R-Mode Baltic

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6th of June 2018, 18th PA Safe SC Meeting, Tallinn

Recent activities

- Raise awareness of the project:
  - Presentation at MTE-ISIS 2017, RNN 2017, IALA eNAV 21 meeting 2017, 19th IALA Conference 2018
  - Poster at ENC 2018

- Work on a document that defines project priorities and baselines. Status nearly finished.

- Begin of interface specification for hardware and applications which will be developed in the project

- Increase size of Advisory Board by two

- First meeting with the project Advisory Board

Ensuring the dissemination of the results

- Raising awareness for the project among national maritime administration (NMA) will help to get their support when project results will be standardised during project duration and afterwards.

- Binding IALA (standardisation of maritime infrastructure) into the Advisory Board and inform them regularly about project progress.

- By active communication towards NMA and integrate them into the Advisory Board of the project fruitful discussions can be launched about a future R-Mode system larger then the testbed at the end of the project. (At least one BSR NMA is keen for it.)

- Communication (demonstration) that project is setting up a R-Mode testbed that fulfils user requirement for a backup system.

Conveying the results to the policy level

- R-Mode Baltic is conveying the results to the policy level in two ways
    1. R-Mode based positioning can be used to identify times of reduced GNSS (Global Navigation Satellite System) performance and inform mariner about this thread.
    2. The R-Mode system enables GNSS independent PNT data provision (IMO MSC.1/Circ.1575) in times of significantly reduced GNSS performance.

- The reduces the risk of collisions and groundings and open the ways for new applications (automatic or autonomous vessels).

- Higher efficiency because the availability of a backup system increases dramatically the availability of PNT data on the bridge and reduces the risk of no or wrong PNT data. This allows continuous work and optimisation of shipping routes.

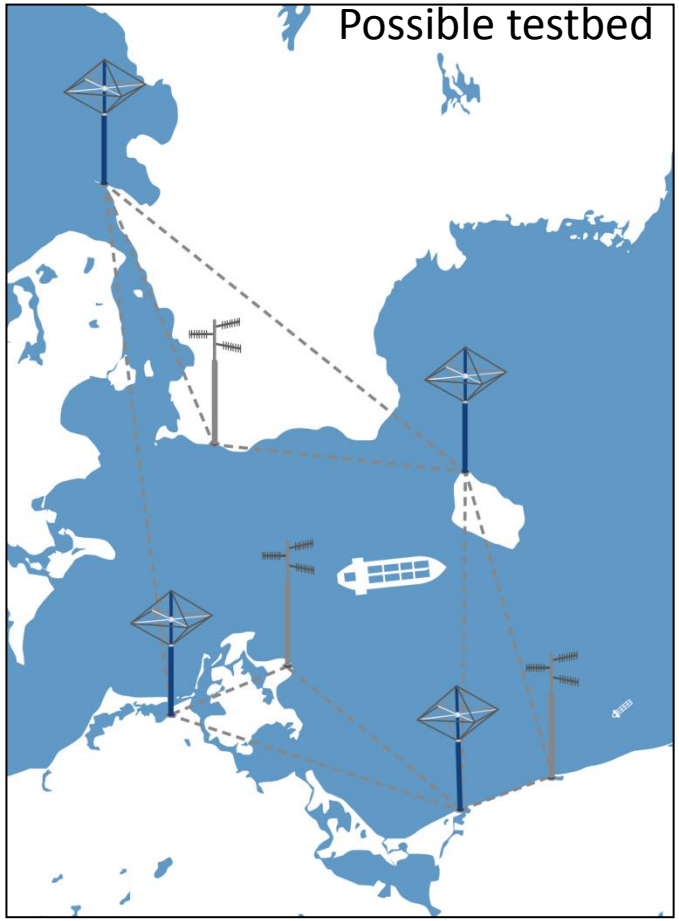
Possible continuation of the project?

- A testbed in the Baltic Sea will be available at the end of the project . It will cover an area between Germany, Sweden and Poland. It will be an elaborated prove of concept.
- Other NMAs of BSR and beyond that looking with much interest at the project.

❖Extension of the testbed on other countries of BSR is most likely feasible.

❖Extension to other regions in Europe possible => European backup system

❖Further technical development is needed. It will improve the performance of R-Mode.



Plans for the coming decade 2020

- Extension of the transmitting station network in Europe
- Implementation of GNSS independent time source at transmitter sides
- Further technical development of R-Mode
- Standardisation of R-Mode (will take several years)
- Convince other administrations outside Europe to implement R-Mode on their transmitter

Expected final results

- R-Mode testbed in the Baltic Sea
- Hardware and applications for demonstration of R-Mode based positioning and timing
- Scientific publications
- Inputs to standardisation committees
- Technical notes describing project results
- Well informed people in the NMA of BSR about R-Mode (necessity for it, capabilities, cost-benefit)

Assistance and support from the PACs and the steering committee

- Finding a platform for project dissemination (presentation, workshops, exhibitions)
- Communicate our project (motivation, aim, expected results) too politicians
- Finding funding for follow-up project

Contact

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