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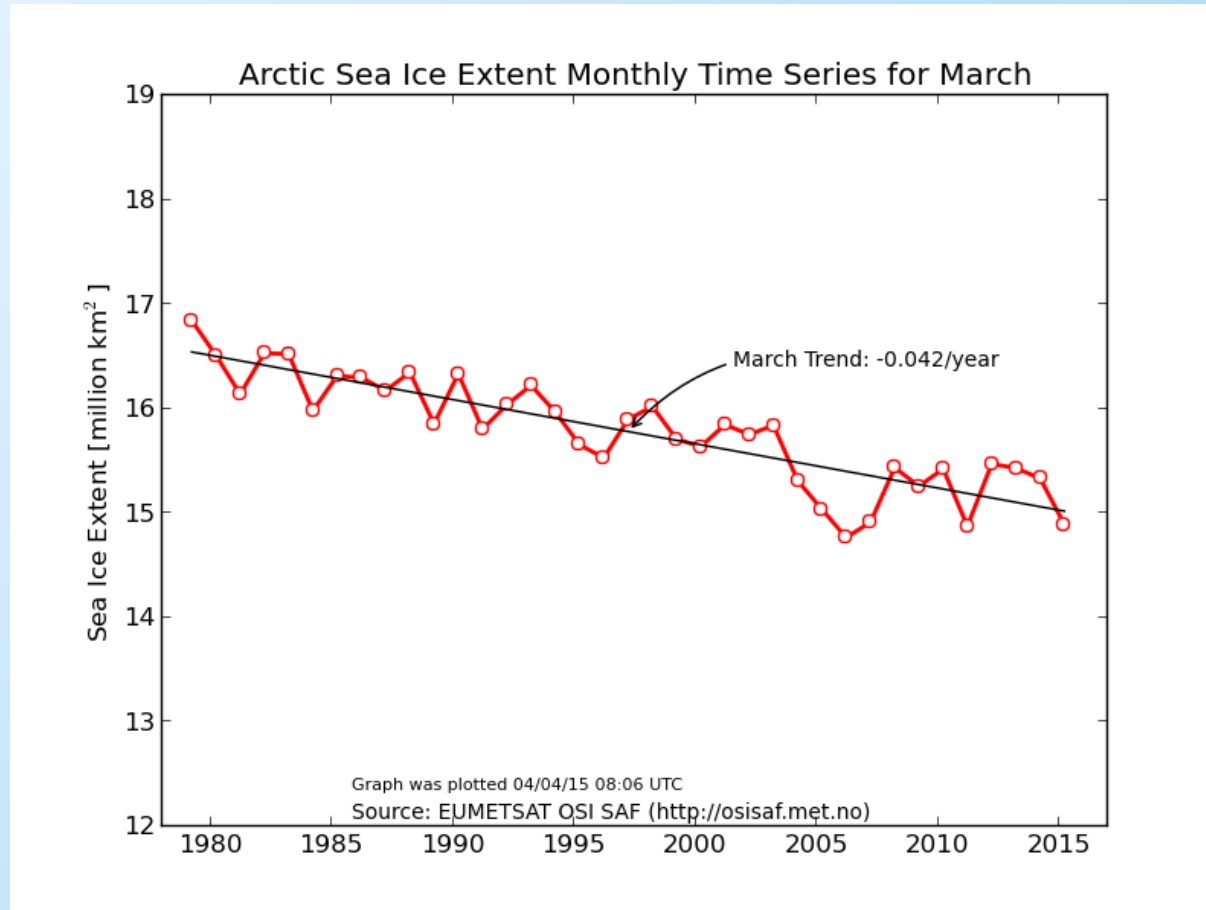
European Global Ocean  
Observing System

# **ARCTIC OPERATIONAL OCEANOGRAPHY**

**Erik Buch  
EuroGOOS chair**



# Arctic Sea Ice Extent

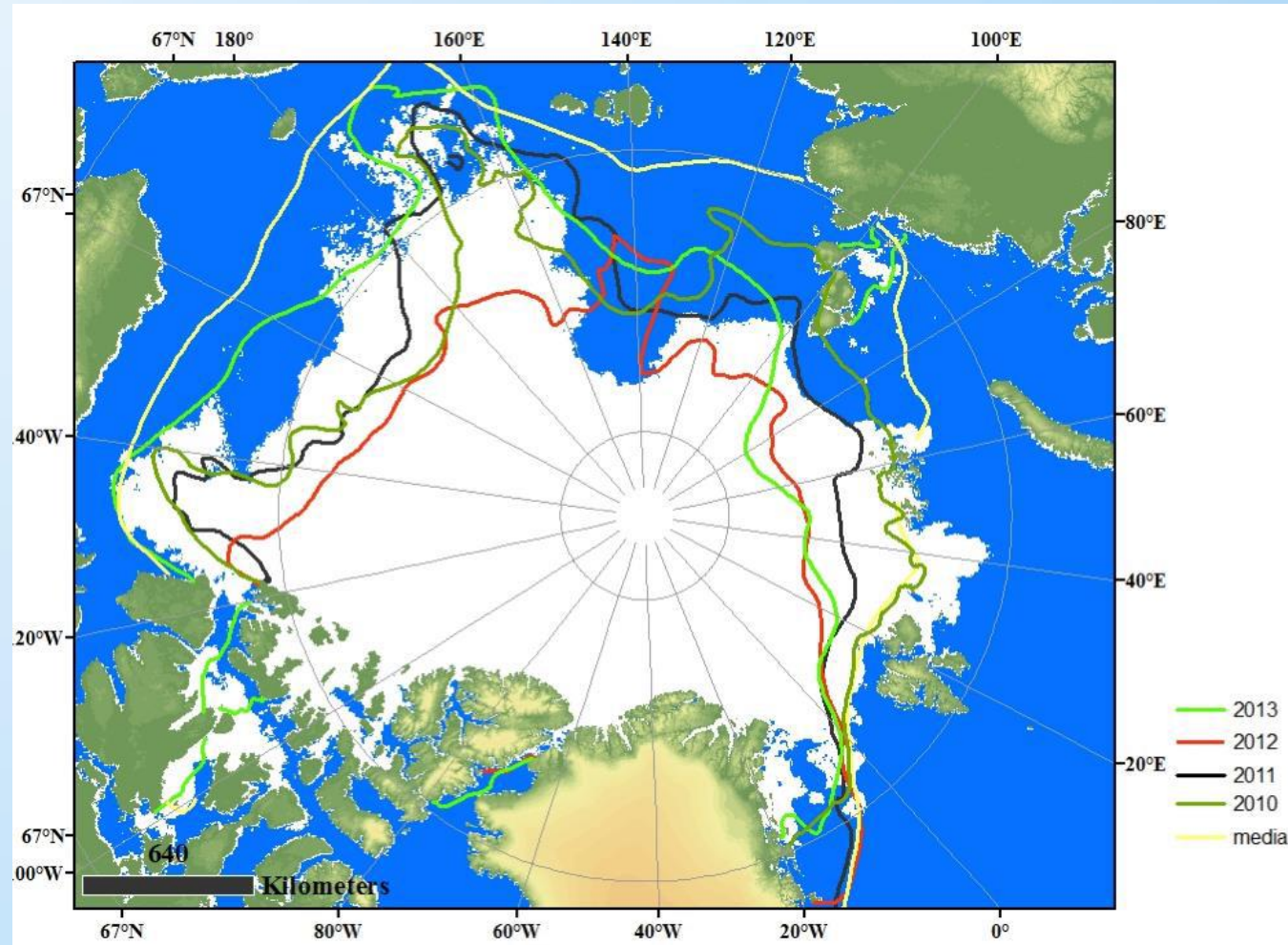




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# Arctic Sea Ice horizontal distribution





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# Maritime activities



18-06-2015

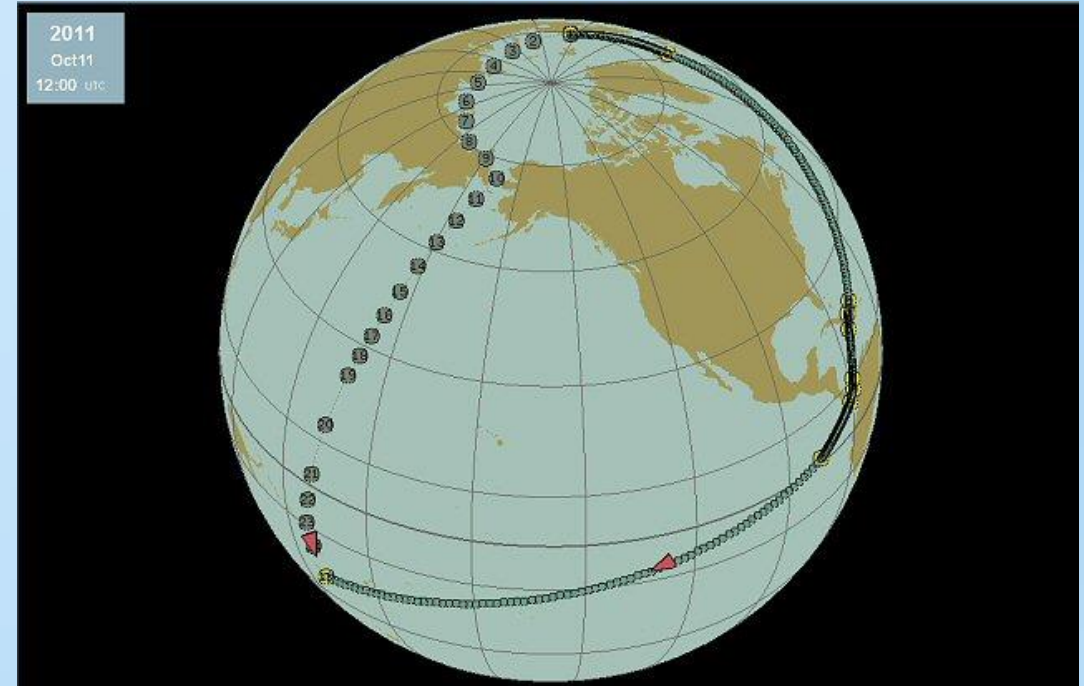
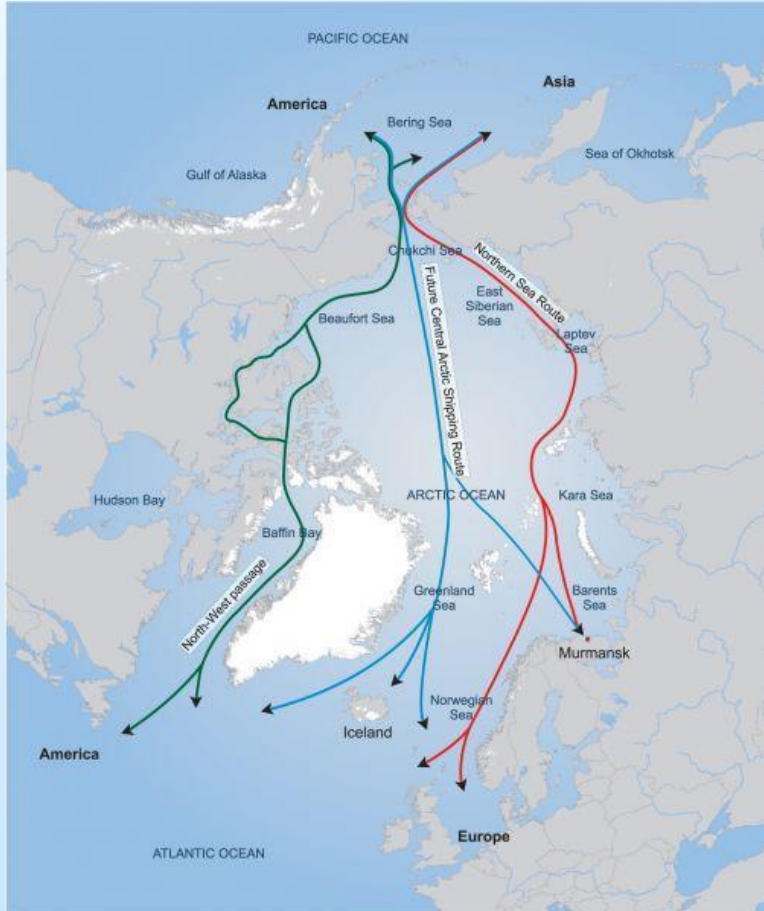
EuroGOOS AISBL [eurogoos@eurogoos.eu](mailto:eurogoos@eurogoos.eu) - <http://www.eurogoos.eu>



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## Northern Sea Routes



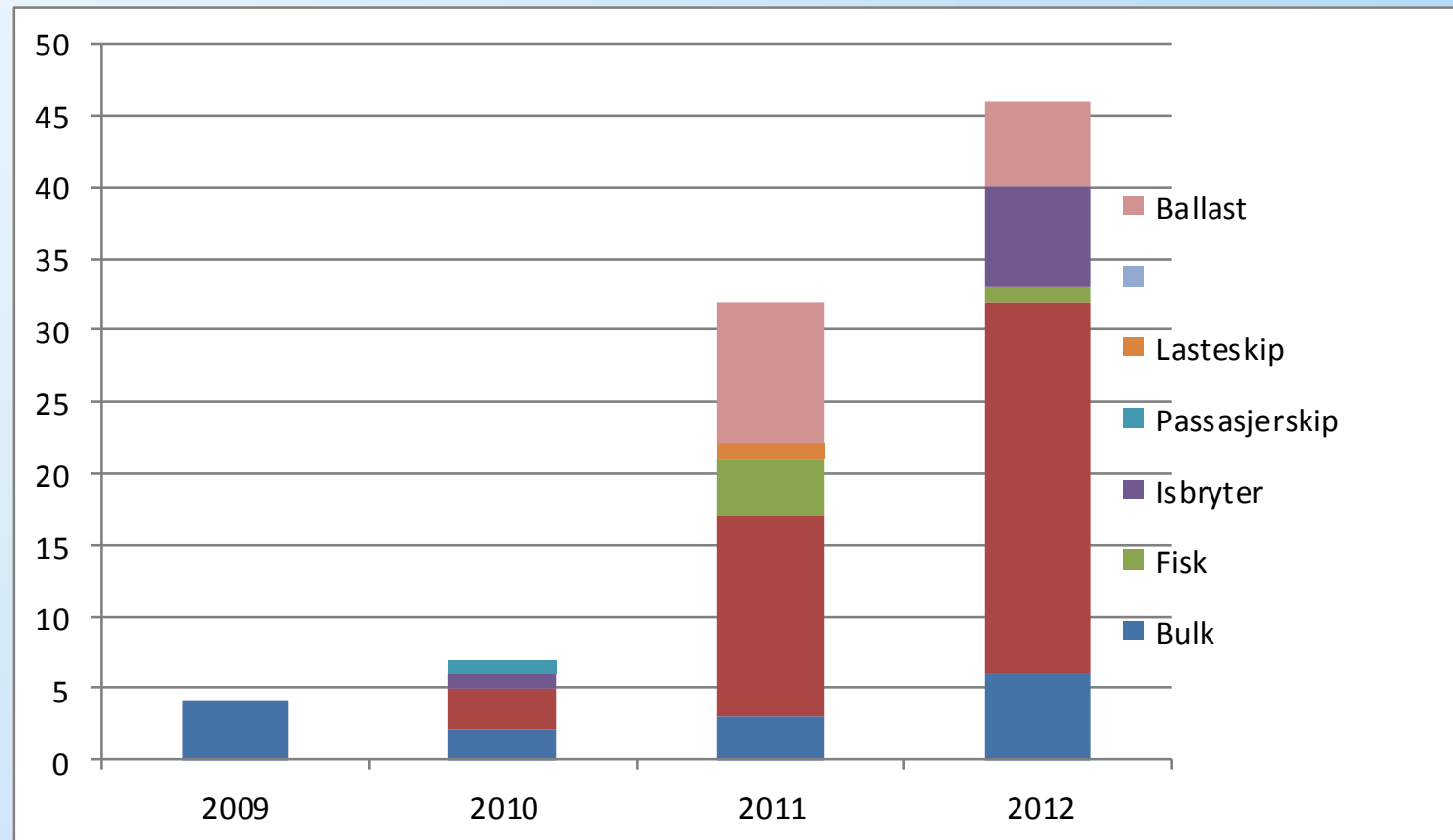
'Polarcus Alima' saved 2600 nm = 9 days



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# Number of ships in the Northern Sea Route



Sailings through NSR 2009-2012 (numbers and ship type/cargo)  
source: [www.arctis.com](http://www.arctis.com) / 2012, Rosatomflot



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## National areas of responsibilities for search and rescue in the Arctic.





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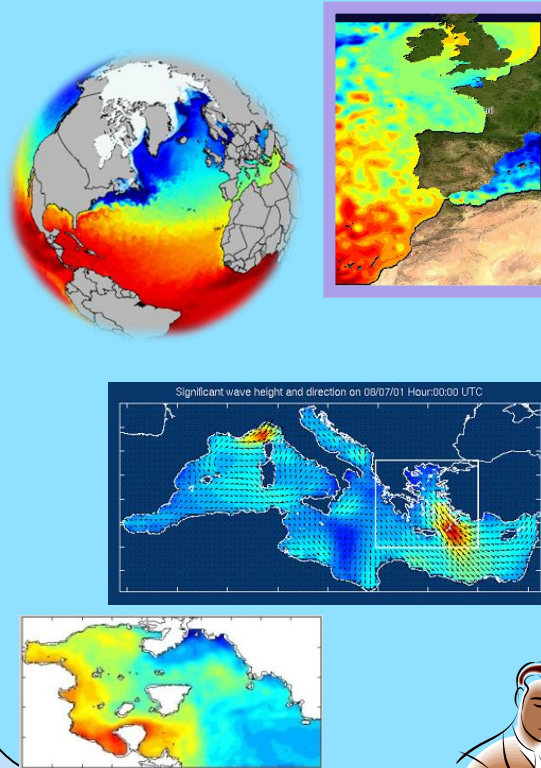
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# Operational Oceanography

## Observations



## Processing & Modeling



## Services



End Users





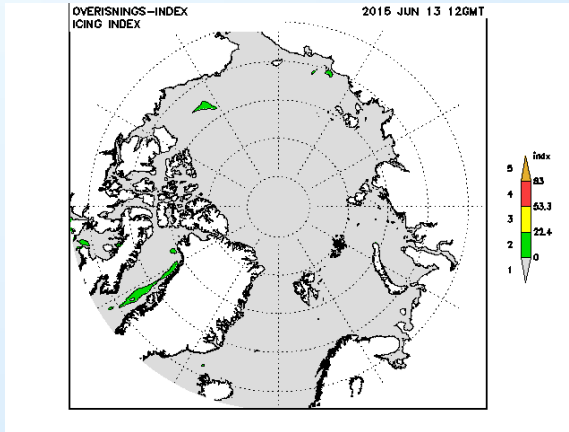


# EuroGOOS

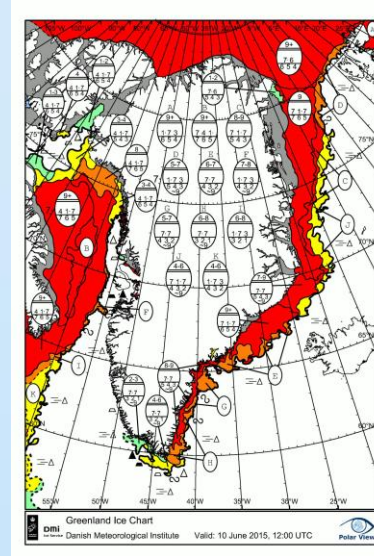
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# Operational end-user Services

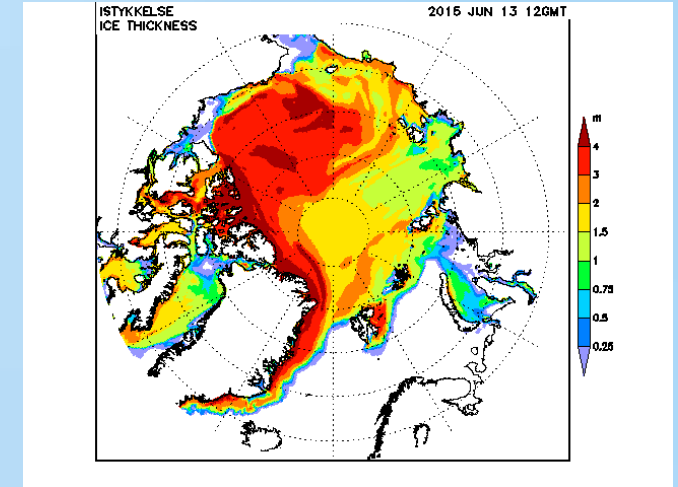
## Icing Index



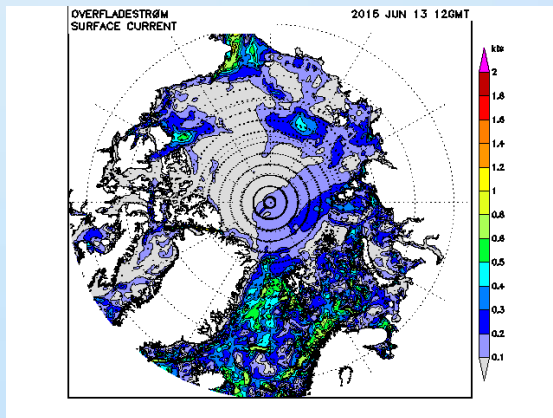
## Sea-Ice service



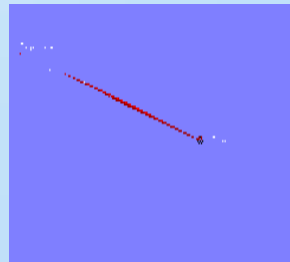
## Ice thickness



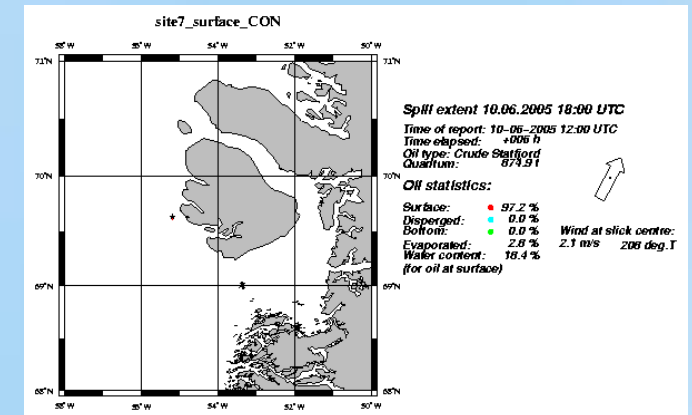
## Surface currents



## Search and Rescue



## Oil spill Service

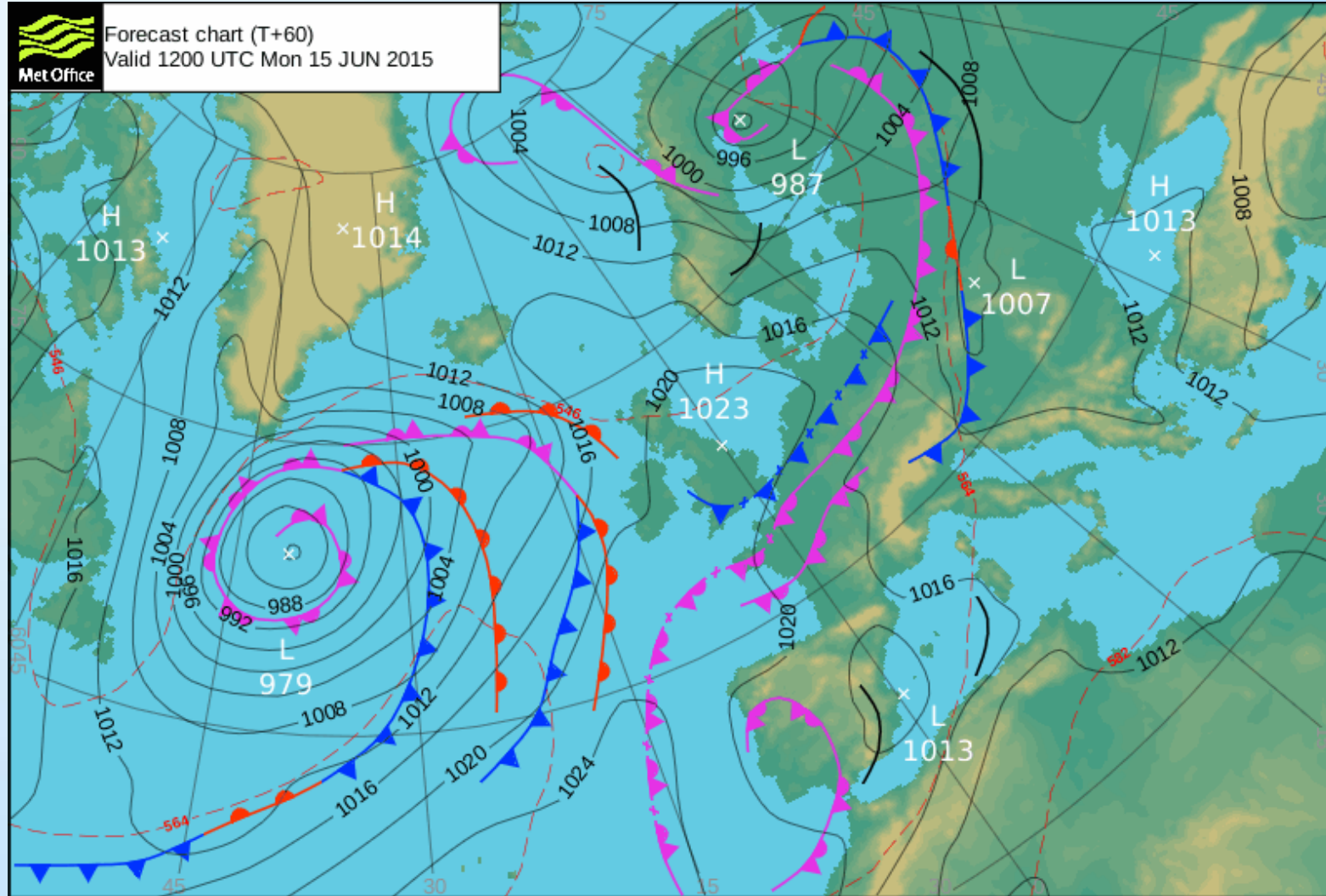




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# International cooperation essential



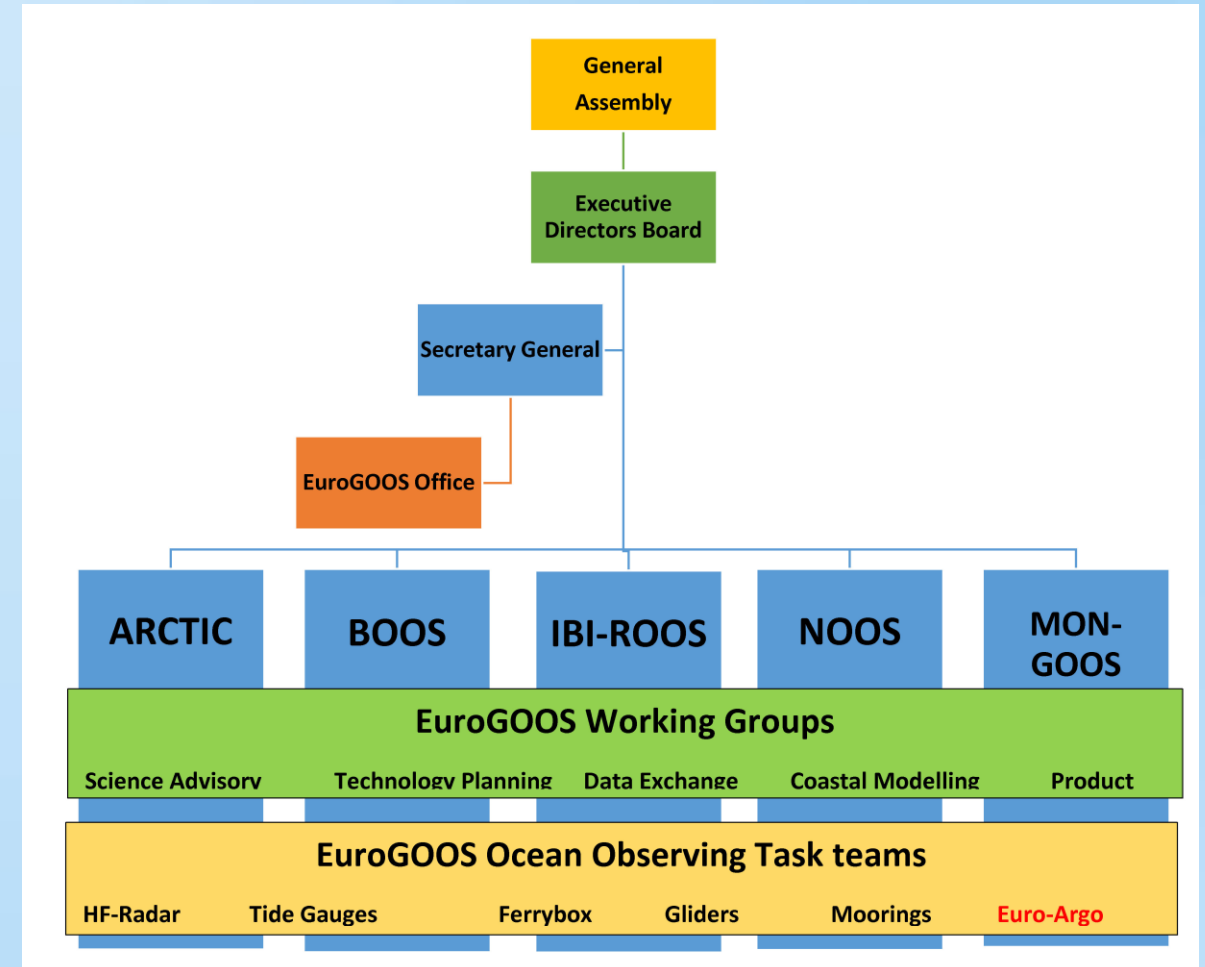


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- EuroGOOS
- Copernicus Marine Service
- EMODnet – European Marine observations and Data Network

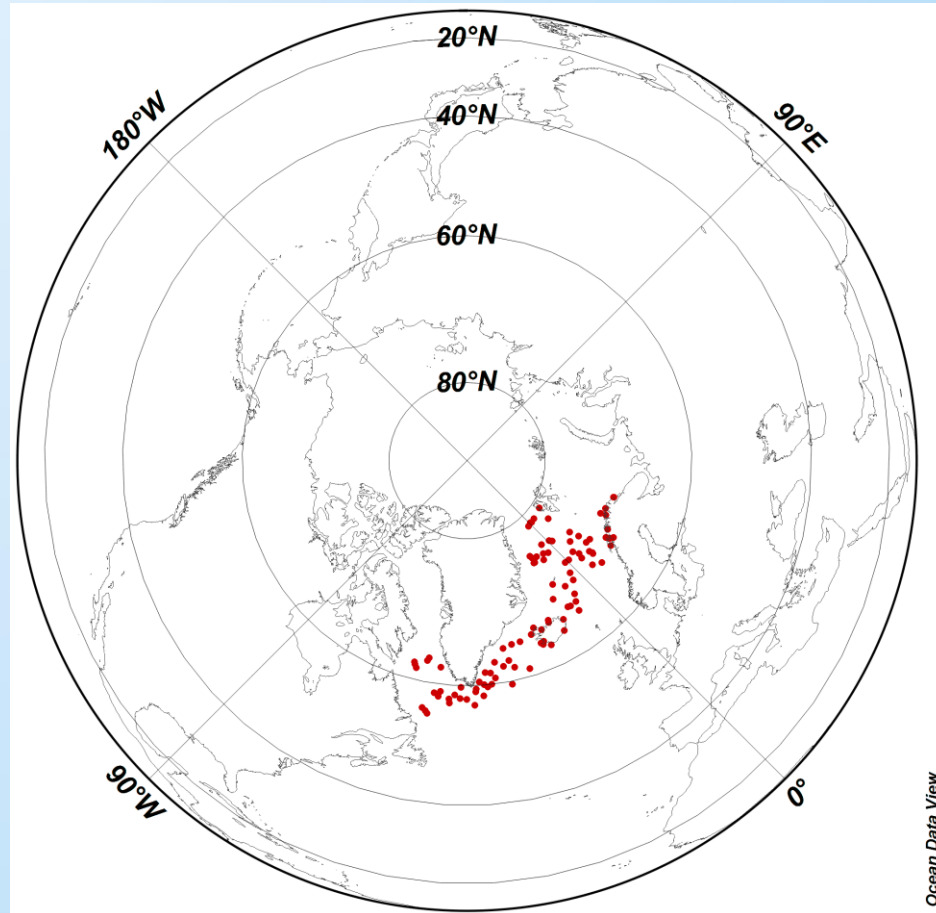
# European activities





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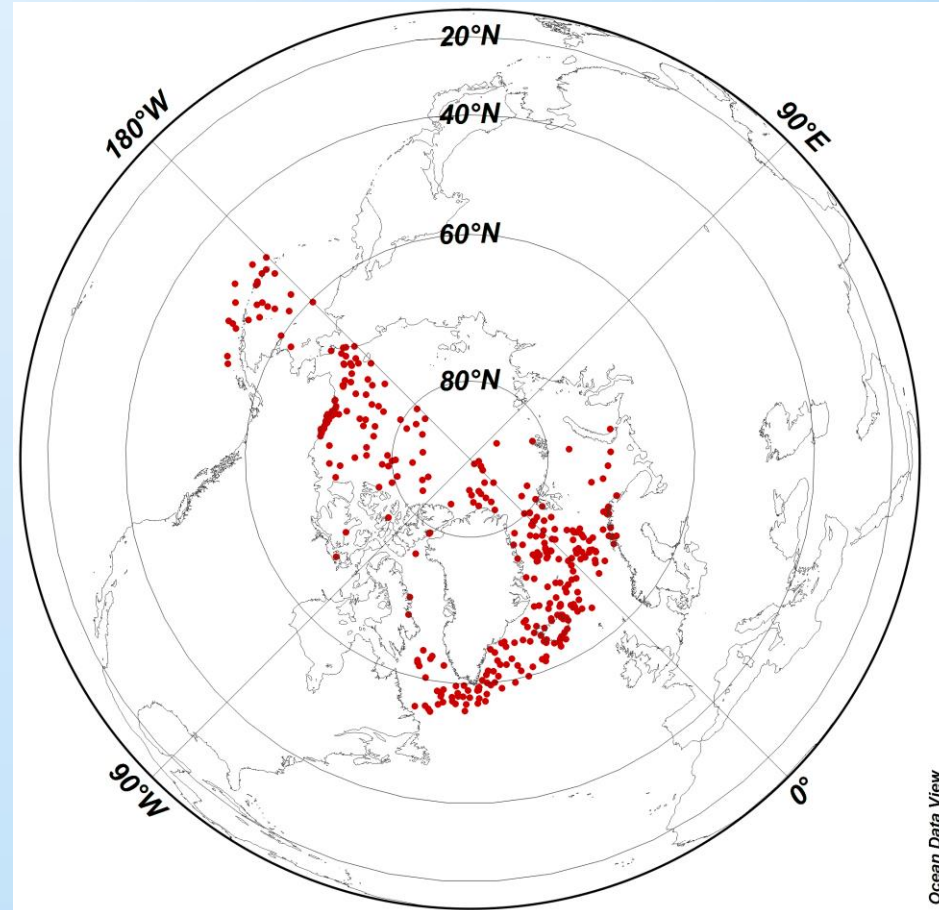
# EMODNET European Data





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# EMODNET – European and IOOS (US) data





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# Vision for the future

- Partnership = sharing responsibilities and costs
- Based on a common vision for an Arctic Ocean Observation system
- Synergy in working together



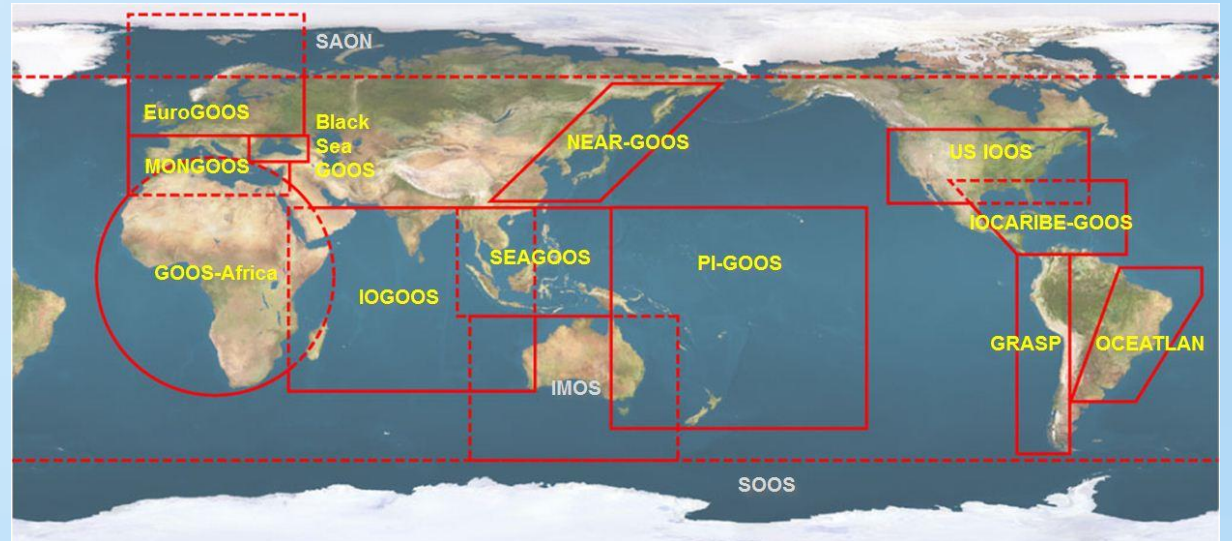


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## IOC to establish an Arctic GOOS

# Proposal





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**Thanks for the attention**