

## A3 Ice Navigation

### 6 Ice Navigation, Routeing and Requests for Icebreaker Assistance

#### 1 Hudson Strait and Canadian Arctic

Northern Canada Vessel Traffic Services (NORDREG) Zone

Mariners should be aware of the existence of the Northern Canada Vessel Traffic Services Zone established by the *Northern Canada Vessel Traffic Services Zone Regulations*. These regulations require certain vessels to report information to NORDREG before entering the NORDREG Zone and while navigating within it. In general, the NORDREG zone covers the waters of Ungava Bay, Hudson Bay and James Bay and Canada's coastal northern waters within the area enclosed by the 60<sup>th</sup> parallel of north latitude, the 141<sup>st</sup> meridian of west longitude and the outer limit of the exclusive economic zone; however, where the international boundary between Canada and Greenland is less than 200 nautical miles from the baselines of the territorial sea of Canada, the international boundary shall be substituted for that outer limit.

Ice operations support in NORDREG waterways is provided by the Canadian Coast Guard. Icebreaker assistance as well as ice information and ice routing should be requested through NORDREG. For more detailed information on this VTS system, the definition of waters it covers and the requirements to make certain reports and obtain clearance, mariners should refer to Part 3 of the Radio Aids to Marine Navigation (Atlantic, St. Lawrence, Great Lakes, Lake Winnipeg, Arctic and Pacific).

(a) For general information on ice conditions:

During Business Hours (0700-1900 Eastern Time 7-days/week):

Ice Operations:

Telephone: 514-283-2784

Email : [DFO.ICEOPS-ARGLACE.MPO@dfo-mpo.gc.ca](mailto:DFO.ICEOPS-ARGLACE.MPO@dfo-mpo.gc.ca)

Ice Conditions:

Tel: (514) 283-1752

Email : [ssgarctique-issarctic@ec.gc.ca](mailto:ssgarctique-issarctic@ec.gc.ca)

For After Hours Ice Information:

Address: NORDREG CANADA,  
P.O. Box 189,  
Iqaluit (NU)  
X0A 0H0

Telephone: (867) 979-5724 or 979-5269

Facsimile: (867) 979-4264

#### 1.1 Ice Regime Routeing Message

Every message required by paragraph 9(1) of the [ASSPPR](#) must contain all designators listed in Table 2. The update message required by paragraph 9(2) of the ASSPPR must include designators A to K. Every message must be addressed to TRANSPORT CANADA and be provided to one of the Marine Communications and Traffic Services Centres that is designated by the Canadian Coast Guard to receive [NORDREG](#) reports. The intended route described by designator G of Table 2 may include more than one Shipping Safety Control Zone.

**Table 2 – Ice regime routing message template**

Item	Designator	Subject	Information
1	A	Vessel	The vessel's name and the name of the state whose flag the vessel is entitled to fly.
2	B	Call Sign and IMO Number	The vessel's call sign and International Maritime Organization (IMO) ship identification number.
3	C	Vessel Ice Class	The Ice Class that corresponds to the Ice Class indicated on the Polar Ship Certificate. For vessels with no Polar Ship Certificate, the Ice Class indicated on the vessel Classification Society Certificate.
4	D	Date & UTC Time	A 6-digit group followed by a Z: the first 2 digits giving the day of the month, the next two digits giving the hour, and the last two digits giving the minutes.
5	E	Final Destination	The name of the final destination.
6	F	Position, Course & Speed	<ul style="list-style-type: none"> <li>• A 4-digit group giving the latitude in degrees and minutes suffixed with N, and a 5-digit group giving the longitude in degrees and minutes suffixed with W.</li> <li>• The true course. A 3-digit group.</li> <li>• The speed in knots. A 2-digit group.</li> </ul>
7	G	Intended Route	<ul style="list-style-type: none"> <li>• A series of 4-digit groups giving the latitude in degrees and minutes suffixed with N, and</li> <li>• 5-digit groups giving the longitude in degrees and minutes suffixed with W to describe the planned route.</li> </ul>
8	H	Ice Regime(s) to be encountered	<p>For each regime along the planned route, a series of ice concentration in tenths (C), the corresponding ice type (IT) using the ice type symbol or the egg code, followed by the letter IN for AIRSS message or RIO for POLARIS message and the resulting Ice Numeral (IN) or Risk Index Outcome (RIO):</p> <p><b>AIRSS</b> C<sub>1</sub>, IT<sub>1</sub>, C<sub>2</sub>, IT<sub>2</sub>, ..., C<sub>n</sub>, IT<sub>n</sub>, INxx</p> <p><b>POLARIS</b> C<sub>1</sub>, IT<sub>1</sub>, C<sub>2</sub>, IT<sub>2</sub>, ..., C<sub>n</sub>, IT<sub>n</sub>, RIOxx</p>
9	I	Source(s) of Ice Information	Indicate the source(s) used to determine the ice conditions, e.g. ice charts name/date, visual observations, reports from shore stations and from other ships in the area, helicopter (or drone) reconnaissance, satellite and airborne visual and radar imagery, or other means.
10	J	Other pertinent information or comments	Provide additional information that may have been considered or is pertinent to the assessment, such as limitations associated with the ice regime assessment, near regimes that are likely to drift into the proposed route, an alternate route that may be considered, or planned escorting needs.
11	K	Name of Escorting Vessel	Provide the name of the escorting vessel if the ice numeral has been determined for the track of an escorting vessel.
12	L	Ice Navigator(s) and officers certified for ships operating in polar waters	Name(s) and certification information of Ice Navigator(s) and officers certified in accordance with the STCW Convention requirements for ships operating in polar waters.

Item	Designator	Subject	Information
13	M	Ship Master	Name of the Master and certification information in accordance with the STCW Convention requirement for ships operating in polar waters.

## 2 East Coast, Estuary and Gulf of St. Lawrence

During the winter navigation season a similar service is provided to ships intending to transit or to operate in the East Coast and Gulf of St. Lawrence waters. Access to this service can be obtained by contacting the Eastern Canada Traffic System (ECAREG CANADA). ECAREG communications procedures are specified in the current Radio Aids to Navigation publications.

- (a) For general information on ice conditions and icebreaker assistance along the main shipping route in the Gulf of St. Lawrence:

24 hours assistance, 7-days/week:

**Icebreaking operations:**

Telephone: 514-283-1746

Email: [DFO.IceOpsStLawrence.GlacesOpsStLaurent.MPO@dfo-mpo.gc.ca](mailto:DFO.IceOpsStLawrence.GlacesOpsStLaurent.MPO@dfo-mpo.gc.ca)

**Ice conditions** (Business hours)

Telephone: 514-283-1752 / 2069

Toll-Free: 1-855-201-0086

Email: [ec.ssgstlaurent-issstlawrence.ec@canada.ca](mailto:ec.ssgstlaurent-issstlawrence.ec@canada.ca)

Mailing address Montreal Ice Centre  
Canadian Coast Guard  
105 McGill Street, 5<sup>th</sup> floor  
Montréal, Québec, H2Y 2E7

Outside of Business Hours:

Les Escoumins Traffic

Email : [ecareg.escoumins@innav.gc.ca](mailto:ecareg.escoumins@innav.gc.ca)

Telephone : 418-233-3483

- (b) For general information on ice conditions and icebreaker assistance in Chaleur Bay, New Brunswick, Prince Edward Island, Nova Scotia and Newfoundland and Labrador waters:

Telephone: 709-772-2078

Toll-Free: 1-800-565-1633

Facsimile: 709-772-6640 (Business hours only)

Email (24 hour assistance): [vts.labrador@innav.gc.ca](mailto:vts.labrador@innav.gc.ca)

Email (general inquiries): [iceatl.cgqc@dfo-mpo.gc.ca](mailto:iceatl.cgqc@dfo-mpo.gc.ca)

Email (ice conditions): [ec.ssgatlantique-issatlantic.ec@canada.ca](mailto:ec.ssgatlantique-issatlantic.ec@canada.ca)

Mailing address P.O. Box 5667  
80 East White Hills Rd  
St. John's, NL A1C 5X1

## 3 St. Lawrence River

In the St. Lawrence River west of longitude 66°00'W to Montréal, ship movement is under the general control of the Vessel Traffic Services (VTS) system. During the winter navigation season, the ice operation center will provide, via "Escoumins Traffic" or "Québec Traffic", the recommended ice routes to be used.

For general information on ice conditions and icebreaker assistance:

24 hours assistance 7-days/week:

**Icebreaking operations:**

Telephone: 514-283-1746

Email: [DFO.IceOpsStLawrence.GlacesOpsStLaurent.MPO@dfo-mpo.gc.ca](mailto:DFO.IceOpsStLawrence.GlacesOpsStLaurent.MPO@dfo-mpo.gc.ca)

**Ice conditions** (Business hours)

Telephone: 514-283-1752 / 2069

Email: [ec.ssgstlaurent-issstlawrence.ec@canada.ca](mailto:ec.ssgstlaurent-issstlawrence.ec@canada.ca)

Mailing address Montreal Ice Centre  
Canadian Coast Guard  
105 McGill Street, 5<sup>th</sup> floor  
Montréal, Québec, H2Y 2E7

Outside of Business Hours :

Les Escoumins Traffic

Email : [ecareg.escoumins@innav.gc.ca](mailto:ecareg.escoumins@innav.gc.ca)

Telephone : 418-233-3483

Quebec Traffic

Telephone : 418-648-7244

Email : [gueraa1@innav.gc.ca](mailto:gueraa1@innav.gc.ca)

#### 4 Canadian Great Lakes

Vessels entering Canadian waters of the Great Lakes may obtain ice information, routing advice and request icebreaker assistance by contacting the following address:

During Business Hours (0700-1900 Eastern Time 7-days/week):

**Icebreaking operations:**

Telephone: 514-283-2784

Email: [DFO.IceOpsGreatLakes.GlacesOpsGrandsLacs.MPO@dfo-mpo.gc.ca](mailto:DFO.IceOpsGreatLakes.GlacesOpsGrandsLacs.MPO@dfo-mpo.gc.ca)

**Ice conditions**

Telephone: 514-283-1752 / 2069

Email: [ec.ssggrandslacs-issgreatlakes.ec@canada.ca](mailto:ec.ssggrandslacs-issgreatlakes.ec@canada.ca)

Mailing address Montreal Ice Centre  
Canadian Coast Guard  
105 McGill Street, 5<sup>th</sup> floor  
Montréal, Québec, H2Y 2E7

Outside of Business Hours:

Sarnia Traffic

Telephone: 519-337-6221

Email: [supervisor.sarnia@innav.gc.ca](mailto:supervisor.sarnia@innav.gc.ca)

## 5 General Remarks

A limited number of icebreakers are available for the support of shipping and icebreaking requests are prioritized according to the Levels of Service. It is emphasized, therefore, that it may not be possible to provide icebreaker support at short notice. In order to make the most efficient use of all available resources, it is important that the MCTS Centres are kept informed of the position and projected movements of vessels in Canadian waters.

E-NAV Portal [Ice Conditions \(canada.ca\)](https://www2.ec.gc.ca/ice/ice_conditions.html)

Icebreaking Website: [Icebreaking](https://www2.ec.gc.ca/ice/ice_breaking.html)

General Information: [info@dfo-mpo.gc.ca](mailto:info@dfo-mpo.gc.ca)

Authority: Canadian Coast Guard