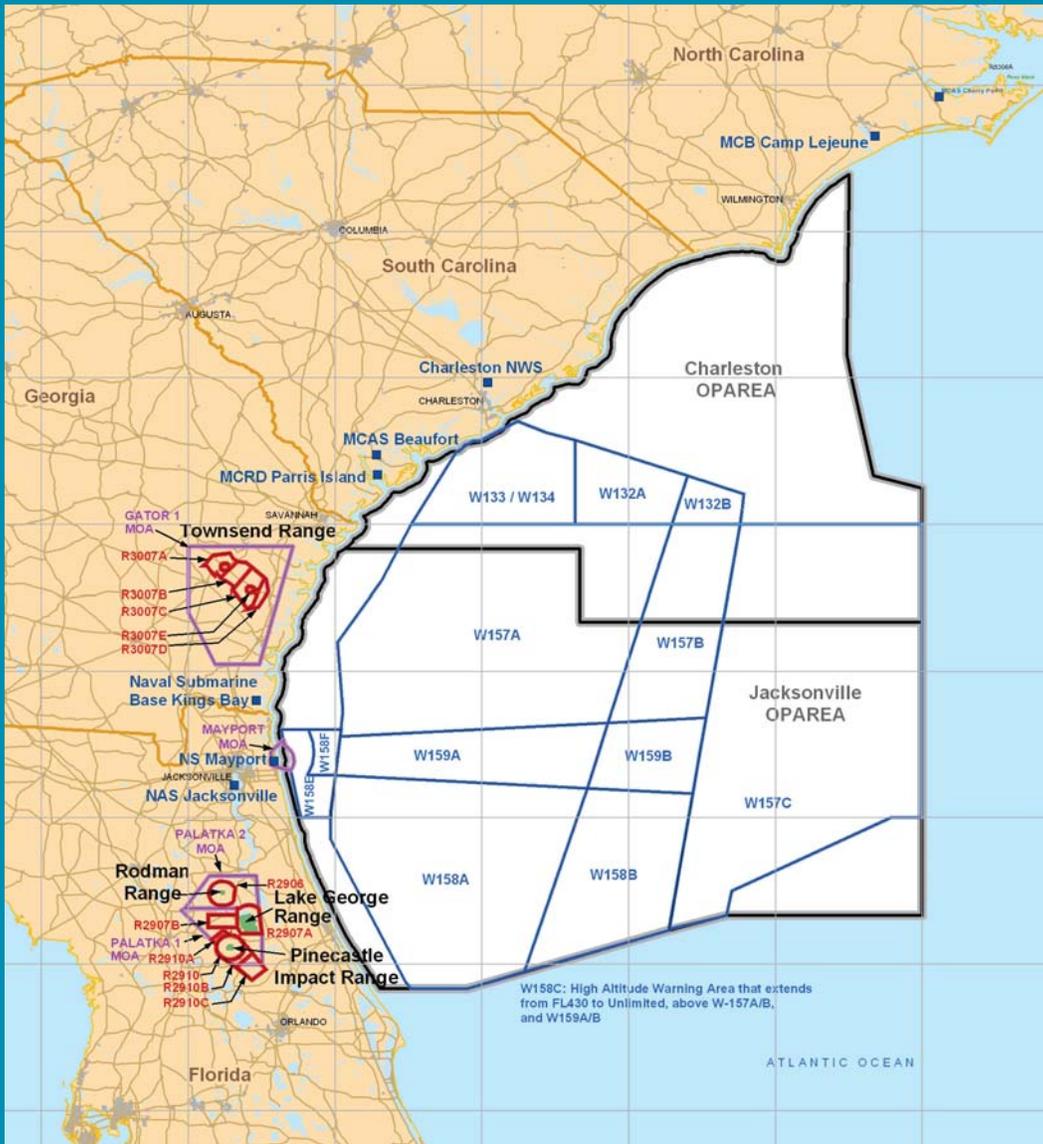


Jacksonville Range Complex Final Environmental Impact Statement/ Overseas Environmental Impact Statement (EIS/OEIS) Volume 1



Prepared by:
United States Fleet Forces
March 2009

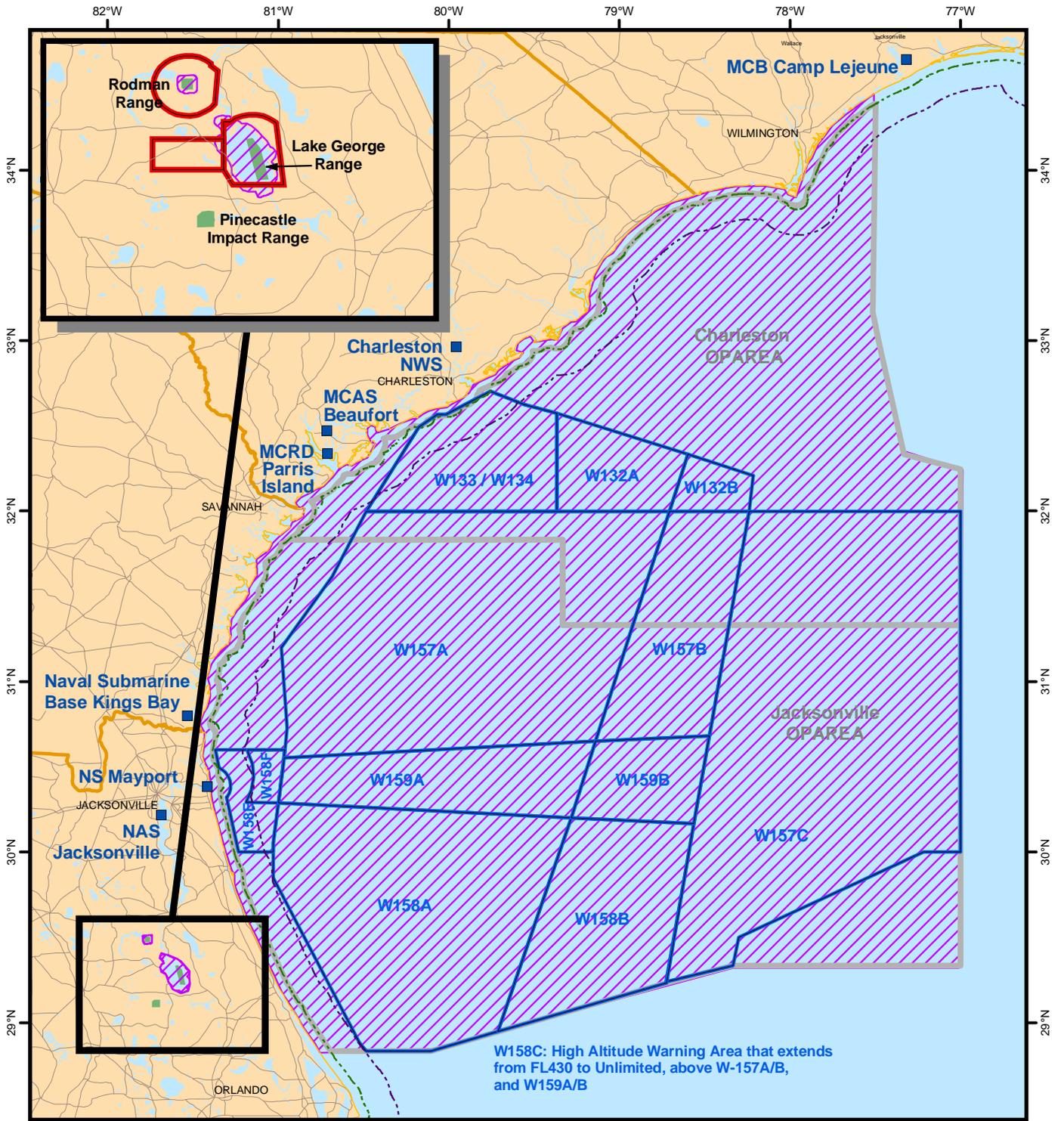
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EXECUTIVE SUMMARY

The United States (U.S.) Department of the Navy (DoN, Navy) has prepared this Final Environmental Impact Statement (FEIS)/Overseas Environmental Impact Statement (OEIS) to assess the potential environmental impacts over a 10-year planning horizon associated with Navy Atlantic Fleet training; research, development, testing, and evaluation (RDT&E) activities; and associated range capabilities enhancements in the Jacksonville and Charleston operating areas (OPAREAs), inland ranges and associated airspace, hereafter referred to as the Jacksonville (JAX) Range Complex. The JAX Range Complex geographically encompasses offshore, near-shore, and onshore OPAREAs, ranges, and special use airspace (SUA). Components of the JAX Range Complex encompass 50,090 square nautical miles (nm²) of sea space and 62,596 nm² of SUA off the coasts of North Carolina, South Carolina, Georgia, and Florida, as well as 20 square miles of inland range area in north-central Florida. The geographic scope of this EIS/OEIS includes the airspace; seaspace; and undersea space of the JAX Range Complex, including the area from the mean high tide line, up to and extending seaward from the 3 nm western boundary of the OPAREAs, hereafter referred to as the JAX Study Area. Also included are the inland ranges and associated Restricted Airspace of the Rodman Range and Lake George Range (Figure ES-1).

This FEIS/OEIS has been prepared by the Navy in accordance with the National Environmental Policy Act (NEPA) of 1969 (42 United States Code [U.S.C.] § 4321); the Council of Environmental Quality (CEQ) Regulations for implementing the procedural provisions of NEPA (Title 40 Code of Federal Regulations [CFR] Parts 1500-1508); Department of the Navy Procedures for Implementing NEPA (32 CFR 775); Executive Order (EO) 12114, *Environmental Effects Abroad of Major Federal Actions*; and Department of Defense (DoD) regulations implementing EO 12114 (32 CFR Part 187). The proposed action requires analysis of potential impacts within and outside U.S. territory; therefore, this document was written to satisfy the requirements of both NEPA and EO 12114. The Navy has made changes to this FEIS/OEIS based on comments received during the public comment period. These changes included factual corrections, additions to existing information, and improvements or modifications to the analyses presented in the Draft EIS/OEIS. None of the changes between the Draft and Final EIS/OEIS resulted in substantive changes to the proposed action, alternatives, or the significance of the environmental consequences of the proposed action. There were additional revisions, which are reflected in this Final EIS/OEIS, that were made to amplify information previously provided. These changes included a more detailed description of Maritime Security Operations, the addition of Air to Air Gunnery and Surface to Air Missile exercises to the proposed action, refined acoustic modeling (and harassment totals) for effects resulting from anti-swimmer grenades, and more detailed weapon system data sheets located in Appendix E.

In accordance with 50 CFR § 401.12 the Navy has prepared a separate Biological Evaluation to assess the potential effects from the proposed action on marine resources and anadromous fish protected by the National Marine Fisheries Service (NMFS) under the Endangered Species Act (ESA). In accordance with the Marine Mammal Protection Act (MMPA) (16 U.S.C. §1371[a][5]), the Navy has submitted a request for Letter of Authorization to the NMFS for the incidental taking of marine mammals by the proposed action. The Navy has prepared a separate Consultation Package in accordance with legal requirements set forth under regulations implementing Section 7 of the ESA (50 CFR Part 402; 16 U.S.C § 1536 (c)) for listed species under jurisdiction of the U.S. Fish and Wildlife Service (USFWS). There were additional revisions, which are reflected in this final EIS/OEIS, that were made to amplify information



W158C: High Altitude Warning Area that extends from FL430 to Unlimited, above W-157A/B, and W159A/B



Legend

- OPAREA
- 3 nm State Limit
- 12 nm Territorial Limit
- Restricted Airspace (R-)
- Warning Areas (W)
- Impact Areas
- EIS Study Area



Sources: Ranges and OPAREAS from FACSFAC JAX Instruction 3210.1H and NWAS, Fleet Training Area/Range Directory, May 2000

Figure ES-1

**Jacksonville Range Complex
EIS/OEIS Study Area
Jacksonville Range Complex**

Coordinate System: GCS WGS 1984

previously provided. These changes included a more detailed description of Maritime Security Operations, the addition of Air to Air Gunnery and Surface to Air Missile exercises to the proposed action, refined acoustic modeling (and harassment totals) for effects resulting from Anti Swimmer Grenades, and more detailed Weapon System data sheets located in Appendix E. The Record of Decision for this FEIS/OEIS will address any additional mitigation measures which may result from these ongoing regulatory processes.

ES 1.0 Purpose and Need

The purpose for the proposed action is to:

- Achieve and maintain Fleet readiness using the JAX Range Complex to support and conduct current, emerging, and future training operations and RDT&E operations to support the requirements of the Fleet Response Training Plan (FRTTP);
- Expand warfare missions supported by the JAX Range Complex; and
- Upgrade and modernize existing range capabilities to enhance and sustain Navy training and RDT&E.

The need for the proposed action is to provide range capabilities for training and equipping combat-capable naval forces ready to deploy worldwide. In this regard, the JAX Range Complex furthers the Navy's execution of its Congressionally mandated roles and responsibilities under Title 10 U.S.C Part 5062. For further information on the purpose and need for the proposed action refer to Chapter 1 of the FEIS/OEIS.

ES 2.0 Description of Proposed Action and Alternatives

The Navy has identified the need to support and conduct current and emerging training and RDT&E operations in the JAX Range Complex. The proposed action does not indicate major changes to JAX Range Complex facilities, operations, training, or RDT&E capacities over the 10-year planning period. Rather, the proposed action would result in relatively small-scale but critical enhancements to the JAX Range Complex that are necessary if the Navy is to maintain a state of military readiness commensurate with its national defense mission.

ES 2.1 Proposed Action

The proposed action is to support and conduct current and emerging training and RDT&E operations in the JAX Range Complex. To achieve this, the Navy proposes to:

- Maintain training and RDT&E operations at current levels if the No Action Alternative is selected.

If either Alternative 1 or Alternative 2 is selected, then:

- Increase or modify training and RDT&E operations from current levels.
- Accommodate mission requirements associated with force structure changes, including those resulting from the introduction of new platforms (aircraft, and weapons systems).
- Implement enhanced range complex capabilities.

The decision to be made by the Assistant Secretary of the Navy (Installations & Environment) is to determine which alternative analyzed in the FEIS/OEIS satisfies both the level and mix of training to be conducted and the range capabilities enhancements to be made within the JAX Range Complex that best meet the needs of the Navy given that all reasonably foreseeable environmental impacts have been considered.

ES 2.2 Alternatives

Alternatives in this FEIS/OEIS were evaluated to ensure they met the purpose and need, giving due consideration to range complex attributes such as: the capability to support current and emerging Fleet tactical training and RDT&E requirements; the capability to support realistic, essential training at the level and frequency sufficient to support the FRTP; and the capability to support training requirements while following Navy Personnel Tempo of Operations guidelines. Three alternatives are analyzed in this FEIS/OEIS:

1. The No Action Alternative – Under the No Action Alternative, training operations and major range events would continue at current levels. Evaluation of the No-Action Alternative provides a credible baseline for assessing environmental impacts of Alternative 1 and Alternative 2 (Preferred Alternative). Vessel movements related to training are part of the proposed action.
2. Alternative 1 – No Action Alternative plus: increase Operational Training, Expand Warfare Missions, Accommodate Force Structure Changes (includes changing weapon systems and platforms and homebasing new aircraft and ships), and implement enhancements, to the minimal extent possible to meet the components of the proposed action. This alternative is composed of all operations currently conducted (No Action Alternative) with modifications to current training or introduction of new training. These would include:
 - a) using more commercial aircraft to serve as oppositional forces rather than using Navy aircraft for Air-to-Air Missile Exercise, Surface-to-Air Gunnery Exercises, Air Intercept Control Exercises, and Detect-to-Engage Exercises;
 - b) the incorporation of maritime security training into existing training events;
 - c) adjusting training levels to ensure that deployment can be stepped up quickly and at multiple locations in response to world events; and
 - d) conducting new or modified training associated with the introduction of the new variants of the H-60 helicopter, and new organic mine countermeasure systems.
3. Alternative 2 (Preferred Alternative) – Alternative 1 plus: additional mine warfare training capabilities, and implementation of additional enhancements to enable the range complex to meet future requirements. The Preferred Alternative includes the elimination of high explosive bombs during at sea bombing exercises.

For detailed information on each alternative refer to Chapter 2 of the FEIS/OEIS.

ES 2.3 Alternatives Considered but Eliminated from Further Analysis

Other approaches that were considered but eliminated because they did not meet the purpose and need included:

- No Training Alternative;
- Using alternative range complex locations;
- Conducting simulated training only; and
- Only using practice ammunition within the Jacksonville Range Complex.

These were eliminated from further analysis, because none would be effective in putting into practice the FRTP. Specifically:

- If the Navy did not conduct training exercises along the East Coast, they would not be able to meet its obligations, as identified in Title 10 United States Code, Section 5062.
- The JAX Range Complex is an important component in the available suite of Navy training and testing capabilities. The proximity of the JAX Range Complex to existing naval installations produces important advantages relating to features such as travel times, costs of operations, and personnel tempo of operations that could not be achieved at any other range complex.
- Although simulated training and practice ammunition are widely used, including in many JAX operations, they are no substitute for realistic field conditions. The value of live training provided by actually operating a combat system or handling explosive ammunition cannot be substituted through simulation, particularly as it relates to the physical reaction invoked by the danger, noise, and visual effects associated with these systems. Similarly, individuals and groups must be able to practice and hone their skills in communication, maneuvering, operating systems, repairing equipment, and firing weapons in an environment that is realistic and that replicates the high energy and stress of what they would encounter in an actual combat situation.

ES 3.0 Public Involvement

NEPA requires federal agencies to prepare an EIS for proposed actions that may significantly affect the quality of the human and natural environments. The EIS must disclose significant environmental impacts and inform decision makers and the public of the reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment. The Navy is the lead agency for the proposed action. The NMFS is a cooperating agency for this EIS/OEIS.

A notice of intent to develop the Draft EIS/OEIS was published in the Federal Register on January 26, 2007, and in 12 local newspapers in South Carolina, Georgia, and Florida. The newspaper notices were run five times in each newspaper. Four scoping meetings were held (Charleston and Beaufort, South Carolina; Savannah, Georgia; and Atlantic Beach, Florida) for the public to help define and prioritize issues and convey these issues to the agencies through both oral and written comments.

During the scoping process, 13 comments were received; four from government agencies at various levels and nine from non-governmental groups and/or individuals. Commenter's raised concerns about impacts on fish and fishing; harm to cultural resources, marine protected areas, and endangered species; and potential conflicts between boating or shipping and Navy activities. This Draft EIS/OEIS addressed all comments received.

The draft EIS/OEIS was provided to the U.S. Environmental Protection Agency for review and comment in accordance with its responsibilities and to have a notice of availability published in the *Federal Register*. The Navy also placed notices in local newspapers announcing the availability of the draft EIS/OEIS and public hearings. The draft EIS/OEIS was circulated for internal/agency review and made available for general review in public libraries. The public comment period for the draft EIS/OEIS ended on 11 August 2008 and 52 comments were received. Government agencies provided 10 comments, state agencies provided 37 comments, and individuals provided five comments. No comments were received from organizations. This FEIS/OEIS addresses all comments received. For further information refer to Chapter 2.

ES 4.0 Comparison of Alternatives and Effects

The comparison of alternatives presented in Table ES-1 is based on the information and analyses presented in Chapter 3 (Affected Environment and Environmental Consequences). The

environmental stressors associated with each warfare area and operations were evaluated for each resource or issue in assessing potential environmental impacts under each alternative. There were no recordable differences in potential impacts between the alternatives for the following resources and issues.

**TABLE ES-1
COMPARISON OF ALTERNATIVES AND EFFECTS**

Resource or Issue	Alternatives		
	No Action Alternative	Alternative 1	Preferred Alternative
Marine Communities	Long-term minor impacts to live hard bottom communities from accumulation of NEPM (Section 3.6.3.1)	Slight increase in potential impacts to live hard bottom communities from accumulation of NEPM (Section 3.6.3.2)	Slight increase from Alternative 1 in potential impacts to live hard bottom communities from accumulation of NEPM (Section 3.6.3.3)
Marine Mammals	Under MMPA, no mortality potential exposures, 1,141 non-injurious potential exposures, and 32 injurious exposures. Under ESA, proposed activities may affect listed species (Section 3.7.3.3).	Under MMPA, no mortality potential exposures, 1,159 non-injurious potential exposures, and 31 injurious potential exposures. Under ESA, proposed activities may affect listed species. (Section 3.7.3.4)	Under MMPA, no mortality potential exposures, 94 non-injurious potential exposures, and 2 injurious potential exposures. Under ESA, proposed activities may affect listed species. (Section 3.7.3.5)
Sea Turtles	No mortality potential exposures, 446 non-injurious exposures, and 9 injurious exposures. Under ESA, proposed activities may affect listed species (Section 3.8.3.2).	No mortality potential exposures, 453 non-injurious exposures, and 9 injurious exposures. Under ESA, proposed activities may affect listed species (Section 3.8.3.3).	No mortality potential exposures, 38 non-injurious exposures, and 0 injurious exposures. Under ESA, proposed activities may affect listed species (Section 3.8.3.4).
Fish and Essential Fish Habitat (EFH)	Under MSFCMA, no significant population-level impacts to managed species would occur; impacts would be temporary, minimal, and would not reduce the quality and/or quantity of EFH. Under ESA, underwater explosions may affect one listed species. (Section 3.9.3.1)	Under MSFCMA, no significant population-level impacts to managed species would occur; impacts would be temporary, minimal, and would not reduce the quality and/or quantity of EFH. Under ESA, underwater explosions may affect one listed species. (Section 3.9.3.2)	Under MSFCMA, no significant population-level impacts to managed species would occur; impacts would be temporary, minimal, and would not reduce the quality and/or quantity of EFH. Under ESA, underwater explosions may affect one listed species. (Section 3.9.3.3)

TABLE ES-1 (Continued)
COMPARISON OF ALTERNATIVES AND EFFECTS

Seabirds and Migratory Birds	Under ESA and MBTA, no effect would occur to listed species and no long-term population-level effect would occur to migratory bird populations. (Section 3.10.3.1)	Under ESA and MBTA, no effect would occur to listed species and no long-term population-level effect would occur to migratory bird populations. (Section 3.10.3.2)	Under ESA and MBTA, no effect would occur to listed species and no long-term population-level effect would occur to migratory bird populations. (Section 3.10.3.3)
Biological Resources at Rodman and Lake George Ranges	Under ESA, proposed activities may affect but would not adversely affect listed species. Under MBTA and Eagle Act, no long-term effect would occur to migratory bird populations and no impacts would occur to Bald Eagles. (Section 3.11.3.1)	Under ESA, proposed activities may affect but would not adversely affect listed species. Under MBTA and Eagle Act, no long-term effect would occur to migratory bird populations and no impacts would occur to Bald Eagles. (Section 3.11.3.2)	Under ESA, proposed activities may affect but would not adversely affect listed species. Under MBTA and Eagle Act, no long-term effect would occur to migratory bird populations and no impacts would occur to Bald Eagles. (Section 3.11.3.3)
Atlantic Fleet Active Sonar Training (AFAST)	Potential impacts to resources or issues from AFAST and the Proposed Action combined are less than significant. (Section 3.20)	Potential impacts to resources or issues from AFAST and the Proposed Action combined are less than significant. (Section 3.20)	Potential impacts to resources or issues from AFAST and the Proposed Action combined are less than significant. (Section 3.20)

- Bathymetry, Sediment, and Soils
- Hazardous Materials and Hazardous Waste
- Water Resources
- Air Quality
- Airborne Noise
- Land Use
- Cultural Resources
- Transportation
- Demographics
- Regional Economy
- Recreation
- Environmental Justice
- Public Health and Safety

The potential impacts would generally be temporary, short-term, minor, and/or localized changes to these resources or issues. As defined under NEPA, no significant impacts in U.S. Territory and no significant harm in Non-Territorial Waters to resources or issues were identified considering implementation of mitigation measures described in Chapter 5. In addition, resources were evaluated in accordance with Marine Mammal Protection Act (MMPA), Endangered Species Act (ESA), Migratory Bird Treaty Act (MBTA), Bald and Golden Eagle Protection Act (Eagle Act), and Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA). The potential impacts presented above form the basis for providing choices to the decision maker.

The Atlantic Fleet Active Sonar Training (AFAST) FEIS/OEIS is incorporated by reference in this FEIS/OEIS for active sonar and Anti-Submarine Warfare associated activities as they pertain to the JAX Range Complex. The reader should refer to the AFAST EIS/OEIS (available at <http://afasteis.gcsaic.com>) for the full description and analysis of active sonar activities along the

East Coast and within the Gulf of Mexico. A summary of the environmental consequences due to sonar activities in the JAX Range Complex is provided by resource area in Section 3.20.

ES 5.0 Mitigation and Monitoring

The Navy recognizes that the proposed action has the potential to impact marine and other resources in the vicinity of training. Chapter 5 describes the Navy's overall mitigation and monitoring approach as well as specific mitigation measures that would be implemented to protect marine mammals, sea turtles, and other resources during training activities. Some of these measures are generally applicable and others are designed to apply to certain geographic areas and/or for specific types of Navy training. Due to the long-term nature of the proposed action, mitigation measures for many elements of the action have been established through previous environmental analyses, consultations, and/or permitting processes.

The Navy believes that a comprehensive approach to mitigation for the JAX Range Complex requires focus on: (1) mitigation by avoidance, in which adverse impacts are avoided altogether by altering the location, design, or other aspect of an activity, and (2) minimization of impacts when avoidance is not feasible. An important complement to the avoidance and minimization of impacts is monitoring to track compliance with take authorizations, impacts on protected resources, and effectiveness of mitigation measures. Taken together, these three elements – avoidance, minimization, and monitoring comprise the Navy's integrated approach to addressing potential environmental impacts.

The Navy is committed to demonstrating environmental stewardship while executing its National Defense Mission and is responsible for compliance with a suite of Federal environmental and natural resources laws and regulations that apply to a wide variety of environments. Consistent with the cooperating agency agreement with the NMFS, mitigation and monitoring measures presented in this FEIS/OEIS focus on the requirements for protection and management of marine resources.

The Navy has provided over \$94 million to universities, research institutions, federal laboratories, private companies, and independent researchers around the world. The Navy will continue to fund a significant amount of marine research directly applicable to U.S. Fleet Forces Command training activities.

Two mitigation measures are presented for Rodman Range. The 2005 Integrated Natural Resources Management Plan for Naval Air Station (NAS) Jacksonville includes management actions to provide benefits to threatened and endangered species. The 2006 Gopher Tortoise Management Plan for NAS Jacksonville provides indirect benefits to eastern indigo snake by monitoring the occurrence of burrows on Rodman Range.

Mitigation measures are presented in the FEIS/OEIS for Lake George Range to protect West Indian manatees. The USFWS outlined mitigation measures for the manatee in their concurrence letter dated 7 October 2008 (Appendix C).

ES 6.0 Cumulative Impacts

The proposed action will not make radical changes to the JAX Range Complex facilities, operations, training, or RDT&E capacities. Rather, the actions proposed in alternatives 1 and 2 are incremental increases over the no action alternative that would result in relatively small-scale, but critical, enhancements that are necessary if the Navy is to maintain a state of military readiness commensurate with its national defense mission.

Various types of past and present actions not related to the proposed action have the potential to impact the resources evaluated in this FEIS/OEIS. Twenty projects including, but not limited to,

military activities in other OPAREAs on the Atlantic coast, offshore oil and gas activities along the Atlantic seaboard, maritime traffic, scientific research, and marine ecotourism were analyzed for direct, indirect, and cumulative impacts. The environmental consequences conclusions and incremental contribution and cumulative impacts from past, present, and reasonably future projects and activities for each resource evaluated in this FEIS/OEIS were used in Chapter 6 for summarizing cumulative impacts. Most of the summary conclusions on past, present, and reasonably future actions for the resources evaluated were no adverse impacts and potential for minor, but recoverable, adverse impacts. There were fewer summary conclusions categorized as potential for moderate, but recoverable, adverse impacts. No summary conclusions were characterized as potential for major, non-recoverable, adverse impacts.