

# IALA RECOMMENDATION

R-150

## DGNSS SERVICE PROVISION, UPGRADES AND FUTURE USES

**Edition 1.0**

**December 2016**



# DOCUMENT REVISION

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Revisions to this IALA Document are to be noted in the table prior to the issue of a revised document.

Date	Page / Section Revised	Requirement for Revision

# THE COUNCIL

**RECALLING** the function of IALA with respect to Safety of Navigation, the efficiency of maritime transport and the protection of the environment,

**RCALLING ALSO** Article 8 of the IALA Constitution regarding the authority, duties and functions of the Council,

**NOTING** that the International Maritime Organisation (IMO) requires vessels to carry a *‘receiver for a Global Navigation Satellite System (GNSS) or a Terrestrial Radionavigation System (TRS), or other means, suitable for use at all times throughout the intended voyage to establish and update the ship's position by automatic means’*,

**NOTING ALSO** current and future maritime requirements as set out in IMO Resolutions A.1046 (27) on the World Wide Radio-Navigation System and A.915 (22) on Maritime Policy for the Future GNSS,

**NOTING FURTHER** that the accuracy and integrity information available from GNSS and TRS on its own, whilst adequate for most general navigational requirements, is insufficient for navigation in confined waterways and harbour approaches,

**RECOGNISING** that marine beacon infrastructure can be used to provide differential GNSS (DGNSS) correction services which will improve the navigational accuracy and integrity of GNSS within their coverage area,

**RECOGNISING ALSO** ITU-R Recommendation M.823 on the Technical Characteristics of differential transmissions for Global Navigation Satellite Systems (GNSS) from maritime DGNSS sites in the frequency band 283.5-315 kHz in Region 1 and 285-325 in Regions 2 and 3<sup>1</sup>,

**RECOGNISING FURTHER** the IMO's e-Navigation concept and the need for improved reliability, resilience and integrity of bridge equipment and navigation information,

**ADOPTS** the Recommendation on DGNSS service provision, upgrades and future use described below,

**INVITES** Members and marine aids to navigation Authorities worldwide to implement the provisions of the Recommendation,

**RECOMMENDS** that IALA National members and other appropriate Authorities providing marine aids to navigation services:

- consider the provision of DGNSS services in the frequency band 283.5-315 kHz in Region 1 and 285-325 kHz in Regions 2 and 3, to improve the safety of navigation in confined coastal waterways and harbour approaches;

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<sup>1</sup> Regions are defined in Article 5 of the ITU-R Radio Regulations, 2012.

- refer to the future of IALA DGNSS strategy as set out in Recommendation R-135 when considering the implementation of new services, or the upgrade of existing services/infrastructure;
- consider the potential for additional services that may be provided using the 300 kHz broadcast infrastructure, in addition to DGNSS correction information. This may include the addition of a timing signal to provide GNSS independent positioning (R-Mode) or the provision of additional services to the mariner, such as described by Maritime Service Portfolios (MSP);
- retain the 300 kHz infrastructure for future use in the event it is decided to discontinue providing DGNSS correction information.

**REQUESTS** the e-Navigation Committee or such other committee as the Council may direct to keep the Recommendation under review and to propose amendments as necessary.

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