



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 stroke at the beginning.

Timothy J. Ragen, Ph.D.
Executive Director

Cc: Steven M. Tucker

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