IMCC
INT'L MARINE CLAIMS CONFERENCE

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"Ice Cold in Dublin"

Casualties & Warranties

By
Michael Laurie

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A Guide to Hull & Machinery Technical Terms

Drafted by

Dinos Levantis – Piraeus Office

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What has gone wrong?

Ship Operations in Ice

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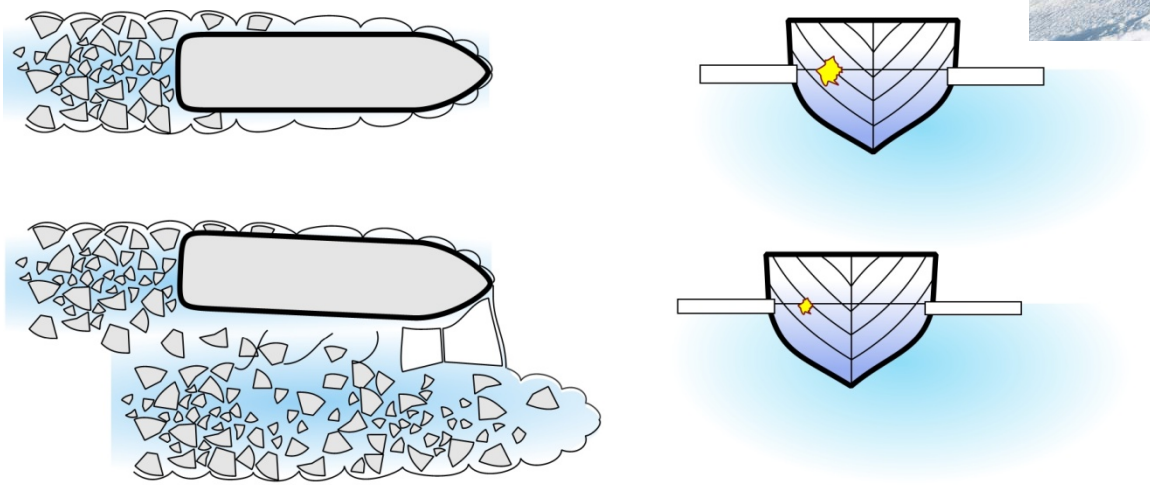
Potential for Ice Damage – level icebreaking

little damage risk



Ship Operations in Ice

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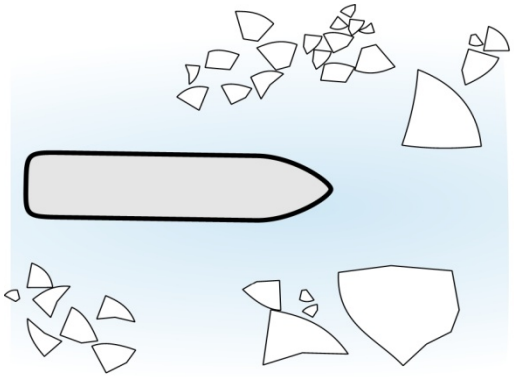
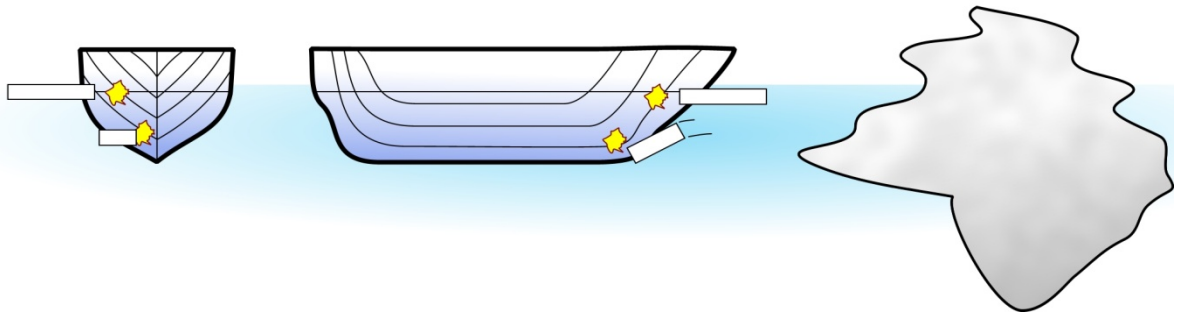
Potential for Ice Damage – Open Pack

- there may be dangerous fragments (extra thick)
- speed is the a key risk element
- normally damage is on the bow
- deep damage is possible at high speed or with icebergs





Ship Operations in Ice

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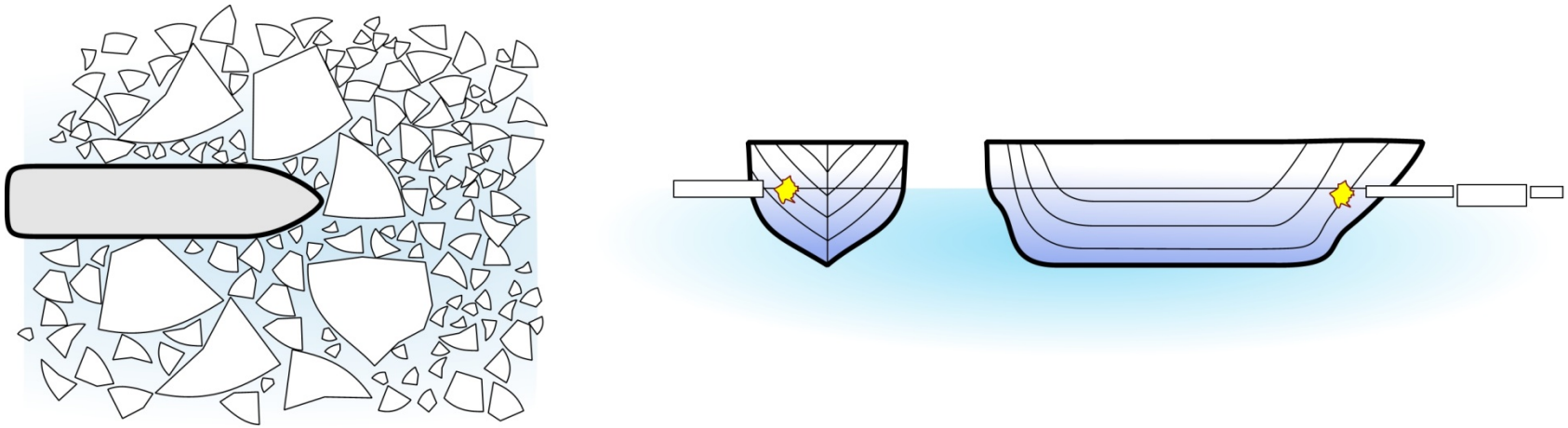
Potential for Ice Damage – Close Pack

- speed is usually low
- damage near bow, waterline



Source: C. Daley

Ship Operations in Ice

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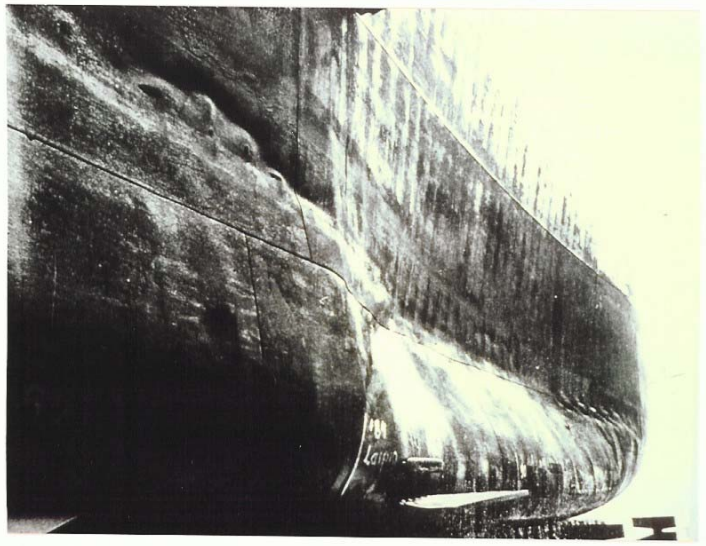
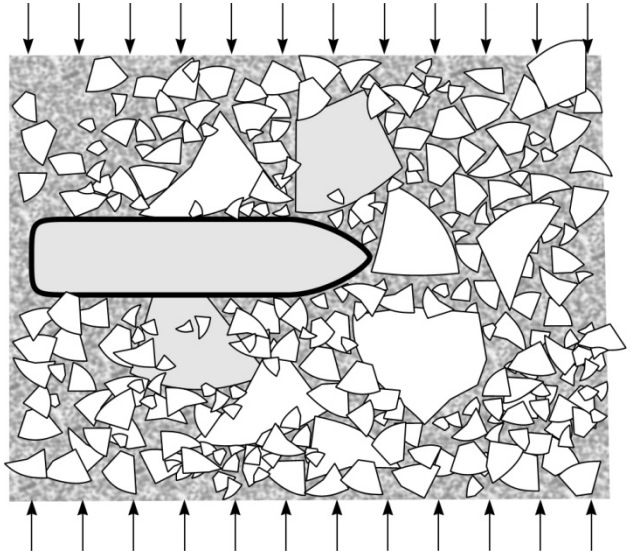
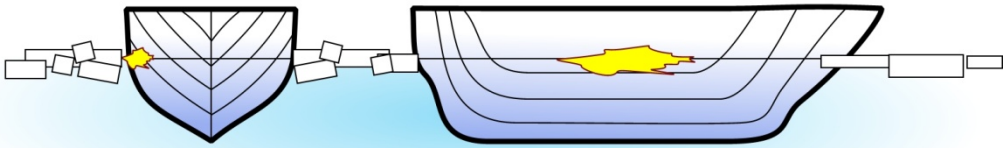
Potential for Ice Damage – close pack under pressure

- speed is low
- midbody damage is possible







Source: C. Daley

Ship Operations in Ice

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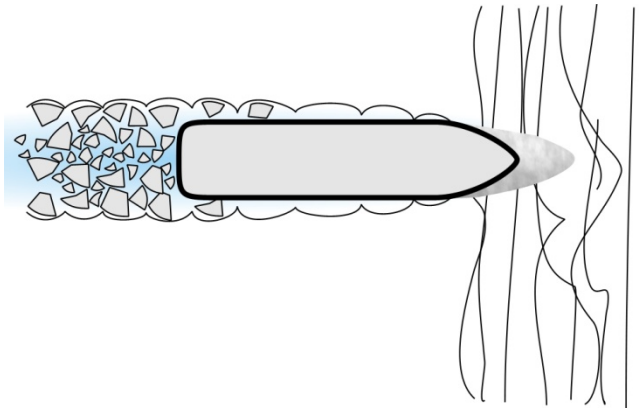
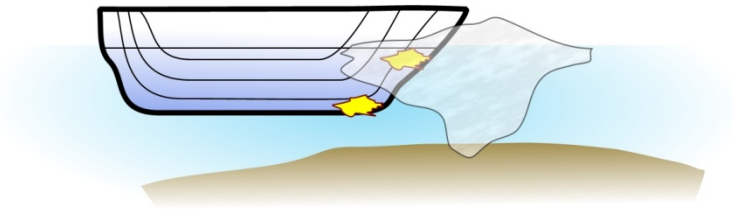
Potential for Ice Damage – Ramming Thick Ice and Ridges

- Ramming can cause local bow damage (thick fragments in ridge)
- Grounded or deep ridges can cause lower bow / bilge damage





Source: C. Daley

St. Petersburg in 2003

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Propeller - Frequent casualty in ice

Blade bent in St Laurence

Vessel arrived St Petersburg
with all blades damaged

Vessel hull holed by ice

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Hull damage by ice, St Laurence River

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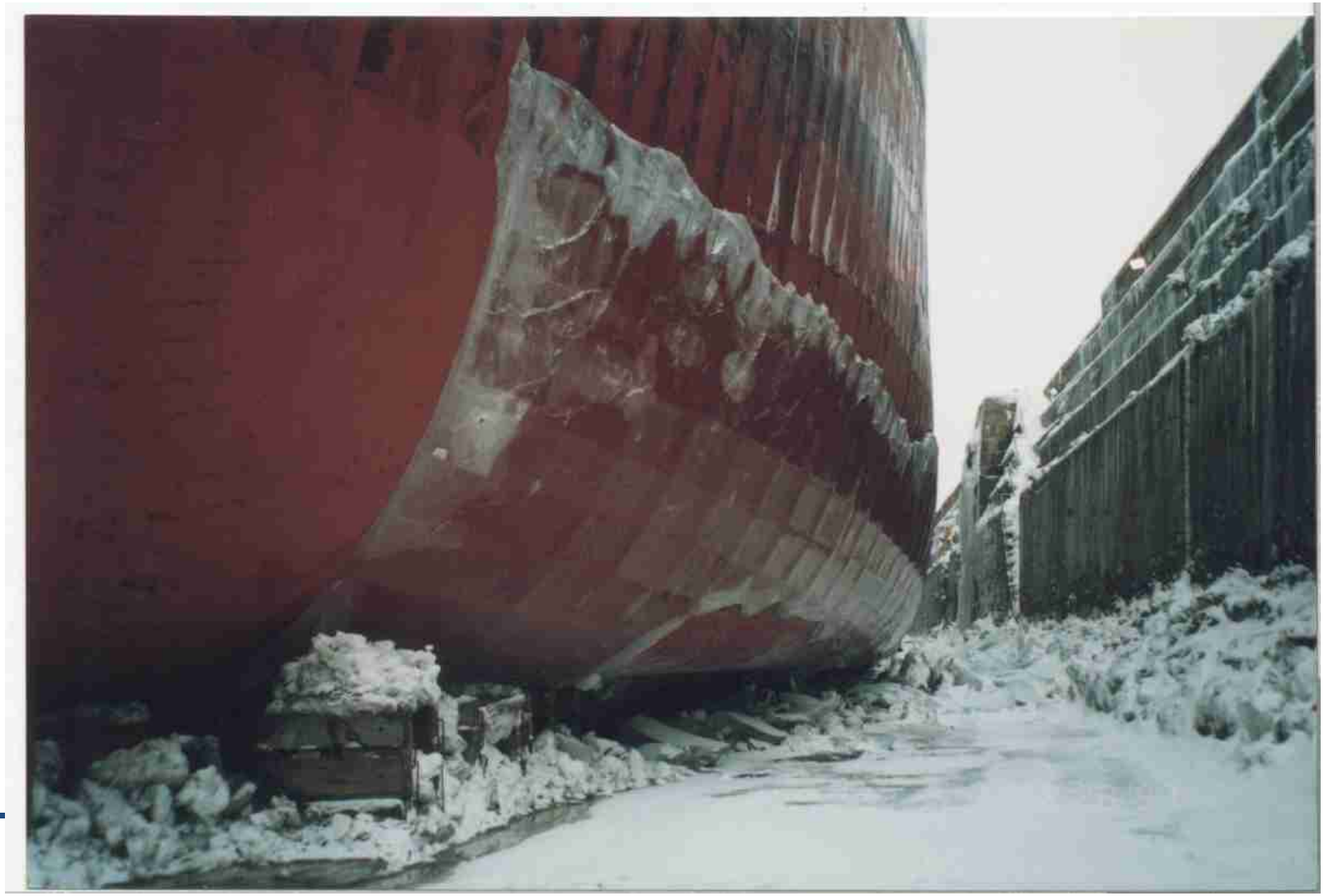

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Canadian Arctic

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Damage to bulbous bow in 2008

Estimate: **$ 250,000 + $300,000** (Case Report C2852)

Puncture through bulbous bow.

Estimate: $ 250,000 + $300,000 (Case Report C2852)

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Bulbous bow, internals

Estimate: $ 250,000 + $300,000 (Case Report C2852)

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Starboard shoulder in 2008

Estimate: **$ 250,000 + $300,000** (Case Report C2852)

GENERAL CARGO 13000 DWT

ICE CONTACT - continued

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Part permanent repairs (bulbous bow only) completed in August 2008

Estimate: $ 250,000 + $300,000

GENERAL CARGO 13000 DWT (Age 0-2yrs)

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ICE CONTACT - continued

Vessel in dry-dock June 2012 for Special Survey where repairs were completed.

Estimate: $ 250,000 + $300,000

GENERAL CARGO 13000 DWT (Age 0-2yrs)

ICE CONTACT - continued

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Vessel in dry-dock June 2012 for Special Survey where repairs were completed.

Estimate: $ 250,000 + $300,000 (Case Report C2852)

Antarctic Casualties

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Feb 1972 “Lindblad Explorer” aground in Antarctica – rescued by Chilean Navy

1989 Jan 1989 “Bahia Paraiso” struck rocks & sank near Palmer Station – oil spill

2002 “Clipper Adventurer” grounded near Deception Island

Jun 2002 “Magdalena Oldendorf” trapped in Antarctic ice for 5 months

2006 “Lyubov Orlova” grounded Whalers Bay in Deception Island

Jan 2007 “Nordkapp” ran aground on uncharted rock at Deception Island

Nov 2007 “Explorer” holed by ice and sank off King George Island (South Shetlands)

Dec 2007 “Fram” lost power and drifted/collided with a glacier near Brown’s Bluff

Dec 2008 “Ushuaia” struck a rock/grounded in Cape Anna, Gerlache Strait

Feb 2009 “Ocean Nova” aground in Marguerite Bay near Argentine’s San Martin Base

December “2009 Clelia II” grounds on rocky shoreline of Peterman Island, Penola Strait, rescued by sister vessel

December 2010 “Clelia II” hit by heavy seas in Drake Passage

Feb 2011 “Polar Star” aground in Matha Strait

Clelia II December 2010

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- The ship was slowed in heavy seas after reported thirty to forty foot seas broke windows in its bridge, taking out its communications equipment. It left the Antarctic Peninsula, headed for a two-day return to port in Ushuaia, Argentina. The ship's captain reported that in the 159 trips he'd made to the Peninsula he'd "never seen such weather."
- One year ago – December 26, 2009 – the same ship, chartered by New York-based Travel Dynamics International, ran aground along the Antarctic Peninsula, its starboard propeller hitting the rocks resulting in the shutdown of the starboard engine and loss of electrical power aboard the ship. Another tourist ship, the Corinthian II, was nearby and helped pull it off the rocks.

“Explorer” Nov 2007 holed by ice and sank off King George Island (South Shetlands)

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Arctic casualties

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- 1996 Hanseatic grounded in Simpson Strait in Canadian Arctic
- 1997 Hanseatic grounded off Svalbard
- 2005 Hanseatic grounded Norwegian coast close to polar circle
- Tuvag damaged by ice off Iqaluit in Canadian Arctic
- 2007 Alexey Mareshev hit/affected by Glacier
- 2008 July Antarctic Dream aground off Svalbard
- 2010 Aug Clipper Adventurer grounded on uncharted rock in Nunavut waters
- 2010 Aug Mokami (tanker) ran aground near Pangnirtung, though no oil leaked into the environment during that incident
- 2010 Sept Nanny (tanker) ran aground in Nunavut waters.

NSR casualties

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- 2009 - tanker *Indiga* collided with the Russian nuclear powered icebreaker *Yamal* in the Kara Sea
- 2010 - *Indiga* collided again, this time with her sister ship *Varzuga*, while being assisted by two nuclear icebreakers in difficult ice conditions.
- July 2011 - Collision between icebreaker *Taymyr* and Tanker *Perseverance*

Casualty Sources

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- SA records
- LMA spreadsheets
- Institute for Ocean Technology, Canada http://www.icedata.ca/Pages/ShipCollisions/ShipCo_Index.php
- Various web sites

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Alexey Maryshev - Converted Russian Icebreaker cruising off Svalbard in November 2007

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Alexey Maryshev
Russian Icebreaker cruising off Hornbreen Glacier, Svalbard Islands in August 2007

Unfortunately the glacier calved

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“Nanny” aground September 2010

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- The Nanny is the third ship to run aground in Nunavut waters in the last month. Another tanker, the Mokami ran aground near Pangnirtung in early August, though no oil leaked into the environment during that incident.
- And on Aug. 27, the cruise ship Clipper Adventurer got stuck on an uncharted rock in three metres of water near Kugluktuk, forcing the evacuation of 120 passengers. No one was hurt in that incident.
- Canadian ice expert John Falkingham told the National Post the string of incidents shows Arctic waters aren’t charted well enough.
- “The companies that ship regularly in the Canadian Arctic, they all say that the lack of good charts in all of the waters is their biggest concern,” Falkingham said. “The ice has been receding faster than the Canadian Hydrographic Service (CHS) can get in there and do the necessary charting.”

Clipper Adventurer
Antarctic and Arctic expeditions

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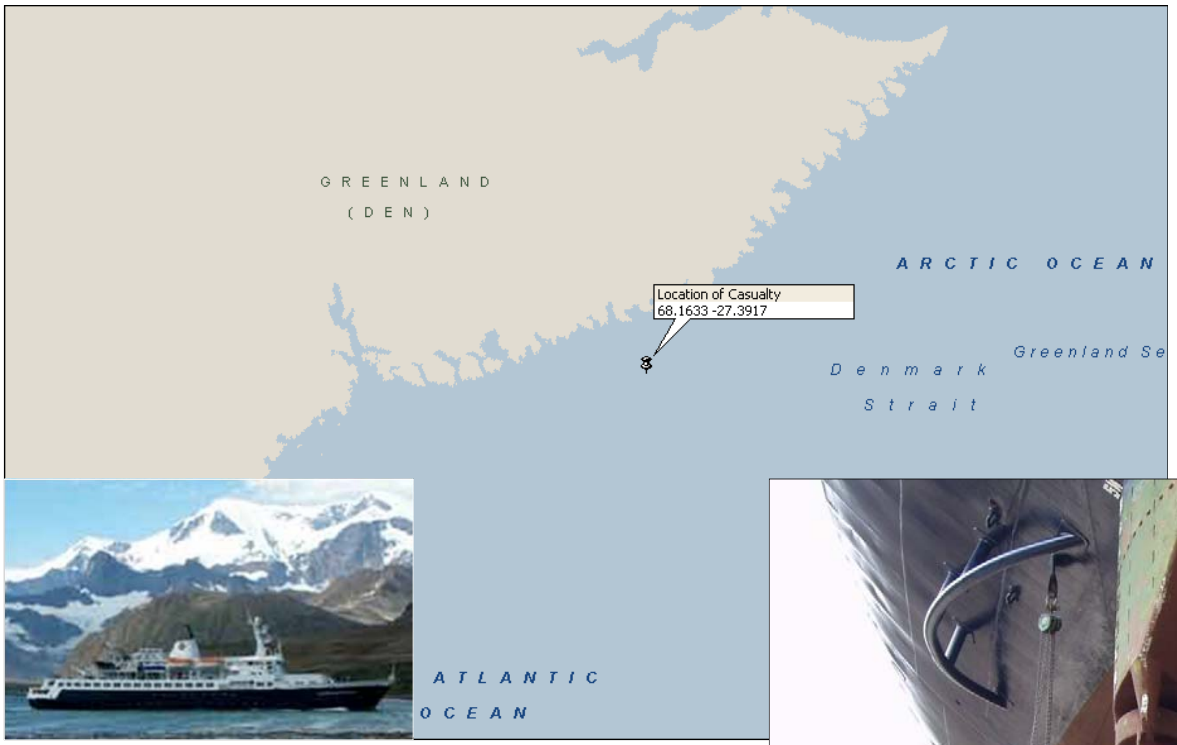

- Clipper Adventurer damaged a propeller due to contact with ice in 2002 and also 2005

Vessel's stern end arrangement with port propeller blades removed

The cruise ship Clipper Adventurer on Sunday, August 29, 2010, after the ship ran aground on an uncharted rock in the Coronation Gulf off the coast of Nunavut, Canada, on the evening of Friday, August 27, 2010.

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Passengers from the cruise ship “Clipper Adventure” are rescued on Sunday, August 29, 2010, by the Canadian Coast Guard after the ship ran aground on an “uncharted” rock in the Coronation Gulf off the coast of Nunavut, Canada, on the evening of Friday, August 27, 2010.

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Passengers from the cruise ship Clipper Adventure await to board their flight from Kugluktuk, Nunavut, to Edmonton on the morning of Monday, August 30

Polar Survey Warranties

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- JH2011/002 - 3 March 2011

Breach of Navigating Limit Requirements Clause

- JH2011/003 - 3 March 2011

Bering Sea Transit Clause

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Breach of Navigating Limit Requirements Clause

It shall be a condition precedent to the liability of the Underwriters that:

1. the vessel shall be equipped and properly fitted with:-

   1.1 two independent marine radar sets

   1.2 at least one global positioning system receiver (such as US GPS, Russian GLONASS, European Galileo, Chinese Compass)

   1.3 a radio transceiver and GMDSS

   1.4 a weather facsimile recorder or alternative equipment for the receipt of weather and routeing information

   1.5 a gyrocompass, incorporating latitude corrections approved by manufacturers or their agents, when North of 70° N. Lat.

in each case all navigational aids, radar, arpa (automatic radar plotting aid), echo sounders, speed logs, navtex, compasses, chronometers, communication systems etc should be fully operational and operated by qualified personnel; and

2. the vessel shall be in possession of appropriate navigational charts corrected to the last available notice to mariners, sailing directions, lists of radio signals, log signals, lights and pilot books; and

3. the vessel shall adhere to all pilotage requirements, traffic regulations and controls as may be established by the applicable coastal state authorities.

JH2011/002
Underwriters Warranty used for vessel transiting Northern Route

Bering Sea Transit Clause JH 2011/003

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Notwithstanding anything contained in this insurance to the contrary, it is hereby agreed that the insured vessel may navigate the Bering Sea on through voyages and provided that

(a) the vessel does not enter, navigate or remain north of 54° 30’ N. Lat.; and

(b) the vessel enters and exits west of Buldir Island or through the Amchitka, Amukta or Unimak Passes; and the vessel is equipped and properly fitted with at least one global positioning system receiver (such as US GPS, Russian GLONASS, European Galileo, Chinese Compass)

(c) a radio transceiver and GMDSS, a weather facsimile recorder (or alternative equipment for the receipt of weather and routeing information) and a gyrocompass, in each case to be fully operational and manned by qualified personnel; and

(d) the vessel is in possession of appropriate navigational charts corrected up to date, sailing directions and pilot books.

Voyage Approval Surveys

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- Japanese Underwriters
- Sanko Odyssey & Sanko Orion
- DNV Ice Class 1A
- Voyage from Norway to China via NSR
- August/September 2011

Japanese Underwriters Survey Warranty

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It is warranted that the voyage is approved by a surveyor to be agreed by underwriters and that all the surveyor's recommendations are to be complied with at all times. Surveyor's approval to include, but not be limited to the approval of :-

- *suitability of vessel for the intended voyage*
- *crewing arrangements including key personnel's levels of experience in Arctic navigation*
- *proposed route and voyage dates*
- *ice breaker and escort arrangements*
- *access to accurate and up to date weather information and weather routing proposals and suitable ports of refuge*
- *Bunkering arrangements*

Recommendations

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- Compliance with NSR Requirements
- Examination/approval by Administration of NSR
- Stability calculations for cargo plus ice accretion
- Duplicated MF/HF telephony
- Sea Area 4 (above 76N) endorsements for Radio Station License, Safety Radio Cert & EPIRB
- Employ 3/2 experienced ice pilots for NSR (24 hr cover)
- Availability of Navigation Charts, verify waypoints, depths etc
- Check operation/coverage of Satellite Navigation Equipment
- No ballast passage
- Latest weather & ice information to be obtained
- Suez & bridge wing searchlights
- Sufficient bunkers/water

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Any Questions