



MARINE MAMMAL COMMISSION

10 May 2017

U.S. Coast Guard
Docket Number USCG-2014-0941

To Whom It May Concern:

The Marine Mammal Commission (the Commission), in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the U.S. Coast Guard (USCG) Seventeenth District report entitled “Preliminary Findings Port Access Route Study [PARS]: in the Bering Sea, Bering Strait and Chukchi Sea” and accompanying *Federal Register* Notice (82 Fed. Reg. 11935). We offer the following comments and recommendations.

Background

Under the current warming conditions, both the geographic extent of open water in the Arctic Ocean and the length of its ice-free season are increasing. As a result, vessel traffic through the Bering Sea to and from the North Pacific and Arctic Oceans is also increasing and is expected to continue to do so for the foreseeable future. To improve navigational safety for the increasing number of transiting vessels, the preliminary findings in this PARS report (hereafter the report) consider three alternatives for designating a four-mile wide two-way shipping lane to guide vessels along a safe passage that will minimize risks of accidents. All three options include a four-turn route through the eastern Bering Sea for vessels transiting to and from North America through Unimak Pass to and from the Arctic or northern Bering Sea. The first alternative extends from Unimak Pass to the Chukchi Sea, with a segment crossing the western part of a critical habitat designated for North Pacific right whales in the southeastern Bering Sea and a Western Spur extending from the U.S.-Russia border northwest of St. Lawrence Island to the eastern Bering Sea route near King Island at the southern entrance to the Bering Strait. This spur would serve vessels transiting between eastern Asia and the Arctic. The second alternative eliminates the Western Spur. The third alternative eliminates the Western Spur and truncates the southern end of the eastern route about 50 nautical miles southwest of Nunivak Island and northwest of the right whale critical habitat. The report also considers a fourth alternative that could be combined with any of the other three routing alternatives. This alternative would involve designating up to four separate International Maritime Organization “Areas To Be Avoided” (ATBAs). Each of the four ATBAs would steer ships clear of areas with shoal waters or important cultural and environmental features. The four ATBAs include waters (1) west of the northern leg in the Bering Strait, (2) around and south of St. Lawrence Island, (3) around King Island, and (4) around Nunivak Island.

Analyses in the report build on two previous routing reports – one announced in November 2010 that considered a route through the Bering Strait only, and another announced in December 2014 that considered extending the route south to Unimak Pass. Because of concern over possible collisions between ships and whales (hereafter referred to as “ship strikes”) and other impacts (e.g.,

oil spills and vessel noise) on marine mammals, particularly on endangered North Pacific right whales and marine mammals taken by Alaska Native subsistence hunters, the Commission commented on both earlier reports in letters of 6 May 2011 https://www.mmc.gov/wp-content/uploads/cgd_BS_PARS_050611.pdf and 3 June 2015 https://www.mmc.gov/wp-content/uploads/dot_beringsea_pars_060315.pdf (the letters are also attached).

Comments and Recommendations

The Commission commends the Coast Guard for recognizing and taking steps to mitigate the growing risks of vessel accidents and environmental and cultural impacts associated with the increasing levels of Arctic vessel traffic. The remote location and harsh conditions in Arctic and sub-arctic waters make navigation in them particularly hazardous and incident response is likely to be very difficult. This situation elevates concern for human safety and environmental impacts, including impacts on marine mammals. Prevention of accidents is critical.

Of all the routing options considered, the Commission strongly supports the first option that includes a designated sea lane running all the way from Unimak Pass to the Chukchi Sea and a Western Spur north of St. Lawrence Island. The Commission also strongly supports the designation of all four ATBAs, each of which includes important Alaska native subsistence hunting grounds and important habitat for regional populations of pinnipeds, walruses, and cetaceans. In order to best prevent collisions, groundings, and other events that could have impacts on marine mammals and subsistence hunting, the Commission recommends that the Coast Guard proceed with steps to plan and implement the first alternative of a two-way vessel traffic lane from Unimak Pass to the Chukchi Sea, including the Western Spur and each of the four alternative ATBAs. As discussed below, the Commission believes that several other changes and additions should be considered to improve protection against possible vessel impacts on both subsistence hunting and marine mammals.

Relocate the Connection and Route of the Western Spur: As currently shown on the report's route maps, the Western Spur would join the eastern Bering Sea route a few miles west of King Island. King Island and its surrounding waters are important habitat for several species of seals and for subsistence hunting. The Commission is concerned that vessels traveling to the Arctic along the Western Spur could miss their turn at the proposed roundabout joining the eastern Bering Sea shipping lane and run aground on shoals around King Island. Fuel and/or cargo spills could have significant impacts on this area's subsistence hunting and marine mammals and would be very difficult to clean up. These risks, however, could be substantially reduced by shifting the roundabout at the eastern end of the Western Spur 10 to 15 miles north of King Island. Although we understand that depths on nautical charts may not be accurate, it appears that a more northerly route between the proposed roundabout at the western end of the Spur at the U.S.-Russian border and a roundabout junction with the eastern sea lane north of King Island would not encounter any shallow reefs and be no less safe for navigation than the current route. Therefore, to reduce the chances of groundings on King Island Shoals that could lead to the loss of human life, as well as significant cultural and environmental impacts associated with resulting fuel or cargo spills, the Commission recommends that the Coast Guard consider moving the junction and roundabout at the eastern end of the Western Spur 10 to 15 nautical miles north of King Island.

In addition, the Commission notes that the western end of the Western Spur ends north of the 36-mile-wide strait separating St. Lawrence Island from the Chukchi Peninsula in Russia.

Extending the Western Spur further southwest through this strait to a point due west of St. Lawrence Island would seem prudent to minimize risks of groundings on either side of this strait. It appears that the best route to keep vessels as far as possible from shoals near St. Lawrence Island and the Chukchi Peninsula would be a route that crosses at least partly into Russian waters. The Commission therefore believes, as recommended in its past letters on managing vessel traffic in the Bering Sea, it would be highly desirable for the Coast Guard to explore possible management options with appropriate Russian authorities, including an option to extend the Western Spur further south and west through this strait. Accordingly, to minimize the risk of groundings, loss of life, and both cultural and environmental impacts from associated fuel and cargo spills west of St. Lawrence Island, the Commission recommends that the Coast Guard, in consultation with the State Department, continue to engage its Russian counterparts in discussions on vessel routing measures through the Bering Sea, including the identification and designation of a two-way shipping lane to extend the Western Spur south and west through the strait separating St. Lawrence Island and the Chukchi Peninsula.

Areas to be Avoided (ATBAs): As noted above, in addition to the three routing options, the Coast Guard proposes the designation of four areas to be avoided. These include King, St. Lawrence, and Nunivak Islands and the area west of the proposed lanes in the central Bering Strait. These areas will improve navigation safety by helping to keep transiting vessels away from shoal waters where potential groundings could occur that could release fuel and other hazardous substances harmful to wildlife, including marine mammals, and to Native subsistence hunting dependent on that wildlife. These ATBAs also benefit wildlife in those areas by reducing noise and disturbance that could also affect wildlife and subsistence hunting. Therefore, the Commission recommends that the Coast Guard adopt all four identified ATBAs.

The Commission believes that there is good justification for designating two additional ATBAs to minimize noise, disturbance, and other impacts from transiting vessels on marine mammals and other wildlife. These two areas include (1) all waters designated as critical habitat for North Pacific right whale except those within any designated two-way shipping lane as might be established in the southeastern Bering Sea, and 2) waters east of the proposed shipping lane through the Bering Strait. Regarding the first area, most sightings of North Pacific right whales over the past 20 years in the Bering Sea (Baumgartner et al. 2013, Zerbini et al. 2015) have involved feeding whales seen or detected acoustically east of the proposed shipping lane in the right whale critical habitat designated by the National Marine Fisheries Service (NMFS) in 2006 (71 Fed. Reg. 38277). There is a great deal of evidence demonstrating that North Atlantic and southern right whales are hit and killed by ships (IWC 2013, p. 448, Laist et al. 2014; Laist 2017) and affected by vessel noise (Hatch et al 2012, Rolland et al 2012). It must be assumed that North Pacific right whales are similarly at risk from these factors. The Commission therefore believes that designating waters east and west of the proposed shipping lane as it crosses North Pacific right whale critical habitat as an ATBA would help minimize the risks of right whales being hit by ships or disturbed by vessel noise in areas where the whales are most likely to occur.

With regard to the Bering Strait, the Commission also is concerned that vessels moving east of the proposed shipping lane could run aground on Prince of Wales Shoal and release fuel or hazardous cargo at the tip of the Seward Peninsula. Noise from ships also could disturb the natural behavior of marine mammals and disrupt subsistence hunting along the peninsula's northern shores. The Commission believes that an ATBA east of the proposed shipping lane similar to the one

proposed on its western flank would provide appropriate and warranted protection for important habitat for wildlife, including marine mammals, and for subsistence hunting at the tip of the Seward Peninsula and the entrance to Kotzebue Sound north of the Seward Peninsula.

Therefore, the Commission recommends that the Coast Guard consider designating two additional ATBAs, namely: (1) all waters in the designated right whale critical habitat except for those areas within any designated two-way ship lane running through the critical habitat in the southeastern Bering Sea, and (2) waters east of the proposed shipping lane in the Bering Strait, including a) all waters 10 to 15 nautical miles immediately east of the proposed lane from the King Island ATBA north to the tip of the Seward Peninsula, and b) all waters north and east of the western tip of the Seward Peninsula within a triangle bounded by the shipping lane to the east, the north shore of the Seward Peninsula east to Cape Espenberg, and a line between the roundabout at the northern end of the proposed two-way shipping lane and Cape Espenberg. The latter ATBA would include all of the Prince of Wales Shoal.

Consultations with the National Marine Fisheries Service and Fish and Wildlife Service: As noted above, vessel traffic can adversely affect marine mammals listed as endangered under the Endangered Species Act (ESA), including the North Pacific right whale. Among other impacts, whales can be killed by ship strikes, disturbed by vessel noise, and harmed by accidents that produce spills of hazardous substances. For these reasons, and as discussed in its previous letters, the Commission believes that there may be a need for additional management actions to protect endangered species. Such actions may include plans and arrangements to respond to spills of fuel or hazardous cargo, preparing Notices to Mariners about important wildlife or subsistence hunting areas, improving coverage by Automatic Information Systems (AIS), or establishing vessel speed restrictions in areas where vessel-related risks to endangered species or their habitats are particularly great. To ensure that such measures are carefully considered, as in previous letters, the Commission recommends that the U.S. Coast Guard initiate consultations with NMFS pursuant to section 7 of the ESA to identify additional management actions needed to protect North Pacific right whales and other listed marine mammals from vessel impacts that may result from new vessel traffic patterns associated with the designation of the proposed sea lanes. In addition, given the large number of endangered whales that travel through Unimak Pass, including North Pacific right whales, the Commission recommends that, if it has not already been done, this consultation consider the need for additional management measures, including speed restrictions, to protect these whales in Unimak Pass.

In addition, although not currently listed as endangered, the Commission believes that consultation with the Fish and Wildlife Service should also be undertaken relative to possible impacts on walrus. A petition has been filed to list Pacific walrus under the ESA and walrus are also vulnerable to ship strikes, disturbance by vessel noise, and impacts from spills of fuel or hazardous cargo. Therefore, the Commission recommends that Coast Guard consult with Fish and Wildlife on steps that may be needed to minimize risks to walrus and native subsistence hunting of walrus associated with the vessel traffic along the proposed vessel lane.

U.S. Coast Guard

10 May 2017

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I hope these comments and recommendations are helpful. If you or your staff has questions, please call.

Sincerely,



Rebecca J. Lent, Ph.D.
Executive Director

Cc: Donna Weiting, National Marine Fisheries Service

Enclosures:

- MMC letter of 6 May 2011 on plans to prepare a Bering Strait PARS Report
- MMC letter of 3 June 2015 on plans to prepare Chukchi Sea, Bering Strait, and Bering Sea PARS report

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MARINE MAMMAL COMMISSION

6 May 2011

Docket Management Facility
U.S. Department of Transportation
West Building, Ground Floor, Room W12-140
1200 New Jersey Avenue, SE
Washington, D. C. 20590-0001

Re: Docket No. USCG-2010-0833

To Whom It May Concern:

The Marine Mammal Commission, in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the U.S. Coast Guard's *Federal Register* notice (75 Fed. Reg. 68568) requesting comments on the development of a port access route study for U.S. waters in the Bering Strait. The Commission offers the following recommendations and comments.

RECOMMENDATIONS

The Marine Mammal Commission recommends that, as part of its planned port access route study for the Bering Strait, the U.S. Coast Guard—

- conduct a spatial and temporal analysis of factors affecting the distribution and potential co-occurrence of both marine mammals and ship traffic through the Bering Strait to identify options for vessel traffic routes that would minimize overlap between marine mammals—particularly endangered or threatened marine mammals—and ships while also meeting requirements for vessel safety and other environmental, cultural, and subsistence protection needs;
- consult with the National Marine Fisheries Service and the Fish and Wildlife Service pursuant to section 7 of the Endangered Species Act to determine the vessel management actions and accident response capabilities needed to protect marine mammal species listed or under consideration for listing under that Act from possible impacts associated with vessel traffic and alternative vessel traffic management options;
- consult with the National Marine Fisheries Service's National Marine Mammal Laboratory to characterize the occurrence, movements, and seasonality of non-endangered and non-threatened seals and cetaceans in the Bering Strait and their potential vulnerability to impacts associated with vessel traffic;
- provide a thorough analysis of potentially hazardous cargo that might be transported through the Bering Strait and identify equipment and logistical requirements necessary to free vessels that run aground and clean up any hazardous materials that might be spilled in all possible seasons, weather, and ice conditions;
- consult with Alaska Native communities bordering the Bering Strait, Alaska Native Organizations (e.g. the Alaska Eskimo Whaling Commission and Eskimo Walrus Commission) and the Alaska Department of Fish and Game to identify and characterize the species, seasons, and areas in which traditional marine mammal subsistence hunting occurs;

- assess the value of (1) establishing a mandatory vessel traffic separation scheme, and (2) designating areas outside the vessel traffic lanes as “areas to be avoided” as defined by the International Maritime Organization, while taking account of environmental, cultural and subsistence protection needs;
- consider the need for establishing vessel speed restrictions of 10 knots if vessel traffic and bowhead whales are likely to overlap during the species’ peak migratory periods through the Bering Strait; and
- consult with its Russian counterpart to advise it of steps being taken in the United States to plan for increased shipping through the Bering Strait, to share data on vessel traffic and the possible impact of shipping on the environment, and to consider establishment of cooperative, complementary vessel management actions on both U.S. and Russian sides of the area.

RATIONALE

Decreasing ice cover in Arctic waters has focused international attention on potential use of the Arctic Ocean as a shipping corridor. The only shipping route from the Arctic to the Bering Sea and North Pacific is through the Bering Strait. To address the expected increase in shipping through the Strait, the Coast Guard will assess whether creation of vessel routing measures is advisable to increase the predictability of vessel movements and to decrease potential risk of vessel collisions, oil spills, and other events that could threaten the marine environment.

The Marine Mammal Commission commends the U.S. Coast Guard for its proactive effort to address potential shipping hazards in the Bering Strait. The Bering Strait is a roughly 50-mile-wide gateway between the Seward Peninsula, Alaska, and the Chukotka Peninsula, Russia. A recent report concluded that the Strait meets all seven of the Convention on Biological Diversity’s criteria for ecologically and biologically significant areas (Speer and Loughlin 2010). Among other things, large numbers of marine mammals migrate seasonally through the Strait between feeding and wintering grounds in the Chukchi and Bering Seas.

Vessel traffic and management through the Strait could have significant effects on marine mammals, and those effects should be considered as part the Coast Guard’s study. In general, ship traffic poses at least three significant threats to marine mammals: (1) collisions with ships can kill or seriously injure marine mammals (especially large whales); (2) ship collisions and vessel groundings can introduce contaminants, such as fuel oil or hazardous cargo, into the marine environment, affecting marine mammals either directly through physical contact or indirectly through contamination of their food, and (3) disturbance due to noise from engines, ice-breaking activities, or other vessel noise or the mere physical presence of the vessels can alter marine mammal movements and habitat-use patterns.

Between early March and May bowhead whales migrate north through the Bering Strait to Arctic feeding grounds, possibly following a route that takes most whales along the eastern side of the Strait through U.S. waters. After moving to waters in the western Chukchi Sea north of the

Chukotka Peninsula between late summer and fall, most whales return south in November and December, traveling principally along the western side of the Strait in Russian waters to wintering grounds in the Bering Sea (Braham et al. 1980, Moore et al. 1995, Quakenbush et al. 2010a, b). Less is known about the movement of eastern gray whales through the Bering Strait; however, observations of feeding whales in the Chukchi Sea and the Bering Strait between August and November, and occasionally as late as early December, indicate that a portion of this population moves through the area and that the timing is influenced by ice conditions (Clarke and Moore 2002, Moore et al. 2002 [Figure 7 and Table 6]). In addition, a large number of gray whales feed immediately south of the Bering Strait during summer and fall months (Moore et al. 2002, 2003). A large portion of the Pacific walrus population migrates annually through the Strait. Its northward migration peaks in May and June and the southward migration peaks in October and November as pack ice reforms and pushes south (Garlich-Miller et al. 2011). In late fall, walrus form large aggregations along the Russian coast on the northwestern side of the Bering Strait. Large haul-out sites also have been reported intermittently on islands in the Bering Strait region (Big Diomedes, King Island, and the Penuk Islands) in late fall and early winter, prior to the onset of ice formation (Fay 1982). Substantial portions of several seal populations (particularly the various species of ice seals) and small cetaceans (particularly beluga whales) also move through the Strait seasonally. All of these species are vital cultural and subsistence resources for Native residents in both Alaska and Chukotka.

The potential impact of increased shipping on marine mammals should be an important part of the Coast Guard's study, as recommended in the Arctic Marine Shipping Assessment (Arctic Council 2009). To ensure that the impact is adequately considered, the Marine Mammal Commission recommends that the U.S. Coast Guard conduct a spatial and temporal analysis of factors affecting the distribution and potential co-occurrence of both marine mammals and ship traffic through the Bering Strait to identify options for vessel traffic routes that would minimize overlap between marine mammals—particularly endangered or threatened marine mammals—and ships while also meeting requirements for vessel safety and other environmental, cultural and subsistence protection needs. This analysis should consider obvious physical parameters, such bathymetry, ocean current patterns, tidal range, and seasonal ice conditions, as well as information on the distribution and movement patterns of marine mammals and marine mammal subsistence hunting by Alaska Natives (e.g., Ashjian et al. 2010).

Several marine mammal species in this region are listed or being considered for listing as endangered or threatened under the Endangered Species Act (i.e., bowhead whales, Pacific walrus, ringed seals, and bearded seals). To ensure their protection, the Marine Mammal Commission recommends that the U.S. Coast Guard consult with the National Marine Fisheries Service and the Fish and Wildlife Service pursuant to section 7 of the Endangered Species Act to determine vessel management actions and accident response capabilities needed to protect marine mammal species either listed or under consideration for listing under that Act from possible impacts associated with vessel traffic and alternative vessel traffic management options in the Bering Strait. In addition, because of the importance of the Bering Strait for seal and small cetacean species and populations not listed under the Endangered Species Act, the Marine Mammal Commission recommends that the U.S. Coast Guard consult with the National Marine Fisheries Service's National Marine Mammal

Laboratory to characterize the occurrence, movements, and seasonality of non-endangered and non-threatened seals and cetaceans in the Bering Strait and their potential vulnerability to impacts associated with vessel traffic.

The Coast Guard will need to consider the availability of clean-up response and vessel salvage capabilities to address the risks associated with spills of fuel oil or hazardous materials carried as cargo. Management of such situations will be challenging, given the Strait's remote location and the need to cope with harsh weather and seasonal ice conditions. Nevertheless, this need must be considered, and the Marine Mammal Commission therefore recommends that the U.S. Coast Guard provide a thorough analysis of potentially hazardous cargo that might be transported through the Bering Strait and identify equipment and logistical requirements necessary to free vessels that run aground and clean up any hazardous materials that might be spilled in all possible seasons, weather, and ice conditions.

As noted earlier, most marine mammals are vital subsistence resources for Native residents living along the Bering Strait coast. Their hunting grounds vary by species, season, and annual ice conditions. Engine noise, vessel movements, and perhaps other factors associated with ship traffic may alter marine mammal movement and habitat-use patterns, and it is therefore important to ensure that any increase in vessel traffic does not cause marine mammals to abandon their habitat, making them unavailable to subsistence hunters. To assess such risks, the Marine Mammal Commission recommends that the U.S. Coast Guard consult with Alaska Native communities bordering the Bering Strait, Alaska Native Organizations (e.g. the Alaska Eskimo Whaling Commission and Eskimo Walrus Commission), and the Alaska Department of Fish and Game to identify and characterize the species, seasons, and areas in which traditional marine mammal subsistence hunting occurs.

As a general matter, actions to reduce the risk of vessel collisions or groundings also will protect marine mammals from spills of oil, fuel, or hazardous cargo. Given the remote location and limited logistical support available to respond to such incidents, the Commission believes it is particularly important to recognize that the best protection will be measures that prevent incidents before they happen. With that in mind, the Marine Mammal Commission recommends that the U.S. Coast Guard assess the value of (1) establishing a mandatory vessel traffic separation scheme, and (2) designating areas outside the vessel traffic lanes as "areas to be avoided" as defined by the International Maritime Organization, while taking account of environmental, cultural and subsistence protection needs.

The Marine Mammal Commission also is concerned about the risk of vessels striking and either killing or seriously injuring large whales. Because of their movements and distribution, bowhead whales are likely the species most vulnerable to being struck by ships in the Arctic. Based on right whale carcasses observed along the East Coast of North America in recent years, a third to nearly half of all known right whale deaths resulted from collision with a ship. To address collision effects on right whales along the East Coast, the National Marine Fisheries Service recently limited vessel speeds to 10 knots in times and areas where collision risks are most likely, including areas

along their migratory corridor. To date, there are few records of bowhead whales struck by ships—likely because levels of vessel traffic in the Arctic have been very low so far. However, because of the bowhead's close similarity in behavior to that of right whales, the Commission believes that bowhead whales would be similarly vulnerable to ship strikes if vessel traffic increases.

The area of greatest risk could well be in the Bering Strait during the fall. At that time, the whales move south, principally along the Russian side of the Strait in relatively ice-free conditions that could still be transited by vessels. In the spring, vessel traffic and collision risks are likely to be relatively low because of heavy ice conditions. However, if there is a potential for vessel traffic through the Strait during the March–May migratory period or if it is determined that a significant number of southbound whales travels through U.S. waters during the November–December migration, the Commission believes consideration of a 10-knot speed limit would be warranted. Accordingly, the Marine Mammal Commission recommends that the U.S. Coast Guard consider the need for establishing vessel speed restrictions of 10 knots if vessel traffic and bowhead whales are likely to overlap during the species' peak migratory periods through the Bering Strait.

Finally, while U.S. jurisdiction extends only over the eastern half of the Bering Strait, vessel traffic and the potential impact on marine mammals also are likely in the western half of the Strait, which is under Russian jurisdiction. To coordinate vessel management in and near the Strait, the Marine Mammal Commission recommends that the U.S. Coast Guard consult with its counterpart in the Russian government to advise it of steps being taken in the United States to plan for increased shipping through the Bering Strait, to share data on vessel traffic and the possible impact of shipping on the environment, and to consider the establishment of cooperative, complementary vessel management actions on both U.S. and Russian sides of the area. Such cooperation could be particularly important and cost-effective for addressing equipment and logistical requirements to respond to vessel groundings and contaminant clean-up needs.

I hope these comments and recommendations are helpful. If you have questions, please do not hesitate to contact me.

Sincerely,



Timothy J. Ragen, Ph.D.
Executive Director

Cc: Steven M. Tucker

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MARINE MAMMAL COMMISSION

3 June 2015

Docket Management Facility (M30)
U.S. Department of Transportation
West Building, Ground Floor, Rm. W12-140
New Jersey Avenue, SE
Washington, D.C. 20590

Re: Docket No. USCG-2014-0941

To Whom It May Concern:

The Marine Mammal Commission (Commission), in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the U.S. Coast Guard's 5 December 2014 *Federal Register* notice (79 Fed. Reg. 72157) and supporting documents requesting comments on the development of a Port Access Route Study for the Chukchi Sea, Bering Strait, and Bering Sea. The Commission offers the following comments and recommendations. These recommendations supplement those provided to the Coast Guard on 6 May 2011 (letter enclosed) regarding shipping through the Bering Strait, and are based on the map of the new proposed route from Unimak Pass to the Chukchi Sea referenced in the notice.

The Commission believes that the expanded scope of this study to consider a shipping route throughout the eastern Bering Sea from Unimak Pass to the Chukchi Sea is appropriate and commends the Coast Guard for taking this expanded view of regional vessel traffic management. As indicated in our May 2011 letter, the Commission is concerned about the effect of increasing levels of Arctic shipping on marine mammals that is anticipated as global warming reduces the extent of summer sea-ice in the Arctic Ocean and adjacent seas. Increased shipping to and from the Arctic has the potential to affect marine mammals, as well as subsistence hunting of marine mammals, particularly at key choke points along marine mammal migratory routes and foraging areas, such as the Bering Strait, the eastern end of St. Lawrence Island, and Unimak Pass.

Recognizing the possible adverse effects on marine mammals from vessel noise, ship-strikes, and the release of hazardous substances from groundings and vessel collisions, the Commission is concerned about the effects of increasing vessel traffic along the proposed route on both marine mammals and Alaska Native subsistence hunters who rely on marine mammals. As such, the Commission commends the Coast Guard for encouraging formation of the Arctic Marine Mammal Coalition (AMMC) to solicit advice from local communities on regional vessel traffic plans. As it did in its 2011 letter, the Commission recommends that the Coast Guard continue its ongoing consultations with Alaska Native communities bordering the proposed Bering Strait route, Alaska Native Organizations (e.g. the Alaska Eskimo Whaling Commission, Eskimo Walrus Commission and AMMC), the Alaska Department of Fish and Game, and the National Marine Fisheries Service to identify and characterize the species, seasons, and areas in which marine mammals and traditional marine mammal subsistence hunting occur.

As noted in the 2011 letter and as recommended by the AMMC, the Commission supports plans to direct vessel traffic from the west side of St. Lawrence Island to the east side to minimize impacts on subsistence hunting. The proposed route should help in this regard. However, in reviewing the proposed route and specific areas of possible impact on subsistence activities, the Commission suggests that the Coast Guard consult with Native hunting representatives to consider whether there would be a lower impact on subsistence hunters if the route's proposed leg east of St. Lawrence Island were moved further east. This might be accomplished without adding turns along the route by extending the leg between points 4/10 and 5/11 further north before bending west on the leg connecting with points 3/9. The Commission also notes that the AMMC recommended the creation of a Waterway Safety Committee and improvements to the existing communications infrastructure for Arctic shipping, and it urges the Coast Guard to pursue further action on those matters as well.

In addition, because the United States shares jurisdiction of the Bering Strait with Russia, which also has a vital interest in managing increased levels of Arctic shipping and avoiding associated accidents, the Commission again recommends that the Coast Guard continue to consult with its Russian counterparts and advise them about steps being taken in the United States to plan for increased shipping through the Bering Strait, share data on vessel traffic and the possible impact of shipping on the environment, and pursue the establishment of cooperative, complementary vessel management systems on both the American and Russian sides of the Bering Sea and Bering Strait.

The Commission notes that, should there be an accident resulting in the release of hazardous substances anywhere along the proposed route, it would be very difficult to mount an adequate response given the region's remote location, lack of adequate infrastructure, and icy conditions during much of the year. There currently are no proven, effective methods for cleaning up a spill in the Arctic marine environment, particularly in icy conditions. Therefore, the most prudent approach is to emphasize measures designed to achieve accident prevention. In this regard, the Commission believes it would be appropriate and reasonable to designate the proposed route as a Traffic Separation Scheme with separate north-south lanes offset by a separation zone. Consideration should be given to making each lane and the separation zone between them two miles wide. This would be preferable to a Two Way Route within which vessels could be traveling in opposite directions in the same corridor, presenting a higher collision risk. Thus, as recommended in its 2011 letter, the Commission again recommends that the Coast Guard consider establishing the entire proposed route as a Traffic Separation Scheme.

As also noted in the 2011 letter, the Bering Strait is a particularly important marine mammal migratory corridor. Walrus, bowhead whales, other large whales, beluga whales, and ice seals migrate through this narrow strait annually. In view of the Strait's importance to marine mammals and subsistence hunters who depend on them, the Commission recommends that the Coast Guard designate the north-south leg of the proposed route that passes through the Bering Strait (i.e., the leg between points 2/8 and 1/7) as a Precautionary Area with a standing Notice To Mariners advising them to be particularly alert for subsistence hunters and marine mammals and to be prepared to reduce vessel speed when either are sighted in or near the vessel's path. Also, as previously recommended in its 2011 letter, the Commission again recommends that the Coast Guard consider designating waters outside the Traffic Separation Scheme along this stretch (e.g.

within 15 miles of either side of the proposed lane between points 2/8 and 1/7) as an “Area To Be Avoided.”

The ability to monitor vessel traffic along the route is also important. The development of an Automatic Identification System (AIS) to track ship traffic has greatly improved the ability to monitor and manage vessel traffic; however, the proposed route is currently not well covered by existing shore stations. Therefore, as part of the PARS study for the proposed route, the Commission recommends that the Coast Guard consider steps to improve AIS coverage along the proposed Vessel Routing System through the installation of additional shore stations. For example, adding AIS shore stations at places such as the western tip of Nunivak Island, the eastern tip of St. Lawrence Island, on the Alaska mainland near Hooper Bay and Cape Romanzof, and Krekatok Island might significantly improve the Coast Guard’s ability to track vessel traffic along portions of the proposed route.

Although not considered in the proposed Vessel Routing System, the Commission is also concerned about the Vessel Routing System through Unimak Pass. This pass is undoubtedly an important choke-point along the migratory route for North Pacific right whales, which are among the world’s most endangered large whales. These whales almost certainly travel through the pass during the spring and fall as they move between feeding areas designated as critical habitat in the southeast Bering Sea and the Gulf of Alaska. In addition, almost the entire population of gray whales migrates through this pass in the spring and fall. The pass is also used by humpback whales, blue whales, fin whales, killer whales, northern fur seals, and Steller sea lions. Because the pass is narrow (less than 15 miles wide at its narrowest point between Unimak and Ugamak Islands) and surrounded by shoal waters at both islands, there is a high risk of ships encountering and striking whales in this area. In addition, should a grounding or collision between vessels occur, a release of hazardous substances in the Pass could have significant adverse effects on marine mammals and other marine life. Therefore, the Commission recommends that the Coast Guard consider expanding the scope of this study to include the Vessel Routing System through Unimak Pass and designating all lanes within 15 nmi of either Unimak or Ugamak Island as a Precautionary Area and a Regulated Navigation Area with a speed restriction of between 10 and 12 knots. Based on recent experience with such speed restrictions adopted by the National Marine Fisheries Service to protect North Atlantic right whales, speed restrictions could be an effective means of preventing collisions with right whales and other large whales in this sensitive location as well.

We hope these additional recommendations are useful. If you or your staff has questions, please do not hesitate to let me know.

Sincerely,

A handwritten signature in blue ink that reads "Rebecca J. Lent". The signature is written in a cursive style.

Rebecca J. Lent, Ph.D.
Executive Director

Enclosure



MARINE MAMMAL COMMISSION

6 May 2011

Docket Management Facility
U.S. Department of Transportation
West Building, Ground Floor, Room W12-140
1200 New Jersey Avenue, SE
Washington, D. C. 20590-0001

Re: Docket No. USCG-2010-0833

To Whom It May Concern:

The Marine Mammal Commission, in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the U.S. Coast Guard's *Federal Register* notice (75 Fed. Reg. 68568) requesting comments on the development of a port access route study for U.S. waters in the Bering Strait. The Commission offers the following recommendations and comments.

RECOMMENDATIONS

The Marine Mammal Commission recommends that, as part of its planned port access route study for the Bering Strait, the U.S. Coast Guard—

- conduct a spatial and temporal analysis of factors affecting the distribution and potential co-occurrence of both marine mammals and ship traffic through the Bering Strait to identify options for vessel traffic routes that would minimize overlap between marine mammals—particularly endangered or threatened marine mammals—and ships while also meeting requirements for vessel safety and other environmental, cultural, and subsistence protection needs;
- consult with the National Marine Fisheries Service and the Fish and Wildlife Service pursuant to section 7 of the Endangered Species Act to determine the vessel management actions and accident response capabilities needed to protect marine mammal species listed or under consideration for listing under that Act from possible impacts associated with vessel traffic and alternative vessel traffic management options;
- consult with the National Marine Fisheries Service's National Marine Mammal Laboratory to characterize the occurrence, movements, and seasonality of non-endangered and non-threatened seals and cetaceans in the Bering Strait and their potential vulnerability to impacts associated with vessel traffic;
- provide a thorough analysis of potentially hazardous cargo that might be transported through the Bering Strait and identify equipment and logistical requirements necessary to free vessels that run aground and clean up any hazardous materials that might be spilled in all possible seasons, weather, and ice conditions;
- consult with Alaska Native communities bordering the Bering Strait, Alaska Native Organizations (e.g. the Alaska Eskimo Whaling Commission and Eskimo Walrus Commission) and the Alaska Department of Fish and Game to identify and characterize the species, seasons, and areas in which traditional marine mammal subsistence hunting occurs;

- assess the value of (1) establishing a mandatory vessel traffic separation scheme, and (2) designating areas outside the vessel traffic lanes as “areas to be avoided” as defined by the International Maritime Organization, while taking account of environmental, cultural and subsistence protection needs;
- consider the need for establishing vessel speed restrictions of 10 knots if vessel traffic and bowhead whales are likely to overlap during the species’ peak migratory periods through the Bering Strait; and
- consult with its Russian counterpart to advise it of steps being taken in the United States to plan for increased shipping through the Bering Strait, to share data on vessel traffic and the possible impact of shipping on the environment, and to consider establishment of cooperative, complementary vessel management actions on both U.S. and Russian sides of the area.

RATIONALE

Decreasing ice cover in Arctic waters has focused international attention on potential use of the Arctic Ocean as a shipping corridor. The only shipping route from the Arctic to the Bering Sea and North Pacific is through the Bering Strait. To address the expected increase in shipping through the Strait, the Coast Guard will assess whether creation of vessel routing measures is advisable to increase the predictability of vessel movements and to decrease potential risk of vessel collisions, oil spills, and other events that could threaten the marine environment.

The Marine Mammal Commission commends the U.S. Coast Guard for its proactive effort to address potential shipping hazards in the Bering Strait. The Bering Strait is a roughly 50-mile-wide gateway between the Seward Peninsula, Alaska, and the Chukotka Peninsula, Russia. A recent report concluded that the Strait meets all seven of the Convention on Biological Diversity’s criteria for ecologically and biologically significant areas (Speer and Loughlin 2010). Among other things, large numbers of marine mammals migrate seasonally through the Strait between feeding and wintering grounds in the Chukchi and Bering Seas.

Vessel traffic and management through the Strait could have significant effects on marine mammals, and those effects should be considered as part the Coast Guard’s study. In general, ship traffic poses at least three significant threats to marine mammals: (1) collisions with ships can kill or seriously injure marine mammals (especially large whales); (2) ship collisions and vessel groundings can introduce contaminants, such as fuel oil or hazardous cargo, into the marine environment, affecting marine mammals either directly through physical contact or indirectly through contamination of their food, and (3) disturbance due to noise from engines, ice-breaking activities, or other vessel noise or the mere physical presence of the vessels can alter marine mammal movements and habitat-use patterns.

Between early March and May bowhead whales migrate north through the Bering Strait to Arctic feeding grounds, possibly following a route that takes most whales along the eastern side of the Strait through U.S. waters. After moving to waters in the western Chukchi Sea north of the

Chukotka Peninsula between late summer and fall, most whales return south in November and December, traveling principally along the western side of the Strait in Russian waters to wintering grounds in the Bering Sea (Braham et al. 1980, Moore et al. 1995, Quakenbush et al. 2010a, b). Less is known about the movement of eastern gray whales through the Bering Strait; however, observations of feeding whales in the Chukchi Sea and the Bering Strait between August and November, and occasionally as late as early December, indicate that a portion of this population moves through the area and that the timing is influenced by ice conditions (Clarke and Moore 2002, Moore et al. 2002 [Figure 7 and Table 6]). In addition, a large number of gray whales feed immediately south of the Bering Strait during summer and fall months (Moore et al. 2002, 2003). A large portion of the Pacific walrus population migrates annually through the Strait. Its northward migration peaks in May and June and the southward migration peaks in October and November as pack ice reforms and pushes south (Garlich-Miller et al. 2011). In late fall, walrus form large aggregations along the Russian coast on the northwestern side of the Bering Strait. Large haul-out sites also have been reported intermittently on islands in the Bering Strait region (Big Diomedes, King Island, and the Penuk Islands) in late fall and early winter, prior to the onset of ice formation (Fay 1982). Substantial portions of several seal populations (particularly the various species of ice seals) and small cetaceans (particularly beluga whales) also move through the Strait seasonally. All of these species are vital cultural and subsistence resources for Native residents in both Alaska and Chukotka.

The potential impact of increased shipping on marine mammals should be an important part of the Coast Guard's study, as recommended in the Arctic Marine Shipping Assessment (Arctic Council 2009). To ensure that the impact is adequately considered, the Marine Mammal Commission recommends that the U.S. Coast Guard conduct a spatial and temporal analysis of factors affecting the distribution and potential co-occurrence of both marine mammals and ship traffic through the Bering Strait to identify options for vessel traffic routes that would minimize overlap between marine mammals—particularly endangered or threatened marine mammals—and ships while also meeting requirements for vessel safety and other environmental, cultural and subsistence protection needs. This analysis should consider obvious physical parameters, such bathymetry, ocean current patterns, tidal range, and seasonal ice conditions, as well as information on the distribution and movement patterns of marine mammals and marine mammal subsistence hunting by Alaska Natives (e.g., Ashjian et al. 2010).

Several marine mammal species in this region are listed or being considered for listing as endangered or threatened under the Endangered Species Act (i.e., bowhead whales, Pacific walrus, ringed seals, and bearded seals). To ensure their protection, the Marine Mammal Commission recommends that the U.S. Coast Guard consult with the National Marine Fisheries Service and the Fish and Wildlife Service pursuant to section 7 of the Endangered Species Act to determine vessel management actions and accident response capabilities needed to protect marine mammal species either listed or under consideration for listing under that Act from possible impacts associated with vessel traffic and alternative vessel traffic management options in the Bering Strait. In addition, because of the importance of the Bering Strait for seal and small cetacean species and populations not listed under the Endangered Species Act, the Marine Mammal Commission recommends that the U.S. Coast Guard consult with the National Marine Fisheries Service's National Marine Mammal

Laboratory to characterize the occurrence, movements, and seasonality of non-endangered and non-threatened seals and cetaceans in the Bering Strait and their potential vulnerability to impacts associated with vessel traffic.

The Coast Guard will need to consider the availability of clean-up response and vessel salvage capabilities to address the risks associated with spills of fuel oil or hazardous materials carried as cargo. Management of such situations will be challenging, given the Strait's remote location and the need to cope with harsh weather and seasonal ice conditions. Nevertheless, this need must be considered, and the Marine Mammal Commission therefore recommends that the U.S. Coast Guard provide a thorough analysis of potentially hazardous cargo that might be transported through the Bering Strait and identify equipment and logistical requirements necessary to free vessels that run aground and clean up any hazardous materials that might be spilled in all possible seasons, weather, and ice conditions.

As noted earlier, most marine mammals are vital subsistence resources for Native residents living along the Bering Strait coast. Their hunting grounds vary by species, season, and annual ice conditions. Engine noise, vessel movements, and perhaps other factors associated with ship traffic may alter marine mammal movement and habitat-use patterns, and it is therefore important to ensure that any increase in vessel traffic does not cause marine mammals to abandon their habitat, making them unavailable to subsistence hunters. To assess such risks, the Marine Mammal Commission recommends that the U.S. Coast Guard consult with Alaska Native communities bordering the Bering Strait, Alaska Native Organizations (e.g. the Alaska Eskimo Whaling Commission and Eskimo Walrus Commission), and the Alaska Department of Fish and Game to identify and characterize the species, seasons, and areas in which traditional marine mammal subsistence hunting occurs.

As a general matter, actions to reduce the risk of vessel collisions or groundings also will protect marine mammals from spills of oil, fuel, or hazardous cargo. Given the remote location and limited logistical support available to respond to such incidents, the Commission believes it is particularly important to recognize that the best protection will be measures that prevent incidents before they happen. With that in mind, the Marine Mammal Commission recommends that the U.S. Coast Guard assess the value of (1) establishing a mandatory vessel traffic separation scheme, and (2) designating areas outside the vessel traffic lanes as "areas to be avoided" as defined by the International Maritime Organization, while taking account of environmental, cultural and subsistence protection needs.

The Marine Mammal Commission also is concerned about the risk of vessels striking and either killing or seriously injuring large whales. Because of their movements and distribution, bowhead whales are likely the species most vulnerable to being struck by ships in the Arctic. Based on right whale carcasses observed along the East Coast of North America in recent years, a third to nearly half of all known right whale deaths resulted from collision with a ship. To address collision effects on right whales along the East Coast, the National Marine Fisheries Service recently limited vessel speeds to 10 knots in times and areas where collision risks are most likely, including areas

along their migratory corridor. To date, there are few records of bowhead whales struck by ships—likely because levels of vessel traffic in the Arctic have been very low so far. However, because of the bowhead's close similarity in behavior to that of right whales, the Commission believes that bowhead whales would be similarly vulnerable to ship strikes if vessel traffic increases.

The area of greatest risk could well be in the Bering Strait during the fall. At that time, the whales move south, principally along the Russian side of the Strait in relatively ice-free conditions that could still be transited by vessels. In the spring, vessel traffic and collision risks are likely to be relatively low because of heavy ice conditions. However, if there is a potential for vessel traffic through the Strait during the March–May migratory period or if it is determined that a significant number of southbound whales travels through U.S. waters during the November–December migration, the Commission believes consideration of a 10-knot speed limit would be warranted. Accordingly, the Marine Mammal Commission recommends that the U.S. Coast Guard consider the need for establishing vessel speed restrictions of 10 knots if vessel traffic and bowhead whales are likely to overlap during the species' peak migratory periods through the Bering Strait.

Finally, while U.S. jurisdiction extends only over the eastern half of the Bering Strait, vessel traffic and the potential impact on marine mammals also are likely in the western half of the Strait, which is under Russian jurisdiction. To coordinate vessel management in and near the Strait, the Marine Mammal Commission recommends that the U.S. Coast Guard consult with its counterpart in the Russian government to advise it of steps being taken in the United States to plan for increased shipping through the Bering Strait, to share data on vessel traffic and the possible impact of shipping on the environment, and to consider the establishment of cooperative, complementary vessel management actions on both U.S. and Russian sides of the area. Such cooperation could be particularly important and cost-effective for addressing equipment and logistical requirements to respond to vessel groundings and contaminant clean-up needs.

I hope these comments and recommendations are helpful. If you have questions, please do not hesitate to contact me.

Sincerely,

A handwritten signature in blue ink that reads "Timothy J. Ragen". The signature is written in a cursive style with a long horizontal line extending from the end of the name.

Timothy J. Ragen, Ph.D.
Executive Director

Cc: Steven M. Tucker

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