

July 2014

To all Members

Polar Shipping

This Bulletin seeks to highlight some of the issues to be taken into account by a Member when considering engaging their ships on Polar transits.

Introduction

Global climate changes – graphically illustrated by the trend of melting ice around the North Pole – has led to growing commercial interest in the Arctic region. This has resulted from certain sea routes having become more predictable and accessible to navigation. In 2009, two German ships accompanied by a Russian icebreaker became the first commercial traffic across the Northern Sea Route. In 2013, 70 Northern Sea Route passages were completed.

In the Arctic, there are three recognised routes:

- 1 North-West Passage (Canada)
- 2 North East Passage (through the Russian Northern Sea Route)
- 3 Central Arctic Ocean (Trans-Arctic route)

The unique risks of polar voyages

Ships navigating in Arctic and Antarctic waters face unique risks and challenges, including:

- Poor weather conditions e.g. polar lows can produce high wind speeds and rapid changes in weather conditions; sea fog can reduce visibility to zero.
- The presence of ice in various forms including growlers and icebergs.
- A lack of any or any accurate hydrographic data, scarcity of good charts, communication systems and other navigational aids.
- The remoteness of the areas makes search and rescue or clean-up operations difficult.
- Extreme cold temperatures may reduce the effectiveness of equipment such as deck machinery, cranes, emergency equipment and sea water intakes (which must be capable of being cleared of any accumulation of slush ice).
- Additional loads imposed by ice on the hull and the propulsion system.
- Mental and physical exhaustion of the crew due to working in extreme conditions and very low temperatures.

Club cover

While no trading warranties are applied to the terms of entry for ships trading in Polar regions, there are conditions of cover that specify that:

- Members' ships must remain fully classed throughout the period of entry in the Club (Rules 28(1) and 34(6));
- Members must comply with all statutory requirements (Rule 28(4)); and Ships entered with the Club should not be traded imprudently (Rule 22).

What a Member should do

When considering engaging their ship on a Polar transit, it is recommended that the Member:

- Inform and receive approval from Hull Insurers as well as notifying the Club of the intended voyage.
- Inform the ship's Classification Society and receive confirmation that appropriate Ice Class is in force for the intended voyage. The International Association of Classification Societies (IACS) has developed a set of Unified Requirements which, in addition to general classification society rules, address the essential aspects of construction of ships of Polar Class.
- Contact the authorities with jurisdiction over all parts of the intended route and ensure the ice regime requirements of all of those authorities are adopted and complied with.
- Contract with a pilot/ice navigator and ice breaker for the intended passage.
- Conduct a risk assessment for the entire passage. That risk assessment should address:
 - key safety and pollution control equipment should be rated for the temperatures and other conditions which may be encountered during the voyage;
 - navigation and communication equipment should be suitable to provide adequate performance in high latitudes, areas with limited infrastructure and unique information transfer requirements;
 - assessment of on board machinery and equipment, including adaption for extreme temperatures and weather;
 - planned maintenance and spares for the passage;
 - crew training and medical checks for mental and physical expectations of the voyage;
 - the shore side management team's ability to provide up to date information on weather and ice conditions, while having in place contingency plans for evacuation, pollution control and salvage services.
- When making the passage plan, Members should take into consideration:
 - whether extra crew are required for bridge, engine and look out duties;
 - the availability of appropriate hydrographic, meteorological and oceanographic charts as well as the ship's ability to receive updates;
 - the ship's navigation and communication equipment, specifically whether it is appropriate for intended voyage and polar conditions;
 - the fact that featureless coastline and uniform snow cover makes it difficult to navigate by taking fixes on landmarks, so appropriate additional training for crew of all navigation procedures in polar conditions (including position fixing) is essential.
- Be aware that Polar transits may give rise to claims and legal issues under charterparties, which should be appropriately cloused.

Useful websites:

When planning a Polar transit, Members will find useful information in the following governmental/industry body websites:

International Maritime Organisation (IMO) – shipping in polar waters

A Polar Code is being developed, which will cover the full range of design, construction, equipment, operational, training, search and rescue and environmental protection matters relevant to ships operating in the inhospitable waters surrounding the two poles. The International Group of P&I Clubs (IG), through its secretariat, is monitoring its development. In the meantime, Members are referred to:

<http://www.imo.org/MediaCentre/HotTopics/polar/Pages/default.aspx>

Arctic Council

The IG has been involved in various discussions within the Arctic Council for the development of operational guidelines on marine oil pollution preparedness and response in the Arctic.

The Arctic Council member states are Canada, Denmark, Finland, Iceland, Norway, Russian Federation, Sweden and USA. Individual Arctic Council Member State web pages can be accessed by the following link:

<http://www.arctic-council.org/index.php/en/about-us/member-states/united-states-of-america>

International Hydrographic Organisation (IHO), Arctic Region

The member States to the IHO Arctic Region are Canada, Denmark, Norway, Russian Federation and USA with Finland and Iceland having Observer status.

Less than 10% of Arctic waters are charted to modern standards and the IHO encourages cooperation by the Arctic Region members' Hydrographic Organisations:

http://www.iho.int/srv1/index.php?option=com_content&view=article&id=435&Itemid=690

IACS

IACS has established unified requirements for the essential aspects of the construction of ships of Polar Class:

<http://www.iacs.org.uk>

BIMCO

The 'ICE' section of BIMCO's website provides updates from regions of the world affected by ice, regulations by ice authorities, recommendations for ships operating in the winter seasons and the various Ice Clauses:

<http://www.bimco.org/>

Kongsberg Satellite Services AS (KSAT)

KSAT is a commercial Norwegian company, which provides ground station and earth observation services for polar orbiting satellites:

<http://www.ksat.no/Products/IceNavigation.htm>

Polar View

Polar View is an international consortium, which provides a wide variety of earth observation products that monitor sea ice cover, glacier runoff, snow cover, snow melt, icebergs, river ice and lake ice. Covers Europe, Russia, Canada, the North Atlantic and the Antarctic:

<http://polarview.met.no/>

Baltic Sea Ice Services

The purpose of Baltic Sea Ice Services is to create a harmonised range of ice condition information products and services for the Baltic Sea and adjacent waters:

<http://www.bsis-ice.de/actualsituation.shtml>

Individual country websites

Members will also find useful information in the following country websites:

Canada

Canadian ice service from Government of Canada, Environment Canada:

<http://www.ice-glaces.ec.gc.ca/app/WsvPageDsp.cfm?ID=10910&Lang=eng&PrdCatId=611>

Government of Canada, Canadian Coast Guard – ice navigation in Canadian waters:

http://www.ccg-gcc.gc.ca/Ice_home/Ice_Publications/Ice-Navigation-in-Canadian-Waters

Russia

The Northern Sea Route Administration:

<http://www.nsra.ru/>

Sweden

Swedish ice service – daily ice charts for the Baltic region:

<http://www.smhi.se/en/services/professional-services/shipping/swedish-ice-service-1.8715>

USA

National Oceanic and Atmospheric Administration (NOAA) Department of Commerce:

<http://pafc.arh.noaa.gov/ice.php?img=icef>