International Expert Conference "The Safety of Navigation and Environmental Security in a Transboundary Context in the Black Sea Basin"

HELCOM AIS and its use for safer and cleaner Baltic Sea

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- Helsinki Commission
- How the common Baltic AIS monitoring system has been established
- What are the uses of the HELCOM AIS information
- Conclusions

HELCOM

- Helsinki Commission (HELCOM) - International co-operation since 1974 (new Convention signed in 1992)
- Main task: to protect the marine environment of the Baltic Sea from all sources of pollution
- 10 Contracting Parties (9 Baltic Sea Coastal States and the EC)
- Secretariat located in Helsinki, Finland

Automatic Identification System

AIS enables identification of:

- name
- position
- course
- speed
- draught
- cargo

of every ship of more than 300 gross tonnes engaged on international voyages, cargo ships of 500 gross tonnage and upwards not engaged on international voyages and all passenger ships.

The Copenhagen Declaration

HELCOM Ministerial Meeting on 10 September 2001 decided to:

- establish national, land-based monitoring systems for ships, based on AIS system; A full monitoring of the Baltic Sea Area within A1 sea area shall take place not later than 1 July 2005
- provide HELCOM Secretariat with specified and conformed AIS data for statistical purposes
- establish an working group, under the leadership of Sweden, to facilitate mutual exchange and deliveries of AIS data

HELCOM AIS Expert Working Group – Terms of Reference

- Ensure that each national AIS monitoring system can be linked to the system of the other Baltic States
- Find solutions on how to exchange AIS-data between the Baltic Sea States
- Consider the legal framework and find solutions for the handling and use of AIS-data exchanged between the Baltic States
- Agree on the information to be recorded and how to generate statistics

Common Baltic AIS monitoring system

Common Baltic AIS monitoring system:

- a passive system, i.e. enables access to AIS data, for example real time AIS data
- each country may filter the AIS data according to national requirements
- only competent authorities shall have access to the system.

Number of land-based and off-shore AIS stations in the Baltic:

Germany	16	Estonia	13
Denmark	18	Latvia	8
Sweden	37	Lithuania	3
Finland	31	Poland	12
Russia	6	Norway	46

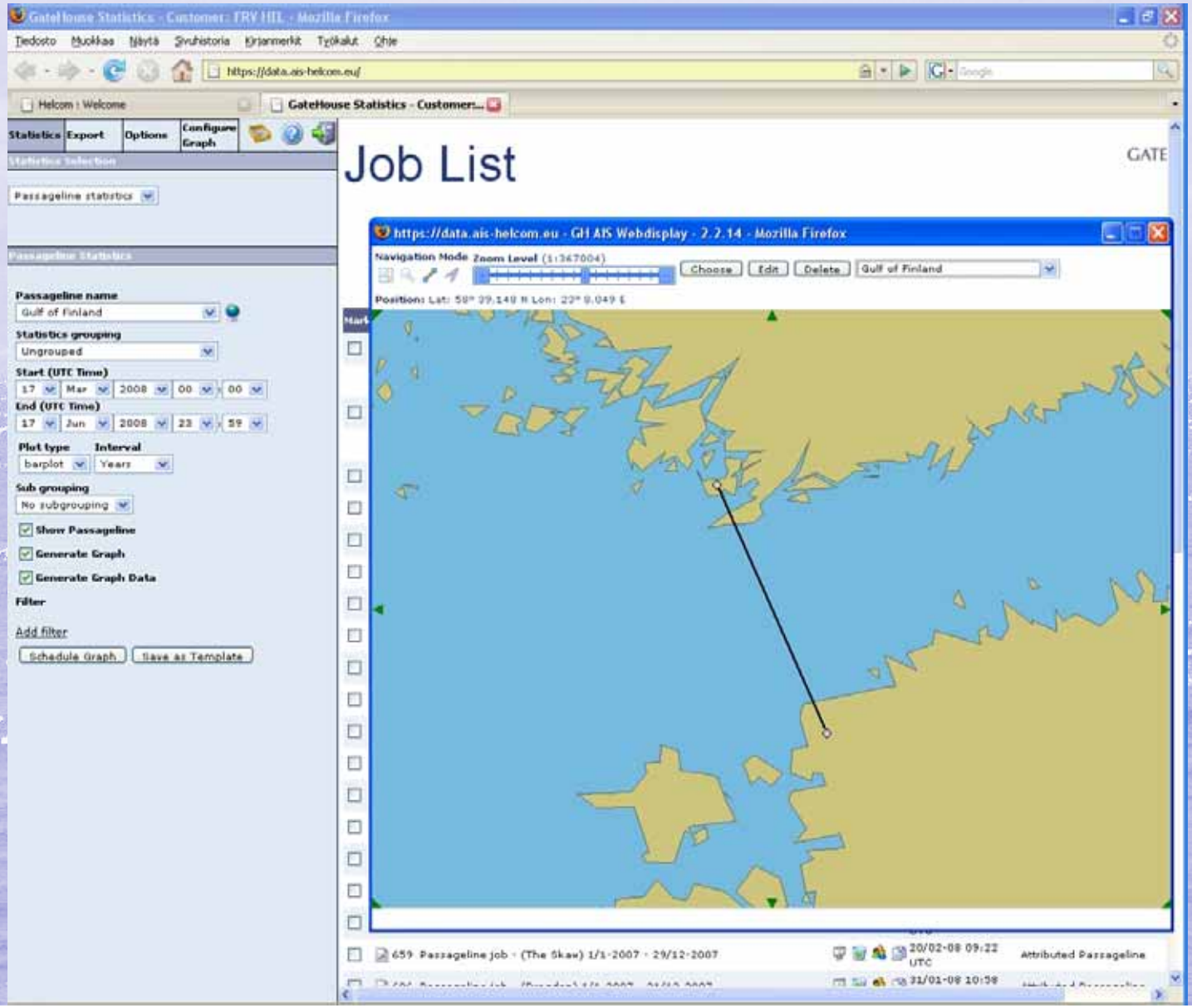
HELCOM AIS Agreement

Agreement on Access to HELCOM AIS Information regulates:

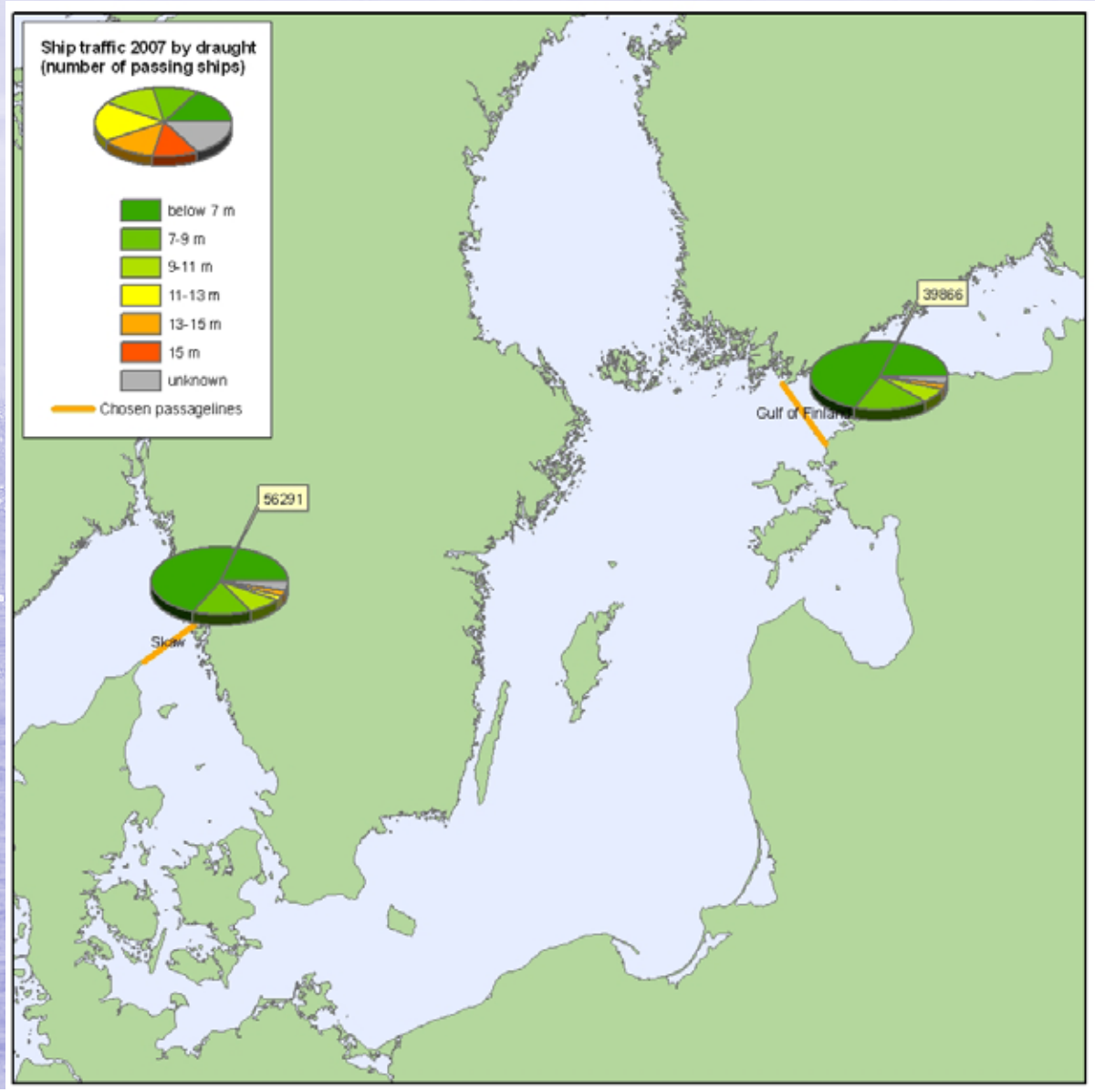
- Exchnage of AIS data between the countries
- Distribution and use of AIS data from the parties

Amendment to the Agreement as a response to the growing interest to use HELCOM AIS data

Statistical tool WebSTAT



HELCOM statistics



Real-time data display and retrieval WebGAD

- 2000 ships in the Baltic marine area at any given moment
- 3,500-5,000 each month

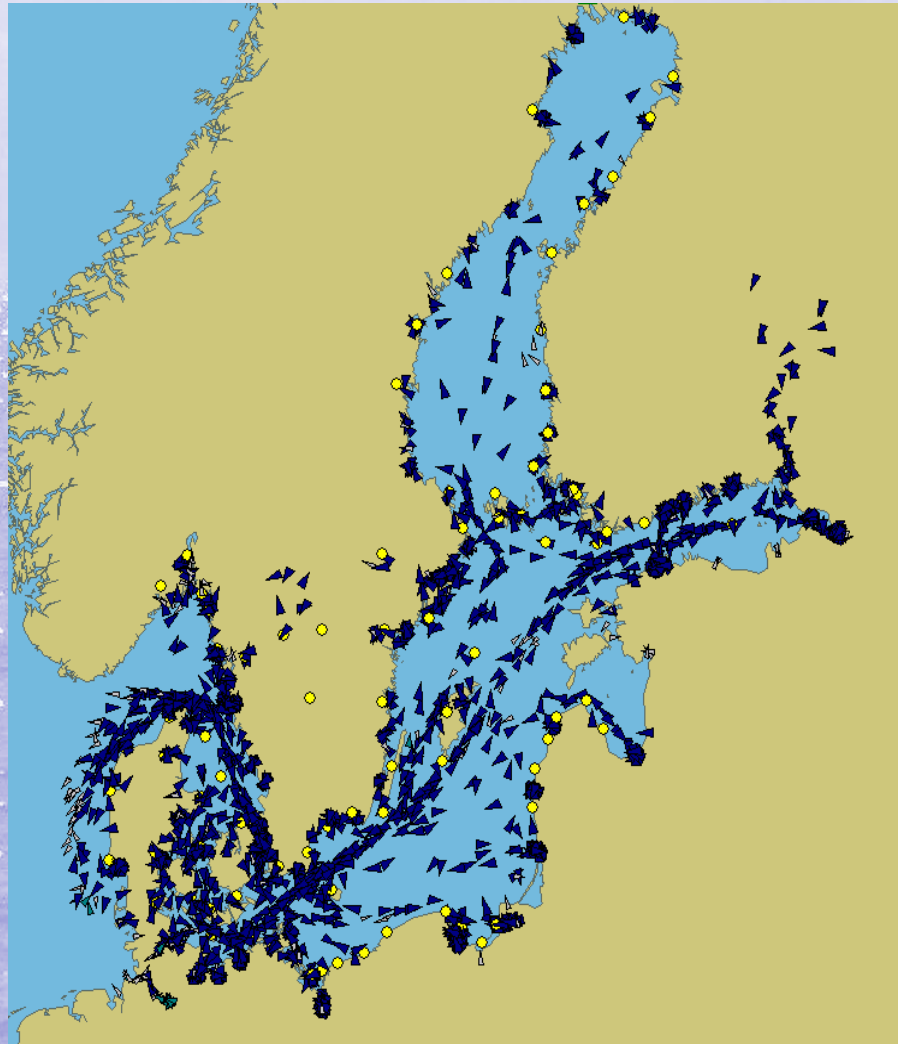
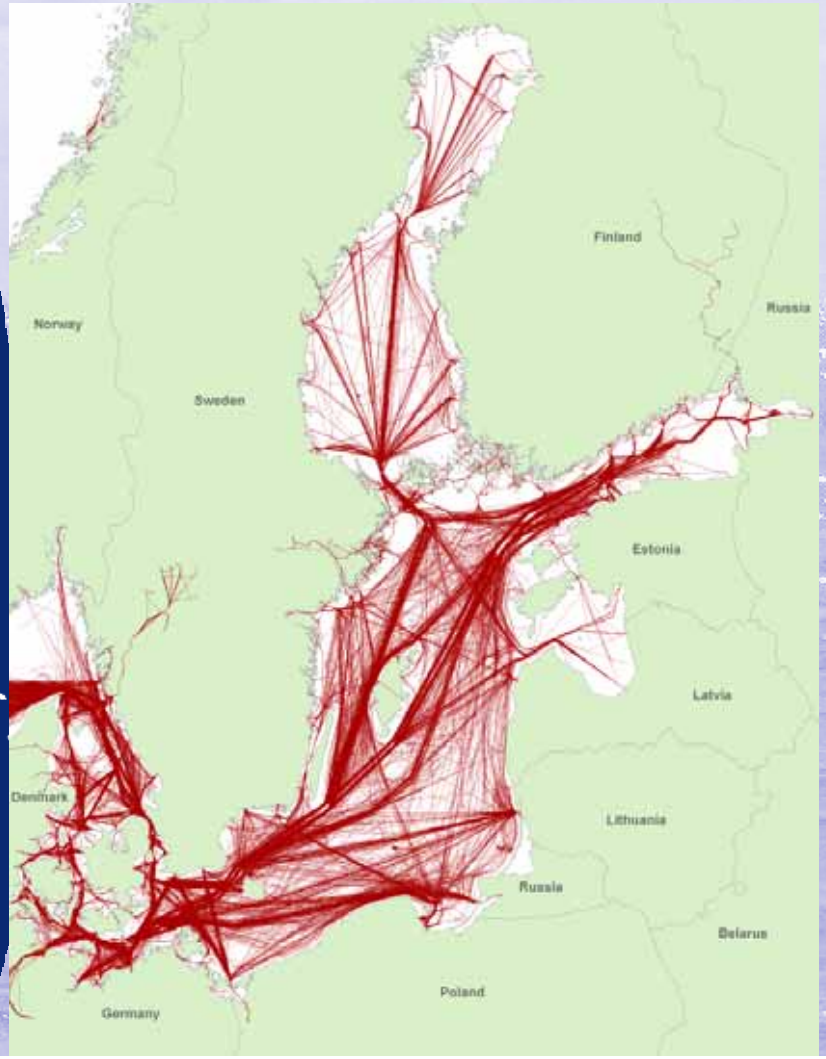
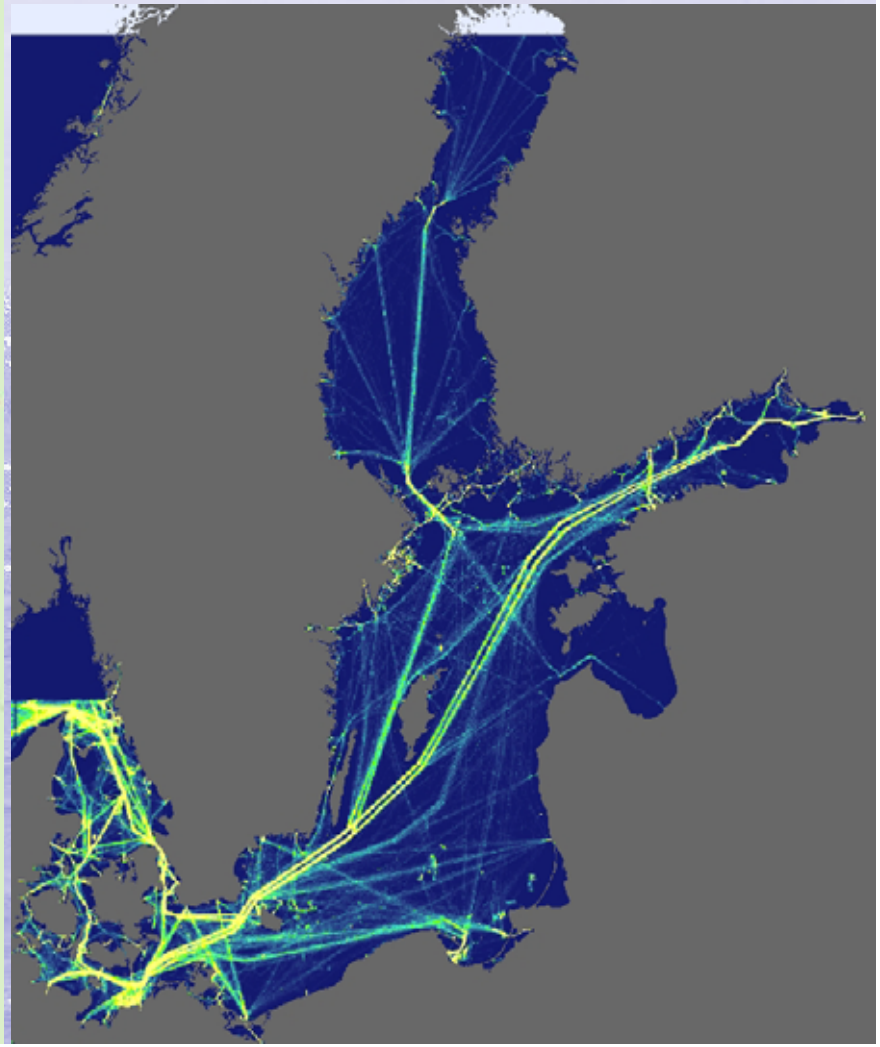
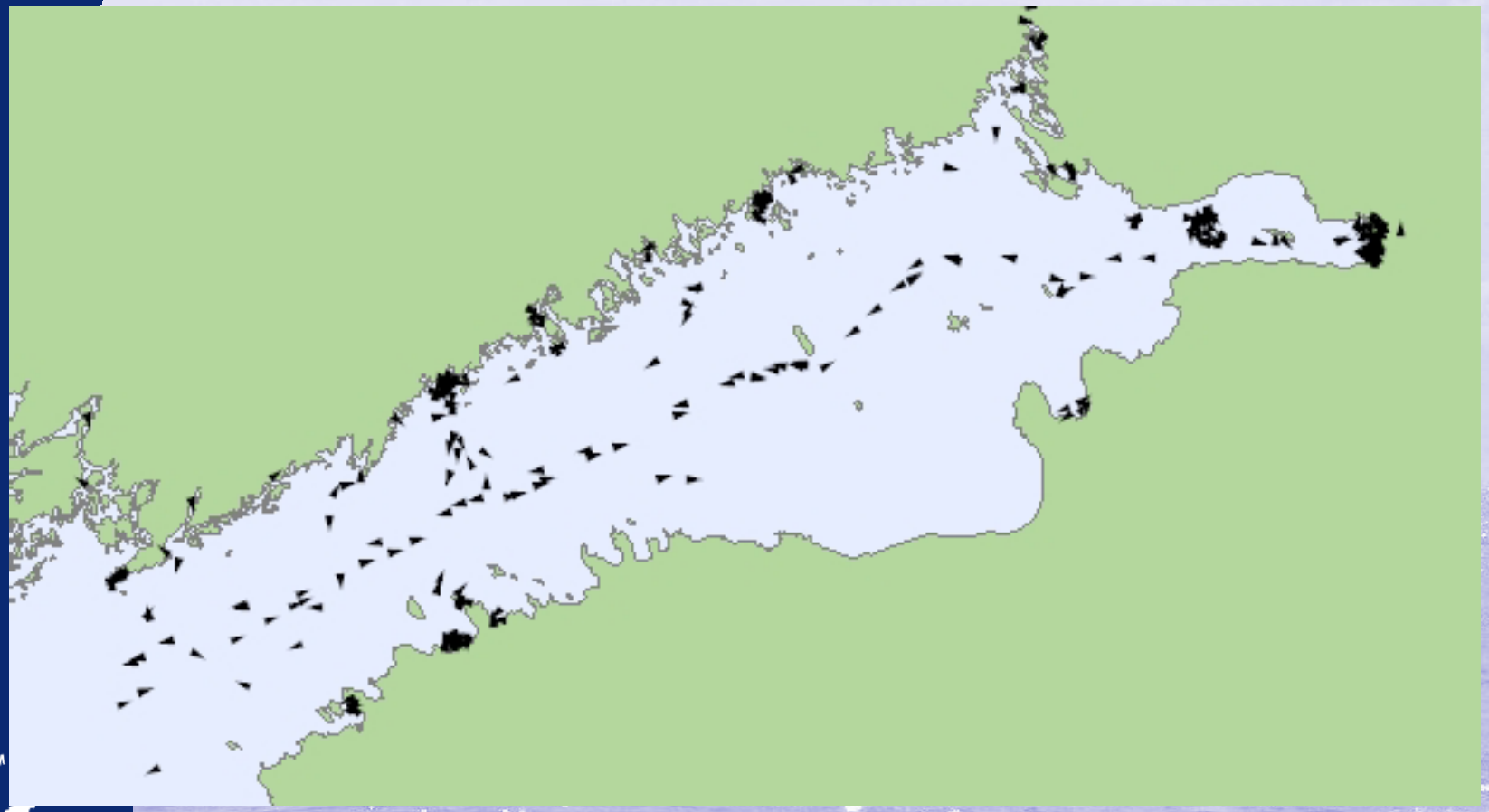


Image of shipping intensity in the Baltic







Real-time data display and retrieval WebGAD

HELCOM AIS monitoring system

Primary aim – to increase safety of navigation

But also other uses:

Identification of illegal polluters

Enforcement of regulations

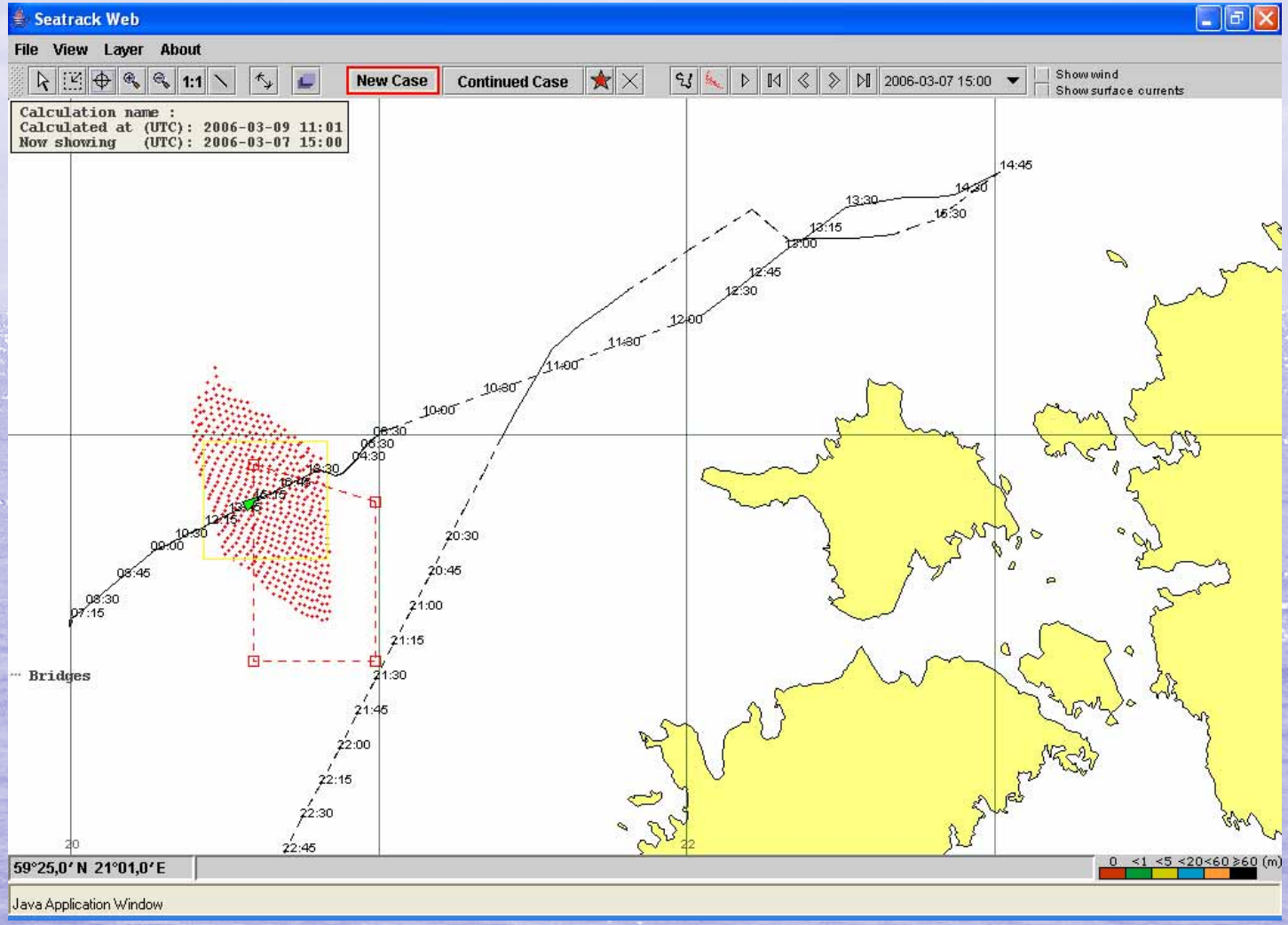
Environmental monitoring

HELCOM SeaTrack Web/AIS

STW/AIS is an is an oil drift forecasting system integrated with information from the Automatic Identification System:

- increases the chances of identifying illegal polluters
- provides better evidence to court
- available to all HELCOM countries for free

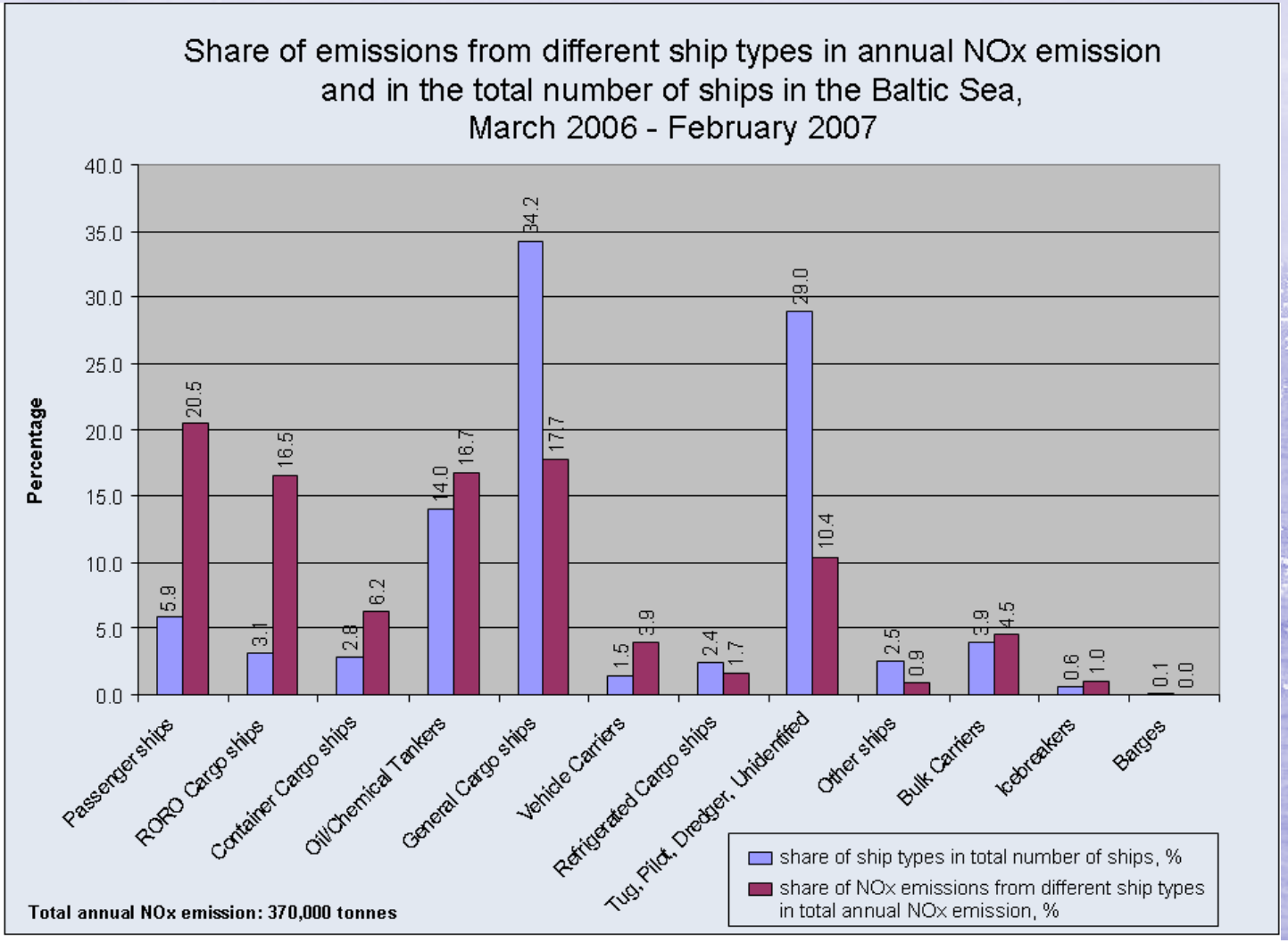
HELCOM SeaTrack Web/AIS



HELCOM investigations into ship emissions

- NOx emissions from Baltic shipping have been calculated based on AIS information – 370 000 tonnes of NOx per year
- Joint submission of the HELCOM countries to IMO MEPC 57 to contribute to the revision process of Annex VI to MAPROL 73/78 (cf. document MEPC/57/INF.14)
- Effective tool for enforcement of various legislative solutions

HELCOM investigations into ship emissions

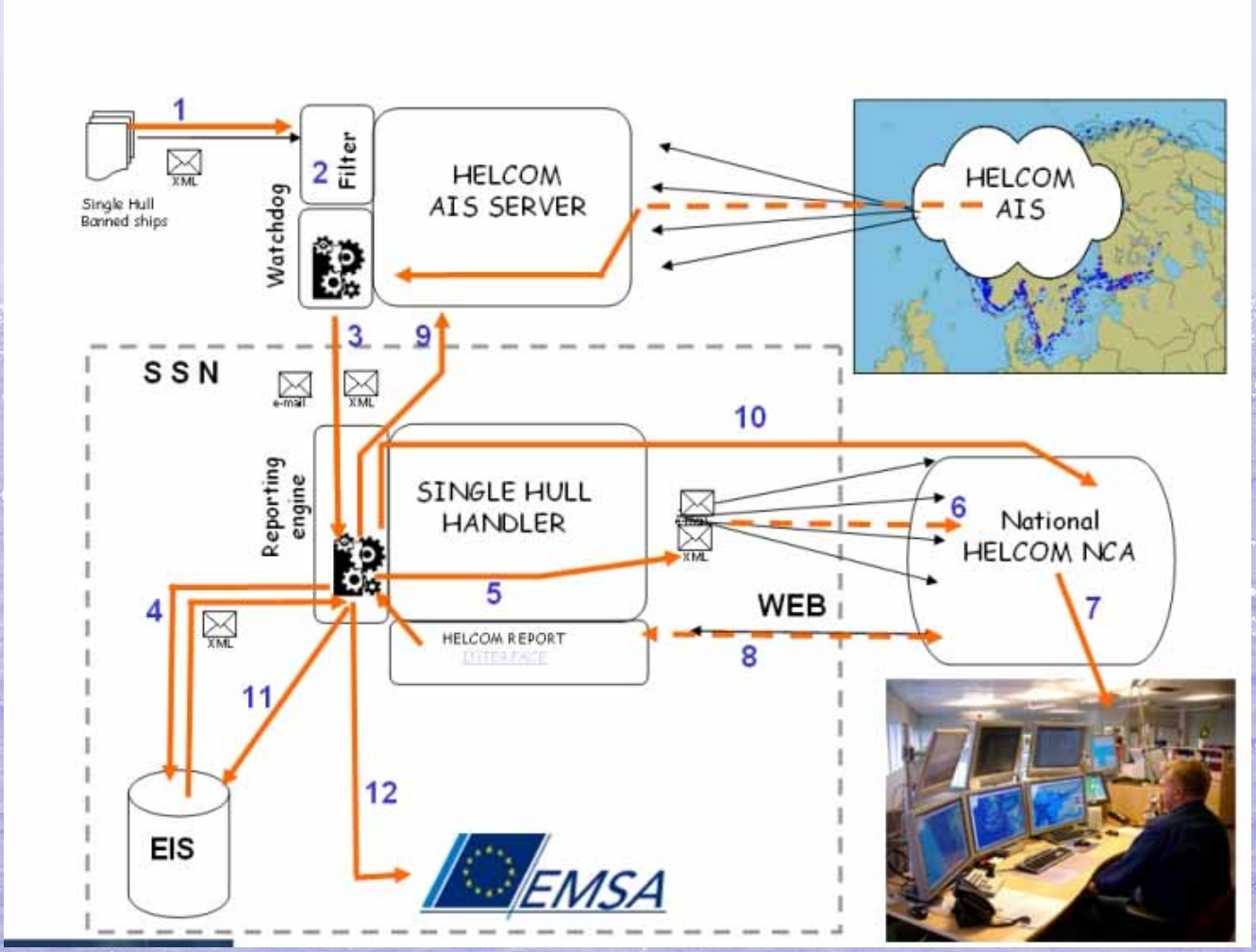


Monitoring of non-compliant ships

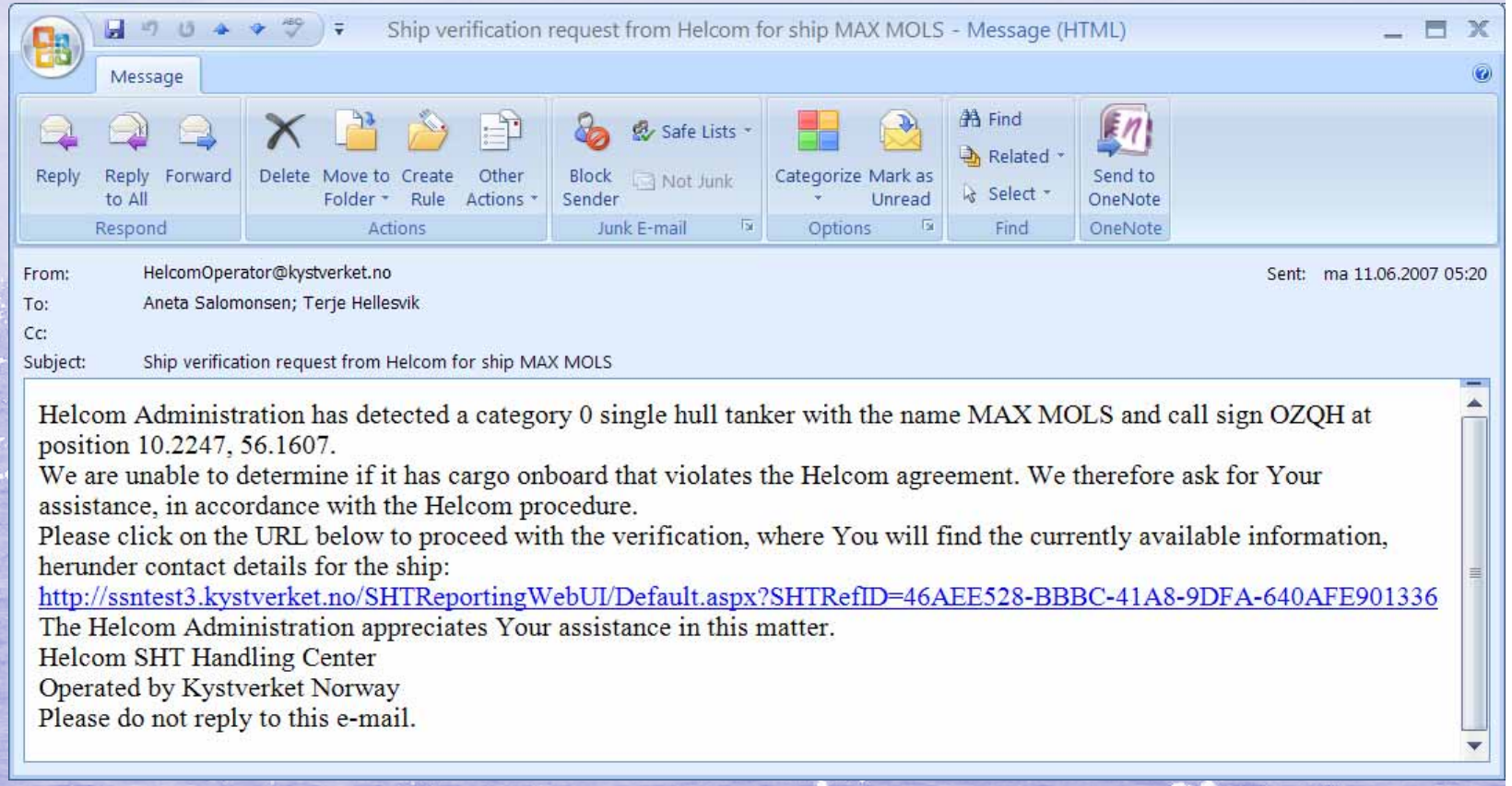
HELCOM/EMSA Single Hull Tanker (SHT) System in the Baltic detects single hull tankers banned carrying heavy oil.

- It is based on HELCOM AIS
- October 2007 – March 2008, 350 active single hull tankers were detected, none of them was carrying heavy oil.

SHT System Components and Message Flow



SHT System alert



Recommendations

Regional AIS land-based monitoring is optimal when:

- Covers the whole region
- Information from whole region is shared among all countries
- AIS information is stored on a dedicated server for generation of shipping statistics, analysis of shipping patterns, etc.
- There is an open access to AIS data for operational and scientific purposes
- Co-operation with neighbouring regions is ensured

HELCOM is ready to share her experience with the Black Sea region

Thank you!

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