
3. ALTERNATIVE ACTIONS, INCLUDING THE PROPOSED ACTION

This section of the FEIS discusses alternatives and describes the Preferred Alternative, which is designed to improve the USCG's ability to carry out its many mandated missions while at the same time complying with applicable environmental laws — specifically, the Marine Mammal Protection Act (MMPA) and the Endangered Species Act (ESA) — and with Memoranda of Understanding (MOU). Additionally, this section and the response to comments describe additional alternatives. This section and responses to comments suggesting additional alternatives compare the environmental impacts of alternatives in summary form.

3.1 No Action Alternative

Under the No Action Alternative, the USCG would continue to conduct activities to protect the marine environment, but without the adoption and implementation of the USCG Atlantic Protected Living Marine Resources Initiative. Under this alternative, most protection activities would be conducted under the Marine Environmental Protection Program, Vessel Traffic Services, and Law Enforcement organizational components discussed in Section 2.2.1, 2.2.3, and 2.2.4, respectively.

The Marine Environmental Protection Program (MEP), which directs activities conducted for protection of the marine environment, would remain the focus of USCG marine protection under the No Action Alternative. The MEP primarily focuses on marine pollution and includes Marine Safety Offices, a National Strike Force, multi-mission USCG cutters and aircraft, and a National Response Center (NRC). Methods and resources to mitigate marine pollution from oil spills and hazardous pollution are documented in Area Contingency Plans (ACPs). The ACPs describe the methods and resources that will be used to combat spills of oil and hazardous materials in coastal waters and to protect sensitive habitats from harm. They identify environmental sensitivities within each area, and establish priorities and strategies for responses based on those sensitivities. Each Area Committee identifies the following three types of sensitive habitat requiring protection:

- Fish and wildlife habitat areas
- Sensitive habitats (*e.g.*, habitats that may be slow to recover from a spill)
- Human high-use areas

The first two categories include habitats of endangered or threatened whales and marine turtles. Identification and siting of these habitats is requested from the responsible agencies during the Area Committee planning process. Sensitive areas are mapped and natural collection sites, boom sites, and specific response strategies for different types of spilled materials in or near these areas are included on the maps. The maps also show all possible marine and coastal locations of endangered/threatened species (*e.g.*, critical habitat for right whales, nesting beaches for loggerhead turtles, etc.) in as much detail as practical. Environmental Sensitivity Index maps produced for ACPs will continue to be revised, as appropriate, under the No Action Alternative.

NAVTEX

NAVTEX is an international automated direct printing service for the promulgation of navigational and meteorological warnings and urgent information to ships. NAVTEX consists of a series of coastal stations transmitting radio teletype safety messages on the international-standard medium frequency (519 kHz). Each station has a range of 100-500 nautical miles day and night. NAVTEX coverage is reasonably continuous to 200 nautical miles offshore. NAVTEX transmitters are located in Boston, Massachusetts; Portsmouth, Virginia; and Miami, Florida. Information included in NAVTEX transmissions includes distress, urgent, and safety messages; gale, storm, and hurricane warnings; and offshore marine weather forecasts. Routine messages normally are broadcast four to six times daily; urgent messages are broadcast upon receipt, unless an adjacent station is already transmitting.

VHF (Marine Radiotelephone which operates on VHF-FM frequency)

In contrast, VHF (very high frequency) transmits continuously, with most mariners monitoring standard frequencies (*e.g.*, 16). It is not feasible for the USCG to continuously transmit information over VHF. VHF provides one-way transmission; distress calls can not be received while information is transmitted.

Under the No Action Alternative, Vessel Traffic Services (VTS) plays a vital role in the prevention or reduction of risk of pollution, harm to endangered species, or other damage to the marine environment caused by ship collisions and groundings in coastal areas and critical marine habitats. VTS functions as the “electronic eyes and ears” of the port and reports incidents and advises mariners on hazards to navigation. Radio warning systems, such as the Naval Telecommunication Exchange (NAVTEX), are used to transmit vital information to mariners. Marine Radio Telephone (VHF) is another method for transmitting information to mariners. These NAVTEX and VHF transmissions help to protect the marine environment by transmitting vital information to prevent vessel accidents and collisions with protected species.

Law enforcement activities directed towards conserving and managing living marine resources would continue under the No Action Alternative. Enforcement is conducted by the Law Enforcement organizational component. The

USCG has authority to conduct law enforcement activities on U.S. flag vessels on the high seas and U.S. territorial waters and otherwise subject vessels to U.S. jurisdiction for the prevention, detection, and suppression of violations of U.S. law, as well as to provide support to NMFS to meet its management goals for protected marine mammals and sea turtles. The USCG and NMFS are both responsible for enforcing the Endangered Species Act. The USCG would continue the following enforcement activities under the No Action Alternative:

- Patrolling the perimeter of the U.S. Exclusive Economic Zone (EEZ) to prevent encroachment and harvesting of U.S. marine resources, including endangered species and products made from them, by foreign commercial fishing vessels;
- Patrolling within the EEZ to ensure that U.S. fishing vessels comply with fishery resource management regulations, such as the use of turtle excluder devices (TEDs) in shrimp trawls;
- Protecting anadromous fish (*e.g.*, salmon) originating in U.S. territory throughout their migratory range, including areas of the high seas outside the EEZ; and
- Patrolling areas of the high seas beyond the EEZ to monitor compliance of U.S. and foreign fishing vessels with applicable international agreements (*e.g.*, the United Nations moratorium on large-scale high-seas pelagic driftnet fishing).

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

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

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

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

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

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

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

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

3.2.1 Internal Program

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

Operational Directives

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

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

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

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

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

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

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

Enforcement

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

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

Lookouts

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

Training

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

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

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

Speed

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

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

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

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

Approach Distance

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

Notices

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

Charts

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

Operating Procedures

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

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

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

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

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

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

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

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

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

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

Mission Impacts of Operational Directives

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

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

3.2.2 Conservation Program

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

Sea Partners

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

Training/Education of Non-USCG Personnel

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

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

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

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

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

Cooperation with Other Agencies and Recovery Teams

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

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

Controlling Non-USCG Vessels

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

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

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

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

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

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

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

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

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

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

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

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

3.3 Alternative Measures and Alternative Combinations of Measures (Variations of the Proposed Action) Dismissed From Detailed Analysis

3.3.1 Adoption of the Initiative Without Various Components

After the dismissal of broader alternatives that did not fulfill the purpose and need, the USCG examined variations of the proposed action that omitted certain component protective measures contained in the Preferred Alternative. For example, the USCG could propose an Internal Program that does not address operational directives or a Conservation Program that does not address use of the *Coast Pilot*. The USCG has decided not to conduct a detailed analysis of such alternatives because they would not fully serve the objectives of complying with the ESA and MMPA, the NMFS September 1995 and July 1996 BOs, and of performing the USCG's missions. Consequently, such alternatives are dismissed from detailed analysis in this FEIS.

Furthermore, any one of the measures considered by the USCG for improving or increasing USCG protection or conservation of endangered, threatened, and protected species could have (and in some cases have — *e.g.*, Appendix Q, comment number 10: alternatives to promulgate non-USCG speed or approach distance regulations) been presented as a separate alternative. However, the USCG believes that the best solution for protecting and conserving wildlife resources and fulfilling the purpose and need is an alternative that combines the full set of measures into a program of protection and conservation.

Looking at all possible combinations or permutations of these protective measures as separate alternatives would have resulted in a vast array of alternatives with many similar components and impacts, and it would not be productive to examine them. This situation is addressed in the Council of Environmental Quality's Memorandum to Federal agencies entitled, "Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations." When an agency is proposing an action for which there is a very large or infinite number of possible reasonable alternatives, only a reasonable number of examples need be analyzed and compared in the EIS.

The Preferred Alternative is the adoption and implementation of a formal USCG Atlantic Protected Living Marine Resources Initiative which is composed of two main components, the Internal Program and the Conservation Program. Each of these programs consist of many different components designed to help protect and conserve marine life. Because there are a large number of permutations possible for analysis (*e.g.*, adding or subtracting different environmental protective components, strengthening or weakening different protective components, changing the way components of the plan are implemented, etc.), this FEIS analyzes a preferred alternative made up of what the USCG considers to be an appropriate representation of the range of possible components.

The FEIS will continue the analysis of the Initiative and will analyze impacts of each component of the Initiative along with the impact of the Initiative as a whole. Additionally, in order to avoid duplication and redundancy, it analyzes additional measures proposed by commenters or others as a measure the USCG will either adopt into the Initiative and analyze for impacts or dismiss from detailed analysis due to infeasibility or inability to fulfill the purpose and need.

Some alternatives were eliminated from detailed analysis in this EIS because they either did not fulfill the purpose and need or were not feasible for the USCG to initiate. They are discussed below.

3.3.2 The USCG Would Not Patrol U.S. Coastal Waters

The alternative of the USCG ceasing to conduct all marine activity in coastal and offshore waters of the U.S. territorial waters of the Atlantic Ocean between the U.S./Canadian border and Key West, Florida, including Puerto Rico and the U. S. Virgin Islands, is eliminated from detailed analysis in this FEIS. As indicated in the draft USCG Environmental Assessment (EA) of Potential Impacts of USCG Activities Along the Atlantic Coast (22 September 1995; Appendix D) and in the Endangered Species Act Biological Assessment (BA) for the U.S. Atlantic Coast prepared for NMFS 1 August 1995 (Appendix B), this alternative would not fulfill the purpose and need as described in Section 2.

If the USCG ceased all marine activity in the Atlantic, as delineated in the previous paragraph, it could not effectively carry out the operational activities that fall under its Congressionally and Presidentially directed primary missions of maritime law enforcement, maritime safety, environmental protection, and national security. Examples of statutorily required operational activities that would be negatively affected are: enforcing Federal laws, including environmental laws that help protect the marine environment (*e.g.*, Section 11 of the ESA, the MMPA and the Magnuson Act); promoting safety of life and property on waters subject to U.S. jurisdiction (*e.g.*, Ports and Waterways Safety Act) and promoting safety of life and property on the high seas (14 USC 89); developing, maintaining, and operating aids to maritime navigation (*e.g.*, Ports and Waterways Safety Act); conducting ice breaking (*e.g.*, Executive Order #7521, Use of Vessels for Ice-Breaking Operations in Channels and Harbors); performing search and rescue operations (*e.g.*, Title 14 Sections 2, 89, and 141 of the U.S. Code); maintaining a state of readiness as a specialized service in the Navy in times of war (*e.g.*, the International Maritime and Port Security Act); and maintaining a coordinated environmental program to protect the environment against marine pollution (*e.g.*, the Oil Pollution Act).

Additionally, many of the USCG operational activities, including oil spill response, law enforcement operations, vessel traffic services, and air patrols, actually promote and enhance the welfare of endangered and threatened species. Both surface and airborne USCG platforms are used by scientists to locate and aid entangled marine animals, transport marine animals, and assist with recovery of whale carcasses for necropsy, etc. This alternative would actually have a negative impact on recovery efforts. Because this alternative does not fulfill the purpose and need, it is dismissed from detailed analysis in this FEIS.

3.3.3 Operate at Slow Speed or High Altitude At All Times

The alternative of conducting all USCG vessel operations at slow speed and operating all aircraft at higher altitudes is dismissed from detailed analysis in this FEIS. This alternative would have a direct negative impact on operations, for example, USCG vessel and aircraft would have to operate at slow speed and higher altitude, respectively, when responding to an emergency call. During some USCG operations, particularly SAR missions, it may be necessary to fly lower than 2000 ft, and often lower than 500 ft, to respond to emergency situations. Additionally, on the east coast of the United States, SAR operations result in about 19,000 sorties per year. Approximately 72% of these responses are non-emergency in nature, and vessels would be able to decrease speed and deviate from course. However, the remaining responses require that vessels travel at high speeds in order to save human lives and property.

Often, vessels must quickly respond in other USCG mission areas other than SAR operations, such as in marine pollution events or law enforcement operations, and a decrease in speed could have serious consequences, such as increased degradation to the environment (oil spills) or loss of life and property.

This alternative is dismissed from detailed analysis because it does not fulfill the purpose and need of the USCG to perform its mandated missions while effectively complying with environmental laws. The analyses of this alternative in the EA and the BA show that the USCG could not effectively fulfill its maritime law enforcement, maritime safety, environmental protection, and national security missions if this alternative were implemented.

3.3.4 Avoid Critical Habitat At All Times

The alternative of USCG avoiding all critical habitats and areas where protected whales, sea turtles, and marine birds concentrate, during all of its patrols and marine operations, during times of the year when the protected species are likely to be present (based on marine mammal and other protected species surveys), is dismissed from detailed analysis in this FEIS. Implementation of this alternative is not possible in many areas. Due to the widespread distribution of many endangered species and the extensive critical habitat areas, there would be times when the USCG would not be able to leave port if this alternative were adopted.

In addition, many missions within critical habitat and marine sanctuaries are important for the protection and enhancement of protected marine species. For example, the USCG would not be able to enforce provisions of the ESA or MMPA within these areas. Protected species could thus be harmed if the USCG were unable to respond to oil or chemical spills within critical habitat and marine sanctuary boundaries. Prohibiting SAR missions and servicing aids to navigation within critical habitat and marine sanctuary boundaries could also pose risks to life and property.

This alternative is dismissed from further analysis because it does not fulfill the purpose and need and potentially harms protected species when debris and spills associated with maritime accidents enter the marine environment. The EA and BA analyses of this alternative show that the USCG could not effectively fulfill its law enforcement, search and rescue, and marine pollution prevention missions if this alternative were implemented.

3.4 Comparison of Alternatives

This section provides a discussion, in comparative form, of the environmental impacts of the No Action and alternatives on the physical, biological, and socioeconomic environments (Table 3-1, 3-2, 3-3).

3.4.1 Physical Environment

The impact of USCG activities under the No Action and alternatives are similar. No impacts to either geology, physical oceanography, or meteorology and low or minimal impacts to water and air quality would result. These low impacts are associated with short-term events (*e.g.*, noise) resulting from USCG vessel and aircraft operations.

3.4.2 Biological Environment

Cetaceans. The most significant difference between the No Action and other alternatives is the potential decrease in the chance of vessel-wildlife collisions. For endangered species such as the right whale, “takes” of any kind are unacceptable. If the No Action alternative is chosen over the Preferred Alternative, USCG operational conditions would exist that would be more likely to result in future collisions with endangered and threatened species. This adverse impact would be significant for right whales. Formally adopting the USCG Atlantic Protected Living Marine Resources Initiative, under the Preferred Alternative, would allow the USCG to conduct mandated daily operations while complying with

environmental laws such as the ESA and the MMPA. Although the Preferred Alternative has the potential to provide a significant positive impact on protected species, the likelihood of striking a whale can never be completely removed if the USCG is to conduct its missions as Congressionally mandated and Presidentially directed.

Pinnipeds. Impacts to pinnipeds under the No Action and other alternatives are low. However, the No Action alternative may result in more occurrences of minor negative impacts because the USCG does not have a comprehensive conservation plan for pinnipeds. The Preferred Alternative includes a comprehensive conservation plan to reduce impacts to pinnipeds. Thus, the Preferred Alternative may have a positive impact compared to the No Action Alternative.

Sirenians (Manatees). As described previously for pinnipeds, there is no comprehensive conservation plan for sirenians under the No Action Alternative and several other alternatives. Collisions with vessels is the most significant source of mortality for manatee. Although, the current enforcement of no wake zones provides a positive benefit to the species, it is not possible to completely eliminate the risk of collisions between manatees and all types and sizes of vessels. Therefore, there is always the potential for significant impacts. However, under the Preferred Alternative, increasing enforcement of no wake zones combined with species awareness will be a positive benefit sirenians.

Sea Turtles. Vessel collisions are a significant source of mortalities for sea turtles. However, entanglement in fishing gear is the primary source of sea turtle mortality. TEDs are designed to minimize the risks to sea turtles. Thus, TEDs regulations provide a positive impact on sea turtle populations. However, as with any safety device, it must be used to be effective. Therefore, enforcement is a vital component in reducing deaths of sea turtles. Under the No Action Alternative and several other alternatives, TEDs enforcement will continue and the benefit will be directly linked to the level of enforcement. Speed and area restrictions under the Preferred Alternative may result in less enforcement and, ultimately, a minimal negative impact.

Fish, Sharks, and Invertebrates. USCG vessels and aircraft have a significant positive impact on fish, sharks, and invertebrates through fisheries law enforcement. Under the No Action Alternative and several other alternatives, the USCG will continue the current level of enforcement. However, law enforcement under the Preferred Alternative may decrease slightly (due to area and speed restrictions). This decrease in fisheries law enforcement may result in a slight negative impact to fish, sharks, and invertebrates.

Sea grasses. The impact of USCG activities on sea grasses under the No Action Alternative and several other alternatives is low. Current USCG activities may unintentionally damage sea grass beds. Education and restrictions under the Preferred Alternative may increase the USCG awareness and mitigate potential impacts.

Plankton. Plankton is not impacted under the No Action Alternative and other alternatives, and there is no direct effort to target plankton under the Preferred Alternative. However under the Preferred Alternative, awareness of protected species and their habits, such as plankton prey, may benefit plankton populations.

Coastal and Marine Birds. Charts depicting fly areas of local birds are used under the No Action Alternative and other alternatives to decrease the potential for collisions or disturbances of sensitive nests. However, there still exists a minimal chance of having an adverse impact even when these charts are used. The Preferred Alternative includes using these maps, as well as incorporating a formal education program. These two activities, combined, result in an increase in the positive impact to coastal and marine birds.

3.4.3 Socioeconomic Environment

Fishing. Under the No Action Alternative and several other alternatives, as described previously, enforcement of fishing regulations has a positive impact on fishery resources. Enforcement of closed areas and gear restrictions protects depleted stocks and juvenile fish. This enforcement effort allows the populations to remain at levels sufficient to support the fishing industry and the local fishing community. Reduced enforcement may occur under the Preferred Alternative because of special area and speed restrictions. Thus, the Preferred Alternative may result in a negative impact to fishery resources.

Shipping. Shipping supports many local and regional jobs. Under the No Action Alternative and several other alternatives, the USCG assists the shipping industry by maintaining aids to navigation, conducting traffic services and distributing maritime information to ships. There is no scheduled radio broadcast of information on endangered species. Encounters with large cetaceans may be problematic for ships. Under the Preferred Alternative, locations of whales in the area are broadcast over the radio at predefined intervals. This information serves to alert the skipper to avoid a specific area. However, if an Area To Be Avoided (ATBA) is designated, there could be economic repercussions if commercial vessel transit times increase significantly.

Recreational Boating. The impacts of the No Action Alternative and several other alternatives on recreational boating is low. However, implementation of public education programs under the Preferred Alternative should increase the public's awareness of protected species and their habitat.

Whale Watching. The whale watching industry is not impacted under the No Action Alternative and several other alternatives. The potential for a minimal positive impact exists under the Preferred Alternative by increasing general awareness of the public regarding protected species.

**Table 3-1. Comparison of No Action and Preferred Alternatives:
Impacts to the Physical Environment**

N = no or negligible impact
M = moderate impact
(+) = positive impact

L = low impact
H = high or significant impact
(-) = negative impact

ENVIRONMENTAL IMPACTS OF ALTERNATIVES MATRIX				
Impact Category	NO ACTION		PREFERRED ALTERNATIVE	
	Impact	Rationale	Impact	Rationale
Physical Environment				
Geology	N		N	
Physical oceanography	N		N	
Water quality	(-)L	*short term negligible impact from sediment resuspension from USCG vessel activity	(-)L	*short term negligible impact from sediment resuspension from USCG vessel activity
Air Quality	(-)L	*short term negligible impact from vessel and aircraft activity	(-)L	*short term negligible impact from vessel and aircraft activity
Meteorology	N		N	

**Table 3-2. Comparison of No Action and Preferred Alternatives:
Impacts to the Biological Environment**

N = no or negligible impact
M = moderate impact
(+) = positive impact

L = low impact
H = high or significant impact
(-) = negative impact

ENVIRONMENTAL IMPACTS OF ALTERNATIVES MATRIX				
Impact Category	NO ACTION		PREFERRED ALTERNATIVE	
	Impact	Rationale	Impact	Rationale
Biological Environment				
Cetaceans	(-)M → H	•status quo operations result in high potential for USCG takes of endangered species (e.g, right whale-H)	(+)H	<ul style="list-style-type: none"> •Preferred Alternative should decrease risk of USCG ship collisions with whales •physical and acoustic disturbance would be decreased with speed adjustments and avoidance of critical habitat •increased cooperation with entanglement and stranding teams would assure timely response to whales in distress and may decrease whale “takes” •plotting boundaries of high use areas and critical habitat on all USCG navigational charts would increase USCG awareness of living marine resources •classroom and field training of USCG personnel should improve observational skills of lookouts and helmsmen and decrease the chance of vessel collisions with wildlife •clarification of MMPA and ESA enforcement guidelines should result in more effective policing of non-USCG vessels and decrease the collision hazard between these vessels and marine mammals
Pinnipeds	(-)L → N	•no formal plan to reduce impact of USCG activities on pinnipeds; however, it is likely that USCG activities have negligible impact on pinnipeds	(+)L	<ul style="list-style-type: none"> •avoiding pinniped haul-outs and rookeries when animals are likely to be present (1-2 hours before and after low tide) in areas NMFS deems sensitive would decrease the chance of unnecessary harassment of seals •increased USCG personnel awareness of protected species may result in (+) impact on pinnipeds

**Table 3-2. Comparison of No Action and Preferred Alternatives:
Impacts to the Biological Environment**

N = no or negligible impact
M = moderate impact
(+) = positive impact

L = low impact
H = high or significant impact
(-) = negative impact

ENVIRONMENTAL IMPACTS OF ALTERNATIVES MATRIX				
Impact Category	NO ACTION		PREFERRED ALTERNATIVE	
	Impact	Rationale	Impact	Rationale
Sirenians	(-)M→H	•no formal plan to decrease potential for collisions; •enforcement of no wake zones and general awareness of endangered status of the species should be beneficial to manatees	(+)M→H	•increased enforcement of no wake zones and general awareness of endangered status of the species should be beneficial to manatees
Sea turtles	(+)L→M (-)M→H	•enforcement of TED regulations should decrease turtle deaths due to entanglement in fishing gear •lights at facilities and vessel strikes may result in adverse impacts	(-)L (+)L (+)L	•enforcement of TED regulations may decrease due to changes in vessel operations •education of USCG personnel and speed adjustments in sensitive habitat should decrease deaths due to ship strikes and entanglement •improved awareness of harmful effects of beach lighting and vehicle traffic on turtles on the shore should result in better nesting success and hatchling survival.
Fish, Sharks and Invertebrates	(+)S	•USCG enforcement of fishing regulations would benefit fish stocks along the Atlantic coast	(-)L→M	•USCG enforcement of fishing regulations may decrease due to changes in aircraft and vessel operations
Sea grasses	(-)L	•lack of a formal initiative could result in unintentional damage to sea grass beds	(+)L	•education of USCG personnel, speed adjustments and anchorage restrictions (outlined in consultation with the appropriate agencies) in sensitive habitat should decrease damage to existing seagrass beds
Plankton	N	•USCG activities have little effect on plankton. Measures are in place to decrease USCG emissions that might adversely affect plankton	(+)L	•under this alternative, there are no additional measures to protect the planktonic resources beyond those implemented under the No Action alternative. However, increased USCG awareness of protected species may result in (+) impact on plankton
Coastal and marine birds	(-)L	•USCG activities have little effect on marine and coastal birds	(+)M	•implementation of a formal education program would alert USCG personnel to sensitive areas and seasonal concerns for protected species

**Table 3-3. Comparison of No Action and Preferred Alternatives:
Impacts to the Socioeconomic Environment**

N = No or negligible impact L = low impact
 M = moderate impact H = Significant impact
 (+) = positive impact (-) = negative impact

ENVIRONMENTAL IMPACTS OF ALTERNATIVES MATRIX				
Impact Category	NO ACTION		PREFERRED ALTERNATIVE	
	Impact	Rationale	Impact	Rationale
Socioeconomic Environment				
Fishing	(+)L	•USCG enforcement of fishing regulations protect species	(-)L	•may reduce ability of USCG to enforce fishery regulations •may reduce fishing vessel strikes of protected species
Shipping	(-)M	•collisions with protected species remain unacceptably high	(+)L	•may reduce commercial vessel strikes of protected species
Recreational boating	(-)L	•harassment and collisions with protected species remain high	(+)L	•may reduce recreational vessel strikes of protected species
Whale watching	N		(+)L	•increased general awareness of protected species may increase participants