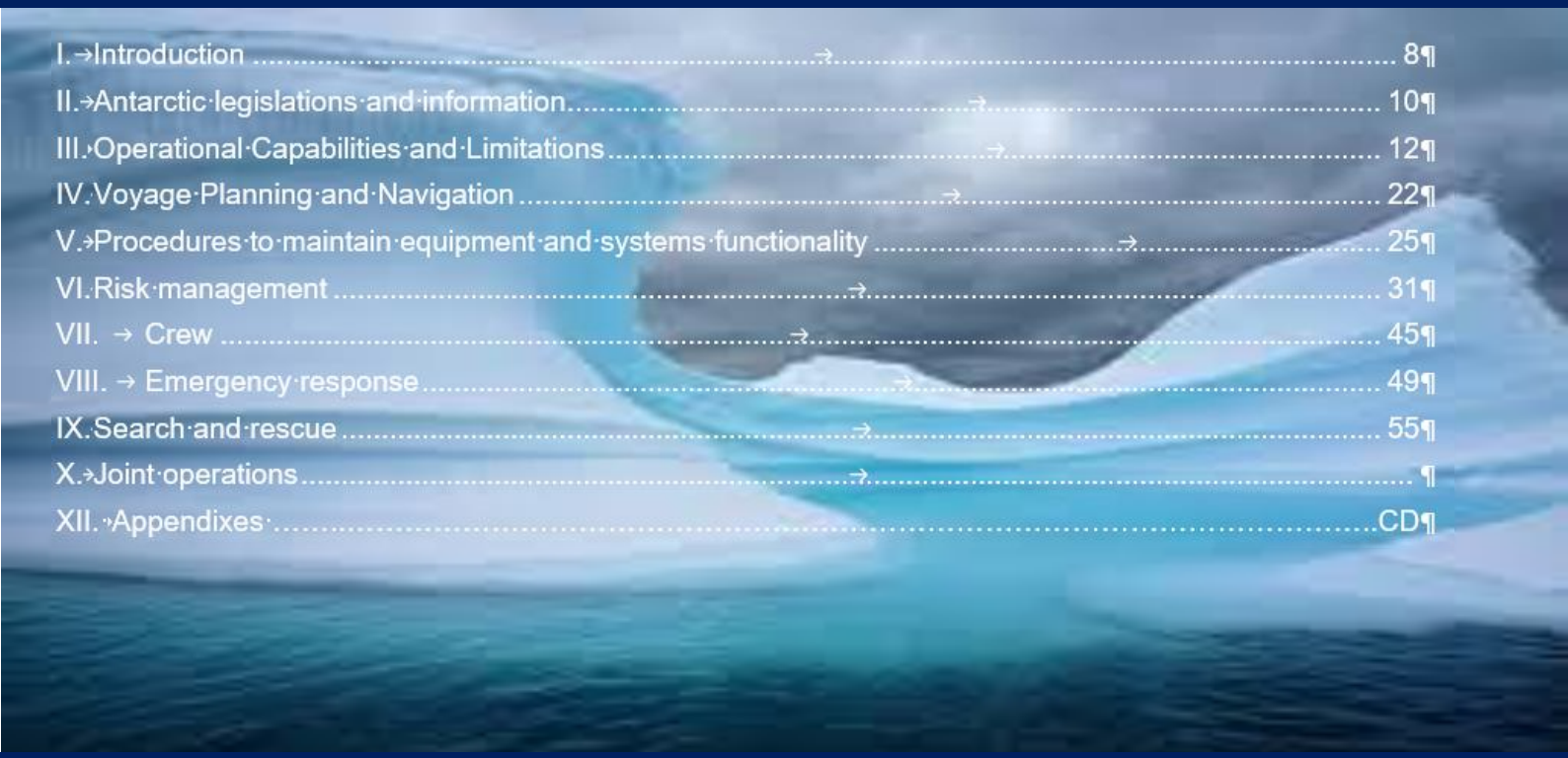
Polar Waters Operation Manual

IMO No. 1 2 3 4 5 6 7

MARSIG Shipping GmbH & Co. KG



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prepared by MARSIG

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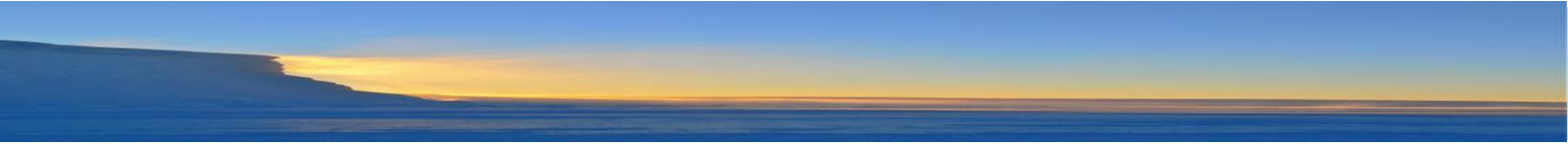

Company / Ship Details

Manager:	MARSIG Shipping GmbH & Co. KG
Address:	Fischerweg 408, 18069 Rostock, Germany
Contact:	Phone: + 49-(0) 381 66 09 64 00 Fax: + 49-(0) 381 66 09 64 00 Mobile: + 49-(0) 172 385 2447 Email: info@marsig.com, www.marsig.com

Ship	Details
Ship's Name:	MARSIG ANTARCTIC
Type	Multi-purpose dry cargo ship
IMO Number:	1 2 3 4 5 6 7
Built:	2010
Crew present / max	27
Call Sign:	Y 5 M H
Flag:	Germany
Port of registry:	Rostock
Class	DSRK
GT	15,549
Load Speed [kn]	17,5
Length over all [m]:	166.15
Breadth [m]:	22.90
Draught summer [m]:	09.50
Main Engine	MAN B&W Diesel, 7L58/64
Rated Power	9800 kW
Auxiliary Generators	3 x Caterpillar/ 3412C / 620 kW
Emergency generator	1 x Caterpillar/ 3412C / 450 kW
Shaft Alternator	1 x LSA 50MG / 900 kW
Bow Thruster	1x Wuxi Huada Motors Y2-ODP355LX-4/800 kW
Propeller	1x controllable pitch propeller
Rudder	Balanced
Rudder angle – max	70° Pt & Stb
Sat-C telex	Inm. 1 - 463725268 & Inm. 2 - 463725267
Fleet Broadband phone / Iridium	+870770964001/ Fax +870770964002/ +88770964003
E-mail	captain@marsig-shipping.com
Radio - Sea Area	A1, A2, A3

Company / Ship Details

Ship	Details
HFO/MDO Capacity	1,454.20 m³ / 218.60 m³ (90%)
Max / Fixed Ballast (DBT 2 & 3 s/s)	6,718.6 m³ / 1,918.9 mt
Hull Construction	Single hull double bottom,
Bridge Equipment operating temp	On deck
Navtex (Furuno Felcom 19)	-25°C
Radar / Arpa (Furuno FR 2117)	indoor -15°C / antenna -25°C
Inmarsat C / GMDSS (Furuno FS 2570)	indoor -15°C, Antenna coupler -25°C
Iridium (Digisat Int. - Iridium Furuno)	Indoor - 5°C to +45°C
Gyro Compass (Raytheon STD22)	indoor position, operation temp. 45°C<T<60°C
Magnetic Compass 1+1 (Cassens & Plath)	-30°C
AIS (Furuno FA-150)	-25°C
GPS (Furuno GP-150)	Antenna -20°C to +70°C / Display -15°C to +55°C
Weather Fax (Furuno)	indoor -10°C to +50°C
VHf Radio Telephone (Furuno)	indoor -15°C to +50°C
Portable VHFGMDSS (Furuno)	-25°C
Cargo Cranes	-55°C
Machinery Specification	
ER operation under closed ventilation	Yes
Grease type temp limits	-20°C
CPP Oil type & temp limits	-20°C
LO limit	-33°C
CW limits	-20°C

Polar Operating Profile and Limitations	Details
Ice Class	1A
Polar Code Category	C
Ice stability calculation	Yes (part of stability booklet)
Operational Area	Antarctic Peninsula, Rothera Station, MDLT -7°C,
Season	April – May
Operational Area 2	King Edward Point, South Georgia, MDLT -4,4°C
Season	April – May

Definitions

Antarctic area	The sea area south of latitude 60° S.
Arctic Area	The sea area north of latitude 60°N with some exceptions near Greenland and Scandinavia (see International Code for Ships Operating in Polar Waters).
Close Ice	Floating ice in which the concentration is 7/10 to 8/10, composed of floes mostly in contact
Compacted Ice Edge	Close, clear-cut ice edge compacted by wind or current; usually on the windward side of an area of ice
Compact Ice	Floating ice in which the concentration is 10/10 and no water is visible
Compacting	Pieces of floating ice are said to be compacting when they are subjected to converging motion, which increases ice concentration and/or produces stresses which may result in ice deformation
Concentration	The ratio expressed in tenths of the sea surface actually covered by ice to the total area of sea surface, both ice-covered and ice-free, at a specific location or over a defined area
Concentration Boundary	A line approximately the transition between two areas of drift-ice with distinctly different concentrations
Consolidated Ice	Floating ice in which the concentration is 10/10 and the floes are frozen together
Consolidated Ridge	A ridge in which the base has frozen together due to melting or other processes
Dried Ice	Sea ice from the surface of which melt-water has disappeared after the formation of cracks and thaw holes. During the period of drying, the surface whitens
Drift-Ice	Sea ice that is drifting freely
Fast Ice	Sea ice that forms and remains is attached to the coast in late winter
Fast Ice Boundary	The ice boundary at any given time between fast ice and drift-ice
Fast Ice Edge	The demarcation at any given time between fast ice and open water
Firn	Old snow which has recrystallized into a dense material. Unlike ordinary snow, the particles are to some extent jointed together; but, unlike ice, air spaces in it still connect with each other
Flaw	A narrow separation zone between drift-ice and fast ice, where the pieces of ice are in chaotic state; it forms when drift - ice shears under the effect of a strong wind or current along the fast ice boundary
Flaw Lead	A passageway between drift-ice and fast ice which is navigable by surface vessels
Flaw Polynya	A polynya between drift-ice and fast ice
Floating Ice	Any form of ice found floating in water.
Floe	Any relatively flat piece of sea ice 20 m or more across
Floeberg	A massive piece of sea ice composed of a hummock, or a group of hummocks frozen together, and separated from any ice surroundings
Floebit	A relatively small piece of sea ice, normally not more than 10 m across, composed of a hummock(s) or part of a ridge(s) frozen together and separated from any surroundings.
Flooded Ice	Sea ice which has been flooded by melt-water or river water and is heavily loaded by water and wet snow
Fracture	Any break or rupture through very close ice, compact ice, consolidated ice, fast ice, or a single floe, resulting from deformation processes
Freshwater Icing	When ice form on the ship's surfaces form drops of rain, damp snow or other fresh water source
Friendly Ice	From the point of view of the submariner, an ice canopy containing many large skylights or other features which permit a submarine to surface
Frost Smoke	Fog-like clouds due to the contact of cloud air with relatively warm water, which can appear over openings in the ice, or leeward of the ice edge, and which may persist while ice is forming
Glacier	A mass of snow and fresh water ice continuously moving from higher to lower ground or, if afloat, continuously spreading
Grey Ice	Young ice 10-15 cm thick
Grey-White Ice	Young ice 15-30 cm thick
Grounded Hummock	Hummocked, grounded ice formation. There are single grounded hummocks and lines (or chains) of grounded hummocks

I. Introduction

The goal of this chapter is to provide the owner, operator, master and crew with sufficient information regarding the ship's operational capabilities and limitations in order to support their decision-making process.

1. International Code for Ships Operating in Polar Waters

The International Code for Ships Operating in Polar Waters has been developed to supplement existing IMO instruments in order to increase the safety of ships' operation and mitigate the impact on the people and environment in the remote, vulnerable and potentially harsh polar waters.

The goal of this code is to provide for safe ship operation and the protection of the polar environment by addressing risks present in polar waters and not adequately mitigated by other instruments of the IMO or other maritime organizations.

The code consists of introduction, parts I and II. Part I is subdivided into part I-A, which contains mandatory provisions on safety measures, and part I-B containing recommendations on safety. Part I applies to ships certified in accordance with SOLAS and which operate in polar waters.

Part II is subdivided into part II-A, which contains mandatory provisions on pollution prevention, and part II-B containing recommendations on pollution prevention. Part II applies to vessels that must comply with MARPOL and which operate in polar waters.

While Arctic and Antarctic waters have similarities and also significant differences, the code is intended to apply as a whole to both Arctic and Antarctic.

2. Polar Waters

In this manual the term “POLAR” is used to indicate the terrestrial area around North and South Pole.

Arctic Area

The arctic water is the sea area north of latitude 60°N with some exceptions near Greenland and Scandinavia (see International Code for Ships Operating in Polar Waters).

Antarctic Area

The Antarctic Area comprises all waters south of latitude 60°S.

3. Risk Based Operations

The level of risk involved within the Polar Regions can vary greatly due to the location, time of year with respect to ice-type, ice-coverage, temperature, hours of daylight etc. Thus, the mitigating measures will also vary from one environment to another.

3.1. Intended operation area

It is expected that the ship will undertake voyages around Antarctic Peninsula with concentrated routes around South Graham Land (Rothera Station 67°S) inside the 60°S circle and King Edward Point, South Georgia outside 60°S circle.

3.2. Intended operation time

Intended operation time will be April – May for Rothera Station inside 60°S.

3.3. Operational Assessment

Based on the 'Equipment Operational Assessment' the limitations of the company's vessels will be assessed with regard to:

- operation in low air temperature;
- operation in ice;
- operation in high latitude and,
- potential for abandonment onto ice or land and Expected Time to Rescue (ETR)

The operational assessment will encompass all navigational, deck & engine machinery and safety equipment. The results of this assessment will be included in the Polar Ships Certificate (PSC) as limitations of operation for the vessel. The stated limitations do not relinquish the Master & Officers requirement to perform their own 'Voyage Assessment' and 'Risk Analysis' as soon as orders are received for the vessel to enter polar waters.

All RA's, including reviewed RA's, relating to polar region voyages shall be carried out by an experienced Senior Officer They and must be reviewed by the Captain and should be submitted to the Fleet Management.

It should be remembered that upon completion of the Polar Voyage, all systems and equipment must be returned to normal sea going conditions and status at the first opportunity.

All safety equipment MUST be tested within 48 hrs of departing the polar region.

II. Antarctic legislations and information

1. Ballast Water Management

Ballast Water Management ballast tanks should be monitored and sediment should be disposed of in accordance with the ship's Ballast Water Management Plan. If sediments are disposed of at sea, they should be disposed of in waters at least 200 miles from the shoreline in waters at least 200m deep.

2. Sailing Directions

NP09 2019, 9th Edition 'Antarctic` - Contains general information on charts and publications (coverage, usage and maintenance) operational information, maritime regulations, tides, currents, characteristics of the sea, basic meteorology, navigation in ice, hazards and restrictions to navigation

NP136 – 'Ocean Passages of the World' - Contains a wealth of information on ocean voyage planning. Individual chapters on each of the World's oceans that contain advice on winds, weather, climate, seasonal factors, currents, swell and ice as well as showing shortest routes between ports and important positions.

3. Antarctic related documents and web sites

Antarctica Related Web Sites	
Organization	**Web address**
U.S. Department of State	https://www.state.gov
National Science Foundation	https://www.nsf.gov
Environmental Protection Agency	https://www.epa.gov
Antarctic Treaty Secretariat	https://www.ats.aq
Antarctic Conservation Act	https://www.nsf.gov/od/opp/antarct/aca/aca.jsp
Council of Managers of National Antarctic Programs	https://www.comnap.aq
Scientific Committee on Antarctic Research	https://www.scar.org
Commission for the Conservation of Antarctic Marine Living Resources	https://www.ccamlr.org
International Association of Antarctic Tour Operators	https://www.iaato.org

Table 1: Antarctica related Websites and Internet Weather Services

4. Antarctic - winds

Antarctica holds the record of the **strongest winds,** winds between 100 and 200 kph are not uncommon, but sometimes they even exceed 300 kph, with maximum gusts of about 360 kph.

Blizzards sometimes so terrible that it is an obstacle to human activities outside the accommodation(s).

It usually blows from inland to the sea, it is more intense in winter than in summer, and it is due to the huge difference in temperature that is generated between inland and coastal areas.

The winds that blow from the higher elevations of the interior, and descend in altitude, finally reaching the coasts, are called Katabatic.

General atmospheric circulation plays a role in the formation of these winds: at high altitudes, subtropical winds blow towards the interior, in order to prevent the continent from getting even colder; then, these air masses descend downwards (subsidence), and after having cooled down above the ice cap, they move towards the exterior of the continent.

Cold winds, once they reach the sea, feed low pressure systems which give life to the so-called West Wind Drift, which sweeps the oceans around Antarctica: the result is a stream of water that travels from west to east at a speed of about 12 miles per day.

5. Tides /Currents

The Antarctic Circumpolar Current, known as the West Wind Drift, is the world's greatest current.
Strong W winds between about 40°S and 60°S (Roaring For-ties) drive this current in an E direction at approximately 0.5 meter per second. This current completely encircles Antarctica and is so deep that it can reach the ocean bottom.

Closer to Antarctica, E or SE winds prevail that cause a W current which is known as the East Wind Drift. The flow of this current is complicated by the irregular coastline and gyres (eddies) can form in bays such as the Weddell Sea, the Ross Sea, and Bellingshausen Sea.

6. Temperature

6.1. Antarctic Peninsula – Rothera Station

According to the intended operation areas and operation time, the vessel will not operate in Low Air Temperature:

- The ship will undertake voyages around the Antarctic Peninsula (Rothera Station) from April until May, mainly during the Antarctic polar summer
- The average low temperature for area Rothera Station in May is MDLT = -7,1 °C
- Consequential, the ship operates per definition not in 'Low Air Temperature' with a Polar Service Temperature (PST) higher than -20°C

Climate data for Rothera Point, Antarctica [hide]													
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Daily mean °C (°F)	0.8 (33.4)	−0.1 (31.8)	−1.9 (28.6)	−4.5 (23.9)	−7.1 (19.2)	−9.9 (14.2)	−11.6 (11.1)	−11.8 (10.8)	−9.1 (15.6)	−6.1 (21.0)	−2.8 (27.0)	0.1 (32.2)	−5.3 (22.4)

Table 2: Daily mean temperature for Rothera Station

6.2. King Edward Point - South Georgia, South Sandwich Islands (GSGSSI)

Due to prevailing western winds eastern sides of the islands are having more comfortable weather. Warm winds are drying slopes of local mountains. Ay summer temperature rises to even 20 °C but waters are always cold due to Antarctic circumpolar current. The climate in the South Sandwich Islands is polar, and it is much colder than nearby South Georgia. This is due to the placement of the South Sandwich Islands, which make them exposed to the Antarctic continent's cold outbreaks.

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Record high °C (°F)	24.5 (76.1)	26.5 (79.7)	28.8 (83.8)	19.1 (66.4)	17.5 (63.5)	14.0 (57.2)	13.6 (56.5)	13.2 (55.8)	17.0 (62.6)	20.0 (68.0)	22.5 (72.5)	21.5 (70.7)	28.8 (83.8)
Average high °C (°F)	8.4 (47.1)	9.1 (48.4)	8.4 (47.1)	5.6 (42.1)	2.9 (37.2)	0.9 (33.6)	1.2 (34.2)	1.5 (34.7)	3.5 (38.3)	5.4 (41.7)	6.5 (43.7)	7.5 (45.5)	5.1 (41.2)
Daily mean °C (°F)	4.6 (40.3)	5.1 (41.2)	4.4 (39.9)	2.3 (36.1)	0.0 (32.0)	−1.6 (29.1)	−1.5 (29.3)	−1.8 (28.8)	−0.1 (31.8)	1.6 (34.9)	2.7 (36.9)	3.7 (38.7)	1.6 (34.9)
Average low °C (°F)	1.4 (34.5)	1.7 (35.1)	1.0 (33.8)	−0.8 (30.6)	−3.1 (26.4)	−4.6 (23.7)	−4.7 (23.5)	−4.9 (23.2)	−3.3 (26.1)	−1.8 (28.8)	−0.5 (31.1)	0.4 (32.7)	−1.6 (29.1)

Table 3:Temperature around King George Island in June (SGSSI)

6.3. Protective measures during unexpected stay below -10°C MDLT

- The company has to be informed about expected time, duration and area of stay below MDLT -10°C. Decisions about reducing of duration and safety of crew and ship has to be discussed.
- The relevant authority / administration, responsible for this area has to be informed, too.
- Plans for precaution of entire safety and propulsion equipment during operation in areas below MDLT -10°C has to be prepared.

III. Voyage Planning and Navigation

1. Sea / Polar Charts

The problem of Antarctic nautical charts is an old issue. The lack of appropriate nautical charts has become a problem, increasing the risks for grounding with their associated consequences.

The incidence of ice has been another relevant factor limiting the development of nautical charts. Antarctic sea ice has two sources, marine ice and ice floes coming from the Antarctic ice cap and reaching the sea in big territorial extensions. Ice limits several areas of Antarctic waters that surely can be navigable. This is one reason why at present, vast Antarctic areas are not duly charted yet.

A considerable number of Antarctic nautical charts are a compilation of air photographs for mapping purposes as well as hydrographic draft.

Moreover, some of them have considerable errors as regards distance considered in the charts, in some cases several miles, a reason why the utility of them can be considered only relative as a way of reference regarding the coastline.

With the implementation of WGS-84 as a common geodetic datum, today it is possible to find ~ 100 charts under this scheme and roughly half of them covering the Antarctic Peninsula, the operating area of the ship.

The general state of the region regarding nautical charts is still poor, with few charts properly developed under modern standards. Consequently, the area could not be considered accurately charted for safe navigation.

2. Bearings

In high latitudes, it is not unusual to make use of bearings of objects which are located a considerable distance from the vessel. Because of the rapid convergence of the meridians in these areas, such bearings are not accurately represented by straight lines on a Mercator chart.

Therefore, if this projection is used, the bearings should be corrected in the same manner as radio bearings because both can be considered to be great circles. Neither visual nor radio bearings require a correction when plotting on a Lambert conformal or a polar stereographic chart.

See Appendix 09: ‘Conversion angle table for visual bearings in polar waters’

3. Area of navigation – Rothera Station

The Rothera Research Station is situated on Adelaide Island to the west of the Antarctic Peninsula. Adelaide Island is 1,860 km south of the Falkland Islands and 1,630 km south-east of Punta Arenas, Chile.

Summer temperatures are typically between 0 and +5°C, and in winter range from –5°C to – 20°C, but because of its coastal location and the Southern Ocean low-pressure weather systems, temperatures can vary widely at any time of year.

You can find sea ice at Rothera from late May to late November, although it takes prolonged periods of calm conditions for ice to form and become fast.

Prevailing winds are northerlies, reaching gale force on around 70 days a year. While it can snow at any time of year, in recent years the main snow fall has come at the end of winter. Rain occasionally falls at Rothera.

Because the station is just south of the Antarctic circle, it is light for 24 hours a day during summer, and for a few weeks in winter the sun never rises above the horizon.

4. Area of navigation – King Edward Point - SGSSI

The average temperature in King Edward Point dips as low as MDLT -4,4°C.

Sea ice covers a large part of the Antarctic Ocean for much of the year. During winter the ice becomes much more extensive, although the amount of winter sea ice cover varies from year to year.

Usually the limit of the winter pack-ice is to the south of South Georgia, although occasionally it reaches as far north as the island. For example, in September pack-ice could extend to approximately 200 km to the north of South Georgia, rendering it ice-bound.

Some sheltered bays at South Georgia regularly become frozen over and covered with drifting ice during winters. However, this is usually short-lived as the ice is thin and broken up by the ocean swells and frequent storms. Each spring the sea ice breaks up and drifts away from the island.

Icebergs may be derived from glaciers on the island, or from the glaciers and ice shelves of the Antarctic continent. The largest icebergs come from the Antarctic. Small icebergs are common and are produced from the calving of local glaciers, particularly in the spring.

IV. Crew

1. Training

The crew will be trained during proceeding to and before entering the Polar Water Zone as required and according their capabilities. It is Captain's responsibility and decision to prepare a reliable and efficient training schedule accordingly. Especially different evacuation drills should be carried out to simulate variously emergency conditions like abandonment into the water, onto the ice or a combination of both. Further the crew should be regularly drilled in the handling of the whole ship's life-saving equipment. Intervals are function of trade area, crew performance and the features of equipment and specified by the Captain.

2. Hazards

2.1. Hypothermia

Hypothermia is the potentially deadly cooling of core body temperature below the normal healthy body temperature of 36.8°C. Hypothermia is considered either mild, moderate or severe, with differing signs and symptoms and somewhat different treatment for each.

Mild hypothermia can occur with a drop of body temperature of less than 2°C. The patient will often continue to work and will appear to be otherwise normal. Although exhibiting some loss of agility and some confusion. Treatment for mild hypothermia includes:

Passive rewarming

- Removal to a warm environment
- Removal of moist clothing and replacement with dry clothing
- Do NOT give alcohol, but provide warm drinks only.

Active external rewarming

- Warmed forced air, hot water bottles or pads in both armpits and groin
- Wrapping in dry blankets, which can be pre-warmed in the ship's laundry tumble drier.

Severe hypothermia is characterised by a cessation of shivering, difficulty in speaking and sluggish thinking through to stupor; clearly uncoordinated muscles, often stumbling; rapid pulse and respiration; pale to bluish skin and possibly dilated pupils.

Treatment for severe hypothermia includes:

- Active internal rewarming, as well as treatment for moderate hypothermia as above
  - Introduction of warmed humidified air for direct inhalation
  - Care must be given not to introduce HOT air that may burn breathing passages
  - Mouth-to-mouth breathing may be effective in introducing warm air
- Do NOT give hot drinks
- Do NOT rub the patient's body.

2.2. Monitoring Environmental Conditions

Climatic metrics such as temperature, wind speed and humidity should be regularly monitored in the locations where outside work is to be performed (see table below). Of primary importance is a regular reporting of the wind chill or equivalent temperature.

Regular communications should be maintained regarding allowable time to work outside. Indoor personnel should regularly monitor outside workers so that best work-to-rest/warming schedules are maintained.

	Actual Air Temperature T_{air} (°C)											
Wind Speed $V_{10\,m}$ (km/h)	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45	-50
5	4	-2	-7	-13	-19	-24	-30	-36	-41	-47	-53	-58
10	3	-3	-9	-15	-21	-27	-33	-39	-45	-51	-57	-63
15	2	-4	-11	-17	-23	-29	-35	-41	-48	-54	-60	-66
20	1	-5	-12	-18	-24	-30	-37	-43	-49	-56	-62	-68
25	1	-6	-12	-19	-25	-32	-38	-44	-51	-57	-64	-70
30	0	-6	-13	-20	-26	-33	-39	-46	-52	-59	-65	-72
35	0	-7	-14	-20	-27	-33	-40	-47	-53	-60	-66	-73
40	-1	-7	-14	-21	-27	-34	-41	-48	-54	-61	-68	-74
45	-1	-8	-15	-21	-28	-35	-42	-48	-55	-62	-69	-75
50	-1	-8	-15	-22	-29	-35	-42	-49	-56	-63	-69	-76
55	-2	-8	-15	-22	-29	-36	-43	-50	-57	-63	-70	-77
60	-2	-9	-16	-23	-30	-36	-43	-50	-57	-64	-71	-78
65	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79
70	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-80
75	-3	-10	-17	-24	-31	-38	-45	-52	-59	-66	-73	-80
80	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81

Table 4: Wind Chill Calculation Chart

V. Search and rescue

After the adoption of the SAR Convention, IMO divided the world in 13 SAR areas, where countries also have delimited their responsibility areas. In Antarctica, Argentina, Australia, Chile New Zealand and South Africa have SAR responsibilities.

All countries with responsibilities in the Southern Ocean and Antarctic faces particular challenges in coordinating and responding to a search and rescue incident in this region like:

- A demanding environment with freezing temperatures, permanent and shifting ice, extreme wind and sea conditions, all affect survival time and can seriously delay rescue operations.
- Long distances from search vessels or aircraft mean that the time for search resources to reach the search area is extended and reduces the number of resources available for the incident.
- The region's remoteness from passing maritime and aviation traffic means that there are often no assets of opportunity that can be used in a search and rescue incident

Five METAREAs are established around the Antarctic continent with South Africa, Australia, New Zealand, Chile and Argentina responsible for marine weather (including ice) services in their respective zone.

Other services required of the respective nations include the responsibilities outlined by the International Convention on Maritime Search and Rescue.

1. Area Rothera Station - Search and rescue

The Rothera Base on the Antarctic peninsula has an air station with a direct airlink to the Falkland Islands and other destinations around the Antarctic. The runway is open the whole year.

For medical advice at sea, the rescue centres from Chile and Argentina are responsible for the coordination accordingly. Caused by the distances it is advised that all ships be self-sufficient with their own medical backup and/or rescue equipment.

2. King Edward Point / SGSSI – Search and rescue

There are no hospital facilities or search and rescue services on South Georgia. The research stations at Bird Island and King Edward Point will not be able to provide any medical or search and rescue facilities. Government advises strongly that all ships be self sufficient with their own medical backup and/or rescue equipment.

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