

International Telecommunication Union

ITU-R
Radiocommunication Sector of ITU

Recommendation ITU-R SM.1054-1
(08/2019)

**Monitoring of radio emissions from
spacecraft at monitoring stations**

SM Series
Spectrum management

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 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, 2019

© ITU 2019

All rights reserved. No part of this publication may be reproduced, by any means whatsoever, without written permission of ITU.

RECOMMENDATION ITU-R SM.1054-1

**Monitoring of radio emissions from spacecraft
at monitoring stations**

(1994-2019)

Scope

This Recommendation encourages administrations to consider the need for space radio monitoring and to cooperate in this field.

Keywords

Space radio monitoring, cooperation between administrations

The ITU Radiocommunication Assembly,

considering

- a) that the number of satellites and associated uplink terminals is increasing;
- b) that as a result there is an increasing number of cases of interference;
- c) that the economic aspects of geostationary and non-geostationary satellite systems become more and more important by the installation of new applications such as radiodetermination satellite systems and fleet management;
- d) that some frequency bands used by satellites are shared with terrestrial services and the radioastronomy service;
- e) that because of the necessity for different techniques, emissions from spacecraft cannot be monitored by conventional monitoring stations;
- f) that there is a growing demand for information by frequency management agencies;
- g) that there are allocations to the mobile-satellite services for use in case of distress or emergency;
- h) that the installation, operation and maintenance of monitoring stations for emissions from spacecraft is expensive,

noting

Report ITU-R SM.2453-0,

recommends

- 1 that administrations may take into account the need for space radio monitoring;
 - 2 that administrations are encouraged to cooperate so that appropriate monitoring can be performed with a sufficient number of monitoring stations.
-