



Ref. T5/1.01

MEPC.1/Circ.674
31 July 2009

**GUIDANCE DOCUMENT FOR MINIMIZING THE RISK
OF SHIP STRIKES WITH CETACEANS**

1 MEPC 58 (6 to 10 October 2008), having considered a submission by the United States (MEPC 58/18) which provided a draft guidance document for minimizing the risk of ship strikes with cetaceans, agreed to invite delegations to provide comments on the draft with a view to approval at MEPC 59 (MEPC 58/23, paragraph 18.7).

2 MEPC 59 (13 to 17 July 2009), taking into account relevant comments, approved the guidance document and requested the Secretariat to issue it as an MEPC circular.

3 Member Governments are invited to bring this circular to the attention of all interested parties, including Administrations, recognized organizations, shipping companies and other stakeholders for action as appropriate.

ANNEX

GUIDANCE DOCUMENT FOR MINIMIZING THE RISK
OF SHIP STRIKES WITH CETACEANS**Introduction**

1 The purpose of this document is to provide guidance to Member Governments in reducing and minimizing the risk of ship strikes of cetaceans. This document sets forth important general principles that should be taken into account and possible actions that may be taken to reduce such risk.

2 A Member Government should ensure that in its consideration of the issue of reducing and minimizing the risk of ship strikes of cetaceans it takes into account all interests: those pertaining to its biological objectives, those of relevant government agencies, scientists and researchers, the shipping community, port authorities, environmental non-governmental organizations, and other interested stakeholders.

Background

3 Ship strikes of cetaceans are an issue of growing concern internationally. With the increase in the number, size and speed of ships, the threat of ship strikes of cetaceans may also increase and thus there have been calls for the Organization to take action to minimize this threat. This document responds to these calls by providing guidance to Member Governments in taking action to reduce and minimize this threat.

4 Collisions between cetaceans and ships occur worldwide where there is an overlap between cetaceans and vessel activities. Such collisions involve a wide variety of vessel types, including recreational, commercial and governmental vessels. Damage to vessels, ranging from minor to extreme, has resulted from ship strikes of cetaceans. Such damage includes cracked hulls; damaged propellers, propeller shafts, and rudders; damaged port and starboard aft strut actuators; broken steering arms; and ruptured seawater piping¹. In some cases, in particular involving large vessels, captains may be unaware that a collision with a cetacean has occurred.

5 Although the vulnerability among species varies, a wide variety of cetaceans have been involved in ship strikes². Evidence of a strike has been noted by blood in the water; animals seen with cuts; propeller gashes or severed tailstocks; animals observed sinking after strikes indicating death; fractured skulls, jaws, and vertebrae; or haemorrhaging, massive bruising or other injuries noted during a necropsy of an animal³. There are gross and histological evidence of sharp and blunt trauma in such species as North Atlantic right whales (*Eubalaena glacialis*), fin whales (*Balaenoptera physalus*), and sperm whales (*Physeter macrocephalus*) killed by vessels. Improvements in necropsies have resulted in the ability better to identify when a ship strike results in the death of a whale. Notwithstanding, many animals subject to ship strikes likely go undetected or unreported because ship strikes may occur in remote areas or the carcasses may sink or drift out to sea.

¹ Koen Van Waerebeek and Russell Leaper, Second Report of the IWC Vessel Strike Data Standardization Working Group, SC/60/BC 5 (2008); Jensen and Silber, Large Whale Ship Strike Database (2003).

² Glass *et al.*, Mortality and Serious Injury Determinations for Baleen Whale Stocks Along the United States Eastern Seaboard and Adjacent Canadian Maritimes, 2002-2006 (2008).

³ Campbell-Malone *et al.*, 2007.

General principles

6 If a Member Government seeks to reduce and minimize ship strikes of cetaceans in its waters, it should first clearly define the problem. This involves identifying what specific species is at risk: what physical characteristics, distribution, and behaviour make it susceptible to ship strikes; when (i.e. what time of year) is the risk present and in what specific areas; and what vessel traffic characteristics (e.g., types of vessels, traffic patterns, and densities) contribute to this risk.

7 A Member Government should take into account the following principles when taking action to reduce and minimize ship strikes of cetaceans:

- .1 maritime safety is of paramount concern;
- .2 any actions taken should seek to accomplish the biological objective of reducing and minimizing the risk of ship strikes while also taking into account adverse impacts on the shipping industry and other interested entities;
- .3 documentation and the best available research on the identified species of concern as well as information pertaining to the vessel traffic in the area (e.g., types of vessels, traffic patterns, and density of traffic) should be gathered and analysed to determine the risk of a whale/ship interaction;
- .4 any measures adopted should be based on the best available science and be narrowly tailored to the time when, and areas where, the species is present;
- .5 action taken to address ship strikes should be part of an overall strategy for protection and recovery of the identified species;
- .6 a range of possible solutions to address ship strikes should be carefully analysed in light of the risk to the populations or species, the relative threat posed by ship strikes, and the impact on maritime safety and commerce; and
- .7 all actions taken should be reviewed periodically to determine their effectiveness and whether they should be adjusted to further reduce and minimize the risk of ship strikes.

Possible actions to be taken at national level

8 There are several actions that could be considered to reduce and minimize the risk of ship strikes of cetaceans. In considering the appropriate actions to take, a Member Government may determine to first pursue those actions that are the most feasible and most expedient to implement or it may decide to pursue various actions simultaneously. Any actions taken must, of course, be fully consistent with international law.

9 *Gathering of information* – The gathering of information is critical to an effective ship strike reduction strategy. Data on the species of concern is necessary so that any action taken is tailored to the specific species to achieve maximum effectiveness and compliance. Consideration should be given to the mechanisms for gathering information on the species including through observations recorded from necropsies, aerial surveys, research vessels, and through other mechanisms such as private or public entities that are involved in developing scientific data on the cetaceans of concern. Information on vessel traffic such as the types of vessels, traffic patterns, and density will assist in the formulation of the most appropriate measures and therefore the gathering of such information should be facilitated. In gathering information on this traffic, a Member Government should consider holding public meetings and contacting those entities interested in this issue, including shipping industry representatives, port authorities, academics, environmental groups, and researchers. A Member Government should also establish a mechanism whereby ship strikes can be reported, stored and retrieved.

10 *Education and Outreach* – Education and outreach activities are an important element in any ship strike reduction strategy. Such activities should target the particular segment of the shipping industry of concern and use those unique tools that may be available and most appropriate to reach them. Such outreach efforts may include Notices to Mariners, brochures, placards, permanent signage, public service announcements and advisories, documentaries, and whatever other educational-informational media that is deemed most effective in scope and message to promote protection of the species of concern. It could also include the development of curricula and training programmes for maritime academies; work with maritime associations, port authorities, and environmental organizations; incorporation of ship strike reduction material into voyage planning guidelines and licensing programmes; prominently featured notes on charts and in other nautical publications regarding the possibility of ship strikes; and inclusion of information on relevant websites. Another education and outreach tool is the establishment of a ship reporting system through the Organization; this issue is addressed in paragraph 12 below.

11 *Technological Development* – A Member Government should consider funding research for the development of technologies to, for example, enhance detection at sea, and therefore minimize ship strikes of cetaceans. Such technologies may include passive acoustics, predictive modelling, and tagging. While technologies may eventually be available to provide mariners with real-time data on the location of cetaceans so that they may avoid a ship strike, at this time there is no known technique that provides such information on a scale that would be useful to mariners.

12 *Operational Measures* – There are operational measures for ships that may be considered to reduce and minimize ship strikes of cetaceans. As noted above, any such measures must be fully consistent with international law.

- .1 Such measures may include routeing and reporting measures or speed restrictions. With regard to routeing and reporting measures, the Organization has approved such measures to reduce ship strikes of the highly endangered North Atlantic right whale. These proposals by Canada and the United States were submitted, as appropriate, in accordance with the International Convention on the Safety of Life at Sea (SOLAS), chapter V, regulations 10 and 11; the General Provisions on Ships' Routeing; the Guidelines and Criteria for Ship Reporting Systems; and the rules and procedures for the submission of documents. See MSC 83/28, MSC 82/24, MSC 76/23, MSC.70(23), MSC 69/INF.21, MEPC 56/INF.10, MEPC 55/22, MEPC 40/INF.9, NAV 54/3, NAV 54/3/1, NAV 53/3/13, NAV 52/18, NAV 52/3/3, NAV 48/3/5, NAV 47/INF.2 and NAV 44/3/1.

See also MEPC 58/INF.15. Maritime Safety Committee circular MSC/Circ.1060 on the Guidance Note on the Preparation of Proposals on Ships' Routeing Systems and Ship Reporting Systems for submission to the Sub-Committee on Safety of Navigation is a useful guide in developing such proposals.

- .2 Measures should also be taken to minimize ship strikes during offshore sailing races. Such races should be planned such that the route minimizes the overlap with densities of cetaceans and cetacean habitat, and at times when there may be fewer cetaceans in the area. Competitors should be provided with appropriate information to avoid ship strikes, such as where cetaceans are most likely to be encountered so that a lookout might be provided and what to do in the event of a collision.

Possible actions to be taken at international level

13 *Coordination with other States* – Since a cetacean may be susceptible to a ship strike throughout its range, a Member Government should coordinate with the other States in whose waters the species inhabit. Such coordination may include:

- .1 at a minimum, the identification and exchange of information on threats to the identified cetacean of concern and its habitat, provision of mutual assistance, identification of authorities responsible for handling this issue, and coordination in the event of an emergency situation involving a ship strike including collaboration on recovering carcasses found at sea and in conducting necropsies and sample analysis to determine the cause of death and to improve the understanding of the interactions between ships and whales;
- .2 designing and implementing measures to reduce and minimize the risk of ship strikes, including the development of education and outreach materials and other guidance, and joint management plans;
- .3 facilitation of co-operative research and unfettered exchange of scientific data on the species of concern, including monitoring the species' distribution and occurrence particularly in relation to vessel traffic;
- .4 coordination and, where possible and appropriate, development of proposals for specific measures at international organizations such as the International Maritime Organization; and
- .5 adoption of agreement and/or memoranda of understandings to formalize the relationship among relevant States to address the issue of ship strikes of the identified cetacean of concern.

14 A Member Government that has identified an issue with ship strikes of a particular cetacean in its waters should also coordinate with other Member Governments in appropriate international fora such as the Organization, the International Whaling Commission, and the Convention on Migratory Species.

Implementation

15 Any actions taken to implement a ship strike reduction strategy should be disseminated broadly to the maritime industry and made clear through the appropriate channels to the affected industry.

16 A Member Government should provide a mechanism for comments, reports, and observations of the measures adopted and, if necessary, adjust the measures accordingly. Collecting data on collisions with cetaceans is critical to understand the issue and developing mitigation measures. Thus any information gathered through national mechanisms should be provided to the International Whaling Commission (IWC), which has developed a global ship strikes database. Data entry should be done using the IWC web-based interface: http://www.iwcoffice.co.uk/sci_com/shipstrikes.htm or by e-mailing the IWC Secretariat at: shipstrikes@iwcoffice.org.

17 Member Governments should take the necessary measures to promote compliance by ships flying their flag with measures adopted by the Organization to reduce and minimize ship strikes of cetaceans.
