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| From: e-NAV Committee | e-NAV13/output/2 |
| To: The IALA Council | 22 March 2013 |

Information Paper

Revision of the e-NAV Committee Work Programme

# Introduction

At its 13th session the e-NAV Committee determined that it needed to request some changes to formalise its work at its final session for the current Work programme (e-NAV14).

# Requested changes

The changes requested are at Annex A.

# Action requested

The Council is requested to consider the changes requested at Annex A, with a view to approval.

1. REVISION OF THE e-NAV committee’s WORK PROGRAMME

(Changes made at e-NAV13 have been highlighted.)

e-Navigation is an holistic concept of enhanced navigation through electronic systems, based on user needs and derived user requirements. In particular, the e-Navigation concept simultaneously targets:

* the harmonization of shipborne and shore-based functionality;
* the harmonization of shore-based operational and technical functionalities and services of different shore-based stake-holders;
* multi-dimensional quality improvements of shore-based operational and technical services;
* demonstration of service levels achieved, using appropriate management and engineering methods.

The e-NAV Committee deals with:

* progressive contributions to IMO and other relevant international bodies to support the IMO stated ‘core goals’ and ‘key strategic elements’ of its e-Navigation concept and to reap its intended, stated ‘benefits’;
* harmonized derivation of user requirements from stated user needs, both existing and new, regarding shore-based operational services as well as technical services and systems, in close liaison with other IALA Committees;
* the appropriate description of operational presentation surfaces to shore-based users, employing the methodology of information portrayal;
* radio navigation and communications services and systems for the provision of integrated electronic navigation information (including AIS, GNSS, etc.);
* the architectural aspects of IMO’s e-Navigation concept, in particular regarding harmonized concepts such as the (IALA) Universal Maritime Data Model (UMDM), the (IALA) Maritime Data Exchange Format (MDEF), and the IALA Common Shore-based System Architecture (CSSA);
* the impact of IMO’s e-Navigation concept on the Work Programme of IALA.

In the work of the Committee, the following general aspects are to be taken into consideration:

* Strategic focus of IALA;
* Harmonized use of definitions and terms;
* Concepts associated with risk Assessment / management;
* IMO e-Navigation strategy;
* Work Programme 2010 – 2014.

| Task | Estimated number of sessions | WG | Deliverable | Strategy element(s) |
| --- | --- | --- | --- | --- |
| Strategy and operations, User requirements) |  |  |  |  |
| 1. Monitor and co-ordinate input on Strategy & Operations to the IMO process | 7 | 1 | Inputs to NAV, COMSAR, STW & CG | 1.2 |
| 1. Review and update IALA Strategy for e-Navigation | 3 | 1 | Input for PAP | 1.2 |
| 1. Maintain and update user requirements (in co-ordination with the VTS & ANM Committees) | 4 | 1 | Inputs to NAV & CG | 1.2 |
| 1. Monitor developments in navigation for polar regions | 2 | ALL | Recommendation on e-Navigation for polar regions | 11 |
| Position, Navigation, and Timing (Sensors): |  |  |  |  |
| 1. Review and update World Wide Radio Navigation Plan | 3 | 2 | Input to NAV & CG | 1.2 |
| 1. Prepare Recommendations and Guidelines on PNT systems and radar AtoN | 5 | 2 | Revised Racon & DGNSS Recommendation | 10.11 |
| 1. Co-ordinate input to IMO, ITU, and IEC on PNT systems | 4 | 2 | NAV & CG inputs  (Liaison with RTCM SC104) | 1.2, 10.11, 15.2 |
| 1. Prepare a Guideline on establishment and operation of navigation systems in polar regions | 2 | ALL | IALA Recommendation on e-Navigation in polar regions | 10.3, 11 |
| 1. Monitor developments in satellite and terrestrial EPFSs and non-radionavigation systems | 4 | 2 | Periodic updates to Committee | 13.2, 13.6, 15.1 |
| 1. Guideline on recommended measures for disaster recovery | 2 | ALL | IALA Guideline | 10.11 |
| 1. Monitor developments in radar technology and their effect on racons | 3 | 2 | Updated Racon Strategy | 13.6 |
| AIS |  |  |  |  |
| 1. Review and update documentation on AIS (M.1371; A-124, A-126) | 4 | 3 | Revised recs. | 5, 10.3 |
| 1. Co-ordinate input to IMO, ITU, and IEC on AIS | 3 | 3 | Liaison notes, CG & NAV inputs | 1.2, 15.2 |
| 1. Monitor and contribute to development of AIS, including the next generation of AIS   *Monitor and contribute to the efficient utilization of AIS, development of future VHF Data Exchange (VDE) and technical standards.* | 4 | 3 & 4 | Periodic updates | 13.6 |
| 1. Monitor developments in the technical definition of AIS stations at IEC, satellite detection of AIS, and terrestrial long range AIS. | 5 | 3 | IEC inputs | 1.2 |
| 1. Monitor developments in the use of AIS in polar regions (e.g. AIS AtoN) | 3 | ALL | IALA Recommendation on e-Navigation in polar regions | 11 |
| 32 Provide guidance on the reliability of AIS data when used in court | 2 | 3 & 4 | Liaison Note to LAP |  |
| Communications: |  |  |  |  |
| 1. Review and update IALA Maritime Radio Communications Plan | 5 | 4 | COMSAR & CG input | 1.2, 15.1 |
| 1. Review Recommendations and Guidelines on communications | 4 | 4 | IALA Recommendations and Guidelines | 10.3 |
| 1. Co-ordinate input to ITU, IMO, and IEC on communications | 4 | 4 | CG & COMSAR inputs | 1.2, 15.2 |
| 1. Prepare a Guideline on establishment and operation of communications systems in polar regions | 2 | ALL | IALA Recommendation on e-Navigation in polar regions | 10.3, 11 |
| 1. Monitor developments in GMDSS and LRIT | 3 | 4 | Periodic updates | 13.2 |
| Architecture: |  |  |  |  |
| 1. Develop and maintain shore-based e-Navigation Architecture | 5 | 5  (assisted by 2,3,4 & 6) | Periodic updates to Committee | 10.11 |
| 1. Prepare Recommendations and Guidelines on e-Navigation architecture | 5 | 5 | IALA Recommendations & Guidelines | 10.3, 10.11 |
| 1. Co-ordinate input to IMO, IHO, ISO, IEC & CIRM on architecture | 3 | 5 | CG & NAV inputs | 1.2, 10.11, 15.2 |
| Information Portrayal: |  |  |  |  |
| 1. Prepare Recommendations and Guidelines on Maritime Information Systems (in co-ordination with the VTS Committee) | 5 | 6/4 | IALA Rec. and inputs to NAV & CG. Liaison with IHO | 10.11, 13.2 |
| 1. Prepare Recommendations and Guidelines on the portrayal of information | 5 | 6 | IALA Rec. and inputs to NAV & CG. IHO liaison | 10.3 |
| 1. Monitor developments in ECDIS, INS and ENCs | 3 | 6 | Periodic updates to Committee | 10.3, 13.2, 15.1 |
| Data Modelling |  |  |  |  |
| 33 Advise on management of the IALA domain, according to IHO standards S-100 & S-99 | 4 | 6 |  | 10.11 |
| 34 Prepare Recommendations and Guidelines on data modelling | 4 | 6 |  | 10,11 |
| Test Beds |  |  |  |  |
| 35 Advise on establishment and requirements for e-Navigation test beds | 2 | 7 | Guidance on test bed requirements | 1.2, 10.11, 13.2 |
| 36 Co-ordinate results of test beds using a portal | 2 | 7 | Co-ordination of results in a portal | 10.5 |
| 37 Provide an online forum for the IALA membership to discuss issues of common interest and concern in relation to testbeds | 1 | 7 |  |  |
| General: |  |  |  |  |
| 1. Monitor and report progress on related systems | 4 | 2/3/4 | Periodic updates | 13.4 |
| 1. Liaise with other IALA Committees and other bodies | 4 | C/VC | Liaison notes, PAP | 1.2, 13.4 |
| 1. Prepare a combined IALA e-Navigation Plan (all Committees) | 4 | C/VC | PAP | 1.2, 13.6 |
| 1. Consider the regulatory process for e-Navigation and recommend the best approach | 3 | ALL | Policy paper for Council | 15.2 |

Monitoring Items

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| --- | --- | --- |
| Task | Duration | Strategy element(s) |
| M1 None at this time |  |  |

Deferred Items

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| --- | --- | --- |
| Task | No. of sessions | Strategy element(s) |
| D1 None at this time |  |  |

**e-NAV Committee Work Plan - 2010 – 2014**

| Task | Session | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 1. Monitor and co-ordinate input on Strategy & Operations to the IMO process | X | X | X | X | X | X | X |
| 1. Review and update IALA Strategy for e-Navigation | X | X | X |  |  |  |  |
| 1. Maintain and update user requirements (in co-ordination with the VTS & ANM Committees) |  |  | X | X | X | X |  |
| 1. Monitor developments in navigation for polar regions |  |  |  | X |  |  | X |
| 1. Review and update World Wide Radio Navigation Plan |  | X |  | X |  | X |  |
| 1. Prepare Recommendations and Guidelines on PNT systems and radar AtoN | X | X |  | X | X | X |  |
| 1. Co-ordinate input to IMO, ITU, and IEC on PNT systems | X |  |  | X |  | X | X |
| 1. Prepare a Guideline on establishment and operation of navigation systems in polar regions |  | X |  |  | X |  |  |
| 1. Monitor developments in satellite and terrestrial EPFSs and non-radionavigation systems |  | X | X |  | X |  | X |
| 1. Guideline on recommended measures for disaster recovery |  |  | X | X |  |  |  |
| 1. Monitor developments in radar technology and their effect on racons | X |  |  | X |  | X |  |
| 1. Review and update documentation on AIS (M.1371; A-124, A-126) |  | X |  | X |  | X | X |
| 1. Co-ordinate input to IMO, ITU, and IEC on AIS | X |  | X |  |  |  | X |
| 1. Monitor and contribute to the efficient utilization of AIS, development of future VHF Data Exchange (VDE) and technical standards. | X | X | X |  |  | X |  |
| 1. Monitor developments in the technical definition of AIS stations at IEC, satellite detection of AIS, and terrestrial long range AIS | X | X |  | X | X |  | X |
| 1. Monitor developments in the use of AIS in polar regions (e.g. AIS AtoN) | X |  | X |  |  | X |  |
| 1. Review and update IALA Maritime Radio Communications Plan |  | X |  | X | X | X | X |
| 1. Review Recommendations and Guidelines on communications | X | X |  | X |  | X |  |
| 1. Co-ordinate input to ITU, IMO, and IEC on communications |  | X |  | X | X |  | X |
| 1. Prepare a Guideline on establishment and operation of communications systems in polar regions | X |  |  | X |  |  |  |
| 1. Monitor developments in GMDSS and LRIT |  | X |  |  | X |  | X |
| 1. Develop and maintain shore-based e-Navigation Architecture | X | X | X | X |  | X |  |
| 1. Prepare Recommendations and Guidelines on e-Navigation architecture | X | X | X | X | X |  |  |
| 1. Co-ordinate input to IMO, IHO, ISO, IEC & CIRM on architecture |  |  | X | X |  | X |  |
| 1. Prepare Recommendations and guidelines on Maritime Information Systems (in co-ordination with the VTS Committee) | X | X |  | X | X |  | X |
| 1. Prepare Recommendations and guidelines on the portrayal of information | X |  | X | X |  | X | X |
| 1. Monitor developments in ECDIS, INS and ENCs |  | X |  | X |  | X |  |
| 1. Monitor and report progress on related systems | X |  | X |  | X |  | X |
| 1. Liaise with other IALA Committees and other bodies |  | X |  | X |  | X | X |
| 1. Prepare a combined IALA e-Navigation Plan (all Committees) | X | X |  |  | X | X |  |
| 1. Consider the regulatory process for e-Navigation and recommend the best approach |  |  | X | X | X |  |  |
| 1. Provide guidance on the reliability of AIS data when used in court |  |  |  |  |  | X | X |
| 1. Advise on the management of the IALA domain, according to IHO standards S-100 & S-99 |  |  |  | X | X | X | X |
| 1. Prepare Recommendations and Guidelines on data modelling |  |  |  | X | X | X | X |
| 1. Advise on establishment and requirements for e-Navigation test beds |  |  |  |  |  | X | X |
| 1. Co-ordinate results of test beds through a portal |  |  |  |  |  | X | X |
| 1. Provide an online forum for the IALA membership to discuss issues of common interest and concern in relation to testbeds |  |  |  |  |  |  | X |