REVISION OF THE WORK PROGRAMME

(Changes made at e-NAV12 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 |  |  |  |  |
| 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 |  |  |  |  |
| ?? Prepare Recommendations and Guidelines on data modelling | 4 | 6 |  |  |
| 33 Manage the IALA domain, according to IHO standards S-100 & S-99 | 4 | 6 | IALA procedures.  IALA Domain under S-100 | 10.11 |
| 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

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

Deferred Items

|  |  |  |
| --- | --- | --- |
| 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 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. | 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 |  |
| 32 Provide guidance on the reliability of AIS data when used in court |  |  |  |  |  |  |  |
| 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 |  |
| ?? Prepare Recommendations and Guidelines on data modelling |  |  |  | X | X | X | X |
| 33 Manage the IALA domain, according to IHO standards S-100 & S-99 |  |  |  | X | 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 |  |  |