Input paper: [[1]](#footnote-2) ENAV26-8.2.3

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

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

**X** ENAV **□** VTS **□** Information

Agenda item [[2]](#footnote-3) 8.2.3

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

Author(s) / Submitter(s) M. Ebben (Port of Rotterdam), D. Love (CML) and J.R. van Gils (i&W-RWS)

dPMR Trial at the Port of Rotterdam

# Summary

The enclosed report reports the findings from the dPMR trial held in the Port of Rotterdam at the 10th of December 2019.

## Purpose of the document

This paper is provided to assist WG 2 and WG 3 in their activities to identify candidate technologies for digital VHF voice communication and a suitable migration plan.

## Related documents

* ENAV23-3.1.2 Feasibility of digitization of voice radiotelephony in the VHF maritime mobile band
* ENAV23-3.1.4 Feb2019-Sydney\_O-01\_Report-WG3-Intersessional-final
* ENAV23-5.5.1 ETSI briefing Pete Hizzey
* ENAV23-6.3 dPMR testing maritime VHF band
* ENAV23-12.1.8 Liaison Note to ECC - digitisation of maritime services - digital VHF (voice)
* VHF digitalization roadmap 20190401
* ENAV24-7.2 WP IALA-ENAV-22 Task Plan (ENAV23-11.2)
* working paper ENAV24-12.2.6 Candidate Technology Review for Digital Voice over VHF
* ENAV25-2.1.2 Report of ENAV24

# Background

During ENAV24 WG 2 noted the task related to digital voice communications as presented in ENAV24-7.2. It is recognised that there are a number of options to implement voice over VHF, including digital Private Mobile Radio (dPMR) that uses Frequency Division Multiple Access (FDMA) and Digital Mobile Radio (DMR) that uses Time Division Multiple Access (TDMA) technologies.

During the initial assessment of dPMR, WG2 identified that a suitable vocoder needs to be identified as a standard for maritime use to ensure interoperability.

This report gives the findings during a one day trial of dPMR equipment of two manufacturers with the standard shipped vocoder in the used equipment.

# Discussion

During the trial digital Private Mobile Radio (dPMR) could be a candidate technology for efficient use of appendix 18 frequencies. There were recognised possible additions/modifications to the current ETSI standard to suit the performance standards of IMO.

The current standard provides extra functionality to current VHF voice communication that could enhance voice communication and safety.

The trial focused on the voice quality comparing to VHF radio and ease to use by the end users. During the trial additional people were invited to get familiar with digitisation of VHF radio and dPMR. It also gathered use full information about questions from users, technical staff and policy makers.

# Action requested of the Committee

The Committee is requested to:

1. Review the report of the dPMR trial at the Port of Rotterdam and provide input, as appropriate, to assist WG2 in their deliberations;
2. Identify any additional requirements, needs and wishes that may be suitable to address the requirements and needs of IALA members and provide information on these to WG2 during ENAV25.

1. Input document number, to be assigned by the Committee Secretary [↑](#footnote-ref-2)
2. Leave open if uncertain [↑](#footnote-ref-3)