



Recommendation ITU-R SM.1708-1
(09/2011)

**Field-strength measurements along a route
with geographical coordinate registrations**

SM Series
Spectrum management



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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.

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Series	Title
BO	Satellite delivery
BR	Recording for production, archival and play-out; film for television
BS	Broadcasting service (sound)
BT	Broadcasting service (television)
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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 SM.1708-1

Field-strength measurements along a route with geographical coordinate registrations

(Questions ITU-R 214/1 and ITU-R 215/1)

(2005-2011)

The ITU Radiocommunication Assembly,

considering

- a) that the number of mobile networks using different modulation types and accesses techniques is increasing;
- b) that in order to ensure efficient use of the spectrum administrations have a need to know the radio coverage of networks;
- c) that field-strength prediction needs support by practical measurements performed by monitoring;
- d) that mobile field-strength measurements are sometimes the only solution for determining the radio coverage of a large area;
- e) that regulators may need to check the coverage deployment of a network according to licence;
- f) different methods of mobile field-strength measurement are used by administrations,

recognizing

- a) that common measurement procedures are necessary in order to achieve mutual acceptance of measurement results by the parties concerned,

recommends

- 1** that the method described in Annex 1 should be used for field-strength measurements of vertically polarized signals along a route.

Annex 1**1 General**

Influenced by the local receiving conditions, the real values of the field strength can significantly differ from their predicted values, therefore they must be checked by measurements for establishing the radio field-strength coverage of a large area.

Registration of test results must be recorded along with their geographical coordinate data for locating the scenes of measurements and for mapping the results were gathered on the most accessible roads of the area in question.