



# IALA RECOMMENDATION (NORMATIVE)

## R0121 (R-121) THE PERFORMANCE AND MONITORING OF DGNSS SERVICES IN THE FREQUENCY BAND 283.5 – 325 KHZ

### **Edition 2.1**

May 2015

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# DOCUMENT REVISION

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

Date	Details	Approval
June 2001	1 <sup>st</sup> issue	
September 2004	5. Integrity, 11. Validation, New Appendix 1 "DGNSS Broadcast Site Settings. Provide better guidance on these important areas to administrations setting up and operating DGNSS services.	
May 2015	Entire document Edition 2. Provide new structure with removal of the Annex to a new IALA Guideline, updated content, options for DGNSS reengineering, service based architecture and improved explanation of requirements.	
September 2020	Edition 2.1 Editorial corrections.	



# THE COUNCIL

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

**NOTING ALSO** IMO resolutions A.915(22) on Maritime Policy for the Future Global Navigation Satellite System (GNSS), and A.1046 (27) on World Wide Radionavigation System;

**NOTING FURTHER** ITU-R Recommendation M.823-3 on the Technical characteristics of differential transmissions for Global Navigation Satellite Systems (GNSS) from maritime radio DGNSS sites in the frequency band 285-325 kHz (283.5-315 kHz in Region 1);

**RECOGNIZING** the need to ensure that Differential GNSS (DGNSS) services in the frequency band 283.5 kHz – 325 kHz are operated in accordance with certain minimum standards that take into account relevant ITU-R Recommendations and IMO Resolutions;

**RECOGNIZING ALSO** that the minimum standards should include the signal format, reference datum, availability, continuity, integrity, accuracy, signal monitoring, range and coverage, status reporting, validation, and the publication of information about the system;

**HAVING CONSIDERED** the proposals made by the e-Navigation Committee;

**RECOMMENDS** that Members and other appropriate Authorities providing, or intending to provide, DGNSS services in the frequency band 283.5 – 325 kHz, should adopt the following principles:

- Provide the service in accordance with ITU-R Recommendation M.823-3;
- Provide integrity information for GNSS;
- Provide the service with a level of redundancy to achieve performance requirements IMO A.1046 (27);
- Provide means of verifying the performance of the service;
- Provide mariners with information about the service; for example:
  - description of the service;
  - achieved service performance;
  - service disruptions; and
  - geographical service area.
- Adopt the design and implementation principles set out in the relevant IALA Guideline(s).