

SUB-COMMITTEE ON SAFETY OF
NAVIGATION
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Agenda item 14

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ANY OTHER BUSINESS

Development of a Mandatory Polar Code – Voyage Management and Cetaceans

Submitted by the Friends of the Earth International (FOEI), the International Fund for Animal Welfare (IFAW), the World Wide Fund For Nature (WWF) and the Pacific Environment

SUMMARY

Executive summary: In this document, FOEI, IFAW, WWF, and the Pacific Environment provide information on cetacean activity in Arctic areas vulnerable to marine vessel traffic, and request that the NAV Sub-Committee consider and recommend to the appropriate IMO body any suitable Polar Code provisions regarding vessel voyage planning and operations in order to avoid interactions, especially collisions, with cetaceans and other marine mammals

Strategic direction: 5.2

High-level action: 5.2.1

Planned output: 5.2.1.19

Action to be taken: Paragraph 7

Related documents: DE 53/18/3, DE 54/13/3, DE 54/INF.5, DE 55/12, DE 55/12/1, DE 55/12/3, DE 55/12/5, DE 55/12/21, DE 55/WP.1 and MEPC.1/Circ.674

Introduction

1 At DE 55, the environmental organizations, FOEI, IFAW, WWF, and the Pacific Environment submitted a document, DE 55/12/21 on Arctic voyage planning and cetaceans. The DE Sub-Committee "decided not to further consider document DE 55/12/21 regarding vessel voyage planning and operations since it should first be considered by the NAV Sub-Committee and requested the Secretariat to forward the above outcome to the Committees and relevant bodies for further consideration and/or instruction and input, as appropriate." (DE 55/WP.1). We offer this new document for the Sub-Committee's consideration, as well. This submission is meant to be read in combination with document DE 55/12/21 and provides supplemental information on the topic¹.

¹ The preparation of this document was assisted by the Antarctic and Southern Ocean Coalition (ASOC), an umbrella NGO (whose members include FOEI, IFAW and WWF) with expert observer status at the Antarctic Treaty Consultative meetings (ATCM) and meetings of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR).

2 This document offers a number of maps displaying vessel activity in the Arctic region as well as cetacean migration patterns. The intention of this document and DE 55/12/21 is to assist the Sub-Committee in developing navigational and operational measures for the Polar Code, in accordance with MEPC.1/Circ.674, that would minimize the risk of harm to cetaceans. The information contained in these documents is not meant to be exhaustive of the subject matter, but merely to provide examples of the type of information available. Moreover, the vessel track data contained in this document is limited. Member States and perhaps some industry organizations possess significantly more recent data pertaining to vessel tracks and operational characteristics in the Arctic.

Cetaceans in the western Arctic

3 In this document, co-sponsors present visual data on the bowhead whale because it is the most comprehensively tracked whale species in the western Arctic. The bowhead whale is a close relative of the North Atlantic right whale, which has been substantially impacted by ship collisions and propeller wounds, and is similarly vulnerable to vessel-induced injuries. "Areas of high importance for bowhead whales (i.e. Point Barrow and Chukotka) during September through December generally fell within 100 km of shore. Therefore, shipping traffic within 100 km from shore at Point Barrow or Chukotka during this time period could cause significant disturbance. Ships traveling through the narrow area west of Little Diomed Island in November and December would also have high potential for encountering bowhead whales." (Quakenbush *et al.*; see Figs. 3-6)². It should also be noted that the vast majority of all bowhead whale traffic during the fall and winter occurs along the western side of the Bering Strait (see Fig. 6).

Cetaceans in the eastern Arctic

4 Additional information on cetaceans is available for some other areas of the Arctic. The Spitzbergen population of bowhead whales, which ranges between the waters of eastern Greenland and the western Russian Arctic is believed to be very small – as it was almost exterminated by whaling – and is considered Critically Endangered by IUCN. Nonetheless, there has been an increase in reported sightings in recent years, suggesting the possibility that the population is on the rise. For example, whales have recently been observed throughout most of their earlier range of Franz Joseph Land, Svalbard and East Greenland³. Importantly, many of these sightings have been opportunistic, and the increase in sightings may be related to greater shipping traffic^{4,5}. Satellite tracking studies of bowhead whales in West Greenland and the eastern Canadian Arctic have indicated that members of the species that spend the summer in the Baffin Bay-Davis Strait area and the Hudson Bay-Foxe Basin area may winter in the Hudson Strait⁶. Recent deployments of passive acoustic monitoring in the area between Greenland and Svalbard also will provide more information on the presence and distribution of bowheads and other whale species in this area⁷.

² L. Quakenbush *et al.*, *Fall and Winter Movements of Bowhead Whales (Balaena mysticetus) in the Chukchi Sea and Within a Potential Petroleum Development Area*, 63 Arctic 289 (2010).

³ Boertmann D, Merkel F, Durinck J (2009) Bowhead whales in East Greenland, summers 2006–2008. *Polar Biol* 32:1805–1809.

⁴ Gilg O, Born EW (2005) Recent sightings of the bowhead whale (*Balaena mysticetus*) in northeast Greenland and the Greenland Sea. *Polar Biol* 28:796–801.

⁵ Wiig, Ø, Bachmann, L., Øien, N., Kovacs, K.M., Lydersen, C. (2010). Observations of bowhead whales (*Balaena mysticetus*) in the Svalbard area 1940–2009. *Polar Biol* 33:979–984.

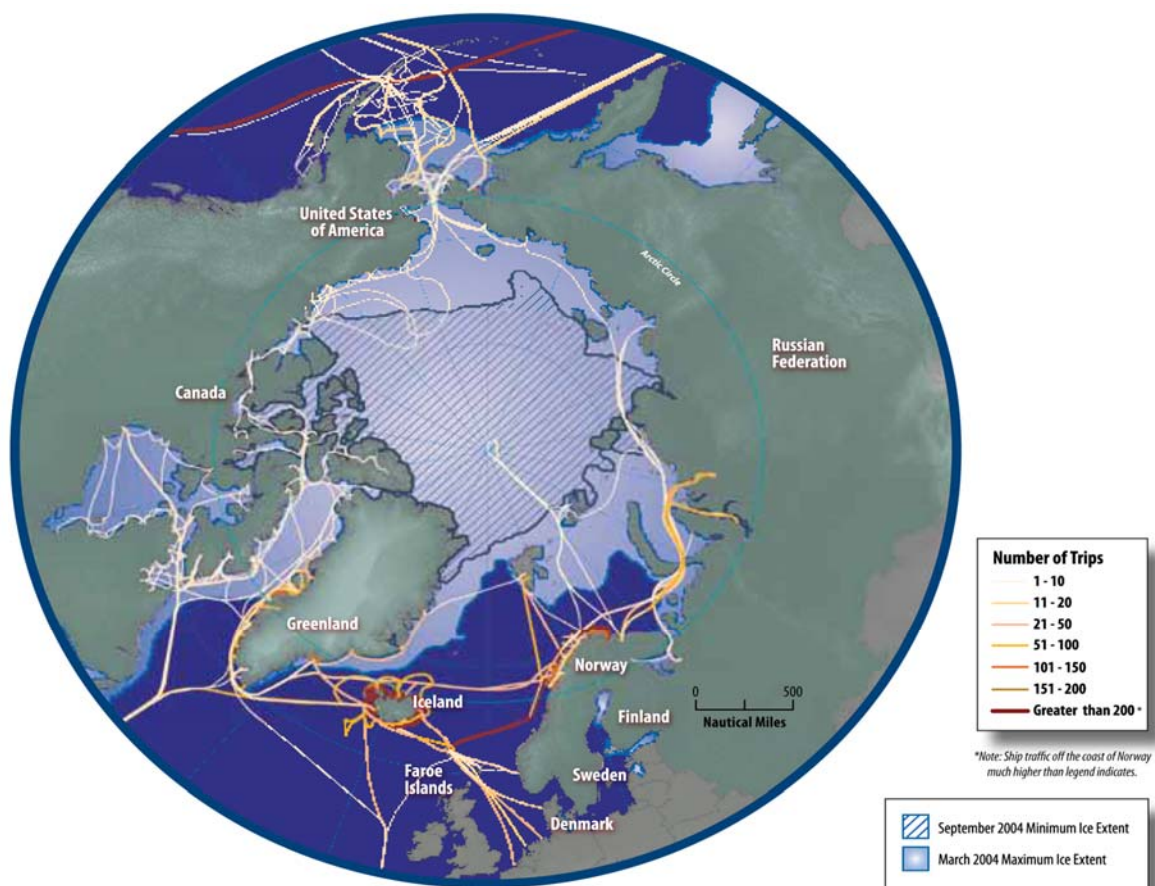
⁶ Koski, W., Heide-Jørgensen, M.P. and Laidre, K. (2006). Winter abundance of bowhead whales, *Balaena mysticetus*, in the Hudson Strait, March 1981. *J. Cetacean Res. Manage.* 8(2):139-44.

⁷ Moore SE, Kathleen M, StaVord KM, Catherine Berchok C, Melling H, Kovacs KM, Lydersen C, Wiig Ø (2010) Including passive acoustic capability in Arctic Ocean observing systems. Abstract. Joint 159th ASA meeting and noise-con 2010, Baltimore, Maryland, 19–23 April 2010.

5 Ship-based and aerial surveys also have been conducted in East and West Greenland, showing the presence of fin, sei, humpback, and minke whales⁸. All of these species are known to have been hit by ships, with fin whales being the large whale species most commonly reported in collisions worldwide. Satellite tracking studies suggest a mainly coastal distribution of humpback whales off West Greenland, with extensive movements⁹.

Conclusion

6 Additional information on other whale species, particularly whales deemed threatened or endangered according to national or sub-national legislation or the IUCN red list should be sought by owners and operators for Arctic voyage planning purposes. It is important to note, however, that information about cetacean movement and marine mammals in general is relatively limited for the Arctic region. In light of this deficiency, we ask that the IMO encourage its Member States, consultative parties and partners to gather and disseminate background scientific data in order to better protect our marine resources.



Map 1.1 Shipping traffic in the Arctic for survey year 2004. Source: AMSA

Figure 1 – Arctic vessel traffic for 2004 (AMSA, 2009)

⁸ Heide-Jørgensen, M.P., Simon, M.J. and Laidre, K.L. 2007. Estimates of large whale abundance in Greenland waters from a ship-based survey in 2005. J. Cetacean Res. Manage 9(2): 95-104.

⁹ Heide-Jørgensen, M.P. and Laidre, K. 2007. Autumn space-use patterns of humpback whale (*Megaptera novaeangliae*) in West Greenland. J. Cetacean Res. Manage 9(2): 121-26.

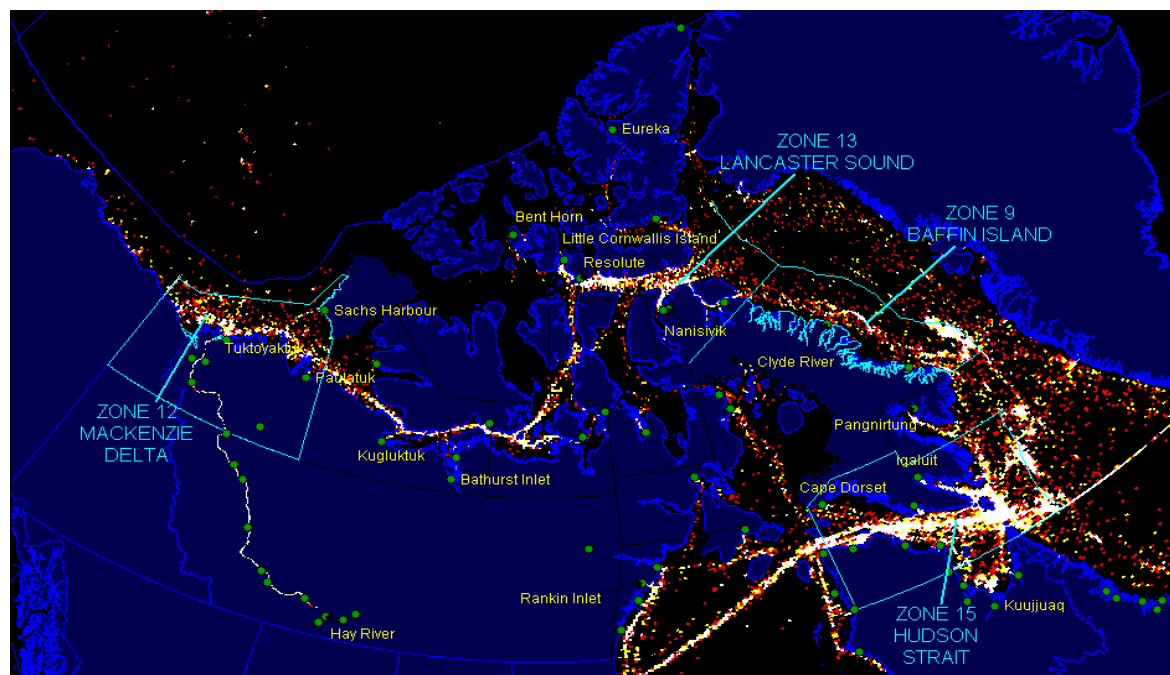


Figure 2 – Canadian Arctic traffic density (ship-days), 1991-2008, red: ≤2 ship-days, yellow: 3 ship-days, white = 4+ ship days¹⁰

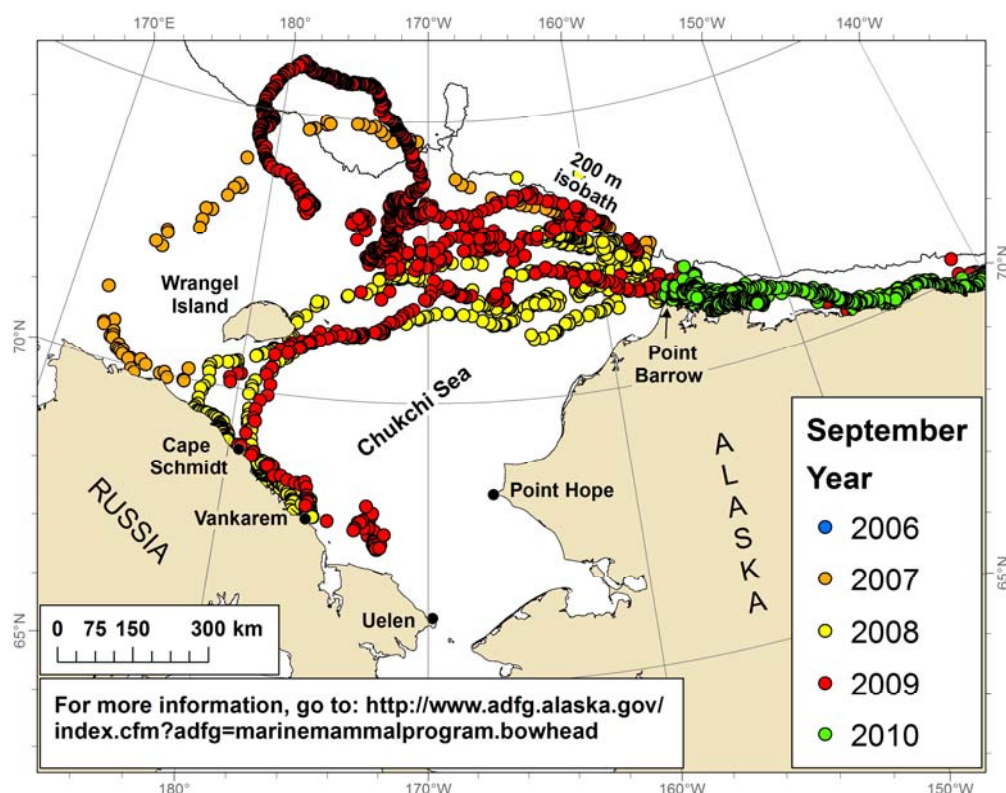


Figure 3 – Track lines of bowhead whales in the Chukchi Sea, Sept. 2006 - 2010¹¹

¹⁰ Brad Judson, *Trends in Canadian Arctic Shipping Traffic – Myths and Rumours*, prepared for the 20th International Offshore (Ocean) and Polar Engineering Conference & Exhibition, Beijing, China, June 20-26, 2010, available at <http://members.shaw.ca/cjudson/arctictraffic.doc>.

¹¹ Map provided by the Alaska Dept. of Fish and Game, Arctic Marine Mammal Program (April 7, 2011).

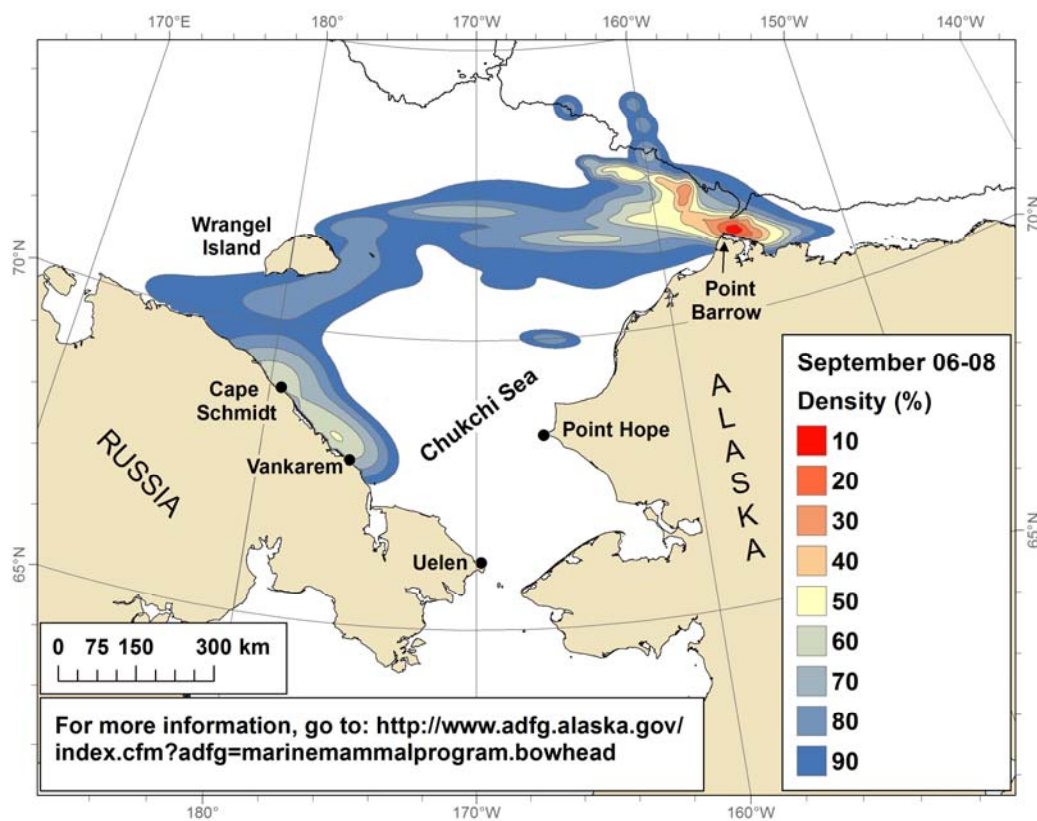


Figure 4 – Bowhead whale density, Sept. 2006 - 2008 (Red = highest concentration) (Id.)

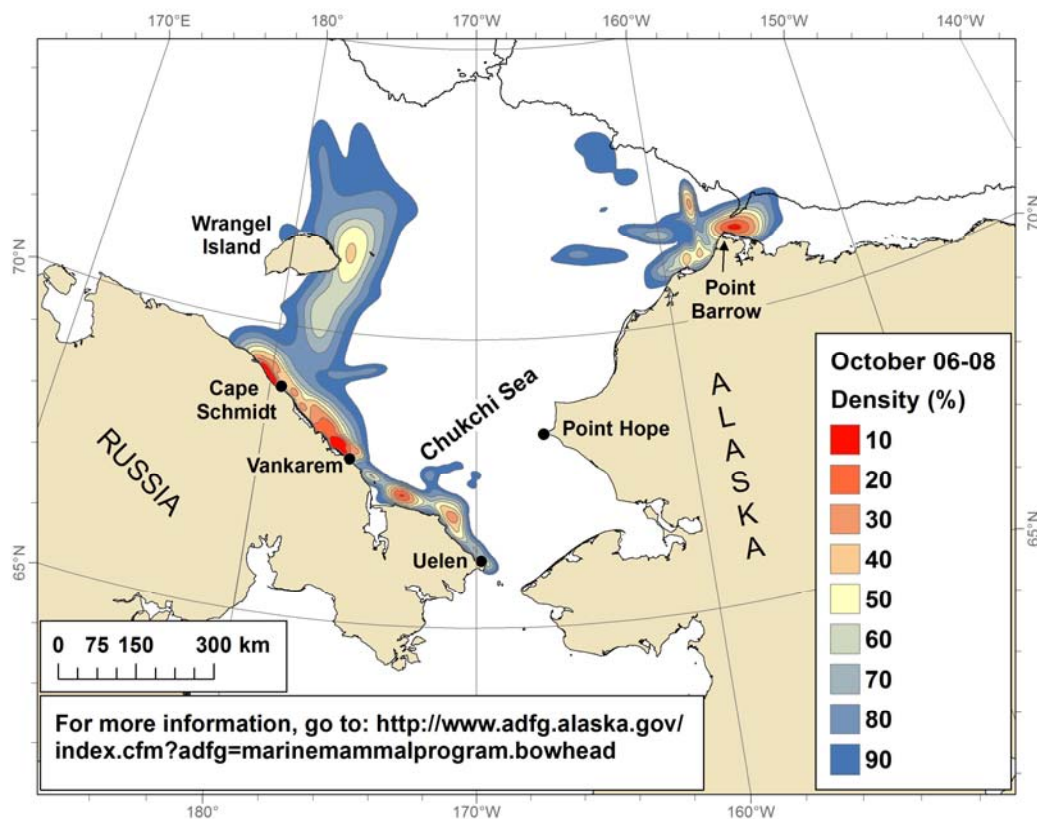


Figure 5 – Bowhead whale density, Oct. 2006 - 2008 (Red = highest concentration) (Id.)

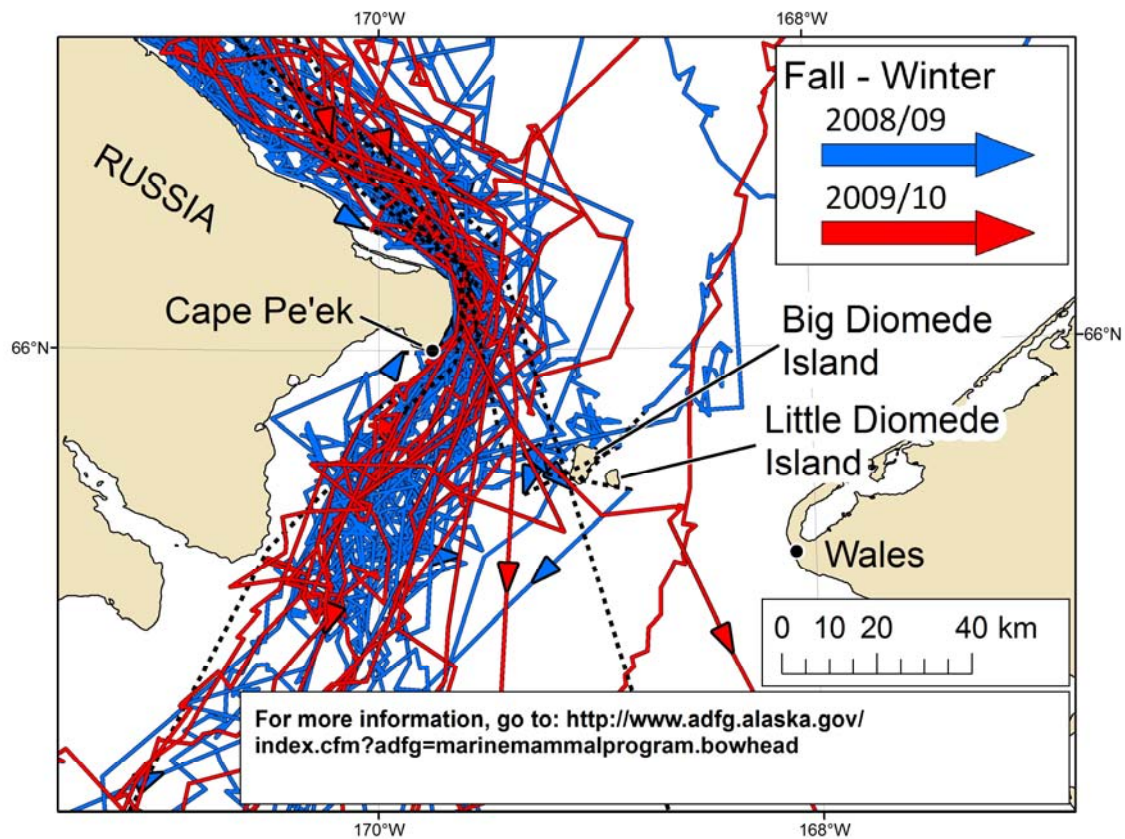


Figure 6 – Bowhead whale activity in the Bering Strait, Fall & Winter 2008 - 2010

Action requested of the Sub-Committee

- 7 The Sub-Committee is invited to note the information provided in this document.