

# ICEBERG REPORTS OF OPPORTUNITY



## INTRODUCTION

Icebergs are a serious threat to maritime activities in the vicinity of the Newfoundland shelf and the Grand Banks of Newfoundland. Between January and September icebergs drift south into East Newfoundland waters. Their formidable presence makes icebergs an obstacle to Trans-Atlantic shipping, offshore oil production, and commercial fisheries activities.

Even using present day technology, icebergs are not easily detected by mariners. The Grand Banks of Newfoundland is known for fog and severe weather. The icebergs melt rapidly in East Newfoundland waters and break up into smaller pieces to form growlers, which are difficult for vessels to detect either visually or by radar. Consequently, it is extremely important that the iceberg danger be identified, tracked, and reported to the mariner.

Under the Safety of Life at Sea (SOLAS) agreement, ships must report all hazards to navigation. This package is intended to establish a standard format to report **ICEBERG** sightings to the Canadian Ice Service (CIS) and the U.S. Coast Guard International Ice Patrol (IIP).

In order to effectively keep track of the position of the icebergs, CISD and IIP rely heavily on daily ship information forwarded to them directly (by INMARSAT-C Code 42) and via various U.S. and Canadian Coast Guard Communications Centers. All ship reports provide invaluable information. Even the mention of "no icebergs" is valuable in itself. The ship reports are used by CIS and IIP to maintain accuracy of the iceberg database and to provide the mariner the best information on iceberg danger.

Broadcast stations and times are available through the British Admiralty list of Radio Signals, U.S. Publication 117, or from a service announcement available on request from IIP.

## **Partnership:**

During the peak iceberg season, usually January through September, the CIS cooperates with the IIP to monitor the ice berg distribution and advise mariners of the extent of hazardous iceberg conditions. The International Ice Patrol's role is to establish the Limit of All Known Ice south of 52°N, and transmit iceberg information to shipping.

## **Importance of shipboard observation:**

The International Ice Patrol and Canadian Ice Service need the support of all ships operating in the East Newfoundland waters in detecting and identifying the iceberg danger in this vast area. All iceberg reports are important in tracking the positions of icebergs and providing accurate information back to mariners.

When iceberg information is reported, certain information is **vital**:

- **Ship name/ call sign.**
- **Date/ time (UTC) iceberg was sighted.**
- **Method of observation (visual, radar, or both).**
- **Number of icebergs sighted.**
- **Iceberg(s) position (latitude, longitude).**
- **Size (see table 1).**
- **Shape (see photos on back page).**

Icebergs fall into two major shape categories: Tabular and non-tabular.

Tabular icebergs are flat-topped, with steep vertical sides e.g. blocky (see included pictures). Non-tabular icebergs include pinnacled, domed, dry-docked, and wedged.

'Unknown' should be used only when sighted by radar alone.

**Additional information** is also very valuable and much appreciated when reported.

The following is given in decreasing order of importance:

- Iceberg dimensions (in meters) see Table 1.
- Iceberg speed (kts) and direction (degrees True).
- Iceberg draft (if known).
- Water temperature (degrees Celsius).
- Wave height (in meters) and period (in seconds).
- Sea ice concentration (in tenths).
- Sea ice thickness (in centimeters if known).
- Ships position and time.
- Ships course and speed.

**TABLE 1**

SIZE	HIEGHT (above water)	LENGTH (or width)
GROWLER	Less than 1 m	Less than 5 m
BERGY BIT	1-4 m	5-14 m
SMALL	5-15 m	15-60 m
MEDIUM	16-45 m	61-120 m
LARGE	46-75 m	121-200 m
VERY LARGE	Greater than 75 m	Greater than 200 m

Use 'Unknown' when sighted by radar only; some ships report Stationary Radar Target (SRT).

## **Reporting Method**

Report icebergs to **COMINTICEPAT GROTON CT** through INMARSAT-C or A, Canadian Coast Guard Marine Radio Stations, or as part of fishing observer situation report. If reporting iceberg sightings to International Ice Patrol through INMARSAT-C or A use Code 42. This will insure the information immediately reaches COMINTICEPAT GROTON CT. There is no charge for iceberg reports made using Code 42 (see below).

**Canadian Coast Guard Radio Stations** via normal communication methods (MF, HF, CW, or VHF).

## INMARSAT- A Instructions

- Select COMSAT (global identification code 01)
- Select Routine Priority
- Select Duplex telex channel
- Initiate the call
- Upon receipt of GA (go ahead), select the desired 2-digit prefix access code followed by a + sign (42+)
- Send your message
- The message will be forwarded at NO CHARGE to the mariner to International Ice Patrol by COMSAT

IIP will forward the information to CIS

## INMARSAT- C Instructions

- Access the 2-digit code on SES as instructed in your manufacturer's instructions
- Using the SES text editor, prepare the message
- Enter the 2-digit code of service required (42)
- Select the CES (01, COMSAT, AORW)
- Transmit your message
- Wait for acknowledgement from the CES
- The message will be forwarded at NO CHARGE to mariner to International Ice Patrol by COMSAT

### Conclusion:

Just like weather reports have provided valuable data over the oceans to produce more accurate weather analyses and forecasts, **iceberg reports** are essential to the accuracy of daily iceberg analysis and prediction products.

As a token of our appreciation, each calendar year a ship's ranking will be determined jointly by Canadian Ice Service and International Ice Patrol. The names of the top 10 ships and the number of reports received from each ship will be published annually in trade journals and will be available through your local Port Meteorological Officer. The top ranking ship will be awarded a plaque.

Thank you very much for your cooperation...your help benefits the SOLAS agreement and directly contributes to the safety of all that transit the Northwest Atlantic waters.

P.S. Include hereafter is a sample checklist along with pictures of iceberg shapes and descriptions to help you provide us with more accurate information.

### Need more information?

Canadian Ice Service in Ottawa at  
(613) 996-1617  
(613) 947-9160 (fax)  
[cis.client@ec.gc.ca](mailto:cis.client@ec.gc.ca)  
<http://www.cis.ec.gc.ca>

International Ice Patrol in Groton, CT at  
(868) 441-2626  
(868) 441-2773 (fax)  
[iipcomms@rdc.uscg.mil](mailto:iipcomms@rdc.uscg.mil)  
<http://www.uscg.mil/lantarea/iip/home.html>

Here is a sample checklist of information required

#### Vital **Iceberg** information

Ship Call Sign	Time (utc)	Confidence	Latitude (ddmm.t)	Longitude (ddmm.t)	Size	Shape
CGBN	1530N	Radar, Visual or Radar and Visual	5030.2N	5106.3W	G, BB Sml, Med. Lrg. Virg Unk	Tab, Non-Tab Blocky, Pin, Dome, Wedge Drydock

#### Additional **Iceberg** information

Length (meters)	Width (meters)	Height (meters)	Draft (meters)	Direction Toward (degrees)	Speed (knots)

#### Additional **environmental** information

Water Temperature (Celsius)	Wave Height (meters)	Wave Period (in seconds)	Sea Ice concentration (in tenths)	Sea Ice Thickness (in centimeters)

#### Additional **ship** information

Time (UTC)	Latitude (eg. 5030.5N)	Longitude (eg. 5215.3W)	Course (degrees)	Speed (knots)

#### Example Message

```
FM MV ARTIC/VCLM
AT 1530 UTC VSL POSN
5112N, 5710W, CO050T
SPD 12KTS
SST 8C, AIR TEMP 10C, WIND SW 15KTS
VISUALLY OBSERVED 3 ICEBERGS IN
PAST HOUR
AT 1445 UTC SMALL BERG AT 1506N, 5725W
AT 1500 UTC MEDIUM DRYDOCK BERG AT
5109.4N, 5720W
AT 1505 UTC SMALL DOMED BERG AT
5111.2N, 5714W APPROX 10M HIGH AND
20M LONG
```



**TABULAR**



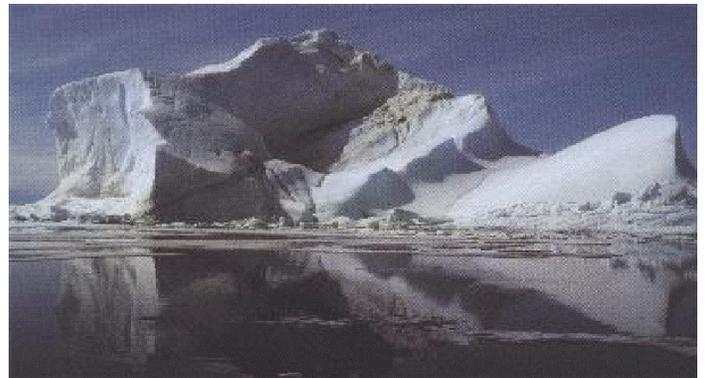
**BLOCKY**



**DRYDOCKED**



**NON TABULAR**



**PINNACLED**



**WEDGED**