 Input paper: [[1]](#footnote-1) ENAV18-13.12

Input paper for the following Committee(s): check as appropriate Purpose of paper:

**□** ARM **□** ENG **□** PAP **x** Input

**X** ENAV **□** VTS Information

Agenda item [[2]](#footnote-2) X

Technical Domain / Task Number 2 …………………………………

Author(s) / Submitter(s) WG5 Chair on behalf of meeting attendees

R-Mode Intersessional

# Report

On the 9th-11th February 2016, an intersessional meeting was held to discuss the development of the Ranging Mode (R-Mode) concept with the aim of developing a roadmap that outlined the key tasks, their deliverable dates and who may undertake them.

The meeting was attended by 17 IALA members and one guest and took the form of a series of presentations on the first day to set the scene and then development of the roadmap on the second and third days. The group received several presentations on the current status of R-Mode, eLoran and the general e-Navigation architecture. Presentations provided during the intersessional meeting have been captured on the IALA Wiki[[3]](#footnote-3).

The group identified and discussed many different aspects of R-Mode and how it could and should be developed in a structured manner, including the technical, international, administrative and economic aspects. Standardisation activities were also considered and the need for early discussions with the various stakeholders was noted. A mind-map was developed that considered a wide range of tasks, risks and actions needed to develop R‑Mode (MF and AIS transmissions) along with the integration of R-Mode with other positioning technologies. While it was possible to give an early level of prioritization further consideration will be required during ENAV18 to develop a roadmap, with indicative timelines and key milestones; along with a key list of actions.

It was noted that attendees of the intersessional were largely drawn from WG5, and expertise on AIS is required. Therefore a request will be made for support from ENAV Committee members with AIS expertise to be involved in R-mode development, starting with a review of the mind map, prior to finalising the roadmap.

It was also noted that marine beacon infrastructure has the potential to be used for a number of additional data transmission services and that WG5 should take an action to understand which value added services could be provided and whether it would be feasible to do so.

The working group discussed a patent from True Heading which was recently identified as being potentially similar to R-Mode AIS. While the group understands that the topic is sufficiently different, they would like advice from the LAP. It was noted that a similar approach to that in the patent was discussed at IALA and other meetings (IEC, RTCM etc) mid-2000s, and it was questioned whether such discussions, and input papers, are classed as in the public domain for the case of prior art.

The working group also received a presentation on a potential future project seeking to implement an R-mode test bed in the Baltic Sea area. Attendees were invited to consider the role of the project in the development of R-Mode, along with their own participation. The project lead (DLR) took an action to circulate further details and a formal invitation to the members of the working group and other interested parties.

The meeting also highlighted a number of key points which should also be considered at ENAV18. These were:

* It was reported that the new IMO Secretary General commented at a recent conference that while several Maritime Service Portfolios (MSPs) have been prioritised for development at the IMO, with the support of member states and other NGOs/IGOs. The wider audience was invited also to consider the non-prioritised MSPs and the identification of consequential tasks for further development and possible inclusion in the IMO action plan.
* It was discussed at the intersessional meeting that resilient PNT is not currently listed as a MSP but this task is one of the core elements of the e-Navigation concept and therefore shore-based resilient PNT services as MSPs should be considered by IALA.

# Action requested of the Committee

The Committee is requested to:

* Note the outcome of the intersessional meeting.
* Review the mind map and provide comments to the WG5 Chair.
* WG5, in collaboration with WG3 and others, to develop the mind map during ENAV18 into a roadmap with prioritized tasks, key dates and milestones where possible.
* WG5 to consider a liaison note to LAP regarding patents.
* WG5 to develop a Resilient PNT MSP.
* WG5 to evaluate the potential to provide “value added services” on existing MF radiobeacon infrastructure, and the revision of Guideline 1060.
* Study IALA and IMO documents which mention R-Mode to investigate whether updates are required.
* Adjust the Committee work programme where appropriate.

DLR is requested to provide interested parties with further information on the R-Mode Baltic project.



1. Input document number, to be assigned by the Committee Secretary [↑](#footnote-ref-1)
2. Leave open if uncertain [↑](#footnote-ref-2)
3. http://www.iala-aism.org/wiki/ialawiki/index.php/R-Mode\_intersessional\_Feb\_2016 [↑](#footnote-ref-3)