International Telecommunication Union

ITU-R

Radiocommunication Sector of ITU

Recommendation ITU-R SM.1047-2

(09/2012)

National spectrum management

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, 2012

RECOMMENDATION ITU-R SM.1047-2*

National spectrum management

(1994-2001-2012)

Scope

This Recommendation gives a brief introduction on spectrum management and recommends the subject areas to be considered under spectrum management.

Keywords

National spectrum management, spectrum management function, spectrum management responsibilities, spectrum management requirements

The ITU Radiocommunication Assembly,

considering

a) that effective spectrum management is essential to maximizing the benefits drawn from the scarce spectrum resource;

b) that due to the growing demands on the radio-frequency spectrum, there is a need to improve spectrum management;

c) that material is needed to assist spectrum managers in the development and implementation of effective national spectrum management systems and strategies;

d) that ITU-R has already developed, published and is updating on a regular basis the ITU Handbooks on National Spectrum Management, Computer-aided Techniques for Spectrum Management, and Spectrum Monitoring, as well as the Radiocommunications Data Dictionary (Recommendation ITU-R SM.1413) to aid in establishing efficient spectrum management practices (SM-Series Reports and Recommendations covering different aspects of spectrum management and monitoring);

e) the guidance provided through the related Radiocommunication Assembly Resolutions specifically Resolution ITU-R 22-3 on the "Improvement of national radio spectrum management practices and techniques" and Resolution ITU-R 11-4 on "Further development of the spectrum management system for developing countries",

noting

that the economic aspects are properly treated as an integral part of an overall spectrum management process, in accordance with the general guidance given in Report ITU-R SM.2012,

recommends

1 that the development of national spectrum management programmes should address the following subject areas:

– spectrum management fundamentals;

* Radiocommunication Study Group 1 made editorial amendments to this Recommendation in the year 2019 in accordance with Resolution ITU-R 1.

– spectrum planning (short/long-term planning, strategic planning, spectrum use planning, spectrum management system planning, service or network planning);

– spectrum engineering practices (coordination, technical analysis, interference mitigation, etc.);

– frequency authorization (spectrum rights, allocations, assignments, licensing, etc.);

– spectrum use (including spectrum efficiency and spectrum demand);

– spectrum control (inspection and monitoring);

– automation of spectrum management and integration with spectrum monitoring systems;

– spectrum economics (spectrum fees);

– standards and equipment authorization;

2 the use of formats for recording national frequency assignments, compatible with those used by the Radiocommunication Bureau for electronic notification of frequency assignments;

3 that in addressing subjects specified in *recommends* 1, administrations are guided by the appropriate sections of the ITU-R Recommendations, Reports and ITU Handbooks;

4 that in addressing the subject specified in *recommends* 2, administrations are guided by the appropriate sections of the Radio Regulations, Radiocommunications Data Dictionary, the ITU-R Recommendations, Reports and ITU Handbooks;

5 that the development of staff skills and knowledge in subjects specified in *recommends* 1 is a continuous process to enhance effective spectrum management.