Working Towards A Polar Vessel Code
**Summary**

This Information Paper calls on the ATCM to:

- consider the essential components of a Polar Code relevant to Antarctic vessels for input to the IMO’s Correspondence Group on the Polar Code and the DE sub-committee in October 2010.

- agree to include in that Polar Code a broad enough scope to address mandatory measures for vessel design and construction, equipment, operations and planning, environmental protection, as well as crew training, search and rescue capabilities, environmental response, and infrastructure support including monitoring and information systems, port state control, and compliance for all vessels operating in Antarctic waters.

In addition, ATCM should:

- develop a checklist for Antarctic Treaty inspections of tourist vessels and tourist activities in Antarctica, as well as intensify the conduct of inspections of tourist vessels and activities.

- ensure that WP28 on environmental aspects of Antarctic ship-borne tourism is considered further by the Committee for Environmental Protection (CEP) and Operations Working Group, and forwarded to the IMO’s DE sub-committee for consideration in the development of the Polar Code.

- task the CEP with the development of guidelines for responding to large-scale oil spills in the Antarctic Treaty Area, drawing on the extensive experience of ATPs that have dealt with large oil spills in national waters in recent years.

- identify and adopt a mechanism for enhanced coordination between the ATPs with respect to all Antarctic-related matters within the IMO and all matters that would have specific application in Antarctic waters.

- agree to approach the IMO with a proposal for a memorandum of understanding or similar instrument to formalize enhanced cooperation between the two bodies.

- Undertake, through an intersessional contact group or other appropriate mechanism, a comparison of the three port state control agreements and their appropriateness for the needs of vessels operating in Antarctic waters.

- adopt a resolution prohibiting vessel discharge of all vessel wastes including sewage, sewage sludge, grey water and food wastes within or adjacent to the South Orkneys MPA and requiring reporting by ships transiting the MPA. In addition, the ATCM should inform the IMO of the measures adopted for ATP flagged ships, and seek similar measures for all vessels.

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1. Introduction

In considering the need to ensure that the highest standards of safety and environmental protection are adopted for all vessels operating in remote Antarctic waters, two frameworks need to be considered – the Antarctic Treaty System (ATS) and the conventions and regulations administered by the International Maritime Organization (IMO). The potential is increasing for overlap between the agendas of the Antarctic Treaty Consultative Meetings (ATCMs) and the IMO, and it is welcome that there is increasing coordination and collaboration between these groups as well. Recent developments are outlined in Section 2 and areas requiring further action by ATCM XXXIII are set out in Section 3.

2. Recent developments

2.1 Developments at ATCM XXXII

2.1.1 Mandatory Antarctic Shipping Code

Following work to extend the Arctic Guidelines for ships operating in polar ice-covered waters to cover Antarctic waters, and publication of the report into the sinking of the M/V Explorer, Antarctic Treaty Parties (ATPs) agreed to a resolution on the urgent need for work to commence to develop mandatory requirements for ships operating in Antarctic waters. Work on the “Polar Code” is now underway and is discussed in greater detail below.

2.1.2 Extension to Antarctic Special Area

ATCM XXII adopted a Resolution that required the Chairman to request the Commission on the Conservation of Antarctic Marine Living Resources (CCAMLR) to provide its views on the possibility of asking the IMO to amend the Antarctic Special Area (presently defined as the waters to the south of 60°S) to extend its boundary northward to the Antarctic Convergence. CCAMLR’s Scientific Committee recognized that the aim of the proposal was to extend the protection to waters that reflected a hydrographic boundary, rather than an arbitrary line, consistent with its custom and practice in defining boundaries for the protection of the marine environment. Some Members felt the appropriate course of action to be that CCAMLR acts first since it is capable of taking action to apply the provisions of MARPOL Antarctic Special Area status to fishing vessels, and then the IMO be asked to consider extending the provisions of MARPOL Special Area status to the wider IMO community.

ASOC submits that extension of the IMO Special Area Status to the Convergence would conform to an ecosystem-based approach and facilitate the delivery of ecosystem-based management in the Southern Ocean. It has been argued, however, that such an extension would be difficult to apply or enforce because the Convergence varies slightly in position over a period of years, making it more difficult for international shipping to comply. The simplest approximation of the Convergence boundaries would be to use the CCAMLR boundaries or to require ships to monitor water temperature, since there is a very clear thermobarrier with the Antarctic waters to the south of the Convergence significantly cooler than those of the sub-Antarctic to the north. ASOC also believes that the area to which the Polar Code (see below) will apply should be all waters south of the Antarctic Convergence.

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2 The revised Guidelines for Ships Operating in Polar Waters were subsequently adopted by IMO Assembly Resolution A.1024 (26) on 2 December 2009.
6 More commonly referred to by oceanographers as the Antarctic Polar Front (APF) this is the oceanic transition zone between colder Antarctic waters flowing north and sinking beneath warmer sub-Antarctic waters. This transition zone forms a natural biological boundary and is located north of the area of the Antarctic Treaty.
2.2 Antarctic Treaty Meetings of Experts on the Management of Ship-borne Tourism in the Antarctic Treaty Area, Wellington 2009

An Antarctic Treaty Meeting of Experts (ATME) on ship-borne tourism took place in December 2009 in Wellington, New Zealand. The purpose of the meeting was to accelerate consideration of matters relating to the management of ship-borne tourism in the Antarctic Treaty area and provide recommendations for consideration by the 33rd ATCM. Many believed that the meeting was essential following the “wake-up” call of the sinking of the M/V Explorer in November 2007. The meeting produced 17 recommendations largely focused on aspects of shipping; however, a number of the recommendations simply encourage Parties to put into action existing regulations or recommendations, or to exchange information. In particular, ASOC was disappointed in what seemed to be a reluctance to recommend that the ATCM take significant steps in the regulation of ship-borne tourism in Antarctic waters. Of particular note, and requiring further action by ATCM, are recommendations concerning a proposal to develop a checklist to assist with inspections of tourism ships and activities; proactive use of Port State Control; and a proposal to develop guidelines for responding to large-scale oil spills. Section 2 of this paper will consider in more detail the follow-up action now required.

2.3 International Maritime Organization (IMO)

Since ATCM XXXII, a number of IMO Committees and sub-committees have considered new measures of relevance to the management of vessels in the Southern Ocean. A detailed assessment of recent developments was provided to the Wellington ATME. The proposed ban on the use and carriage of heavy fuel oil was approved by the 59th session of the Marine Environment Protection Committee (MEPC), adopted at the 60th session in March 2010, and will take effect from 1st August 2011. The revised Guidelines for Ships Operating in Polar Waters were adopted by IMO Assembly Resolution in December 2009, and work to develop a mandatory Polar Code was agreed, with a timeframe of two years given for its completion in 2012. In February 2010, IMO’s sub-committee on Ship Design and Equipment (DE) commenced work to develop the mandatory Polar Code (the International Code of Safety for Ships Operating in Polar Waters).

3. Next Steps

3.1 Follow-up to the ATME, Wellington

3.1.1 ATME Recommendations

A number of recommendations from the ATME in Wellington propose that specific actions be taken at ATCM XXXIII, or lead naturally to further action, as identified in Table 1 below.

<table>
<thead>
<tr>
<th>ATME Recommendation</th>
<th>ASOC comment</th>
<th>Action required by ATCM XXXIII</th>
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<tbody>
<tr>
<td>Rec 2: Drawing on the checklists currently available for other Antarctic operations, the Treaty Parties should consider the development of a specific checklist for Antarctic Treaty inspections of tourist vessels and tourist activities in Antarctica.</td>
<td>This is a useful proposal and similar to previous ASOC recommendations, however conducting more inspections of tourism vessels and activities is more important than the production of a checklist!</td>
<td>ATCM should develop a checklist for Antarctic Treaty inspections of tourist vessels and tourist activities in Antarctica, as well as intensify the conduct of inspections of tourist vessels and activities.</td>
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7 ATME WP 1 An Overview. Presented by New Zealand.
9 Presented to ATCM XXXIII as IP11 New Zealand International requirement for ships operating in polar waters.
**Rec 3**: That the Treaty Parties make use as appropriate of the views expressed in discussions amongst experts about the proposed IMO mandatory Polar Code in their preparations for the upcoming meetings of the IMO Sub-Committee on Ship Design and Equipment and the ATCM, and discuss at the ATCM how the Treaty Parties might best input into the IMO discussions.

The output of the Informal Contact Group which met at the ATME to discuss the Polar Code is a useful starting point, however it only covers high-level principles. There is an urgent need for more detailed consideration of the components of a mandatory Polar Code to ensure that they meet the needs of the full range of vessels operating in Antarctic waters. See Annex I for ASOC’s views on essential elements for the Polar Code.

ATCM should consider the essential components of a Polar Code which are of relevance to Antarctic vessels for input to the IMO’s Correspondence Group on the Polar Code and the DE sub-committee in October 2010.

**Rec 11**: The meeting recommended that the relevant committees and groups of the ATCM (such as the CEP and the Operations Working Group) give further consideration to how the assessment of the environmental aspects and impacts of Antarctic ship-borne tourism in WP008 (Appendix A) could be drawn on to inform their discussions regarding the management of ship-borne tourism and shipping generally.

ASOC welcomes the comprehensive assessment of Antarctic shipping contained in ATME 2009 WP008\(^ {12}\), and urges the ATPs to give further consideration to the assessment and its importance in informing the development of environmental protection provisions of the mandatory Polar Code and in addressing the environmental impacts of vessels in Antarctic waters.

ATCM should ensure that WP28 on environmental aspects of Antarctic ship-borne tourism is considered further by the Committee for Environmental Protection (CEP) and Operations Working Group and forwarded to the IMO’s DE sub-committee for consideration in the development of the Polar Code.

**Rec 14**: That the ATCM consider developing guidelines for responding to large-scale marine oil spills in the Antarctic Treaty area.

ASOC believes that it would be valuable to develop guidelines for responding to large-scale oil spills in the Antarctic Treaty Area and for this issue to be considered further for inclusion in the Polar Code\(^ {13}\).

ATCM should task the CEP with the development of guidelines for responding to large-scale oil spills in the Antarctic Treaty Area drawing on the extensive experience of ATPs that have dealt with large oil spills in national waters in recent years.

**Rec 15**: The meeting agreed that enhanced coordination between the Antarctic Treaty Parties with respect to Antarctic-related matters within IMO may be valuable in some circumstances, and noted that mechanisms for coordination should be considered by ATCM XXXIII.

ASOC believes that enhanced coordination between ATPs within the IMO would be valuable, especially in respect of the development of a mandatory Polar Code\(^ {14}\). Previous examples of enhanced cooperation within the IMO, for example amongst EU Member States or amongst Baltic States, have proven effective at ensuring appropriate shipping management measures are agreed which suit the needs of a region. Such a mechanism for enhanced coordination between ATPs should also involve ATCM observers.

ATCM should identify and adopt a mechanism for enhanced coordination between the ATPs with respect to all Antarctic-related matters within the IMO and all matters which would have specific application in Antarctic waters.

**Rec 16**: Recognising the usefulness of having the IMO present and the valuable

ASOC is supportive of formalizing some form of enhanced cooperation between the ATCM and the IMO, maybe in the form of

ATCM should agree to approach the IMO with a proposal for a memorandum of understanding or similar to formalize enhanced

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12 Presented to ATCM XXXIII as WP28 Environmental Aspects of Antarctic Ship-borne Tourism.
13 See IP7 on Marine oil spills in the Antarctic Treaty Area – Environmental considerations regarding oil spill behaviour and potential for impacts and IP8 on Oil Spill Response both from New Zealand.
14 See WP22 on Enhanced coordination of Antarctic Treaty proposals within the IMO by Australia.
contributions the IMO representative made, the meeting encouraged IMO’s attendance at the next ATCM. The meeting recommended that ways to enhance the cooperative working relationship between the ATCM and IMO should be further considered at ATCM XXXIII.

| a Memorandum of Understanding that is commonly used between international regulatory frameworks with differing by compatible remits and overlapping geographic coverage. | cooperation between the two bodies. |

Rec 6: That the Treaty Parties proactively apply to tourist vessels bound for the Antarctic Treaty area the existing regime of port State control (PSC), through PSC memoranda of understanding or agreements if appropriate, so that they can meet all applicable legally binding international standards.

ASOC welcomes recommendation 6 from the ATME concerning port state control, but is concerned that there might be differences in port state control needs for vessels operating in the remote waters of the Southern Ocean and other international shipping for which the port state control agreements were primarily developed. Ideally all vessels operating in the Southern Ocean should be subject to the same level of detail of port state control\(^\text{15}\), and ASOC suggests that it would be valuable to undertake an assessment and comparison of the three primary port state control regimes focusing on elements of particular relevance to vessels operating in Antarctic waters i.e. the Tokyo MoU, the Indian Ocean MoU, and the Vina del Mar Agreement, which encompass the ports of departure for Antarctica.\(^\text{16}\)

ATCM, through an intersessional contact group or other appropriate mechanism, undertakes a comparison of the three port state control agreements and their appropriateness for the needs of vessels operating in Antarctic waters.

3.1.2 Other issues from ATME: Particularly Sensitive Sea Area (PSSA)

WP001\(^\text{17}\) from New Zealand raised the possibility of seeking Particularly Sensitive Sea Area (PSSA) for the Antarctic Treaty Area. Although there was no recommendation to take work further to consider a PSSA designation, ASOC supports the conclusion reached: “A number of delegations expressed their support for the idea, while noting that consideration of a PSSA would require a great deal of work and close consideration of the PSSA criteria and the objectives for such a designation. Other delegations emphasized that any proposal should first undergo detailed consideration by the ATCM, including consideration of whether Antarctic Treaty mechanisms or other IMO protective measures could be employed to achieve the same outcomes.” ASOC submits that as ATCM and the IMO consider the improved management of vessels in Antarctic waters, it will become increasingly apparent that a PSSA designation will be valuable to the region.

3.2 IMO

3.2.1 Mandatory Polar Code

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\(^{16}\) See also WP37 on The Enhancement of Port State Control for Passenger Ships Departing to Antarctica and IP 36 on A Proposal to Enhance Port State Control for Tourist Vessels Departing to Antarctica, both presented by New Zealand.

The IMO sub-committee on Ship Design and Equipment (DE) met in February 2010, and considered a number of papers on the development of a Polar Code, including a paper co-sponsored by a number of ASOC members, which outlines the essential elements of a mandatory Polar Code (see Annex II for a summary). A Correspondence Group led by Norway is currently considering the components of the Polar Code intersessionally and is due to report to the next DE sub-committee meeting in October 2010. It is likely that a Working Group will undertake the necessary work to have a draft mandatory Polar Code available in October, which will then be considered by other appropriate IMO sub-committees and committees during 2011. The current aim is for the work to be completed in 2012.

The development of a Mandatory Polar Code is arguably the most important development for the future management of all vessels operating in Antarctic waters, both existing and new vessels, and the full range of different vessel types. ASOC submits it is essential that the new mandatory Polar Code is not limited to those vessels defined by the Safety of Life at Sea (SOLAS) Convention, but encompasses all vessels operating in these remote areas and extreme conditions, including fishing vessels. Fishing vessels operating in Antarctic waters are not small and can pose a significant threat to the marine environment from shipping operations. In addition, the requirements for search and rescue will be similar as for other vessels. Consideration at ATCM XXXIII of the Polar Code and the requirements for vessels operating in Antarctic waters is imperative if ATPs are to have a significant influence on its development.

**Action required by ATCM XXXIII:** Agree to include in a Polar Code a broad enough scope to address mandatory measures relating to vessel design and construction, equipment, operations and planning, environmental protection, as well as crew training, search and rescue capabilities, environmental response, and infrastructure support including monitoring and information systems, port state control, and compliance for all vessels operating in Antarctic waters.

### 3.3 CCAMLR and the South Orkneys MPA

In November 2009, CCAMLR adopted the first exclusively high seas marine protected area (MPA) – the South Orkneys MPA. In addition to the existing provisions limiting fishing and eliminating discharges from fishing vessels, ASOC submits that there is value in considering management measures that would provide additional protection for the MPA, in particular vessel management measures that prohibit the discharge of all vessel wastes, including food wastes, sewage and sewage sludge and grey water, whilst within or adjacent to the MPA and require vessels transiting the area to report their movements.

ASOC has been advocating stronger controls on discharges from all vessels including sewage and associated wastes, grey water and on food wastes throughout the Southern Ocean. In the current absence of support for a ban on the discharge of these wastes for all waters south of 60°, area-based bans are another approach to protect the most important and sensitive areas, i.e. prohibit the discharge of vessel wastes for a given distance from land, or from the ice, and in protected areas.

**Action required of ATCM XXXIII:** ATCM should adopt a resolution prohibiting the discharge of all vessel wastes including sewage, sewage sludge, grey water and food wastes within or adjacent to the South Orkneys MPA and requiring reporting by ships transiting the MPA. In addition, the ATCM should inform the IMO of the measures adopted for ATP flagged vessels, and seek similar measures for all vessels.

### 4. Conclusions

While some progress has been made, considerable work remains to be done to ensure high levels of safety and environmental protection with respect to all vessels operating in Antarctic waters. The development of a mandatory Polar Code offers a unique opportunity, and when complemented by other actions by the ATPs, can set the highest standards for all vessels operating in Antarctic waters.

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18 DE 53/18/3 Proposed Mandatory Code for Ships Operating in Polar Waters. Shipping management issues to be addressed. Submitted by FOEI, IUCN, Greenpeace, IFAW and WWF to the 53rd session of the sub-committee on Ship Design and Equipment.

19 See WP44 from UK and Belgium on Complementary protection for Marine Protected Areas designated by CCAMLR.
Annex I: ASOC response to Polar Code considerations from Informal Contact group at ATME, December 2009

While the considerations of the Informal Contact Group were not endorsed by the Plenary Meeting, and really focused on overarching principles, there are some important elements identified, in particular:

- The desirability of a broad and consistent application to vessels operating in the Arctic and the Antarctic was noted.
  This is important, and ASOC is calling for the Code to be applied to all vessels operating in Antarctic waters – not only those encompassed by the definition of ships under the SOLAS Convention, but also including, for example, fishing vessels.
- The Informal Contact Group agreed that it was important that the mandatory Polar Code “would need to be applicable to new ships and as far as practicable to existing ships”.
  This is extremely important, particularly as very few new vessels commence operating in polar waters each year, and a considerable number of vessels operating in Antarctic waters are converted or redeployed from one use to another use.
- The Informal Contact Group recommended that when defining the proposed areas of operation, consideration should be given to the ship’s ability to survive a casualty, considering reduced availability of Search and Rescue services.
  This is important in seeking that the Polar Code to be applied to a wide geographic area – in particular all waters south of the Antarctic Polar Front.
- The Informal Contact Group recommends that the Polar Code should focus on casualty prevention and environmental protection, and that other items such as Search and Rescue should also be considered for inclusion in the Code.
  This is welcome and ASOC is keen to ensure that the Code encompasses the full range of management issues that are relevant to operation of vessels in the remote waters of Antarctica.
- The Informal Contact Group proposed that consideration should be given to ensuring that the Polar Code be a comprehensive Code and should be linked to current mandatory instruments.
  This is welcome, it is important that the Code be a stand-alone instrument.

While the output of the Informal Contact Group was noted but not formally endorsed by the ATME, some of the elements were also agreed by the ATME, in particular:

- The Informal Contact Group recommended that the ATCM consider what might be usefully included in the development of the Code regarding oil spills and environmental protection, and the ATME agreed it would be appropriate to ask the IMO to consider what guidance could be incorporated into the Code.
  This will useful in advocating that the Code is expanded beyond the provisions of the existing Guidelines.
- The Informal Contact Group recommends that the ATCM highlights the importance of environmental protection in Antarctica and urges that in developing the Polar Code detailed consideration be given to the minimisation of marine pollution in the Antarctic Treaty area. This was also agreed by the ATME.
  This is very welcome since the likelihood is that the Code will focus on safety considerations as the existing Guidelines do, and while the safety provisions are vitally important, it is also important that the Code is broadened beyond the existing Guidelines.
Annex II: Essential Elements of a Mandatory Polar Code – Antarctic Waters

- Application of the Polar Code to the full extent of Antarctic polar waters south of the Antarctic Polar Front.

- A presumption that the provisions of a Polar Code are mandatory unless a case is made for a specific provision to be recommendatory for some types of vessels.

- All provisions applied retrospectively to existing vessels, particularly when vessels are being converted for polar service or redeployed from one use to another use.

- Comprehensive coverage of all aspects of safety and environmental protection as they relate to vessels in polar waters.

- Application of the highest possible safety and environmental standards to all vessels operating in polar waters.

- Clear and unambiguous definitions for “ice-covered waters” and “pollution”.

- Vessels required to conform to the highest relevant polar class for the anticipated ice conditions in the area in which they are operating, and only polar class vessels with adequate ice-strengthening permitted to operate in ice-covered waters.

- The highest possible stability standards for both intact and damaged vessels, which take into account the potential for ice formation on vessels and the possible extreme sea and storm conditions.

- Recognition of the need for comprehensive life-saving equipment, and appropriate training on the use of all life-saving equipment.

- Identification and establishment of mandatory navigation routes such as traffic separation schemes, areas to be avoided, speed restrictions, mandatory reporting and use of the Particularly Sensitive Sea Area designation in polar waters.

- A requirement for vessels operating in or adjacent to ice-covered waters to carry trained ice navigators.

- Provisions for high standards of training for vessels’ crews, including ice navigators.

- Mitigation measures to reduce the risks of accidents, such as vessel routeing measures for environmental protection, as well as safety.

- Tailored procedures for operations under accident conditions, which recognise the remoteness and sensitivity of polar environments, being included in the oil pollution emergency plan.

- Provisions to address the full range of environmental impacts including where zero discharge provisions for wastes from vessels; reducing disturbance to marine life; full application of existing Conventions aimed at environmental protection; tailored procedures for the protection of polar environments under normal operations to be included in the vessel’s operating manual.

- In order to support compliance in remote polar waters, the new Polar Code should provide for the development of appropriate infrastructure for management and enforcement, including polar vessels traffic monitoring and information systems; adequate search and rescue capacity and procedures; adequate environmental response capacity and coordination and procedures; accurate and up-to-date mapping of hydrographic conditions in polar waters; collaborative port-state enforcement regarding polar operations; rapid ratification and full implementation of all relevant instruments which enhance safety and minimize environmental impacts of vessels, including the new FAO Port State Agreement.