

# **IALA Recommendation R-115**

## **On The Provision of Maritime Radionavigation Services In The Frequency Band 283.5-315 kHz In Region 1 and 285-325 kHz In Region 2 And 3**

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## Document Revisions

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

<b>Date</b>	<b>Page / Section Revised</b>	<b>Requirement for Revision</b>
December 2005	Entire document	Reformatted to reflect IALA documentation hierarchy

## **Recommendation on the Provision of Marine Radionavigation Services in the Frequency Band 283.5-315 kHz in Region 1 and 285- 325 kHz in Regions 2 and 3\***

(IALA Recommendation R-115, December 1999)

### **The Council,**

**RECALLING** that one of the aims of the Association is to foster the safe, economic and efficient movement of vessels through the improvement and harmonisation of aids to navigation world-wide;

**NOTING** that the International Maritime Organisation (IMO) is changing its requirements for ships from the carriage of direction finding equipment to the carriage of a receiver for a global navigation satellite system (GNSS) or a terrestrial radionavigation system (TRS);

**NOTING ALSO** that the use of direction finders by vessels for navigational purposes is now insignificant;

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

**RECOGNISING** that the navigational accuracy and integrity of GNSS can be improved considerably by the transmission of differential corrections from suitably located stations, and that many Administrations are implementing transmissions from radio beacons of a differential correction service (DGNSS);

**RECOGNISING ALSO** that the International Telecommunication Union (ITU) has authorised the provision of radionavigation services such as DGNSS in the frequency band 283.5-315 kHz in Region 1 and 285-325 kHz in Regions 2 and 3 without the need for an associated radio beacon station;

**RECOGNISING FURTHER** that there would be operational advantages in further developing DGNSS services world-wide, particularly, in those areas where alternative DGNSS facilities do not exist.

**HAVING CONSIDERED** that:

1. The current use of radio beacons by vessels for navigational purposes is insignificant and therefore continued provision of a full service is no longer operationally necessary or economically viable;
2. The demand for DGNSS services operating in the frequency band 283.5-315 kHz in Region 1 and 285-325 kHz in Regions 2 and 3 is growing rapidly;

3. The increased range of DGNSS transmissions compared with radio beacon transmissions may require the use of the appropriate band to be re-planned in some local or regional areas;
4. The Association has arranged meetings of European Authorities to plan the future use of the band 283.5-315 kHz in the “European Maritime Area” \*\* to satisfy the demand for DGNSS services whilst retaining a minimal radio beacon service.

**RECOMMENDS** that:

1. National Members that provide a radionavigation service based on radio beacons review the use of the service and consider discontinuing radio beacon transmissions from stations which are no longer used by vessels for navigational purposes. However, the possible need to provide a minimal service, particularly for landfall purposes, until the revised Chapter V of the 1974 Safety of Life at Sea Convention (as amended) enters into force, should be taken into account.
2. All National Members consider the provision, or enhancement, 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. The use of existing or redundant radio beacon stations for this purpose, where they are available, would have economic benefits.

**INVITES** the Secretary General:

1. To assist National Members in general to provide DGNSS services covering any confined coastal waterways and harbour approaches in their area of responsibility;
2. In particular, where DGNSS services are being planned by National Members, to assist as necessary in arranging local or regional meetings of Authorities to plan the use of the frequency band 283.5-315 kHz in Region 1 or 285-325 kHz in Regions 2 or 3, as appropriate, to ensure, as far as possible, that the most effective use is made of the spectrum available. It should be noted that the Association cannot authorise the use of any new or changed frequencies in this band, such authorisation is a matter for the Radio Frequency Regulatory Administration of the country of the National Member concerned.

Note \* The ITU definition of Regions 1, 2 and 3 are given in Annex I

Note \*\* The ITU definition of “European Maritime Area” is given in Annex II

## ANNEX

### Provision Of Maritime Radionavigation Services

#### **1 REGIONS 1, 2 AND 3, AS DEFINED IN THE ITU RADIO REGULATIONS**

##### ***1.1 Region 1***

Region 1 includes the area limited on the east by line A (lines A, B and C are defined below) and on the west by line B, excluding any of the territory of Iran which lies between these limits. It also includes that part of the territory of Turkey and the Commonwealth of Independent States (CIS) lying outside of these limits, the territory of the Mongolian People's Republic and the area to the north of the CIS which lies between lines A and C.

##### ***1.2 Region 2***

Region 2 includes the area limited on the east by line B and on the west by line C.

##### ***1.3 Region 3***

Region 3 includes the area limited on the east by line C and on the west by line A, except the territories of the Mongolian People's Republic, Turkey, the territory of the CIS and the area to the north of the CIS. It also includes that part of the territory of Iran lying outside of those limits.

#### **2 THE LINES A B AND C ARE DEFINED AS FOLLOWS**

##### ***2.1 Line A***

Line A extends from the North Pole along meridian 40° East of Greenwich to parallel 40° North; thence by great circle arc to the intersection of meridian 60° East and the Tropic of Cancer; thence along the meridian 60° East to the South Pole.

##### ***2.2 Line B***

Line B extends from the North Pole along meridian 10° West of Greenwich to its intersection with parallel 72° North; thence by great circle arc to the intersection of meridian 50° West and parallel 40° North; thence by great circle arc to the intersection of meridian 20° West and parallel 10° South; thence along meridian 20° West to the South Pole.

##### ***2.3 Line C***

Line C extends from the North Pole by great circle arc to the intersection of parallel 65° 30' North with the international boundary in Bering Strait; thence by great circle arc to the intersection of meridian 165° East of Greenwich and parallel 50° North; thence by great circle arc to the intersection of meridian 170° West and parallel 10° North; thence along parallel 10° North to its intersection with meridian 120° West, thence along meridian 120° West to the South Pole.

### **3 THE “EUROPEAN MARITIME AREA” AS DEFINED IN THE ITU RADIO REGULATIONS**

The “European Maritime Area” is bounded:

- on the north by a line extending along parallel 72° North from its intersection with meridian 55° East of Greenwich to its intersection with meridian 5° West, then along meridian 5° West to its intersection with parallel 67° North, thence along parallel 67° North to its intersection with meridian 30° West;
- on the west by a line extending along 30° West to its intersection with parallel 30° North;
- on the south by a line extending along parallel 30° North to its intersection with meridian 43° East;
- on the east by a line extending along meridian 43° East to its intersection with parallel 60° North, thence along parallel 60° North to its intersection with meridian 55° East and thence along meridian 55° East to its intersection with parallel 72° North.