

**LEGAL AUTHORITY OF THE UNITED STATES TO ADOPT MEASURES
TO PROTECT NORTH ATLANTIC RIGHT WHALES FROM SHIP STRIKES**

A Report Prepared for the U.S. Marine Mammal Commission

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Final Report

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Executive Summary

Ship strikes are the leading cause of right whale mortalities in U.S. waters attributable to human activities. These mortalities have slowed the recovery of the right whale population. Ship collisions with whales constitute “takes” and are prohibited by federal marine mammal and endangered species legislation. Commercial vessels over 300 gross tons, destined for ports in two areas of the Atlantic seaboard, are currently required to meet reporting requirements and obtain information on whale sightings in order to prevent ship strikes.

Recent analyses suggest, however, that given the unavailability of a technological solution, additional vessel operational measures will be needed if ship strikes are to be reduced. These measures would route vessels around areas where whales congregate, set speed restrictions in and adjacent to high risk areas, and establish areas that vessels should avoid entirely. As a matter of U.S. law, these measures could be adopted by NOAA Fisheries pursuant to existing laws that authorize the Secretary of Commerce to regulate vessels that are subject to U.S. jurisdiction to prevent takes and to promote the recovery of this endangered population. Mechanisms for coordinating these measures exist under several federal statutes, including ports and waterways, endangered species, and marine sanctuaries laws. To gain international recognition, however, and to address international law concerns about the application of U.S. measures to foreign vessels transiting U.S. coastal waters but not entering a U.S. port, action by the International Maritime Organization (IMO) would be helpful.

Options for action open to U.S. authorities include (1) acting alone under one or more existing federal statutes to adopt measures to prevent ship strikes in U.S. waters; (2) acting in concert with Canadian authorities to cover the known range of North Atlantic right whales with regulations to prevent ship strikes; and (3) acting through the International Maritime Organization, the U.N. agency that has responsibilities for environmental and safety measures for international shipping.

Given the critical status of the North Atlantic right whale population and the time it would likely take before international measures could be adopted by the IMO, the fastest course of action lies in the use of existing U.S. law to regulate vessels traveling to and from U.S. ports under the international law concept of port state jurisdiction. The United States could also assert its sovereign right as a coastal state to conserve the natural resources of its territorial sea and Exclusive Economic Zone (EEZ) as a basis to regulate foreign vessels transiting through U.S. coastal waters but not entering a U.S. port. But this approach would be controversial as a matter of international law, particularly with respect to vessels in the U.S. EEZ.

As a condition of port access, the U.S. can require vessels calling at or departing from a U.S. port to observe operational restrictions to prevent ship strikes of right whales. To ensure coverage of foreign-flag vessels transiting U.S. waters en route to and from ports in eastern Canada, a joint program with Canada should be pursued. Given recent

actions by Canadian authorities with respect to ship traffic in the Bay of Fundy and whale conservation on the Scotian Shelf, cooperation on an expedited basis appears likely.

Existing law provides a sufficient basis for enacting needed measures. New legislation that appropriates specific funds would increase the ability of the concerned federal agencies, NOAA and the Coast Guard, to prioritize this effort and move expeditiously.

I. Introduction

Ship strikes pose a substantial risk to the recovery of large whales, particularly the North Atlantic right whale (*Eubalaena glacialis*) (Laist et al. 2001). Extensive vessel traffic, including commercial, recreational, military, and other vessels, regularly traverses waters in the United States and Canada that the North Atlantic right whale uses for feeding, calving, and migration. In the United States, some of these waters have been designated as right whale critical habitat. The North Atlantic right whale is listed as endangered under the U.S. Endangered Species Act and critically endangered by the IUCN.

The United States has adopted voluntary measures, aerial surveys, and mariner education to protect right whales from ship strikes. Regulatory measures include a 500-yard no-approach zone for all vessels and aircraft and two mandatory ship reporting systems (MSRS) for all vessels of 300 tons or greater destined for certain east coast ports. Operation of the MSRSs began in 1999. Since that time, several right whale deaths attributed to ship collisions have occurred, suggesting that additional measures to reduce the threat of ship strikes are needed (MMC 2003; Silber and Clapham 2001). In 2000, the International Whaling Commission (IWC) adopted a resolution calling upon the United States and Canada to use the information from the Mandatory Ship Reporting System to assess further mitigation steps, including adjustment of traffic (IWC 2000).

The United States has a number of domestic laws that provide a basis for the adoption of a comprehensive strategy to reduce substantially the risk of ship collisions with North Atlantic right whales. This report describes possible steps to protect the right whales and analyzes their domestic legal authority. It then examines the international law basis for U.S. action to protect right whales, and assesses the compatibility of possible approaches with international law.

II. Proposed Steps Utilizing Domestic and International Authorities

The dire condition of the North Atlantic right whale population requires immediate action (MMC 2003). Fortunately, the U.S. has authority under international law and existing federal statutes to act quickly to institute a ship strike reduction strategy. The International Maritime Organization also has authority to adopt navigation measures to protect the right whale. The following outlines a course of action that would use these legal authorities consistent with U.S. international law obligations. An analysis of these legal authorities is then presented.

Steps for Adopting a Comprehensive Strategy

First, the Secretary of Commerce could propose a set of regulations for vessels going to or from a U.S. port that are large enough to cause death or serious injury by collision with a right whale. These regulations could be promulgated by NOAA Fisheries under the authority of the Endangered Species Act (ESA) and the Marine Mammal

Protection Act. Additional regulations could be promulgated by NOAA's National Ocean Services under the National Marine Sanctuaries Act to restrict vessels operating in or near the Stellwagen Bank and Gray's Reef national marine sanctuaries. The regulations could:

- (a) establish an area that vessels of or larger than a certain size must avoid in the vicinity of the Cape Cod Bay and Great South Channel right whale critical habitat in the Northeast and the critical habitat in the Southeast;
- (b) designate traffic lanes into and out of Atlantic seaboard ports; and
- (c) set vessel speed limits for all vessels within these lanes and within an appropriate distance, e.g., 25 miles, of the critical habitat and other areas where whales are known to congregate.

To increase international awareness of the vessel exclusion areas and to make them applicable to vessels transiting U.S. waters but not entering a U.S. port, NOAA could submit a proposal to the IMO to adopt the areas as mandatory "Areas to be Avoided" under the Safety of Life at Sea Convention and IMO's General Provisions on Ships' Routing.

If NOAA were to act jointly with the Coast Guard, the rules could also propose shifting the traffic lanes in the approach to Boston to the north-northeast so that the traffic separation scheme (TSS) extends at a 90-degree angle east from the precautionary area at the entrance of Boston Harbor (Figure 1b), away from the areas in the southern half of the Stellwagen sanctuary known to have high seasonal densities of right whales, and moving the precautionary area southeast of Nantucket (Figure 1a) to the west, realigning the TSS extending north from this circle to intersect with the realigned TSS extending east from Boston Harbor. Figure 1a shows the proximity of existing traffic lanes and precautionary areas to right whale critical habitat in the Great South Channel and Cape Cod Bay. Figure 1b shows the location of the precautionary area at the entrance to Boston Harbor and the overlap of the Boston-approaching traffic lanes with the right whale critical habitat in Cape Cod Bay and the southern half of the Stellwagen sanctuary.

Second, a similar rulemaking could be proposed to reroute vessel traffic away from the calving and feeding grounds in and near the critical habitat off the southeastern U.S. and, if appropriate, in the vicinity of the Gray's Reef National Marine Sanctuary, and to set speed limits for vessel traffic that cannot for some reason be rerouted. To increase the awareness of international shipping nations of these rules, they could be submitted to the IMO for consideration as international standards.

Third, NOAA Fisheries could consult with the U.S. Coast Guard under section 304 of the sanctuaries act and as an interagency consultation under section 7 of the ESA, to enlist that agency's aid in revising the traffic management system for the Atlantic seaboard, including setting appropriate routes, areas to be avoided, and speed limits

throughout the Mid-Atlantic region. The recent ship strikes in the Mid-Atlantic area (MMC 2003, at 31) warrant re-initiation of consultations done in the mid-1990s because the number is likely to be above the number of ship strike mortalities that was projected and analyzed in the biological opinions on the US Coast Guard's management of navigation and ports and on its search and rescue operations.

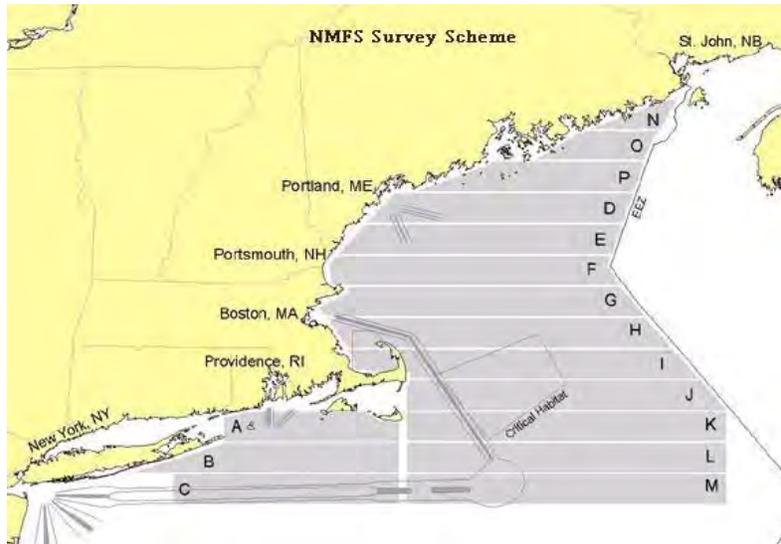
New Legislation is Not Necessary but Could Facilitate Interagency Coordination and Authorize Funds

While existing law provides a sufficient basis for enacting a ship strike regulatory strategy, new legislation might increase the ability of the concerned federal agencies, NOAA and the Coast Guard, to prioritize this effort and move expeditiously. Congress could amend the Ports and Waterways Safety Act or other legislation to require the Coast Guard to conduct a port access route study for ports along the eastern seaboard and to adopt vessel traffic management measures, in consultation with NOAA, to prevent ship strikes of right whales. This approach would be similar to the appropriations act measure Congress enacted in 1992, directing NOAA and the USCG to study jointly the need for vessel traffic measures to protect the Monterey Bay National Marine Sanctuary (see discussion in III.C.a., below).

Congress took a similar approach in directing a study of oil tanker traffic and the risk of oil spills along the East coast. Section 4111(b)(7) of the Oil Pollution Act of 1990 required the Secretary of Transportation to "evaluate whether areas of navigable waters and the EEZ should be designated as zones where the movement of tankers should be limited or prohibited." A report prepared under this mandate identified the location of sensitive marine resources, including marine mammals and ESA-listed species, existing routes of oil tankers, and the relationship between vessel routing and the risk of oil spill contact with the most sensitive marine resources. It also defined the boundaries of possible restricted zones (e.g., 50 nautical miles and 100 nautical miles offshore) and port access corridors between the seaward boundary of these restricted areas and the ports of call of affected vessels. These corridors were identified as feasible routes that would reroute tanker traffic to reduce the risk to the most sensitive marine resources (Dept. of Transportation 1994).¹ Vessel traffic information collected under the Mandatory Ship Reporting Systems since 1999 could be analyzed in a similar manner and combined with other data sources to provide the basis for a risk analysis and set of recommendations to reduce the risk of ship strikes.

¹ The DOT report contains maps illustrating typical tanker routes at the time of the study and hypothetical port access corridors connecting offshore waters beyond a 100-mile restricted area. Corridors to ports in the Northeast similar to those in the 1994 DOT report would avoid the whale congregation areas identified in recent NMFS right whale aerial surveys.

Figures 1a (above). Location of precautionary area southeast of Nantucket and proximity of traffic lanes to right whale critical habitat in the Northeast (superimposed on NMFS right whale aerial survey scheme).



Source: NOAA/NEFSC.

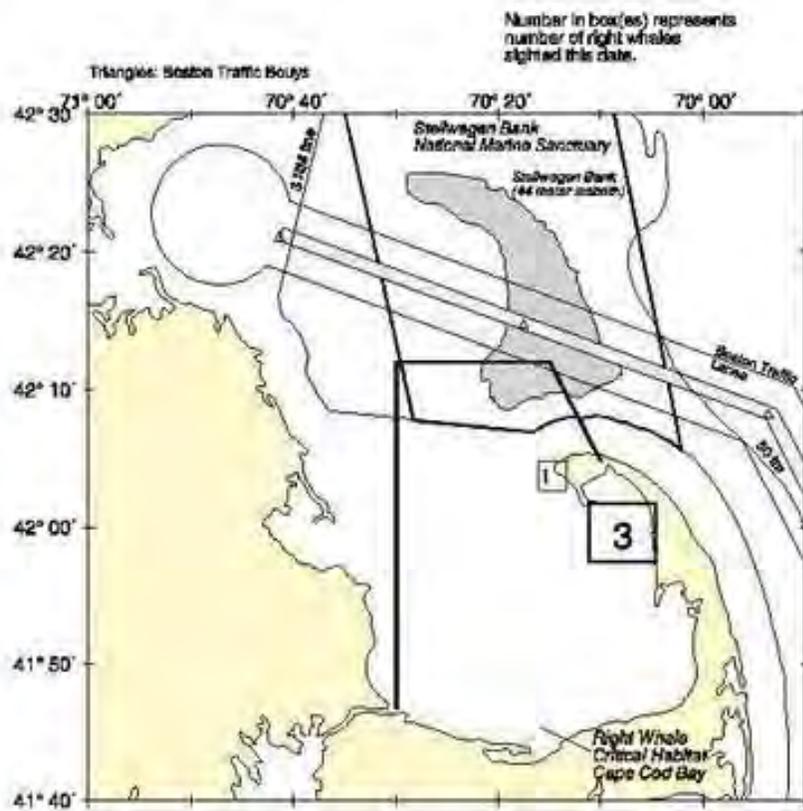


Figure 1b (above). Location of precautionary area at entrance to Boston Harbor and traffic lanes crossing Stellwagen Bank National Marine Sanctuary and critical habitat in Cape Cod Bay.
Source: NOAA/NEFSC.

III. Domestic Legal Authorities of the United States to Prevent Ship Strikes

In this Part, U.S. laws are reviewed to determine to what extent existing statutes empower the Secretary of Commerce or any other federal official to adopt regulations to prevent ship strikes. In particular, the review considers whether U.S. statutes authorize the types of measures the right whale recovery plan implementation team has recommended (NIT 2001; Russell and Knowlton 2001), e.g., traffic routing measures to avoid areas of high right whale density, speed limits or other operational conditions to reduce the likelihood of a collision, and an expansion of the requirement for vessels to report location, speed, destination, and other information and receive the latest information on right whale sightings. Part IV considers the extent of U.S. authority under international law to adopt such measures unilaterally and in concert with Canada and Part V examines the powers of the International Maritime Organization.

Existing U.S. federal law provides an array of authorities that could be used alone or in combination with other provisions to establish a comprehensive ship strike prevention program in the U.S. territorial sea and EEZ. The key statutes are the Endangered Species Act and the Marine Mammal Protection Act. The National Marine Sanctuaries Act and the Ports and Waterways Safety Act also provide important authority and potential mechanisms for achieving a coordinated program at the domestic and international level. The National Environmental Policy Act (NEPA) provides a process under which the appropriate set of routing and other measures could be identified, evaluated, and coordinated among interested federal, state, and local entities.

Two major options are considered for the exercise of these domestic authorities. The first option utilizes the legal authorities of the Secretary of Commerce as delegated to the NOAA Administrator, either alone or in consultation with the Coast Guard. The second option relies on the authorities of the Secretary of Homeland Security, acting through the Coast Guard, in consultation with NOAA. The two options are chosen to illustrate and examine the extent of each secretary's legal authority; they do not exhaust the range of possible combinations of management and regulatory actions that could be taken under U.S. law.

A. Authority of the Secretary of Commerce

The Secretary of Commerce has broad authority and responsibility under the Marine Mammal Protection Act and the Endangered Species Act to protect the North Atlantic right whale and to prevent its extinction and, more specifically, to prevent unauthorized taking of marine mammals and listed species. The Secretary also has authority to create programs for the comprehensive and coordinated protection and management of special marine areas under the National Marine Sanctuaries Act. Areas covered by the Sanctuaries Act include the habitats in U.S. waters of large whales,

including parts of the habitat of the North Atlantic right whale. This makes the Sanctuaries Act potentially an important tool for protecting right whales and for coordinating large whale protection. See Section III.C., below.

1. The Secretary of Commerce has legal authority under the Endangered Species Act (ESA) to regulate U.S. and foreign vessels to prevent ship strikes.

The Secretary of Commerce has extensive authority to protect the North Atlantic right whale because the population is listed as endangered and waters the right whale uses for foraging, calving, and nursing grounds have been designated critical habitat under the ESA.² The ESA prohibits any private and governmental actions that kill, harm, or otherwise take any listed species, including right whales, or that degrade the species' critical habitat; the act's jurisdictional language gives the Secretary broad authority to promulgate regulations to prevent actions that have such impacts. NOAA has already used this broad authority to enact vessel approach restrictions to protect right whales in U.S. waters and humpback whales in U.S. waters around Alaska and Hawaii. NOAA could use the power of the Secretary to adopt additional measures, including those outlined in Part II, above, and those identified by the right whale recovery plan implementation team's report (Russell and Knowlton 2001). The following sections detail the extent of this authority.

- (a) The ESA broadly prohibits activities that result in harm to whales, including vessel collisions.

Under the ESA, the U.S. has clear statutory authority over all persons and vessels to a distance 200 nautical miles from the coastline and over U.S. citizens in international waters beyond 200 miles. This extensive power is a result of the broad jurisdictional terms Congress used in the act. Section 9(a)(1) prohibits any person *subject to the jurisdiction of the U.S.* from taking an endangered species of wildlife "within the United States or the territorial sea of the United States;" or "upon the high seas."³ The Act defines "take" broadly to include to harass, harm, wound, or kill, and covers both intentional and unintentional takings.⁴ Vessel collisions with right whales are clearly "takes" prohibited by the ESA. Persons subject to the statute's taking prohibition include an individual, corporation, or any other private entity, or any employee or instrumentality

² 35 Fed. Reg. 8495 (June 2, 1970); codified at 50 C.F.R. §17.11. NMFS, Final rule, Designation of critical habitat for Northern right whale, 59 Fed. Reg. 28793; codified at 50 C.F.R. §226.203.

³ 16 U.S.C. §1538(a)(1)(B),(C)(emphasis added).

⁴ 16 U.S.C. §1532(19); *Babbitt v. Sweet Home Chapter of Communities for a Greater Oregon*, 115 S.Ct. 2407 (1995). The Fish & Wildlife Service regulations define the term "harm" in the ESA's definition of "take" to mean "an act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering." 50 C.F.R. §17.3. The NMFS regulatory definition of "harm" includes "spawning, rearing, and migrating" in the list of included essential behavioral patterns. 50 C.F.R. §222.102.

of the federal government, or any state, local, or foreign government, or *any other entity subject to the jurisdiction of the United States.*⁵

The breadth of the definition of “person” combined with the phrase “subject to the jurisdiction of the U.S.” extends Section 9(a)’s take prohibition to U.S. citizens and U.S. vessels, and to foreign citizens and foreign vessels. Foreign vessels and foreign citizens are subject to the take prohibition when they are present in U.S. territory or in areas otherwise subject to U.S. sovereign rights or jurisdiction.⁶ Under international law, as discussed in Part IV, foreign vessels are subject to U.S. jurisdiction when they are in, approaching, or departing U.S. ports (i.e., “port entry”), or are operating in the U.S. territorial sea or the U.S. EEZ (i.e., “transiting”).

(b) The Secretary of Commerce has authority to enact rules to prevent harm to right whales.

The Secretary of Commerce has broad regulatory authority to enforce the prohibition against taking endangered wildlife. Section 11(f) of the ESA authorizes the Secretary to issue “such regulations as may be appropriate to enforce this chapter.” The NOAA, on behalf of the Secretary, has already utilized this power to restrict vessel operations to protect humpback whales in Alaska and Hawaii and right whales in all U.S. waters. Under the authority of section 11(f) and a similar provision in the Marine Mammal Protection Act (16 U.S.C. §1382(a)), NOAA’s National Marine Fisheries Service (NMFS, now NOAA Fisheries) enacted regulations prohibiting vessels and aircraft from approaching North Atlantic right whales by closer than 500 yards and requiring avoidance measures when within that distance.⁷ 50 CFR §224.103(c). When

⁵ 16 U.S.C. §1532(13)(emphasis added).

⁶ Although the ESA does not refer specifically to the EEZ, persons subject to U.S. jurisdiction are prohibited from taking endangered whales both within the territorial sea and upon the high seas, the latter area encompassing the area now within the EEZ, which the U.S. established after the ESA’s enactment. The U. S. EEZ was established by Presidential Proclamation in 1983 pursuant to international law and “extends for a distance of 200 nautical miles from the baseline from which the breadth of the territorial sea is measured.” Pres. Proc. No. 5030, 48 Fed. Reg. 10605 (March 10, 1983). While no specific amendment to the Act reflects this change in U.S. jurisdiction, the phrase “jurisdiction of the U.S.” is broad enough to encompass the EEZ. The MMPA’s taking prohibition uses both the phrase “person or vessel subject to U.S. jurisdiction” and “in waters subject to U.S. jurisdiction.” 16 U.S.C. §1372(a)(1),(2). The MMPA defines “waters under the jurisdiction of the United States” to include both the territorial sea and the U.S. EEZ, reflecting a 1976 amendment. 16 U.S.C. §1362(15)(A),(B).

⁷ The regulations define “vessel” as including every description of watercraft used or capable of being used as a means of transportation on water. 50 CFR §222.102. The regulations prohibit any person subject to the jurisdiction of the U.S. from operating an aircraft within 1,000 feet, or approaching by vessel or other object within 100 yards, of any humpback whale within 200 nautical miles of the Islands of Hawaii. 50 CFR §224.103(a). Similarly, the rules prohibit any person subject to the jurisdiction of the U.S. from approaching by any means within 100 yards of any humpback whale within 200 nautical miles of Alaska, or within the inland waters of that state. 50 CFR §224.103(b). The right whale approach rule, unlike the humpback approach rules, does not specifically mention the prohibition’s application within 200 miles. Compare §224.103(a) and (b) with §224.103(c). This difference in language is probably because the rule was intended to apply in waters within 200 nm of more than one state.

NMFS promulgated the right whale rules, its notice stated that the regulations apply to foreign vessels and are enforceable consistent with international law.⁸ Given the broad jurisdictional language of section 11(f) and the MMPA (see III.A.2., below), this statement is correct. As mentioned previously, under international law, as discussed in Part IV, foreign vessels are subject to U.S. jurisdiction when they are in, approaching, or departing U.S. ports (i.e., “port entry”), or are operating in the U.S. territorial sea or the U.S. EEZ (i.e., “transiting”). Thus, foreign-flag vessels are subject to enforcement of the federal right whale and humpback whale approach regulations.

The take prohibition in the ESA prohibits activities that harass endangered whales as well as those that kill or injury them. Given the breadth of the regulatory authority under this section, the Secretary would also have the power to set speed or other operational limitations in order to reduce the noise generated by vessels that would disturb whales to the point of harassment.

- (c) The ESA requires the Secretary to develop recover plans for endangered species, identifying priority conservation actions.

The Secretary of Commerce is required to develop and implement recovery plans for the conservation and survival of listed species. In developing such plans the

⁸ In the preamble to the interim final rules, NMFS responded to a comment on the applicability of the rules, rejecting the comment’s assertion that international law limited the rules to U.S. citizens and U.S.-flag vessels:

NMFS disagrees that the applicability of the final rule to foreign vessels would necessarily conflict with international law. U.S. jurisdictional authority over vessels other than U.S.-flagged vessels depends upon the circumstances of each particular case. In all cases, however, the United States intends to enforce this rule consistently with international law, including customary international law as reflected in the 1982 United Nations Convention on the Law of the Sea.

62 Fed. Reg. 6729, 6736 (Feb. 13, 1997). Similarly, in the preamble to the proposed rules, NMFS explained its intent to utilize its full jurisdictional authority to protect right whales. 61 Fed. Reg. 41116, 41122 (Aug. 7, 1996).

At the time the right whale approach regulations were promulgated, NMFS noted “that it may be necessary for vessels, especially large ships, to reduce speed to avoid prohibited approaches to right whales.” 62 Fed. Reg. 6729, 6734 (Feb. 13, 1997). It noted that COLREGS, Rule 6 requires vessel operators to proceed at a safe speed so that the vessel can avoid collision and “be stopped within a distance appropriate to the prevailing circumstances under which it is operated.” The agency said it was not at that time setting speed restrictions for vessels operating in the vicinity of right whales. NMFS did not rule out subsequently adopting speed restrictions, noting that other agencies and organizations may have special expertise and authority with respect to speeds and that specific guidance on speed may depend on the operational characteristics of a vessel or the circumstances under which it is operating. “NMFS encourages adherence to the speed regulations already in place, but it declines to adopt further speed restrictions in this interim final rule.” *Id.* The Alaska approach regulations were adopted later than the right whale rules and explicitly require vessels to operate at a slow, safe speed when near a humpback whale, defining “safe speed” as having the same meaning as the term is defined in 33 U.S.C. §2006 and the international regulations for preventing collisions at sea (COLREGS). 50 CFR §224.103(c)(3).

Secretary must give priority to those species that are most likely to benefit from such plans, particularly those species that are or may be in conflict with forms of economic activity, including site-specific management actions as may be necessary.⁹ In implementing recovery plans, the Secretary is authorized to procure the services of appropriate public and private agencies and institutions.¹⁰ The right whale approach regulations NMFS adopted in 1997 were based upon the Final Recovery Plan for the Northern Right Whale (NMFS 1991). The Plan identified vessel interactions, especially collisions with and disturbance, as among the principal human-induced factors impeding recovery.¹¹ An updated recovery plan was circulated in draft form in 2001. The updated plan identifies reduction of mortality from ship strikes as a first priority recovery action, essential in order to arrest the possibly declining status of the western North Atlantic distinct population segment of the right whale. The draft plan states that it may be necessary to promulgate new regulations to reduce ship strikes (Silber and Clapham 2001, at 20, 22).

- (d) The ESA's requirement of interagency consultation and cooperation provides a basis for the Secretary of Commerce to require other federal agencies to use their authorities to protect right whales from ship strikes.

The interagency consultation provision in Section 7(a)(2) is particularly important given the authority other federal agencies have over navigation and vessel activities that risk collisions with right whales. Under Section 7(a)(2), federal agencies must, in consultation with the Secretary, insure that their actions and the private actions they authorize are not likely to jeopardize the continued existence of any listed species, or result in the destruction or adverse modification of such species' habitat which the Secretary determines to be critical to the survival of such species.¹² If, as a result of this consultation, NOAA Fisheries, acting on behalf of the Secretary, determines that jeopardy or adverse modification of critical habitat is likely, the 'acting' federal agency must modify the proposed action in order to eliminate the jeopardy or adverse

⁹ 16 U.S.C. §1533(f). The term "conservation" means the use of all methods and procedures which are necessary to bring any endangered or threatened species to the point at which the measures under the ESA are no longer necessary, and include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, etc. 16 U.S.C. §1532(3).

¹⁰ The Secretary of Commerce, the Secretary of the Treasury, and the Secretary of the department in which the Coast Guard is operating are all required to enforce the ESA and any regulations or permits issued under it and are authorized to promulgate such regulations as may be appropriate to enforce the ESA. 16 U.S.C. §1540(e)(1), (f).

¹¹ NMFS, Proposed rules, North Atlantic right whale protection, 61 Fed. Reg. 41116 (Aug. 7, 1996).

¹² 16 U.S.C. §1536(a)(2). In addition to their duty to insure they do not jeopardize listed species, federal agencies are also subject to the prohibition against taking endangered whales in Section 9. The Coast Guard's responsibilities under these provisions are discussed in *Strahan v. Linnon*, 967 F.Supp. 581 (D.Mass. 1997).

modification. 16 U.S.C. §1536(b).

The interagency consultation process has been used previously to address vessel interactions with whales. Consultations with NOAA were undertaken in relation to the U.S. Coast Guard's (USCG) North Atlantic operations and the National Park Service's management of vessel traffic in Glacier Bay National Park, Alaska.¹³ In the case of the Coast Guard, consultation was initiated with NMFS as a result of a lawsuit claiming the Guard had failed to comply with the procedural requirements of the ESA and the National Environmental Policy Act (NEPA). It is the responsibility of an acting agency to initiate consultation on whether its actions affect endangered species and their critical habitat. Numerous activities of the Coast Guard would constitute "federal action" under Section 7(a)(2) and the joint NMFS and Fish & Wildlife Service regulations.¹⁴ These actions include discretionary actions under the Ports and Waterways Safety Act to determine if traffic routing schemes or other measures are needed to protect navigation and the marine environment. These Coast Guard actions are discussed in II.B., below.

In *Strahan v. Linnon*, the court ordered the Coast Guard to undertake consultations with NMFS on its Atlantic operations.¹⁵ Later, the same court upheld the biological opinions on the Coast Guard's Atlantic operations that NMFS had prepared. NMFS's recommendations in these biological opinions led to the Coast Guard's adoption of its Atlantic Protected Living Marine Resource Initiative and to preparation of an environmental impact statement (EIS).¹⁶ In the final EIS, the Coast Guard analyzed the alternative of establishing or modifying vessel traffic routes. The final Initiative did not, however, include such measures. It focused instead on operating procedures for USCG vessels and aircraft in the Atlantic, to prevent harmful interactions with whales and other protected species, and on the cooperation of USCG personnel with other agencies and the public to promote conservation.¹⁷

¹³ 36 C.F.R. §13.65. See National Park Service, Glacier Bay National Park vessel management plan regulations, 50 Fed. Reg. 27016 (May 30, 1996).

¹⁴ The joint regulations on interagency consultation under the ESA are published at 50 CFR Part. 402. In section 402.02, the regulations define federal "action" as all activities or programs of any kind authorized, funded, or carried out, by federal agencies in the U.S. or upon the high seas. Section 402.03 states that the interagency consultation requirements apply to all actions in which there is discretionary federal involvement or control. In *Strahan*, the court held that the Coast Guard was not required to initiate formal consultation with NMFS with respect to its nondiscretionary documentation and inspection of vessels. 967 F.Supp. 581, at 620. The court stated, however, that the impact of the Coast Guard's issuance of certificates of documentation and inspection would have to be considered by NMFS as cumulative impacts on the area where Coast Guard vessels would be operating, in its biological opinion concerning Coast Guard vessel operations, aid-to-navigation activities, search and rescue operations, law enforcement, and marine safety and pollution response activities. *Id.*

¹⁵ *Strahan v. Linnon*, Memorandum and Order (D. Mass, May 19, 1995), appended to 967 F.Supp. 581, at 609 (D. Mass. 1997).

¹⁶ U.S. Coast Guard, Notice of final environmental impact statement, 61 Fed. Reg. 56258 (Oct. 31, 1996).

¹⁷ U.S. Coast Guard, Notice of availability of the record of decision, 61 Fed. Reg. 64785 (Dec. 6, 1996).

Given the number of ship collision mortalities of right whales that have occurred recently in the port approaches along the eastern seaboard, NMFS has a strong legal basis under Section 7 to request the Coast Guard to re-initiate consultation or to undertake a new consultation. The FWS and NMFS joint regulations under Section 7 encourage the coordination of these consultations with other environmental reviews. 50 CFR §402.06. This coordination could include, e.g., combining with a consultation under Section 304 of the Sanctuaries Act, discussed in II.3(b), below.

2. The Secretary of Commerce has legal authority under the Marine Mammal Protection Act to regulate U.S. and foreign vessels to prevent ship strikes.

In 1972, Congress replaced the existing patchwork of federal and state laws protecting marine mammals with a single, comprehensive federal program, centered on a moratorium on the importation and taking of marine mammals. The MMPA's major objective is to maintain the health and stability of the marine ecosystem and, when consistent with that objective, to maintain or restore all species and populations of marine mammals to their optimum sustainable population (OSP). OSP is the range from maximum net productivity level to carrying capacity. 16 U.S.C. §1361(2). To achieve the Act's goals, Congress directed the Secretaries of Interior and Commerce¹⁸ to adopt measures to restore any species or stock below OSP and to protect essential habitats, including mating and nursery grounds and areas of similar significance, from the adverse effects of human activity. 16 U.S.C. §1361(2),(6). In addition, the MMPA makes it unlawful for any person or vessel to take marine mammals *in waters under the jurisdiction of the United States* or for any person to use any port, harbor, or other place under U.S. jurisdiction to take marine mammals. 16 U.S.C. §1372(a)(2)(emphasis added). It also prohibits any person or vessel *subject to the jurisdiction of the United States* from taking any marine mammal on the high seas.

Like the ESA, the MMPA gives the Secretary broad regulatory authority to achieve the Act's purposes, including regulating vessel activities in all waters under U.S. jurisdiction to prevent takes (i.e., kills, injury, or harassment). As described in the previous section, the Secretary of Commerce used the authority of the MMPA and the ESA in 1997 and 2000-2001 to enact the humpback whale and right whale approach regulations. While the majority of the Secretary's MMPA rules protecting whales focus on reducing the risk of whale entanglement in fishing gear, see 50 CFR §229.32, the MMPA clearly provides the legal basis and mandate for regulations to reduce the risk of ship strikes in waters subject to U.S. jurisdiction.

(a) The MMPA broadly prohibits taking of marine mammals by any person or any vessel in waters subject to U.S. jurisdiction.

¹⁸ The Secretary of the Interior administers the MMPA for walrus, sea otters, polar bears, dugongs, and manatees, and the Commerce secretary has authority over all whales and porpoises, seals and sea lions. 16 U.S.C. §1362(12)(A).

The MMPA prohibits takes of marine mammals by any person or vessel subject to U.S. jurisdiction on the high seas, or by any person or vessel in waters or on lands under the jurisdiction of the United States.¹⁹ The Act prohibits both intentional and unintentional takes.²⁰ “Take” is defined as to harass, hunt, capture, or kill or to attempt to do so. 16 U.S.C. §1362(13). The Act defines “waters under the jurisdiction of the United States” as including the territorial sea and the EEZ. 16 U.S.C. §1362(15)(A),(B).

Thus, the MMPA’s broad takings prohibition applies as follows:

- to U.S. citizens in internal waters (i.e., inside the baseline, which is usually the low-water line), in waters of the U.S. territorial sea (generally from the baseline to 12 nautical miles) and U.S. EEZ (from 3 to 200 nautical miles), and on the high seas;
- to U.S.-flag vessels in internal waters, in waters of the U.S. territorial sea and the U.S. EEZ, and on the high seas;
- to foreign citizens and foreign vessels in internal waters, and in waters of the U.S. territorial sea and the U.S. EEZ.

Any regulations adopted by the Secretary to restrict vessel operations to prevent unintentional right whale takes through ship strikes could also apply in the above circumstances.

- (b) The Secretary of Commerce has broad regulatory authority to prevent takes of right whales by all persons and vessels in U.S. waters.

Section 112(a) of the MMPA empowers the Secretary “to prescribe such regulations as are necessary and appropriate to carry out the purposes” of the Act, including regulations to enforce the prohibition against takes of marine mammals by all persons and vessels covered by that prohibition. 16 U.S.C. §1382(a). Before promulgating such regulations, the Secretary is directed to consult with any other federal agency that may be affected, and each federal agency is directed to cooperate with the Secretary “in such manner as may be mutually agreeable” in carrying out the purposes of the Act. 16 U.S.C. §1382(b).

NOAA Fisheries has used this authority of the MMPA, in conjunction with

¹⁹ 16 U.S.C. §1372. While the term “subject to U.S. jurisdiction” is not defined, its use in conjunction with “the high seas” suggests the intent was to refer to U.S. jurisdiction over U.S. citizens or U.S.-flag vessels. “Person” is defined broadly, covering any private person or entity, or any federal, state, or foreign employee, agency or department. 16 U.S.C. §1362(10).

²⁰ See, e.g., 50 U.S.C. §§1371(a)(1) and 1387 (provisions subjecting certain incidental takes to regulation by the Secretary).

regulatory authority under the ESA, to promulgate regulations to protect the North Atlantic right whale and humpback whales in Hawaii and Alaska from takes associated with vessel interactions, as discussed above in III.A.1.b. NOAA Fisheries correctly interprets the MMPA as currently authorizing a range of additional rules and programs to further reduce the threat of ship strikes. In 2003, for example, NOAA proposed to Congress a bill to reauthorize the MMPA containing language directing the Secretary to use *existing authorities* under the Act to reduce the risk of ship strikes (Lent 2003)(emphasis added). This interpretation is consistent with the broad authority and jurisdiction conferred by the Act.

3. The Secretary of Commerce has legal authority under the National Marine Sanctuaries Act to regulate U.S. and foreign vessels to prevent ship strikes.

In addition to the ESA and MMPA, the Secretary of Commerce has legal power under the National Marine Sanctuaries Act (NMSA) to protect the North Atlantic right whale through the designation and management of marine sanctuaries. Two established sanctuaries, the Stellwagen Bank National Marine Sanctuary (Stellwagen), and, to a lesser extent, the Gray's Reef National Marine Sanctuary, are frequented by right whales.²¹ The Stellwagen sanctuary overlaps or is adjacent to a significant portion of the right whale critical habitat in waters off Massachusetts.²² Mortality due to ship collisions is one of the issues NOAA and the sanctuary advisory council have under consideration in the 2003-04 review of the Sanctuary's management plan pursuant to 16 U.S.C. §1434(e).²³ Heavy vessel traffic occurs in portions of Stellwagen, as the Boston approach lanes transit the sanctuary. See Figure 1b. in II, above.

²¹ Stellwagen Bank National Marine Sanctuary is approximately 521 square nautical miles of ocean about 30 nautical miles east of Boston, Massachusetts, in the extreme southwestern corner of the Gulf of Maine. It was designated in 1992, and its management plan is being reviewed by NOAA. See footnote 23, below. Gray's Reef National Marine Sanctuary is located 17.5 nautical miles off the coast of Georgia. NOAA's review of its 1981 management plan resulted in a proposed new plan and several proposed rules, including restrictions on fishing and a prohibition of anchoring any vessels in the Sanctuary. 68 Fed. Reg. 62033 (Oct. 31, 2003), to be codified at 15 C.F.R. §§922.90-922.93. The sanctuary consists of about 16.7 square nautical miles containing one of the largest nearshore rocky reefs and associated biological communities off the southeastern U.S. The reef is used by loggerhead sea turtles for foraging and resting and it is also close to the only known calving ground for the North Atlantic right whale. *Id.* The proposed revised designation document, in Article 4, Section 1, describe the activities that are subject to potential regulation under the NMSA in areas within the Sanctuary as well as in *areas beyond the boundary of the Sanctuary "to the extent necessary and reasonable"*. *Id.* at 62034 (emphasis added). The preamble suggests that this language is being added in order to authorize regulation of the discharge or depositing of material or matter outside the Sanctuary that subsequently enters and injures a sanctuary resource or quality. *Id.*

²² The designation document and accompanying environmental impact statement noted the importance of the Bank to right whales. Stellwagen Bank National Marine Sanctuary 1993 Management Plan & Final Environmental Impact Statement, *available at* <http://stellwagen.nos.noaa.gov/management/1993plan.html>

²³ See NOAA, Notice of public scoping meetings on the review of the Stellwagen Bank National Marine Sanctuary (SBNMS) Management Plan, 67 Fed. Reg. 59268 (Sept. 20, 2002); NOAA, Initiation of a review of management plan for SBNMS and regulations and notice of intent to prepare a DEIS and to hold public scoping meetings, 63 Fed. Reg. 64063 (Nov. 18, 1998).

Congress enacted the Sanctuaries Act to provide a basis for the identification and designation of areas of the marine environment which are of special national and international significance. Congress sought also to provide the legal authority for the coordinated and comprehensive approach to the conservation and management of these special areas that is not always possible under the more resource-specific legislation. Resource protection is the primary objective of the Act, but facilitation of public and private uses of the resources, to the extent compatible with this primary objective, is also a goal. Another purpose particularly relevant to ship strikes is “to develop and implement coordinated plans for the protection and management of these areas with appropriate Federal agencies, ... international organizations, and other public and private interests” and “to cooperate with global programs encouraging conservation of marine resources.”²⁴ Executive Order 13158 concerning Marine Protected Areas directs federal agencies to use their authorities to strengthen the existing marine protected areas.²⁵

- (a) The Sanctuaries Act authorizes the Secretary of Commerce to designate marine sanctuaries in all marine waters under U.S. jurisdiction.

The Secretary’s authority to designate a marine sanctuary is geographically broad, applying to “any discrete area of the marine environment” for which the Secretary finds the special values and needs the Congress sought to protect and achieve. 16 U.S.C. §1433(a). The term “marine environment” is defined as “those areas of coastal and ocean waters ... and submerged lands over which the United States exercises jurisdiction, including the exclusive economic zone, consistent with international law.” 16 U.S.C. §1432(3).

- (b) The Secretary’s regulatory authority under the Sanctuaries Act authorizes regulations requiring U.S. vessels, foreign-flag vessels calling at U.S. ports, and foreign-flag vessels transiting the territorial sea to observe travel lanes, speed restrictions, manning and other provisions.

Activities that are prohibited by the Act upon the Secretary’s designation of a sanctuary, include destroying, causing the loss of, or injuring any sanctuary resource. 16 U.S.C. §1436(1). The term “sanctuary resource” is defined as “any living or nonliving resource of a national marine sanctuary that contributes to the conservation, recreational, ecological, historical, educational, cultural, archeological, scientific, or aesthetic value of

²⁴ 16 U.S.C. §1431(b)(7),(9). In the 2000 amendments, Congress deleted language that had stated as a purpose “to maintain, restore, and enhance living resources by providing places for species that depend upon these marine areas to survive and propagate.” In its place, Congress inserted “to maintain the natural biological communities in the national marine sanctuaries, and to protect, and, where appropriate, restore and enhance natural habitats, populations, and ecological processes[.]” 16 U.S.C. §1431(b)(3).

²⁵ Executive Order 13158, Marine Protected Areas, 65 Fed. Reg. 34909 (May 26, 2000).

the sanctuary.” 16 U.S.C. §1432(8). In addition to these statutory prohibitions, the Secretary has broad authority to issue additional regulations as may be necessary to carry out the Act.²⁶ Regulations “as may be necessary” to carry out the Act would entail measures the Secretary determines are needed to prevent activities that are prohibited by the Act. This broad regulatory power would allow the Secretary to promulgate regulations to prevent the injury or loss of right whales, which are a sanctuary resource, including measures to prevent vessels from striking right whales or disturbing their calving and feeding activities in a sanctuary. The “as may be necessary” language also authorizes the Secretary to promulgate regulations that restrict activities outside of the sanctuary boundaries if the Secretary deems it was necessary to do so in order to protect resources within the sanctuary. The proposed regulations for the revised management plan for Gray’s Reef National Marine Sanctuary illustrate the use of this authority.²⁷ The geographic reach of this power appears to be limited to areas outside but near the sanctuary’s boundaries. Section III.C., below, describes the Secretary’s use of the sanctuaries act to coordinate with the Coast Guard the development of vessel movement measures to protect sanctuary resources.

The Act allows the Secretary to enforce sanctuary regulations within the 12-mile U.S. territorial sea and the U.S. EEZ, consistent with international law.²⁸ The degree to which these regulations would be applicable to foreign-flag vessels is determined in part by the jurisdictional and enforcement provisions of the Act. Liability for civil penalties for injuring sanctuary resources or otherwise violating sanctuary regulations is imposed on “any person subject to the jurisdiction of the United States.”²⁹ Vessels used in a violation of the Act or its regulations are subject to liability *in rem* and may be subject to a maritime lien for any civil or criminal penalties or to forfeiture.

Section 305 of the Sanctuaries Act states that the Act and its implementing regulations “shall be applied in accordance with treaties, conventions, and other agreements to which the United States is a party” and that:

²⁶ 16 U.S.C. §1439. This provision was rewritten by the 2000 amendments to make the Secretary’s regulatory power explicit. P. L. 106-513, section 9, 114 Stat. 2387. See Senate Report No. 106-353 and Statement by the President, 2000 USCCAN, p. 2183.

²⁷ See footnote 21, above (language from the proposed revised designation document).

²⁸ 16 U.S.C. §1437(k). Congress added this language by an amendment in 1992 to provide that the Sanctuaries Act and regulations “are fully enforceable as domestic law within the 12-mile territorial sea of the U.S., and to clarify the authority of the Secretary to designate, and enforce the regulations of, national marine sanctuaries in the U.S. EEZ, consistent with international law. House Report 102-758, 1992 USCCAN, p. 4273.

²⁹ 16 U.S.C. §1437(c),(d). The term “person” is defined to include “any private person or entity, or any officer, employee, agent, department, agency, or instrumentality of the Federal Government, of any State or local unit of government, or of any foreign government.” 33 USCA §1402(e) and 16 USCA §1432 (additional definitions note set out under section 1342).

No regulation shall apply to or be enforced against a person who is not a citizen, national, or resident alien of the United States, unless in accordance with –

- (1) generally recognized principles of international law;
- (2) an agreement between the United States and the foreign state of which the person is a citizen; or
- (3) an agreement between the United States and the flag state of a foreign vessel, if the person is a crewmember of the vessel.³⁰

This savings clause language has been interpreted by the State Department as authorizing navigation-related restrictions on foreign vessels as needed to protect sanctuary resources.³¹ Under this provision, regulations protecting right whales as sanctuary resources could be enforced against foreign vessels under the U.S. authority as a port state to regulate vessels en route to its ports and as a coastal state to vessels transiting the U.S. territorial sea or EEZ, reflecting generally recognized principles of international law, as discussed in Part IV, below.

If the Secretary were to adopt Sanctuaries Act regulations to protect right whales from collisions with domestic and foreign-flag vessels, Section 304 of the Sanctuaries Act would require that before such vessel restrictions were adopted, the Secretary consult with the Coast Guard. The intent of the Act is clearly to encourage the coordinated exercise of all the regulatory and management authority of all federal and other agencies.³²

- (c) The Sanctuaries Act requires federal agencies to consult with the Secretary if their activities are likely to cause injury to sanctuary resources, including right whales.

³⁰ 16 U.S.C. §1435(a). This section was added in 1984 to require that regulations issued under the authority of Section 304 be in accord with international law. See Senate Rpt. No. 98-280, 1984 USCCAN, p. 3909.

³¹ When the Flower Garden Banks, located about 106 miles off the coast of Texas, were proposed for designation as a national marine sanctuary, in order to protect the banks from anchoring by foreign vessels waiting to enter U.S. ports as well as transiting the Gulf of Mexico, the State Department sent a letter to Dr. Nancy Foster, Chief of the Sanctuary Programs Division, advising: "The Department [of State] believes that the United States does have jurisdiction to prohibit anchoring in the area, except for anchoring required by force majeure." Letter from Edmund E. Wolfe, Deputy Assistant Secretary for Oceans and Fisheries Affairs to Dr. Nancy Foster, Chief, Sanctuary Programs Division, April 19, 1984, quoted in NOAA, Notice of active candidate status for the Flower Garden Banks, 49 Fed. Reg. 30990 (Aug. 2, 1984).

³² 16 U.S.C. §1434(d). While the Act contains a specific provision on the procedure for coordinating the development of fishing regulations, 16 U.S.C. §1434(a)(5), there is no specific provision for coordinating the development of sanctuary regulations on vessel or watercraft operations. Congress presumably relied upon the interagency comment process under the National Environmental Policy Act (NEPA), 42 U.S.C. 4332(2)(C), and on the interagency cooperation provision of Section 304(d).

The interagency cooperation section makes all federal agency actions, whether within or outside a national marine sanctuary, potentially subject to consultation with the Secretary, depending upon the action's potential effect. Federal agency actions subject to sanctuary consultation include private activities that are authorized by federal agency actions, including licenses, leases, or permits, "that are likely to destroy, cause the loss of, or injure any sanctuary resources. 16 U.S.C. §1434(d)(A).³³

The sanctuary consultation is triggered if the federal agency action, in the view of the action agency, is likely to injure or cause the loss of any sanctuary resource.

- (d) The international cooperation provisions of the Sanctuaries Act provide a basis for the Secretary of Commerce to submit navigation measures to protect right whales to the IMO for consideration.

To ensure international cooperation with the sanctuaries program, the Act directs the Secretary of State to consult with the Secretary of Commerce and negotiate with other governments to make necessary arrangements for the protection of any national marine sanctuary and to promote the purposes for which the sanctuary is established. 16 U.S.C. §1435(b). Similarly, the Commerce Secretary is directed to, in consultation with the Secretary of State and other federal agencies as appropriate, "cooperate with other governments and international organizations in furtherance of the purposes and policies of this chapter and consistent with applicable regional and multilateral arrangements for the protection and management of special marine areas." 16 U.S.C. §1435(c). This language does not specifically require the secretaries to seek the cooperation of other shipping nations through the IMO before adopting regulatory or other measures. It does, however, provide a basis for the Commerce Secretary to do so. NOAA has used this process, for example, to increase protection of the Monterey Bay and Channel Islands national marine sanctuaries, as described in III.C., below. Consultation with the IMO would constitute negotiating for the "necessary arrangements" to protect sanctuaries such as Stellwagen Bank and to promote the purpose for which it was established, which included the improved protection of whales utilizing the Bank for migration, feeding, and other essential activities.³⁴

³³ Agencies must submit a statement describing the proposed action and its potential effects on sanctuary resources (which would include right whales in the case of Stellwagen) no later than 45 days before final approval of the agency action. The Secretary must recommend reasonable and prudent alternatives to that proposed federal action, and the federal agency must consult with the Secretary on these recommendations, but need only provide a written explanation of reasons for deciding not to follow the alternatives presented by the Secretary.

³⁴ Subsection (c) of Section 305, 16 U.S.C. §1435(c), was added by 1992 amendments to the Sanctuaries Act. Pub. L. 102-587, Title II, section 2105, Nov. 4, 1992, 106 Stat. 5043.

B. The Authority of the Coast Guard

The secretary of the department that is responsible for the Coast Guard has extensive regulatory authority under the Coast Guard's authorizing laws.³⁵ These authorities include the general maritime enforcement statutes³⁶ and the specific regulatory authority under the Ports and Waterways Safety Act and the Endangered Species Act. Together, these two statutes provide a legal basis for the Coast Guard to enact vessel traffic management measures to reduce the risk of ship strikes to the North Atlantic right whale.

1. The Coast Guard has general maritime enforcement authority to enforce whale protection measures.

Under the general maritime enforcement statutes, the Coast Guard is the primary maritime enforcement agency for regulations and laws enacted to protect living marine resources, including fisheries, marine mammals, and endangered or threatened marine wildlife. Specific statutory authority for the law enforcement activities of the Coast Guard is provided in 14 U.S.C. §2, which provides that "[t]he Coast Guard shall enforce or assist in the enforcement of all applicable laws on, under, and over the high seas and waters subject to the jurisdiction of the United States." Also, 14 U.S.C. §89 authorizes U.S. Coast Guard active duty, commissioned, warrant and petty officers to enforce all applicable U.S. law. Personnel of the Coast Guard may enforce federal law in all waters subject to U.S. jurisdiction and in international waters, as well as on all vessels subject to U.S. jurisdiction, which includes U.S.-flag, foreign and stateless vessels.

2. The Coast Guard has regulatory and enforcement authority and species protection responsibility under the Endangered Species Act.

The Coast Guard has authority to promulgate "such regulations as may be appropriate to enforce" the ESA, and the power to enforce the regulations promulgated by other federal agencies, under Section 11(e) and (f) of the ESA. Under Section 7(a)(1) and (2) of the ESA, the Coast Guard has a duty to use all its authorities to meet the goals of the ESA and to insure that its own activities and the activities of private or other public entities that it funds or authorizes are not likely to jeopardize listed species or result in the destruction or adverse modification of their critical habitat.

3. The Coast Guard has authority under the Ports and Waterways Safety Act to enact vessel operating requirements for protecting navigation and the marine environment which could encompass routing and other navigation measures to protect right whales, applicable to foreign vessels calling at or

³⁵ The U.S. Coast Guard is now within the Department of Homeland Security. Because the Coast Guard previously operated under the Department of Transportation, with the proviso that it would be moved to the Department of Defense in times of national emergency, many of the statutes authorizing Coast Guard refer to the Secretary of the department in which the Coast Guard is operating.

³⁶ 14 U.S.C. §2 and 14 U.S.C. §89.

departing U.S. ports.

The Ports and Waterways Safety Act gives the Secretary of Homeland Security the authority to adopt several kinds of vessel traffic and navigation-related regulations. These are (a) vessel traffic services for the busiest ports in the United States, (b) special orders for any vessel the Secretary believes does not meet applicable U.S. or international regulations or that poses a safety hazard, and (c) safe access routes for the movement of vessel traffic to and from ports or other places under U.S. jurisdiction.

Regulations adopted under the PWSA apply to all U.S. vessels and foreign vessels that are destined for or departing from a port or place subject to the jurisdiction of the United States. They do not apply to foreign vessels that are in innocent passage through the U.S. territorial sea or transiting through U.S. waters which form a part of an international strait, unless pursuant to an international treaty or agreement to which the United States is a party. 33 U.S.C. §1223(d). If, however, the Secretary adopts regulations to protect navigation and the marine environment, the Secretary is required to transmit the regulations via the State Department for consideration as international standards and thereby apply to transiting foreign vessels. 33 U.S.C. §1230(a).

- (a) Vessel Traffic Systems (VTS) are intended to be used for U.S. ports and areas with the heaviest vessel traffic.

The PWSA authorizes the Secretary to construct, operate, maintain, improve or expand vessel traffic services (VTS) in any port or place under the jurisdiction of the U.S., in the navigable waters of the U.S., or in any area covered by an international agreement negotiated under the PWSA.³⁷ A VTS may consist of measures controlling or supervising vessel traffic or for protecting navigation and the marine environment and may include, but need not be limited to reporting and operating requirements, surveillance and communications systems, routing systems and fairways.

The Oil Pollution Act of 1990 amended the PWSA to require the Secretary to require appropriate vessels which operate in an area of vessel traffic service to utilize or comply with that service. The PWSA also authorizes the Secretary to require vessels to install and use specific navigation and communication equipment. 33 U.S.C. §1223(a)(2). VTSs have been established for New York, Houston/Galveston, San Francisco, the Puget Sound/Juan de Fuca region (in cooperation with Canada), and Prince William Sound/Valdez. The port of Boston has an IMO-approved, non-mandatory traffic separation scheme (TSS) and a precautionary area at the junction of the Boston and New York TSSs, but not a VTS.

³⁷ 33 U.S.C. §1223(a)(1). The term “navigable waters of the U.S.” is defined as including all waters of the territorial sea of the U.S. as described in the Presidential Proclamation of Dec. 27, 1988. 33 U.S.C. §1222(5). The international agreements provision of the PWSA authorizes the Secretary to conclude agreements with neighboring nations to establish compatible vessel standards and VTSs, and with international bodies to establish VTSs in areas of the high seas. 33 U.S.C. §1230(b). The reference to high seas appears to mean waters beyond the navigable waters of the U.S., i.e., beyond the 12-mile territorial sea.

- (b) The Secretary has extensive non-VTS regulatory authority that could be used to prevent ship strikes.

In areas of vessel traffic where a VTS is not established, the PWSA authorizes the Secretary to establish a variety of other rules to protect navigation and the marine environment. These include rules for hazardous areas and port access routes.

- (i) Vessel traffic in or near areas frequented by right whales could be regulated as hazardous areas or hazardous conditions.

The Secretary may control vessel traffic in areas subject to the jurisdiction of the U.S. which the Secretary determines to be hazardous, or under conditions of reduced visibility, adverse weather, vessel congestion, or other hazardous circumstances by--

- specifying times of entry, movement, or departure;
- establishing vessel traffic routing schemes;
- establishing vessel size, speed, draft limitations and vessel operating conditions; and
- restricting operation, in any hazardous area or under hazardous conditions, to vessels which have particular operating characteristics or capabilities which he considers necessary for safe operation under the circumstances. 33 U.S.C. §1223(a)(4).

The Secretary may also require vessels destined for a port or place subject to the jurisdiction of the United States to transmit pre-arrival message if in the Secretary's view these are necessary for the control of the vessel and the safety of the port or the marine environment. 33 U.S.C. §1223(a)(5).

These non-VTS regulations could be adopted for vessels operating in areas of the territorial sea or EEZ known to be frequented by North Atlantic right whales if the Secretary determines that these areas are hazardous with respect to the risk of vessel collisions with whales. These regulations could apply seasonally, year-round, or on a dynamic management basis, depending on the nature of the hazard. Although the PWSA does not define "hazardous" as it is used in this provision, this interpretation is supported by other language in the statute. For example, the congressional findings and statement of policy in Section 1221 reflects an intent to provide for the supervision of vessel operations to reduce the possibility of damage to the "marine environment," which term is defined to mean, *inter alia*, the navigable waters (including the territorial sea), the waters and fishery resources of the EEZ, the waters, seabed, subsoil and resources of the outer continental shelf, and "the recreational, economic, and scenic values of such waters and resources." 33 U.S.C. §1222(1).

Before adopting vessel traffic measures, the Secretary is required to take into

account all relevant factors concerning navigation and vessel safety, protection of the marine environment, and the safety and security of U.S. ports and waterways, including the scope and degree of the hazard involved, vessel traffic characteristics, and the proximity of fishing grounds, oil and gas drilling operations, any other potential or actual conflicting activity. 33 U.S.C. §1224(a).

The Act authorizes and encourages the President to enter into negotiations and conclude and execute agreements with neighboring nations to establish compatible vessel standards and vessel traffic systems; to establish, operate and maintain international vessel traffic services in areas and under circumstances of mutual concern; and to enter into negotiations, through appropriate international bodies, and conclude and sign agreements to establish VTS in appropriate areas of the high seas. 22 U.S.C. §1230(b). This section would allow the U.S. to agree with Canada on joint measures to prevent ship collisions with right whales, as a circumstance of mutual concern.

- (ii) The Secretary may adopt port access routes in the form of designated fairways and traffic separation schemes in a manner that protects right whales from collisions with vessels proceeding to and from U.S. ports.

The PWSA requires the Secretary to designate port access routes consisting of necessary fairways and traffic separation schemes (TSS) for vessels proceeding to or from U.S. ports, whether operating in the territorial sea or in waters outside the territorial sea. 33 U.S.C. §1223(c). Although the goal of a TSS is to provide a safe access route for vessel traffic, a TSS may be aligned in a manner so that vessel traffic avoids areas of particular environmental sensitivity, including areas of known right whale concentrations. See discussion in III.C., below, of recent uses of this provision to protect national marine sanctuaries.

The Secretary is required to issue rules governing the use of the designated TSS or fairway, and may make the use of the designated fairways and TSSs mandatory for specific types and sizes of vessels, foreign and domestic. 33 U.S.C. §1223(c)(5)(B). The Secretary may also adjust the location or limits of designated TSSs or fairways from time to time, as necessary, “in order to accommodate the needs of other uses which cannot be reasonably accommodated otherwise.” 33 U.S.C. §1223(c)(5)(C). Before doing so, the Secretary must conclude that the adjustment will not unacceptably adversely affect the original purpose for which the TSS or fairway was designated if the need for it continues. If the Secretary designates or modifies an existing TSS, he or she must notify the IMO or other appropriate international organization. The Secretary must also seek cooperation of foreign governments in making it obligatory for their flag vessels to use any fairway or TSS the Secretary designates for any area of the high seas (i.e., beyond the U.S. territorial sea) to the same extent as U.S. vessels are required under the PWSA regulations. 33 U.S.C. §1223(c)(5)(D).

Before a port access route can be established the Secretary must undertake a port access routing study and invite public comment and consult with other federal

departments, including the Secretary of Commerce, and the states. The PWSA specifically requires that port access studies take into account “all other uses of the area under consideration” including the establishment or operation of marine sanctuaries, and “to the extent practicable, reconcile the need for safe access routes with the needs of all other reasonable uses of the area involved.” 33 U.S.C. §1223(c)(3). Within the designated area, the designation must recognize the paramount right of navigation over all other uses. 33 U.S.C. §1223(c)(1).³⁸

The port access routing provision required the Secretary to conduct a port access route study (PARS) for all U.S. ports within six months of enactment of the PWSA in 1978. Such studies were concluded by the mid-1980s. After the initial round of required PARSs, the Secretary is authorized to undertake “from time to time thereafter” further study of potential traffic density and the need for safe access routes for vessels. This suggests that the Secretary has an ongoing responsibility to conduct a PARS in connection with proposals to modify an existing port access route designation.³⁹ As discussed in III.C., below, the PARS has been used by the NOAA Sanctuaries Program of the National Ocean Service to coordinate the regulation and management of vessel traffic in and around the national marine sanctuaries.

- (c) The specific authorization in the PWSA for the two mandatory ship reporting systems does not preclude the Coast Guard’s adoption of additional navigational measures to protect right whales without specific congressional authorization.

Under a 1998 amendment to the PWSA, Congress specifically authorizes the Secretary, in cooperation with the International Maritime Organization, to implement and enforce two mandatory ship reporting systems (MSRS) to protect right whales.⁴⁰ These systems apply to vessels, 300 gross tons and greater, entering two designated right whale reporting areas off the northeastern and southeastern coasts of the U.S., to report their

³⁸ The Secretary is also required to take into account all relevant factors concerning navigation and vessel safety and protection of the marine environment in considering whether to set vessel operating requirements, including environmental factors and the scope and degree of the risk or hazard involved. 33 U.S.C. §1224(a)(6),(1).

³⁹ The results of the first PARS for the coast of New England were published in 1982, but no new routing measures were proposed, only minor modifications to the existing TSS in the approaches to Narragansett Bay, RI and Buzzards Bay, MA and a new precautionary area between the existing Nantucket to Ambrose and Boston Harbor TSS. The notice indicated that the proposed changes would not become effective until after they were adopted by the Maritime Safety Committee of the International Maritime Consultative Organization (now IMO). Coast Guard, Port access route study results, 47 Fed. Reg. 879 (Jan. 7, 1982). A second PARS was done for the Boston Approach area because of the Interior Department’s proposed sale of leases for OCS oil and gas exploration. The study later concluded that (1) that no safety fairway was needed because no OCS exploration was due to take place in the area, and (2) the existing TSS and precautionary areas at both ends of the TSS in the Boston approach could be incorporated into Part 167 of Title 33 of the Code of Federal Regulations.

⁴⁰ 33 U.S.C. §1230(d), added by the Coast Guard Authorization Act of 1997, Pub. L. No. 105-383, §313, 112 Stat. 3424 (1998).

name, call sign, true course, speed, destination, point of entry into the system, and route information. 33 CFR Part 169. An official with the Coast Guard in 2001 suggested in a comment letter that the language specifically authorizing the MSRSs is evidence that the PWSA only allows routing measures to protect the marine environment from damage resulting from damage to a vessel, e.g., a grounding or collision with another vessel. Under this interpretation, the PWSA does not authorize the Coast Guard to establish speed restrictions or other routing measures for the specific purpose of protecting living marine resources.⁴¹ However, given the broad language used in the PWSA, as discussed above, the 1998 amendment could be interpreted as a specific provision that allowed the Coast Guard to implement the IMO-approved routing measures expeditiously, without first undertaking a port access route study, as would be required under 33 U.S.C. §1223(c)(3)(A).⁴²

If the Coast Guard official's narrow interpretation of the port access routing authority is correct, the Coast Guard still has the legal authority and responsibility under the Endangered Species Act to enact regulations to insure that its actions, including maintenance of the Boston traffic approach lanes and management of Atlantic seaboard vessel traffic, do not jeopardize right whales.

C. Recent Applications of Domestic Authorities to Protect Marine Resources from Risks Due to Ship Traffic

The Secretary of Commerce and the Coast Guard have jointly exercised their authorities to reroute vessel traffic to protect several national marine sanctuaries.

The Sanctuaries Act has proven to be a useful vehicle for the coordination of the authorities of the Secretaries of Commerce and Transportation (now Homeland Security) to protect sensitive marine environments and wildlife habitats from the risks associated with vessel traffic. Recently, vessel management actions have been adopted to protect national marine sanctuaries and their natural resources offshore of the Pacific coast of the U.S.; these actions provide a model for possible joint action by the Coast Guard and NOAA in waters off the Atlantic coast.

⁴¹ Letter dated May 18, 2001 from J.P. High, Director of Waterways Management, U.S. Coast Guard, to P. Kurkel, Regional Administrator, NMFS Northeast Region, commenting on measures under consideration by the Ship Strike Committee of the Northeast and Southeast recovery plan implementation teams, available at http://www.rightwhales.documents/govt_report_2001_app_V.doc

⁴² The 1998 amendments also added a new definition of "navigable waters of the United States" to 33 U.S.C. §1222(5), extending navigable waters to 12 nautical miles from the baseline as set forth in Presidential Proclamation 5928 of Dec. 27, 1988. The House committee report accompanying the bill explained that this change "will enable the Coast Guard to establish vessel operating requirements, including traffic systems, for *all U.S. and foreign vessels* within the 12-mile territorial sea." The expansion would not, in the committee's view, affect innocent or transit passage rights of foreign vessels. Hse. Rep. No. 105-236, reprinted at 1999 USCCAN 794.

(a) Monterey Bay National Marine Sanctuary Offshore Routing

In a 1992 supplemental appropriations bill, Congress directed the Secretary to designate the Monterey Bay National Marine Sanctuary. The bill also directed the Secretary and the Secretary of Transportation, to determine whether measures for regulating vessel traffic in the Sanctuary were necessary to protect sanctuary resources. The secretaries were required to consult with the State of California and obtain public input in making its determination and to report their findings to Congress.⁴³ NOAA and the Coast Guard conducted a joint study, and the Coast Guard completed a port access route study in 1996. A joint working group in 1997-98 developed recommendations; the IMO approved the U.S. proposal for new vessel traffic routing measures in 2000. The measures include IMO-approved, recommended north-south tracks that move larger vessels further offshore (ranging from 13 to 20 nautical miles offshore) and ships carrying hazardous cargo 25 to 30 nautical miles offshore. To insure that vessels use the recommended tracks, the measures also created a new southern traffic separation scheme for the approach to San Francisco and an 18-mile extension of the traffic separation scheme for the Santa Barbara Channel.⁴⁴

(b) Olympic Coast National Marine Sanctuary Traffic Separation Scheme and Area To Be Avoided

A similar interagency effort preceding the Monterey Bay vessel management plan resulted in modifications to the vessel traffic management system near the Olympic Coast National Marine Sanctuary off Washington. The changes extended offshore the existing traffic separation scheme for the Straits of Juan de Fuca and expanded the scope of an existing area to be avoided (ATBA) to all vessels of 1600 gross tons and over that are solely in transit. These changes came about through a joint NOAA/USCG effort that resulted from a port access routing study commenced by the Coast Guard on its own initiative (i.e., not specifically mandated by Congress). In 1994, the IMO approved the proposal, including NOAA's proposed expanded ATBA.⁴⁵

(c) Channel Islands National Marine Sanctuary

The IMO has also adopted a U.S.-proposed area to be avoided for oil tanker traffic to protect the resources of the Channel Islands sanctuary from the risks of oil pollution associated with the heavily-traveled Santa Barbara Channel. There is also a voluntary oil industry agreement to route tanker traffic 50 miles offshore. A conservation working group of the Channel Islands National Marine Sanctuary has recently recommended additional measures, including speed limits for large vessels to protect

⁴³ Title I, supplemental appropriations act of 1992, H.R. 5620, Sept. 23, 1992, codified at 16 U.S.C. §1433 Note.

⁴⁴ Coast Guard, Final rule, Traffic Separation Schemes: Off San Francisco, in the Santa Barbara Channel, in the Approaches to Los Angeles-Long Beach, CA, 65 Fed. Reg. 46603 (July 31, 2000).

⁴⁵ NOAA, National Ocean Service, Notice, Amendments to the Area to be Avoided Off the Olympic Coast National Marine Sanctuary, 667 Fed. Reg. 70933 (Nov. 27, 2002).

humpback and blue whales that concentrate on the north side of the Channel Islands during the summer months and gray whales that are present in the area several months of the year.

IV. Authority of United States under International Law to Adopt Measures Unilaterally

A. Introduction

Although the international community has recognized the importance of protecting North Atlantic right whales, it has not specifically authorized measures by coastal states to protect right whales against ship strikes.

A number of international agreements reflect the concern of the international community about the protection of whales. UNCLOS Article 65 recognizes the coastal state's authority to adopt conservation measures for marine mammals more stringent than the general international rules regulating the conservation of living resources. More generally, Article 194(5) requires states to take measures "necessary to protect and preserve ... the habitat of depleted, threatened or endangered species and other forms of marine life." Several international regimes have singled out the North Atlantic right whale as requiring special protection, and have recognized ship strikes as a major threat. In approving a U.S. proposal to establish a mandatory ship reporting system to protect the right whales, the Maritime Safety Committee (MSC) of the International Maritime Organization (IMO) noted in 1998: "Ship strikes are the species' largest known source of human-related mortality. Since 1991, approximately 50% of the recorded right whale mortalities have been attributed to ship strikes." In 2000, the International Whaling Commission (IWC) came to the same conclusion, finding that, despite being protected from whaling since the 1930s, the North Atlantic right whale is projected to become extinct if trends continue, and that ship strikes are one of the major causes of human-induced mortality. Similarly, the Convention on International Trade in Endangered Species (CITES) lists the North Atlantic right whale as an endangered species in Appendix I and protects it against international trade.

None of these international regimes, however, imposes any specific requirement on the U.S. to protect the right whales against ship strikes, or authorizes the U.S. to adopt unilateral measures. For example, CITES relates only to international trade in endangered species, not other human activities that may threaten a species. The resolution of the IWC adopted in 2000 called upon the United States and Canada:

to continue to pursue actively practicable actions to reduce as far as possible ship strikes on right whales, in particular by using the information from the Mandatory Ship Reporting System to assess further mitigation steps, including adjustment of traffic. (IWC 2000)

However, the International Whaling Commission does not have any regulatory authority under the International Convention on the Regulation of Whaling to adopt or authorize navigational measures.

B. 1982 UN Convention on the Law of the Sea

The 1982 UN Convention on the Law of the Sea (UNCLOS) sets forth the general jurisdictional rules that govern whether measures adopted by the U.S. to protect right whales against ship strikes are permissible under international law. UNCLOS establishes a comprehensive regime for the allocation of jurisdiction among states in marine areas, including the territorial sea and exclusive economic zone (EEZ). Part II of UNCLOS addresses the territorial sea, Part V addresses the EEZ, and Part XII sets forth general rules regarding protection of the marine environment.

UNCLOS entered into force in November 1994 and currently has 143 states parties. Although the United States is not a party to UNCLOS, it considers many of its provisions to reflect customary international law. Any proposal to take measures inconsistent with the jurisdictional rules in UNCLOS would be controversial internationally and would be likely to meet strong opposition from the Navy, the Department of State, and the Coast Guard.

C. Flag State Jurisdiction

International law does not limit the authority of the U.S. to adopt measures for its own flag vessels to protect North Atlantic right whales against ship strikes. Flag state jurisdiction is the core type of jurisdiction under the law of sea. Flag states (nations registering a vessel and allowing it to fly its flag) have virtually plenary power to control the activities of their vessels. Thus, the United States indisputably could impose navigation, equipment (e.g., forward sonar) and manning requirements (e.g., lookouts) on its flag vessels in order to protect right whales against ship strikes.⁴⁶

D. Port State Jurisdiction

International law does not limit the authority of the U.S. to impose on foreign vessels, as a condition of port entry, measures to protect North Atlantic right whales against ship strikes. "Port state" jurisdiction refers to the jurisdiction of a state over vessels entering its ports. Port state jurisdiction is generally distinguished from the jurisdiction of a coastal state over activities taking place in, or affecting, the coastal state's waters.

U.S. agencies appear to agree that, as a legal matter, the United States has jurisdiction to require ships entering its ports to comply with routing requirements and speed limits designed to protect right whales, including requirements applicable to

⁴⁶ See discussion, above in Part III for domestic authorities to adopt such requirements.

navigation in the U.S. EEZ or even on the high seas.⁴⁷ It is generally accepted that states may, with few exceptions, exclude vessels from entering their ports and, accordingly, may prescribe particular requirements on vessels as a condition of port entry. *See* UNCLOS arts. 25(2), 211(3). The Senate Foreign Relations Committee's draft resolution on U.S. ratification of UNCLOS includes an understanding that UNCLOS "recognizes and does not constrain the long-standing sovereign right of a State to impose and enforce conditions for the entry of foreign vessels into its ports, rivers harbors or offshore terminals, such as a requirement that ships exchange ballast water beyond 200 nautical miles from shore."⁴⁸ UNCLOS provides only that, if a state establishes particular requirements for port access, it shall give "due publicity to such requirements and communicate them to the competent international organization" (i.e., IMO) (UNCLOS art. 211(3)).

The exact extent of port state jurisdiction is disputed. Some commentators view port state jurisdiction as essentially plenary (i.e., unlimited). On this view, port states have the general power to impose and enforce navigational requirements on a vessel entering or departing from its ports relating to the vessel's actions in the port state's EEZ or on the high seas. However, other commentators argue that a port state may not establish conditions of port entry that concern a vessel's behavior before (or after) it enters port unless "there exists a sufficiently close or substantial connection with the port State, for example under the effects or impact principle" (Molenaar 1998, at 102). On this view, a port state would lack jurisdiction to impose, as a condition of port entry, requirements concerning a vessel's activities on the high seas that had no effect on the port state, since this would exceed the port state's prescriptive jurisdiction under generally accepted principles of international law (Smith 1988, at 176). In addition, a port state's jurisdiction to enforce these requirements on vessels departing from its ports would be subject to the general limitations imposed by the Law of the Sea on enforcement measures undertaken beyond the territorial sea.⁴⁹

However, even under the more restrictive theory of port state jurisdiction, the United States would have a strong jurisdictional basis to impose requirements aimed at protecting the North Atlantic right whale against ship strikes on vessels coming to or from a U.S. port. UNCLOS recognizes the interest of coastal states in the conservation of

⁴⁷ The designated critical habitat for the North Atlantic right whale is traversed by shipping lanes and routes into ports in the northeastern and southeastern U.S. NMFS, Final rule, Designated critical habitat; Northern Right Whale, 59 Fed. Reg. 28793, 28796 (June 3, 1994), codified at 50 C.F.R. §226.203.

⁴⁸ Draft Resolution on Senate Advice and Consent to UNCLOS, §3, para. 13.

⁴⁹ With respect to vessel-source pollution, Article 220(1) permits a state to institute proceedings against vessels voluntarily within its port for any violation of its laws and regulations adopted in accordance with international law. Article 220(2) also permits a coastal state to undertake a physical inspection of a vessel navigating in its territorial sea where there are clear grounds for believing that the vessel has violated its laws and regulations during the vessel's passage in the territorial sea (and to institute proceedings when the evidence warrants). However, Article 220(3) allows a coastal state to undertake a physical inspection of (and institute proceedings against) a vessel navigating in its EEZ only for violations of *international* rules and standards resulting in a "substantial [pollution] discharge," not for violations of *national* rules and standards relating more generally to environmental protection.

highly migratory species and, in particular, whales (UNCLOS Articles 64, 65). This coastal state interest in conserving marine living resources would give the United States a sufficient jurisdictional nexus to impose requirements aimed at protecting right whales that spend significant time in U.S. coastal waters. Moreover, the United States could seek to expand the coverage of these requirements by working with Canada to establishing identical conditions of entry into Canadian ports.⁵⁰ Finally, whether or not the United States could take enforcement actions beyond the territorial sea for violations by departing vessels of its port access provisions, the United States has strong enforcement options available, including banning a vessel from U.S. ports in the future, taking enforcement action if the vessel later returns to a U.S. port, and imposing civil liability.

Although the United States has the legal authority to impose port state measures, as a policy choice the United States has generally adopted an “open port” policy, in part so as to discourage other states from imposing onerous conditions of port entry and thereby hindering international trade. Accordingly, the United States has rarely exercised its port state authority under the Law of the Sea. One instance is the double hull requirement in the Oil Pollution Act (OPA), which the United States imposed on foreign tankers as a condition of port access. Pub. L. No. 101-380, § 4115, 46 U.S.C. § 3702(e). The ballast water discharge requirements currently under development by the Coast Guard under the National Invasive Species Act of 1996 (NISA), also appear to rest on U.S. port state jurisdiction insofar as they apply to foreign vessels.⁵¹ In both cases, the exercise of port state jurisdiction by the United States has a strong nexus to the United States – in the case of OPA, the double hull requirement helps protect U.S. coastal areas from oil pollution; in the case of NISA, the proposed ballast water discharge requirements would help limit the introduction of non-indigenous species into U.S. coastal waters.⁵²

Whether measures that applied only to ships entering or leaving U.S. ports would be effective in protecting the right whales would depend in part on whether major shipping routes with significant non-U.S. bound traffic pass through the areas requiring protection. During the first year of operation of the U.S. mandatory ship reporting systems, from July 1999 until July 2000, the vast majority of the vessels reported destinations in the United States. Only 40 of the 978 valid ship reports analyzed reported a destination outside of the United States (e.g., St. John, New Brunswick) (Silber et al. 2002). Moreover, for those heading to a Canadian port, the United States could seek a port state agreement with Canada that would adopt identical measures for vessels bound for Canadian ports on the East Coast. So it appears that port state regulation could be a quite effective tool to limit ship strikes of right whales.

⁵⁰ If the United States and Canada were to pursue this cooperative approach, UNCLOS requires that they give notice to the IMO (UNCLOS, Article 211(3)).

⁵¹ See 68 Fed. Reg. 55559-60 (Sept. 26, 2003). In addition to developing this rulemaking under NISA, the Coast Guard leads the U.S. delegation that is participating in a ballast water working group of the IMO’s Marine Environmental Protection Committee to develop international standards.

⁵² 16 U.S.C. 4701 et seq.

E. Coastal State Jurisdiction

For foreign flag vessels transiting U.S. coastal waters but not entering U.S. ports, the U.S. could adopt routing and other navigational measures in its territorial sea to protect right whales. But it is questionable whether the U.S. could adopt such measures in its EEZ without IMO approval.

1. Territorial sea

Part II of UNCLOS defines the territorial sea as a belt of water up to 12 nautical miles wide (Article 3) over which the coastal state exercises sovereignty (Article 1), subject to the right of foreign vessels to innocent passage through the territorial sea (Article 17). Coastal states have the sovereign right in their territorial sea to adopt laws and regulations for “the conservation of the living resources of the sea” and “protection of the marine environment” (UNCLOS, art. 21(d), (f); see also art. 211(4)), and foreign flag vessels exercising the right of innocent passage have a duty to comply with laws and regulations adopted in conformity with the Convention (UNCLOS art. 21(4)). State practice “confirms the existence of ...unilateral coastal State power to regulate navigation in the territorial sea.” (Molenaar 1998, at 227). For example, at least four states have unilaterally adopted mandatory ship reporting schemes or vessel traffic safety schemes (VTS): Canada, France, Sweden and the United States (Molenaar 1998, at 227-28).

UNCLOS, art. 22(1) specifically allows a coastal state to adopt sea lanes and traffic separation schemes “where necessary having regard to the safety of navigation.” In designating sea lanes in the territorial sea, coastal states “shall take into account” the recommendations of the International Maritime Organization (art. 22(3)(a)), but the designation of sea lanes is not dependent on IMO approval (Molenaar 1998, at 204, 212-13; Ijlstra 1989, at 229). This view is confirmed by IMO’s General Provisions on Ships’ Routing, which clearly presuppose that a coastal state may adopt routing measures for its territorial sea without IMO approval (General Guidelines, §§ 3.11, 3.15, 3.16). To the extent that sea lanes and traffic separation schemes to protect right whales have a “safety of navigation” justification, then there is no question that they could be adopted under UNCLOS article 22. However, authorities differ as to whether Article 22 also encompasses routing measures adopted solely for environmental purposes.⁵³

Although the United States has the legal right to adopt sea lanes in its territorial sea (including, arguably, for strictly environmental purposes), the United States has not, in practice, adopted any sea lanes unilaterally for many years. Instead, the United States has preferred, as a policy matter, to obtain IMO approval. For example, the United States submitted all the traffic separation schemes for the northeastern United States for IMCO/IMO approval to obtain international recognition (including not only those in the EEZ, for which IMO approval was needed, but also in the territorial sea, where the United States has authority to regulate). See 47 Fed. Reg. 879, 880 (Jan. 7, 1982) (Coast

⁵³ Compare Molenaar, 1998, at 204 (sea lanes may be adopted for an environmental purpose) with Nordquist 1991 (sea lanes may be adopted only for safety purposes).

Guard notice of port access route study results). IMO approval not only ensures greater notice and publicity of routing measures, but also promotes greater buy-in by the international shipping community.

Under article 24(1) of UNCLOS, coastal state navigational measures – including any measures adopted to protect the right whale – may not “have the practical effect of denying or impairing” or otherwise “hampering” the right of foreign vessels to innocent passage.⁵⁴ Although UNCLOS does not generally spell out what types of coastal state measures hamper innocent passage – this would depend on the context and require a case-by-case balancing – Article 21(2) specifically prohibits coastal states from adopting laws and regulations regarding the construction, design, equipment or manning (CDEM) of foreign ships, except in order to give effect to “generally accepted international rules or standards” (i.e., those found in IMO conventions such as MARPOL and SOLAS). The draft Senate Foreign Relations Committee resolution approving UNCLOS includes an understanding providing that this provision does not apply to traffic separation schemes, ship routing measures, speed limits, reporting requirements, and record-keeping requirements.⁵⁵ But it would appear to preclude the United States from adopting special manning (e.g., lookout) or equipment (e.g., forward-sonar) requirements for foreign vessels that transit the U.S. territorial sea and do not enter a U.S. port, unless such measures were also adopted by IMO as generally accepted international rules or standards. The lack of authority to adopt CDEM measures for transiting foreign-flag vessels, however, would seem to strengthen the coastal state’s case for re-routing vessel traffic away from an endangered whale species’ critical habitat, in order to conserve marine living resources pursuant to Article 21(1)(d).

2. Exclusive Economic Zone

Part V of UNCLOS defines the exclusive economic zone (EEZ) as an area beyond the territorial sea up to 200 miles wide (Articles 55 and 57) and sets forth general rules balancing the right of coastal states to conserve and protect the resources and environment of its EEZ (Article 56) against the right of other states to the traditional high seas freedom of navigation (Articles 58, 87). These rules are supplemented by the more specific rules for the protection of the marine environment set forth in Part XII of UNCLOS.

Article 56 of UNCLOS gives coastal states:

- “sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources” of the EEZ (Article 56(1)(a));

⁵⁴ If a vessel commits an “act of willful and serious pollution”, then its passage is no longer considered innocent. UNCLOS art. 19(2)(h). If a vessel struck a right whale, this would render the passage non-innocent only if the ship strike were considered (a) an act of serious pollution, and (b) willful in nature.

⁵⁵ Draft Senate Resolution, §3, para. 14.

- “jurisdiction” to adopt laws and regulations for “the protection and preservation of the marine environment” (Article 56(1)(b)(iii)).

In exercising these rights, a coastal state must give “due regard to the rights and duties of other States” (Article 56(2)), including the right of other states to freedom of navigation (Article 58).

U.S. authority to adopt navigation measures to protect the right whale could rest on two bases: (1) coastal state jurisdiction to protect the marine environment under Article 56(1)(b); and (2) the “sovereign right” of a coastal state to protect the natural resources of its EEZ under Article 56(1)(a). The following sections examine these rationales in turn.

- (a) Coastal state jurisdiction to protect the marine environment of the EEZ against “pollution” from vessels is limited to the application and implementation of international standards.

If navigation measures to protect the right whales were considered to be an environmental protection measure, then they would be subject to the specialized regime set forth in Part XII of UNCLOS for the “protection and preservation of the marine environment.”

- (i) For both textual and structural reasons, ship strikes could be regarded as a type of “pollution” within the meaning of UNCLOS.

In considering how Part XII might apply to the issue of ship strikes, a threshold question is whether a ship strike constitutes “pollution.” If so, then the restrictive rules set forth in Article 211 of UNCLOS, governing pollution from vessels, would apply, which preclude the unilateral imposition of navigation standards by a coastal state in its EEZ.

Article 1(4) of UNCLOS defines pollution as:

“the introduction by man, directly or indirectly, of substances or energy into the marine environment ... which results or is likely to result in such deleterious effects as harm to living resources and marine life...”

According to this definition, ship strikes might be considered to constitute “pollution,” since ships moving through areas frequented by right whales represent the introduction by humans of substances (the ships) or energy (the movement of the ships) that is likely to result in deleterious effects to marine life. This interpretation of Article 1(4) is bolstered by the structure and purpose of Part XII, which attempts to address the protection of the marine environment in a comprehensive manner. If ship strikes were not considered to be pollution, then no specific provision of Part XII would cover coastal state measures to address ship strikes and Part XII would fail to achieve its goal of comprehensiveness. Arguably, Part XII avoids such a result through its implicit

assumption that “pollution” is the converse of “environmental protection,” and that any activity by humans that harms the marine environment (including ship strikes) represents “pollution.”

- (ii) Article 211 limits coastal state jurisdiction to control pollution of its EEZ to the application and enforcement of international standards.

Article 211(5) of UNCLOS sets forth the specific rules governing coastal state jurisdiction to prevent, reduce and control pollution from vessels in the exclusive economic zone. It provides that coastal states may adopt laws and regulations relating to the EEZ only to the extent that the laws and regulations conform to “generally accepted international rules and standards established through the competent international organization or general diplomatic conference.” As discussed below, the phrase “generally accepted international rules and standards established through the competent international organization” is generally regarded as referring to IMO measures (Molenaar 1998, at 136-37). Thus, Article 211(5), if applicable, precludes the adoption by the United States of national measures relating to the navigation, equipment or manning of foreign vessels in the U.S. EEZ.⁵⁶

Article 211(6) allows coastal states to adopt more stringent measures for clearly defined areas of their EEZ, where special circumstances make the generally-accepted international rules and standards inadequate. However, any national measures that are additional to the international rules or standards or navigation practices generally applicable for special areas may be applied to foreign vessels only if submitted to and approved by the IMO (Article 211(6)(c)).

- (b) It is unclear whether the provisions of UNCLOS recognizing the sovereign right of coastal states to conserve the marine living resources of the EEZ provide the U.S. with any additional jurisdiction to protect the right whales against ship strikes.

To avoid the limitations imposed by Article 211 on coastal state jurisdiction over marine pollution, the United States might attempt to justify measures to protect against ship strikes as resource conservation rather than environmental protection measures. On this theory, U.S. regulatory authority over ship strikes would rest on its sovereign right to conserve the living resources of its EEZ (pursuant to Article 56(1)(a)) rather than on its jurisdiction to protect and preserve the marine environment (pursuant to Article 56(1)(b)(iii)). As coastal state’s sovereign right to conserve its natural resources is limited only by the general duty to give “due regard” to the rights of other states (Article 56(2)), including freedom of navigation, rather than by the more specific types of restrictions found in Part XII. Thus, so long as the United States could establish that its navigation measures to protect right whales against ship strikes showed “due regard” to freedom of navigation, it could adopt such measures on its own, without IMO approval.

⁵⁶ In contrast to Article 22, Article 211 does not contain any provision that specifically permits coastal states to adopt sea lanes and traffic separation schemes in their territorial seas without IMO approval.

A possible precedent for this theory was the adoption by the United States in the 1980s, without IMO approval, of no-anchoring measures for the Flower Garden Banks Marine Sanctuary, which appear to have been rationalized in part as resource conservation rather than pollution prevention measures (Archer 1988, at 57-58; Bodansky 1991, at 766; Hajost 1988, at 293-94). In general, the “due regard” standard calls for a balancing of coastal and flag state interests. Like the duty of coastal states not to “hamper” innocent passage, it is context-dependent and requires a case-by-case determination.

Although the text of UNCLOS does not exclude this approach, a number of arguments might be raised against it. First, this approach arguably undercuts the specific limitations on coastal state jurisdiction to control marine pollution set forth in Part XII, since virtually any marine environmental measure could be re-characterized as a resource conservation measure. For example, laws and regulations to protect against oil pollution from ships, although clearly within the scope of Part XII, could also be viewed as measures to conserve EEZ resources, including birds, marine mammals, coral reefs and so forth, rather than as environmental measures. As such, they would not be limited by Article 211(5). In effect, this approach would undermine the careful balancing of coastal and flag state interests that was one of the principal purposes not only of Article 211 specifically and Part XII generally, but of UNCLOS as a whole (*Cf.* Molenaar 1998, at 418).

Second, this interpretation would lead to the anomalous result that a coastal state would have broader authority in its EEZ than in its territorial sea. For example, Article 21(2) specifically forbids coastal states from adopting national construction, design, equipment and manning (CDEM) standards for foreign ships in innocent passage in the territorial sea.⁵⁷ But, if Article 211(5) does not apply, then UNCLOS does not impose a similar prohibition against a coastal state adopting such standards as a resource conservation measure applicable to foreign ships transiting the EEZ.

Third, all of the specific provisions in Part V that elaborate Article 56(1)(a)’s general statement of the coastal state’s sovereign right to conserve EEZ resources focus on resource exploitation activities (in the case of living resources, fishing) rather than on activities that affect EEZ resources indirectly.⁵⁸ This suggests that Article 56(1)(a) may have been intended to focus on direct human exploitation of resources, while Article 56(1)(b)(iii) may have been intended to focus on indirect impacts (which the Convention regards as “pollution”), including habitat degradation and accidental, non-fishing related takes.

⁵⁷ UNCLOS defines “passage” as “navigation through the territorial sea for the purpose of traversing that sea without entering internal waters” (art. 18(1)). Vessels entering port are not considered to be in “passage” through the territorial sea and, as noted above, may be required to conform to the coastal state’s CDEM requirements as a condition of port entry.

⁵⁸ For example, the conservation and management measures in article 61 all relate to exploitation through fishing and hunting, not indirectly through habitat alteration, and the indirect take from commercial fishing is covered in the by catch provision in article 61(4). Also, article 65 suggests that conservation is in relation to exploitation of resources, not protection against other threats.

Finally, with respect to the NOAA Flower Garden Bank regulations – the main precedent for the theory that Article 56(1)(a) provides a general basis for resource conservation measures broader than those allowed by Part XII – the authority of the United States under the Law of the Sea to adopt routing and no anchoring provisions for Flower Garden Banks has been controversial (*See, e.g.*, Molenaar 1998, at 417-18). Moreover, the U.S. subsequently sought and obtained IMO approval for mandatory no-anchoring areas at the Flower Garden Banks National Marine Sanctuary by ships greater than 100 feet, suggesting that, in the end, the United States believed it would be better off – either for legal or policy reasons or both – having international approval rather than going it alone.

- (c) Even if the U.S. lacks jurisdiction in its EEZ to prescribe measures to protect the right whale, it could issue a notice to mariners setting forth the measures it believes are necessary to protect the right whale against ship strikes.

Rather than prescribe measures unilaterally to protect the right whales, the U.S. could issue a notice to mariners – either on its own or in conjunction with Canada and Mexico – setting forth the measures that the U.S. believes are necessary to protect the right whale. If foreign flag states failed to implement these measures after a reasonable period of time, the U.S. could argue that the foreign flag states had violated their duty under Article 58(3) to pay “due regard” to U.S. coastal state interests, their duty under Article 65 to cooperate in the conservation of marine mammals, and their duty under Article 194 to take measures to protect the marine environment, including the habitat of rare and endangered species. This would then entitle the United States to take “countermeasures,” including measures that would otherwise be prohibited by international law, such as (arguably) unilateral requirements to protect the right whales. The International Law Commission Draft Articles on State Responsibility require that, before a state resorts to countermeasures, it must first call on the other state to fulfill its obligations, then notify that state of its intent to take countermeasures and offer to negotiate.⁵⁹

V. IMO Authority to Authorize Navigation Measures to Prevent Ship Strikes of Right Whales

A. Introduction

The International Maritime Organization (IMO) is a United Nations technical agency founded in 1948. An amendment to the IMO Charter adopted in 1975 added “the prevention and control of marine pollution from vessels” to the list of purposes of the IMO.

Given the uncertainties about U.S. coastal state authority to adopt mandatory navigation measures, and the long-standing U.S. practice of seeking IMO approval of routing measures to protect the marine environment, the least controversial approach, as a

⁵⁹ ILC Draft Articles on State Responsibility, art. 52(1).

legal and policy matter, would be to seek approval for proposed measures from the IMO. This was the approach adopted by the United States in 1998 for the adoption of a mandatory ship reporting system to protect the right whales, and by Canada in 2002 to move its traffic separation scheme in the Bay of Fundy (Gov't of Canada 2002). As a policy matter, IMO adoption of navigation measures has benefits in terms of notice, dissemination, and legitimacy. Seeking IMO approval, however, could take considerable time, and might delay the implementation of necessary measures to protect the right whale.

B. IMO Authority under UNCLOS

UNCLOS recognizes IMO's special authority to adopt navigation and pollution-control measures. Although UNCLOS does not specifically identify the IMO, the IMO is generally viewed as the "competent international organization" regarding measures relating to navigation, ship safety, and pollution from vessels (Molenaar 1998, at 136, 441). Under Article 211(1) of UNCLOS, states have a duty to act through the "competent international organization" to establish rules and standards relating to vessel-source pollution and to "promote the adoption ... wherever appropriate, of routing systems designed to minimize the threat of accidents that might cause pollution of the marine environment." UNCLOS Article 211(6) also gives the "competent international organization" authority to approve mandatory national pollution-control measures for clearly-defined areas where special circumstances make the generally-accepted international rules and standards inadequate.

C. IMO Authority under SOLAS

1. The IMO may adopt ships' routing measures for environmental purposes.

The IMO has adopted ships' routing measures as far back as the 1960s. Although originally these measures focused primarily on safety of navigation in congested areas, the IMO adopted an area to be avoided (ATBA) for pollution prevention reasons as early as 1967 (Peet 1994, at 471).

The Safety of Life at Sea Convention (SOLAS) designates IMO as the authoritative institution to adopt ships' routing measures. Routing measures are addressed in Chapter V, Regulation 10 of SOLAS.⁶⁰ Regulation V/10 specifically includes "protection of the marine environment" as one of the purposes that can be served by ships' routing systems.

Within the IMO, ships' routing measures are addressed by the Marine Safety Committee (MSC) and its Subcommittee on Safety of Navigation (NAV). Specific

⁶⁰ Until 2000, ships' routing measures had been addressed in Chapter V, Regulation 8. The 2000 Amendments, which entered into force in 2002, reorganized Chapter V of SOLAS and moved the ships' routing provision to Regulation 10.

guidelines and criteria for ships' routing systems are set forth in the "General Provisions on Ships' Routing," which were first adopted by the IMO General Assembly in 1973 (IMO Res. A.572(14)), and have been amended several times since then. The General Provisions on Ships' Routing (GPSR) provide that ships' routing measures may be used "for the purpose of preventing or reducing the risk of ... damage to the marine environment caused by ships colliding or grounding or anchoring in or near environmentally sensitive areas." This language would seem to encompass routing measures adopted to prevent ship strikes of right whales. Although the reference to collisions is with regard to "ships" plural, suggesting that only collisions between ships are contemplated, the inclusion of damage due to anchoring and grounding reflects an intent to authorize routing measures intended to prevent damage due to the direct impact of a vessel on sensitive features of the marine environment. As discussed in V.C.4., below, the adoption of the U.S. mandatory ship reporting system for right whales and the amendment of the Canadian traffic separation scheme in the Bay of Fundy both confirm that routing measures may be used to protect against ship strikes of right whales.

2. Many specific types of routing measures are available, including mandatory measures.

IMO ships' routing systems can include:

- " mandatory routing systems
- " traffic separation schemes (TSS) (addressed specifically in Chapter V, Regulation 11)
- " traffic lanes
- " roundabouts
- " inshore traffic zones
- " two-way routes
- " recommended tracks
- " deep-water routes
- " precautionary areas, within which ships must navigate with particular caution
- " areas to be avoided (ATBA).

Under an amendment to SOLAS adopted in 1995, the IMO can now make routing measures mandatory (IMO Res. MSC.46(65), IMO Doc. MSC 65/25/Add.1). The General Provisions on Ships' Routing provide that mandatory routing systems should be limited to what is essential to the protection of the marine environment (GPSR, § 6.1). It appears generally accepted that mandatory routing systems are not geographically limited, and may apply beyond the territorial sea (Ijlst 1989, at 229) – although there do not appear to be any precedents for a routing measure that extends beyond the EEZ and a proposal along these lines would likely be controversial.

Thus far, IMO has adopted only one mandatory ATBA, for a small area of New Zealand's coastal waters that has little vessel traffic and has special environmental and cultural significance. Because the area had little traffic, the ATBA designation did not

involve any significant limitation on navigational freedoms. The IMO has adopted ATBAs in connection with the U.S. national marine sanctuaries off California, Washington and Florida.⁶¹

3. In order to adopt speed limits as a routing measure, the IMO General Provisions on Ships' Routing would need to be amended by the IMO Assembly.

At present, IMO's Marine Safety Committee is not authorized by the GPSR to adopt routing measures that include speed limits. The 1972 Agreement on Collision Regulations (COLREG) is the only international agreement that specifically mentions speed limits for vessels, but simply requires vessels to travel at a "safe speed," and does not give the IMO any regulatory authority to determine what speeds are safe.

Although SOLAS does not specifically mention ship speeds, there appears to be general agreement that IMO has the legal authority to include limitations on vessel speed as part of a routing measure. To implement this authority, however, IMO would need to amend the GPSR to include vessel speeds as a possible element of a routing system. In 2000 and 2001, when the United States wanted IMO to approve no-anchoring requirements for the Flower Garden Banks and Florida Keys national marine sanctuaries, an analogous amendment to the General Provisions on Ships' Routing was necessary, in order to include no-anchoring provisions in the list of possible ships' routing measures. In order to save time, a routing measure involving speed limits could be proposed concurrently with an amendment to the General Provisions on Ships' Routing. This was the approach successfully taken by the United States in 2000 to adopt no-anchoring requirements for Flower Garden Banks and Florida Keys. Even if this approach were followed, however, IMO action does not appear possible until spring 2006 at the earliest, since any proposal would need to be considered first by the Navigation Subcommittee, whose next meeting is in summer 2005, and then by the Marine Safety Committee, which does not meet after that until the following spring.

4. The IMO has already accepted the appropriateness of using ships' routing systems to protect the right whales against ship strikes.

In two instances, the IMO has already recognized the appropriateness of adopting navigation measures to protect against ship strikes of right whales: (a) the U.S. mandatory ship reporting system, approved by IMO in 1998, and (b) the amendment to the Canadian Bay of Fundy Traffic Separation Scheme, approved in December 2002. These serve as clear precedents for the adoption of additional navigation measures to prevent ship strikes of right whales.

The U.S. mandatory ship reporting system (MSRS) was approved by the MSC in 1998, and requires ships to provide information on their location and speed. The MSRS applies to vessels navigating off the northeastern and southeastern coasts of the United

⁶¹ See discussion in Part III.C., above.

States, in areas frequented by North Atlantic right whales, and includes areas of the U.S. EEZ.

In adopting the MSRS, the MSC noted that “this is the first time a mandatory ship reporting system has been implemented for the protection of one particular marine species from direct physical impact with ships, rather than for protection of the marine environment from ships.” To address concerns about the proliferation of routing measures to protect individual species, the MSC accepted a U.S. proposal to apply the following criteria in reviewing future MSRS to protect single marine species: “(1) the population of a marine species is immediately endangered with extinction; (2) major shipping routes pass through an area or areas of habitat critical for the population; and (3) the greatest known threat to the survival and recovery of the population is posed by direct physical impacts of ships, such as collisions” (IMO 1998). Although the MSC agreed to these criteria only with respect to mandatory ship reporting systems, there is no obvious basis to distinguish mandatory SRS from other mandatory routing measures. Moreover, by approving the MSRS for right whales, the MSC has acknowledged that measures to prevent ship strikes of right whales satisfy the three criteria it elaborated.

In 2002, the MSC approved a proposal by Canada to move its traffic separation scheme in the Bay of Fundy, in order to prevent ship strikes of right whales. The Canadian proposal was supported by extensive documentation of the threat to right whales posed by the existing TSS, which passed directly through an area frequently used by right whales. IMO approval was apparently uncontroversial, since the Canadian proposal was well documented and involved only a relatively small shift of an existing routing scheme. Because the shift in the TSS effectively moved vessel traffic to an area of lower right whale density, the Canadian proposal did not need to include speed restrictions.

D. IMO Authority to Designate Particularly-Sensitive Sea Areas

The IMO first adopted guidelines for the designation and identification of PSSAs in 1991, and revised the guidelines most recently in 2001 (IMO 2001). The PSSA concept is broader in scope than UNCLOS Article 211(6), in that a PSSA can include areas of the territorial sea and even the high seas, in contrast to Article 211(6), which applies only to special areas of a state's EEZ. Some argue that PSSA designation should be reserved for the most outstanding areas (e.g., the Great Barrier Reef), while others think it could be applied to any environmentally-sensitive area (Gjerde and Freestone 435).

The IMO guidelines for PSSAs do not provide for additional measures in PSSAs beyond the general IMO measures regarding ship routing and reporting. Thus, although PSSA designation might seem to provide an additional basis to protect the right whales, it would not, as a legal matter, enhance IMO's authority to adopt navigation measures (including speed restrictions) to prevent ship strikes. Thus far, the IMO has designated six PSSAs,⁶² including the Great Barrier Reef off Australia, parts of the Florida Keys, and the Wadden Sea. The Florida Keys PSSA designation includes four ATBA as well as three mandatory no-anchoring areas.

VI. Conclusions

Additional regulation of large vessels using U.S. waters will be needed if the number of ship strikes of North Atlantic right whales is to be reduced. Such measures would likely need to establish vessel traffic routes and speed restrictions and establish areas that vessels should avoid entirely. As a matter of U.S. law, these measures could be adopted by NOAA Fisheries pursuant to existing laws that authorize the regulation of vessels subject to U.S. jurisdiction to prevent takes of this endangered population. No new law needs to be enacted. Mechanisms for coordinating the creation of these measures with the responsibilities of the Coast Guard exist under the federal ports and waterways, endangered species, and marine sanctuaries laws. To gain international recognition and to address international law concerns about the application of U.S. measures to foreign vessels transiting U.S. coastal waters but not entering a U.S. port, action by the International Maritime Organization would be helpful.

Options for action open to U.S. authorities include (1) acting alone under the Endangered Species Act and the Marine Mammal Protection Act to adopt measures to prevent ship strikes in U.S. coastal waters; (2) acting in concert with Canadian authorities to cover the known range of North Atlantic right whales with regulations to prevent ship strikes; and (3) acting through the International Maritime Organization, the U.N. agency that has responsibilities for environmental and safety measures for international shipping.

Given the critical status of the North Atlantic right whale population and the time

⁶² For up-to-date information on PSSAs, see <http://www.imo.org/Environment/mainframe.asp?topic_id=760>.

it would likely take before international measures could be adopted by the IMO, the fastest course of action lies in the use of existing U.S. law to regulate vessels traveling to and from U.S. ports under the international law concept of port state jurisdiction. The United States could also assert its sovereign right as a coastal state to conserve the natural resources of its territorial sea and EEZ as a basis to regulate foreign vessels transiting through U.S. coastal waters but not entering a U.S. port. This approach would be controversial as a matter of international law, however, particularly with respect to vessels in the U.S. EEZ.

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