46	FL	Martin Co	08-Solvent Utilization	0	0	0	0	0	1,703	0	0	0.15	0.15	0	60.4
47	FL	Miami-Dade Co	08-Solvent Utilization	0	0	0	0	0	30,773	0	0.4	1.15	1.15	0	785
48	FL	Monroe Co	08-Solvent Utilization	0	0	0	0	0	979	0	0	0	0	0	0
49	FL	Okeechobee Co	08-Solvent Utilization	0	0	0	0	0	422	0	0	0	0	0	0
50	FL	Palm Beach Co	08-Solvent Utilization	0	0	0	0	0	13,356	0	0	0	0	0	75.2
51	FL	St. Lucie Co	08-Solvent Utilization	0	0	0	0	0	2,105	0	0	0	0	0	80.7
52	FL	Broward Co	09-Storage & Transport	0	0	0	0	0	4,282	17.5	6.77	30.7	13.2	7.56	783
53	FL	Indian River Co	09-Storage & Transport	0	0	0	0	0	419	0	0	0	0	0	0.09
54	FL	Martin Co	09-Storage & Transport	0	0	0	0	0	531	0	0	20.8	4.5	0	5.95
55	FL	Miami-Dade Co	09-Storage & Transport	0	0	0	0	0	5,816	0	0	80.2	33.2	0	21.4
56	FL	Monroe Co	09-Storage & Transport	0	0	0	0	0	381	0	0	0	0	0	0
57	FL	Okeechobee Co	09-Storage & Transport	0	0	0	0	0	180	0	0	0	0	0	0
58	FL	Palm Beach Co	09-Storage & Transport	0	0	0	0	0	5,708	0	0	17.9	7.35	0	36.4
59	FL	St. Lucie Co	09-Storage & Transport	0	0	0	0	0	879	0	0	0	0	0	1.82
60	FL	Broward Co	10-Waste Disposal & Recycling	15,795	467	1,589	1,589	0	1,178	61.4	10	0.63	0.52	1.6	10.3
61	FL	Indian River Co	10-Waste Disposal & Recycling	583	17.5	59.1	59	0.3	40.2	0	0	0	0	0	25
62	FL	Martin Co	10-Waste Disposal & Recycling	495	14.6	49.8	49.8	0	37.4	32.3	0	0	0	0	3.92

63	FL	Miami-Dade Co	10-Waste Disposal & Recycling	9,182	272	925	924	0.75	640	382	33	23.7	20.3	7.91	2,337
64	FL	Monroe Co	10-Waste Disposal & Recycling	330	16.4	87	81.1	2.11	67.1	0	0	0	0	0	0
65	FL	Okeechobee Co	10-Waste Disposal & Recycling	211	12.9	77.7	71.5	1.92	60.8	108	5.8	0	0	0	5.29
66	FL	Palm Beach Co	10-Waste Disposal & Recycling	11,037	342	1,108	1,107	2.35	1,141	260	20.7	25.1	19	14.9	94.1
67	FL	St. Lucie Co	10-Waste Disposal & Recycling	819	24.5	82.9	82.7	0.3	58.1	64.4	0	0	0	0	16.4
68	FL	Broward Co	11-Highway Vehicles	286,331	35,092	985	732	1,422	27,927	0	0	0	0	0	0
69	FL	Indian River Co	11-Highway Vehicles	23,810	3,070	88	67.7	115	2,318	0	0	0	0	0	0
70	FL	Martin Co	11-Highway Vehicles	29,341	3,813	109	83.7	141	2,720	0	0	0	0	0	0
71	FL	Miami-Dade Co	11-Highway Vehicles	321,198	38,855	1,097	812	1,594	32,126	0	0	0	0	0	0
72	FL	Monroe Co	11-Highway Vehicles	22,988	2,736	79.2	60.3	107	2,365	0	0	0	0	0	0
73	FL	Okeechobee Co	11-Highway Vehicles	6,208	935	30.4	24.2	35.8	544	0	0	0	0	0	0
74	FL	Palm Beach Co	11-Highway Vehicles	192,477	23,774	676	504	967	18,676	0	0	0	0	0	0
75	FL	St. Lucie Co	11-Highway Vehicles	42,848	4,926	139	104	193	4,324	0	0	0	0	0	0
76	FL	Broward Co	12-Off-Highway	153,671	15,312	1,188	1,088	1,945	10,847	0	0	0	0	0	0
77	FL	Indian River Co	12-Off-Highway	20,984	804	148	135	91.9	2,182	0	0	0	0	0	0
78	FL	Martin Co	12-Off-Highway	24,971	1,318	219	201	147	3,177	0	0	0	0	0	0
79	FL	Miami-Dade Co	12-Off-Highway	182,152	15,094	1,308	1,196	1,689	14,294	0	0	0	0	0	0
80	FL	Monroe Co	12-Off-Highway	63,639	1,903	1,083	994	198	22,641	0	0	0	0	0	0
81	FL	Okeechobee Co	12-Off-Highway	4,787	379	77.8	71.5	36.9	1,355	0	0	0	0	0	0
82	FL	Palm Beach Co	12-Off-Highway	177,802	9,633	1,188	1,090	1,111	14,620	0	0	0	0	0	0
83	FL	St. Lucie Co	12-Off-Highway	15,881	1,220	180	165	148	1,856	0	0	0	0	0	0
84	FL	Broward Co	14-Miscellaneous	57,950	1,243	22,577	8,736	340	2,755	0	0	0	0	0	0
85	FL	Indian River Co	14-Miscellaneous	4,311	92.5	4,326	1,101	25.3	204	0	0	0	0	0	0
86	FL	Martin Co	14-Miscellaneous	4,602	99.3	4,628	1,184	25.5	242	0	0	0	0	0	0
87	FL	Miami-Dade Co	14-Miscellaneous	78,329	1,681	32,898	12,235	460	3,706	0	0	0	0	0	0
88	FL	Monroe Co	14-Miscellaneous	61,877	1,327	10,695	6,012	364	2,913	0	0	0	0	0	0
89	FL	Okeechobee Co	14-Miscellaneous	3,417	73.3	4,670	989	20.1	161	0	0	0	0	0	0
90	FL	Palm Beach Co	14-Miscellaneous	101,119	2,292	25,529	11,480	519	7,061	0	0	11.5	0.85	0	0
91	FL	St. Lucie Co	14-Miscellaneous	4,867	104	4,858	1,312	28.6	231	0	0	0.62	0.55	0	0
Grand Total				1,942,586	175,541	126,241	57,398	33,865	277,857	41,181	58,686	13,659	12,523	80,451	9,102

Total Emissions (Area and Point Sources) TPY				
NOx	VOC	CO	PM10	SO2
234,227	286,959	1,983,767	139,900	114,316

Commute Emissions Factors

This analysis has not been refined with site-specific effects of the local smog check program, assumptions for hot and cold starts, etc. National average emission factors are used as a first approximation.
The vehicle mix is considered generally representative of commuters, rather than a profile of vehicles used by this specific demographic of employees. If it is determined that the results of this analysis are critical to the Conformity Analysis, a more refined estimate will be generated.

Description of POV Fleet and VMT Contributions Assumed for This Analysis

		POV VMT %	POV Avg Age
Light-duty gasoline vehicles (passenger cars)	LDGV	65.81%	5
Light-duty gasoline trucks (SUVs, pickups GVW <6000 lb	LDGT1	25.0%	6
Light-duty gasoline trucks (GVW 6000-8500 lbs)	LDGT2	8.5%	5
Light-duty diesel vehicles (passenger cars)	LDDV	0.13%	6
Light-duty diesel trucks (SUVs, pickups GVW <8500 lb)	LDDT	0.14%	5
Motorcycles	MC	0.34%	5
		100%	

EFs in g/mi from MOBILE5 Tables based on vehicle age in the year of interest.

	POV Low Altitude g/mi - 2000					POV Low Altitude g/mi - 2005				
	CO	HC	NOx	SOx	PM	CO	HC	NOx	SOx	PM
LDGV	14.6	1.3	1	0.072	0.71	14.6	1	1	0.072	0.71
LDGT1	21.9	1.9	1.6	0.096	1.08	20.5	1.6	1.3	0.096	1.08
LDGT2	17.8	1.5	1.5	0.098	2.58	16.9	1.2	1.2	0.098	2.58
LDDV	1.4	0.5	1.1	0.116	0.8	1.4	0.5	1.1	0.116	0.8
LDDT	1.7	0.7	1.3	0.157	1.59	1.7	0.7	1.3	0.157	1.59
MC	22.1	4.7	0.9	0.032	0.08	22.1	4.7	0.9	0.032	0.08

Reference: Tables 4-2 through 4-53, (AF IERA, July 2001)

Weighted Average Factors - adjusted for VMT weighting by vehicle class

	POV Low Altitude g/mi - 2000					POV Low Altitude g/mi - 2005				
	CO	HC	NOx	SOx	PM	CO	HC	NOx	SOx	PM
LDGV	9.60861	0.85556	0.65812	0.04738	0.46727	9.60861	0.65812	0.65812	0.04738491	0.46726785
LDGT1	5.48181	0.47559	0.4005	0.02403	0.27034	5.13137	0.4005	0.3254	0.02402985	0.27033581
LDGT2	1.52156	0.12822	0.12822	0.00838	0.22054	1.44463	0.10258	0.10258	0.00837712	0.22054047
LDDV	0.0018	0.00064	0.00142	0.00015	0.00103	0.0018	0.00064	0.00142	0.00014946	0.00103079
LDDT	0.0023	0.00095	0.00176	0.00021	0.00215	0.0023	0.00095	0.00176	0.00021198	0.00214679
MC	0.07615	0.0162	0.0031	0.00011	0.00028	0.07615	0.0162	0.0031	0.00011027	0.00027567
Fleet Fact	**16.6922**	**1.47716**	**1.19312**	**0.08026**	**0.9616**	**16.2649**	**1.17898**	**1.09238**	**0.08026359**	**0.96159739**

Fleet age data are assumed, and follow the "typical" example calculations provided in the IERA reference.
The fleet age is assumed to stay constant. That is, the 'average' POV LDGV in 2000 is a 1995 model (5 years old), and the 'average' LDGV in the 2005 emission estimates is a 2000 model (five years old)
Note that PM emission factors include both exhaust and "fugitive" emissions (paved road, brake & tire dust, etc.).
National average motor vehicle emission factors generated by MOBILE5 are tabulated in the reference:
"Air Emissions Inventory Guidance Document For Mobile Sources at Air Force Installations", July 2001
Air Force Institute for Environment, Safety and Occupational Health Risk Analysis, Risk Analysis Directorate
Environmental Analysis Division, Brooks AFB, Texas.

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