



The Antarctic and Southern Ocean Coalition

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ASOC Report

on

IMO's Ship Design & Equipment Sub-Committee

52nd Session

16 – 20 March, 2009

IMO Headquarters, London

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1. IMO Ship Design & Equipment Sub-Committee 52

The 52nd Session of the International Maritime Organization's (IMO) Ship Design & Equipment Sub-Committee (DE) took place at IMO Headquarters, in London from 16 – 20th March, 2009.

2. ASOC Attendance

ASOC was represented by member organisations Friends of the Earth International (FOEI) and the International Fund for Animal Welfare (IFAW). Sian Prior was present for ASOC on the FOEI delegation and Veronica Frank was present on the IFAW delegation.¹

3. ASOC's aim for DE 52

ASOC had taken part in a DE Correspondence Group (CG) tasked with reviewing and expanding the existing MSC/Circ.1056 – MEPC/Circ.399 Guidelines for Ships Operating in Arctic Ice-Covered Waters. ASOC had previously provided input to the CG information on behalf of ASOC Members - FOEI, IFAW and WWF (see Annex).

ASOC's aim for the DE Sub-Committee meeting was to ensure that the Guidelines adequately recognized the difficulties associated with navigating in Antarctic waters, were strengthened, and were applicable to both safety and environmental protection requirements for ships operating in Antarctic waters. Additionally, ASOC wanted to sound out parties to see how much support there is likely to be for the development of a mandatory instrument for polar shipping.

4. Advocacy on ASOC's proposals

In addition to the input to the Correspondence Group, a summary of all inputs had been prepared by the Correspondence Group Chair from Canada. ASOC also prepared an additional Briefing identifying and responding to a number of predicted concerns that might be raised in the context of the paper. ASOC's input to the Correspondence Group is attached as an Annex. The Briefing is also available on ASOC's website, and the recommendations from the Briefing are used as the basis of the assessment (see section 6).

Ahead of and during the first couple of days of DE, ASOC and member groups were in touch with a number of delegations, including Canada, New Zealand, Norway, the UK, the USA and the cruise line industry NGO CLIA. ASOC also sought the views of the Chair of the ATCM Intersessional Group Chair on risk and passenger shipping.

5. Summary of main issues considered during the revision of the Guidelines

A Working Group was established and tasked with refining the Guidelines in light of the work of the Correspondence Group and subsequent papers, preparing an Assembly Resolution and preparing a justification for further work. The work was completed and endorsed by the Plenary meeting and will now go to the Maritime Safety Committee (May/June) and the Marine Environment Protection Committee (July) ahead of adoption by the Assembly towards the end of the year.

The major developments are as follows (but it is necessary to be mindful of the fact that these remain Guidelines):

- the Guidelines will cover Polar waters (not just ice-covered) - for the Antarctic this will mean south of 60 degrees S and the waters to the north of this latitude but south of the Antarctic Convergence will not be covered,
- the Guidelines will expect that only polar class vessels will go into ice-covered waters, however the definition of ice-covered is very loose, currently there are a number of non-polar class vessels operate in ice-covered waters,
- the Guidelines will take effect from 1st January 2011 (it was to be 2010),

¹ Authors: Dr Sian Prior (ASOC) & Veronica Frank (IFAW), May 2009.

- the Resolution will request that as far as reasonable and practicable, the Guidelines are applied retrospectively,
- more stringent structural and stability provisions will be expected for new polar class vessels after 2011 (they won't apply to non-polar class vessels, but it is to be hoped that these will not be going into ice-covered waters!),
- more stringent equipment and operational provisions were accepted for other vessels (operating in both ice-covered and other polar waters)
- the Guidelines now clearly cover (albeit briefly) operational pollutants from polar shipping as well as accidental (this was not as clear beforehand).

While these developments are positive, it is important to recognise that these remain guidelines and they won't take effect for nearly two years.

In the meantime, it was clear that there was gathering support for developing a mandatory code - possibly based on these guidelines, although some countries were keen to make sure that any future work "may be" based on these Guidelines, since it is clear that some countries don't really feel that the Guidelines are currently adequate (UK, Norway). A US / Norwegian / Danish paper proposing the development of a mandatory instrument for shipping in polar regions has been submitted to the Maritime Safety Committee (MSC), which meets in May / June, and will also be presented to the Marine Environment Protection Committee (MEPC) which meets in July.

ASOC has submitted a paper to both the MSC and MEPC meetings, on behalf of members FOEI, Greenpeace, International Fund for Animal Welfare and WWF, including a briefing on measures for a mandatory Antarctic shipping instrument.

6. Assessment of progress against ASOC's recommendations

ASOC Recommendation	Outcome at DE
General matters	
In extending the Guidelines to cover Antarctic waters, ASOC suggests that the differences between Arctic and Antarctic waters are recognised in order to be certain that the Guidelines are appropriate for vessels in Antarctic waters. The Southern Ocean is widely recognised to be the stormiest ocean and a number of coastal sites in Antarctica are the windiest places in the world. 93% of the world's mass of icebergs is found in the Antarctic. ASOC welcomes the fact that the current draft Guidelines (P-1.1) recognizes that "whilst the marine environments of both polar seas are similarly vulnerable, response to such challenge should duly take into account specific features of the legal and political regimes applicable to their respective marine spaces" and urges the DE 52 to accept this language.	The differences between the Arctic and the Antarctic are not highlighted however there is improved recognition of the extreme conditions experienced in both regions.
ASOC submits that steps should be taken to agree on the updated Guidelines as a binding instrument. A MSC-MEPC Resolution is therefore welcome, but ultimately ASOC supports a stronger and more effective, legally-binding, instrument, covering standards for shipping in Antarctic waters as envisaged by the US.	There is increasing support for a mandatory instrument – it won't be recognized in the revised Guidelines but is referred to in the justification for further work. The preference now is for the revised Guidelines to be taken into account when developing a mandatory instrument but NOT for the Guidelines to be the basis of a mandatory instrument as they are simply not strong enough. This position is supported by at least some countries (Norway, UK).
Extent of revision of Guidelines	
ASOC submits that the Guidelines should promote the highest possible standards for the stability of all	A new IMO instrument has been agreed on stability provisions while the revision has been underway.

vessels – both intact and damaged, bearing in mind that possible sea and storm conditions experienced in Antarctic waters are likely to be more severe than encountered elsewhere.	
Summer visitors	
ASOC believes that the Guidelines should be applied to all vessels irrespective of the timing of their trip.	The requirement for polar class vessels only in ice-covered waters will overtake this recommendation.
Icing	
ASOC proposes that the Guidelines include greater consideration of and provisions for mitigating the threat from sea icing.	This has largely been addressed through a new IMO instrument on stability of vessels, however greater consideration of the threat of icing is incorporated into the revised Guidelines.
Flag state versus Coastal state	
ASOC believes that in the Antarctic region, which lays largely outside national jurisdiction (high seas), flag States should be largely responsible for enforcing international standards onboard of their ships.	This point has not been specifically recognized by the Guidelines however the absence of coastal states in the Antarctic region is acknowledged.
Principle 2	
ASOC believes that the principles (P-2) should recognise the extreme sensitive nature of the polar regions with respect to shipping activities including both accidental and operational discharges of pollutants including oil and hydrocarbons, chemicals, sewage, garbage and air emissions such as SO _x and the need for further controls on operations to reduce the threat from these pollutants.	This was largely accepted and principle 2 redrafted accordingly. In addition a new principle was included at our request to recognize that the Guidelines apply to both safety and environmental protection aspects of polar shipping.
Application of Guidelines	
ASOC believes that the Guidelines should be applied to all ships intended for polar service (Polar Class or Non-Polar Class), including older vessels being retro-fitted for polar service and new ships. Currently the Guidelines are purely recommendatory – so where possible all elements of the Guidelines should be applied to all existing polar service ships, including retro-fitted ships; as well as new ships. At the point when a decision is made that the Guidelines be developed from recommendatory to regulatory, then more specific provisions can be developed detailing to which ships the provisions apply and from which dates.	The Resolution which will adopt the revised Guidelines will encourage retrospective application of the Guidelines.
Definitions – pollutant	
ASOC suggest that the definition of “pollutant” in G-3.19 is expanded to include all pollutants recognised by IMO instruments and invites DE52 to accept the text in square brackets.	Some success in that the definition has been broadened to include all MARPOL pollutants but doesn’t refer explicitly to other ship pollutants (e.g., underwater noise)
Definitions – ship	
Since the Guidelines are recommendatory, ASOC believes that they should be applicable to all vessels operating in Antarctic waters. If necessary, where a provision is clearly not applicable to a particular vessel type, the vessel type could be specifically excluded.	This was not accepted but some text was included in the report from the Working Group to the main meeting expressing the point that FOEI, IFAW and WWF wanted to include. Interestingly, there was real discussion on the subject, and it was only in the final moments of discussion when it was pointed out that it could apply to RIBs that it was decided definitely not to include an “encouragement” to apply the Guidelines to all vessels.
Design, construction and maintenance standards	
ASOC submits that internationally agreed unified requirements should be adopted for polar class vessels.	This has now been addressed through the adoption of the IACS unified requirements for polar class vessels.
Double bottom construction	
ASOC welcomes the text as currently drafted and does not support amending the current Guidelines to allow a two compartment standard of subdivision as	It was accepted that the current provisions should not be down-graded, however, the current provisions contain caveats with respect to aft and flat bottoms. In

an alternative to double bottoms.	addition, the caveats apply to oil and chemicals now – was only oils before.
Life-saving appliances	
ASOC supports the proposal by Australia that the provisions of Chapter 11 should apply to all ships venturing into Antarctic waters and encourages DE 52 to accept the text in square brackets in 11.1.1.	Applies to all polar waters – ice-covered and other polar waters, with some provisions made explicit to ice-covered waters.
Illegal modification of equipment	
ASOC supports inclusion of a provision advising of the illegality of modifying VMS equipment on <u>all</u> vessels operating in the Southern Ocean, and advising that all vessels should have up-to-date VMS gear used continuously while operating in polar waters.	This will not be addressed by Guidelines since this is not the correct place to address illegal activity.
Ice navigator qualification and training	
Due to the risks associated with navigating in ice-covered waters and the likelihood of adverse weather conditions, ASOC supports comprehensive training methods, such as those developed under Canadian legislation or recommended under the Helsinki Convention including both “on-the-job” training and classroom / simulation training, and the highest standards of training introduced for ice navigators. To achieve unified highest standards, ASOC proposes development of an agreed international ice operation training course.	This is being addressed via another IMO sub-committee on standards for training and watch-keeping.
Environmental Protection	
ASOC supports the need to tailor the procedures for the protection of the environment under normal operations in the ship’s operating manual and those under accident conditions in the Shipboard Oil Pollution Emergency Plan in recognition of the remoteness and sensitivity of the polar regions and welcomes the addition of footnote 11. In addition, ASOC encourages DE52 to: i) expand the Guidelines to reference fully existing provisions e.g. under MARPOL 73/78 and other “environmental” instruments such as the Resolution on Guidelines for ballast water exchange in the Antarctic Treaty areas and the Anti-fouling Systems Convention, and ii) to introduce additional guidelines for ships operating in ice-covered waters with respect to operational impacts, such as more stringent restrictions on sewage discharge in sensitive environments.	ASOC’s recommendation was accepted and ASOC was able to draft the text that is included in the revised Guidelines! While the specifics are still vague, the text is now clearly open to cover environmental protection requirements which extend beyond safety issues, and the need to do this is also recognized in the justification for further work.

7. Next Steps

The next steps for the review of the Guidelines and for the development of a mandatory instrument for Antarctic (Polar) shipping are:

1. The annual Antarctic Treaty Consultative Meeting in Baltimore, USA, **April 6 – 17, 2009** which covered Antarctic shipping issues as usual, including the report of an Intersessional Contact Group on Passenger Vessels. A Resolution was agreed by Antarctic Treaty Parties committing to developing a mandatory instrument addressing Antarctic shipping through the IMO.
2. Between **May 27 – June 5, 2009** the Maritime & Safety Committee (MSC) will consider the revised Guidelines and the proposal for an high priority work programme item for the Ship Design and

Equipment Sub-Committee to develop mandatory requirements for polar shipping. ASOC through FOEI, Greenpeace, IFAW and WWF has submitted a short paper.

3. Between **July 13 – 17, 2009** the Marine Environmental Protection Committee (MEPC) – will consider the revised Guidelines and be informed of the decision on whether or not to add to the DE Sub-Committee agenda an item on development mandatory requirements for polar shipping. In addition, the proposed amendment to MARPOL to bring into effect a ban on the use and carriage of heavy fuel oil in Antarctic waters will be considered.
4. New Zealand will host an Antarctic Treaty Meeting of Experts between **9 – 11th December 2009** in Wellington, New Zealand. This meeting will provide an opportunity to follow-up on the ATCM intersessional contact group work on risk management and passenger shipping, and will also give the environmental NGOs an opportunity to raise the issues which need to be considered during the development of mandatory requirements for polar shipping.
5. Dependent on the outcome of the discussions at MSC and possibly MEPC, the 53rd Session of the Ship Design & Equipment Sub-Committee is due to take place in March 2010.

ASOC Briefing and Recommendations

on

Review and Proposed Extension of the Arctic Guidelines for Ships Operating in Arctic Ice-Covered Waters (MSC/Circ.1056, MEPC/Circ.399) to the Antarctic Waters

Summary

The International Maritime Organization is currently undertaking a review and extension of the Guidelines for ships operating in Arctic ice-covered waters with the intention that they will be applied to Antarctic waters. The work is being undertaken by the Ship Design and Equipment (DE) sub-committee with input from other sub-committees as required. The work is due to be completed in 2010.

The existing Guidelines have been reviewed and critiqued by the Fridtjof Nansen Institute for ASOC member WWF. In addition, a number of additional concerns in the existing guidelines or concerns with proposals for amendments to the Guidelines, along with new proposals, have been identified by ASOC Members and submitted to the DE sub-committee's correspondence group.

The elements of this briefing, which follow the structure of the current Guidelines, along with ASOC's recommendations will form the basis of a submission to the IMO's Ship Design and Equipment sub-committee's 52nd session in March 2009 on behalf of ASOC members FOEI, IFAW and WWF.

A. Background

- The Guidelines for Ships Operating in Arctic Ice-Covered Waters were approved in 2002 and IMO Member Governments were invited to bring the Guidelines to the attention of shipowners, ship designers, ship builders, ship repairers, equipment manufacturers and installers and all other parties concerned with the operation of ships in Arctic ice-covered waters.
- The Guidelines apply to any vessel covered by the SOLAS Convention, thus excluding fishing vessels, pleasure yachts, wooden ships of primitive build, cargo ships of less than 500 gross tonnage and naval vessels. Cargo ships of 500 gross tonnage or more engaged on international voyages and passenger ships are covered.
- In 2004, the 27th Antarctic Treaty Consultative Meeting (Cape Town) endorsed Guidelines for ships operating in Arctic and Antarctic ice-covered waters (produced intersessionally by COMNAP), sent the Guidelines to the IMO with a request for them to be considered by the

IMO at the earliest opportunity, and urged national representatives to take action at the IMO to secure the consideration of the Guidelines at the earliest opportunity. In addition, the ATCPs drew attention to whether full double bottom construction is necessary for all classes of ships operating in Antarctic ice-covered waters, or if there are other ways of ensuring the same standards of ship stability and safe floating.

- A synopsis of items² proposed to be incorporated into the Arctic Guidelines to make them compatible with the Antarctic identifies no new or additional measures that would be included in the Guidelines, but largely proposes just adding the appropriate references, definitions, etc for the Antarctic. The only two technical items included in the synopsis are:
 - A suggestion that the wording of chapters 3.2 and 3.3 of the Arctic Guidelines be reconsidered to indicate that, for vessels over 71m in length, the vessel must have either a full double bottom or a two compartment flooded stability. It was further suggested that the requirement of 3.3.1 to have a double skin around all tanks carrying pollutants be retained.
 - A proposal to modify the phrase regarding ice navigators to “in the Antarctic, documentary evidence of completing an on-the-job training programme is acceptable”.
- The 50th Session of the IMO’s Ship Design and Equipment (DE) Sub-Committee noted that there was full support for revising the guidelines and making them applicable to the Antarctic region. Member governments and international organisations were invited to submit specific proposals for amendments of the guidelines at the 51st Session of DE (Feb, 07). At the 51st Session a Correspondence Group was established tasked with preparing a draft revised Guidelines based on the request from ATCM and subsequent submissions from Australia, Canada, Germany, the UK, Finland and IACS. The Correspondence Group is also tasked with preparing an associated draft Resolution to adopt the revised Guidelines (requested by Australia). The work is due to be completed by December 2008 in time for consideration by the next session of DE from 16 – 20 March, 2009, and just prior to the next ATCM to be held in Baltimore, Maryland in April 2009.

B. Differences and similarities between the Arctic and Antarctic (with respect to shipping activity)

While the risks of operating in ice-covered waters are frequently similar, it is important to recognize that there are a number of differences faced by ships operating in Antarctic versus Arctic ice-covered waters, including:

- the nature of ice (multi-year ice versus single-year);
- opportunities for flag state versus port state control;
- the lack of proximity of SAR facilities, base supply, port waste reception facilities;

² MSC 79/INF.2

- the nature of shipping operating in the area – there is significantly less commercial shipping in the Southern Ocean, where the majority of shipping is cruise liners, fishing vessels, research vessels, re-supply ships;
- the nature of shipping activities – i.e. ships transiting the region versus ships visiting specific destinations in the region.

C. Revision and extension of the Guidelines

General issues

- **Recommendatory guidelines versus regulatory measures**

ASOC's Vision is for the highest standards and a legally binding instrument for vessels operating in the Antarctic region, to protect the sensitive and increasingly vulnerable environment and to avoid loss of human life. Non-binding guidelines provide only a limited contribution to maritime safety and should be considered only as a first step. Unless there is a legal obligation, codes of conduct, guidelines, and other international voluntary or recommendatory measures are rarely given compulsory status in national legislation. Adopting guidelines as a binding instrument will have foreseeable repercussions under international law, however, the likely future development of international shipping in both the Arctic and Antarctic makes for a strong case for a binding instrument. Australia has proposed adopting the revised and extended Guidelines through a MSC- MEPC Resolution, which ASOC supports, but notes that it doesn't go far enough.

Recommendation: ASOC submits that steps should be taken to agree on the updated Guidelines as a binding instrument. A MSC-MEPC Resolution is therefore welcome, but ultimately ASOC supports a stronger legally-binding instrument, covering standards for shipping in Antarctic waters.

- **Extent of revision of Guidelines**

It has been suggested that the Guidelines should be updated to take into account technical developments since their approval in 2002, limitations in the existing guidelines and extension to Antarctic waters. Australia has suggested that the current provisions of the Guidelines do not contradict with more recent amendments to SOLAS, however it notes that revisions to SOLAS Chapter II-1 on subdivision and damage stability are a substantial improvement. This issue has been deferred to another IMO sub-committee (SLF) for consideration, however, Australia's paper (to DE 51, March 08) suggests that the new SOLAS provisions may be worth reflecting in the Guidelines. Australia also commented that it would be "impracticable" for the revised Guidelines to relate to any one superseded edition of SOLAS, so general wording is acceptable. However, it suggests that all ships operating in polar waters should at least meet the requirements of SOLAS as amended in 1981 due to a step-change in safety introduced at that time.

Following a request from DE, the SLF sub-committee has considered the impact of the revised SOLAS chapter II-1 provisions on the Guidelines and made a number of comments to the forthcoming DE sub-committee meeting in DE 52/9, including an observation that the use of intact stability criteria for a damaged ship instead of damage stability criteria would result in a much higher standards since this would require damaged ships to maintain the same stability as intact ships.

Other SLF observations include the fact that the damage and subdivision provisions in SOLAS chapter II-1 were developed assuming collision damage in a moderate sea state, and ice damage is a different issue for which there are no statistics available to allow the development of survival criteria for such damage. They also observe that wave height which is essential for survival criteria, may in ice-affected waters be dependent on the ice conditions.

Antarctic waters are widely recognized to be some of the world's stormiest waters, and conditions are harsher than vessels usually experience.

Recommendation: ASOC submits that the Guidelines should promote the highest possible standards for the stability of all vessels – both intact and damaged, bearing in mind that possible sea and storm conditions experienced in Antarctic waters are likely to be more severe than encountered elsewhere.

- **Summer visitors**

Not relating to any specific provisions of the Guidelines, Australia have commented on a possible special consideration for passenger ships that only visit the polar regions in summer and conclude that no consideration needs to be given to waiving or varying the requirements for passenger ships that only visit polar waters during summer.

Recommendation: ASOC believes that the Guidelines should be applied to all vessels irrespective of the timing of their trip

- **Icing**

A report on the Guidelines from the Fridtjof Nansen Institute (FNI) to WWF³, advises that the Guidelines fail to provide sufficient guidance concerning icing. Icing can build up on a ship's structure and may cause the vessel to destabilize or capsize. It also affects the performance of on deck equipment. Mention of the threat posed by icing is made in various chapters (including Chapters 3, 10, 11), however the FNI report suggests that the Guidelines should have been more explicit on how best to prevent, mitigate and avoid sea-spray icing of vessels. In particular the Guidelines could refer to the environmental and vessel characteristics that can influence sea icing (wind speed, air temperature, ship speed) and greater provision included on ice-removal equipment and protection of vital on deck components.

Recommendation: ASOC proposes that the Guidelines include greater consideration and provisions mitigating the threat from sea icing.

The Guidelines are divided into 4 parts preceded by a preamble, guide and General provisions (in Chapter 1) comprising:

- A. Construction provisions (Chapters 2 – 9)
- B. Equipment (Chapters 10 – 12)
- C. Operational (Chapters 13 -15)
- D. Environmental Protection and Damage Control (Chapter 16)

³ The IMO Guidelines for Ships Operating in Arctic Ice-Covered Waters: From Voluntary to Mandatory Tool for Navigation Safety and Environmental Protection? Øystein Jensen, The Fridtjof Institute 2007.

Preamble (P-1 Introduction, P-2 Principles)

- *Principles*

The principles aim to promote safety of navigation and to prevent pollution from ship operations yet virtually nothing is said about operational pollution and no additional provisions are included to protect highly sensitive polar environments (see Part 4).

Recommendation: ASOC believes that the principles (P-2) should recognise the extreme sensitive nature of the polar regions with respect to shipping activities including both accidental and operational discharges of pollutants including oil and hydrocarbons, chemicals, sewage, garbage and air emissions such as SO_x and the need for further controls on operations to reduce the threat from these pollutants.

Guide (G-1 Layout of the Guidelines, G-2 Key Provisions, G-3 Definitions)

- *Layout of the Guidelines - Application*

Part A on construction provisions currently apply only to new polar class ships (presumably built or converted since the Guidelines were adopted in 2002). They do not apply to existing polar class ships and non-polar class ships and there are no dates or deadlines included in the Guidelines. (G-1.3 and G-1.4 of current Guidelines). ASOC is concerned at a recent development of bringing older vessels into service for use in Antarctic waters and Australia has expressed a very welcome view that the revised Guidelines should be applied as widely as possible, including “as far as reasonable and practicable to ships for polar service constructed before that date” –with the date being the date of adoption of the guidelines.

The Fridtjof Nansen Institute Report⁴ questions why only Polar Class Ships are subject to the important provisions of structures, subdivision and stability in Part A, Chapter 2 and 3. It suggests that vessels without any Polar Class notation should take account of the effect that icing may have in the stability calculation of the vessel.

Recommendation: ASOC believes that the Guidelines should be applied to all ships intended for polar service (Polar Class or Non-Polar Class), including older vessels being retro-fitted for polar service.

Currently the Guidelines are purely recommendations – so where possible all elements of the Guidelines should be applied to all existing polar service ships, including retro-fitted ships; and all elements of the Guidelines should be applied to new ships. At the point when a decision is made that the Guidelines be developed from recommendatory to regulatory, then more specific provisions can be developed detailing to which ships the provisions apply and from which dates.

- *Definitions - pollutant*

The definition of pollutant (G-3.19) needs expanding to include all the pollutants recognised by IMO instruments including MARPOL 73/78, the Anti-fouling Systems Convention and the Ballast Water Management Convention. At the moment it only covers oil, oily mixture, oil fuel, noxious liquid substances, solids carried in bulk which are also identified as harmful

⁴ The IMO Guidelines for Ships Operating in Arctic Ice-Covered Waters: From Voluntary to Mandatory Tool for Navigation Safety and Environmental Protection? Øystein Jensen, The Fridtjof Institute 2007.

substances in Annex III of MARPOL. Sewage, garbage, SO_x, antifoulants, and alien species are not recognised as pollutants.

Recommendation: ASOC suggest that the definition of “pollutant” (G-3.19) expanded to include all pollutants recognised by IMO instruments.

- *Definitions – ship*

The definition of ship (G-3.22) is limited to those vessels covered by the SOLAS Convention, thus excluding fishing vessels, pleasure yachts, wooden ships of primitive build, and cargo ships of less than 500 gross tonnage.

Recommendation: Since the Guidelines are recommendatory, ASOC believes that they should be applicable to all vessels operating in Antarctic waters, including specifically all cargo ships (irrespective of size), passenger ships, fishing vessels, pleasure yachts, research vessels. If necessary, where a provision is clearly not applicable to a particular vessel type, the vessel type could be specifically excluded.

Chapter 1: General

- *Design, construction and maintenance standards*

The FNI Report⁵ raises a concern that the harmonization of standards for polar class ships has not been fully accomplished. It points out that the IACS Unified Requirements, specifically when addressing stem and stern frames and appendages, refer to the rules of individual classification societies which inevitably leads to certified Polar Class ships navigating polar waters with differing structural standards.

Recommendation: ASOC submits that internationally agreed unified requirements should be adopted for polar class vessels.

Chapter 3: SubDivision and Stability

- *Double bottom construction*

The COMNAP revision of the Guidelines proposes a two compartment standard of subdivision for vessels over 71m in length as an alternative to the double bottom provisions currently included in the Guidelines (Chapters 3.2 and 3.3). Australia, Canada, Germany, the UK and IACS all oppose such as move. Arguments against include:

- - Poor quality of navigation charts leading to increased risk of grounding
- - Risk of ice damage

⁵ The IMO Guidelines for Ships Operating in Arctic Ice-Covered Waters: From Voluntary to Mandatory Tool for Navigation Safety and Environmental Protection? Øystein Jensen, The Fridtjof Institute 2007.

- Greater problems in providing assistance and length of time before assistance was possible to a grounded vessel in a remote area and potentially hostile conditions, leading to the possibility / likelihood of greater extent of damage to the ship's bottom
- Double bottoms make it safer to tow a vessel to a temporary or permanent repair location.

Recommendation: ASOC does not support the proposal to amend the current Guidelines to allow a two compartment standard of subdivision as an alternative to double bottoms.

Chapter 11: Life-Saving Appliances and Survival Arrangements

- ***Life-saving appliances***

Chapter 11 deals with life-saving appliances and survival arrangements. Australia has proposed that the provisions of Chapter 11 apply to all ships venturing into polar waters (or at least Antarctic waters).

Recommendation: ASOC supports the proposal by Australia that the provisions of Chapter 11 should apply to all ships venturing into Antarctic waters.

Chapter 12: Navigational Equipment

- ***Illegal modification of equipment***

There have been reports of fishing vessels operating in Antarctic waters altering their VMS systems, which is part of the reason why illegal fishing persists in the Southern Ocean.

Recommendation: ASOC supports inclusion of a provision advising of the illegality of modifying VMS equipment on all vessels operating in the Southern Ocean, and advising that all vessels should have up-to-date VMS gear used continuously while operating in polar waters.

Chapter 14: Crewing

- ***Ice navigator qualification and training***

Chapter 14 on crewing includes provisions on qualifications and training for ice navigators. The COMNAP revisions of the Guidelines propose amending this section to include text “in the Antarctic, documentary evidence of completing an on-the-job training programme is acceptable”. A concern has been raised that this seems to eliminate the desirability of classroom/text learning and potential simulator training in favor of solely on-the-job training.

The Fridtjof Nansen Institute Report⁶ reports that under Canadian legislation an ice navigator must have served on a ship in the capacity of master or person in charge of the deck watch for a total period of at least 50 days, of which 30 days must have been served in Arctic waters while the ship was in ice conditions that required the ship to be assisted by an ice-breaker or to make manoeuvres to avoid concentrations of ice that might have endangered the ship.

⁶ The IMO Guidelines for Ships Operating in Arctic Ice-Covered Waters: From Voluntary to Mandatory Tool for Navigation Safety and Environmental Protection? Øystein Jensen, The Fridtjof Institute 2007.

Parties to the Helsinki Convention on the Protection of the Marine Environment of the Baltic Sea Area agreed a new recommendation⁷ in 2007 on measures to improve the safety of navigation in ice conditions in the Baltic Sea. In relation to the training of seafarers, it was agreed to advance educational offers of high quality training programmes in navigation in ice conditions. Such programmes should provide knowledge, understanding and proficiency in operating a ship in ice-covered waters including:

- ice conditions, ice types and ice chart;
- ice classes, ship's construction and traffic restrictions;
- icing and winterization;
- voyage planning and operation in ice; and
- icebreakers and assistance.

Recommendation: Due to the risks associated with navigating in ice-covered waters and the likelihood of adverse weather conditions, ASOC supports comprehensive training methods, including both “on-the-job” training and classroom / simulation training, and the highest standards of training introduced for ice navigators. To achieve unified highest standards, ASOC proposes development of an agreed international ice operation training course.

Chapter 16: Environmental Protection and Damage Control

- ***Environmental Protection***

The current provisions of Part D on environmental protection and damage control are minimal and extremely limited in extent, including

- a provision proposing that procedures for the protection of the environment under normal operations be included in the ship's operating manual, and procedures under accident conditions should be included in the Shipboard Oil Pollution Emergency Plan;
- a provision on providing training and drills covering environmental protection and damage control procedures for crew members; and
- fire provisions on equipment and materials.

Norway has submitted a proposal to expand Chapter 16, including a suggestion that the procedures for the protection of the environment included in the ship's operating manual and provisions under accident conditions in the Shipboard Oil Pollution Emergency Plan (SOPEP) should be tailor-made in recognition of the remoteness and sensitivity. Norway has also proposed a considerable expansion of Chapter 16 expanding the range of environmental guidelines covered – this is very welcome.

Recommendation: ASOC supports proposals from Norway to:

- i) **tailor the procedures for the protection of the environment under normal operations in the ship's operating manual and those under accident conditions in the Shipboard Oil Pollution Emergency Plan in recognition of the remoteness and sensitivity of the polar regions, and**

⁷ HELCOM Baltic Sea Action Plan. HELCOM Ministerial Meeting, Krakow, Poland, 15 November, 2007.

- ii) expand the Guidelines to reference fully existing provisions e.g. under MARPOL 73/78 and other “environmental” instruments such as the Resolution on Guidelines for ballast water exchange in the Antarctic Treaty areas and the Anti-fouling Systems Convention, and**
- iii) to introduce additional guidelines for ships operating in ice-covered waters with respect to operational impacts, such as more stringent restrictions on sewage discharge in sensitive environments.**