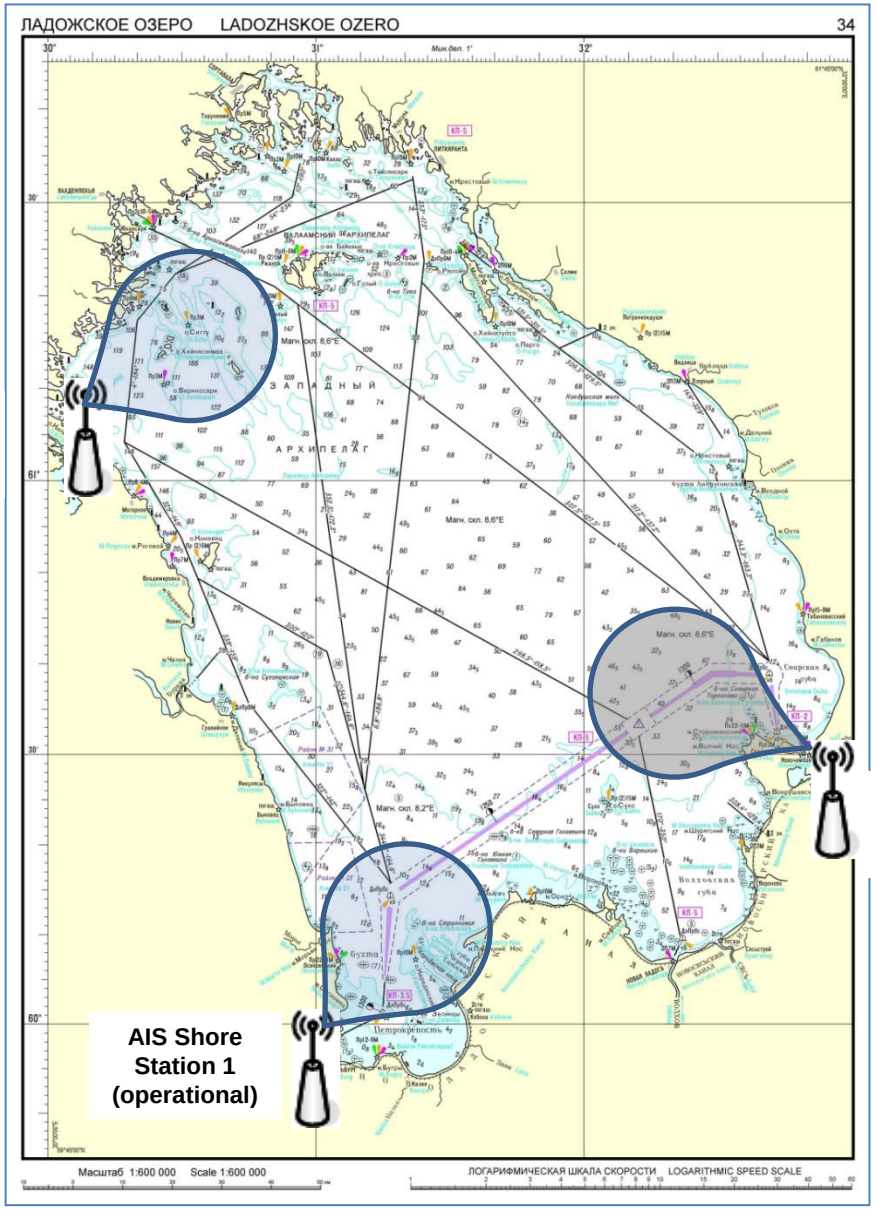
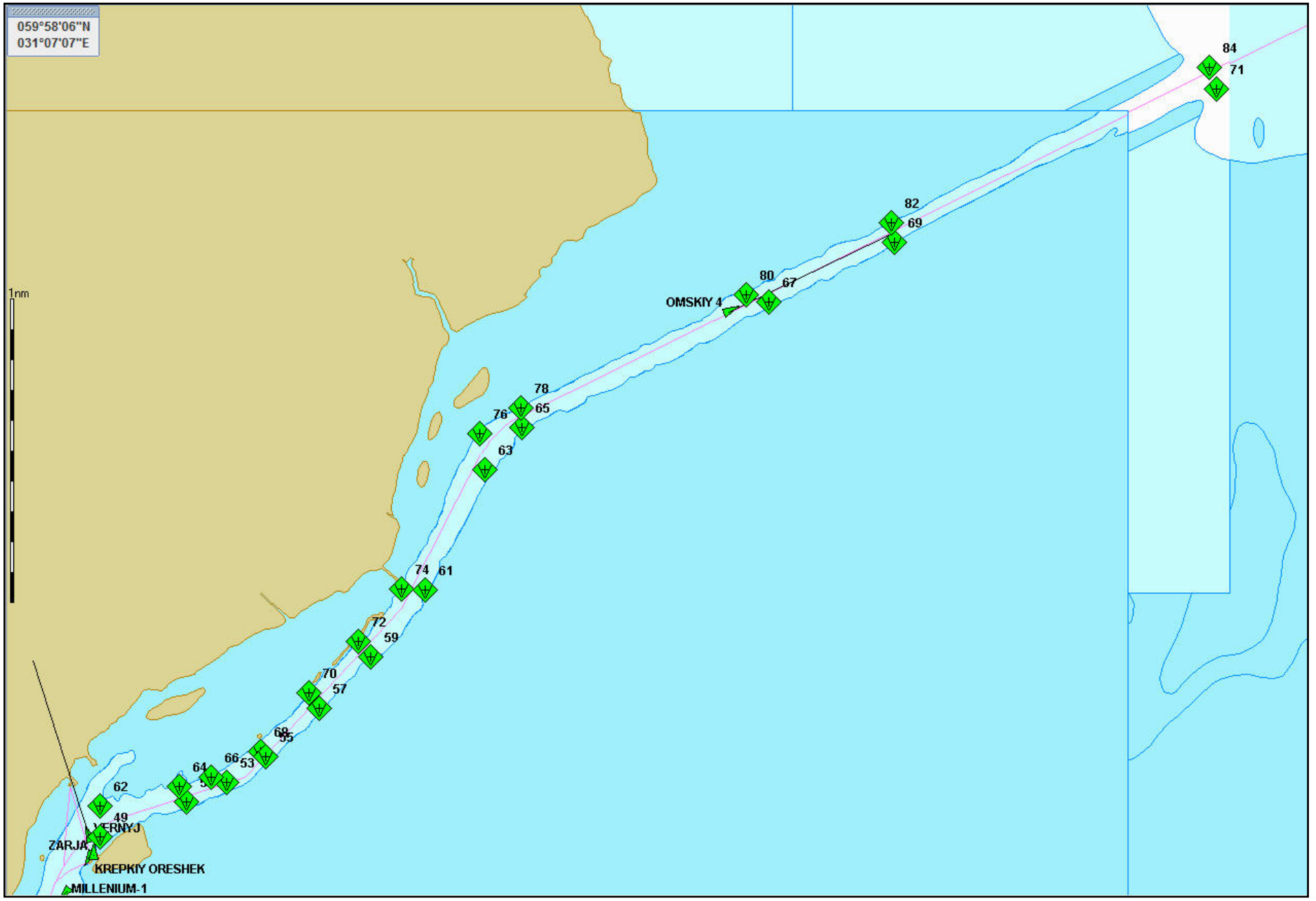
Implementation of the Virtual AtoN AIS technology on Lake Ladoga, the Volga-Baltic Waterway, Russia

Working Party on Inland Water Transport
Working Party on the Standardization of Technical and Safety Requirements in Inland Navigation
51st session Geneva, 14-16 June 2017

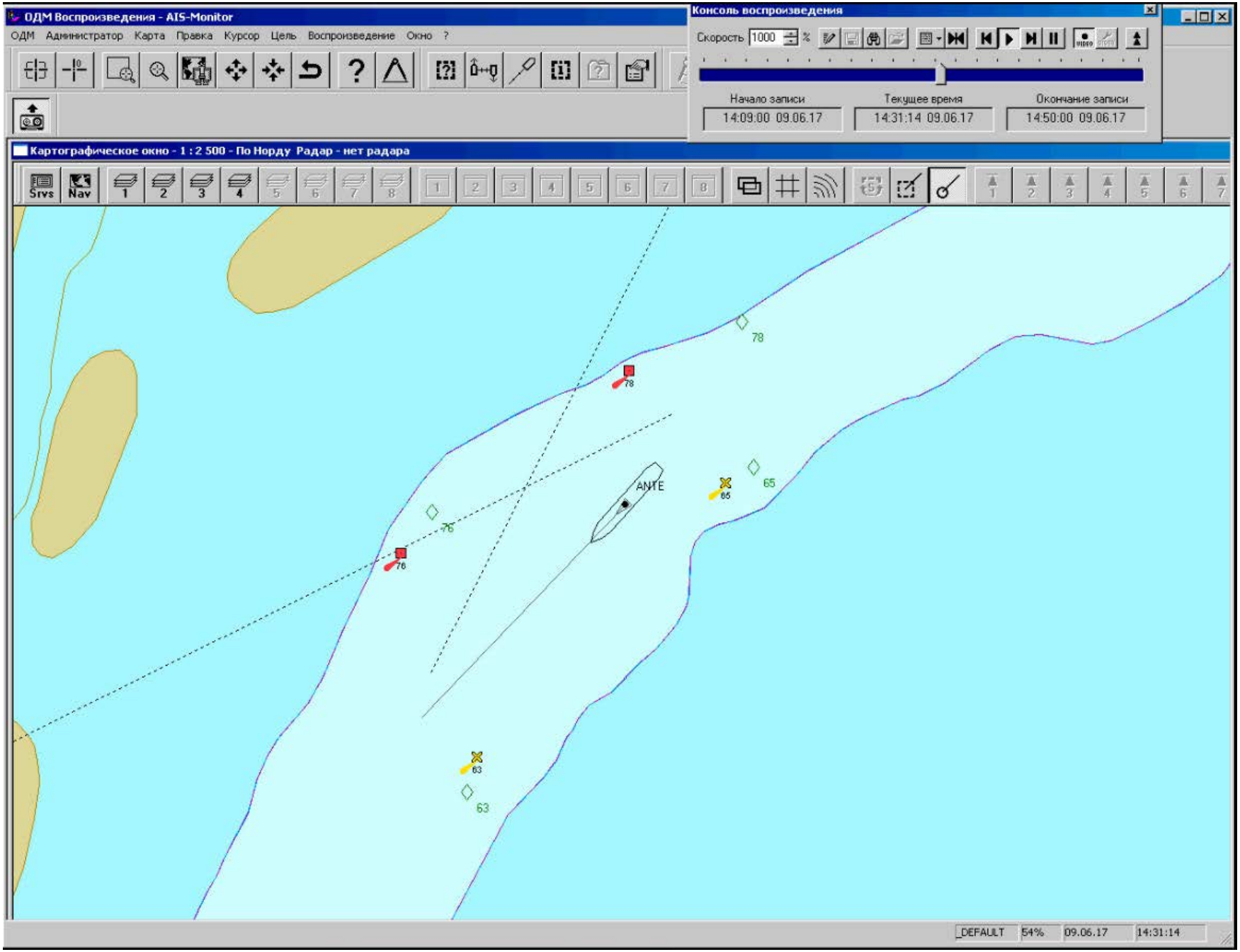


AIS Shore Station transmits Aids-to-Navigation report (Message 21) every 3 min

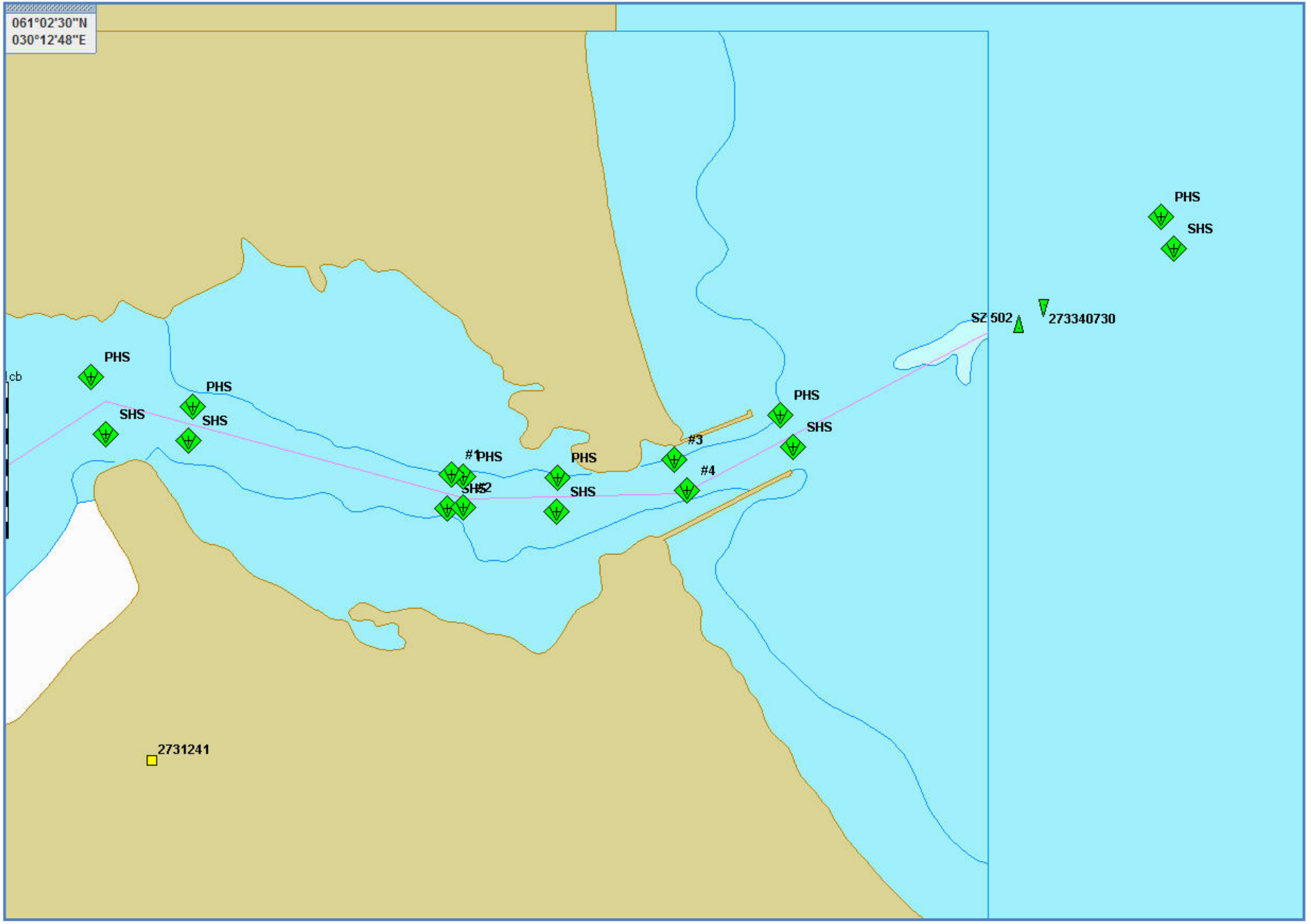
3 Virtual AtoN AIS test areas



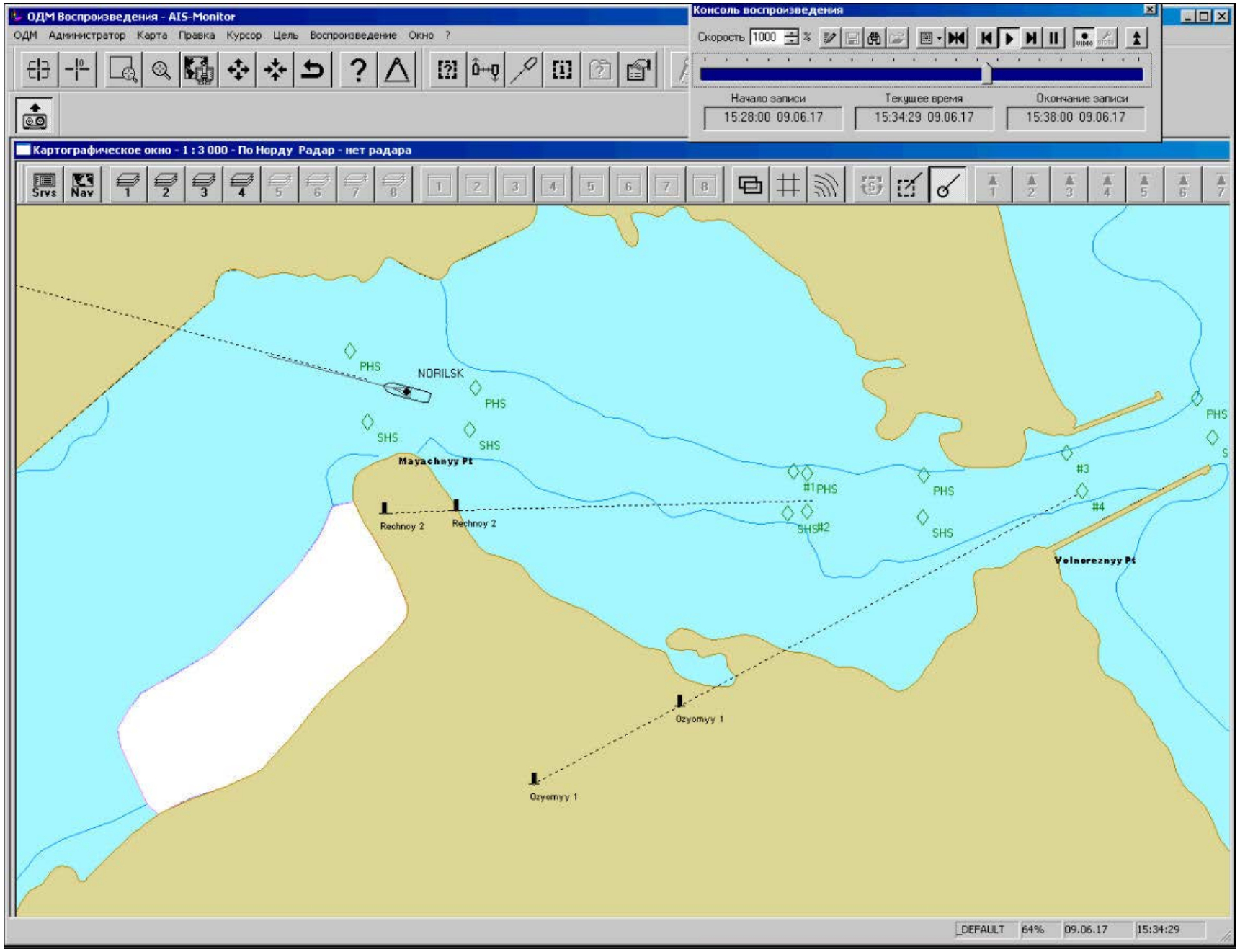
1st Virtual AtoN AIS test area (the Neva river head): 25 virtual AtoNs



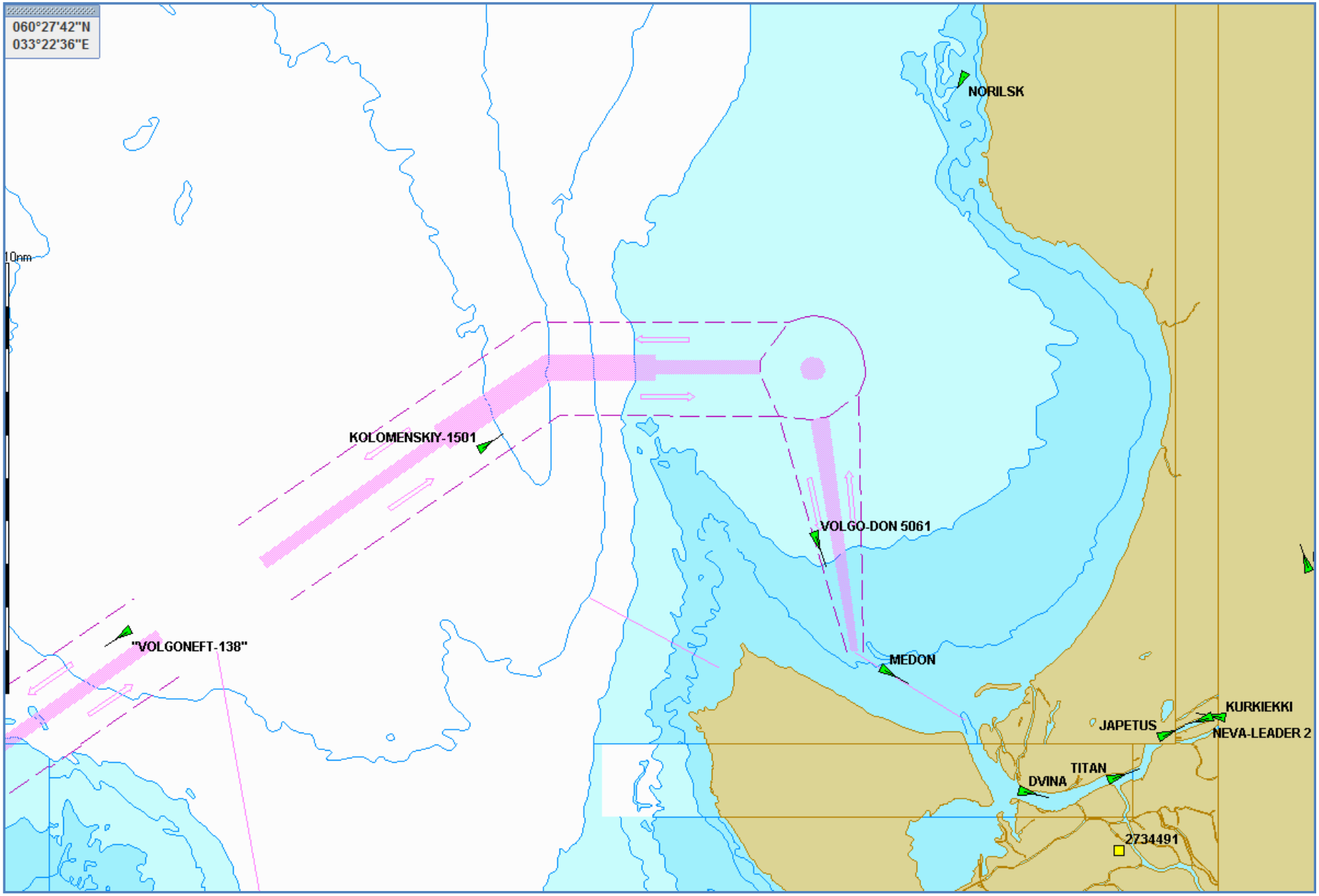
Vessel passing between the chart buoy indications and the corresponding virtual AtoNs in 1st Virtual AtoN AIS test area



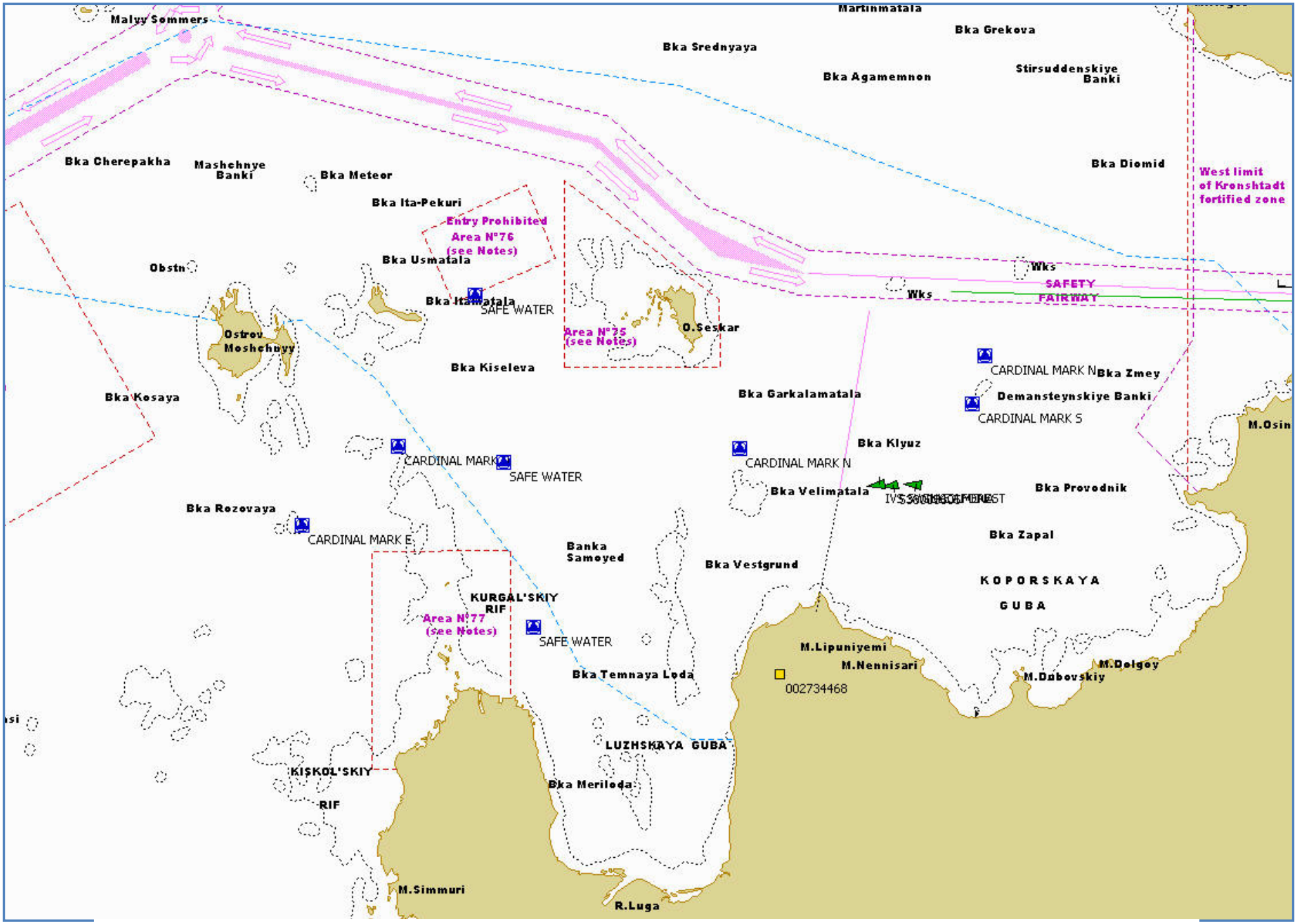
2nd Virtual AtoN AIS test area (the Vuoksa outlet): 16 virtual AtoNs



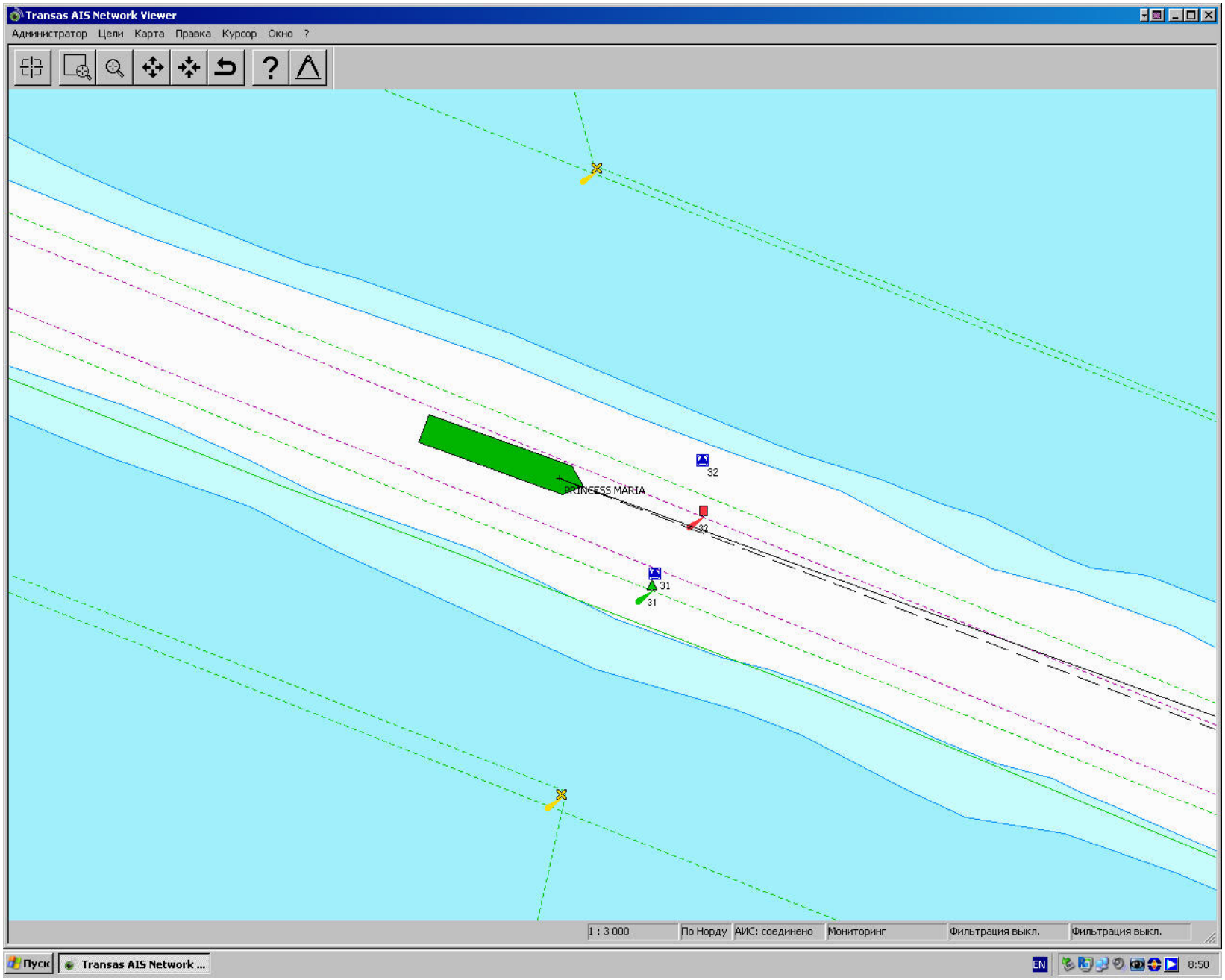
Vessel passing between virtual AtoNs in 2nd Virtual AtoN AIS test area



3rd Virtual AtoN AIS test area (the Svir outlet): 8 virtual AtoNs (planned in 2017)



Virtual AtoNs in the Gulf of Finland marking danger areas



Vessel passing virtual AtoNs on the entrance channel to Grand port of St. Petersburg

Main advantages of the Virtual AtoN AIS technology:

- ✓ accuracy and stability of the AtoN`s position
- ✓ Operational reliability
- ✓ Simple and affordable maintenance
- ✓ All-weather operation

Main disadvantage (restriction) of Virtual AtoN AIS technology:

Inland ECDIS facility available onboard

Thank you for your kind attention !

Evgeny Brodskiy
Telecom Dept. of the Volga-Baltic Waterway
Saint-Petersburg, Russian Federation

brodsky@volgo-balt.spb.ru