



SUB-COMMITTEE ON SHIP DESIGN AND  
EQUIPMENT  
52nd session  
Agenda item 9

DE 52/INF.4  
12 December 2008  
ENGLISH ONLY

## **GUIDELINES FOR SHIPS OPERATING IN ARCTIC ICE-COVERED WATERS**

### **Summary of Submissions to the Correspondence Group on Guidelines for ships operating in Arctic ice-covered waters**

**Submitted by Canada**

#### **SUMMARY**

<i><b>Executive summary:</b></i>	This document summarizes the submissions made to the Correspondence Group for Guidelines For Ships Operating In Arctic Ice-Covered Waters up to and including 11 December 2008. Explanatory notes, guidance from the Co-ordinator and action taken as a result are noted.
<i><b>Strategic direction:</b></i>	5.2
<i><b>High-level action:</b></i>	5.2.1
<i><b>Planned output:</b></i>	5.2.1.2
<i><b>Action to be taken:</b></i>	Paragraph 6
<i><b>Related document:</b></i>	MSC/Circ.1056-MEPC/Circ.399

#### **Introduction**

1 The Sub-Committee, at its fifty-first session, agreed to prepare a complete revision of the Guidelines for ships operating in Arctic ice-covered waters, in addition to the proposals by South Africa on behalf of the Antarctic Treaty members (MSC 79/INF.2) to add Antarctic waters to the application of the Guidelines.

2 The Sub-Committee further agreed, in order to progress work on the revision of the Guidelines intersessionally, to establish a correspondence group, under the co-ordination of Canada.

3 Submissions were received from Australia, Canada, Denmark, Germany, Japan, Norway, BIMCO, CLIA, FOEI and IACS. The proposals and comments made in these submissions, and those made in document MSC 79/INF.2, were summarized in a table. Items were organized sequentially and given an identifying number. Explanatory comments and guidance from the co-ordinator were added where considered appropriate. Each item was reviewed and given one of four action categories:

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- As Approved (AP) – document amended as suggested;
- Square Brackets (SB) – text enclosed in square brackets for additional consideration;
- Further Discussion (FD) – concepts requiring further discussion as to being included in the document; and
- No Action (NA) – proposals outside the group’s Terms of Reference or not appropriate for inclusion.

The table was circulated, with the draft report to Correspondence Group participants for review and comment by 2 December 2008. Comments numbered 130 and above were received after the table was first distributed. These items were numbered as if at the end of the table and inserted into the original sequence, retaining the assigned number, or added as a comment to an existing item.

5 The complete table with all submissions is presented in this report.

#### **Action requested of the Sub-Committee**

6 The Sub-Committee is invited to consider the information provided and take action as appropriate.

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## ANNEX

**SUMMARY AND CLASSIFICATION OF SUBMISSIONS REGARDING AMENDMENTS TO IMO GUIDELINES FOR SHIPS OPERATING  
IN ARCTIC ICE-COVERED WATERS**

Item	Section	Proposed by	Submission/Proposal	Explanatory Notes/Comments	Co-ordinator	Action
1	General	Australia and MSC 79/INF.2	Insert Explanatory note: "In accordance with the Group's first term of reference, the text on the pages that follow has been prepared on the assumption that the amendments contained in Annex B to the annex to MSC 79/INF.2 are agreed and it has subsequently been constructed to demonstrate what the text of the existing Guidelines might become if the proposals outlined in DE 51/11 and DE 51/11/1 were incorporated."		Other explanatory notes will be added as needed	AP
2	General	Co-ordinator	Insert Explanatory note: "The text of the document has since been amended to reflect comments received from the inception of the Correspondence Group to November 14, 2008. Submissions, related comments and an indication of action taken for each item have been outlined in a table to be submitted to DE 52 as an information paper."			AP
3	General	Co-ordinator	Insert Explanatory note: "For clarity, suggestions from Denmark for reformatting the report, including removal of reference to Parts, deletion of headings, elimination of the Guide section and moving its contents to other sections, have not been included in these proposed draft amendments. The proposals on reformatting require further discussion."	Denmark (item 209) – We also fully understand, that our proposal on a different lay-out of the guideline – and the issue of year-round operation in Arctic waters for all polar Classes will need further discussion – and that the time will not allow so, due to the deadline for submission.		AP
4	General	Australia	Replace "Guidelines" with "Code" throughout.  Replace "should" with "shall" throughout.		Because the Guidelines are not mandatory, "should" is the proper tense. Australia agrees.	SB  NA

**Actions:** **AP** – text amended as proposed; **SB** – text placed in square brackets; **FD** – further discussion required – not included in amendments to the document meantime; **NA** – no action to be taken.

			There has been no momentum within the Correspondence Group for the revised technical standard to be made anything other than voluntary. The chosen label is therefore not important and Australia could accept either "Code" or "Guidelines".		The Terms of Reference for the Correspondence Group do not allow for discussion on making the document mandatory.	NA
5	General	MSC 79/INF.2	Replace Arctic with Arctic/Antarctic throughout	See item 6.		NA
6	General	Australia	Replace Arctic/Antarctic with Polar throughout	BIMCO (item 202) – Add 7.2.5; 11.5.7; 13.3.1.7; 13.4.3.2.		AP
7	General	Denmark	Insert "Remote Areas and" between "Polar" and "ice-covered" in title and throughout. Denmark finds that the name of the Code should be "CODE FOR SHIPS OPERATING IN POLAR REMOTE AREAS AND ICE-COVERED WATERS" since Denmark finds it essential that the Code distinguishes between ice-covered waters and remote areas – since both situations could be present separately or at the same time.	The entire title has been placed in square brackets.	The original document was drafted with the assumption that the defined polar areas are remote.	SB
8	General	Australia	Delete "proposed" when referring to IACS Unified Requirements for Polar inserting "Class" for "Ships".			AP
130	General	CLIA	CLIA notes that we were given the opportunity to not only amend the current Guidelines for ships operating in Arctic ice covered waters, but are actually given the opportunity to rewrite the Guidelines. In this regard, while we note that the protection of hulls through designation of Ice Class based on severity of service is paramount to the Code, the current interpretation and statement is that the provisions of Annex B should apply to all ships irrespective of their area of operation, the season and condition of operations or the nature of the operations; that is, passenger versus fishing, versus oil exploration and exploitation versus cargo shipping or scientific research conducted either in the dead of winter or in ice free conditions of the "polar summer".  CLIA is of the view that one size does not fit all in these operations and that each section of the Code should be drafted having risk in mind and with regard to the region of operation, the nature of the operation (such as discussed above) the time of year of the operations <i>vis-à-vis</i> expected weather, sea states, and ice conditions.	Noted.		FD

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131	General	CLIA	<p>In this regard, CLIA notes the recent activities within IMO and IMO Member Governments to focus on risk based regulation and controls. This is seen in the development of Goal-based Standards, the use of Formal Safety Assessment and other initiatives.</p> <p>In general, CLIA is of the view that cruise ship operations in seasonally ice-free waters represents a very low risk and that these ships should not be therefore required to carry the same arctic survival equipment, cold weather protection equipment, enclosed life boats, and other equipment or measures (such as having to design systems to extremely cold temperatures such as -30°F when mean temperature during operation is never below freezing or even substantially above) as those vessels that venture into the deep Arctic or Antarctic in the presence of heavy ice flows and cold weather extremes.</p> <p>CLIA therefore suggest taking a different approach to rewriting these guidelines to recognize not only the varying types of ships and maritime operations involved but with regards to the risk that is also involved based on such factors as:</p> <ul style="list-style-type: none"> <li>• Geographic location and time of year of the operations</li> <li>• Expected mean and low temperatures that may historically be encountered</li> <li>• Expected ice conditions</li> <li>• Expected weather and sea conditions</li> <li>• Other risk factors</li> </ul>	<p>Appropriate risk factors and provisions related to such factors would have to be developed and presented by CLIA.</p> <p>See also items 12 and 216.</p>	<p>The original draft takes into account that operations are in remote areas and near or in and among ice floes. Coastal States or flag States can apply risk factors in the control of shipping measures.</p>	FD
9	General	Denmark	<p>Remove references to Parts A, B, C, D. The proposed changed structure gives in our view a better overview over what is contained in the Code. It thus adds some simplicity when many of the “semi-headlines” are removed and numbers are used only in the paragraphs.</p>	Formatting.	<p>The current layout was originally developed to facilitate application to existing and new ships given that retroactive application of structural requirements is problematic.</p>	FD
10	Preamble	Denmark	<p>Re-number without P-.</p>	Formatting.		FD
11	P-1	Denmark	<p>Delete heading "Introduction".</p>	Formatting.		FD

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12	P 1.1	MSC 79/INF.2	<p>Add "Whilst Arctic and Antarctic waters have a number of similarities, there are also significant differences. The Arctic is an ocean surrounded by continents while the Antarctic is a continent surrounded by an ocean. The Antarctic sea ice retreats significantly during the summer season or is dispersed by permanent gyres in the two major seas of the Antarctic: the Weddell and the Ross. Thus there is relatively little multi-year ice in the Antarctic. Conversely, Arctic sea ice survives many summer seasons and there is a significant amount of multi-year ice. 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."</p>	<p>FOEI (item 216): In extending the Guidelines to cover Antarctic waters, FOEI are concerned that the differences between Arctic and Antarctic waters are recognized in order to be certain that the Guidelines are appropriate for vessels in Antarctic waters. The Southern Ocean is widely recognized 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 iceberg is found surrounding the Antarctic. In particular, we feel that P1.1 could reflect some of the extreme conditions that can be encountered in Antarctic waters (see Item 12 in table).</p>		AP
132	<p>P-1.1 para 1</p> <p>"Poor weather conditions and the relative lack of good charts, communication systems and other navigational aids pose challenges for mariners"</p>	CLIA	<p>CLIA is of the view that this comment and justification is out of date and if it is desired to still use it, it should be updated. For instance, when the comment was drafted years ago, there was little if any GPS position fixing capability and satellite communications were still in their relative infancy – especially with regards to commercial utilization. Additionally, while many areas still lack good charts, there was a specific comment at IMO MSC, even as we draft these comments that ECDIS will be made mandatory in the near future because of the great proliferation of electronic charts. The argument that these charts will not be available for many global locations was brushed aside by IHO and the Committee. Those Administrations who control the survey of these areas should assure that charts and electronic charts are available as indicated.</p>	<p>It would be premature to remove reference to lack of good charts before the polar areas have been charted. Satellite coverage of polar areas is still difficult. LRIT will assist in certain aspects.</p>		FD

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133	P-1.1 "The remoteness of the areas makes rescue or clean-up operations difficult and costly"	CLIA	CLIA is of the view that the Guidelines are being developed for operations in Polar regions due to their unique risks and not because of their "remoteness". CLIA does not consider the regions where CLIA members operate, to be any more remote than crossing the Atlantic or Pacific Oceans. If fact, due to the seasonally ice free operations of the great majority of CLIA vessel operations and the relative closeness to land, it could be argued that the risk to passengers having to join lifeboats is less than in the middle of the ocean.	Noted. The reference to cost and difficulty of clean-up operations is still considered valid.		FD
134	P-1.1 "Cold temperatures may reduce the effectiveness of numerous components of the ship, ranging from deck machinery and emergency equipment to sea suctions"	CLIA	CLIA would agree but practicality must rule. When a ship is not operating in extremely cold environments, there should be no necessity of designing these systems to those extreme low temperatures.	As a general statement in the preamble, this remains valid for the polar areas, which regularly experience lower temperatures than other operating areas at certain times of the year.	See comments – item 131	NA
135	P-1.1 "When ice is present, it can impose additional loads on the hull, propulsion system and appendages."	CLIA	The key words are "WHEN ICE IS PRESENT". The guidelines should take into account in all sections, not just Part A, seasonally ice free operations and the difference in ice concentrations and strengths.	Noted.		FD
136	P-1.1 para 2	CLIA	Certainly there are more passenger vessels operating in the Antarctic regions under the auspices of IATTO than in Arctic regions, and there is a wider divergence of regions visited and more close in "adventure" cruising in the Antarctic Region. This is an area that certainly could benefit from a format recognizing risk and difference in operating locations.	Noted. No action required pending outcome of discussion with respect to linking provisions to risk factors.		FD

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137	P-1.2	CLIA	In our view, this statement is not accurate given the below definition of "ice covered waters". In as much as there is a statement, confirmed by the coordinator, that all ships in the designated geographic area must comply irrespective of the temperatures expected and experienced, the actual sea states encountered or the actual extent of ice cover, it appears to CLIA that the intent seems to be to address the remoteness more than the actual climate or extent of ice cover. We believe that the matter of operating in remote areas is properly under the purview of the COMSAR Subcommittee and has indeed been addressed in that forum. We believe that these guidelines should be rewritten as a risk based document as discussed in our previous comment.	Noted. No action required pending outcome of discussion with respect to linking provisions to risk factors.	See comments – item 131	NA
13	P-1.3	Australia	Delete "the Guidelines are recommendatory and their wording should be interpreted as providing recommendations rather than their mandatory direction."	Australia (item 221): <i>This proposed change was put forward in the context of our proposal in DE 51/11 that the revised Code/Guidelines should be a near-mandatory instrument. Since it is clear that the revised instrument will be voluntary, we do not wish to pursue the deletion and would prefer that this item be deleted.</i>	The Terms of Reference for the Correspondence Group do not allow for discussion on the voluntary/mandatory issue. DE should, however, be aware that there is interest from polar States in making mandatory certain safety and pollution prevention measures. The text remains as is.	NA
14	P-1.3	FOEI	Recommendation: FOEI/IFAW/WWF submit that steps should be taken to agree on the updated Guidelines as a binding instrument. A MSC-MEPC resolution is therefore welcome, but ultimately FOEI/IFAW/WWF support a stronger legally-binding instrument, covering standards for shipping in Antarctic waters.		As above.	NA
15	P-2	Denmark	Delete heading "Principles"	Formatting.		FD
16	P-2	FOEI	ASOC believes that the principles (P-2) should recognize 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 <sub>x</sub> .	Wording that recognizes the sensitive nature of the polar regions could be developed. It should also be noted that this document has only provisions that are over and above other IMO mandatory instruments (refer to P-1.2).		FD

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17	P-2	FOEI	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). There is a need for further controls on operations to reduce the threat from these pollutants.	The principal premise of this document is precisely to provide additional measures that prevent pollution from ships.	With regard to further controls and timing of the application of the provisions of the Guidelines, if they were mandatory such control would be exercised by: the coastal State if inside its EEZ, or the flag State.	NA
18	P-2	FOEI	ASOC further believes that the Guidelines should be applied to all vessels irrespective of the timing of their trip. 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. ASOC does not support this.	With regard to further controls and timing of the application of the provisions of the Guidelines, if they were mandatory such control would be exercised by the coastal State if inside its EEZ, or the flag State where no coastal State exercises controls, such as the high Arctic.	The document provisions are relevant to all vessels in the defined areas at all times and can be distinguished only if control measures are introduced.	FD
19	P-2.2a	Denmark	Insert new section - In developing the safety standards for this Code it has been necessary to consider: 1. ships engaged in voyages in polar remote areas; 2. ships engaged in voyages in polar areas with ice-covered waters, or 3. ships engaged in polar remote areas with ice-covered waters.		The original document was drafted with the assumption that the defined polar areas are remote.	SB
138	P-2.3	CLIA	If this is accurate, then it would take into account the actual conditions expected to be encountered instead of broad application to any ship that operates north or south of 60 degrees latitude.	The actual ice conditions expected to be encountered are reflected in the Polar Classes.	The context of this Preamble is that the document is non-mandatory. Mandatory measures would include a Permit to Operate related to the control of shipping and the time/zone of operation.	NA
20	P-2.4	Australia	Add footnote: In this context, reference is made to the Enhanced contingency planning guidance for passenger ships operating in areas remote from SAR facilities, as set out in MSC.1/Circ.1184.	Added as a footnote in the amended document.		AP
139	P-2.4	CLIA	If this is accurate, then it would take into account the actual conditions expected to be encountered instead of broad application to any ship that operates north or south of 60 degrees latitude.		See comments – item 138.	FD

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21	P-2.6	Australia	<p>Australia noted that DE 51/11 included a suggestion that existing ships, irrespective of date of build, should at least meet the requirements of the 1981 SOLAS amendments, which entered force on 1 September 1984. No textual proposals are made at this stage in relation to the proposal, as the implications of such a requirement would need to be carefully examined.</p> <p><i>Australia (item 222): We would like the further discussion on this matter to include not only the 1981 amendments (on fire protection) but also the 1983 amendments on life-saving appliances, as outlined in our posting of 6th November under the heading "existing ships".</i></p>	Footnote added to amended document in order to promote development of text.		FD
140	P-2.6	CLIA	Replace "radiocommunication" with radio communication"			AP
141	P-2.6	CLIA	If this is accurate, then it would take into account the actual conditions expected to be encountered instead of broad application to any ship that operates north or south of 60 degrees latitude.		See comments – item 138.	FD
22	P-2.7	IACS	To state that the UR address "all essential aspects of construction of ships for Polar Classes" is inaccurate. Classification Societies may assign a Polar Class notation to any ship that fulfils the structural and machinery requirements of UR I2 and UR I3 and these do not address all the IMO guidelines addressing construction of a Polar ship.	Amend any references within the IMO Guidelines which infer compliance merely by application of the IACS Unified Requirements for Polar Ships.	Propose that IACS develop interpretations for the provisions of the Guidelines not included in the UR and that class consider, in addition to the UR, these other structural aspects, and stability, before assigning a Polar Class. Alternatively, that the document provides more detailed definition of the treatment of the elements covered by the Guidelines which would allow IACS to confirm compliance; or each national Administration develops its own interpretation, and may	SB

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					delegate this to class or other approved organization under some delegation system.	
23	P-2.7	IACS	For example, the IMO Guidelines require that "(a)ll Polar Class ships should be provided with directional control systems of adequate strength and suitable design to enable efficient operation in Arctic ice-covered waters".		The provision for "adequate strength" was deliberately selected as a performance measure at the discretion of the ship owner. No essential need for IACS to interpret.	NA
24	P-2.7	IACS	(see 5.1) and that "(t)he installed propulsive power should be sufficient to ensure that the ship can navigate safely and without risk of pollution under the design ice, weather and operational conditions". The current IACS Unified Requirements cover neither manoeuvrability nor propulsion in ice. Furthermore, how these performance standards are to be satisfied is not included in the IMO Guidelines for ships operating in Arctic ice-covered waters. Accordingly, it is suggested to amend any references within the IMO Guidelines which infer compliance merely by application of the IACS Unified Requirements for Polar Ships.		The provision for "installed propulsive power should be sufficient" was deliberately selected as a performance measure at the discretion of the ship owner. No essential need for IACS to interpret.	NA
25	Guide	Denmark	Guide heading and its contents deleted or placed elsewhere	Formatting		FD
142	G-1.3	CLIA	CLIA is of the view that this should be a risk based document and that all parts of Part B as well as those of Part A should be based on the actual ice conditions and weather conditions to be encountered.	Noted. No action required pending outcome of discussion with respect to linking provisions to risk factors.		FD
26	G-1.4	FOEI	Replace "only intended for new Polar Class ships" with "all ships intended for polar service (Polar Class or Non-Polar Class), including older vessels being retro-fitted for polar service". 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.	It may be impractical to retroactively apply construction standards to existing ships. The SOLAS application limit was chosen as vessels are expected to comply with that Convention and the risk is lower for smaller vessels.		

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				FOEI (item 218): A concern is raised in the notes about the possibility of applying construction standards retrospectively. FOEI welcomes the proposal that this issue is recommended for further discussion and urges careful consideration. Not applying provisions retrospectively, could lead to selection of older vessels for operating in polar waters. This has been recently evidenced through the replacement of the M/V Explorer which sunk in the Antarctic in November 2007, with the 36 year old M/V Expedition. Another example is the M/V Ushuaia which grounded last week. The M/V Ushuaia is 38 years old and was reportedly originally commissioned as a government research/survey vessel, only converting to operating in Antarctic waters around 7 years ago.		FD
197	G-1.5	Australia	It is our reading of the information on <a href="http://www.fma.fi">www.fma.fi</a> that the reference in G-1.5 should be corrected and updated to FMA Bulletin No.2/2.4.2007.	Table updated for nominal equivalencies. Additional explanatory notes added.		AP
27	G-2	Denmark	Move entire section G-2 Provisions to Chapter 1 and renumber 1.3.1 to 1.3.5. Add "and general provisions" to the heading. The proposed changed structure gives in our view a better overview over what is contained in the Code. It thus adds some simplicity when many of the "semi-headlines" are removed and numbers are used only in the paragraphs.	Formatting.		FD
143	G-2.1	CLIA	Insert "and" before "subdivision".		Add comma after "subdivision".	AP

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28	G-2.5	Denmark	This is usually dealt with by means of a high and a low seawater inlet in connection with a tank where hot water can be added and circulated. This could maybe be mentioned.	Footnote removed.  Denmark (item 206) G 2.5 footnote on page 11: We suggest to simply delete it – since it does not add any value.		NA
29	G-3	Denmark	Move entire section G-3 Definitions to Chapter 1 and renumber beginning with 1.4.1	Formatting.		FD
30	G-3.2.1.1	Denmark	Replace "the southern tip of Greenland" with "58 degrees north and 42 degrees west". Denmark is of the opinion that the south tip of Greenland as the southern limit for application of the guideline, instead should be moved to 58 degrees north and 42 degrees west – since harsh ice-conditions often are encountered in this area.			AP
144	G-3.2.1.1	CLIA	CLIA believes that this (the “and” which is the final word in the clause) is the key word which should define the application of both parts of the guidelines. Geographic location <b>AND</b> conditions to be encountered are important.			
31	G-3.14 and 3.2.3	Denmark	Replace "LL Convention" with "ICLL".			AP
145	G-3.5	CLIA	Definition of conning position - this does not appear to be strictly accurate as in older ships, the actual control devices for ahead and astern operations are located in the engine room and the orders are given from the bridge or conning position. We suggest that we think about altering this definition.		Could consider replacing with a definition of “Bridge”.	FD
32	G-3.19	FOEI	Replace "the substances defined as oil, oily mixture and oil fuel in Annex I; noxious liquid substances in Annex II; and solids when carried in bulk, which are also identified as harmful substances in Annex III of the MARPOL Convention" with "all pollutants recognized by IMO instruments". The definition of pollutant (G-3.19) needs expanding to include all the pollutants recognized 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 substances in Annex III of MARPOL. Sewage, garbage, SO <sub>x</sub> , antifoulants, and alien species are not recognized as pollutants.			

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			Australia (item 223): <i>We have problems with the proposed re-wording, as "all pollutants recognized by IMO instruments" is open to interpretation to anything from the mandatory annexes of MARPOL through to including the optional MARPOL annexes and the BWM Convention. Depending upon the interpretation, it remains to be seen whether industry could work within anything other than the narrowest of interpretations, so this should be classified either SB or FD.</i>			SB
33	G-3.21	FOEI	<p>Replace "any vessel covered by the SOLAS Convention" with "all cargo ships (irrespective of size), passenger ships, fishing vessels, pleasure yachts, research vessels". 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. 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.</p> <p>Australia (item 224): <i>3 We hesitate to comment as this was not an Australian proposal, but we agree with the explanatory note that the requested expansion is impractical. We would add that it is also contradictory to proposals (e.g., by FOEI) to make the provisions of the instrument mandatory. In our view it should be considered (if at all) in the context of the Australian comment at item 34, so both items should have the same action code of either FD or NA.</i></p>	It may be impractical to retroactively apply construction standards to existing ships. The SOLAS application limit was chosen as vessels are expected to comply with that Convention and the risk is lower for smaller vessels.		FD
34	G-3.21	Australia	The absence of port-like infrastructure at most Antarctic shipping destinations, together with the seasonality of ice in those locations, necessitates the use of tenders to provide shore links. It is not practicable to apply the Code/Guidelines to such small vessels, so our work on the current text has been based on the assumption that the Code/Guidelines will apply only to ships to which SOLAS applies.	Noted.		NA

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35	G-3.26	Denmark	Nowadays Urea and other liquids are used in the engine room for the operation of the ship. This should be taken into account.	Footnote added to amended document in order to promote development of text.  Denmark• (item 207) G 3.26 on page 13: Our intention was merely to note that liquids other than oily substances are used in the engine-room. Maybe it would be appropriate to ask another relevant sub-committee for guidance next time the guideline is subject to revision.		FD
36	G-1.3	Australia	Replace guidelines with issues and provisions.			AP
37	G-3.2.2 (added)	MSC 79/INF.2	“Antarctic ice-covered waters” – solely for the purposes of this [Code/Guidelines], means those waters which are both: .1 South of 60° S; and .2 In which sea ice concentrations of 1/10 coverage or greater are present and which pose a structural risk to ships.	Japan (item 211): This definition of the “Arctic ice-covered waters” was given by ATCM. Rationale behind the value of ice concentration of 1/10 in this definition should be examined. Taking account of the geographic conditions of Antarctic waters (waters around a continent) ice formed around or from the Antarctica will eventually drift towards the lower latitudes resulting in a gradual change in concentration in space. In such ice conditions, an area defined by ice concentration of 1/10 may be much wider than that defined by, say 3/10 (it is usually said that ships can navigate without hitting dangerous ice features if concentration is less than this value). Scientific background and validity for the concentration value of 1/10 should be checked before it is included in the Guidelines/Code.	The document provisions are relevant to all vessels in the defined areas at all times and can be distinguished only if mandatory control measures are introduced either by coastal State or flag State.	FD

**Actions:** **AP** – text amended as proposed; **SB** – text placed in square brackets; **FD** – further discussion required – not included in amendments to the document meantime; **NA** – no action to be taken.

38	G-3.20	MSC 79/INF.2	Delete previous G-3.20 "Port State" means a State whose area of jurisdiction includes any destination port of a ship where such port lies within Arctic ice-covered waters.			AP
39	G-3.24	Australia	"Unified Requirements" means ("the" deleted) IACS Unified Requirements for Polar Class ships "(UR-I)" added. Previous footnote "Under development" deleted.			AP
40	Figure 2	MSC 79/INF.2	Map of maximum extent of Antarctic application added.			AP
41	1.1	Denmark	Add new section "The purpose of the Code is to provide guidelines for ships operating in polar remote and ice-covered waters" (as shown in "Inspiration draft paper").			FD
42	1.1.1, 1.1.2, 1.1.3	Australia	"Provide guidance for" replaced with "applies to".		As Guidelines, the existing language is most appropriate.	NA
43	1.1.1	Australia	"Except where specifically stated otherwise" added, (along with corresponding footnote "Inserted to provide for extended application of chapter 11") before "this [Code/Guidelines] provides guidance for ships while operating in polar ice-covered waters as defined in paragraph G-3.2 and while engaged in international voyages".  <i>Australia (item 225): The Co-ordinator's comments do not relate to our proposal, which was intended to facilitate extension of the application of Chapter 11 to all waters within the defined geographic polar areas and not be restricted by the need to additionally have 1/10 ice coverage before the guidance applies since the winds and air temperatures to which survivors would be subjected are not necessarily related to ice coverage.</i>		The original document was drafted with the assumption that the defined polar areas are also remote.	SB
44	1.1.1	Australia	"while" deleted.			AP
45	1.1.1	Australia	Overview on Expanding Application from Arctic Waters to Include the Antarctic - There are a number of issues that need to be taken into account in making this change. Even if compliance with the Code/Guidelines were required by all Antarctic Treaty countries in respect of any voyages to Antarctic ice-covered waters (i.e. not only of their own flag ships but also ships of other flags that are chartered by their nationals), there will be no measure to promote compliance with respect to ships of other flags. Australia notes that no proposals have been made to cover this eventuality.	The document is non-mandatory and therefore "application" of a mandatory nature is not appropriate.	If mandatory application is desired, other means to process the request must be found.	NA

**Actions:** **AP** – text amended as proposed; **SB** – text placed in square brackets; **FD** – further discussion required – not included in amendments to the document meantime; **NA** – no action to be taken.



			Australia suggests the following amendment to the application provision in 1.1.1, which is consistent with the Antarctic Treaty System: "Except where specifically stated otherwise, this Guidelines [Code/Guidelines] applies to ships while operating in polar ice-covered waters as defined in paragraph G-3.2 and while engaged in international voyages.			
46	1.1	Denmark	Add figure 1 indicating which chapters apply to which ships... In our opinion, the Code focuses much on measures related to ice in the areas. It must, however, be recognized that ice is not the only challenge when sailing in polar areas. In fact, over time ice may be less challenging in certain periods of the year – and the challenge of operating in remote areas will become interesting. We would, therefore, suggest that a figure like the above-mentioned is inserted in order to give the user a simple way to determine what chapters are applicable to his ship on the planned voyage.	Although the document was originally developed under the assumption that all polar areas are remote, this proposal can make a distinction between ice-covered waters without introducing a shipping control regime.  CLIA (Item 146) – See CLIA comments regarding application based on risk.		FD
47	1.1.2; 1.1.3	Denmark	Delete	Formatting as a result of wider application.		FD
48	1.1.2	FOEI	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.	It may be impractical to retroactively apply construction standards to existing ships.  FOEI (item 217): In a couple of locations, the point is made that enforcement will be the responsibility of the coastal State or outside of EEZs where no coastal State exercises controls – the flag State. It is probably necessary to recognize that for the Antarctic region, the vast majority of the region is outside of the control of coastal States and considered to be high seas and therefore the only option for control is through flag States.	A shipping control system can be introduced either by coastal administrations or by flag States.	FD

**Actions:** **AP** – text amended as proposed; **SB** – text placed in square brackets; **FD** – further discussion required – not included in amendments to the document meantime; **NA** – no action to be taken.

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54	1.1.6	Denmark	Could it be relevant to define something regarding the air humidity and wind chill factor here? It is a known issue that high wind speeds increase the chill.	If related to icing, other IMO instruments may already cover.		FD
55	1.1.7	Denmark	Denmark suggests a reference to MSC/Circ.1184 could be inserted.	Text to be developed.		AP
56	1.2	Denmark	Delete heading "Ice Navigator".	Formatting.		FD
57	1.5.1	Denmark	Inset new paragraph, headed Equivalents, "Where the Code requires that a particular fitting, material, appliance, apparatus, item of equipment or type thereof should be fitted or carried in a unit, or that any particular provision should be made, or any procedure or arrangement should be complied with, the Administration may allow any other fitting, material, appliance, apparatus, item of equipment or type thereof to be fitted or carried, or any other provision, procedure or arrangement to be made in that unit, if it is satisfied by trial thereof or otherwise that such fitting, material, appliance, apparatus, item of equipment or type thereof or that any particular provision, procedure or arrangement is at least as effective as that required by the Code".			AP
58	1.5.1 cont'd	Denmark	As we have suggested earlier in the forum, the new Code should, to a higher degree, consist of function-based requirements – however, no feedback has been given regarding that matter. Nevertheless, we find it important that ship-owners are given full opportunity to design their ships without being restricted by prescriptive requirements as long as the safety level of the new design has at least the same level as that in the prescriptive requirements. We therefore suggest that the above-mentioned SOLAS paragraph is inserted in the Code. In this connection, it could be mentioned that the MSC 83/INF.2 formal safety assessment could be used by the ship-owner to prove to the Administration that his alternative design of a given part of the ship has an adequate safety level.	Duplication has been avoided so that no subsequent amendments are needed when SOLAS or other relevant IMO instruments are changed.		NA

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59	2.1.1	Denmark	Denmark finds that ships sailing in Arctic ice-covered areas must, of course, be designed and constructed for the voyage. It has, however, been recognized that ships with polar class 6 and 7 have proved to be adequate for all-year operations in polar areas (southern areas) with fairly low ice-concentrations and soft ice. Measures should be taken in order to address this. It could be suggested that it is examined if the IACS polar class system could be changed so that all polar classes can be accepted for all-year operation, depending on the ice-concentration. Alternatively, an opening in the requirements should be present so that the Administration can allow ships all-year operation with polar class 6 and 7 if the expected ice-concentrations are suitable for it. (Meteorological institutes in the countries concerned could, for example, provide charts showing such areas).	The concept expressed is implicit in the document as originally developed. The "application" can be extended by introduction of a shipping control system – e.g., ice passport, zone-date system or ice regime system.	A shipping control system can be introduced either by coastal administrations or by flag States.	FD
60	3.1	Australia	Add new section – General – For the purpose of this chapter, "2008 IS Code" means the International Code on Intact Stability, 2008, adopted by resolution MSC.[xxx](85).			AP
61	3.1	Denmark	"It is not clear whether this should apply to new or existing ships."	As guidance, it can apply to existing and new ships.		NA
62	3.2.1	Australia	Add "in accordance with the 2008 IS Code." following calculations.			AP
63	3.2.1 footnote	Australia	* Insert "the 2008 IS Code." for "the resolution A.749(18), Code on Intact Stability for All Types of Ships Covered by IMO Instruments".			AP
64	3.2.3	Australia	Amend references to 3.1.2.1 and 3.2.2.2 to 3.2.2.1 and 3.2.2.2.	Consequential amendment to item 60.		AP
65	3.2.3	Denmark	Insert "during the the whole sea voyages" after "equilibrium".	The proposed amendment seems redundant.		NA
66	3.3	Australia	Delete "(COMNAP suggests to consider item 6 of MSC 79/INF.2 Annex A)".			AP
67	3.3.1	Australia	Replace "remain in a satisfactory condition of equilibrium after such damage, as defined by the IMO instruments applicable to the ship" with either [result in $s_i = 1$ when calculated in accordance with SOLAS regulation II-1/7-2] or [have residual stability meeting the requirements of 3.3 and 3.4 of Part B of the 2008 IS Code].	Many existing ships may continue to comply with prescriptive stability requirements.	See later.	FD

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				<p>CLIA (item 148) The comparison of these regulations – limited to damage stability aspects only – indicate that passenger ships designed and built in accordance with the revised SOLAS chapter II-1 entering into force on 1 January 2009 have to comply with requirements that are more demanding than those envisaged by the current SOLAS 90 provisions.</p> <p>This conclusion is rather obvious for all stability experts which have been involved in the development of the new probabilistic damage stability regulations, superseding those contained in SOLAS 90.</p> <p>The same conclusion can also be drawn from the general comparison between SOLAS 2009 and the recommendatory provisions of MSC/Circ.1056, applicable to ships operating in Arctic ice-covered waters.</p> <p>In other words, <b><u>passenger ships designed and built in accordance with the revised SOLAS chapter II-1 (SOLAS 2009) would not need additional damage stability requirements when engaged in summer cruises in polar regions.</u></b></p>	<p>Note possible additional ice damage stability provisions.</p>	FD
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				There is no evidence of any compelling need of introducing additional damage stability criteria, with more demanding conditions, comparable to those relevant to intact stability. (See CLIA document "CLIA – damage stability.doc" for full analysis).		
68	3.3.1	Australia	Having received the advice from SLF in this matter, delete the content of the first set of square brackets in 3.3.1 and remove the second set of square brackets. The design of new ships in accordance with the Code is already subject to meeting the revised subdivision and damage stability requirements of SOLAS Chapter II-1 (to enter force 1 Jan 2009), the Code requirement (3.4.1) for any Polar Class ship not to carry any pollutant directly against the outer shell and the Code requirement (3.4.2) for all Polar Class ships to have double bottoms over the breadth and length between forepeak and aftpeak bulkheads.	<p>Australia (item 226): <i>These proposals were intended to provoke thought and discussion. We have no problem with accepting the proposals by Germany at item 70.</i></p> <p>Germany (item 195): Referring to chapter 3, regulation 3.3 requirements for residual stability in case of damage are stated which are based on a proposal made by Australia. Germany has within the correspondence group directly referred to the Australian proposal and could <u>not</u> agree at the time. The comments made by Germany are only reflected in the INF paper (item no. 70) and could easily be "overlooked", i.e. one could misleadingly assume that the draft text was agreed by all members of the CG, which is not the fact. In contrast to that the Australian proposal has been "taken onboard" without addressing the our remarks.</p>	<p>Noted. The criteria in damaged condition remains as is in the document with no/no additional requirement to meet intact stability criterion of equilibrium.</p>	<p>AP</p> <p>AP</p>

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69	item 68 contd	Australia	<i>(Continuation of Australian comments – item 68)</i> Some may consider these requirements to be sufficient, but SLF three months ago pointed out that: the probabilistic damage and subdivision provisions of SOLAS II-1 are based upon collision damage in a moderate sea state, whereas ice damage is a different issue and there are no statistics available to allow development of survival criteria for such damage; the use of intact stability criteria for a damaged ship should be considered; and the wave height, which is essential for survival criteria, in ice-affected waters may be dependent upon ice concentration. Test calculations will be necessary to ensure that the resulting criteria are not unduly onerous.	Taking into account the comment by Germany (item 70), the additional ice damage provisions deal directly with the posed risk.  Australia (item 226): <i>These proposals were intended to provoke thought and discussion. We have no problem with accepting the proposals by Germany at item 70.</i>		NA
70	3.3.1	Germany	The proposal from Australia (quote Australia would propose to delete the content of the first set of square brackets in 3.3.1 and remove the second set of square brackets. Unquote) can not be supported by Germany until sufficient data material is available that justifies the necessity to significantly increase the residual stability level. This approach would require vessels in a damaged condition to meet intact stability criteria which could have significant impact on ship's design.	See item 69.		AP
71	3.3.1	Germany	Germany is of the opinion to retain the concept of defined damages anywhere along the length of the vessel. We also suggest assessing the present level of safety (criteria acc. to regulation 3.3.1, damage extension acc. to regulation 3.3.2) in comparison with the requirements of SOLAS 2009, regulation 8 ("minor damage concept").	Vessel must be compliant with applicable SOLAS requirements before checking for ice damage provisions.		NA
72	3.3.1	Germany	Newbuilding vessels are subject to the latest amended regulations for damage stability calculation SOLAS 2009 (resolution MSC.216(82)) and fuel oil tank protection (resolution MEPC.141(54)) depending on the related application dates.			AP

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73	3.3.1	FOEI	It is important to acknowledge that Antarctic waters are widely recognized to be some of the world's stormiest waters, and conditions are harsher than vessels usually experience. FOEI/IFAW/WWF submit 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.	The damaged stability requirements for ice penetration (the "patch" method) are over and above SOLAS requirements.		AP
74	3.4	Australia	Delete "(COMNAP suggests to consider item 6 of MSC 79/INF.2 Annex A)".			AP
75	3.4	FOEI	The COMNAP revision of the Guidelines proposes a two compartment standard of subdivision for vessels over 71 m 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 United Kingdom and IACS all oppose such a move. Arguments against include: – Poor quality of navigation charts leading to increased risk of grounding – Risk of ice damage – 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. FOEI/IFAW/WWF do not support the proposal to amend the current Guidelines to allow a two compartment standard of subdivision as an alternative to double bottoms.	See Germany's comments (item 77). Text remains as is.		AP
76	3.4	Denmark	Would it be appropriate to address watertight doors here?		Does not seem appropriate for this document.	NA
77	3.4.2	Germany	Germany is of the opinion that the requirement for a double bottom should be retained. This position has already been stated in DE 51/11/1. A continuous double bottom provides best protection in case of bottom damages and groundings. An increased likelihood of occurrence of bottom damage scenarios/groundings, pertaining environmental conditions in polar waters and the circumstance that vessels operates in remote areas with little salvage resources require a high safety level immediate after causality and over an extended period as well (e.g., wait for	Noted – original text retained.		NA

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			salvage, unfavourable weather conditions ...). The proposal for calculation of a two-compartment damage as an equivalent to a continuous double bottom is therefore not supported as this would only cover residual stability immediate after damage			
149	Chapter 3	CLIA	It should also be noted that intact stability aspects, e.g., addressing the possible accumulation of ice on the superstructures, would require further specific consideration.		If necessary, make reference to appropriate standard elsewhere.	FD
150	4.1.1	CLIA	It is unclear as to just what this means	Performance standards.		NA
151	4.1.2	CLIA	It is unclear as to just what this means	Performance standards.		NA
152	5.3	CLIA	This appears to be outdated and should be updated to reflect current technology and practices.	IACS (item 203): Item 78 – <i>should naturally lead to an amendment into the sub item:</i> <b>5.3</b> Attention is drawn to the <del>possibility of</del> interaction between directional control systems and propulsion systems. Where such interaction occurs or where dual purpose components are fitted, the provisions of chapters 7 and 8 should also be complied with, as applicable. As a result, propose to delete “possibility of”. There is practically always some interaction. E.g., rudder effect is fully dependent of water speed along the rudder.	Text amended as proposed	AP
153	6.3.1	CLIA	<i>“All Polar Class ships designed to perform towing operations”</i> . Does this mean that each ship should be equipped, manned and trained to act as a towing vessel or does it mean to be designed to be towed in an emergency. Recent IMO actions regarding towing arrangements on non-tank vessels should be taken into account. CLIA is of the view that a passenger ship should never be considered to be a towing vessel.	The provision refers only to those Polar Class ships that are designed to perform towing operations.		NA
154	6.4	CLIA	This should be updated to reflect recent IMO activities in this regard.		Add appropriate footnote.	AP

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78	7.1.3	Denmark	Insert new paragraph 7.1.3 "Special attention should be drawn to the fact that harsh weather conditions often occur in polar areas and that the propulsion effect plays a significant role in relation to the steering ability". Rationale: When the ship sails in harsh weather and ice is present, it must be considered to be very important to be able to avoid collision with the ice. Denmark has information about ships that hit ice in harsh weather due to low propulsion effect and manoeuvrability. We therefore find it essential that attention be drawn to this. 7.1.3 and 7.1.4 renumbered accordingly	Text to be developed as proposed.		AP
79	7.2	Denmark	The classification society has regulations for spare parts. Should this be mentioned here?	Polar Class notation by classification societies would include spare parts.		NA
80	7.2.3	Denmark	Replace the word "should" with "shall".	Not appropriate language for non-mandatory nature of this document.		NA
81	7.2.5	Denmark	Isn't this issue covered in G-2.5?	Not entirely covered by G-2.5.		NA
82	9.4	Australia	Insert "including the reserve source of energy for the radio installation," following "Emergency power batteries".			AP
83	9.5	Denmark	Such equipment should be approved in accordance with the relevant standard. A reference to RO standards or IEC standards could be mentioned.	Footnote added in order to promote development of text.		AP
198	10.1	BIMCO	Refuelling to be carried out in accordance with IMO Guidelines (MEPC resolution [xxx].58).	FOEI (item 219) is concerned about refueling provisions in relation to Antarctic waters, however we are trying to bring together further information (Chapter 10), because of the vulnerability of polar environments, the most stringent provisions should be included.		AP
155	10.3	CLIA	Relative risk should be considered for each of these items based upon expected operating conditions. Ships operating in seasonally ice-free conditions (less than 1/10 ice cover) and in moderate temperatures versus below freezing or extremely low/sub-zero conditions should not be expected to make the below arrangements. Please see our comments regarding risk assessment, etc.	Noted.		FD

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84	10.4	MSC 79/INF.2	Change to 10.4 and bold "Fire pumps and associated equipment" to be equivalent in ranking to other paragraphs. Amend subsequent paragraph numbering and references. Use "fire fighter" instead of fireman".			AP
156	10.4.2	CLIA	Relative risk should be considered for each of these items based upon expected operating conditions. Ships operating in seasonally ice-free conditions (less than 1/10 ice cover) and in moderate temperatures versus below freezing or extremely low/sub-zero conditions should not be expected to make the below arrangements. Please see our comments regarding risk assessment, etc.	Noted.		FD
157	10.4.4	CLIA	Relative risk should be considered for each of these items based upon expected operating conditions. Ships operating in seasonally ice-free conditions (less than 1/10 ice cover) and in moderate temperatures versus below freezing or extremely low/sub-zero conditions should not be expected to make the below arrangements. Please see our comments regarding risk assessment, etc.	Noted.		FD
158	10.5	CLIA	Relative risk should be considered for each of these items based upon expected operating conditions. Ships operating in seasonally ice-free conditions (less than 1/10 ice cover) and in moderate temperatures versus below freezing or extremely low/sub-zero conditions should not be expected to make the below arrangements. Please see our comments regarding risk assessment, etc.	Noted.		FD
159	10.6	CLIA	In CLIA's view, this is adequately covered by current SOLAS requirements and consideration should be given to deleting it here.			SB
85	10.6.1	Denmark	Fire-fighter's outfit will probably be more operative if located in warm locations.	"Warm" inserted following "stored in" in amended document.		AP
86	11.1.1	Australia	Insert new section "This chapter applies to ships operating in waters within the areas defined in G-3.2.1.1 and G-3.2.2.1 irrespective of the extent of ice coverage of those waters."	Australia (item 227) – refer to item 43.  CLIA (item 160) – Please see our previous comments (items 131 and 133). CLIA does not believe that this is appropriate.	The original document was drafted with the assumption that the defined polar areas are remote.	SB

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87	11.1.1	FOEI	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). FOEI/IFAW/WWF supports the proposal that the provisions of chapter 11 should apply to all ships venturing into Antarctic waters.	The assumption is that the provisions of the document apply at all times to all SOLAS vessels operating in the defined areas and additional controls can be introduced either by coastal or flag Administration.		FD
88	11.1.1	Denmark	Amend references to G-3.2.1.1 and G-3.2.2.1 to 1.4.2.1 and 1.4.2.2.	Formatting.		FD
89	Table 11.1	Australia	for item Handbook, insert "/Antarctic" following "Arctic".	Insert "polar" instead.		AP
161	11.1.2	CLIA	Please see our previous comments. CLIA does not believe that this is appropriate.	Noted.		FD
162	11.1.3	CLIA	While CLIA does not disagree with this last sentence, we are of the view that this is more appropriate as a SOLAS requirement.			FD
163	11.2.1	CLIA	Please see our previous comments. CLIA does not believe that this is appropriate. Please see our comments under 1.1.6 and before.	See comment for 1.1.6.		FD
164	11.2.3	CLIA	In CLIA's view, as currently written this does not make a lot of sense. While we believe the intent may be justified, we are not convinced that the current wording conveys the idea. If persons are to remain onboard the ship because they can not get off by the use of survival craft, should the ship, in these events not be equipped to provide the provisions for survival?	GSKs allow evacuation in ice and are shelter and equipment that would have been provided by survival craft.		FD
165	11.2.4	CLIA	Please see our previous comments regarding operational risk assessment. CLIA does not believe that this provision is appropriate for ships operating in moderate weather conditions in seasonally ice free waters.	Noted.		FD
90	11.2.5	Denmark	It cannot be recommended to stow survival suits, etc., in the cabin. In case of an emergency, it must be considered dangerous to have to go back inside the cabins.		Suggest adding that extra PSKs be stored outside.	FD
166	11.3	CLIA	Please see our previous comments; CLIA does not believe that this is appropriate unless indicated by risk assessment regarding the ships particular operations.	This is already taken into account as PSKs are not required unless low temperatures are anticipated (11.2.2)		NA
91	11.3.1	Denmark	Why are only vacuum-packed suits allowed?"		Suggest adding "or similar protection".	FD

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167	11.4.2	CLIA	See above comments regarding seasonally ice free and moderate weather conditions. Additionally, full debate with regard to carrying firearms must take place in light of recent comments and debate at IMO regarding not only piracy but the matter of security. Since the ISPS Code, carriage of any firearms onboard is problematic.	Firearms should be considered, perhaps only in the Arctic, where there is a possibility of evacuation to the ice.		FD
199	11.5	BIMCO	Note: The use of free fall lifeboats may be hampered by the ice conditions surrounding the ship.	Noted.		FD
92	11.5.1	Denmark	Only fully enclosed life-boats should be allowed on ships covered by this Code.	Denmark: (item 204): As you may recall, we suggested that regulation 11.5.1 should only mention fully enclosed life-boats. We are still of the opinion, that fully enclosed lifeboats is a must when entering Arctic Waters. Therefore, we find it inadequate to have a phrase in the regulation on how to handle open- or partially closed lifeboats, if the ship is fitted with such.  Norway (item 210): we lend our support to Denmark with regard to the lifeboats.		FD
169	11.5.1 – last sentence	CLIA	While CLIA would not disagree that open lifeboats are not appropriate, we are also concerned that ships may operate with tarpaulins to provide cover. CLIA believes that partially enclosed boats as currently carries by cruise ships should be required for passenger vessels. We would also be concerned that other vessels, such as oil exploration vessels which are already required to carry fully enclosed boats would take this as over taking those existing requirements.	Text amended to remove reference to open lifeboats.		AP
170	11.5.2	CLIA	Recalling previous discussions at DE regarding the wearing of survival suits within partially enclosed or enclosed lifeboats, CLIA is specifically concerned that ships operating in moderate weather conditions and in seasonally ice free conditions that this would lead to heat stroke and other problems. CLIA again believes that a risk assessment should be utilized for this matter. We are also	The provision calls for liferaft capacity to take wear of immersion suits into account and does not call for them to be worn at all times.		NA

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			of the view that passenger ships should not automatically have to be de-rated as to their passenger capacity due to the fact of a transit above or below 60 degrees latitude when these transits are made in seasonally ice free conditions and moderate, that is, not extreme cold, weather conditions.			
171	11.5.3	CLIA	Again, in seasonally ice free operations in moderate weather conditions this would seem unnecessary.	Noted.		FD
172	11.5.6	CLIA	See above comments regarding seasonally ice free and moderate weather conditions.	Noted. Minimum summer temperatures in Antarctica approach the freezing point.		FD
173	11.6	CLIA	See above comments regarding seasonally ice free and moderate weather conditions.	Noted.		FD
174	12.1	CLIA	See above comments regarding seasonally ice free and moderate weather conditions. At the very least these paragraphs need to be updated to reflect current SOLAS requirements. Also, why should this Code be listing equipment that is already required by SOLAS? If we list these, then why not other SOLAS requirements? Other additional equipment should be considered based on a risk assessment of justification of need based on actual operations.		The document should be updated to remove provisions that are in SOLAS.	FD
200	12.1	BIMCO	Do you expect all readers of the Code to be familiar with Latin?			FD
175	12.2	CLIA	possibly, something should be said about GPS			FD
93	12.2.3	Denmark	Replace "two gyro-compasses" with "one gyro-compasses and one satellite compass". Instead of having two gyro compasses, it would be more suitable to have one gyro and one satellite compass.	Japan (item 213): one gyro-compass.		AP
94	12.3.1	Australia	Delete footnote "Refer to resolution A.824(19) on Recommendation on Performance Standards for Devices to Indicate Speed and Distance." as its content is covered by last sentence of 12.1.			AP
95	12.6.3	Australia	Delete footnote "Refer to the proposed Performance Standards for Course and Speed Indication for Electronic Positioning and Satellite Systems" as its content is covered by last sentence of 12.1.			AP
96	12.7	Australia	Delete "and" between "and" and "automatic identification system".	Should perhaps be "an".		AP
97	12.7	Australia	Delete footnote "Refer to guidelines on the operation of AIS on ships (to be developed)." as its content is covered by last sentence of 12.1.			AP

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176	12.7	CLIA	This item among others, needs to be updated to reflect current IMO requirements or better yet, deleted as it is contained in SOLAS		The document should be updated to remove provisions that are in SOLAS.	FD
98	12.9.1	Denmark	Replace 5 with 7. We don't see why only Polar class ships 1-5 should be equipped with searchlight. All ships should be equipped with a searchlight and the number "5" should be replaced with "7" so it becomes applicable to all ships. Furthermore, we don't see why searchlights should only be necessary in periods with prolonged darkness. Even if it is dark for only one hour there could still be a need for the searchlight.	BIMCO: (item 201): All ships operating in darkness in Polar Waters must have searchlights.	Suggest that text reflects searchlights to be fitted for PC 6 and 7 vessels if <u>operating</u> in darkness.	FD
99	12.10.4	Denmark	A reference to resolution MSC.191(79) PERFORMANCE STANDARDS FOR THE PRESENTATION OF NAVIGATION-RELATED INFORMATION ON SHIPBORNE NAVIGATIONAL DISPLAYS would probably be suitable here.	Footnote added in order to promote development of text.		AP
100	12.11	Australia	Delete footnote "Refer to resolution A.861(20) on Recommendation on Performance Standards for Voyage Data Recorders (VDRs)." as its content is covered by last sentence of 12.1.			AP
101	12.11	FOEI	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. Accordingly, 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.	This type of guidance document is not the right vehicle for such measures.		NA
102	Chapter 13 – title	Australia	Replace "Guidelines" with "Arrangements". In keeping with proposal to change from Guidelines to Code.			AP
103	Chapters 13, 14 and 15	Denmark	Combine in one section – ISM Guide and reword as questions.	Formatting.  Denmark (item 208): Please also allow me to clarify on our proposal on collecting 13, 14 and 15 into one chapter. Our intentions with such proposal was not an editorial issue as indicated in your table, but much more a matter of these issues		FD

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				<p>having potential for being dealt with in an ISM-based approach, where it is up to the master of the ship to carefully consider what is required for the planned voyage. We are convinced that such an approach will, to a higher degree, strongly encourage the master to consider the consequences instead of having a situation where the master solely focuses on what was prescribed in the regulations for the ship on the planned voyage. We hope that we will have the opportunity to promote this idea when the guidelines are revised again some time in the future.</p> <p>See CLIA items 177 and 178 in support of provisions of chapter 13 being a part of the ISM/SMS</p>		
104	13.2.1	Denmark	Add "which could be included in the operational guidelines".			AP
178	13.2.1	CLIA	We generally agree with this paragraph and believe that this should be determined for each vessel type depending on the area of operations, the weather and sea states and the presence or lack of presence of ICE. Please see our introductory comments.	Noted.		FD
105	13.2.2	Australia	Add new section "All passenger vessels operating in polar ice-covered waters should take account of the distance from search and rescue facilities and of the Enhanced contingency planning guidance for passenger ships operating in areas remote from SAR facilities, as set out in MSC.1/Circ.1184."	CLIA (item 179)- While we do not object to referencing an IMO MSC circular, it would seem unnecessary as the circular itself says when it should be used.	Reference is relevant to the document under consideration.	AP
106	13.2.13	FOEI	FOEI/IFAW/WWF proposes that the Guidelines include greater consideration and provisions mitigating the threat from sea icing. A report on the Guidelines from the Fridtjof Nansen Institute (FNI) to WWF, 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	Icing may occur in polar waters, but is less likely in heavy ice cover. Japan (item 214): Explanatory note to this comment is correct. But if the current trend of decreasing sea	Could consider adding references to icing prevention guidance where available elsewhere.	FD

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			the performance of on deck equipment. Mention of the threat posed by icing is made in various chapters (including chapters 3, 10 and 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.	ice continues, icing could be much more problematic in the Arctic waters in the near future than it has been before. As FOEI proposes importance of icing-related problems should be enhanced more in the Guidelines/Code preferably with some guidance for the forecasting/calculation and prevention of icing and deicing techniques.	Specific guidance would be welcome.	
181	13.3.1.13	CLIA	See above comments regarding seasonally ice free and moderate weather conditions.	Noted.		FD
182	13.3.3	CLIA	Insert "as appropriate for the vessel's intended operation" after "listed below".	Noted.		FD
183	13.4.2.1	CLIA	See above comments regarding seasonally ice free and moderate weather conditions.	Noted.		FD
182	13.3.3	CLIA	Insert "as appropriate for the vessel's intended operation" after "listed below".	Noted.		FD
183	13.4.2.1	CLIA	See above comments regarding seasonally ice free and moderate weather conditions.	Noted.		FD
184	13.4.2.2.5	CLIA	See above comments regarding seasonally ice free and moderate weather conditions.	Noted.		FD
185	13.4.3.1	CLIA	See above comments regarding seasonally ice free and moderate weather conditions.	Noted.		FD
107	13.4.2.3.2	Australia	Delete footnote "Refer to resolution A.624(15) on Guidelines for Training Crews for the Purpose of Launching Lifeboats and Rescue Boats from Ships Making Headway Through the Water." refer resolution A 921(22).			AP
186	13.4.3.2	CLIA	See above comments regarding seasonally ice free and moderate weather conditions.	Noted.		FD
187	13.4.5	CLIA	See above comments regarding seasonally ice free and moderate weather conditions. Also please see our previous comments regarding survival kits.	Noted.		NA
188	Chapter 14	CLIA	See above comments regarding seasonally ice free and moderate weather conditions.	Noted.		NA

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108	14.2	MSC 79/INF.2	<p>Delete "; in the Antarctic, documentary evidence of having completed an on-the-job training programme is acceptable". Australia notes that in DE 51/11/1 Canada, Germany, the United Kingdom and IACS proposed rejection of the ATCM proposal (MSC 79/INF.2) for allowing on-the-job training for ice navigators in the Antarctic.</p> <p><i>Australia (item 229): This misinterprets Australia's position. In MSC 79/INF.2, the Antarctic Treaty parties endorsed the COMNAP proposal to allow some flexibility in accepting on-the-job training in lieu of a formal course for ice navigators in the Antarctic (due to the differences in incidence of ice types between the two polar regions). This proposal was rejected by the sponsors of DE 51/11/1, but Australia considers it should be given further consideration.</i></p>	The development of an ice-navigator model course is possible for endorsement of the Master's certificate. This approach could mirror the tanker certificate endorsement scheme which has a theoretical and an operational part.	On the job training and experience in particular ice-covered waters can be applied as part of grandfathering clause through a mandatory shipping control regime.	FD
109	14.2	Australia	Include reference to model course for Ice Navigation to be developed by the Organization.	See notes above (item 108).		FD
110	14.2	FOEI	Parties to the Helsinki Convention on the Protection of the Marine Environment of the Baltic Sea Area agreed a new recommendation 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.	Noted – see items 108, 109.		FD
111	14.2	FOEI	Due to the risks associated with navigating in ice-covered waters and the likelihood of adverse weather conditions, FOEI/IFAW/WWF support 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, FOEI/IFAW/WWF propose development of an agreed international ice operation training course.	Noted – see items 108, 109.		FD
112	14.2	Denmark	Training should also take into account that the ship is sailing in remote areas	Noted – see items 108, 109.		FD

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189	14.3.1	CLIA	Please see our comments (item 167) regarding firearms onboard.	See comment item 167.		FD
190	15.1	CLIA	CLIA recommends that this be updated with regard to IMO actions taken since original drafting of the Code.		Add appropriate footnote.	AP
191	15.2.1	CLIA	Please see our previous comments regarding risk assessment, area of operation, and conditions of operations.	Noted.		FD
113	16.1.2	Norway	For consideration: that the procedures described in 16.1.2 be tailor-made to cover the remoteness and other environmental factors particular to the Arctic.	Footnote added in order to promote development of text. The original document was drafted with the assumption that the defined polar areas are remote.		FD
114	16.1.2	FOEI	FOEI/IFAW/WWF support 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 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.			FD
115	16.1.4	Norway	Add new section – For double hull protection please refer to G 2-2 and chapter A3.			AP
192	16.2.1	CLIA	CLIA believes this sentence to be too general. Based on previous discussions at DE regarding damage control capabilities, this should be further defined or limited.			FD
116	16.2.1	Norway	Delete "All ships should have the capability to contain and clean up minor deck and over side spills." and move to 16.2.2.			AP
117	16.2.2	Norway	Add new section "All ships should have the capability to contain and clean up minor deck and over side spills. An inventory of such equipment shall be included in the SOPEP, along with directions for safe use and guidelines to assist the master in determining when such use is warranted." Renummer.	CLIA (item 193): Is this not already required by the SOPEP and SMS? If so, does it need to be repeated here?	Need to check if already included in SOPEP. Particularly relevant to remote areas.	FD

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194	16.2.3	CLIA	This section should be combined with 16.2.1 rather than being separated by other elements.			FD
118	16.3	Norway	Insert new section "Limitation on use and carriage of certain heavy fuels".	Proposed provisions are required in order to be able to consider this proposal. Australia (item 228): <i>In order to complete this matter, DE 52 will need to either develop appropriate text for these headings or agree to delete them as the outcome of "further discussions".</i>		FD
119	16.4	Norway	Insert new section "Oil tankers".	As above.		FD
120	16.4.1	Norway	Insert new section "Crude oil carriers".	As above.		FD
121	16.4.2	Norway	Insert new section "Product carriers".	As above.		FD
122	16.5	Norway	Insert new section "Chemical carriers".	As above.		FD
123	16.5.1	Norway	Insert new section "Hazardous and noxious substances (IBC Code substances)" (related comment from Denmark – defined in MARPOL Annex II).	As above.		FD
124	16.5.2	Norway	Insert new section "Other substances".	As above.		FD
125	16.6	Norway	Insert new section "Passenger vessels".	As above.		FD
126	16.6.1	Norway	Insert new section "Sewage Treatment on passenger vessels".	As above.		FD
127	16.7	Norway	Insert new section "Bio fouling matters".	As above.		FD
128	16.7.1	Norway	Insert new section "Ballast water".	As above.		FD
129	16.7.2	Norway	Insert new section "Other bio fouling matters".	As above.		FD

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