Current Observation Infrastructures for the Atlantic Ocean

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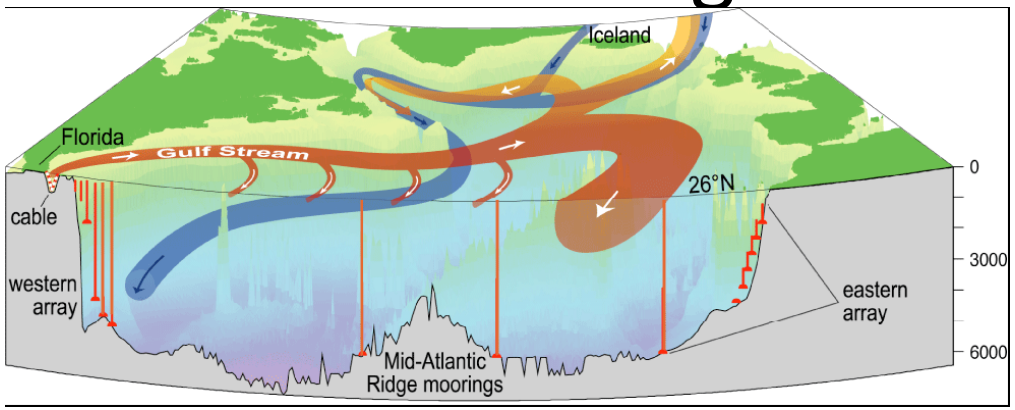
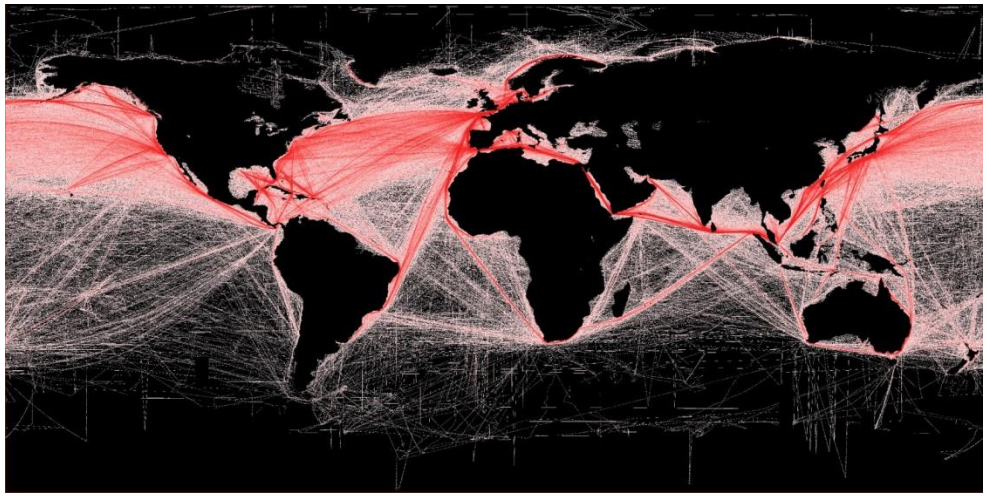
The Atlantic Ocean – a focus area of scientific investigation



- Main region for **deep convection** which leads to ventilation of deep ocean
- North Atlantic plays a particular important role for the **heat exchange with the Arctic**
- High **primary productivity** in higher latitudes

→ Will be strongly affected and plays a major role in the **global climate system**

The economic aspect



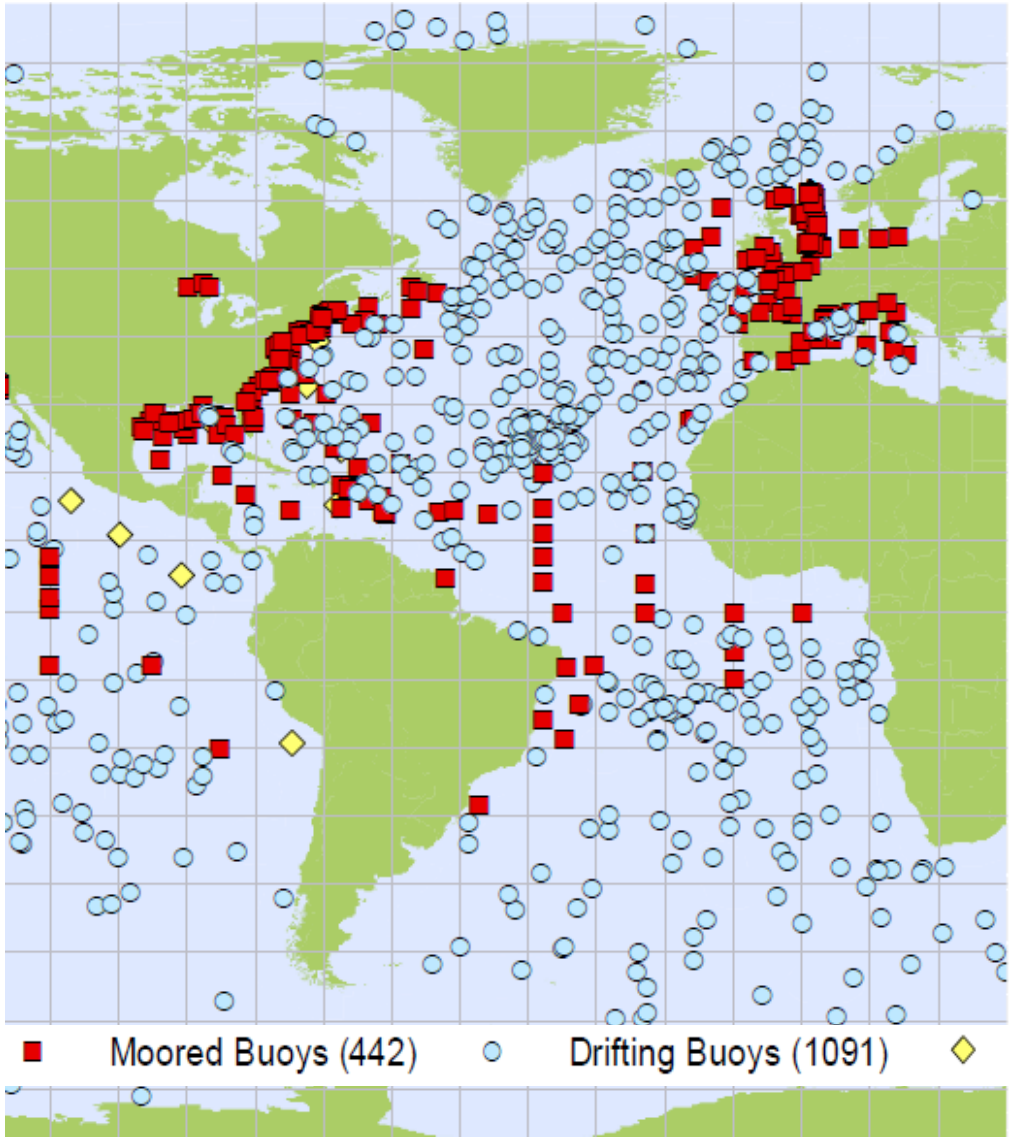
- Intensely used **shipping routes**
- Strong interest in **exploiting natural resources (fisheries)**
- **Tourism** important factor in coastal areas

⇒ Strong interest in **assessing the health** of the Atlantic Ocean and keeping track of the **impact of human activities**

Near future scientific aims

- Integrate existing observing programs and modeling activities to improve **forecasting** capabilities
- Explore the role of **specific processes** in the overall framework (i.e. tracking of eddies for shorter term forecasts)
- Develop better **observing strategies** for assessing the impact of human activities
- **Integrate multiple disciplines** into a comprehensive observing system

OceanSITES



Europe is contributing with a number of buoys and moored installations to Ocean SITES

i.e. RAPID Moorings for MOC

Conclusions

- Importance of increasing observing capacities is a prerequisite for improving forecasting capabilities
- International cooperation on implementing existing ocean science strategies is necessary
- Consolidation of knowledge and information to enable cross-disciplinary is the big challenge

Further information on COOPEUS project

HTTP://WWW.COOPEUS.EU