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Federal Communications Commission.

Nicole McGinnis,

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 224

[Docket No. 040506143–7024–03]

RIN 0648–AS36

Endangered Fish and Wildlife; Final Rule To Implement Speed Restrictions to Reduce the Threat of Ship Collisions With North Atlantic Right Whales

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Final rule.

SUMMARY: NMFS establishes regulations to implement speed restrictions of no more than 10 knots applying to all vessels 65 ft (19.8 m) or greater in overall length in certain locations and at certain times of the year along the east coast of the U.S. Atlantic seaboard. The purpose of the regulations is to reduce the likelihood of deaths and serious injuries to endangered North Atlantic right whales that result from collisions with ships.

DATES: This final rule is effective December 9, 2008 through December 9, 2013.

ADDRESSES: Copies of this rule and Regulatory Impact Review, Final Environmental Impact Statement, Economic Analysis and Record of Decision related to this final rule can be obtained from the Web site listed under the electronic access portion of this document. Written requests for copies of these documents should be addressed to: Chief, Marine Mammal Conservation Division, Attn: Right Whale Ship Strike Reduction Rule, Office of Protected Resources, NMFS, 1315 East-West Highway, Silver Spring, MD 20910. Written comments regarding the burden-hour estimates or other aspects of the collection-of-information requirements contained in this final rule may be submitted to NMFS, Office of Protected Resources.

FOR FURTHER INFORMATION CONTACT: Gregory Silber, PhD, or Shannon Bettridge, PhD, Fishery Biologists, Office of Protected Resources, NMFS, at (301) 713–2322.

SUPPLEMENTARY INFORMATION:

Electronic Access

Several background documents related to this final rule, including the Regulatory Impact Review, Final Environmental Impact Statement, Economic Analysis and Record of Decision can be downloaded from *http://www/nmfs.noaa.gov/shipstrike*.

Background

The Western North Atlantic right whale (*Eubalaena glacialis*) was severely depleted by commercial whaling. The only remaining population off North America was reduced to a few hundred whales or less by the early 1900s. Despite protection from commercial whaling since 1935, the remaining population has failed to fully recover. The best current estimate of minimum population size is 313 whales (Waring *et al.*, 2007), which is approximately the same as it was 25 years ago (Best *et al.*, 2001). At this level, with the exception of North Pacific right whales, North Atlantic right whales are the world's most critically endangered large whale species and one of the world's most endangered mammals.

Population models suggest that their abundance may have increased at about 2 percent per year during the 1980s, but that it declined at about the same rate in the 1990s (Caswell *et al.*, 1999). Data on the minimum number of whales alive during 1995–2002 indicate a slight increase in the number of catalogued whales during the period, but with statistically significant inter-annual variation in numbers due to declines in the minimum number of animals found alive during 1998–1999 (Waring *et al.*, 2007). Such population trends are very low compared to trends for populations of other large whales that are recovering, such as south Atlantic right whales and western Arctic bowhead whales, which have been recovering steadily at rates of 4 percent or more per year. Inherently low rates of reproduction in large whale populations mean that recovery rates for large whale populations can be low under the best of circumstances. North Atlantic right whales may live 60 years or more. The age of first reproduction for female North Atlantic right whales is about 7 to 10 years old and calving intervals for the population have been estimated to average from about 3.5 to more than 5 years over the past three decades (Kraus *et al.*, 2001; Kraus *et al.*, 2007). Considering the high rates of natural mortality for calves and juveniles compared to adults, population projections estimate that female right whales must produce at least four calves over their lifetime to replace themselves. To ensure population growth, adult females would need to produce more than four calves over their lifetime, because half of the calves born are male, and the survival of female calves to adulthood is less than 0.5 (Kraus *et al.*, 2001).

Between the mid 1980s and late 1990s, documented calf production for the North Atlantic right whale population averaged about 11 calves per year (Kraus *et al.*, 2001). Since 2000, a series of good calving years has provided a source of optimism for future recovery. Between 2000/01 and 2005/06, calf production increased to an average of more than 22 calves per year and the average calving interval for adult females has declined to close to its lowest recorded level (Kraus *et al.*, 2007). However, the mean number of cows recruited into the population was 3.8 per year (Kraus *et al.*, 2001).

Because of the species' low reproduction level and small population size, even low levels of human-caused mortality can pose a significant obstacle for North Atlantic right whale recovery. Population modeling studies in the late 1990s (Caswell *et al.*, 1999; Fujiwara and Caswell, 2001) indicated that preventing the death of two adult females per year could be sufficient to reverse the slow decline detected in right whale population trends in the 1990s. In this regard, the primary cause of the species' failure to recover is believed to be mortality caused by collisions with ships and entanglement in commercial fishing gear (Kraus, 1990; Knowlton and Kraus, 2001; Moore *et al.*, 2005; NMFS, 2005; MMC, 2006). Since 1970, there have been more than 73 confirmed right whale deaths, nearly half of which (49 percent) have been attributed to ship collisions (29 deaths) or entanglements (7 deaths). NOAA believes the actual number of deaths is almost certainly higher than those documented as some deaths likely go undetected or unreported, and in many cases when deaths are detected or reported it is not possible to determine the cause of death from recovered carcasses. The number of documented deaths may be as little as 17 percent of the actual number of deaths (Kraus *et al.*, 2005).

The number of human-caused right whale deaths and serious injuries may be increasing. Since 1990, there have been more than 50 confirmed deaths, 56 percent of which have been attributed to

ship strikes (22 deaths) and entanglement (6 deaths). Between 2001 and 2005, the minimum estimate of human-caused mortality and serious injury to North Atlantic right whales from ship strikes and fishery entanglements averaged 3.2 per year (Waring *et al.*, 2007). This included nine known right whale ship strike deaths between 1991 and 2001, an average of 1.8 per year. The number of ship collisions appears to be related to an overlap between important right whale feeding, calving, and migratory habitat and shipping corridors along the eastern United States and Canada. Most right whales that died as a result of ship collision were first reported dead in or near major shipping channels off east cost ports between Jacksonville, Florida and New Brunswick, Canada. Based on massive injuries found on whales killed by ships (e.g., crushed skulls, severed tail stocks, and deep, broad propeller wounds), it appears that a large majority of right whales killed by vessels are victims of collisions with large ships. The effect of vessel-related deaths on right whale recovery is especially significant because a disproportionate number of ship strike victims are female right whales. Of the 22 vessel-related deaths for which the sex and size of the animals is known, 80 percent are females, including at least three that were killed carrying full-term fetuses. The reasons for this are not clear, but one factor may be that pregnant females and females with nursing calves may spend more time at the surface where they are vulnerable to being struck.

For the North Atlantic right whale population to recover, vessel-related deaths and injuries must be reduced. The recently revised North Atlantic Right Whale Recovery Plan (NMFS, 2005) ranks steps to reduce and eliminate such deaths among its highest priorities, and indicates that developing and implementing an effective strategy to address this threat is essential to recovery of the species.

In collaboration with other agencies and organizations, NMFS has undertaken extensive efforts to encourage voluntary actions by vessel operators to reduce the risk of collisions between ships and North Atlantic right whales. In part, it has sought to limit vessel approaches to right whales, increase awareness of east coast mariners about the vulnerability of right whales to ship strikes, and provide mariners with real time right whale sighting locations. To reduce disturbance and collision risks, NMFS published a regulation on February 13, 1997 (62 FR 6729), prohibiting all vessels from approaching closer than 500 yards (460 m) to any right whale. To help vessel operators avoid whales or take other appropriate measures, extensive aircraft surveys have been undertaken in waters off the U.S. southeast coast since 1993 and off the coast of New England since 1997, to inform mariners via various notification programs and media when and where right whales have been sighted. The program is operated in conjunction with, and supported by, a number of other organizations, including state and Federal agencies. In July 1999, the U.S. Coast Guard (USCG) and NMFS jointly implemented two Mandatory Ship Reporting systems (MSRS) that require all vessels 300 gross tons and greater that enter specified right whale feeding and calving habitats to report to a shore-based station for information on right whale protection. Incoming reports prompt an automated return message providing right whale sighting locations and information on how vessel/whale collisions can be avoided. Reporting vessels also must provide their entry location, destination, and ship speed to help analyze vessel related risks.

To raise mariner awareness about right whale protection needs, NMFS also regularly updates navigational aids with information on the status of right whales, times and areas where they occur, threats posed by ships, provisions of the MSRS, and advice on measures mariners can take to reduce the likelihood of hitting right whales. One such aid is the *U.S. Coast Pilot*, a set of regionally-specific references on marine environmental conditions, navigation hazards, and regulations. Captains of commercial vessels 1600 gross tons and above are required to carry the *Coast Pilot* when operating in U.S. waters. Current information is also provided via the National Geospatial-Intelligence Agency's *Notice to Mariners*, and the United Kingdom's *Admiralty Publications*, both of which provide guidance for mariners traveling in international waters. In 2005, NMFS began broadcasting advisories over NOAA Weather Radio and other media urging that ships limit speeds to 12 knots or less (subsequently lowered to 10 knots since June 2006) when they are in areas where right whales had been sighted. Mariner education programs also have been established and others are under development by a coalition of groups and individuals, including the Northeast and Southeast Right Whale Recovery Plan Implementation Teams, to help train and educate professional mariners and recreational boaters about right whale protection needs.

In addition, Federal agencies that conduct ship operations along the U.S. east coast have been advised to modify their vessel operating procedures by posting extra lookouts in areas where whales may occur, limiting transits through such areas, and training ship crews on ways to detect, identify, and avoid large whales. The USCG and U.S. Navy have issued speed advisories to their respective Atlantic fleets, and in 2005, NMFS contacted all relevant Federal agencies requesting that their vessels proceed at 12 knots or less when in right whale habitat unless other overriding needs (e.g., national security or rescue mission) would be compromised. The USCG and Navy have standing orders to report sightings or collisions. Although the NMFS ship strike database reflects a disproportionately high number of ship strikes attributable to USCG and Navy vessels, this is likely due to the high reporting rate by those agencies relative to other mariners and vessels, rather than a higher incidence of right whale ship strikes by Federal agency vessels.

Despite measures developed and undertaken by agencies, stakeholders, partners, and industry to date, right whale deaths from ship strikes continue and voluntary measures appear to be insufficient. For example, a right whale was struck by a vessel off Georgia in 2005. The operator was aware of right whale protection needs and immediately contacted the USCG and stood by the whale until officials arrived. He was unable, however, to detect and avoid the whale. Given the undiminished occurrence of collisions with right whales, NMFS has concluded that existing measures are insufficient to reduce the likelihood of ship strikes and allow the species to recover. Accordingly, NMFS determined that further action is required, and that a rule to limit vessel speeds in times and areas where right whales are most likely to occur is necessary. This rulemaking is designed to significantly reduce the occurrence and severity of collisions with North Atlantic right whales while minimizing adverse impacts on ship operations.

NMFS proposed regulations to reduce the threat of ship strikes in an Advanced Notice of Proposed Rulemaking (ANPR) (69 FR 30857; 1 June 2004) and a Notice of Proposed Rulemaking (NPRM)(71 FR 36299; 26 June 2006). As part of the proposed rulemaking, NMFS prepared and circulated a Draft Environmental Impact Statement (DEIS) which provided evaluations for a range of alternative measures. In the NPRM, NMFS identified speed restrictions of vessels along the coastal U.S. Atlantic as the best way to reduce ship strikes. Substantial evidence (Laist *et al.*, 2001;

Jensen and Silber, 2003; Vanderlaan and Taggart, 2007) indicates that vessel speed is an important factor affecting the likelihood and lethality of whale/vessel collisions. Therefore, NMFS proposed restricting vessel speed at certain times and in certain locations to reduce this threat. NMFS requested public comment on the proposed regulations and provided a public comment period of 102 days and sponsored an extended series of public meetings. Below, we summarize the comments received, responses to those comments, and changes made to the proposed regulations in light of the comments.

In addition to the speed restrictions identified in this rulemaking, NMFS and other agencies are taking other steps, as described in the ANPR and NPRM, to reduce the likelihood of ship strikes. Among these are certain routing measures. In November 2006, NOAA established a set of recommended shipping routes in key right whale aggregation areas in Cape Cod Bay and at the entrances to three ports in Georgia and Florida. The routes are expected to reduce the co-occurrence of right whales and ships in those areas. Although the identified routes are now voluntary, NMFS intends to track mariner use of the routes and may consider making them mandatory. Information on those routes can be found at *http://www.nmfs.noaa.gov/pr/shipstrike/*. In addition, the United States prepared and submitted to the International Maritime Organization (IMO) a proposal to reconfigure the ''Traffic Separation Scheme'' (TSS) that services Boston, Massachusetts. The realignment—involving only a 12 degree shift in the northern leg and narrowing the two traffic lanes by approximately 1/2 mile each—is expected to provide a significant reduction in ship strike risk to right whales and all baleen whale species occurring in the area, with minimal concurrent impact to mariners using the TSS. The IMO reviewed and adopted the proposal, and the realignment was implemented in July 2007. These routing measures are not the subject of this rulemaking.

Comments on the Notice of Proposed Rulemaking and Responses

NMFS received 10,252 comments on the June 26, 2006, NPRM from governmental entities, individuals, and organizations. NMFS received these comments in the form of electronic mail, letters, website submissions, correspondence from action campaigns (e-mail and U.S. postal mail), and facsimile. Of those, 10,027 were form letters expressing general support for the proposed regulations; 225 contained substantive comments on specific measures or components of the proposed rule. All comments have been compiled and posted at *http://www.nmfs.noaa.gov/pr/shipstrike*. In the text below, NMFS provides a summary of the comments, recommendations, and issues raised that directly relate to the measures in this rulemaking, provides responses to them, and identifies changes to the proposed regulations.

Comment 1: A number of commenters questioned NMFS's data on the size and status of the North Atlantic right whale population, its growth rate, and/or whether ship collisions are a major threat.

Response: NMFS relies on the best available scientific information to assess North Atlantic right whale abundance, status and threats. Primarily, this includes Stock Assessment Reports (SAR) required by the Marine Mammal Protection Act (MMPA), and the peer reviewed scientific literature. The SAR for North Atlantic right whales is updated annually and reviewed both internally and externally by teams of scientists. The 2007 SAR for North Atlantic right whales (Waring *et al.*, 2007) indicates that the best estimate of minimum population size for the species is 313 individually recognized whales known to be alive during 2002. Because these data are from identification photographs and genetic samples in all known right whale aggregation areas and very few new adult whales have been added since the mid-1990s, NMFS believes that these records represent a nearly complete census of the population. Therefore, NMFS concludes that they provide an accurate representation of the population's minimum size.

NMFS also considered additional population analyses and modeling exercises that were conducted and published in the peer-reviewed literature (e.g., Caswell *et al.*, 1999; Fujiwara and Caswell, 2001). Those studies cite high mortality rates in the 1980s and 1990s and conclude that the population began to decline in the early 1990s. They indicate that preventing the death of even one adult female could significantly affect the population's trend. A 2001 evaluation by the International Whaling Commission's Scientific Committee (Best *et al.*, 2001) also concluded that the population of North Atlantic right whales is not likely much greater than 300 individuals. By every measure developed in the field of conservation biology, wild animal populations of this size would be considered critically endangered.

With regard to the population's growth rate, calf production has been relatively high in recent years, but on a longer scale, calf production is erratic. Annual calf production ranged from 1 to 31 and averaged 11 calves up until 2000, but totaled 31, 21, 19, 16, 28, and 19 from 2000/01 to 2005/06, respectively. In assessing the impact of this production on the long-term viability of the population, it is essential that calf mortality rates also be considered. Documented (others may go undetected) calf deaths were: two in 1993, three in 1996, one in 1997, one in 1998, four in 2001, and two in 2002; this evidence prompted Kraus *et al.* (2005) to conclude that the number of births still is not sufficient to compensate for the number of adult deaths over the past two decades. As indicated above, observed mortality, as based on peer-reviewed statistical procedures, is almost certainly lower than the actual mortality. All indications are that the population is small, growth in the adult population is static or possibly declining, and despite recent increases in reproduction the premature deaths of female right whales due to ship collisions have significantly impeded the potential population recovery. Of particular significance is the recent loss of breeding females, the most important demographic component of the population.

With regard to threats from human activities, the two principal ones are entanglement with fishing gear and ship strikes. From 1970 to 2005, 67 right whale carcasses have been found (Best *et al.*, 2001; MMC, 2006). This is only a portion of the actual number of deaths because the detected fraction is less than one-half the total mortality assuming a static population of 300 whales. Of these 67 dead whales, 25 died as a result of collisions with ships, six from entanglement in fishing gear, 17 were fetuses that either died of unknown causes or from the death of its mother, and for the remainder the cause of death could not be determined (Best et al., 2001; Moore *et al.*, 2005; MMC, 2006). Of the 67 carcasses, 44 were recovered between 1990 and 2005. Of these, 18 deaths resulted from ship strikes, five from entanglement, nine were perinatal, and in 12 cases the cause of death could not be determined (MMC, 2006). In assessments of large whale serious injuries and deaths occurring in U.S. east coast, Gulf of Mexico, and Canadian Maritime waters, Nelson *et al.* (2007) and Glass *et al.* (2008) documented a minimum of an annual average rate of 1.8 right whales deaths and serious injuries from 2001–

2005, and 2.4 from 2002–2006, respectively. In an eight-week period from mid-November 2004 to mid-January 2005, four dead right whales were found, including one that was killed by a ship and two others that had wounds from previous ship collisions that may have contributed to their deaths. All three whales hit by ships were adult females, two of them carrying full-term fetuses; another adult female with a full-term fetus was killed by a ship earlier in 2004. Thus, the majority of the deaths were caused by human activities, and of these the majority were from ship strikes. All evidence indicates that vessel collisions represent a significant cause of mortality.

As a result of low population size for North Atlantic right whales, lack of observed population growth, and deaths from human activities, NMFS determined in 2000, and each year since, that the North Atlantic right whale population's ''Potential Biological Removal'' (PBR)—defined by the MMPA as ''the maximum number of individuals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its Optimum Sustainable Population''—is zero. That is, under the MMPA, the population can sustain no deaths or serious injuries due to human causes if its recovery is to be assured.

The species is listed as Endangered on the Endangered Species Act's (ESA) List of Threatened and Endangered Wildlife and Plants, and as Depleted under the MMPA. Thus, under these statutes, it is illegal to strike a right whale with a ship.

Nonetheless, there is a role for rigorous and effective measures to minimize the risk of illegal takings of right whales resulting from ship collisions and to promote efforts to conserve and recover the population.

Comment 2: Comments relating to vessel speed restrictions fell into several categories: (A) Some indicated that it was not clear that speed restrictions would reduce the threat of ship strikes to North Atlantic right whales and indicated that NMFS's evidence and justification for proposing vessel speed restrictions was not adequate; (B) some indicated that a large vessel would lose adequate steerage at certain minimum speeds (see ''Vessel maneuverability,'' below); (C) some indicated that speed restrictions would result in an undue economic burden to segments of the maritime industry (see ''Potential economic impact'' below); and (D) some supported speed restrictions as an important conservation measure and encouraged NMFS to require vessel speed of 10 knots in regulated areas. Although NMFS requested specific comments with regard to speed restrictions of 12 and 14 knots, few were received. Some shipping companies or trade associations indicated they preferred 14 knots over 10 knots as a way to reduce the economic burden of a 10-knot speed restriction. NMFS also received comments indicating that records of speeds of vessels involved in ship strikes are the same speeds at which vessels normally travel, and that collision records therefore are merely a reflection of speed that the population of ocean-going vessels tend to travel. Some commenters expressed a belief that fast moving vessels would emit more noise than vessels under speed restrictions, thereby alerting whales in the path. Several commenters suggested that the likelihood of a serious injury to a whale is a function more of vessel mass, rather than vessel speed, and that a large vessel hitting a whale at any speed could cause serious injury.

Response: (A) *Evidence and Justification:* NMFS examined the best available scientific information in determining that the use of speed restrictions would be an effective means to reduce the likelihood and severity of ship strikes, and has set the limit for the restrictions based upon this evidence. Based on inventories of all known collisions between ships and large whale species, including right whales (Knowlton and Kraus, 2001; Laist *et al.*, 2001; Jensen and Silber, 2003), Vanderlaan and Taggart (2007) examined all records for which ship speed at the time of impact was known. Based on their analysis, these authors concluded that the probability of a collision causing a whale's death increased rapidly and in a non-linear manner as vessel speed increased. They found that between the speeds of 9 and 20 knots, the probability of collision causing a whale's death rose from 20 to 100 percent, respectively. The greatest increase occurred between the speeds of 10 and 14 knots. They determined that the probability of death occurring from a collision was approximately 35–40 percent at 10 knots, 45–60 percent at 12 knots, and 60–80 percent at 14 knots (Vanderlaan and Taggart, 2007). This analysis did not control for ship size. In an independent analysis using 64 records of ship strikes in which vessel speed was known, Pace and Silber (2005) tested speed as a predictor of the probability of a whale death or serious injury. They found strong evidence that the probability of death or serious injury increased rapidly with increasing vessel speed. Specifically, the predicted probability of serious injury or death increased from 45 percent to 75 percent as vessel speed increased from 10 to 14 knots, and exceeded 90 percent at 17 knots.

In a compilation of ship strikes of all large whale species that assessed ship speed as a factor in ship strikes, Laist *et al.* (2001) concluded that a direct relationship existed between the occurrence of a whale strike and the speed of the vessel. These authors indicated that most deaths occurred when a vessel was traveling at speeds of 14 knots or greater and that, as speeds declined below 14 knots, whales apparently had a greater opportunity to avoid oncoming vessels. Adding to the Laist *et al.* (2001) study, Jensen and Silber (2003) compiled 292 records of known or probable ship strikes of all large whale species from 1975 to 2002. Vessel speed at the time of the collision was reported for 58 of those cases. Operating speeds of vessels that struck various species of large whales ranged from 2–51 knots with an average speed of 18.1 knots. A large majority (85.5 percent) of these strikes occurred at vessel speeds of 10 knots or greater.

With regard to right whales specifically, the speeds of vessels were known with a high degree of certainty in two cases; in three other cases possibly involving right whales vessel speeds are also known. A juvenile right whale was killed on January 5, 1993, in waters off north Florida by an 82-ft (24.9-m) vessel operating at 15 knots. In waters off Cumberland Island, Georgia in March 2005, a 43-ft (13.1-m) vessel struck a right whale and severely injured the animal by nearly completely severing one lobe of its tail flukes. The boat was traveling at 20 knots and based on the whale's poor condition when last seen in summer 2005, it is presumed that the whale died. In winter 1972–73, a bulbous bow container ship traveling at 21–23 knots east of Boston, Massachusetts collided with and killed an unidentified whale thought possibly to have been a right whale (Laist *et al.*, 2001). A whale calf, also possibly a right whale, was killed on July 6, 1991, off Delaware Bay by a ship traveling at 22 knots.

In November 2004, a Federal vessel traveling 21 knots outside the mouth of the Chesapeake Bay reported hitting a whale. A severely injured right whale in the area of the collision was reported a few hours later and, although not linked definitively to the strike, a dead adult right whale with massive injuries washed ashore in northern North Carolina about a week later.

Not all ship strikes are detected or documented. The right whale records identified above are only those in which the species, vessel speed, and fate of the animal were known. Records of vessel collisions with large whales are numerous, involve a number of species, variety of vessel types, and occur in various geographic locations (Jensen and Silber, 2003; Van Waerebeek and Leaper, 2008). For example, Van Waerebeek and Leaper (2008) recently identified 763 such records, worldwide. As noted above, for North Atlantic right whales alone, Nelson *et al.* (2007) determined that there were an average of 1.8 known right whale ship strike deaths and serious injuries per year in U.S. eastern seaboard, adjacent Canadian Maritimes, and Gulf of Mexico waters between 1999 and 2005. Glass *et al.* (2008) documented an average of 2.4 per year for the same waters in the years 2002 to 2006. In a separate analysis, Vanderlaan and Taggart (2007) concluded that right whales are far more vulnerable, per capita, to ship strikes than other large whale species.

Effects of vessel speed on collision risks also have been studied using computer simulation models to assess hydrodynamic forces vessels have on a large whale (Knowlton *et al.*, 1995; Knowlton *et al.*, 1998). These studies found that, in certain instances, hydrodynamic forces around a vessel can act to pull a whale toward a ship. These forces increase with increasing speed and thus a whale's ability to avoid a ship in close quarters may be reduced with increasing vessel speed. Related studies by Clyne (1999) found that the number of simulated strikes with passing ships decreased with increasing vessel speeds, but that the number of strikes that occurred in the bow region increased with increasing vessel speeds.

In measuring the forces involved in whale/ship collisions using whale and ship models in a tow tank, Slutsky (2007) determined that the magnitude of forces exerted on the whale increased linearly as vessel speed increased.

In a modeling study using data from actual observed encounters of right whales with vessels, Kite-Powell *et al.* (2007) determined that more than half of right whales located in or swimming into the path of an oncoming ship traveling at 15 knots or greater are likely to be struck even if the whale takes evasive action. However, the strike risk posed by a conventional ship moving 20 to 25 knots could be reduced by 30 percent by slowing to 12 or 13 knots, and by 40 percent at 10 knots, due to the whales' increased ability to detect and avoid approaching vessels.

Campbell-Malone (2007) examined the bio-mechanical properties of right whale mandibles as related to blunt force trauma inflicted by a vessel. Citing Kite-Powell *et al.* (2007), Campbell-Malone (2007) indicated that there are compound (both behavioral and force of impact) benefits to implementing speed restrictions, and concluded that both studies predict a reduction of right whale deaths as a result of vessel speed limits in right whale habitat.

With regard to the comment that whales are more likely to move away from vessels traveling fast because they are emitting more noise than slower ships, Nowacek *et al.* (2003) used a multi-sensor acoustic recording tag to measure the responses of right whales to passing ships and found that right whales showed little or no response to playback sounds of approaching vessels or actual vessels, regardless of vessel speed.

With regard to comments that serious injury to a whale is a function more of vessel mass, rather than vessel speed, and that a large vessel hitting a whale at any speed could cause serious injury, NMFS believes that the analysis conducted by Vanderlaan and Taggart (2007) indicates that the force striking a whale is likely more a function of vessel speed and mass of the whale, rather than vessel mass. In an analysis of vessel mass versus vessel speed and the likelihood and severity of injury to manatees, Calleson and Frohlich (2007) concluded that vessel speed, not mass, was the most critical factor. They calculated, for example, that a doubling of the speed of a vessel would quadruple the amount of impact energy to the manatee, while quadrupling the speed would increase the amount of energy by a factor of 16.

With regard to the comment that the records of vessel speeds at which ship strikes occur are a reflection of the speeds vessels travel generally, Pace and Silber (2005) compared the distribution of speeds at which known ship strikes occurred with the distribution of speeds of ships reporting into the Mandatory Ship Reporting systems, which they considered representative of speeds that ships travel in general. The authors found that these two distributions were significantly different, suggesting that ship strikes involved vessels that were traveling faster than vessels tended to travel overall.

Finally, NMFS is not aware of any data or studies that would contradict those cited above. No data, studies, or analyses were provided in the public comments demonstrating either that high vessel speeds would reduce the threat of ship collisions with right whales or that slow speeds would not reduce the likelihood or severity of a strike.

Vessel speed restrictions have been used in efforts to protect endangered marine species other than right whales. For example, such restrictions have been used by the U.S. Fish and Wildlife Service to reduce watercraft collisions with manatees. In an analysis of the effectiveness of one such program, Laist and Shaw (2006) concluded that manatee deaths were substantially reduced after slow speed restrictions were imposed throughout a Florida waterway that had been one of the deadliest areas in the state for watercraft related manatee deaths. Whereas watercraft-related manatee deaths had averaged 2.34 per year in the 42 months before the measures went into effect in June 2002, they were reduced to 0.29 per year in the 42 months after they went into effect.

Vessel speed restrictions have also been established to protect other endangered large whale species. The National Park Service adopted regulations implementing a 13-knot speed limit for vessels in Glacier Bay National Park and Monument, Alaska, to reduce the likelihood of hitting humpback whales (National Park Service, 2003). Analyses of its effectiveness are not yet available. However, owners of a cruise ship that killed a humpback whale in Glacier Bay while exceeding the speed limit agreed to pay a substantial fine for exceeding the speed limit there.

In an experiment to determine the effects of vessel speed and the incidence of collisions involving marine turtles, Hazel *et al.* (2007) determined that vessel speed was a significant factor in the likelihood of a strike and concluded that mandatory vessel speed restrictions were necessary to reduce the risk of strikes to sea turtles.

As a result of a number of ship strike deaths of blue whales in waters off southern California, vessel speed advisories of 10 knots or less were provided by the USCG, in collaboration with NMFS and the Channel Islands National Marine Sanctuary, within 20 nm of the entrances to the ports of Los Angeles and Long Beach.

Elsewhere, Panigada *et al.* (2006) concluded that vessel speed restrictions and the re-location of vessel routes in high cetacean density areas would reduce the likelihood of ship strikes of fin whales in the Mediterranean Sea.

Based on the analysis indicating the conservation value of reduced vessel speeds and after considering concerns and information submitted in response to the ANPR and NPRM, NMFS has

determined that a 10-knot speed restriction would significantly reduce the risk of serious or lethal collisions for right whales in areas where such speed restrictions would apply, also reducing potential economic hardship on the maritime industry. Therefore, NMFS has concluded, based on the best available scientific evidence, that a maximum speed of 10 knots, as measured as ''speed over ground'', in times and locations specified below, is the most effective and practical approach to reducing the threat of ship strikes to right whales. Ten knots therefore is the speed required by these regulations.

(B) A number of comments were received indicating that large vessels lose steerage at low speeds, and that navigational safety was at risk at speeds of 10 knots or less in adverse wind or sea conditions and given the characteristics of the vessel. Comments from pilots indicated that adequate maneuverability was particularly important when negotiating a port entrance or channel.

Response: NMFS believes that, based on conversations with mariners and application of speed restrictions in other contexts, except in severe conditions, most ocean-going vessels maintain adequate steerage at speeds of 10 knots or less. For example, NMFS points out that, as a result of consultations under the Endangered Species Act and the National Marine Sanctuaries Act, the Maritime Administration (MARAD) now requires, as a condition of a Federal Deepwater Port license, that carriers of liquefied natural gas (LNG) traveling to deepwater ports off Boston proceed at speeds of 10 knots or less when right whales are detected in the area (NMFS, 2007a; NMFS, 2007b). Thus an important segment of the maritime industry has agreed to abide by a 10-knot speed restriction to protect endangered marine mammals, and navigational safety with regard to maneuverability at that speed was not raised as an issue during those consultations.

The USCG also has established similar speed limits in some river and port entrances ranging from 5–10 knots, for purposes other than wildlife conservation, primarily to enhance national security (e.g., 66 FR 53712; 67 FR 41337; 68 FR 2201). For example, in one rule (66 FR 53712) the USCG required vessels 300 gross tons or greater to travel at eight knots or less near Naval Station Norfolk. Based on comments that speeds of eight knots might adversely affect large vessel maneuverability, the USCG increased the limit to 10 knots (68 FR 35173).

In another example, the ports of Los Angeles and Long Beach, two of the largest ports in the country, ask that vessels voluntarily reduce speed to 12 knots within 20 nm (37 km) of the bay to reduce particulate matter emissions. Those ports are considering tariff-based incentives and have developed a plan to make the speed reductions mandatory. Also, in many locations, state pilots require that vessels approaching ports slow to speeds of 5 to 10 knots to allow port pilots to embark and disembark vessels. Finally, in June 2007, the Government of the Hong Kong Special Administrative Region implemented vessel speed restrictions of 5 knots, applying to all vessels, in numerous ports and port entrances throughout most of Hong Kong harbor and neighboring waters to enhance navigational and human safety (Hong Kong Special Administrative Region, 2007). NMFS is not aware of reports of increased hazard or vessels losing maneuverability at the speeds at the locations and regions identified above.

Further, NMFS is not aware of reports of increased hazard or loss of vessel maneuverability in any of the cases indicated above (i.e., the waters of southern California, LNG carriers in waters off New England, Hong Kong harbor, or Glacier Bay, Alaska) in which mandatory or voluntary vessel speed limits were imposed.

Nevertheless, NMFS is concerned about human and navigational safety, especially when severe conditions exist. Therefore, in response to comments, NMFS is establishing the following exception to speed restrictions being established in this rule: A vessel may operate at a speed necessary to maintain safe maneuvering instead of the required ten knots only if justified because the vessel is in an area where oceanographic, hydrographic and/or meteorological conditions severely restrict the maneuverability of the vessel and the need to operate at such speed is confirmed by the pilot on board or, when a vessel is not carrying a pilot, the master of the vessel. If a deviation from the ten-knot speed limit is necessary, the reasons for the deviation, the speed at which the vessel is operated, the area, and the time and duration of such deviation shall be entered into the logbook of the vessel. The master of the vessel shall attest to the accuracy of the logbook entry by signing and dating it.

(C) A number of comments were received regarding the potential economic impacts to commercial vessel operators arising from the proposed regulations.

Response: Economic impacts are addressed in the Final Environmental Impact Statement, Regulatory Impact Review, and Regulatory Flexibility Act analysis, below.

(D) NMFS received a number of comments on the timing and boundaries of the seasonal management areas (SMAs). Many were supportive of the sizes and dates of the areas as being appropriately protective of right whales. Some provided specific recommendations about modifying (either enlarging or diminishing) the size of the areas or length of time in which the restrictions applied. Some comments questioned NMFS's decision to use the upper boundary of the radii around key mid-Atlantic ports described in the ANPR (the ANPR suggested a range of 25–30 nm (46.3–55.6 km); the NPRM proposed 30 nm (55.6 km)). Some comments dealt with economic impact of SMAs, contending that sufficient right whale sighting data were lacking or economic impacts were too great.

Response: Economic impacts resulting from modifications contained in this final rule relative to the proposed rule are described in the Regulatory Flexibility Act analysis, below. With regard to comments specific to the times and boundaries of SMAs, NMFS provides responses here.

In its NPRM, NMFS proposed to require vessel speed restrictions in certain times and areas along the U.S. eastern seaboard. NMFS divided waters off the east coast into three regions: Southeast U.S. coast (south of St. Augustine, Florida to north of Brunswick, Georgia), U.S. mid-Atlantic coast (generally, from slightly north of Brunswick, Georgia to, and including, Rhode Island), and northeast U.S. coast (north of Rhode Island), based on differences in right whale distribution and behavior, oceanographic conditions, and ship traffic patterns. The timing, duration, and geographic extent of the speed restrictions were tightly constricted to reflect right whale movement, distribution, and aggregation patterns to minimize potential impacts to ship operations.

In light of the comments received, NMFS reviewed data on the timing and locations of right whale occurrence. An analysis of sightings data from 1972 through 2000 from the South Carolina/Georgia border to Connecticut (n = 290) indicated that approximately 83 percent of all right whale sightings occurred within 20 nm (37 km) of the coast, and approximately 90 percent of all right whale sightings occurred within 30 nm (55.6 km) of the coast.

After weighing the proposed speed limit areas relative to the economic impacts on elements of the shipping

industry, NMFS has made a number of changes to the locations of the SMAs relative to the proposed rule, which are described below. However, following the issuance of these regulations, NMFS will continue to monitor right whale sighting locations relative to these boundaries and may modify them, as appropriate, if changes are warranted based on shifts in right whale occurrence or additional analysis.

(1) Southeast United States (SEUS) Operational Measure: In considering the comments and in reviewing sighting data regarding the key calving/nursery area in waters off Georgia and Florida, NMFS has decided not to modify the dates nor the boundaries in which the vessel speed restrictions apply. Therefore, speed restrictions of 10 knots or less, over ground, will apply from November 15 to April 15 each year in an area bounded by the following: Beginning at 31°27′00.0″ N–080°51′36.0″ W; thence west to charted mean high water line then south along charted mean high water line and inshore limits of COLREGS limit to a latitude of 29°45′00.0″ N; thence east to 29°45′00.0″ N–080°51′36.0″ W; thence back to starting point (Fig. 1).

(2) Mid-Atlantic Region of the U.S. (MAUS) Operational Measure: This area is used by right whales, particularly pregnant females and females with calves, migrating to and from calving/nursery areas in the SEUS and feeding grounds off the northeastern U.S. coast and Canada. In the NPRM, NMFS proposed vessel speed restrictions within half-circles seaward of seven key ports or port entrances.

Commenters contended that the economic impact of the SMAs was too great without a concurrent and equal conservation benefit. NMFS has reviewed right whale sighting data and, as a result, has decided not to change the seasonality and duration of when measures apply in this region. Therefore, vessel speed restrictions of 10 knots or less, over ground, will apply November 1 through April 30 each year.

Based on comments and a review of sighting data, which includes recurring right whale sightings between these ports, NMFS has decided to modify the size and boundaries of the SMAs in the MAUS. NMFS makes this change to reduce the economic burden on regulated entities while maintaining the majority of the conservation benefits of the SMA. The southern portion of the MAUS is modified to include a continuous SMA extending 20 nm (37 km) from shore (rather than 30 nm (55.6 km) half-circles) from Wilmington, North Carolina, south toward Brunswick, Georgia (Fig. 2). Two stretches along the South Carolina coastline will now be included in a continuous SMA. With the new 20-nm restriction zones in the MAUS, the weighted average coast-wide time burden per vessel arrival would be 53 minutes compared to 73 minutes in the proposed rule with the 30-nm zones. By changing the speed restriction zones in the MAUS, the transit times through the 20-nm speed restriction zones dropped by 18 to 28 minutes (weighted average, depending on port) relative to the 30-nm restriction zones. Therefore, a 10-knot over-ground speed restriction will apply from November 1 through April 30 each year in the area bounded by the following: 33°56′42.0″ N–077°31′30.0″ W; thence along a NW bearing of 313.26° True to charted mean high water line then south along mean high water line and inshore limits of COLREGS limit to a latitude of 31°27′00.0″ N; thence east to 31°27′00.0″ N–080°51′36.0″ W; thence to 31°50′00.0″ N–080°33′12.0″ W; thence to 32°59′06.0″ N–078°50′18.0″ W; thence to 33°28′24.0″ N–078°32′30.0″ W; thence to 33°36′30.0″ N–077°47′06.0″ W; thence back to starting point.

As to the remainder of the SMAs in this region, the ten-knot speed restrictions will be in effect around each of the port or bay entrances identified below and the designated area around Block Island Sound. The areas are defined as the waters within a 20-nm (37-km) area (rather than the proposed 30-nm (55.6-km)) with an epicenter located at the midpoint of the COLREG demarcation line crossing the entry into the following designated ports or bays (Fig. 2):

(A) Ports of New York/New Jersey: 40°29′42.2″ N–073°55′57.6″ W;

(B) Delaware Bay (Ports of Philadelphia and Wilmington): 38°52′27.4″ N–075°01′32.1″ W;

(C) Entrance to the Chesapeake Bay (Ports of Hampton Roads and Baltimore): 37°00′36.9″ N–075°57′50.5″ W; and

(D) Ports of Morehead City and Beaufort, NC: 34°41′32.0″ N–076°40′08.3″ W; and

At Block Island Sound, in the area bounded by the following coordinates: Beginning at 40°51′53.7″ N–70°36′44.9″ W; thence to 41°20′14.1″ N–70°49′44.1″ W; thence to 41°04′16.7″ N–71°51′21.0″ W; thence to 40°35′56.5″ N–71°38′25.1″ W; thence back to starting point (Fig. 2).

(3) *Northeast United States (NEUS):* Waters off New England, the NEUS (defined here as north of Rhode Island), are important foraging and socializing areas for right whales. Whales occupy and forage in four distinct areas: Cape Cod Bay; the area off Race Point (at the northern end of Cape Cod); the Great South Channel (extending south and east of Cape Cod); and the northern Gulf of Maine.

NMFS received comments about the duration and boundaries of seasonally managed areas in this region. In considering the comments and reviewing sighting data in this area, NMFS has decided not to alter the boundaries and times identified in the proposed rule. Therefore, restrictions will apply as follows.

(a) Cape Cod Bay Operational Measures: Vessel speed restrictions will apply from January 1 to May 15 each year throughout all of Cape Cod Bay, in an area beginning at 42°04′56.5″ N–070°12′00.0″ W; thence north to 42°12′00.0″ N–070°12′00.0″ W; thence due west to charted mean high water line; thence along charted mean high water within Cape Cod Bay back to beginning point. (Fig. 3).

(b) *Off Race Point:* In the area defined as ''Off Race Point'', vessel speed restrictions will be in effect from March 1 to April 30 each year in a box approximately 50 nm (92.6 km) by 50 nm (92.6 km) to the north and east of Cape Cod, MA (Fig. 3). The area consists of all waters bounded by straight lines connecting the following points in the order stated (Fig. 3): 42°30′00.0″ N–069°45′00.0″ W; thence to 42°30′00.0″ N–070°30′00.0″ W; thence to 42°12′00.0″ N–070°30′00.0″ W; thence to 42°12′00.0″ N–070°12′00.0″ W; thence to 42°04′56.5″ N–070°12′00.0″ W; thence along charted mean high water line and inshore limits of COLREGS limit to a latitude of 41°40′00.0″ N; thence due east to 41°41′00.0″ N–069°45′00.0″ W; thence back to starting point.

(c) Great South Channel: In this area, vessel speed restrictions will apply from April 1 to July 31 (Fig. 3). The area consists of all waters bounded by straight lines connecting the following points in the order stated:

42°30′00.0″ N–069°45′00.0″ W
41°40′00.0″ N–069°45′00.0″ W
41°00′00.0″ N–069°05′00.0″ W
42°09′00.0″ N–067°08′24.0″ W
42°30′00.0″ N–067°27′00.0″ W
42°30′00.0″ N–069°45′00.0″ W

Comment 3: NMFS received a number of comments about the use of dynamically managed areas to reduce ship strikes. Most comments and questions were related to NMFS' ability to quickly establish the areas; dedication of resources to adequately survey and verify whale locations; the size, duration, and criteria used to trigger such an event; and economic impact resulting from the use of this measure.

Response: Designating Dynamic Management Areas (DMA) is a process of restricting activities in areas where right whales occur outside the SEUS, MAUS, and NEUS areas described above, or both within and outside these areas when the seasonal management measures are not in effect. NMFS continues to believe that dynamic management is a useful tool in reducing ship strikes. Except for areas where right whales predictably and consistently occur, based on sighting records, they can occur at certain times and locations that are not predictable when, for example, food resources are present. Outside certain predictable areas, right whale prey concentrations can be ephemeral; their occurrence is dictated by a confluence of oceanographic conditions that may vary annually. As a result, right whale aggregations may occur outside the specific NEUS, MAUS, and SEUS areas and times described above. NMFS reiterates that, as complementary tools, the use of dynamically managed areas allows for substantially smaller (in area) and shorter (in duration) seasonal management measures. Moreover, the ability to establish DMAs also addresses a comment NMFS has consistently received, which is that the management measures should be tied directly to the known presence of right whales. Thus, using DMAs helps accomplish the conservation objective of protecting the whales while minimizing the burden on industry that would be created by larger and longer SMAs.

Therefore, NMFS will establish a DMA by surveying right whale habitat and, when a specific aggregation is sighted, NMFS will create a temporary zone (i.e., DMA) around the aggregation where the speed limit will apply. Mariner action will be voluntary. That is, mariners will be expected but not required to either avoid the area or travel through it at 10 knots or less. The zone will be in effect for 15 days and automatically expire at the end of that period. The period may be extended for an additional 15 days if whales are re-sighted in the same area.

In addition, NMFS has decided to modify, relative to that described in the NPRM, the criteria for triggering a DMA. Therefore, designation of such an area will be established using the criteria and procedures identified below.

(a) A circle with a radius of at least 3 nm (5.6 km) will be drawn around each observed group. This radius would be adjusted for the number of right whales seen in the group such that the density of 4 right whales per 100 nm^2 (185.3 km^2) is maintained. The length of the radius would be determined by taking the inverse of the 4 right whales per 100 nm^2 (185.3 km^2) density, which is 24 nm^2 (44.5 km^2) per whale. That figure is equivalent to a radial distance of 2.77 nm (5.13 km) rounded up to 3 nm (5.6 km) for a single right whale sighted (3.91 nm (7.25 km) rounded up to 4 nm (7.41 km) for two whales, 4.79 nm (8.88 km) rounded up to 5 nm (9.27 km) for three whales, etc.).

(b) If any circle or group of contiguous circles includes 3 or more right whales, this core area and its surrounding waters will be a candidate temporary zone. After NMFS identifies a core area containing 3 or more right whales, as described here, it will expand this initial core area to provide a buffer area in which the right whales could move and still be protected.

NMFS will determine the extent of the DMA zone by:

(a) Establishing a 15-nm (27.8-km) radius from the sighting location used to draw a larger circular zone around each core area encompassing a concentration of right whales. The sighting location is the geographic center of all sightings on the first day of an event; and

(b) Identifying latitude and longitude lines drawn outside but tangential to the circular buffer zone(s).

NMFS will issue announcements of DMAs to mariners via its customary maritime communication media (e.g., NOAA Weather radio, web sites, e-mail and fax distribution lists) and any other available media outlets. Information on the possibility of establishment of such zones will be provided to mariners through written media such as *U.S. Coast Pilots* and *Notice to Mariners* including, in particular, information on the media mariners should monitor for notification of the establishment of a DMA.

NMFS will monitor voluntary compliance with designated DMAs. If adherence is not satisfactory, NMFS will consider making them mandatory, through a subsequent rulemaking.

Comment 4: NMFS received comments about the vessel length to which the vessel speed restrictions apply. Among them, commenters suggested the minimum vessel size limit be increased to lengths ranging from 85 ft (25.9 m) to over 262 ft (79.9 m) to exclude certain ferries and fishing and whale watching vessels. Other commenters suggested the minimum size for restrictions be lowered to include vessels greater than 40 ft (12.2 m) inasmuch as one known right whale ship strike involved a 43-ft (13.1-m) vessel.

Response: In considering the comments and reviewing records of right whale and all large whale ship strikes, NMFS has determined that, for the purposes of this rulemaking, the appropriate vessel size is 65 ft (19.8 m) and greater. NMFS points out that 65 ft (19.8 m) is a size threshold recognized in the maritime community and commonly used in maritime regulations to distinguish between motorboats and larger vessels; the latter are subject to regulatory requirements (e.g., Automatic Identification System (AIS) requirements; International Navigational Rules Act, Rules of the Road sections). NMFS decided not to increase the minimum size above 65 ft (19.8 m) or exempt certain sectors of the maritime industry.

With regard to lowering the threshold, given the known vessel strike of a right whale by a 43-ft (13.1-m) vessel, NMFS agrees that vessels less than 65 ft (19.8 m) may pose a threat to right whales. Thus, it will continue to consider means, including future rulemaking, to address vessel classes below 65 ft (19.8 m). Additionally, in collaboration with other organizations, NMFS will continue to engage in education and outreach programs regarding right whale vulnerability to ship strikes specific to the recreational, fishing, and other coastal maritime activities that involve vessels less than 65 ft (19.8 m).

Therefore, the restrictions described herein apply to all vessels greater than or equal to 65 ft (19.8 m) in overall length and subject to the jurisdiction of the United States, and all other vessels greater than or equal to 65 ft (19.8 m) in overall length entering or departing a port or place subject to the jurisdiction of the United States. However, these restrictions shall not apply to U.S. vessels owned or operated by, or under contract to, the Federal Government (see below). In addition, these restrictions do not apply to law enforcement vessels of a State, or political subdivision thereof, when engaged in law enforcement or search and rescue duties.

Comment 5: NMFS received a number of comments about exempting vessels operated by U.S. Federal agencies from required speed restrictions. Most indicated that Federal vessels should be subject to the same restrictions as commercial vessels. One State agency also recommended that State enforcement vessels, when engaged in enforcement and human safety missions, should be exempted.

Response: NMFS, in consultation with other Federal agencies, has determined that the national security, navigational, and human safety missions of some agencies may be compromised by mandatory vessel speed restrictions. However, this exemption will not relieve Federal

agencies of their obligations to consult, under section 7 of the ESA, on how their activities may affect listed species. NMFS acknowledges that a number of agencies already provide guidance to vessel operators and fleets with regard to conservation measures to protect right whales and other endangered species, as well as contribute to conservation efforts generally.

NMFS will work with other Federal agencies regarding their vessel operations to determine where ESA section 7 consultations would be appropriate. Therefore, while these restrictions are not mandatory for vessels owned or operated by, or under contract to, U.S. Federal agencies, NMFS has requested all Federal agencies to voluntarily observe the conditions of the proposed regulations when and where their missions are not compromised. Therefore, these restrictions do not apply to vessels owned or operated by, or under contract to, U.S. Federal agencies. This exemption extends to foreign sovereign vessels when they are engaging in joint exercises with the U.S. Department of the Navy. In addition, and as noted above, NMFS has decided to exempt State enforcement vessels when they are engaged in enforcement or human safety missions.

Comment 6: A number of comments pertained to the use of existing or developing technologies to address the threat of ship strikes by detecting right whales and allowing mariners to avoid whales or otherwise take appropriate ''evasive action''. Several commenters indicated that if information was provided about where whales were occurring, mariners would take evasive action. For example, one commenter stated, ''We encourage the evaluation of an expansion of technology that would provide a more effective method of spotting whales in our coastal waters and then advise the shipping interest in the area.'' Several others indicated that if funding had been put to this problem years ago, a solution would have been found, tested, and applied.

Response: The use of technological solutions to minimize or eliminate a problem such as the threat of ship strikes to whales is the most desirable approach. Employing an innovation or technology that can truly mitigate a problem is preferable and should be pursued. NMFS is committed to exploring and testing such technologies, and has provided substantial funding for research and development of technological solutions (for projects undertaken, see Right Whale Competitive Grants program at *http://www.nefsc.noaa.gov/psb/grantforms/*). However, any technological solution must be: (a) Proven as being directly effective in reducing the threat, and (b) environmentally benign (i.e., not adversely affecting right whales, other organisms or their habitats). At this time, NMFS is not aware of a technology that exists, or will be imminently available, that satisfies both these criteria. Therefore, NMFS believes that existing technologies are not currently capable of solving the problem or meeting the objectives of directly minimizing or eliminating the threat. A review of present and historic use of, or experimentation with, a wide variety of technologies applied to this issue can be found in ''Technological alternatives to the problem of North Atlantic right whale ship strikes,'' posted at *http://www.nmfs.noaa.gov/pr/shipstrike/archive.htm*. The paper discusses technologies that include, but are not limited to, the use of underwater SONAR, thermal imaging devices, light detection and ranging (LIDAR), passive listening devices, and night vision optics.

Nearly all technologies considered fall into two general categories: (a) Detecting whales, and (b) alarm devices to frighten whales away from an area or in front of a ship. Means to increase the probability of determining the occurrence and location of whales include, but are not limited to, aircraft (visual) surveys, acoustic listening devices (i.e., ''passive acoustics''), satellite tagging, enhanced low-light optics, and posting trained lookouts. However, each method has constraints and none can reliably identify the location of all whales.

Certain SONAR devices have been developed or existing ones enhanced and tested to locate whales. However, these devices are limited by: (1) Detection ranges that are inadequate to provide mariners sufficient time to react; (2) resolution inadequate to differentiate objects such as whales from other objects in the water column (i.e., false positives); and (3) the potential environmental or ecological impacts that will accrue from the sound generated by such devices. The ability of posted lookouts and enhanced low-light optical devices to detect whales is limited by the difficulty of: (1) Observing animals in low/no light conditions (e.g., night); (2) observing animals in sea states greater than Beaufort 3–4; and (3) observing whales beneath the surface (where they spend most of their time). Right whales rarely break the surface and their backs are black or dark grey, making them difficult to spot even under ideal conditions.

Satellite tagging technology of whales has made significant advances in recent years, but it faces the perennial challenges of tag attachment and longevity. In some large whale species, tags have been affixed and (in some cases) have remained functional for days or weeks, and useful tracks have been obtained (e.g., see Mate *et al.,* 1997). However, satellite tracking has been tried on North Atlantic right whales with mixed success. The longest track was for 42 days. In all other cases, the tag remained active for only hours or a few days. It is believed that the tag antennae were rubbed off by the whales during socialization or on the sea floor. Finding and tagging all whales would be a colossal effort, and given that most animals are seen no more than once a year, it is virtually impossible that all animals could be tagged. Even if a tag could be designed that would stay on and not malfunction, and if all whales could be tagged, battery life of the tag would not ensure its perpetual operation. Therefore, NMFS would need to re-tag all animals periodically (after the batteries run out). Finally, tagging and the tag itself have attendant health issues for the whales. Some tags have resulted in significant infections at the insertion site. Thus, given the limitations described here, telemetry may remain a useful tool for monitoring the movements of individual animals, but cannot provide a means for real time management of whale-vessel interactions.

Although all current detection technologies are limited, passive acoustic technologies are a promising and maybe relatively cost-effective means of improving detection. For this reason, NMFS is collaborating with others to develop, test, and deploy listening devices in areas that are critical or frequently used by right whales. However, these devices are only effective (i.e., detection is only possible) when whales are vocalizing. Such a system will not detect all whales present, and it is not usually possible to determine the number of whales or their exact location without visual verification. Nonetheless, these programs make it possible to identify the presence of (vocalizing) whales and this information can be passed to mariners.

However, in all cases involving possible technological solutions, knowledge of right whale locations is only part of the equation. A mariner must still take ''evasive action''. In addition, responding to whales may put undue burden on responsible mariners who alter course or speed when others do not, thus affecting navigational

safety. Whereas NMFS appreciates that all mariners are interested in avoiding whales, merely providing right whale locations is not adequate without specific expectations of appropriate action to take.

This point is exemplified by actions NMFS has taken in U.S. waters. For years (since 1993 in waters off the U.S. southeast coast; and since 1997 in waters off New England), NMFS has conducted aircraft surveys for right whales and provided sighting information to mariners. Sightings are provided through various means to inbound and outbound shipping traffic. In addition, NOAA began providing ship speed advisories in 2005 in areas and at times where right whales occur, particularly when right whales are known to be present. Even given these efforts to guide mariners regarding avoiding a known right whale sighting location, it is not always clear if a mariner will respond, and if so, what that action might be (e.g., slow down, change course). A study of mariner compliance with NMFS-issued speed advisories in the Great South Channel found that 95 percent of ships tracked (38 out of 40) did not slow down or route around areas in which right whale sightings locations and speed advisories were provided (Moller *et al.,* 2005). Whether this was due to mariners disregarding the alerts or their ignorance that the alert existed is not known. In a related study, Wiley *et al.* (2008) found that commercial whale watch vessel operators exhibited high non-compliance rates even when aware of vessel speed zones around whales. Therefore, even when whale locations are detected and provided, it is not clear how mariners will respond if at all, a situation not remedied by improved detection technologies.

With regard to alarm devices, no evidence exists that large whale species would, in fact, respond to such a sound signal by moving away. Acoustic deterrent or harassment devices have been used in certain situations to warn small cetaceans and pinnipeds away from commercial fishing gear and aquaculture operations by emitting loud sound pulses. Their use has received mixed success because some marine mammals grow accustomed to the stimuli (see Reeves *et al.,* 1996). In the only study of alarm sound playback experiments involving right whales, Nowacek *et al.* (2003) found that right whales exposed to the alarm sounds immediately rose to the surface and remained motionless, where they are more vulnerable to being struck. Furthermore, chronic exposure to alarm or alerting stimuli may result in whales and other marine species abandoning a desired feeding or mating area that could result in significant adverse effects on the population. Therefore, given its mandate to protect and recover endangered marine species, even if such alarm devices were found to be effective, NMFS is not likely to approve a technique that repeatedly or chronically causes an endangered and highly depleted population to disperse from a critical habitat or preferred feeding area.

Therefore, although NMFS is committed to identifying and developing technological advances proven effective in reducing ship strikes, none exist at this time. As a result, absent specific and reliable technological fixes, NMFS is taking steps to reduce the threat of ship strikes by modifying specific vessel operations in times and locations in which right whales are known or assumed to be present. Though no proven technology to effectively manage the risk to right whales currently exists, NMFS will complete a technology review in 2009, and at appropriate times thereafter, to assess technology-based systems that might be available to reduce the risk of ship strikes to right whales. As part of these reviews, NMFS may engage the maritime industry and the scientific community to research progress in developing technological, efficient, and effective methods to address the threat of ship strikes. NMFS will document any findings and may prepare a draft report for public comment. Should NOAA find a technology that can reduce the risk of ship strike mortalities, NMFS may consider taking appropriate steps to allow the use of such technologies. Further, NMFS will also consider rulemaking to allow the use of such technologies in lieu of compliance with this rule if the technology could be used in a manner that is at least as protective of right whales as this rule.

Comment 7: NMFS received comments about assessing the effectiveness of the regulations, whether and if they would be lifted or relaxed if they are successful in reducing or eliminating the threat, and whether NMFS had flexibility in these management measures.

Response: NMFS will monitor compliance with the regulations and take steps to ensure mariners adhere to the regulations. The goal is to reduce or eliminate the threat of ship strikes—the primary source of mortality in the endangered population. NMFS expects to use right whale serious injury and deaths definitively attributed to vessel collisions, and ship strike-related scarring rates to assess the effectiveness of these regulations. Because right whale strandings are rare occurrences and our ability to determine causes of death is limited, determining the effectiveness of protective measures to a high level of statistical significance is difficult and takes many years of data collection. Based on available data, NMFS will consider adjusting the regulations. Such actions would be taken through additional rulemaking. Measures that NMFS could consider may involve vessel size, vessel routing (e.g., making recommended routes mandatory), vessel speed, making dynamically managed areas mandatory, and the size and duration of the areas where the restrictions apply.

Comment 8: One comment raised the question of whether the United States can establish speed restrictions in the Exclusive Economic Zone; another questioned whether the United States has the authority to enforce speed limits in international waters.

Response: NOAA is issuing these regulations pursuant to its rulemaking authority under MMPA section 112(a) (16 U.S.C. 1382(a)), and ESA section 11(f) (16 U.S.C. 1540(f)). These regulations also are consistent with the purpose of the ESA ''to provide a program for the conservation of [...] endangered species'' and ''the policy of Congress that all Federal departments and agencies shall seek to conserve endangered species [...] and shall utilize their authorities in furtherance of the purposes of [the ESA].'' 16 U.S.C. 1531(b),(c). Some provisions of these regulations differ from the ANPR and NPRM based on comments received and additional analysis by NMFS.

The United States may impose the speed restriction set forth in these regulations, consistent with international law. The international law basis for such restriction is port State authority and the rule applies to ships entering or departing U.S. ports. The United States has always considered that a State has extensive authority to regulate ships entering or departing its ports. As a legal matter, the United States has neither limited this authority geographically nor by the type of legitimate interest being protected. Customary international law recognizes the interest of States in protection of its living marine resources, including rare and endangered species.

A port State may establish conditions of port entry to ships both inbound to and outbound from its ports. The interests a port State is seeking to protect by the establishment of conditions of port entry remain the same in most cases —including with regard to the protection of right whales

from ship strikes—regardless of whether a ship is inbound or outbound; thus, the restrictions imposed to protect this interest are critical on both portions of a ship's voyage. The exercise of such authority is consistent with United Nations Convention on the Law of the Sea Articles 27(2) and 28(3), as well as State practice.

Comment 9: Several comments addressed issues related to the enforcement of this regulation. The comments focused on the importance of NMFS and the USCG working together to enforce this regulation and some provided suggestions for enforcement mechanisms. Some comments requested information about the penalties and fines that might apply to violations of this regulation.

Response: NOAA is committed to implementing an effective enforcement strategy and will continue to work with all of its interagency partners, including the USCG, to do so. In addition, NOAA has identified some available technologies that could be used to supplement existing enforcement capabilities and will further explore the application of these measures.

The ESA and MMPA identify the statutory maximum civil penalties and criminal fines. NOAA promulgates Civil Administrative Penalty schedules that are available to the public and provide guidance on how civil penalties are assessed and likely penalty ranges for particular violations. NOAA's Civil Administrative penalty schedules can be found online at: *http://www.gc.noaa.gov/enforce-office3.html.*

Comment 10: Several commenters made reference to the need to promulgate emergency regulations and cited earlier correspondence and a petition to NMFS about establishing such regulations. In particular, in January 2005, NMFS received a letter from the Marine Mammal Commission recommending that NMFS quickly establish emergency regulations to limit vessel speeds consistent with measures being considered by NMFS. In addition, on May 19, 2005, NMFS received a petition co-signed by nine organizations to issue emergency regulations to re-route vessels in right whale habitat or slow them to 12 knots or less when entering U.S. east coast ports and at distances of 25 nm (46.3 km) from shore.

Response: NMFS denied the petition (70 FR 56884), indicating promulgating a separate 12-knot speed limit under an emergency regulation would curtail full public notice and environmental analysis, duplicate agency efforts and reduce agency resources for a more comprehensive strategy, and risk delay in implementing the draft strategy. NMFS indicated it would continue putting efforts into implementing its comprehensive strategy as the best long-term solution for curtailing right whale deaths due to vessel strikes. This rulemaking marks a culmination of that effort.

Comment 11: Some commenters suggested that the rule have a termination date. Proposed end dates for the rule were: (A) When a sustainable population level is reached; (B) if the restrictions prove ineffective; and (C) if no progress is measured after one year.

Response: There is some uncertainty regarding the manner in which ships and whales interact and the relationship of speed and other factors to whale injuries and mortalities. Some commenters, citing these uncertainties, have raised issues regarding whether this regulation will significantly reduce serious injury and deaths of large whales caused by ship strikes. In view of these uncertainties, and the burdens imposed on vessel operators, this rule will expire five years from the date of effectiveness. During the five-year effectiveness of the rule, to the extent possible with existing resources NOAA will synthesize existing data, gather additional data, or conduct additional research on ship-whale interactions to address those uncertainties. NOAA will also review the economic consequences of this rule. After this analysis is complete, NOAA will determine what further steps to take regarding this rule.

Summary of Changes in the Rule Relative to the Proposed Rule

Based on comments received, NMFS has made the following changes to the proposed rule: (1) Use of voluntary, rather than mandatory, speed restrictions in DMAs; (2) exceptions to speed restrictions in SMAs in severe conditions where vessel speed must exceed 10 knots to allow for safe maneuvering; (3) a reduction in the size of the area of SMAs in the MAUS from waters within a 30–nm (55.6–km) radius half-circle to within a 20–nm (37–km) radius half-circle at the entrances to: The Ports of New York/New Jersey, Delaware Bay, Chesapeake Bay, and the ports of Morehead City and Beaufort, NC; (4) in waters off the southernmost ports in MAUS, a continuous SMA has been established from 20 nm (37 km) north of Wilmington, NC to 20 nm (37 km) north of Brunswick, GA, in lieu of 30 nm (55.6 km) half-circles around these port entrances (Fig. 2); (5) exemption from speed restrictions for law enforcement vessels of a State, or political subdivision thereof, when engaged in law enforcement or search and rescue duties; and (6) this final rule expires on December 9, 2013.

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Classification

This final rule has been determined to be economically significant for purposes of Executive Order 12866.

This final rule does not have Federalism implications as that term is defined in Executive Order 13132.

This final rule contains a collection of information subject to the Paperwork Reduction Act (PRA). This requirement, the obligation in section 224.105(c) to log deviations from the 10 knot speed limit for safe operations, was not in the proposed rule and therefore not submitted to OMB for review at that time. Therefore, NMFS will submit this new information collection to OMB for emergency review under 44 U.S.C. 3507(j). NMFS also requests comment on this information collection for 60 days as required under 44 U.S.C. 3506(c)(2)(A).

Public reporting burden for logbook entries in the event of deviation from speed restrictions is estimated to average five minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection information. There is no additional cost to the affected public.

NMFS requests comments from the public to:

(i) Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility;

(ii) Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information;

(iii) Enhance the quality, utility, and clarity of the information to be collected; and

(iv) Minimize the burden of the collection of information on those who are to respond, including through the use of automated collection techniques or other forms of information technology.

Send comments on these or any other aspects of the collection of information to the NMFS, Office of Protected Resources at the address above.

Notwithstanding any other provisions of the law, no person is required to, and no person shall be subject to penalty for failure to comply with, a collection of information subject to the requirements of the PRA, unless the collection of information displays a currently valid Office of Management and Budget (OMB) control number.

Final Regulatory Flexibility Analysis

Pursuant to section 604 of the Regulatory Flexibility Act (RFA), NMFS prepared the following Final Regulatory Flexibility Analysis (FRFA) in support of the final rule to implement speed restrictions to reduce the threat of ship collisions with North Atlantic Right Whales. The FRFA describes the

economic impact that this final rule will have on small entities.

The FRFA incorporates the economic impacts summarized in the initial RFA (IRFA) for the proposed rule to implement speed restrictions (71 FR 36299) and the corresponding economic analysis prepared for the final rule (the FEIS, the Regulatory Impact Review (RIR), and the Economic Analysis for the FEIS). For the most part, those impacts are not repeated here. A copy of the IRFA, the RIR, the FEIS, and the Economic Analysis for the FEIS are available from NMFS, Office of Protected Resources and on the Office of Protected Resources Web site (see **ADDRESSES**).

A description of the action, why it is being considered, the objectives of, and legal basis for this action are contained in the preamble to this final rule. This final rule does not duplicate, overlap, or conflict with other Federal rules.

Description and Estimate of the Number of Small Entities to Which the Final Rule Will Apply

The final rule implements changes to vessel operations affecting vessels that are 65 feet (19.8 m) or greater in overall length. Seven industries are directly affected by this rulemaking: Commercial shipping, high-speed passenger ferries, regular-speed passenger ferries, high-speed whale watching vessels, regular-speed whale watching vessels, commercial fishing vessels, and charter fishing vessels. This analysis uses small business size standards prescribed by the Small Business Administration (SBA). Specifically, for international and domestic shipping operations, the SBA size standard for a small business is 500 employees or fewer. The same threshold applies for international cruise operations and domestic ferry services. All ferry, commercial fishing, and charter fishing operations were assumed to be small entities. All but one whale watching operation were assumed to be small entities. The number of small entities expected to be affected by the final rulemaking by industry are: 362 commercial shipping (with various vessel classifications), 345 commercial fishing, 40 charter fishing, 13 passenger ferry, and 8 whale watching. More detailed information on small entities, other than commercial shipping, can be found on pages 143 through 147 and in Tables 4–45 (commercial fishing), 4–46 (passenger ferries), and 4–49 (whale watching) of the Economic Analysis for the FEIS. Note that for passenger ferry category, a small entity may operate both regular-speed and high-speed vessels. More detailed information on small entities in the commercial shipping sector is contained on pages 162 through 163 of the Economic Analysis for the FEIS.

Description of the Projected Reporting, Recordkeeping, and Other Compliance Requirements of the Final Rule

There are no compliance requirements other than the management actions contained in the final rule. Recordkeeping requirements associated with this final rule include logbook entries in the event of deviation from speed restrictions. These entries are estimated to average five minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection information.

A Summary of the Significant Issues Raised by the Public Comments in Response to the IRFA, a Summary of the Assessment of the Agency of Such Issues, and a Statement of Any Changes Made to the Proposed Rule as a Result of Such Comments

NMFS received 10,252 comments on the proposed rule. Of these, 73 comments pertained to the IRFA or dealt with economic impacts specific to small entities resulting from the management actions presented in the proposed rule.

Numerous commenters raised a concern that the speed restrictions would increase steam time for charter fishing vessels, resulting in a much shorter time to fish and/or longer trips overall. This could reduce the number of trips taken, curtail available fishing grounds, reduce the number of customers willing to pay, increase operating expenses, or hinder other operations.

Response: These concerns are valid and have been analyzed in the Economic Analysis for the FEIS, which also analyzes economic impact to small entities. In response, NMFS has decided that compliance with DMAs will be voluntary, further reducing potential to lengthen fishing trips should captains choose not to comply. Similarly, the SMAs are generally not in place during the summer peak tourism and fishing season, with the exception of the Great South Channel. See, for example, pages 147–148 of the Economic Analysis for the FEIS regarding concerns expressed by passenger ferry operators in timing speed restrictions during peak summer season.

Numerous commenters suggested that the rule will affect tourism industries due to restrictions placed on whale watching vessels or passenger ferries. Other industries that support or work along with vessels affected by the rule would also bear adverse economic impact.

Response: The IRFA that NMFS prepared for the proposed rule analyzes the direct economic impacts to small entities resulting from implementing regulations. While NMFS did not analyze the expected economic impacts on small entities indirectly affected by the agency's actions in the RFA, it did analyze these impacts in the Economic Analysis for the FEIS (See Chapter 4, within the section entitled ''Estimated Economic Impact on Other Market Segments'').

Many commenters expressed concern about speed restrictions within DMAs, which are likely to occur during peak summer months, which commenters maintained would seriously hinder, and perhaps shut down, ferries and whale-watching operations.

Response: NMFS has decided that compliance with speed restrictions within DMAs will be voluntary. This will provide some measure of relief to those small entities concerned with going out of business as a result of DMAs.

A few commenters noted that increased fuel consumption would result from increased vessel speed (outside of SMAs and DMAs) to stay on schedule. The IRFA provided an assessment of likely compliance costs or benefits associated with changes in fuel consumption from speed restriction measures. Increased fuel consumption for vessels increasing speed to make up time is not included in the economic analysis because the cost of the delays themselves—far greater costs than increased fuel consumption to compensate for delays—is calculated and included in the IRFA. See for example, Table 4–45 and accompanying text, for a discussion on the increased roundtrip travel time for commercial fishing vessels. Given an hourly fishing vessel operating cost of $300, the average additional travel time of 38 minutes would translate to an additional operating cost of $190 per trip. Even if the fishing vessel sped up outside the speed restricted area to help offset the increase in travel time and operating costs, the incremental increase in operating cost due to increased fuel consumption would only be a portion of the overall hourly operating costs recovered when speeding up outside the speed restricted area. Therefore, the economic analysis conservatively assumes that vessels will not speed up to make up time and hence includes the maximum estimate of delay that would be incurred.

Some commenters stated that the regulations seem unwarranted or excessive given that many boaters had rarely, if ever, encountered a right whale or that out of thousands of boat trips on the east coast, only a dozen or so right whale deaths are attributable to ship strikes. Some questioned the notion of incurring considerable economic burden to businesses for right whale protection.

Response: Right whales are difficult to see, especially in less than ideal (e.g., Beaufort Scale Sea State 3 or greater, or low light) conditions. But, they have historically and regularly occurred in the areas identified in this rule. Mariners' difficulty in seeing right whales in the water is likely one contributing factor in the occurrence of ship strikes. Ship strike deaths are rare events and yet each is highly significant to the depleted population. NMFS has endeavored to reduce the economic impacts of this rule by minimizing, in time and space, the areas in which the restrictions apply.

Economic Impacts Resulting From Changes to the Proposed Rule

As discussed in the preamble of this final rule, NMFS has modified various components of the proposed rule. These are: (1) Use of voluntary, rather than mandatory, speed restrictions in DMAs; (2) exceptions to speed restrictions in SMAs in severe conditions where vessel speed must exceed 10 knots to allow for safe maneuvering and provisions to improve enforcement of these regulations; (3) a reduction in the size of the area of SMAs in the MAUS from waters within a 30-nm (55.6-km) radius half-circle to within a 20-nm (37-km) radius half-circle at the entrances to: The Ports of New York/New Jersey, Delaware Bay, Chesapeake Bay, and the ports of Morehead City and Beaufort, NC; (4) in waters off the southernmost ports in MAUS, a continuous SMA has been established from 20 nm (37 km) north of Wilmington, NC to 20 nm (37 km) north of Brunswick, GA, in lieu of 30 nm (55.6 km) half-circles around these port entrances (Fig. 2); (5) exemption from speed restrictions for law enforcement vessels of a State, or political subdivision thereof, when engaged in law enforcement or search and rescue duties; and (6) this final rule expires on December 9, 2013. The estimated economic impacts in the IRFA have been updated here, using recent (June 2008) fuel prices, to reflect these modifications to the proposed rule.

With regard to vessel speed restrictions within DMAs that are not mandatory, NMFS has calculated economic impacts based on 100-percent compliance, although the actual compliance rate will likely be lower. That is, whereas NMFS is hopeful that adherence to a voluntary measure is high, it likely will not be 100 percent. Therefore, NMFS has calculated the most extreme case with regard to economic impact. Assuming 100-percent compliance with all measures of the rule, this action would reduce annual revenues to vessels as follows: Commercial shipping 0.15 percent of annual receipts, high-speed passenger ferries 4.9 percent, regular-speed passenger ferries 7.9 percent, high-speed whale watching vessels 4.2 percent, regular-speed whale watching vessels 3.8 percent, commercial fishing vessels 0.5 percent, and charter fishing vessels 3.9 percent. See Table 5–7 of the Economic Report for the FEIS. Economic impacts will correspondingly be lower with any compliance rate less than 100 percent.

Description of the Steps the Agency Has Taken To Minimize the Significant Economic Impact on Small Entities Consistent With the Stated Objectives of Applicable Statutes

NMFS carefully weighed the speed restriction provisions contained in this final rule in light of right whale protection as well as economic impact. As a result, NMFS tightly constrained in time and place seasonal management areas to correspond only to known right whale occurrence. NMFS determined that creating larger SMAs than those being enacted would provide greater protection for right whales that may occur outside historical aggregation areas or where densities are lower. However, the potential economic impacts increase as SMAs grow in size, even as the relative conservation benefits become increasingly smaller. As a result, the SMAs have been made as small as practicable while still providing conservation value. In addition, by creating DMAs, NMFS was able to maintain SMAs at minimal sites, further reducing economic impact.

The use of DMAs allows for establishing protective measures when right whales are sighted outside locations and times of SMAs. Current limitations in agency resources make it difficult to verify and subsequently establish DMAs quickly. Furthermore, the duration of the DMAs may continue past the time in which whales are present. Therefore, NMFS will establish a DMA program as an action complementary to SMAs, although not through rulemaking. NMFS will announce DMAs to mariners through its customary maritime communication media and any other appropriate media channels. NMFS hopes vessel operators will avoid the area or proceed through the area at 10 knots, but understands that many will not. Nonetheless, operators remain liable under MMPA and ESA if they do strike a whale.

Operators of whale-watching vessels and passenger vessels had indicated during the public comment period that requiring speed restrictions in DMAs during peak season would result in economic hardship. One consequence of administering DMAs with speed restrictions that are not mandatory is that it alleviates further economic burden, particularly to those vessels operating during peak summer months in areas where no SMA is in place.

NMFS is allowing an exemption to speed restrictions contained in this final rule in response to navigational safety concerns. This exemption allows for a vessel, under severe conditions, to operate at a speed above the required 10 knots to maneuver safely. This exemption has been incorporated into the final rule in response to comments from small entities, the larger universe of vessel operators, and port authorities. A vessel may operate at a speed necessary to maintain safe maneuvering speed instead of the required ten knots only if justified because the vessel is in an area where oceanographic, hydrographic and/or meteorological conditions severely restrict the maneuverability of the vessel and the need to operate at such speed is confirmed by the pilot on board or, when a vessel is not carrying a pilot, the master of the vessel. If a deviation from the ten-knot speed limit is necessary, the reasons for the deviation, the speed at which the vessel is operated, the latitude and longitude of the area, and the time and duration of such deviation shall be entered into the logbook of the vessel. The master of the vessel shall attest to the accuracy of the logbook entry by signing and dating it.

The final rule is subject to a ''sunset clause'' in which this final rule is set to expire five years from date of effectiveness. This provides some measure of relief to all affected entities, including small entities, in that any future action will be subject to applicable rulemaking procedures, including RFA and NEPA.

NMFS analyzed a number of alternatives to reduce ship strikes, in addition to the ''no action'' alternative. The ''no action'' alternative was rejected because NMFS has determined that specific action (i.e., vessel speed restrictions) is needed to reduce the threat of ship collisions with right whales.

One alternative required use of DMAs only as a single regulatory action. Small

businesses may prefer this alternative to the provisions of the final rule, which includes SMAs. However, relying solely on DMAs would not provide the needed protection to right whales, since this measure requires being able to identify right whale aggregations to trigger DMAs. In addition, one consistent comment NMFS has received is that the shipping industry relies on predictability to meet timetables, coincide with maximum tides in some ports, and to schedule longshoremen. The use of DMAs exclusively and no other measures (e.g., SMAs) would render the protection measures highly unpredictable, confounding shipping schedules. Moreover, identification of right whale aggregations is not always possible in practice (e.g., due to poor weather or other logistical constraints), thus relying on this measure alone may not reduce ship strikes sufficiently to promote population recovery. Dynamic management is used to reduce fishery gear entanglements when right whales aggregations are discovered. The approach is used in conjunction with fishing gear modifications. Therefore, this system, when used in concert with other actions, can be an important management tool. It is not a flawless system inasmuch as it is limited by constraints inherent to aircraft surveys (e.g., darkness, weather). One significant difference between the fishing gear Dynamic Area Management program and dynamic management as it pertains to other maritime industries is that fishers are required to change out gear, a rather burdensome task. The shipping industry could be notified real-time by electronic media and with relatively minor modifications to voyage planning can route around the area or travel through it at reduced speed.

Another alternative analyzed was the implementation of SMAs as a single regulatory action, where the SMAs were substantially larger in size and in duration than those contained in the final rule. This alternative as a stand-alone measure was determined to be unlikely to aid in the recovery of right whales, since as a single measure, it does not allow for responding to situations when right whales are sighted outside of predictable or historic aggregation areas. In addition, because the SMAs were larger than those being enacted, the added economic burden would be substantial. Vessels would be required to travel at 10 knots farther from shore and on more days than will be required by the provisions of the final rule.

One alternative consisted of proposed vessel routing measures in lieu of speed restrictions. However, NMFS determined that changes in routing procedures alone would not provide adequate protection from ship strikes for right whales. Another alternative analyzed was the use of both DMAs and large-scale SMAs as regulatory actions. This alternative would have provided the greatest protection to the right whale population. Impacts to small entities would also have been greatest under this alternative, since the SMAs in this alternative were substantially larger geographically and longer temporally than those prescribed in the final rule.

Other significant alternatives to the final rule included speed restrictions at 12 or 14 knots, rather than the 10-knot speed restriction in the final rule. Based on the analysis provided in the IRFA, NMFS recognizes that operators of regular-speed passenger ferries, regular-speed whale-watching vessels, and charter fishing vessels would prefer the 12-or 14-knot options. However, NMFS scientists and other independent scientists have determined that as vessel speed increases, the likelihood of serious injury and death to whales increases. Therefore, among the three speed restriction options, the ten-knot option provides the greatest protection for right whales and the greatest likelihood of allowing recovery of this critically endangered species.

Section 212 of the Small Business Regulatory Enforcement Fairness Act of 1996 states that for each rule or group of related rules for which an agency is required to prepare a FRFA, the agency shall publish one or more guides to assist small entities in complying with the rule, and shall designate such publications as ''small entity compliance guides.'' The agency shall explain the actions a small entity is required to take to comply with a rule or group of rules. A small entity compliance guide was prepared as part of this rulemaking process. The guide will be sent to all holders of permits issued for NE and SE fisheries, ferry operators, whale watching vessel operators, and shipping companies. Guides will also be provided to port authorities, port pilots, and the USCG, and others as appropriate, for distribution to the maritime industry. In addition, copies of this final rule and guide are available from NMFS, Office of Protected Resources and on the Office of Protected Resources Web site (see **ADDRESSES**).

List of Subjects in 50 CFR Part 224

Endangered marine and anadromous species.

Dated: October 6, 2008.

Samuel D. Rauch,

Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.

■ For the reasons set out in the preamble, 50 CFR part 224 is amended as follows:

PART 224—ENDANGERED MARINE AND ANADROMOUS SPECIES

■ 1. The authority citation for 50 CFR part 224 continues to read as follows:

Authority: 16 U.S.C. 1531–1543 and 16 U.S.C. 1361 *et seq.*

■ 2. In part 224, a new § 224.105 is added to read as follows:

§ 224.105 Speed restrictions to protect North Atlantic Right Whales.

(a) The following restrictions apply to: All vessels greater than or equal to 65 ft (19.8 m) in overall length and subject to the jurisdiction of the United States, and all other vessels greater than or equal to 65 ft (19.8 m) in overall length entering or departing a port or place subject to the jurisdiction of the United States. These restrictions shall not apply to U.S. vessels owned or operated by, or under contract to, the Federal Government. This exemption extends to foreign sovereign vessels when they are engaging in joint exercises with the U.S. Department of the Navy. In addition, these restrictions do not apply to law enforcement vessels of a State, or political subdivision thereof, when engaged in law enforcement or search and rescue duties.

(1) *Southeast U.S.* (south of St. Augustine, FL to north of Brunswick, GA): Vessels shall travel at a speed of 10 knots or less over ground during the period of November 15 to April 15 each year in the area bounded by the following: Beginning at 31°27′00.0″ N–080°51′36.0″ W; thence west to charted mean high water line then south along charted mean high water line and inshore limits of COLREGS limit to a latitude of 29°45′00.0″ N thence east to 29°45′00.0″ N–080°51′36.0″ W; thence back to starting point. (Fig. 1).

(2) *Mid-Atlantic U.S.* (from north of Brunswick, Georgia to Rhode Island): Vessels shall travel 10 knots or less over ground in the period November 1 to April 30 each year:

(i) In the area bounded by the following: 33°56′42.0″ N–077°31′30.0″ W; thence along a NW bearing of 313.26° True to charted mean high water line then south along mean high water line and inshore limits of COLREGS limit to a latitude of 31°27′00.0″ N; thence east to 31°27′00.0″ N–080°51′36.0″ W; thence to 31°50′00.0″

N–080°33′12.0″ W; thence to 32°59′06.0″ N–078°50′18.0″ W; thence to 33°28′24.0″ N–078°32′30.0″ W; thence to 33°36′30.0″ N–077°47′06.0″ W; thence back to starting point.;

(ii) Within a 20-nm (37 km) radius (as measured seaward from COLREGS delineated coast lines and the center point of the port entrance) (Fig. 2) at the

(A) Ports of New York/New Jersey: 40°29′42.2″ N–073°55′57.6″ W;

(B) Delaware Bay (Ports of Philadelphia and Wilmington): 38°52′27.4″ N–075°01′32.1″ W;

(C) Entrance to the Chesapeake Bay (Ports of Hampton Roads and Baltimore): 37°00′36.9″ N–075°57′50.5″ W; and

(D) Ports of Morehead City and Beaufort, NC: 34°41′32.0″ N–076°40′08.3″ W; and

(iii) In Block Island Sound, in the area bounded by the following coordinates: Beginning at 40°51′53.7″ N–70°36′44.9″ W; thence to 41°20′14.1″ N–70°49′44.1″ W; thence to 41°04′16.7″ N–71°51′21.0″ W; thence to 40°35′56.5″ N–71°38′25.1″ W; thence back to starting point. (Fig. 2).

(3) *Northeast U.S. (north of Rhode Island):*

(i) *In Cape Cod Bay, MA:* Vessels shall travel at a speed of 10 knots or less over ground during the period of January 1 to May 15 in Cape Cod Bay, in an area beginning at 42°04′56.5″ N–070°12′00.0″ W; thence north to 42°12′00.0″ N–070°12′00.0″ W; thence due west to charted mean high water line; thence along charted mean high water within Cape Cod Bay back to beginning point. (Fig. 3).

(ii) *Off Race Point:* Vessels shall travel at a speed of 10 knots or less over ground during the period of March 1 to April 30 each year in waters bounded by straight lines connecting the following points in the order stated (Fig. 3): 42°30′00.0″ N–069°45′00.0″ W; thence to 42°30′00.0″ N–070°30′00.0″ W; thence to 42°12′00.0″ N–070°30′00.0″ W; thence to 42°12′00.0″ N–070°12′00.0″ W; thence to 42°04′56.5″ N–070°12′00.0″ W; thence along charted mean high water line and inshore limits of COLREGS limit to a latitude of 41°40′00.0″ N; thence due east to 41°41′00.0″ N–069°45′00.0″ W; thence back to starting point.

(iii) *Great South Channel:* Vessels shall travel at a speed of 10 knots or less over ground during the period of April 1 to July 31 each year in all waters bounded by straight lines connecting the following points in the order stated (Fig. 3):

42°30′00.0″ N–069°45′00.0″ W
41°40′00.0″ N–069°45′00.0″ W
41°00′00.0″ N–069°05′00.0″ W
42°09′00.0″ N–067°08′24.0″ W
42°30′00.0″ N–067°27′00.0″ W
42°30′00.0″ N–069°45′00.0″ W

(b) Except as noted in paragraph (c) of this section, it is unlawful under this section:

(1) For any vessel subject to the jurisdiction of the United States to violate any speed restriction established in paragraph (a) of this section; or

(2) For any vessel entering or departing a port or place under the jurisdiction of the United States to violate any speed restriction established in paragraph (a) of this section.

(c) A vessel may operate at a speed necessary to maintain safe maneuvering speed instead of the required ten knots only if justified because the vessel is in an area where oceanographic, hydrographic and/or meteorological conditions severely restrict the maneuverability of the vessel and the need to operate at such speed is confirmed by the pilot on board or, when a vessel is not carrying a pilot, the master of the vessel. If a deviation from the ten-knot speed limit is necessary, the reasons for the deviation, the speed at which the vessel is operated, the latitude and longitude of the area, and the time and duration of such deviation shall be entered into the logbook of the vessel. The master of the vessel shall attest to the accuracy of the logbook entry by signing and dating it.

(d) This final rule expires on December 9, 2013.

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Figure 1. Southeast United States.

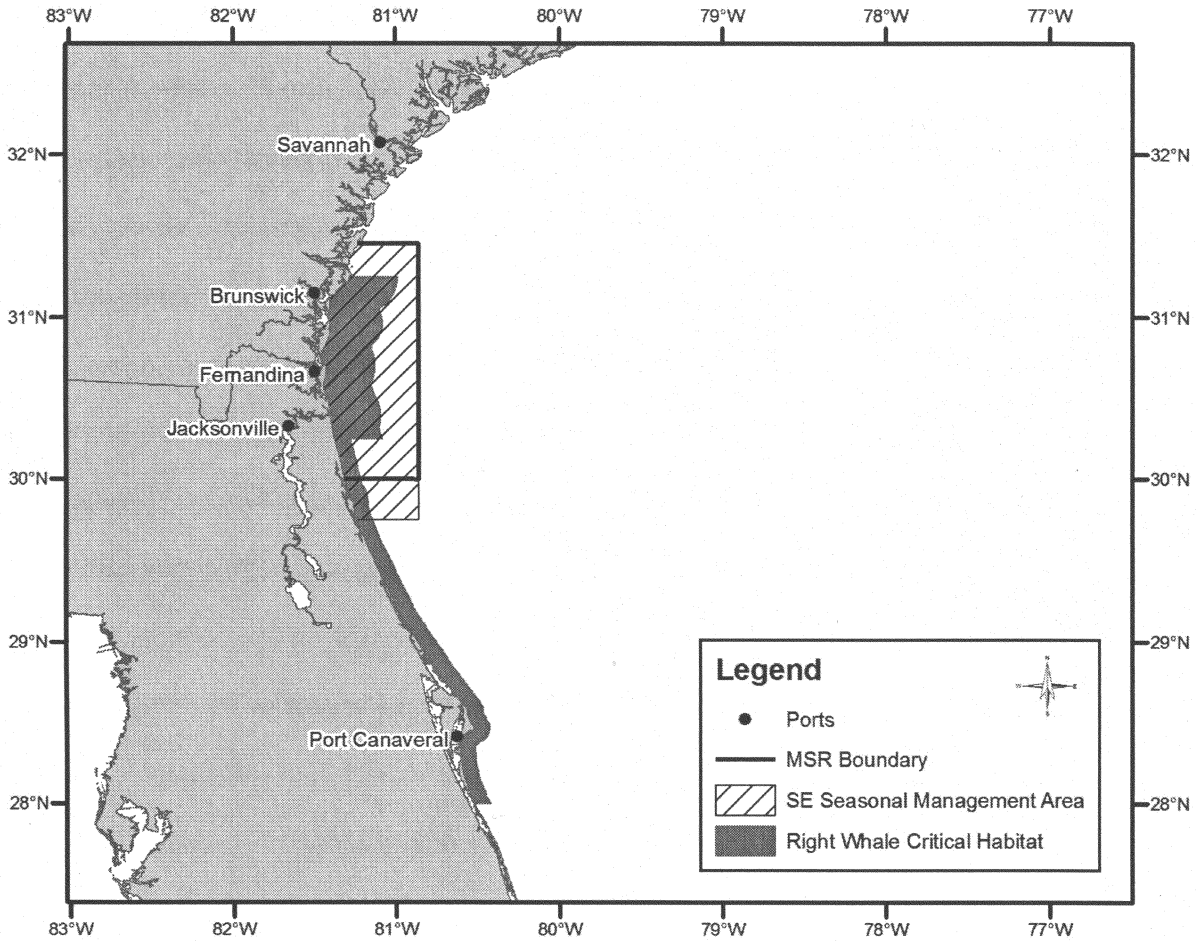


Figure 2. Mid-Atlantic United States.

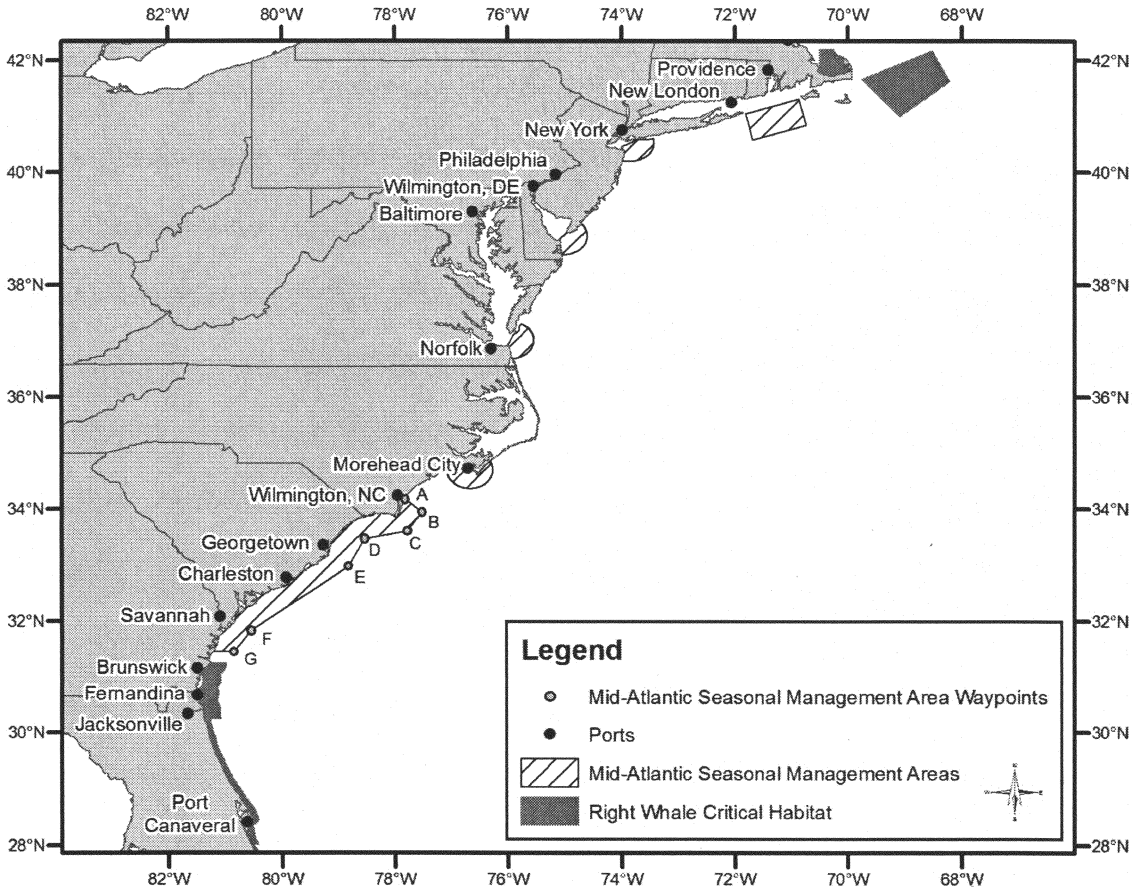
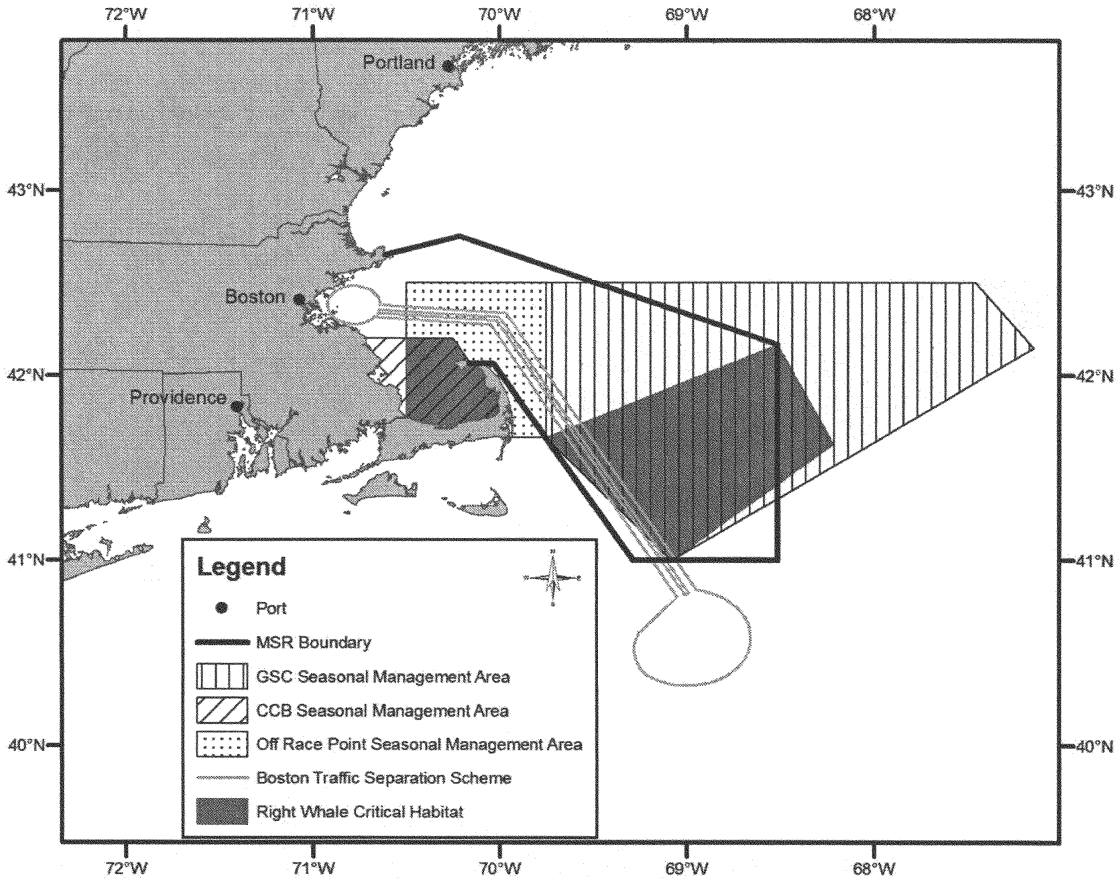


Figure 3. Northeast United States.



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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 660

[Docket No. 0809301285-81289-01]

RIN 0648–AX31

Fisheries Off West Coast States; Coastal Pelagic Species Fisheries; Reporting Requirements and Conservation Measures

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Final rule; notice of effectiveness of information collection.

SUMMARY: NMFS is announcing that the information collection and reporting requirement was approved by the Office of Management and Budget (OMB).

DATES: The information collection requirements in 50 CFR 660.520 are effective November 10, 2008.

FOR FURTHER INFORMATION CONTACT: Joshua Lindsay, Southwest Region, NMFS, (562) 980–4034.

SUPPLEMENTARY INFORMATION: On May 30, 2007, NMFS published a final rule (72 FR 29891) implementing new reporting requirements and conservation measures under the Coastal Pelagic Species (CPS) Fishery Management Plan (FMP). This final rule contained information collection requirements that at the time of publication had not yet been approved by OMB. This included the requirement to report any interactions that may occur between a CPS vessel and/or fishing gear and sea otters. The final rule stated that NMFS would publish a subsequent **Federal Register** notice announcing the effectiveness of those requirements. Therefore NMFS announces that OMB approved the collection of information requirements contained in the May 30, 2007, final rule under Control Number 0648-0566 with an expiration date of August 31, 2010.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: October 7, 2008.

Samuel D. Rauch III,

Deputy Assistant Administrator For Regulatory Programs, National Marine Fisheries Service.

[FR Doc. E8–24201 Filed 10–9–08; 8:45 am]

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