



**FISKERI- OG KYSTDEPARTEMENTET**

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## ***Transport Corridors and maritime Infrastructure in the Arctic – The Norwegian Approach***

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*The Fall Law Symposium, Panel: "The Emerging Arctic"*

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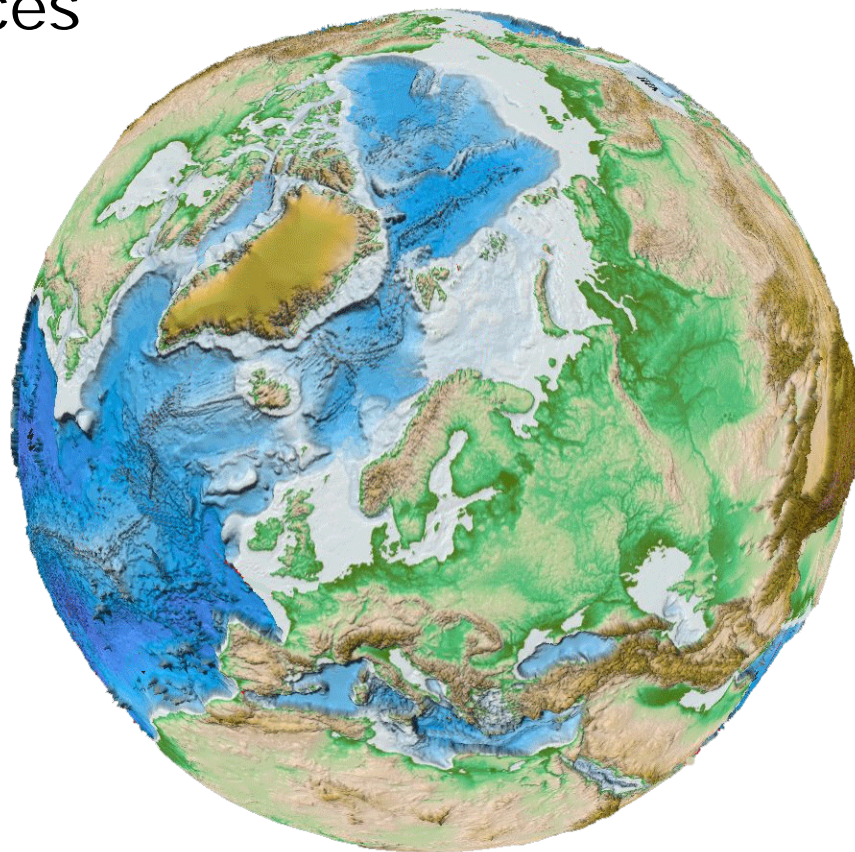
*14-15 November 2012*

## Some Key Issues

- What is the situation in the Arctic
  - what can we expect – players and activities
- What can we do and what are we doing on
  - international - regional - bilateral – domestic level

# The Global interest for the Arctic

**WHY**– Fisheries, Oil and gas, new transport routes, other natural resources

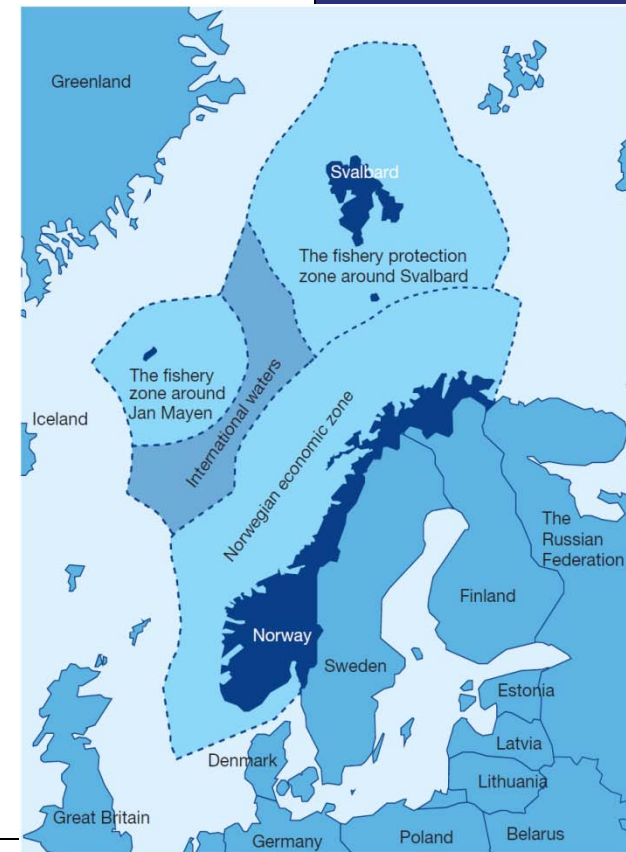


## The interest for the Arctic - WHO

- The five Polarnations: USA, Canada, Denmark, Norway, Russia
- Arctic Council nations: the "five" + Sweden, Iceland , Finland
- Other European nations
- Fareast nations: China, South Korea, Japan
- International organisations: UN/ IMO (International Maritime Org), IALA (Internat. aids to navigation)
- Regional organisations: EU/European Union
- Bilateral cooperations
- **The legal plattform: UNCLOS**

## Norway - the facts:

- Norway – large sea area and vital natural resources
- Responsibility for the management of sea area more than 6 times larger than the mainland
- Mainland coastline: 25 148 km (incl. fjords)
- Recourses and maritime activities
  - Oil and gas (export value 2010 app. NOK 500 billion)
  - Fisheries (export value 2011 app. NOK 23 billion)
  - Aqua culture (export value 2011 app. NOK 30 billion)
  - Maritime transport
    - Domestic
    - Import and export
    - Transit traffic
    - Cruise traffic



# The treaty on maritime delimitation between Norway and Russia

- 15th September 2010 the treaty was signed
- Boundary
- Cooperation – fisheries – oil and gas

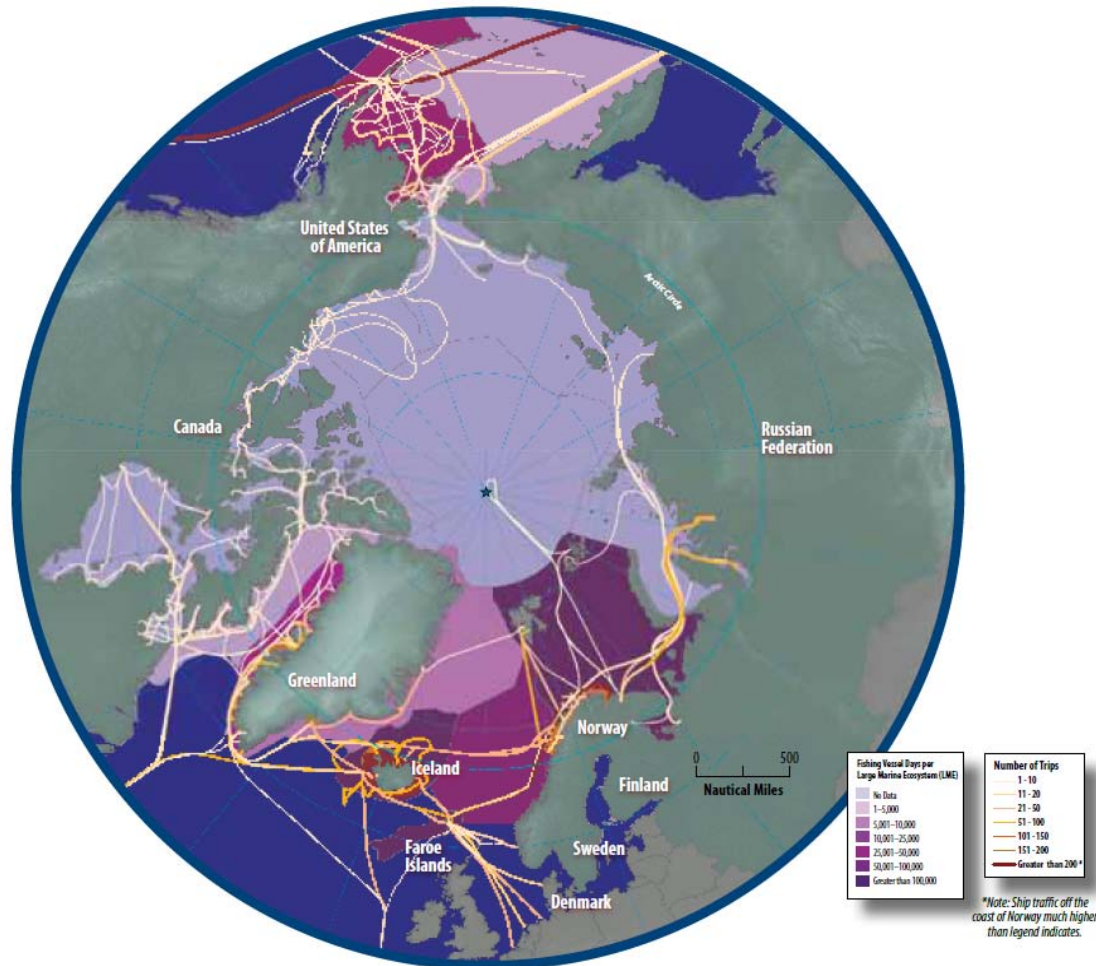






# Not a new ocean

- Already a significant amount of traffic in our adjacent waters





# Future Arctic maritime activity – main questions for the coastal states:

- Of what kind will it be?
  - Cruise ships
  - Fisheries
  - Special transports
  - Container ships
  - Tankers
  - Other ...
- Where will it go?
  - Northern Sea Route
  - Northwest Passage
  - Trans-polar?



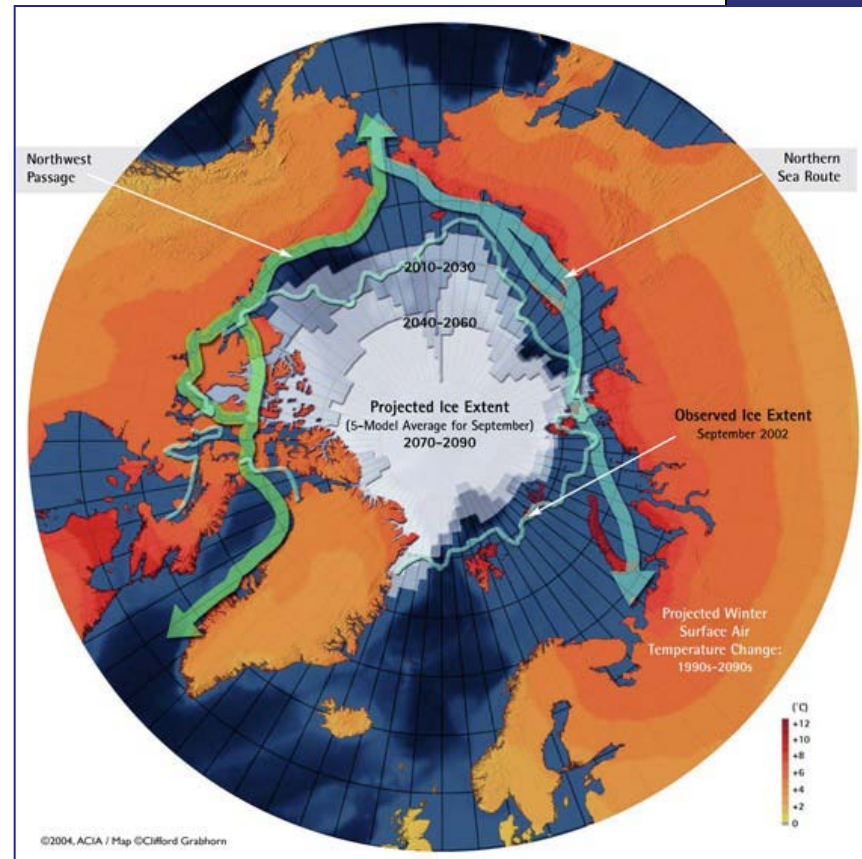
Vast areas, extreme conditions and limited SAR and oil spill combating capabilities

# Maritime transport The melting of the ice cap - a global challenge

## Future routes?

The ice is retreating.

Will this result in  
increased transport in  
Arctic waters?



Arctic Climate Impact Assessment 2004

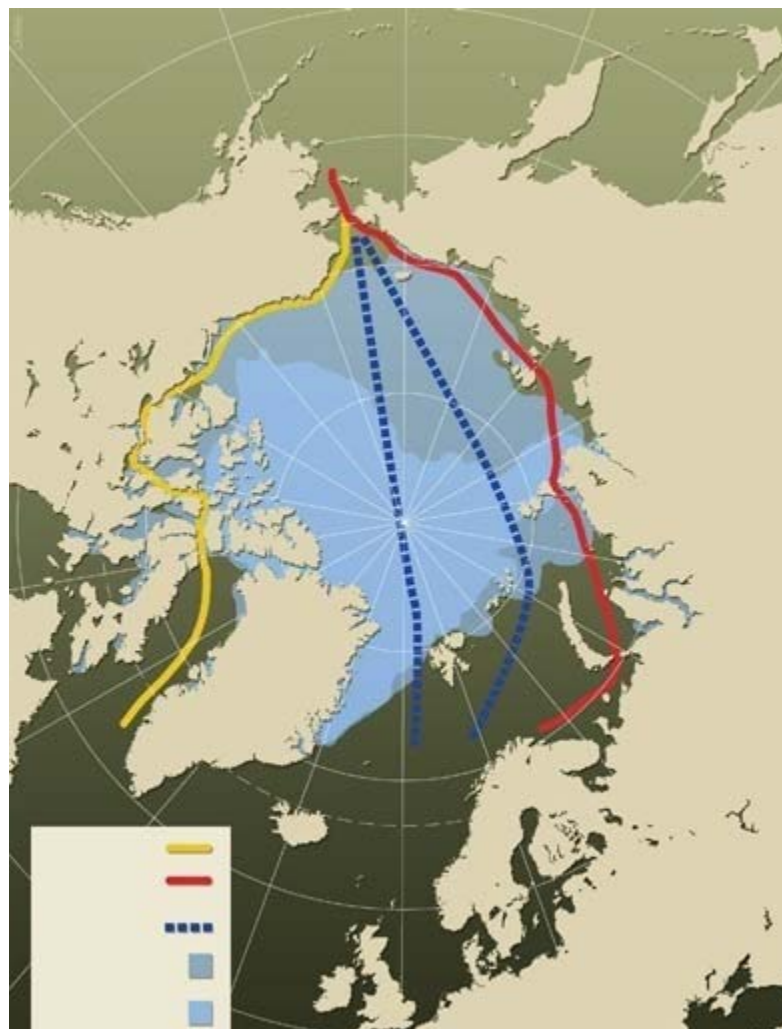
## A shorter distance than current routes



## Future routes

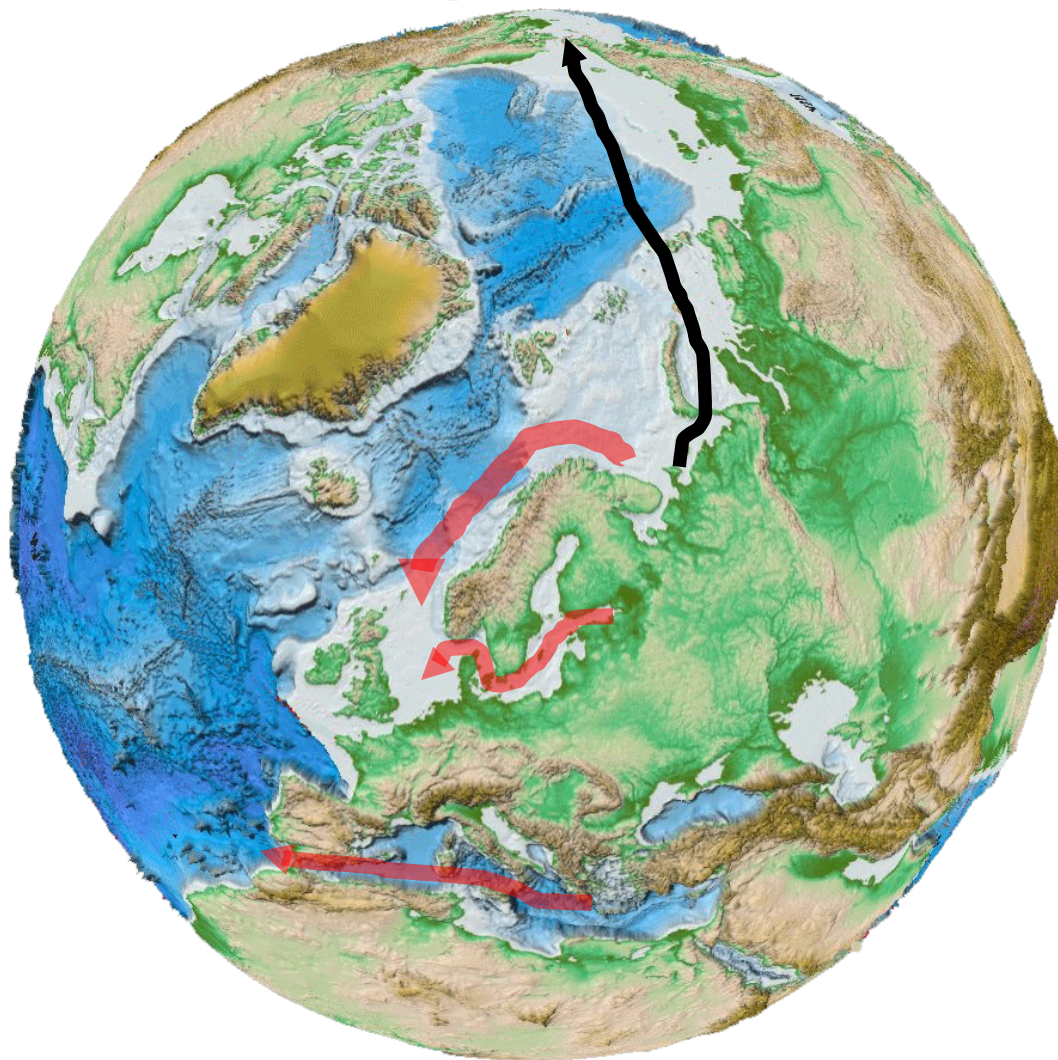
- But the shortest routes are transpolar
- **Infrastructure is needed for all activities**

The North West Passage  
The North East Passage  
Possible Trans-Arctic routes  
Minimum sea ice extent 1970  
Minimum sea ice extent 2007





# Russian Transport Corridors



## Not a new Ocean – but:

- Possible new regional and global opportunities and challenges -maritime transport, other activities
- Coastal states – flag states - Commercial interest
- **We need:**
  - Knowledge, research, exchange of experience, management plans
  - Cooperation – not competition
  - Infrastructure
    - preventive measures, preparednes, oil spill, environmental protection, search and rescue

# Cooperation not competition

- **National agendas**
- **Special conditions in the Arctic**
  - need for more advanced infrastucture



# Effective, safe and secure maritime transport – need for aids to navigation

- Surveillance, communication, information and warning systems, data exchange
- Virtual aids to navigation

Need to take full advantage of existing and new systems and combine data from different systems



## However, there are challenges ...

- Vast area and extreme conditions
- Safety of persons and equipment at sea, hazardous waste transportation, oil spills,
- Slow degeneration of toxins and short food chains
- Incident/accident in this area – compared to other areas of the world
- **The risks are enhanced by challenges to navigation and maritime surveillance**



## The challenges are enhanced by ...

- Traditional aids to navigation is not sufficient in the Arctic
- Limitations to radio and satellite communications for both voice and data transmission in the Arctic
- GNSS (Global Navigation Satellite Systems) in the Arctic has specific challenges related to latitude
- GPS (USA) GLONAS (RUSSIA) Compas(CHINA) Galileo (EU)
- Loran C /Chayka - eloran/eChayka

## In addition, there is the **ice**:

- Arctic Marine Shipping Assessment: Ships navigating in the Arctic need the same suite of meteorological and oceanographic data, products and services as in the other oceans ...
- + a comprehensive suite of data, products and services related to **sea ice** and **icebergs**!
- **Icing on ships**



# Icebergs are unpredictable ...

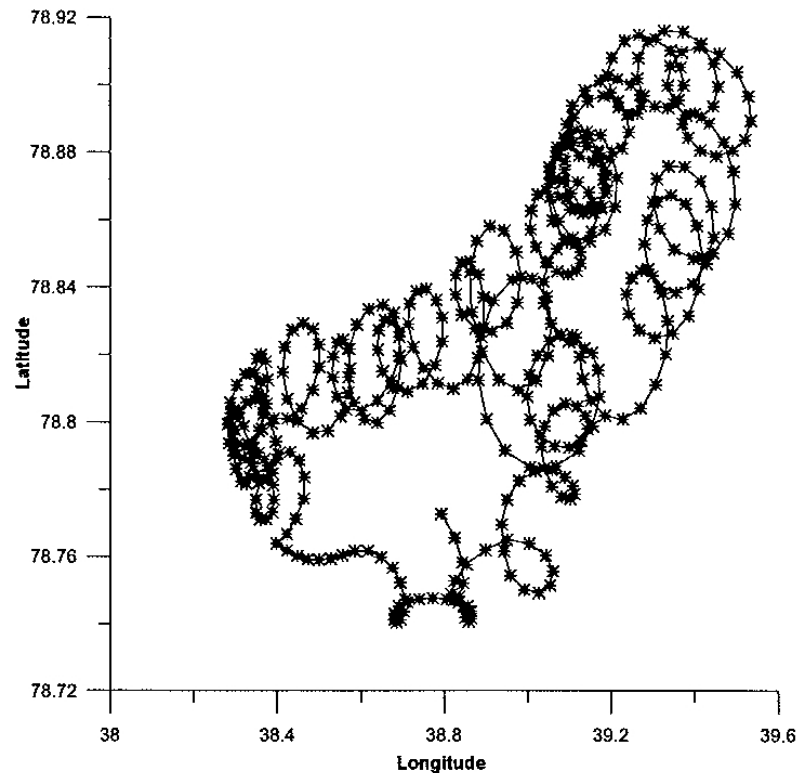


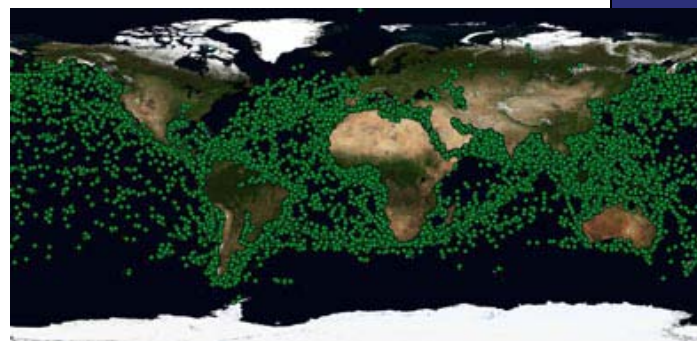
Fig. 6 Iceberg drift trajectory with hourly position marks for the period August 8-10, 1990 (SNOP data).

## So improvements in maritime surveillance and aids to navigation is key for **coastal states**!

- Traffic monitoring vital for efficient daily operations

- Fisheries control
- Support of maritime safety and security
- Search and Rescue
- Environmental protection
- Border control
- Oil – and gas activities
- Other ...

AIS data gathered between 19 UTC 2. – 3. June by NORAIS AIS receiver at ISS.

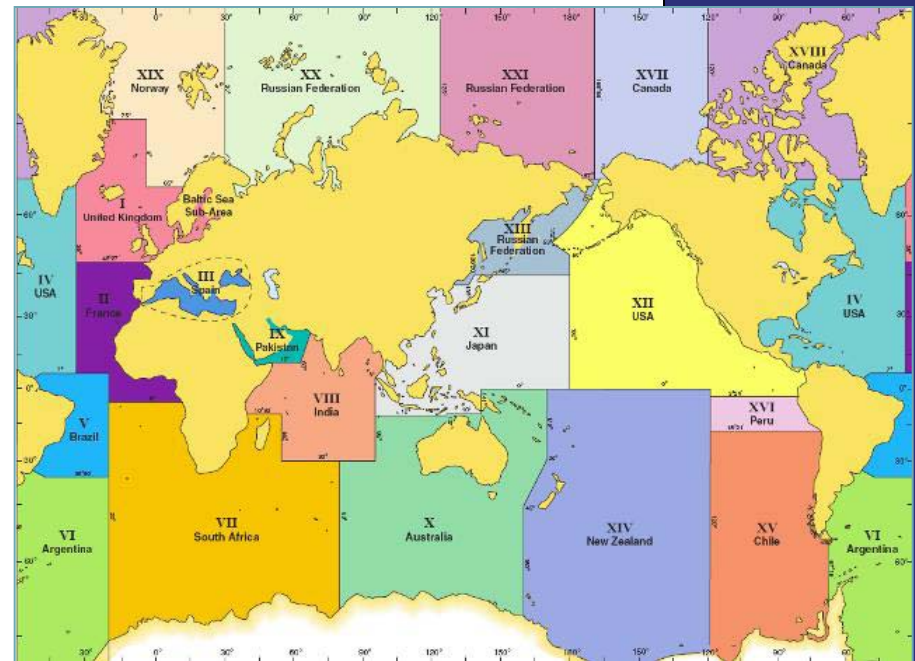


**Important also for flag states, ship-owners, cargo-owners, shipbuilding industry**

# Approaching the challenge: tools, actions and initiatives

## Global/multilateral cooperation

- UNCLOS: the foundation
- IMO: - Polar code  
- e-Navigation
- IALA: Arctic waters
- Arctic Council:  
AMSA, SAR, EPPR





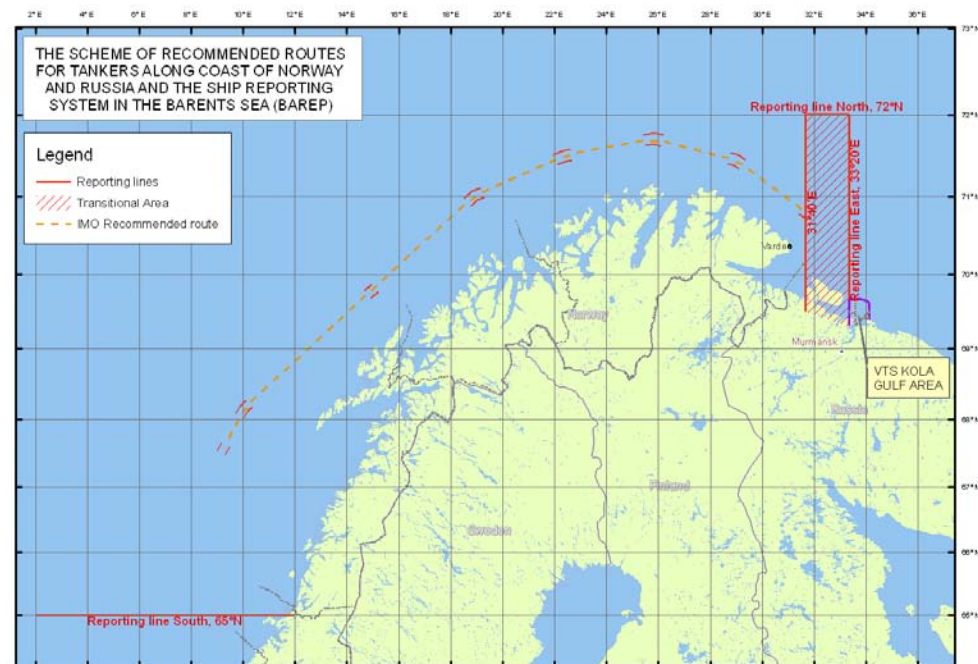
# Bilateral cooperation

## • Norway – Russia

- MoU 2006: Safety at sea and oil spill prevention
- Radio-navigation: Loran C/Chayka
- Informationsystem

## • Norway – EU

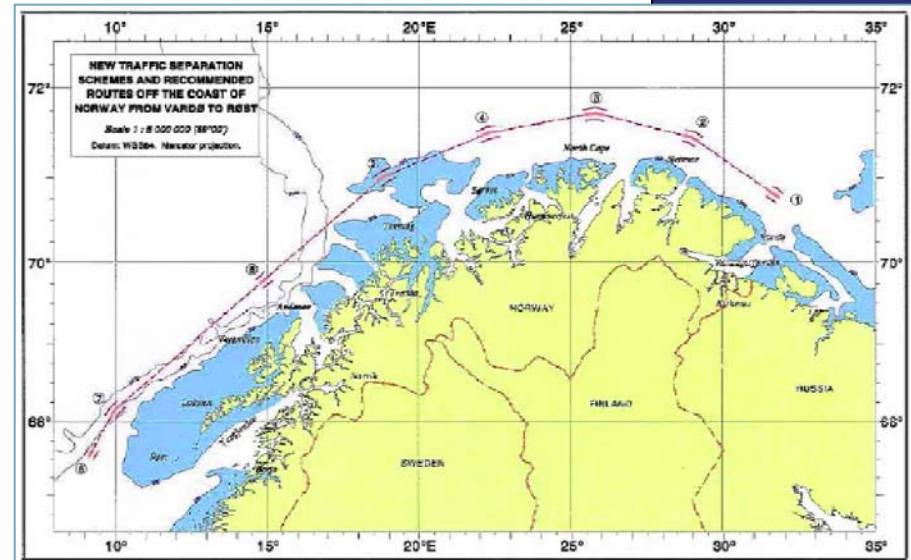
- EMSA (EU Maritime Safety Agency)
- Safe Sea Net
- CISE (Common Information Sharing Environment)



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# Domestic actions

- UNCLOS
- Traffic separation scheme
- Coast line AIS
- Space-based AIS
- NAVAREA 19
- Location for GNSS-infrastructure



# PORTS in the High North and the Arctic –Port Security I SPS

- Size
- Functions – goods handling, trans-shipment, off shore activities, portservices
- Port infrastructure
- Hinterland facilities
- Intermodal solutions: road rail connections

## PORTS ...

- Ownership
- Investment – Funding
- Cooperation

# What sort of risk are we prepared to take ?

- What is security ?
- Security challenges:
  - Nature
  - Climate change
  - Human failure
  - Increased activity - Transport
  - Mann made – terrorism
  - Military
- Prevent – handle - recover

**Knowledge and cooperation**

**Thank you for your attention!**