INTERNATIONAL MARITIME ORGANIZATION

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SUB-COMMITTEE ON SHIP DESIGN AND EQUIPMENT
55th session
Agenda item 12

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DEVELOPMENT OF A MANDATORY CODE FOR SHIPS OPERATING IN POLAR WATERS

Harmful substances in packaged form and containers in Arctic waters

Submitted by FOEI, IFAW, WWF and Pacific International

SUMMARY

Executive summary:	In this document, FOEI, IFAW, WWF, and Pacific Environment recognize the increased threat to the Arctic marine environment from the loss of harmful substances in packaged form (HSPF) and containers in general by vessels, provide information about current vessel container losses, request that the DSC Sub-Committee evaluate the need for enhanced standards in the Polar Code for vessels carrying HSPF and containers, and suggest several possible measures that could be considered in discussions on the subject. The DE Sub-Committee is invited to note the information provided and facilitate further consideration, in the DSC Sub-Committee and/or other IMO body as appropriate, of Code provisions that minimize the loss of HSPF as well as containers from ships, mitigate environmental harm from overboard HSPF and containers, and establish procedures for the monitoring and salvage of lost HSPF and containers and their contents.
Strategic direction:	5.2
High-level action:	5.2.1
Planned output:	5.2.1.19
Action to be taken:	Paragraph 10
Related documents:	DE 54/13/7, DE 54/INF.5; DE 55/12/3; DSC 9/5/1; DSC 13/INF.9; DSC 15/16/1, DSC 15/INF.2 and MSC 84/22/19

Introduction

1 This document[1] is a reply to New Zealand's document DE 55/12/3, particularly its section on MARPOL Annex III provisions, and is submitted in accordance with the provisions of paragraph 4.10.5 of the IMO Committees' Guidelines (MSC-MEPC.1/Circ.2).

[1] The Whale and Dolphin Conservation Society (WDCS) and Earthjustice also support this dcoument.

2 In addition to document DE 55/12/3, several submissions (e.g., DE 54/13/7, DE 54/INF.5) have noted the increased potential for loss of harmful substances in packaged form, particularly containerized hazardous and noxious substances (HNS), in polar waters due to severe weather conditions, as well as the elevated risk from these materials to marine life along the sea ice edge and in open waters, such as polynias. This submission focuses particular attention on the environmental threats posed by lost containers and their contents, including hazardous and non-hazardous items, from vessels in Arctic waters.

3 This submission requests that for voyages in Arctic waters covered by the Polar Code heightened standards regarding harmful substances in packaged form and all containers should be considered by the DSC Sub-Committee, and offers several possible measures that could be evaluated in discussions on this subject.

4 The number of vessel containers lost at sea every year is growing[2], likely through extrapolation could be 10,000 containers per year globally[3], and represents an environmental threat, particularly in Arctic waters.

Environmental threats posed by harmful substances in packaged form and containers

5 The reduction of sea ice extent and thickness in the Arctic Ocean will facilitate the passage of vessel freight in and through the region. Future transits of container ships through the Arctic will pose risks of overboard containers due to severe weather and rough seas. When exposed to strong wave action and winds, containers lose their integrity, and their contents then pose a distinct threat to the environment. Items considered hazardous are naturally dangerous to marine life, but even items thought to be non-hazardous, such as plastics and consumer goods, present a threat as flotsam to marine species. Flotsam can be mistaken as prey and consumed, resulting in injury or death to the animal. Filter-feeders may also mistake tiny floating particles, degraded from original container contents, as zooplankton, leading to the uptake of plastic into the food chain, with negative ecological consequences.

6 The loss of container contents poses a severe threat in polynias, leads, and other areas of open water important to marine life. Moreover, lost container contents may find their way (see Figure 1) to the three Arctic gyres[4] and remain in the marine environment for extended periods of time.

Possible measures regarding lost containers

7 Potential measures to minimize the occurrence of overboard vessel containers in Arctic waters include more stringent lashing requirements, stack height standards, vertical weight distribution, "non linear" load consideration, and use of weather and ice forecasts (see document DSC 15/INF.2).

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2 Murdoch, E., and Tozer, D., A Master's Guide to Container Securing, (2006), *available at* http://www.standard-club.com/docs/CTCMG2CSAW_disclaimer.pdf; Interreg III B, Espace Atlantique, Rapport Final, Reponse au Probleme des Conteneurs Perdus par les Navires de Passage dans le Golfe de Gascogne et ses approaches, acronyme LOSCONT, undated, *available at* http://www.interreg-atlantique.org/upload/resultats/RAPPORT_synthese_FINAL_FR_avec_Portugal.pdf.

3 *See* Club Mutual Insurance Ltd., Containers Overboard! A hazard to shipping? Warning device ideas welcomed (claiming less than 2000 boxes lost per annum, but restricting that figure to the high seas), *available at* http://www.ttclub.com/TTCLUB/PubArc.nsf/D5E4C4B3A8057319802567920 04C617E/02CE747115C182F780256A6500596BF5?OpenDocument; FOEI, Proposed measures to reduce environmental impacts from containers, July 22, 2004, (submitted to IMO's DSC Sub-Committee and reviewed as document DSC 9/5/1) (estimating that approximately 10,000 vessel containers are lost each year).

4 Curtis Ebbesmeyer and Eric Scigliano, Flosametrics and the Floating World: How One Man's Obsession with Runaway Sneakers and Rubber Ducks Revolutionized Ocean Science, HarpersCollins Publishers, NY, NY, (2009).

8 Measures to mitigate harm could include mandatory prompt notification by the vessel operator to the proper authorities of a container loss (as well as the MAR-ICE network or equivalent in the case of an HNS release); the coordinates of the event; and nature of the contents at issue, even for non-hazardous substances.

9 Measures to monitor and salvage lost containers could include the use of tracking devices affixed to containers that are most susceptible to falling overboard. This could facilitate locating and recovering – and also avoiding for safety reasons – the container. In addition, containers could be fitted with EPIRB systems. Salvage of overboard containers should be attempted, to the maximum extent feasible, for all containers, even those that do not possess hazardous substances according to the IMDG Code.

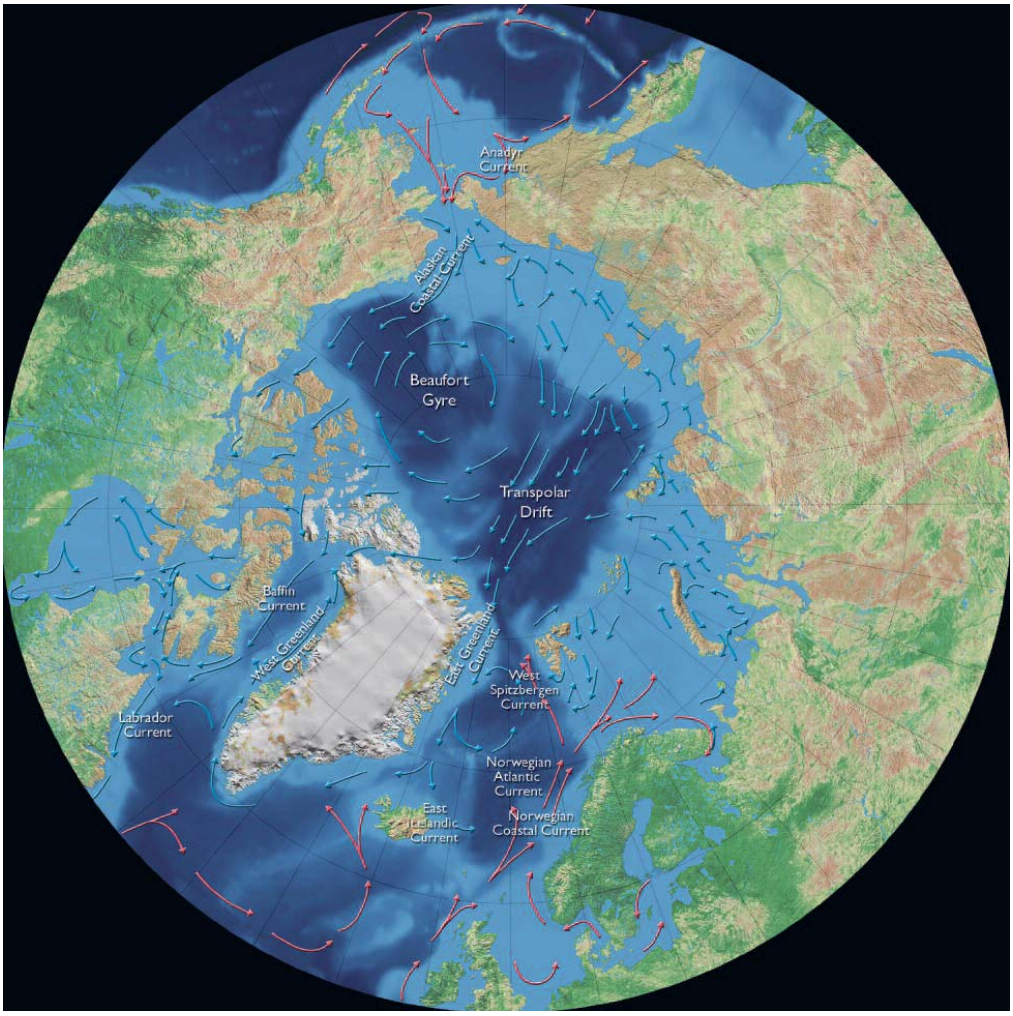

Figure 1 – Surface currents in the Arctic Ocean (ACIA, 455)

Action requested of the Sub-Committee

10 The Sub-Committee is invited to note the information provided and facilitate further consideration, in the DSC Sub-Committee and/or other IMO body as appropriate, of Polar Code provisions that minimize the loss of harmful substances in packaged form (HSPF) as well as containers from ships, mitigate environmental harm from overboard HSPF and containers, and establish procedures for the monitoring and salvage of lost HSPF and containers and their contents.