



Recommendation ITU-R M 2116-0
(01/2018)

**Technical characteristics and protection
criteria for the aeronautical mobile service
systems operating within the
4 400-4 990 MHz frequency range**

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



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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.

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RECOMMENDATION ITU-R M.2116-0

Technical characteristics and protection criteria for the aeronautical mobile service systems operating within the 4 400-4 990 MHz frequency range

(2018)

Scope

This Recommendation provides information on the technical characteristics and protection criteria for systems operating in the aeronautical mobile service (AMS) planned to or currently operating within the frequency range 4 400-4 990 MHz for use in sharing and compatibility studies as needed and does not contain any aeronautical mobile telemetry system.

Keywords

Aeronautical mobile service, technical characteristics, protection criteria

Abbreviations/Glossary

ADL Aeronautical mobile service data link

AMS Aeronautical mobile service

The ITU Radiocommunication Assembly,

considering

- a) that systems and networks operating in the aeronautical mobile service (AMS) are used for broadband, airborne data-links to support remote sensing, e.g. earth sciences, land management, energy distribution, etc., applications;
- b) that systems and networks operating in AMS are also used for narrow-band, airborne data-links;
- c) that the physics of the propagation of electromagnetic energy, the availability of hardware components, etc., within the 4 400-4 990 MHz frequency range facilitates the use of current or planned operating systems and networks for such applications,

recognizing

- a) that the frequency range 4 400-4 990 MHz is allocated on a primary basis in all three ITU regions to the mobile service;
- b) that other radio services are allocated on either a primary or secondary basis in all or parts of the frequency range 4 400-4 990 MHz all three ITU regions;
- c) that the RR No. 5.442 provides some restrictions for the use of AMS in parts of the frequency band;
- d) that technical characteristics and protection criteria for aeronautical mobile telemetry systems are not contained in this Recommendation,

recommends

- 1 that the technical characteristics and protection criteria for systems operating in the AMS given in the Annex 1 should be used in performing sharing and compatibility analyses.