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| From: ENAV Committee | PAP49-5.1.1 |
| To: IALA committees, PAP | 30 September 2022 |

LIAISON NOTE

New Technology Review Summary Table

# INTRODUCTION

During the IALA 2018-2023 work term the ENAV Committee has been seeking out and reviewing new and developing technologies, as well as repurposing of existing technologies, that may be suitable within the IALA domain.

To assist with this, the IALA Council approved IALA G1153 – Template for the review of emerging technologies for possible use by IALA members (2019).

Based on the proposed technologies, three tables have been completed, with more in progress. A summary table of all tables considered has been created, noting the status of the review (Annex A). To provide access to the reviews carried out, a folder has been created on the IALA File Share under ‘ENAV / Completed Technology Reviews – Task 1.1.5 – ENAVWG2’

# ACTION REQUESTED

IALA Committees are requested to:

1. Note the status of review of emerging technologies, as provided in the summary table.
2. Note the completed reviews, available on the IALA File Share
3. Identify possible technologies for review and submit these to the ENAV Committee using the IALA G1153 template.

# ANNEXES

1. New Technology Summary Table
2. New Candidate Technology Tracker

| **No.** | **Candidate Technology** | **Action / Outcome** | **ENAV Start Session** | **ENAV**  **Planned End Session** | **Revised End Session** | **Progress Indicator** | | | **Status Overview** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Green** | **Amber** | **Red** |
|  | **WG3 Emerging Technologies** |  |  |  |  |  |  |  |  |
|  | 3GPP – 4G (including LTE) | Green | 22 | 24 | 24 |  |  |  | Completed / forward to WG3 |
|  | LoRa (Lorawan) | Green (some amber) | 25 | 26 | 27 |  |  |  | Completed |
|  | Digital VHF - dPMR | On hold | 24 | 25 | --- |  |  |  | Confirming status of digital VHF Voice |
|  | Leo Constellation Developments – initial review indicated not suitable for full template review | On hold | 25 | --- | --- |  |  |  | On hold |
|  | NAVDAT – development in progress, updates provided to IMO - deemed not suitable for full template review. May be reviewed if further input is received. | On hold | 25 | --- | --- |  |  |  | On hold |
|  | LiFi (Light Fidelity) – no input or expertise received. May be reviewed if input is received. | On hold | 25 | --- | --- |  |  |  | On hold |
|  | Resilience in PNT: GPS/GNSS (presented by Orolia, technology called M SecureSync) | Amber (some green) | 28 | 29 | 29 |  |  |  | Completed |
|  | Resilience in PNT: GPS/GNSS (presented by Orolia, GNSS antenna systems) | Green | 28 | 29 | 29 |  |  |  | Completed |
|  | 5G Precise Positioning (presented by Qualcomm) | In Progress | 28 | 31 |  |  |  |  | Commenced |
|  | AI detection of ships in ports / Synthetic images (Presented by SeerBI) | Deciding next steps | 30 | TBC |  |  |  |  | To be decided |
|  | IMT 2020 on buoys (Presented by Jet Engineering) | Deciding next steps | 30 | TBC |  |  |  |  | To be decided |
|  | Metal Surface Wave communication (Presented by KRISO/ SWT, technology called MS@MS) | Submitted  To be reviewed | 30 | 32 |  |  |  |  | Commenced |
|  | Ships Air draft remote measurement (Presented by China MSA) | Submitted  To be reviewed | 30 | 32 |  |  |  |  | Commenced |
|  | SigFox (Irish Lights) | Proposed |  |  |  |  |  |  |  |

Next steps:

1. MSM Communication (item 12) to complete evaluation for ENAV31
2. Ship air draft (Item 13) to complete evaluation for ENAV31
3. Irish Lights (Ronan Boyle) to complete SigFox evaluation for ENAV 31 (New item)