International Telecommunication Union

ITU-R

Radiocommunication Sector of ITU

# Recommendation ITU-R M.629-1

(02/2013)

# Use for the radionavigation service of the frequency bands 2 900-3 100 MHz, 5 470-5 650 MHz, 9 200-9 300 MHz, 9 300-9 500 MHz and 9 500-9 800 MHz

**M Series**

**Mobile, radiodetermination, amateur and related satellite services**

## Foreword

The role of the Radiocommunication Sector is to ensure the rational, equitable, efficient and economical use of the radio-frequency spectrum by all radiocommunication services, including satellite services, and carry out studies without limit of frequency range on the basis of which Recommendations are adopted.

The regulatory and policy functions of the Radiocommunication Sector are performed by World and Regional Radiocommunication Conferences and Radiocommunication Assemblies supported by Study Groups.

## Policy on Intellectual Property Right (IPR)

ITU-R policy on IPR is described in the Common Patent Policy for ITU-T/ITU-R/ISO/IEC referenced in Annex 1 of Resolution ITU-R 1. Forms to be used for the submission of patent statements and licensing declarations by patent holders are available from http://www.itu.int/ITU-R/go/patents/en where the Guidelines for Implementation of the Common Patent Policy for ITU-T/ITU-R/ISO/IEC and the ITU-R patent information database can also be found.

### Series of ITU-R Recommendations

(Also available online at http://www.itu.int/publ/R-REC/en)

| Series | Title |
|---|---|
| **BO** | Satellite delivery |
| **BR** | Recording for production, archival and play-out; film for television |
| **BS** | Broadcasting service (sound) |
| **BT** | Broadcasting service (television) |
| **F** | Fixed service |
| **M** | **Mobile, radiodetermination, amateur and related satellite services** |
| **P** | Radiowave propagation |
| **RA** | Radio astronomy |
| **RS** | Remote sensing systems |
| **S** | Fixed-satellite service |
| **SA** | Space applications and meteorology |
| **SF** | Frequency sharing and coordination between fixed-satellite and fixed service systems |
| **SM** | Spectrum management |
| **SNG** | Satellite news gathering |
| **TF** | Time signals and frequency standards emissions |
| **V** | Vocabulary and related subjects |

***Note***: *This ITU-R Recommendation was approved in English under the procedure detailed in Resolution ITU-R 1.*

*Electronic Publication*
Geneva, 2013

# RECOMMENDATION ITU-R M.629-1*

## Use for the radionavigation service of the frequency bands 2 900-3 100 MHz, 5 470-5 650 MHz, 9 200-9 300 MHz, 9 300-9 500 MHz and 9 500-9 800 MHz

(1986-2013)

**Scope**

This Recommendation, recognizing the importance of shipborne and aeronautical navigational radar and radar beacons (racons) for the safety of marine and air navigation, in the frequency bands 2 900-3 100 MHz, 5 470-5 650 MHz, 9 200-9 300 MHz, 9 300-9 500 MHz and 9 500-9 800 MHz, recommends that the bands of operation be optimized for the detection of racons.

This Recommendation also seeks to ensure equipment compatibility between radars, shipborns and aeronautical racons, and discourages the use of radar transponders that could be confused with racons thereby causing a hazard to navigation. Shipborne radar transponders are restricted to certain bands, and the use of certain bands used by airborne navigational radars should be minimized. Since certain radar transponders are used for search and rescue purposes, their characteristics should be such that they cannot be confused with racons.

The ITU Radiocommunication Assembly,

*considering*

a) that compatibility between maritime radars and racons in the radionavigation service is essential to assure safety of marine navigation;

b) that to be compatible, racons must operate in the frequency bands used by shipborne radars;

c) that a majority of navigational maritime radars operate in either the frequency band 2 900-3 100 or 9 200-9 500 MHz;

d) that a number of navigational shipborne radars operate in either the frequency band 5 470-5 650 MHz or 9 500-9 800 MHz;

e) that many airborne navigational radars operate in the frequency band 9 300-9 500 MHz;

f) that aeronautical racons operate in the 9 300-9 320 MHz frequency band;

g) that other radar transponders could in certain circumstances aid in safety of navigation;

h) that radar transponders used for search and rescue purposes have a unique identification code which should prevent their being confused with a racon,

*recommends*

**1** that designers of maritime radars in the maritime radionavigation service ensure, to the extent practicable, compatibility with racons used by administrations for safety of navigation purposes;

**2** that conventional shipborne pulse radars operating in the maritime radionavigation service should not operate in the frequency band 9 500-9 800 MHz.

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* The Director, Radiocommunication Bureau , is requested to bring this Recommendation to the attention of the International Maritime Organization (IMO), the International Civil Aviation Organization (ICAO) and the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA).