

ITU-R (WP1C)

Spectrum Management Training Program

Elective Module EM1-Option 1 : Spectrum Monitoring

Outline

- ITU-R Publications
- Working Party 1C (WP1C)

ITU-R Publications

- ITU-R Questions
- ITU-R Resolution
- ITU-R Recommendation
- ITU-R Report
- ITU-R Handbook

ITU-R Questions

- A Question is a statement of a technical, operational or procedural problem, generally seeking a Recommendation, Handbook or Report.
- Examples:
 - [232/1](#) (Methods and techniques used in space radio monitoring)
 - [235/1](#) (Spectrum monitoring evolution)
 - [239/1](#) (Electromagnetic field measurements to assess human exposure)

ITU-R Resolution

- The ITU-R Resolutions give instructions on the organization, methods or programs of Radiocommunication Assembly or Study Group work.

ITU-R Recommendation

- The ITU-R Recommendations are a set of international technical standards developed by the Radiocommunication Sector of the ITU. They are the result of studies undertaken by Radiocommunication Study Groups.
- The ITU-R Recommendations are approved by ITU Member States. Their implementation is not mandatory; however, as they are developed by experts from administrations, operators, the industry and other organizations dealing with radiocommunication matters from all over the world, they enjoy a high reputation and are implemented worldwide.

ITU-R Recommendation

- **Examples:**

- [SM.2096-0 \(08/2016\)](#) (Test procedure for measuring direction finder sensitivity in the VHF/UHF frequency range)
- [SM.2097-0 \(08/2016\)](#) (On-site accuracy measurements of a fixed direction finder system)

ITU-R Report

- A Report is a technical, operational or procedural statement, prepared by a Study Group on a given subject related to a current Question.
- Examples:
 - [SM.2256-1\(06/2016\)](#) (Spectrum occupancy measurements and evaluation)
 - [SM.2257-5 \(06/2019\)](#) (Spectrum management and monitoring during major events)

ITU-R Handbook

- ITU-R Handbook is a text which provides a statement of the current knowledge, the present position of studies, or of good operating or technical practice, in certain aspects of radiocommunications, which should be addressed to a radio engineer, system planner or operating official who plans, designs or uses radio services or systems, paying particular attention to the requirements of developing countries.
- It should be self-contained, require no familiarity with other ITU Radiocommunication texts or procedures, but should not duplicate the scope and content of publications readily available outside the ITU.

ITU-R Handbook

- Latest edition of the Handbook on
Spectrum Monitoring, 2011



ITU-R Handbook

CHAPTER 1: spectrum monitoring as a key function of a spectrum management system

CHAPTER 2: organization, physical structures and personnel

CHAPTER 3: monitoring equipment and automation of monitoring operations

CHAPTER 4: measurements

CHAPTER 5: specific monitoring systems and procedures

CHAPTER 6: fundamentals and supporting tools

ANNEX 1 TO THE HANDBOOK – monitoring system planning and tenders

ITU-R Publications

Resolutions:

<https://www.itu.int/pub/R-RES>

Handbooks:

<https://www.itu.int/pub/R-HDB>

- For ITU-R Study Group 1 on Spectrum Management:

Questions:

<https://www.itu.int/pub/R-QUE-SG01/en>

Recommendations:

<http://www.itu.int/rec/R-REC-SM/en>

Reports:

<http://www.itu.int/pub/R-REP-SM/en>

Working Party 1C (WP1C)

- Mr. Ralf Trautmann (Germany (Federal Republic of)) is the Chairman of WP 1C and Vice-Chairman of Study Group (SG) 1
- Last meeting of Working Party (WP) 1C was held in Geneva, from 28 May to 5 June 2019
- The meeting considered 57 contributions and produced 11 output documents for consideration by SG 1. In addition, 12 other output documents were produced for consideration at the next WP 1C meeting or regarding the WP 1C correspondence activities.
- Last Chairman Report (<https://www.itu.int/md/R15-WP1C-C-0226/en>)

Working Party 1C (WP1C)

- Samples of Working Documents:
 - Draft new Recommendation ITU-R SM.[MOB DF PERF] - *Performance evaluation of mobile DF units in operational environment*
 - Draft new Recommendation ITU-R SM.[TDOA-ACC] - Test procedures for measuring geolocation accuracy of TDOA emitter location systems
 - Draft new Report ITU-R SM.[POPULATION_COVERAGE] - Population coverage measurement with public wireless networks
 - Draft new Report ITU-R SM.[SMALL-SAT] - *Use of small satellites for spectrum monitoring*