
EXECUTIVE SUMMARY

The National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service (NMFS) has prepared this draft environmental impact statement (EIS) pursuant to the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality (CEQ) Regulations for Implementing NEPA (40 Code of Federal Regulations [CFR] 1500-1508), and the NOAA environmental review procedures (NOAA Administrative Order 216-6).

ES.1 Proposed Action

The proposed action is to implement the operational measures of NOAA's Ship Strike Reduction Strategy in waters off the East Coast of the United States (US) to reduce vessel strikes to the endangered North Atlantic right whale. Due to regional differences in right whale distribution and behavior, oceanographic conditions, and ship traffic patterns, the proposed operational measures would apply only in certain areas and at certain times of the year, or under certain conditions. To account for these regional variations, the US East Coast is divided into three implementation regions: northeastern US (NEUS), mid-Atlantic US (MAUS), and southeastern US (SEUS). All vessels 65 ft (19.8 m) and greater in overall length and subject to the jurisdiction of the US would be required to abide by the operational measures, except for vessels owned or operated by, or under contract to the Federal government. The measures also apply to all other vessels 65 ft (19.8 m) and greater in overall length entering or departing a port or place under the jurisdiction of the US. The proposed measures would include the following:

- **Seasonal Management Areas (SMAs).** SMAs are pre-determined and established areas in each of the three regions, all with seasonal speed restrictions. In the SEUS, an SMA would be established off the coast of Georgia and Florida from November 15 to April 15. In the MAUS, SMAs would be established with a 30 nautical mile (nm) (56 km) radius around nine ports in the region from November 1 to April 30. In the NEUS, SMAs would be established in Cape Cod Bay (January 1 – May 15), Off Race Point (March 1 – April 30), and Great South Channel (April 1 – July 31). Within the SMAs and during designated time frames only, vessels would be required to proceed at a reduced speed (10, 12, or 14 knots).
- **Dynamic Management Areas (DMAs).** When a certain number of whales are sighted in an area outside of the boundaries of, or at times when, SMAs are implemented; NMFS is considering a scenario in which the agency would draw a circle with a radius of 2.8 nm [5.2 km] around the sighting. This radius would expand incrementally with the number of whales sighted (e.g. 2.8 nm [5.2 km] for a single right whale, 3.9 nm [7.2 km] for two whales, 4.8 nm [8.9 km] for three whales, etc.). In addition, a larger circular zone would be designated that would extend an additional 15 nm (28 km) beyond the core area to allow for whale movement. Vessels would be required to transit through DMAs at a reduced speed, or would have to route around the area. DMAs would apply in all three implementation regions out to 200 nm (370 km).

- **Routing Measures.** Such measures would apply to the NEUS and SEUS regions. In the NEUS region, routing measures are proposed in Cape Cod Bay to deflect major vessel traffic away from right whale aggregations. In the SEUS region, routing measures are proposed for routes into and out of the ports of Jacksonville and Fernandina Beach, Florida; and Brunswick, Georgia. Speed restrictions would be required in the portions of these recommended shipping routes located within a SMA. The recommended routes in the NEUS and SEUS were analyzed by the United States Coast Guard (USCG) with regard to navigational and environmental safety through a Port Access Routes Study (PARS). NMFS also intends to submit a proposal to the International Maritime Organization (IMO) for an Area To Be Avoided (ATBA) adjacent to, and east of, the Boston Traffic Separation Scheme (TSS). The US already submitted a proposal to the IMO for a narrowing of, and a 12-degree northern shift in the Boston TSS. All routing measures are nonregulatory¹ operational measures.

ES.2 Purpose and Need

The purpose of the proposed action is to reduce the number and severity of vessel collisions with North Atlantic right whales, thereby contributing to the recovery and sustainability of the species, while minimizing the economic effects on the shipping industry and maritime commerce.

NMFS has jurisdiction under both the Endangered Species Act (ESA) and the Marine Mammal Protection Act (MMPA), to protect the endangered North Atlantic right whale. Although various measures to reduce ship strikes have been in place for several years, these measures have not significantly reduced the number of vessel collisions with right whales. A continued lack of recovery, and possible extinction, will occur if deaths from ship strikes are not reduced. Thus, additional measures are needed for NMFS to fulfill its responsibility. Ship strikes represent the majority of anthropogenic serious injuries and deaths to right whales. Therefore, NMFS is proposing to reduce this threat by taking the regulatory approach that is expected to be the most effective at helping the population to recover. The operational measures of the proposed Strategy would impose regulatory speed restrictions and nonregulatory routing measures on specific vessel classes to reduce the ship strike threat to right whales without imposing undue economic burdens on the shipping industry. The combination of speed restrictions and reducing the co-occurrence of right whales and vessel traffic is expected to be an effective means of reducing the number and severity of ship strikes and promoting population growth and recovery.

ES.3 Alternatives

The following table summarizes the alternatives considered in the EIS:

¹ Although described in the proposed rule, nonregulatory measures are not actually a part of the NMFS-proposed rule; they will be implemented through other means.

Operational Measure	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6
New routing requirements	No	No	No	Yes, in SEUS and NEUS regions, plus proposed modification to Boston TSS, and an ATBA.	Yes, in SEUS and NEUS regions, plus proposed modification to Boston TSS, and an ATBA.	Yes, in SEUS and NEUS regions
DMAs	No	Yes, in US Territorial waters and the EEZ	No	No	Yes	Yes, in SEUS, MAUS, and NEUS regions
SMAAs	No	No	No	No	No	Yes, in SEUS, MAUS and NEUS regions
Speed restrictions	No	Yes, associated with DMAs	Yes, within specific areas in each implementation region, year round in NEUS region and seasonal in MAUS and SEUS regions.	No	Yes, associated with DMAs, and within the areas defined for Alternative 3	Yes, associated with DMAs, and all SMAAs

ES.3.1 Alternative 1 – No Action

None of the operational measures would be implemented under the No Action Alternative. NMFS would continue to implement existing measures and programs to reduce the likelihood of ship strikes. Research would continue and existing technologies would be used to determine whale locations and pass this information on to mariners. NMFS would continue to pursue the nonregulatory components proposed in the Strategy.

ES.3.2 Alternative 2 – Dynamic Management Areas

Dynamic Management Areas (DMAs) are the only operational measure proposed under Alternative 2. DMAs are temporary and provide protection for a minimum of 15 days. This time period may be extended if whales are present after the initial designation. Aerial surveys and other observations of a whale or aggregation of whales would be the only means for a DMA to be triggered and implemented. Alternative 2 does not propose any permanent measures to reduce the occurrence of ship strikes.

ES.3.3 Alternative 3 – Speed Restrictions in Designated Areas

As speed restrictions are the only measure that would be implemented under this alternative, the areas and time applied to these restrictions are generally both larger in size and extend for a greater length of time (except for the SEUS, where speed restrictions would be in place for a shorter length of time) than those proposed under Alternative 6. There are no routing measures and no DMAs proposed under Alternative 3. The proposed restrictions would apply as follows:

- In the NEUS region, year-round restrictions within all waters in the Seasonal Area Management (SAM) zones designated in the Atlantic Large Whale Take Reduction Plan (ALWTRP). There are currently two SAM zones in the Northeast: SAM West, in effect from March 1 to April 30; and SAM East, in effect from May 1 to July 31. The boundary between SAM West and SAM East is 69°24'W longitude. These areas adjoin, although are exclusive of, Cape Cod Bay and the Great South Channel critical habitats (NMFS, 2005a). The preferred alternatives considered in the ALWTRP Draft EIS (DEIS) propose to expand these zones. By the time the operational measures of the Strategy are implemented, it is likely that the expanded zones in the ALWTRP would be operational; therefore, these would be the application zones for this alternative.
- In the MAUS region, restrictions are from October 1 to April 30. The restricted area would include all waters 25 nm [46 km] out from the US coastline between Providence, RI/New London, CT (Block Island Sound), and Savannah, GA.
- In the SEUS region, restrictions are from December 1 to March 31. The restricted area would include all waters within the Mandatory Ship Reporting Systems (MSRS) WHALESSOUTH reporting area and the presently designated right whale critical habitat.

ES.3.4 Alternative 4 – Recommended Shipping Routes

Alternative 4 proposes several types of routing measures in the NEUS and SEUS regions. Routing measures are proposed under this alternative as a stand alone measure. Speed restrictions are not proposed in these routing measures. These measures would be operational, although they are nonregulatory, in that they would not be implemented through rule making.

- In the NEUS, recommended shipping routes are proposed for Cape Cod Bay to/from the Cape Cod Canal (January 1 to May 15), an ATBA is proposed in the Great South Channel (April 1 to July 31), and a narrowing of, and a 12-degree northern rotation of the Boston TSS is also proposed under Alternative 4.
- There are no measures proposed in the MAUS under Alternative 4.
- In the SEUS, recommended shipping routes are proposed in the approaches to the ports of Jacksonville and Fernandina Beach, Florida, and Brunswick, Georgia. These routes would be operational from November 15 to April 15.

ES.3.5 Alternative 5 – Combination of Alternatives 1-4

All of the measures previously mentioned under alternatives 1, 2, 3, and 4 would be implemented under Alternative 5.

ES.3.6 Alternative 6 (Preferred) – Right Whale Ship Strike Reduction Strategy

The measures proposed under Alternative 6 are summarized in the following table:

Region	Proposed Measures	Areas of Application	Period of Application
Southeast (SEUS)	Speed restrictions in the Southeast SMA and shipping lanes	Ports of Jacksonville, FL; Fernandina, FL; Brunswick, GA; and Southeast SMA	November 15 to April 15
Mid-Atlantic (MAUS)	SMAs around nine port areas with speed restrictions	South & east of Block Island Sound (Montauk Point to western end of Martha's Vineyard)	November 1 to April 30
		Ports of New York & New Jersey	
		Delaware Bay (Ports of Philadelphia & Wilmington)	
		Entrance to Chesapeake Bay (Ports of Hampton Roads & Baltimore)	
		Ports of Morehead City & Beaufort, NC	
		Port of Wilmington, NC	
		Port of Georgetown, SC	
		Port of Charleston, SC	
Northeast (NEUS)	Speed restrictions in the CCB seasonal management area and shipping lanes	Cape Cod Bay	January 1 to May 15
	Speed restrictions in the ORP seasonal management area	Off Race Point	March 1 to April 30
	Speed restrictions in GSC seasonal management area	Great South Channel	April 1 to July 31
	DMAs	Gulf of Maine area	Year round
All Three Regions	DMAs	US territorial waters and EEZ	Year round

ES.4 Impacts

In general, both the biological and economical impacts increase in magnitude as the speed restriction becomes more conservative (e.g., 10 vs. 14 knots) in alternatives that include speed as an operational measure. In the first three sections below, the impacts of speed restrictions are discussed in general and not for 10, 12, and 14 knots specifically. All costs refer to economic impacts in 2004.

ES.4.1 Impacts on the North Atlantic Right Whale

Alternative 1 would have significant, direct, long-term, negative effects on the right whale population and recovery. Alternative 2 would have minor, direct, long-term, positive effects on the right whale population. Alternative 3 would have direct, long-term positive effects on the right whale population. As Alternative 3 proposes speed restrictions as a stand alone measure, a 10-knot speed restriction would be more effective at reducing the severity and occurrence of ship strikes, and helping the right whale population recover than a 12- or 14-knot speed restriction. Alternative 4 would have direct, long-term, positive effects on right whales in the NEUS and SEUS, although it offers no protection in the MAUS, therefore the overall effects are minor. Alternative 5 would have significant, direct, long-term, positive effects on the right whale population; this alternative provides the highest level of protection to the population. Alternative 6 would also have major, direct, long-term, positive effects on the population.

ES.4.2 Impacts on Other Marine Species

Alternative 1 would have indirect, long-term, adverse effects on marine mammals and sea turtles. Alternative 2 would have no significant effects on marine mammals and sea turtles. Alternative 3 would have minor, indirect, long-term, positive effects on marine mammals and sea turtles that occur in the designated areas with speed restrictions. Alternative 4 would potentially result in minor, indirect, long-term, positive effects on marine mammals and sea turtles, depending on their distribution. Alternative 5 would have major, indirect, long-term, positive impacts on other marine mammals, although sea turtles would benefit slightly less. Alternative 6 would also have indirect, long-term, positive effects on marine mammals and sea turtles.

ES.4.3 Impacts on the Physical Environment

Alternative 1 would not affect bathymetry and substrate, water quality, air quality, or ocean noise levels. Alternatives 2–6 would not affect bathymetry and substrate. Alternative 2 would have negligible effects on water quality, and minor, direct positive impacts on air quality and ocean noise. Under Alternative 3, there would be a negligible effect on water quality, direct, short-term positive impacts on air quality, and potentially direct, short- and long-term positive impacts on ocean noise levels. Alternative 4 would have negligible or minor adverse effects on water quality, no significant effects on air quality, and potentially minor, direct, short-term, adverse effects on ocean noise levels. Alternative 5 would have negligible or minor adverse effects on water quality, minor, direct, long-term, positive effects on air quality, and potentially minimal,

direct, long-term, positive effects on ocean noise. Alternative 6 would have negligible impacts on water quality in the NEUS and minor adverse impacts in the SEUS, and minor, direct, long-term positive effects on both air quality and ocean noise.

ES.4.4 Impacts on Port Areas and Vessel Operations

Alternative 1 would not affect port areas and vessel operations. The following adverse impacts refer to additional operating costs resulting from speed restrictions and/or routing measures. Alternative 2 would result in an estimated direct economic impact of \$17 million with a 10-knot speed restriction, \$10.8 million at 12 knots, and \$6.5 million at 14 knots. Alternative 3 would result in an estimated total (includes both direct and indirect impacts) economic impact of \$237 million at 10 knots, \$143.3 million at 12 knots, and \$77.3 at 14 knots. Alternative 4 would result in a direct economic impact of \$1.1 million. The actual speed limit is not relevant in Alternative 4 as there are no speed restrictions proposed in this Alternative. Alternative 5 would result in an estimated total economic impact of \$260.4 million at 10 knots, \$155.2 million at 12 knots, and \$88.7 at 14 knots. Alternative 6 would result in an estimated total economic impact of \$107.4 million at 10 knots, \$56.4 million at 12 knots, and \$30.2 million at 14 knots.

To determine whether these increased shipping costs would significantly affect the price and volume of traded goods via East Coast ports, the estimated economic impact was calculated relative to the value of East Coast Trade. For example, at 12 knots, Alternative 2 represents 0.003 percent of trade value, Alternatives 3 and 5 represent 0.020 percent, Alternative 4 has no impact on trade value, and Alternative 6 represents 0.012 percent of trade value. These results indicate that implementation of the proposed operational measures would not have a measurable impact on the volume of merchandise traded through East Coast ports.

Ocean freight costs are considered a conservative proxy for shipping industry revenues, and thus can help assess the significance of the abovementioned costs on the shipping industry. For example, at 12 knots, Alternative 2 represents 0.063 percent of ocean freight costs, Alternative 3 represents 0.370 percent, Alternative 4 represents 0.006 percent, Alternative 5 represents 0.383 percent, and Alternative 6 represents 0.221 percent. These results indicate that implementation of the proposed operational measures would have an insignificant impact on the financial revenues and hence the financial performance of the vessel operators calling at East Coast ports.

ES.4.5 Impacts on Commercial Fishing Vessels

There would be no impacts on commercial fishing vessels under Alternative 1. There would be negligible adverse impacts on commercial fishing vessels under Alternative 2 at any of the speed restrictions. Alternative 3 would not affect vessels at a 12- or 14- knot speed restriction; however, the economic impact at a 10-knot speed restriction is estimated at \$0.9 million. Alternative 4 would result in negligible impacts on commercial fishing vessels at all three speed restrictions. Alternative 5 would result in the same impacts as Alternative 3. Alternative 6 would not affect vessels at a 12- or 14- knot speed restriction; however, the economic impact at a 10-knot speed restriction is \$1.0 million. Considering the largest potential economic impact of \$1.0 million is approximately two-tenths of one percent of the East Coast commercial fishery landings in 2003, implementation of the proposed operational measures would not have significant adverse impacts on the commercial fishing industry.

ES.4.6 Impacts on Ferry Vessels

The vast majority of passenger ferry vessels sail within inland waters that are not covered by the operational measures and thus would not be affected. Among the vessels that are affected, specifically those that operate in southern New England, impacts will vary depending on whether the companies utilize fast ferry services (24-39 knots) or regular ferry service (12-16 knots). The No Action Alternative would not affect ferry vessel operations. There would be direct, long-term, adverse impacts on ferry vessels under Alternative 2, in the amount of \$5.1 million at 10 knots, \$4.1 million at 12 knots, and \$3.2 million at 14 knots. Alternative 3 would result in direct, long-term, adverse economic impacts in the amount of \$6.5 million at 10 knots, \$5.5 million at 12 knots, and \$4.1 at 14 knots. Alternative 4 would not affect ferry vessels. Alternative 5 would result in the same impacts as Alternative 3. There would be direct, long-term, adverse economic impacts on ferry vessels under Alternative 6, in the amount of \$5.6 million at 10 knots, \$4.6 million at 12 knots, and \$3.6 million at 14 knots.

ES.4.7 Impacts on Whale Watching Vessels

The majority of whale watching vessels are 65 feet and longer and would be affected, although impacts vary according to whether the operations deploy high-speed (25-38) or regular-speed vessels (16-20). Alternative 1 would not affect whale watching vessels. Alternative 2 would result in direct, long-term, adverse economic impacts of \$0.9 million at 10 knots, \$0.7 million at 12 knots, and \$0.5 million at 14 knots. Alternative 3 has a larger direct, long-term, adverse economic impact with an estimated \$2.8 million at 10 knots, \$1.6 million at 12 knots, and \$0.9 million at 14 knots. There would be no impacts under Alternative 4. Alternative 5 has the same impacts as Alternative 3. Alternative 6 would have direct, long-term, adverse economic impacts, estimated at \$0.9 million at 10 knots, \$0.7 million at 12 knots, and \$0.5 million at 14 knots.

ES.4.8 Impacts on Charter Vessels

There would be no impacts to charter vessel operations under Alternatives 1, 2, and 4. Alternatives 3 and 5 would result in minor, direct, long-term, adverse impacts on charter vessels, estimated at \$1.1 million at 10 knots, \$600,000 at 12 knots, and \$200,000 at 14 knots. Alternative 6 would have a slightly larger direct, long-term, adverse economic impact at \$1.2 million at 10 knots, \$720,000 at 12 knots, and \$240,000 at 14 knots. For headboats more than 65 feet, these costs result from an increase in roundtrip steaming time. However, these impacts could be reduced if a charter company has multiple boats, and utilizes a vessel under 65 feet or if the captain changes course to fish at an alternate site that may not have speed restrictions.

ES.4.9 Impacts on Environmental Justice

Although ten of the 26 port areas analyzed in this EIS could be considered environmental justice communities, the economic impacts in these areas would not disproportionately affect minority or low-income populations. Rather, the impacts would be distributed throughout the entire region or local economy. There would be no impacts on environmental justice communities under

Alternative 1. Alternatives 2, 3, 4, 5, and 6 would not disproportionately affect low-income or minority populations.

ES.4.10 Impacts on Cultural Resources

No cultural resources have been identified on the ocean surface in waters that would be affected by the operational measures. Therefore, there are no impacts on cultural resources under any of the alternatives.

ES.5 Areas of Controversy

NMFS has provided many opportunities for public involvement and comments on the development of the proposed rulemaking and DEIS. One of the objectives of the proposed measures is to reduce serious injury and deaths of right whales from ship strikes while not posing an undue economic burden on the maritime industry. NMFS has incorporated elements of the public comments and recommendations into the DEIS to balance both industry and environmental perspectives. For this reason, many of the alternatives described in the notice of intent (NOI) to prepare a DEIS differ from the alternatives in this DEIS. The major areas of controversy are:

- **Speed Restrictions.** The public commented on the basis of the speed restriction and in general was concerned that the speed restrictions may not effectively reduce the occurrence and severity of ship strikes. Environmental stakeholders generally felt that 10 knots would be the most effective, but 12 knots would also reduce ship strikes. Industry stakeholders generally preferred less stringent speed restrictions, if any, and would rather have routing measures implemented. In order to show the entire range of impacts, this DEIS analyzes 10, 12, and 14 knots.
- NOAA proposed a 10-knot speed restriction in the proposed rule, although the agency is also requesting comments on 12 and 14 knots. The proposed speed restriction of 10 knots is based on historical and recent research that indicates that 10 knots is the optimal speed limit in the range considered for right whale recovery.
- **Federal Vessels.** The majority of Federal agencies supported the exemption of Federal vessels, whereas other stakeholders, from both industry and environmental groups, suggested that the operational measures apply to all vessels, unless the Federal vessels were operating under mitigation measures from a Section 7 consultation.
- The proposed regulations would not apply to vessels owned or operated by, or under contract to, Federal agencies. This exemption would also extend to foreign sovereign vessels engaging in joint exercises with the US Department of the Navy. NMFS believes that the national security, navigational, and human safety missions of some agencies may be compromised by mandatory vessel speed restrictions. However, this exemption would not relieve Federal agencies of their obligations under the ESA, including Section 7. NMFS will be reviewing the federal actions involving vessel operations to determine where ESA Section 7 consultations would be appropriate. NMFS also requests all Federal agencies to voluntarily observe the conditions of the proposed regulations when and where their missions are not compromised.

This Page Intentionally Left Blank