**WG on Communications and Information Systems for e-Navigation**

***(To IALA PAP and IALA Council)***

**Introduction**

Communications was recognised as one of the three fundamental components required for e-Navigation to succeed (together with ENCs & redundant position-fixing). The Communications Working Group was established at e-NAV 4 to develop an IALA World-Wide Radio Communication Plan (IALA WWRCP); and to study and provide guidance on existing and developing communications and information technology systems to support eNavigation.

The work of the group would be directed by the developing e-Navigation Strategy within IMO.

**Scope**

Initial discussion concerned radio-communications, however this was later broadened to include information systems. This extension will make close coordination with the other working groups, in particular Strategy & Operations and the Architecture TWG. Maritime Information Systems are to become part of the remit of WG1 and there will be a need for liaison on those matters.

**Objective**

The objective of WG4 is to support the eNavigation Committee by studying existing and developing communication technologies and assist in securing the necessary spectrum for eNavigation and GMDSS Modernization. Modify the IALA World-Wide Radio Communication Plan (IALA WWRCP), as necessary, to consider new systems or technologies for eNav or maritime communications. In addition, remove any obsolete systems that are no longer being considered for eNav or are no longer used for maritime communications.

**Terms of Reference**

1. Study operational and technical requirements (to 2020+) for communications and information systems in e-Navigation (incl. GMDSS, Maritime Information Systems, ship to ship & shore, shore to shore & ship).

2. Identify radio communication services and consider spectrum management approaches (including the possible effect of spectrum pricing) and provide options for different scenarios.

3. Evaluate the potential development of communication channels within other frequency bands, including the IALA MF DGNSS beacon system and e-Loran.

4. Take account of the output of WG1 (Strategy & Operations), in particular the concepts: 'common maritime information data structure' and 'automated and standard reporting functions', including a consideration of legal and commercial restrictions when 'polling' information from ships.

5. Work closely with the AIS TWG on questions relating to spectrum requirements for AIS, the Architecture TWG on ship-shore and shore-shore radio link requirements and the proposed MIS WG on user-requirements for maritime information.

6. Take account of the developing e-Navigation Strategy within IMO and parallel studies, in particular those carried out for ICAO on future communications for aviation.

7. Prepare an action plan for obtaining international agreement on requirements, frequency assignments and technical characteristics.

8. Update, as necessary, the IALA World-Wide Radio Communication Plan (IALA WWRCP) and submit for consideration by the e-NAV Committee.

9. Draw from that plan any submissions needed by national administrations to WRC-12 and WRC-16.

10. Liaison with IMO and ITU WP5B, as necessary, to share study information in support of eNav and GMDSS communications requirements.

**Timescale**

It is envisaged that the new WG will work over Sessions8-11, by e-mail and with inter-sessional meetings if necessary, presenting its report at e-NAV 11 (September 2013). This should allow time for IALA Members to influence their national inputs to the next WRC in 2012 and anticipated WRC-16 agenda items for GMDSS Modernization and eNav.