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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) 5.1

Technical Domain / Task Number 2 WG2 – review of Candidate Technologies

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Candidate Technologies for use by IALA members – Review at ENAV28

# Summary

This paper highlights several candidate technologies that may be suitable for use by IALA members and could be reviewed by the IALA ENAV Committee. This paper presents the technologies that have been identified for discussion and possible review at ENAV28.

## Purpose of the document

This paper is provided to assist WG 2 in their activities. It invites members of the ENAV Committee to provide input on the candidate technologies identified and identify other candidate technologies.

## Related documents

ENAV27-13.1 – Report of ENAV27 (action item 16)

ENAV26.11.1 – Terms of Reference for WG2

IALA G1153 – Template for the review of emerging technologies for possible use by IALA members

# Background

The terms of reference for WG2 highlight the expectation of the WG to:

* monitor the technological environment and identify possible technologies and systems to be evaluated;
* invite representatives of candidate technologies to provide information to the working group;
* evaluate selected emerging digital technologies at a high level, and identify their advantages, limitations and applicability in consideration of user requirements and needs of IALA membership.
* provide internal advice on emerging digital technologies and inform other working groups and IALA Committees on matters of relevance to their work;
* […]

To assist with the discussion, an initial review process for digital technologies was prepared and revised. As part of the monitoring process, the reports of ENAV meetings requested members of the IALA ENAV Committee to review and use the template to provide input on the identified, and other, emerging technologies that may be suitable for use by IALA members.

In addition, as an ongoing activity, the Chair and Vice-Chair of the IALA WG2 do scans of technology to identify any that may have potential within the marine aids to navigation environment.

# Discussion

In the lead up to ENAV 28 some technologies / systems that may be of interest have been identified. These include:

* Technology to support resiliency in PNT: GPS/GNSS Jamming and Spoofing provided through Orolia
  + Refer to: ENAV 28-X.X.X information paper on Orolia
  + Refer to: ENAV 28-X.X.X - initial review of Orolia’s M SecureSync GNSS Interference Detections and Mitigation (IDM) device and software suite (using IALA G1153 Template)

A presentation will be provided, with opportunity for questions on the technology prior to a detailed review of the input paper at ENAV28.

* Ongoing developments providing broadband internet on a global scale, using different satellite constellations, noting recent developments with INMARSAT Orchestra, StarLink, and others.
* Developments in digital data exchange to support S-100, including the developments to connectivity processes within the maritime environment.

# Action requested of the Committee

The Committee is requested to:

1. Review the provided documentation on Orolia and provide input, as appropriate, to assist WG2 in their deliberations;
2. Note the planned presentation and discussion sessions on development technologies at ENAV28 (as provided on the IALA dashboard)
3. Identify any additional technologies that may be suitable to address the requirements and needs of IALA members and provide information on these to WG2 during ENAV28.

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