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| From: e-NAV Committee, vice chair | PAP26-10.5.2 |
| To: PAP | 22 October 2013 |
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**e-NAV Committee**

**2014-18 Work Program and Structure**

# Summary

## Purpose

This paper sets out a proposed Work Program for the committee dealing with e-Navigation in the period 2014-18. It also provides a proposed working group structure and potential workshop topics for each group.

## Background

The draft IALA strategy documents presented to PAP 26 for consideration have been taken into account, together with the proposed 2014-18 Work Program agreed at e-NAV 14. Correspondence between the present chair and vice chair of e-NAV and the DSG has informed the proposals on structure.

# 2 ACTION REQUESTED

The Policy Advisory Panel is invited to consider these proposals for possible submission to Council.

**e-Navigation – Proposed Work Program and Committee Structure, 2014-18**

**Strategy**

The IALA Strategy 2014-26 submitted to PAP 26 includes the following elements:

‘Harmonise the information structure, Maritime Service Portfolios, and communications for e-Navigation by creating IALA Standards and by cooperation with other IGOs, to achieve worldwide interoperability of shore and ship systems’ and

‘Complete the development of Standards for future sea navigation services to assist the mariner and increase safety and efficiency in congested waters.’

The 4 year strategies include:

4G1-S2. Lay the groundwork for interoperability of shore and ship systems in e-Navigation data and communications by creating Standards for VDES, MSP, and resilient PNT, including their acceptance by IMO and ITU, and commence the process of populating the IALA Domain in the IHO S-100 Register.

4G1-S3. Have two demonstrators for future Sea Navigation Services in operation in member states, and have initiated work on technical standards and operating procedures for national or regional use.

**2014-18 Work Program**

The proposed Work Program agreed at e-NAV 14 is summarised below.

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| **Topic** | **Comments** |
| **1. e-Navigation Implementation** | |  | | --- | | During the 2014-18 work program IMO is expected to make key decisions on e-Navigation. IALA documentation needs to be updated to reflect what is actually going to happen as opposed to what may happen or is possible. | |
| **2. Overarching architecture** | Shore-side perspective |
| **3. Shipboard equipment** | Monitoring task |
| **4. Maritime Service Portfolios** | Shore-based services |
| **5. Communications: AIS & VHF Data Exchange System** |  |
| **- AIS & VHF Data Exchange System** |  |
| **- Maintain MRCP** |  |
| **6. Integrated PNT** | Investigate what needs to be done to make SBAS usable within the maritime sector. |
| **- WWRNS** |  |
| **- Resilient PNT** |  |
| **- High accuracy PNT** | Work to include port and docking requirements (RTK, PPP etc) |
| **- Multi system Receiver Standard** | IMO PS tba at NCSR 1 & 2 |
| **- Future Radar AtoNs** |  |
| **- Future development of existing systems** | Consider potential future services and functions that can be provided by existing infrastructure - for example DGNSS reference stations used for timing and independent positioning. |
| **7. Shore-based infrastructure** | Including minimum configuration of CSSA - e.g. AIS based VTS |
| **8. Common Maritime Data Structure** | IALA Domains management, data modelling and standardisation |
| **9. e-Navigation Portrayal** |  |
| **10. e-Navigation Usability** | Reflect IMO Guideline |
| **11. e-Navigation Test Beds** | Reflect IMO Guideline |
| **12. Software Quality Assurance** | Reflect IMO Guideline |

It can be seen that the proposed Work program aligns well with both the 2014-26 Strategy and with the 4 year strategies (for demonstrators read test beds).

**Committee Structure**

It has been proposed that Technical Committee #2 should deal with e-Navigation and shore infrastructure, under the Technical Domains set out below:

TD#1 - Data modelling and message systems

AtoN data information structure, exchange, presentation

S-100 registry and Product Specifications

Message structure for e-Nav including VDES

Maritime Service Portfolios, design and content

TD#2 - e-Navigation communications

VDES, satellite, WRCP

AIS technology

ASM coordination and web hosting

ITU planning and liaison, WRC preparation and national coordination

TD#3 - Shore technical infrastructure

Shore infrastructure design

e-Navigation architecture

Resilient PNT shore services - DGPS, e-Loran, other

Virtual AtoN technology

Sharing of shore data, IALA-NET, etc.

TD#4 - Future sea navigation services

Data gathering and analysis

Participation in and harmonisation of results of test beds

Harmonisation policy and planning

Sea traffic operations, and VTS beyond territorial limits

Monitoring of developments nationally and regionally, and effect on competent authorities

Maintaining advice to IALA membership

Proposing draft IALA policy and draft standards

These fit quite well into the following working group structure:

1. Testbeds and Future Sea Navigation Services (TD#4)

2. Shore infrastructure/PNT (TD#3)

3. Communications (TD#2)

4. Data modelling/MSPs (incl. IMO e-NAV liaison) (TD#1)

However, there should be flexibility about both the domains and the working groups, as e-Navigation is a developing field.

**Workshops**

Topics for workshops suggested by the above WG structure would be:

1. Testbed coordination; Sea Navigation Services

2. Resilient PNT;

3. VDES

4. MSP harmonization; Product Specification development