

MARINE NOTICE

Marine Notice 24/2007
Supersedes 4/2006

Ship Safety and Marine Pollution in the Antarctic and Sub-Antarctic Waters

In the last few years, the number of ships operating in Antarctic and sub-Antarctic waters has increased. There are cruise ships carrying large numbers of tourists to the area, commercial fishing vessels, yachts participating in around the world races and small scale, private polar expeditions.

Masters, owners, agents and tour organisers are warned of the dangers and extreme risks of operating in Antarctic and sub-Antarctic waters.

Antarctic and sub-Antarctic waters are not well surveyed, and there are uncharted hazards which can endanger vessels of all sizes. There are serious deficiencies in the amount, quality and accuracy of hydrographic data available to mariners. Attention is drawn to the warnings on the relevant charts concerning the reliability of the data, and the lack of navigational aids in the region.

As polar regions are outside the satellite footprint of the Inmarsat satellite system coverage areas (Sea Area A4), attention is drawn to communication equipment requirements in addition to the radio equipment requirements for vessels in Sea Area A3. These include:

- An MF/HF radio installation capable of transmitting and receiving, for distress and safety purposes, using DSC, radiotelephony and Narrow Band Direct Printing (NBDP);
- An MF/HF DSC watchkeeping receiver capable of maintaining a DSC watch;
- At least one 406 MHz EPIRB.

In addition, ships must be capable of transmitting and receiving general radiocommunications using radiotelephony or NBDP telegraphy by an MF/HF radio installation.

Mariners are advised that while GPS and 406 MHz EPIRBs generally work well in this area, magnetic compasses within 1000nm of the South Magnetic Pole are generally unreliable, while gyroscopic compasses are prone to error at very high latitudes.

Meteorological conditions are subject to rapid change. Access to adequate weather forecasts is very limited. Extremely strong winds, reduced visibility, icebergs and pack ice are ever present. Ice conditions in Antarctica are severe and ships operating in this environment require special strengthening. There have been many instances of ships being caught in ice sometimes resulting in damage or loss.

The remoteness of Antarctica presents major problems in responding to a marine incident. Rescue services are almost non-existent and there are sparse medical or other facilities available to assist with handling casualties.

Shelter is extremely limited. Self-sufficiency is particularly important, as it is highly unlikely that any of the widely scattered research stations in Antarctica or on the sub-Antarctic islands could provide significant or timely assistance in the event of a marine casualty and other vessels could be many days away.



Enhanced planning is required before proceeding into Antarctic and sub-Antarctic waters. Owners and operators of passenger ships should be familiar with the Guidelines for preparing plans for cooperation between search and rescue services and passenger ships (MSC/Circ.1079) and Enhanced Contingency Planning Guidelines for Passenger Ships Operating in Areas Remote from Search and Rescue Facilities (MSC.1/Circ.1184).

The Antarctic and sub-Antarctic environment is particularly sensitive. The consequences of pollution arising from an incident within the Antarctic Treaty Area (South of 60°S) are serious. Substantial damage to the region could arise from either oil or chemical pollution or the indiscriminate disposal of garbage or sewage.

It is strongly recommended that no vessel should proceed into the Antarctic Treaty Area unless:

- (a) the Master and Navigating Officers have:
 - training in high latitude navigation and ice operations (alternatively, an ice pilot with relevant experience of the area should be engaged);
 - adequate hydrographic and meteorological information for the intended voyage;
 - implemented watchkeeping procedures commensurate with the conditions;
 - adequate communications equipment and trained operators onboard; and
- (b) the shipowners have ensured that:
 - the ship is properly strengthened for ice operations, preferably with a double hull below the water line for the full length of the vessel, no bunker fuel adjacent to the vessel's outer hull, IMO Special Purpose Ships (SPS) Code as appropriate and adequate watertight compartments;
 - all the ship's lifeboats and life rafts are fully enclosed, suitable for cold climate use, surveyed and operational;
 - there are sufficient thermal protective survival suits for all on board;

- there are adequate arrangements to handle any medical emergencies that may arise in the course of the voyage;
- reserves of food, fresh water, fuel and spares for critical equipment are carried to provide for unforeseen delays and besetment; and
- marine pollution mitigation arrangements (including insurance) are in place in the event of a fuel or waste spill and the vessel has a Shipboard Oil Pollution Emergency Plan (SOPEP).

Antarctic and sub-Antarctic waters within the Australian Search and Rescue Region are covered by the Australian ship reporting system. Mariners are strongly urged to avail themselves of the AUSREP ship reporting system and report as required.

Shipowners, masters, agents and tour organisers should also ensure that a risk assessment and management plan has been prepared and that voyages to the Antarctic Treaty Area comply with the relevant annexes and articles of MARPOL 73/78; the Protocol on Environmental Protection to the Antarctic Treaty (the Madrid Protocol), particularly provisions in Annex IV of the Protocol relating to marine pollution and waste management; the *Antarctic Treaty (Environmental Protection) Act 1980*; and with the Guidance for Those Organising and Conducting Tourism and Non-governmental Activities in the Antarctic and Guidance for Visitors to the Antarctic. Voyages to the Australian sub-Antarctic Territory of Heard Island and McDonald Islands must comply with the Heard Island and McDonald Islands Marine Reserve Management Plan 2005.

Shipowners, masters, agents and tour organisers should also ensure that a Plan of Cooperation between Search and Rescue Services and Passenger Ships has been prepared and made available to appropriate rescue coordination centres. The Plan should be prepared with reference to MSC/Circ.1079 (SOLAS Regulation V/7.3) and MSC.1/Circ.1184.

Further information on AUSREP and MARPOL
73/78 can obtain from:

Australian Maritime Safety Authority
GPO Box 2181
Canberra ACT 2601
Australia

Telephone: +61 (0)2 6279 5000
Facsimile: +61 (0)2 6279 5021 and

The Antarctic Treaty, the Madrid Protocol and
relevant guidance documents from:

Australian Antarctic Division
Channel Highway
Kingston Tasmania 7050
Australia

Telephone: +61 (0)3 6232 3209
Facsimile: +61 (0)3 6232 3288
Email: policy@aad.gov.au

Mick Kinley
A/g Chief Executive Officer
November 2007

Australian Maritime Safety Authority
GPO Box 2181
CANBERRA ACT 2601

File No: 007168-05

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