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Norwegian Coastal Administration

Maritime Safety in Arctic Sea Areas

By

Ronny Vågsholm

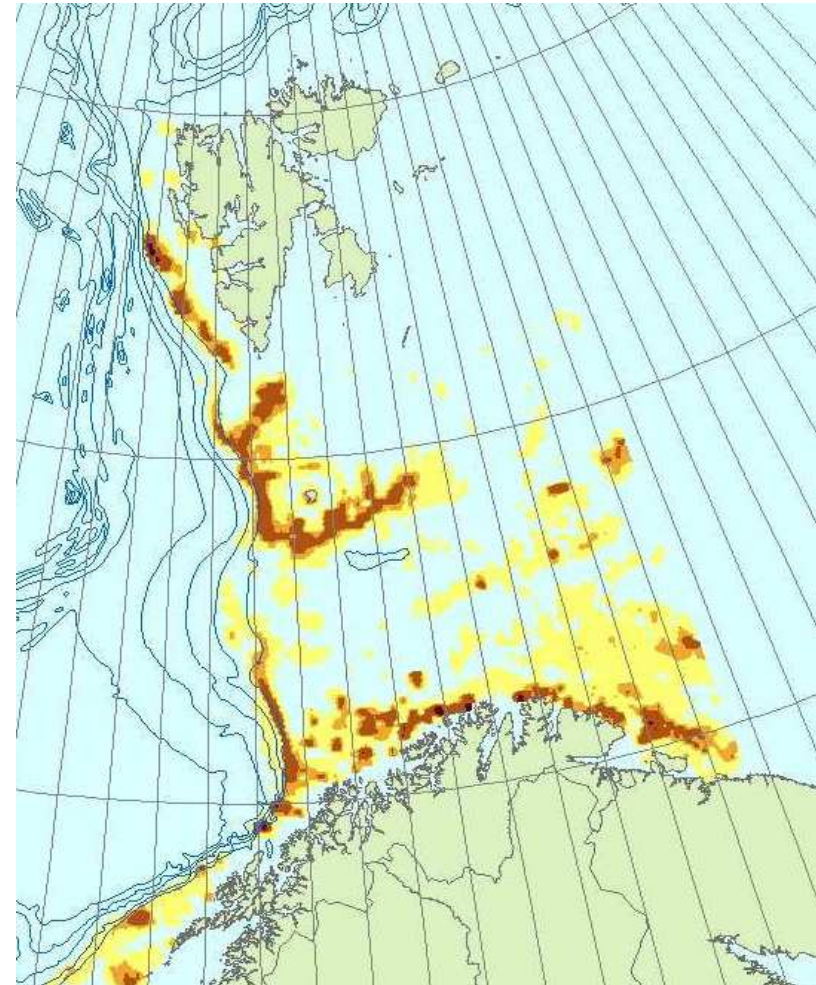
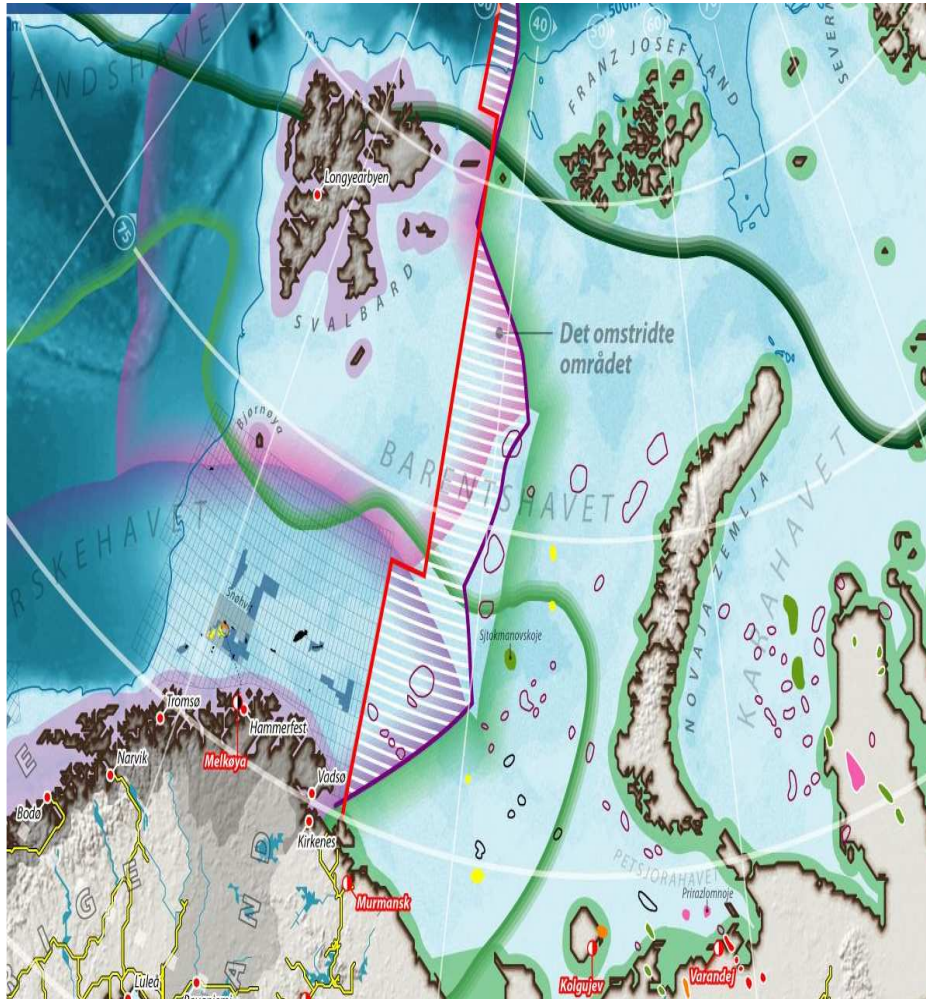
PIANC AGA Technical seminar Helsinki 27.05.09



Agenda

- **Background**
- **Present Activity**
- **Integrated Management of the Barents Sea (Arctic) and the sea area off the Lofoten Island**
- **Risk reduction measurements**
- **Maritime Safety at Svalbard**
- **Summary**

Background

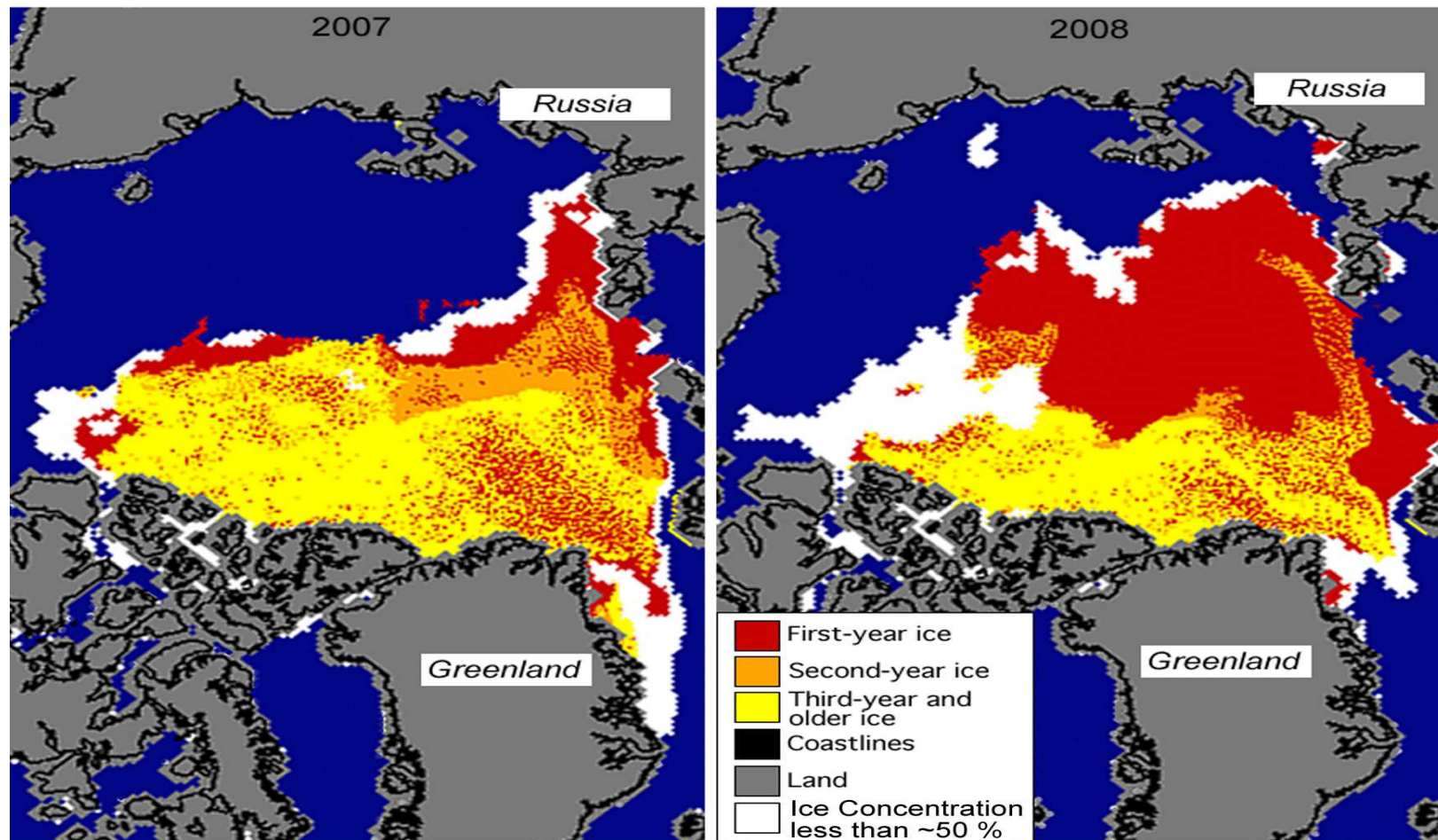


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Background

Arctic sea ice age, September 2007 and 2008

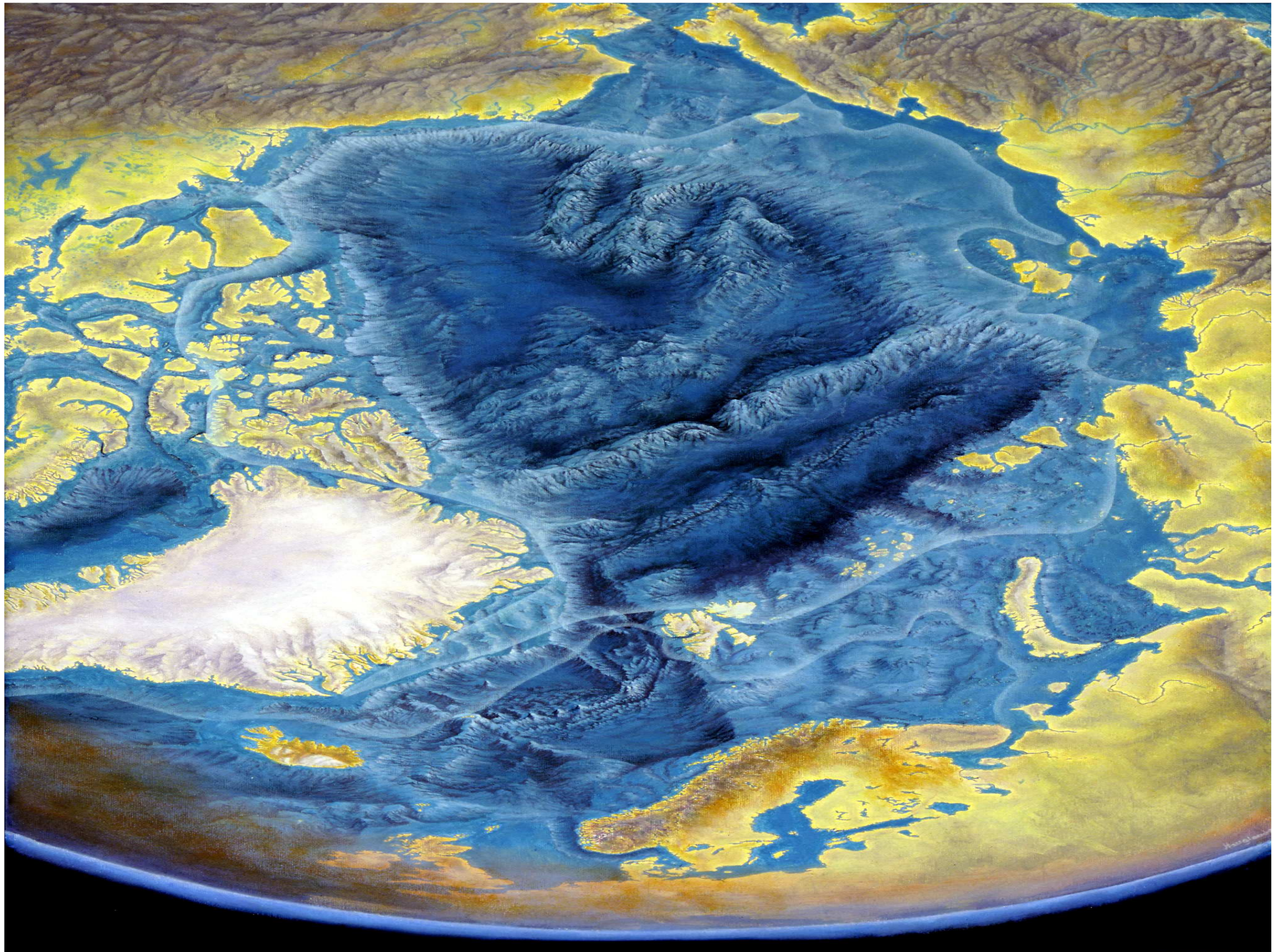


NSIDC Courtesy C. Fowler, J. Maslanik, and S. Drobot, CU Boulder

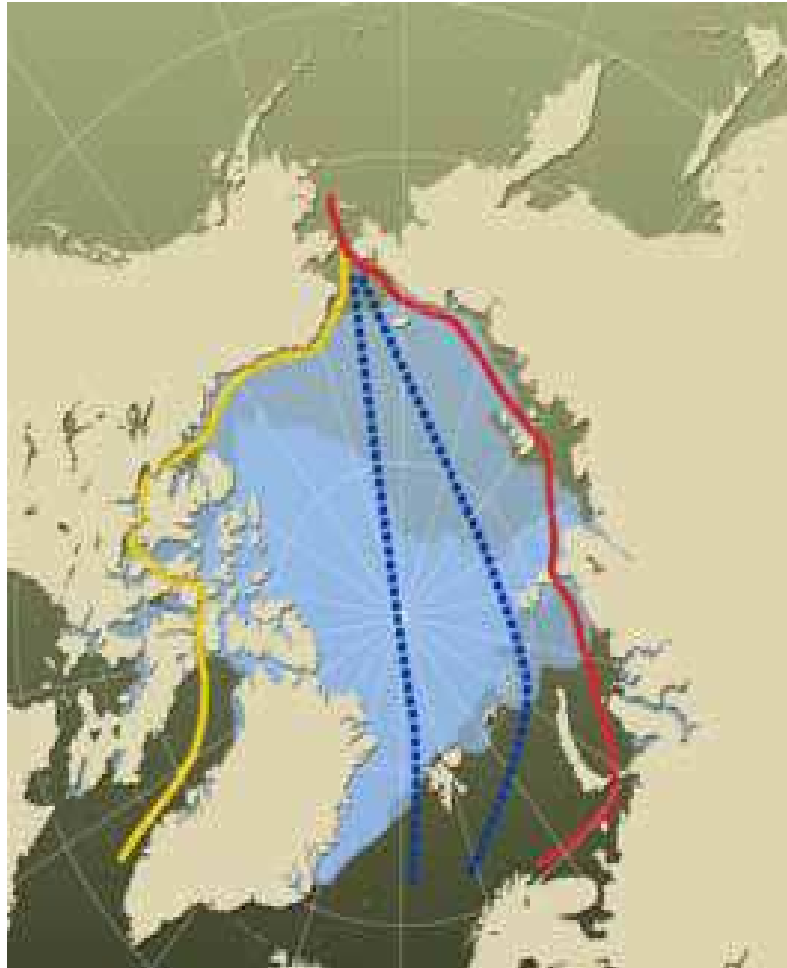


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Background



Transpolar Highway

TPH = aprox. 2800 nm

- No depth limits
- Outside national territory

Northeast passage

NØ-pass = aprox. 3600 nm

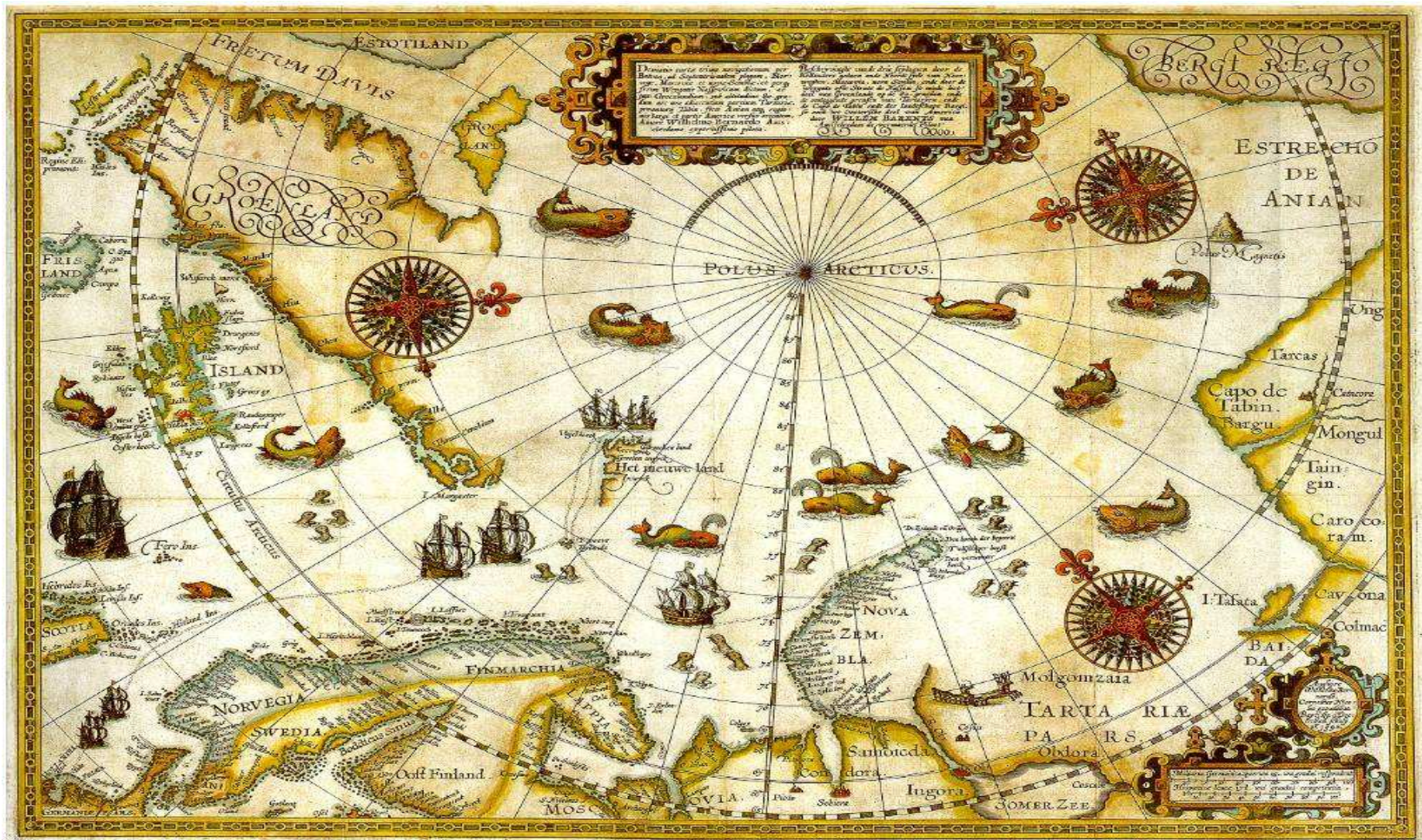
- Challenging fairway / depths limit
- Inside Russian territory



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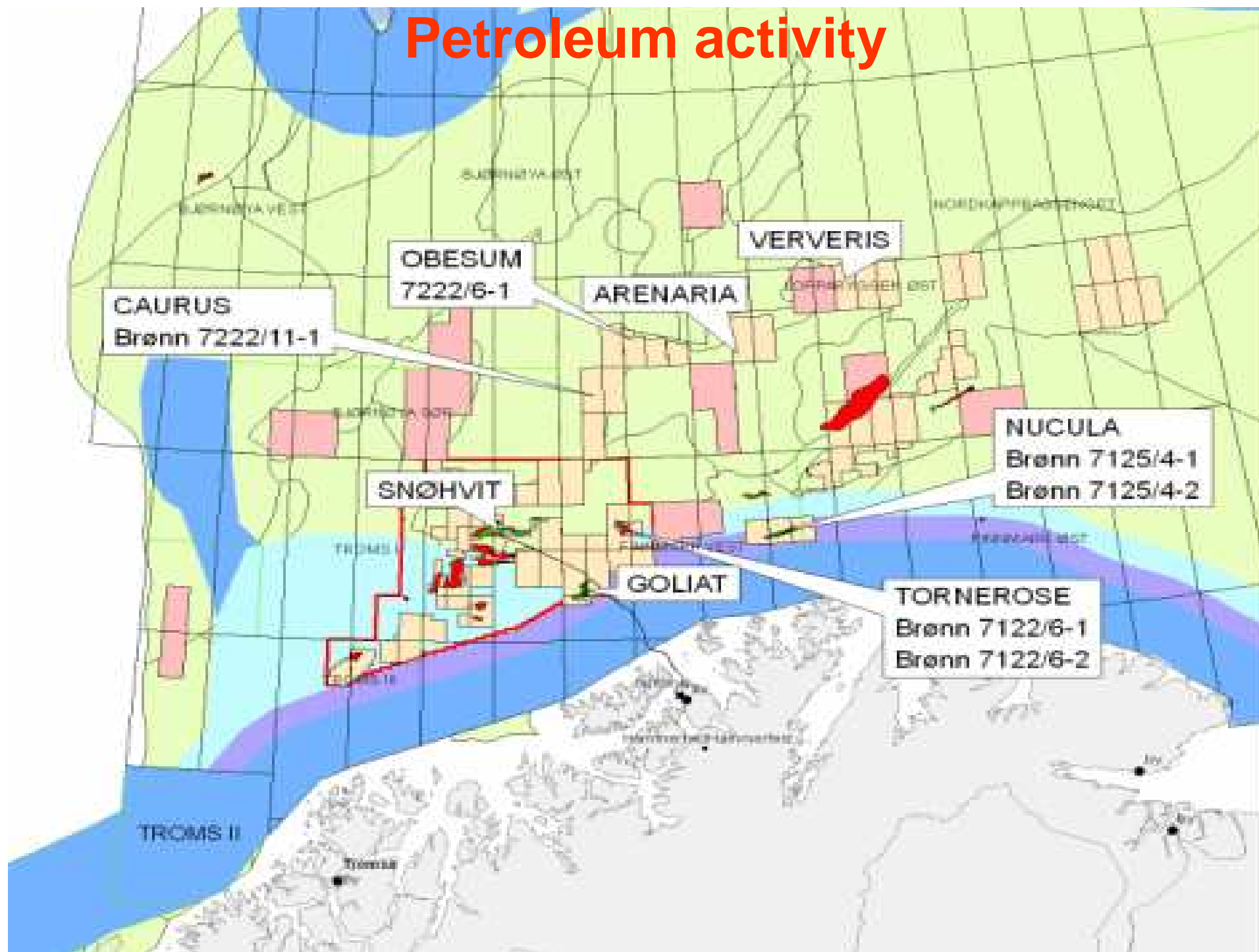
Activity



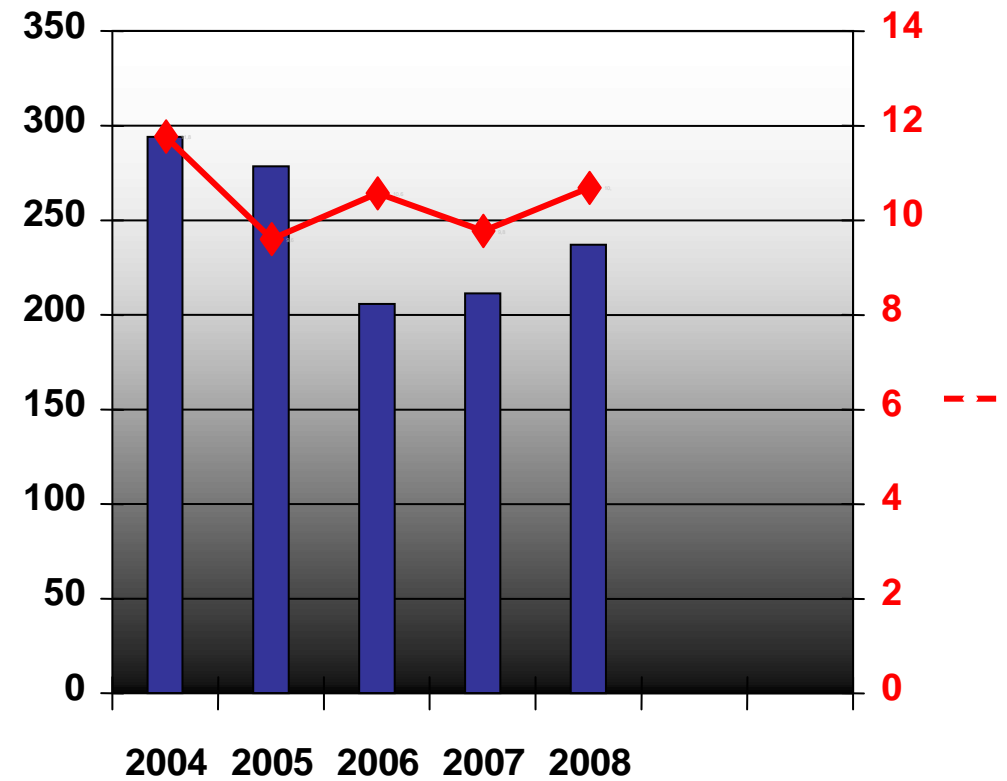
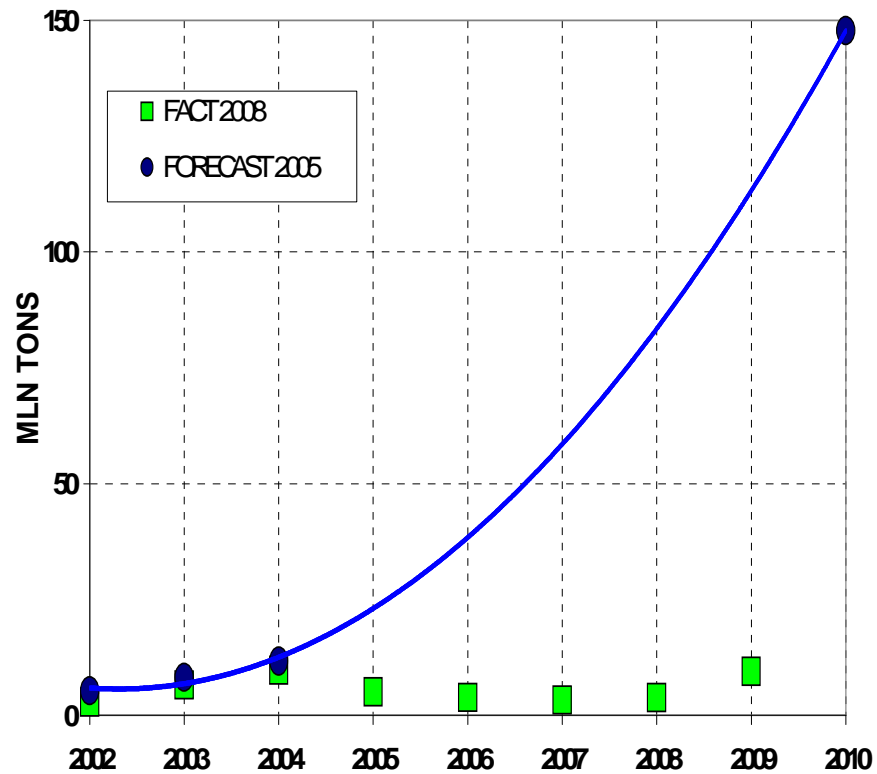
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Petroleum activity



Shipping Activity Forecast / facts



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Oversea cruise vessels Svalbard

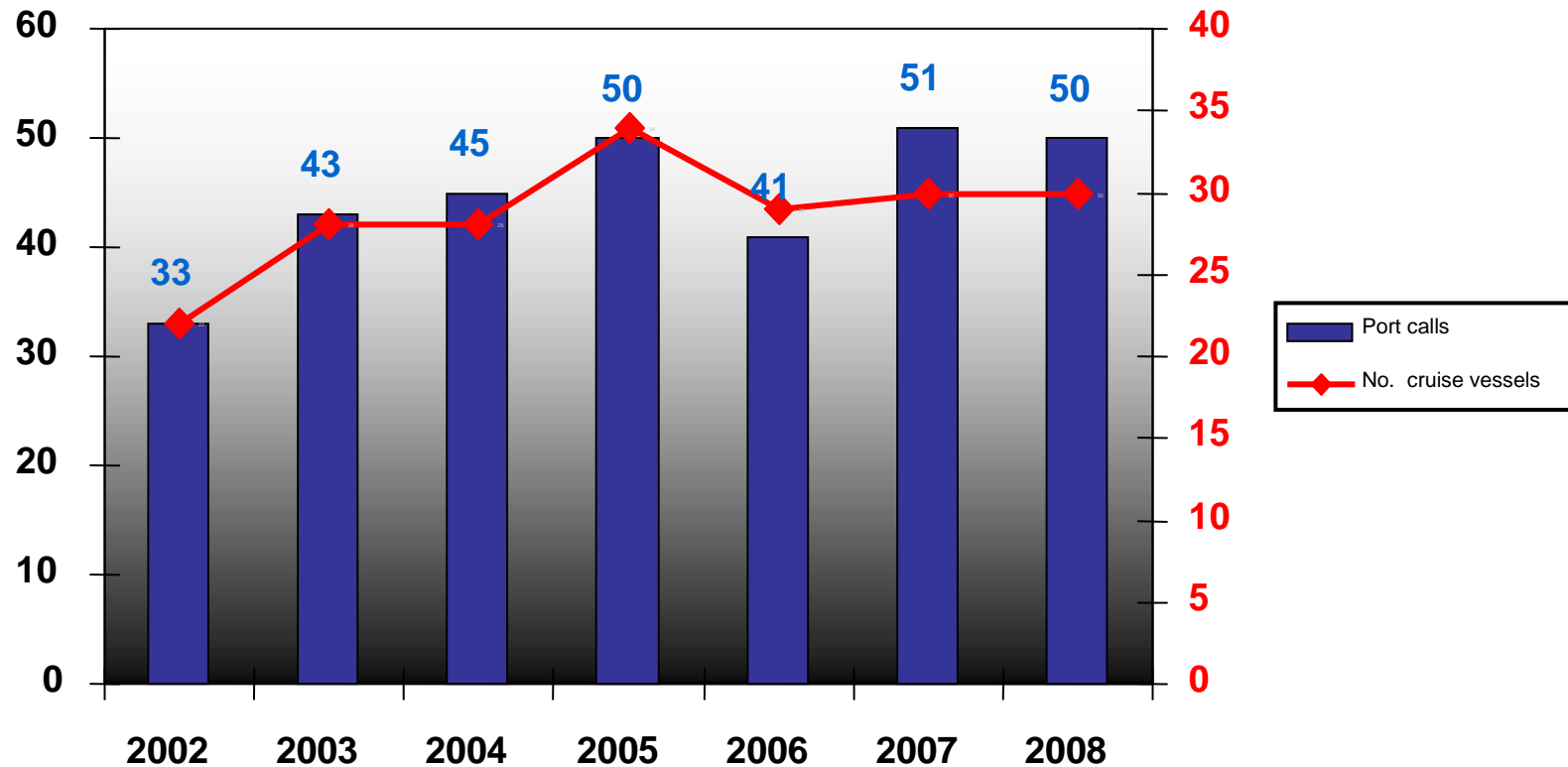


Figure: Port calls and number of overseas cruise vessels on Svalbard in the years 2002-2008. Source: Governor of Svalbard



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Landing sites Svalbard

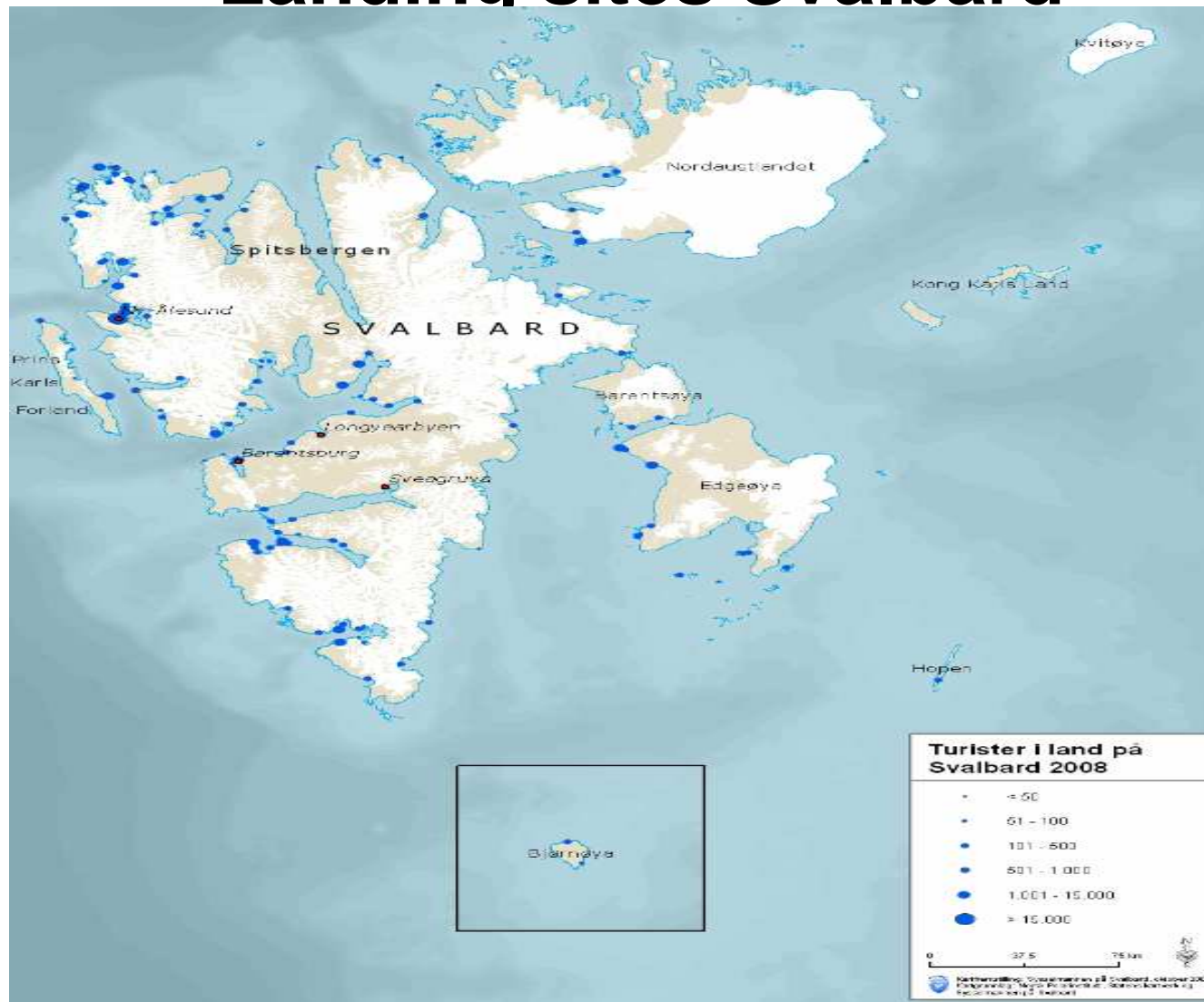


Figure: Map of Svalbard showing the 157 landing sites visited in 2008. Source: Governor of Svalbard.



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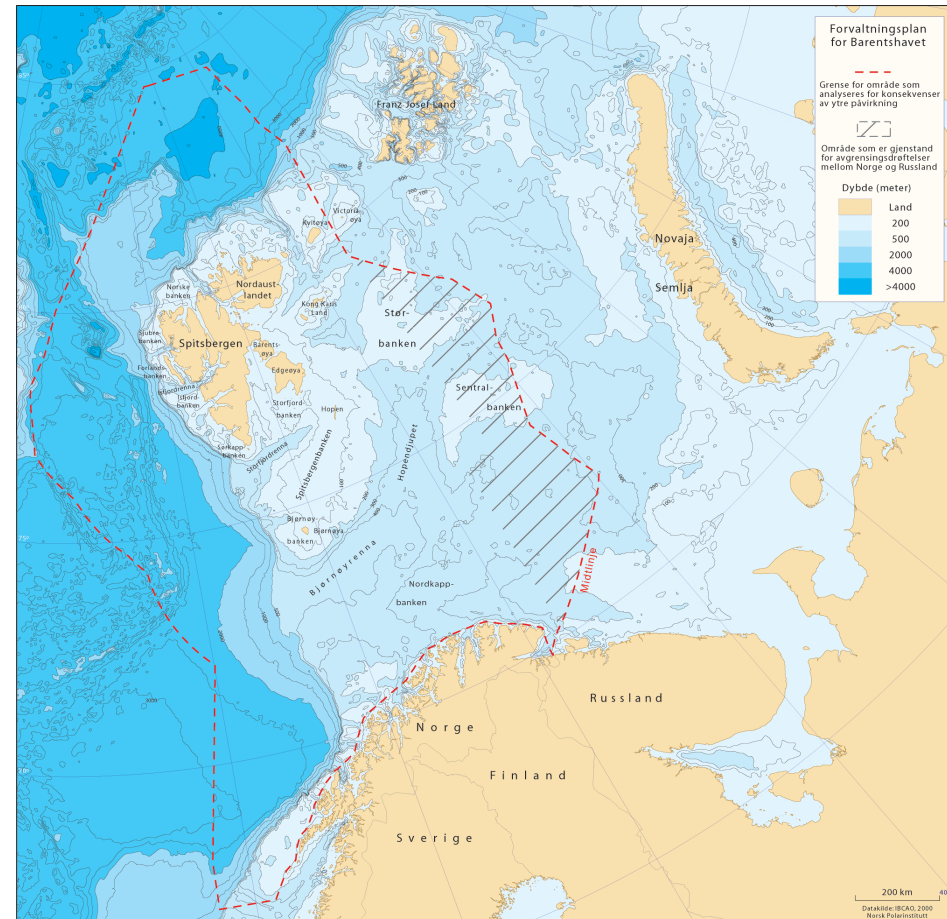
Maxim Gorkij 1989 - Hanseatic 1997





Integrated Management of the Marine Environment of the Barents Sea (Arctic) and the se Areas off the Lofoten Island 2006.

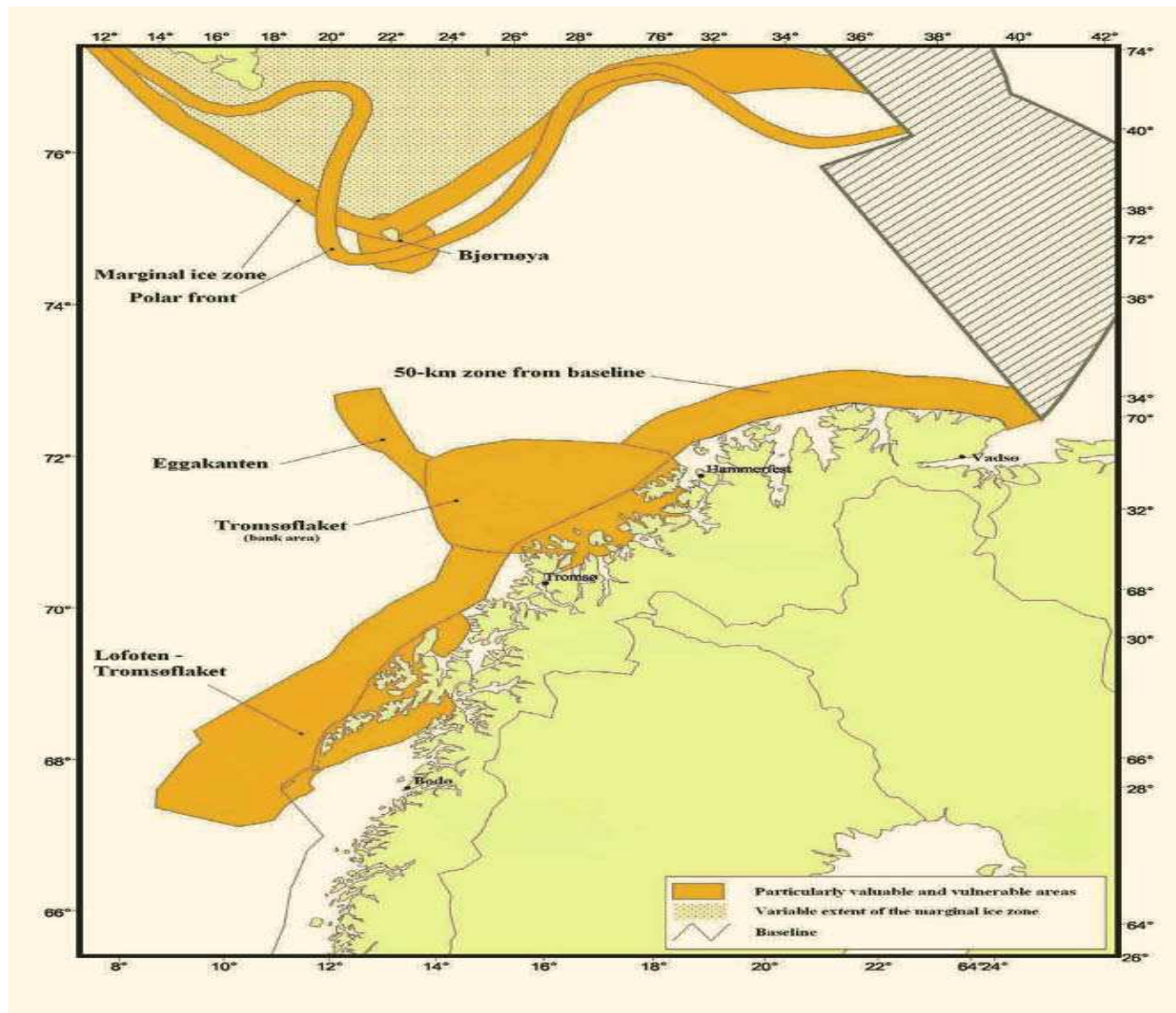
Governments goal:
Human activity in the area shall not damage the structure, functioning, productivity or dynamics of the ecosystems in the arctic .



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Integrated Management.....



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Risk reduction measurement

Civilian surveillances → Vessel Traffic Services

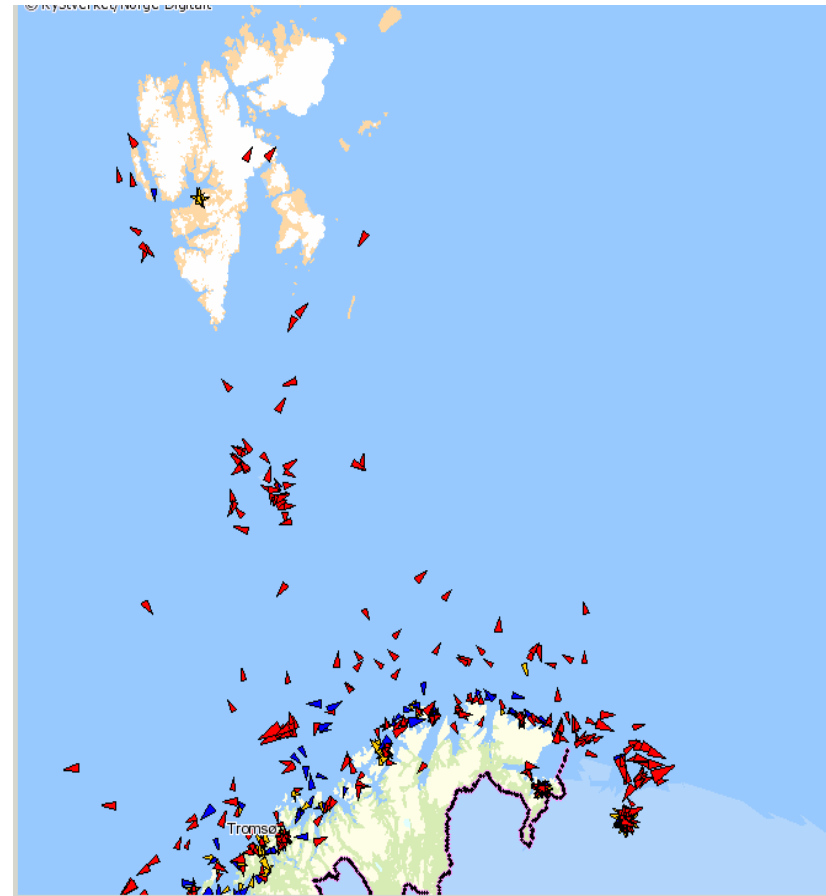
- Registration and monitoring of vessel traffic using radar, VHF and AIS.
- In continuous contact with vessels .
- Intervention to avoid groundings and accidents
- Administrates the national towing preparedness in Northern Norway
- Available 24/7



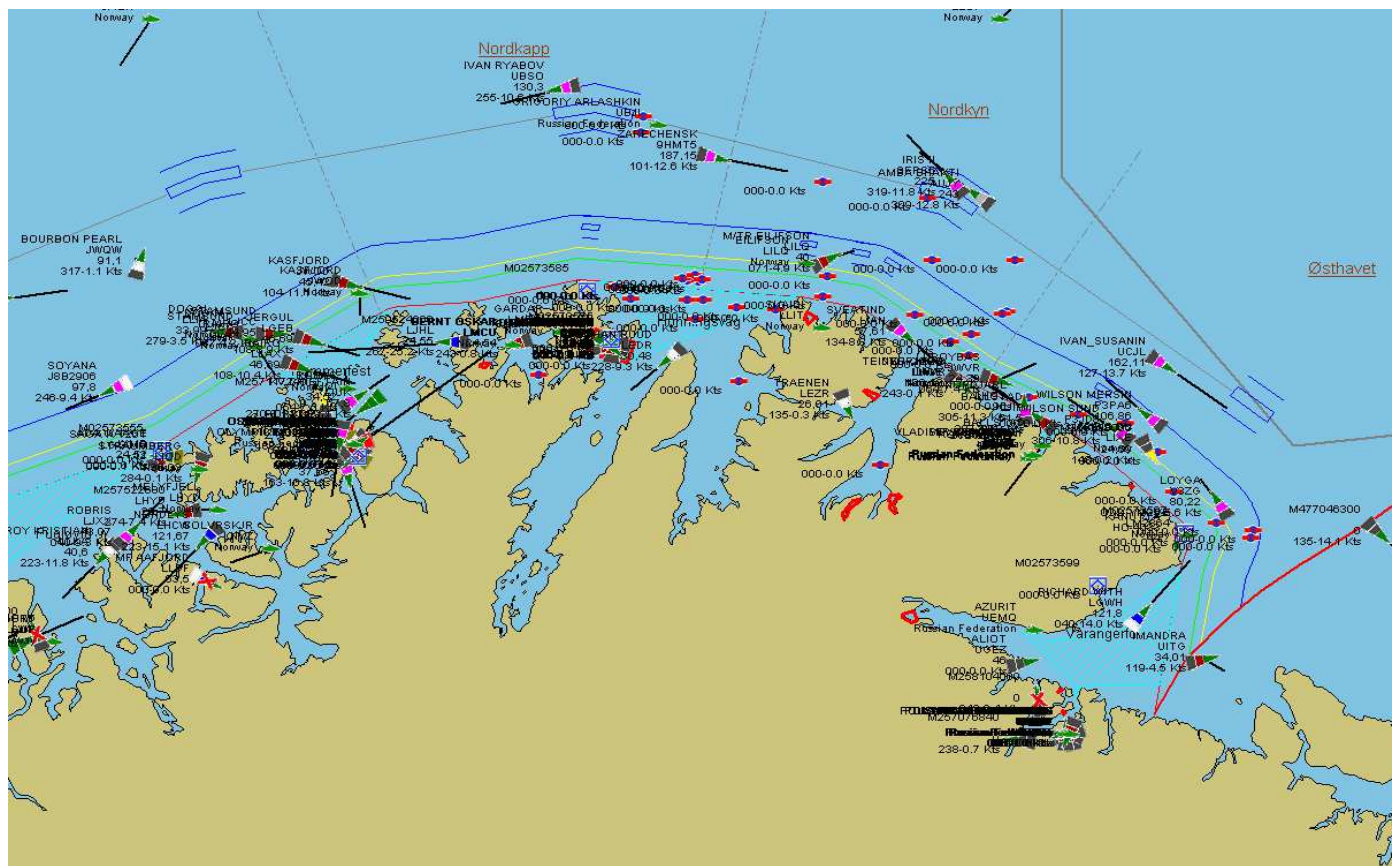
Risk reduction measurement

Civilian surveillances Automatic identification system (AIS)

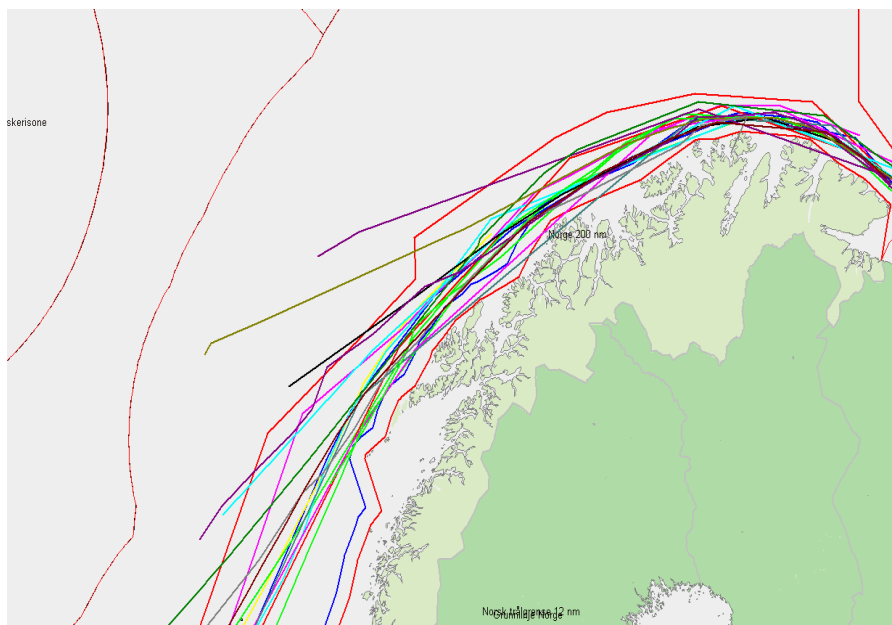
- 36 base stations + 3 test receivers (Bjørnøya and Svalbard).
- Receives AIS signals from vessels.
- Distribute AIS information over the internet to right body in the government.
- Mapping traffic patterns.
- Statistic use, fairway development. Risk reduction measurement.



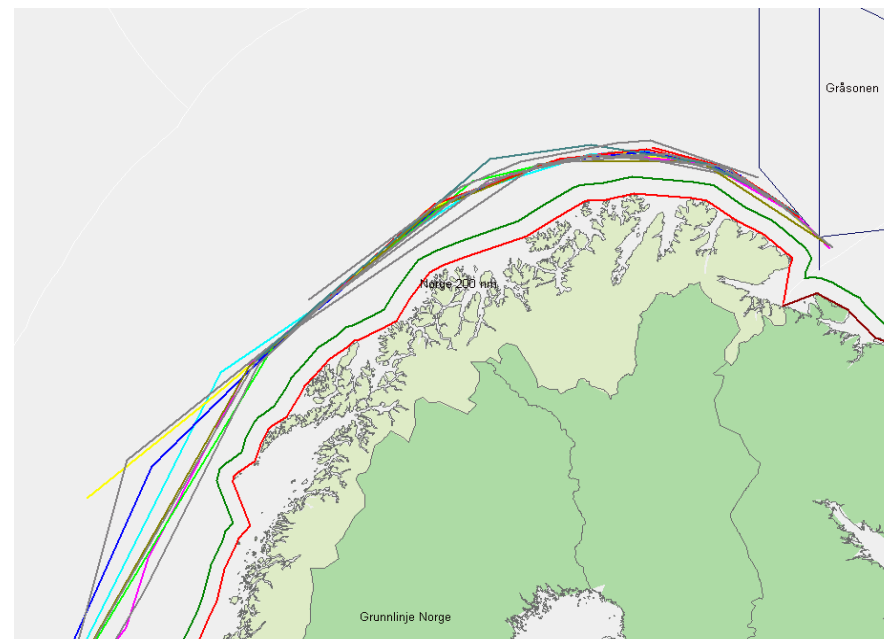
Risk reduction measurement IMO sailing route / C-scope



Risk reduction measurement IMO sailing route



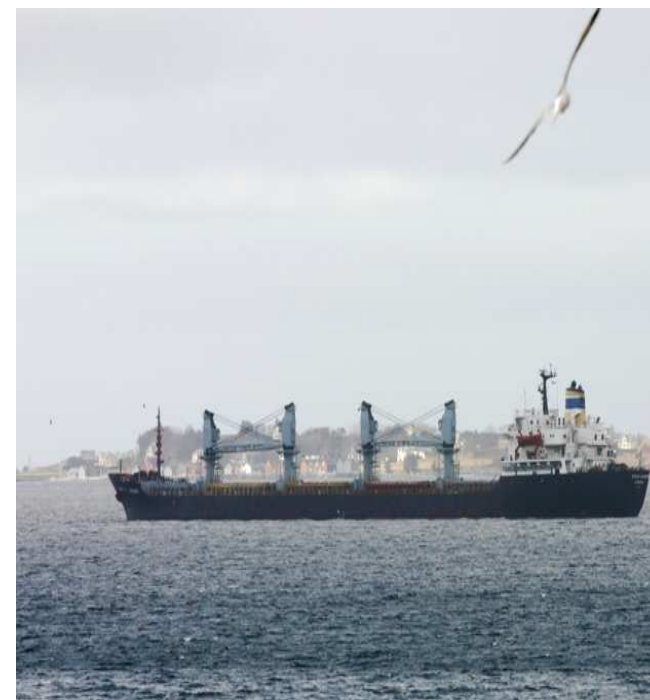
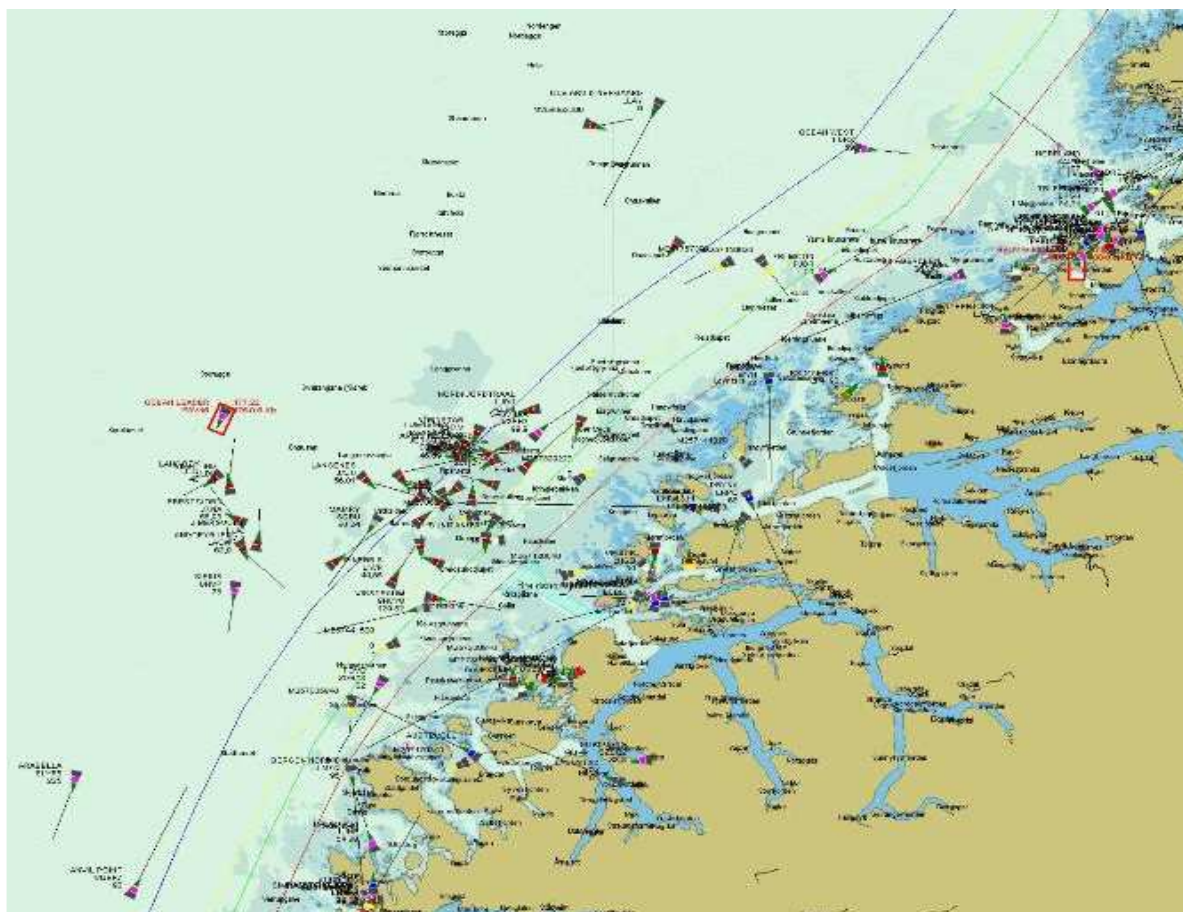
December 2006



September 2007

Risk reduction measurement

Ocean leader – March 2009

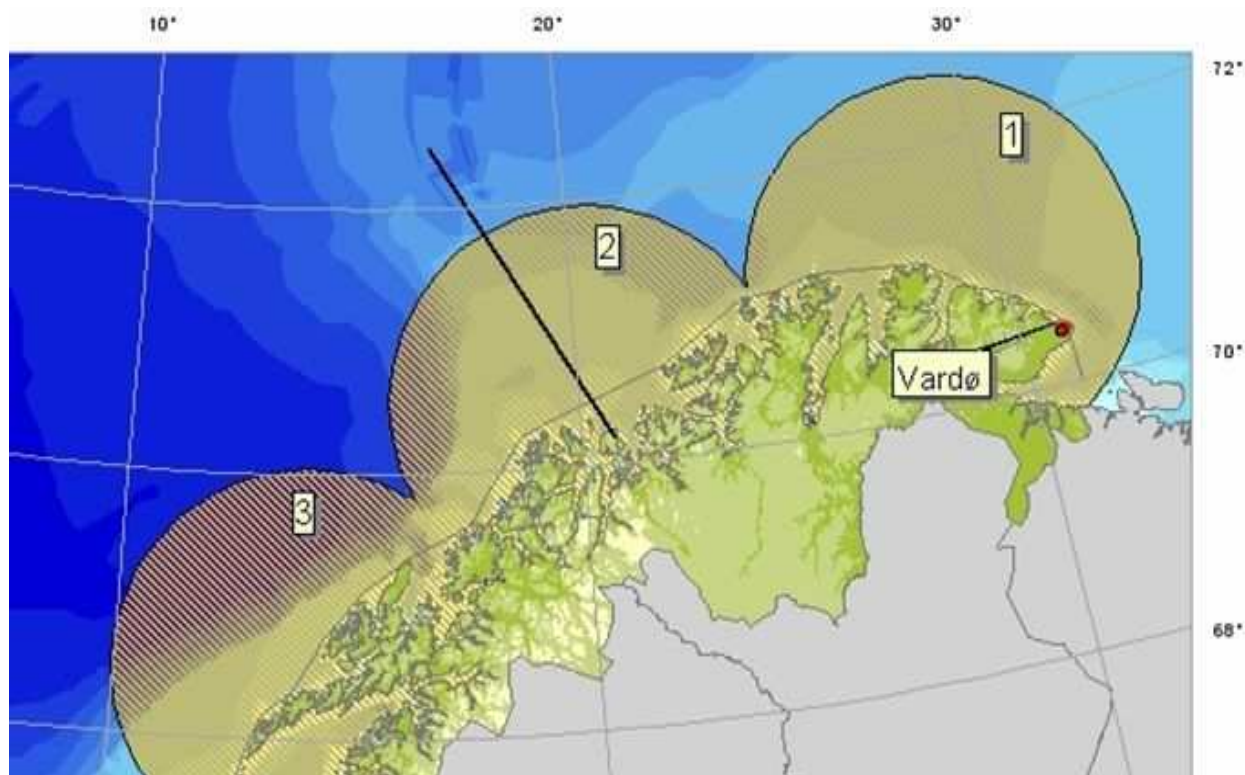


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Risk reduction measurement

Emergency Towing Vessels in Northern Norway



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Risk reduction measurement

Emergency Response against Acute Pollution (consequence)

- The national emergency preparedness against acute pollution
- A 24-hour duty service for:
 - recording, assisting and monitoring polluters' handling of acute pollution within the scope of the Pollution Control Act
- Surveillance aircraft
- Depots with anti-oil spill equipment
- Vessels and naval resources at our disposal



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Maritime safety at Svalbard

Harbor and Fairway regulation;

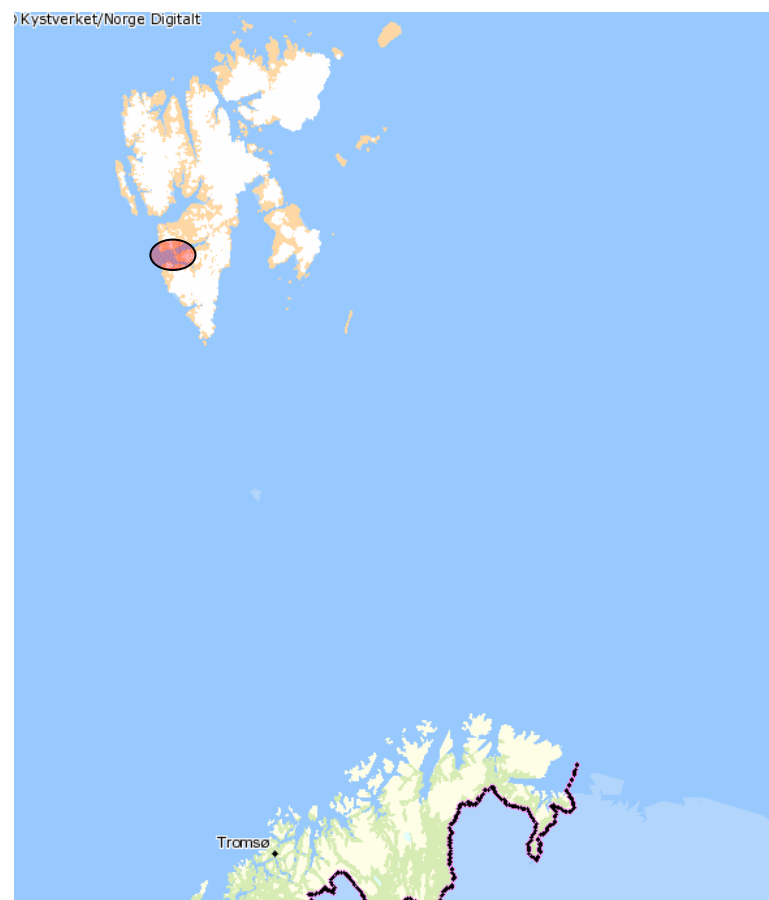
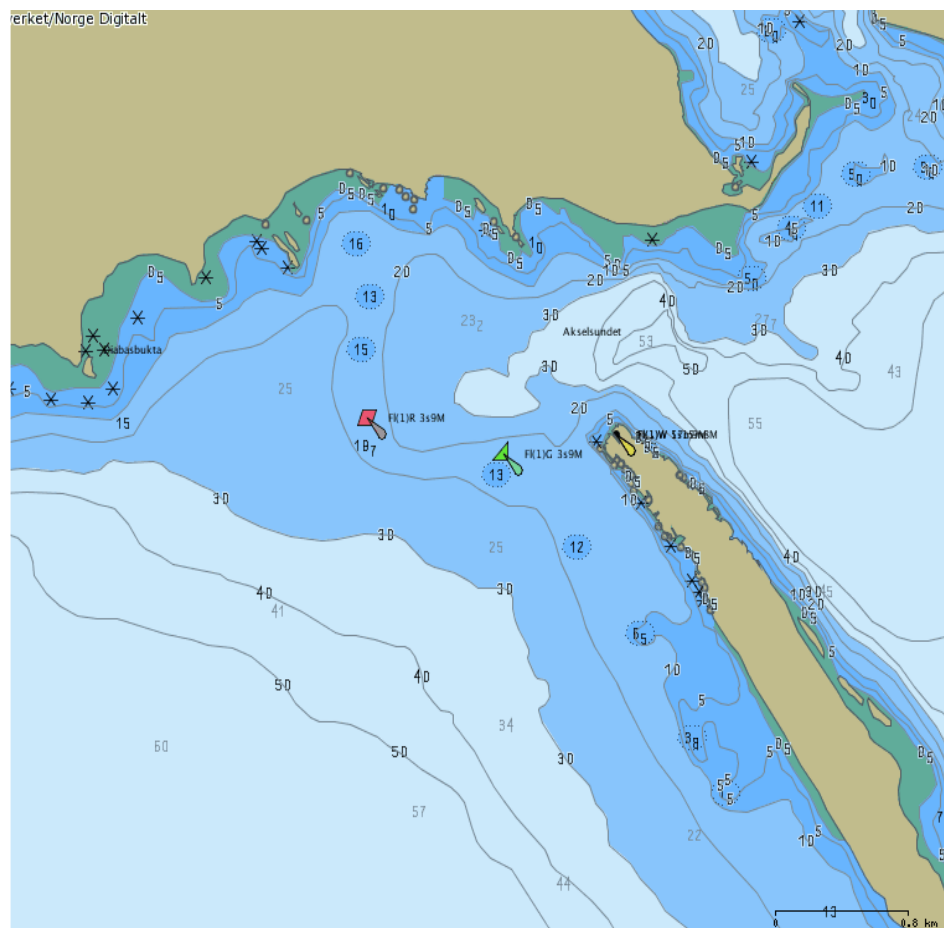
- Harbor development
- Positions report
- ISPS
- Sea traffic



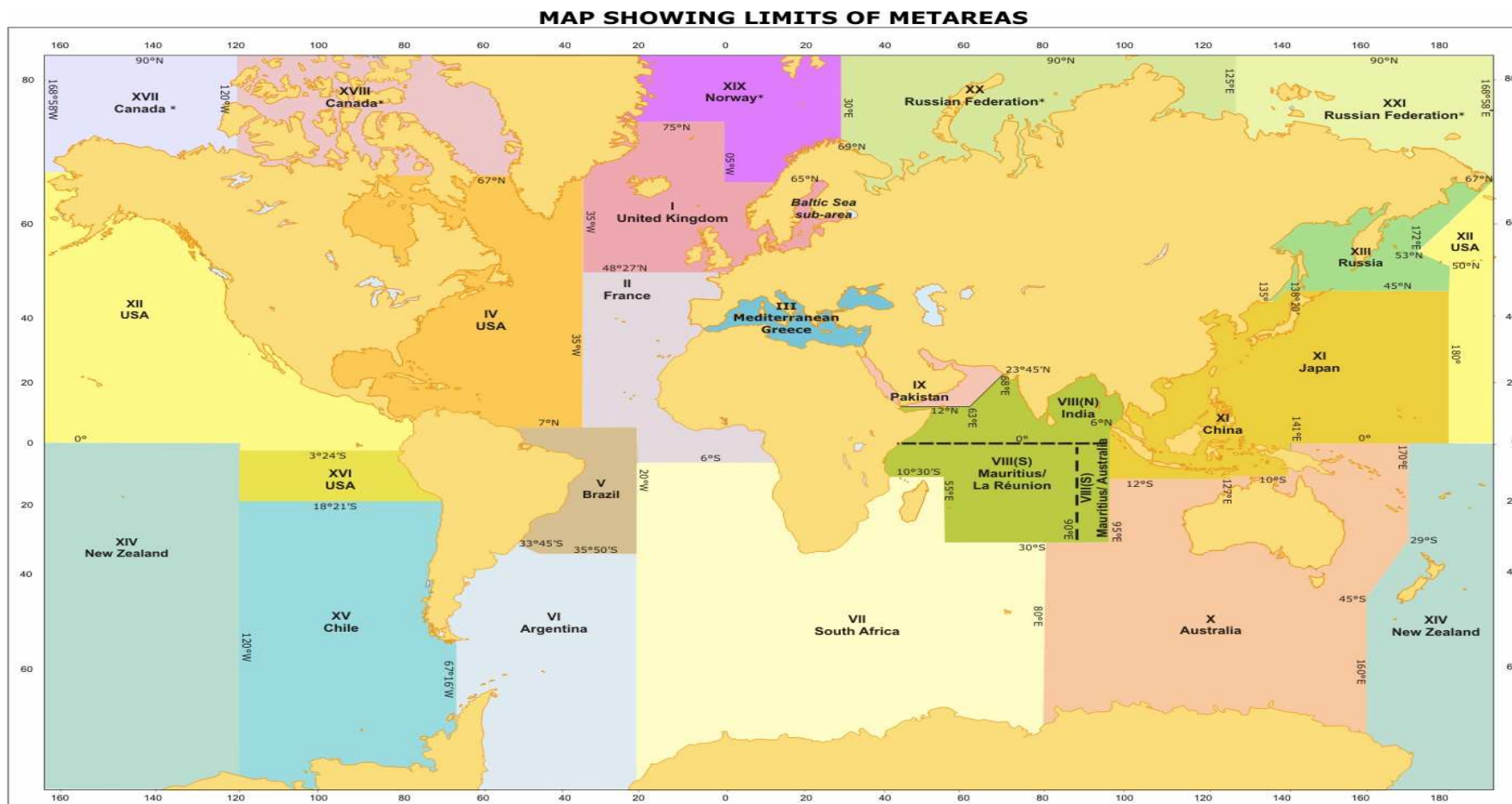
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Maritime safety at Svalbard Akselsundet / traffic regulation



NAVAREA 19



* The GMDSS is under implementation for the Arctic METAREAS and is expected to be fully operational by 2010/11

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Summary

- Traffic Monitoring, situations understanding, in order to respond early with proper resources.
- The Arctic need sufficient hydrographical surveys, maritime - infrastructures and – services.
- Close cooperation between the stakeholders in the arctic, are crucial to develop joint operational concepts. To ensure effective use of resource when needed (rescue operation).
- International cooperation with IMO and other body's are also necessary to ensure high standards on regulation, like polar code, STCW....



A dramatic sunset or sunrise over the ocean. The sky is filled with dark, swirling clouds illuminated from below by the sun, creating a vibrant orange and red glow. The horizon line is visible at the bottom, separating the dark sea from the bright sky. A large, white question mark is centered in the lower half of the image.

***Tanks for your
attention !***

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