

Activities on EMF in ITU-R

ITU Workshop on Human Exposure to Electromagnetic Fields
(EMFs)

Turin, Italy

9 May 2013

ITU-R Study Groups

Study Group Department



- Study Group 1 (SG 1) - Spectrum management
- Study Group 3 (SG 3) - Radiowave propagation
- Study Group 4 (SG 4) - Satellite services
- Study Group 5 (SG 5) - Terrestrial services
- Study Group 6 (SG 6) - Broadcasting service
- Study Group 7 (SG 7) - Science services

ITU-R Activities on human exposure to non-ionising radiation

ITU-R SG 1

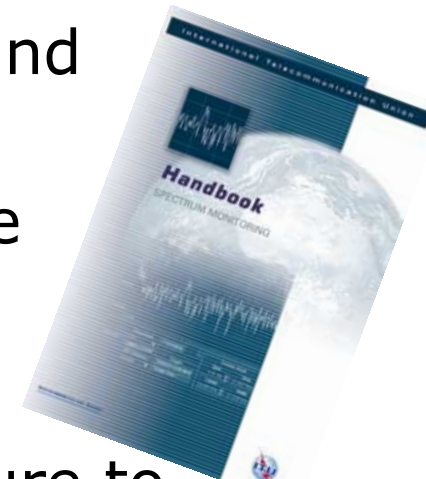
Spectrum management

Handbook on Spectrum monitoring – Edition 2011

<http://www.itu.int/pub/R-HDB-23-2011/en>



- Non-ionising radiation measurements, § 5.6
- Measurement procedures/techniques and instruments
- Covers 9 kHz – 6 GHz range and above
- Different types of signals and services
- ICNIRP 1998: Reference levels for occupational and general public exposure to time-varying electric and magnetic fields



ITU-R SG 6

Broadcasting Service

- Question ITU-R 50/6 – Suppressed
09/07/2007

- Recommendation ITU-R BS.1698 –
<http://www.itu.int/rec/R-REC-BS.1698-0-200502-I/en>



SG 6 - Question ITU-R 50/6

Suppressed 09/10/2007

Evaluating fields from terrestrial BC transmitting systems operating in any frequency band for assessing exposure to non-ionizing radiation

Questions relating to:

- Radio frequency power flux-densities in near and far zones
- Methods for calculating power flux-densities, electric and magnetic field strengths especially in near field zone
- Methods for measuring power flux-densities, electric and magnetic field strengths especially in near field zone
- Design precautions and technical operational procedures to prevent hazardous exposure to radio frequency radiation

SG 6 – Rec. ITU-R BS.1698

First and only edition 2005

Evaluating fields from terrestrial BC transmitting systems operating in any frequency band for assessing exposure to non-ionising radiation

Provides:

- Considerations relating to field strengths and characteristics especially in the near field and for the bands:
 - LF/MF bands (150-1 605 kHz)
 - HF bands (3-30 MHz)
 - VHF/UHF bands (30 MHz-3 GHz)
 - SHF (3-30 GHz)
- Closed solutions and numerical procedures for calculating exposure to non-ionising radiation

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continued

Evaluating fields from terrestrial BC transmitting systems operating in any frequency band for assessing exposure to non-ionising radiation

Provides:

- Measurement techniques and required instrumentation for measuring EMF and exposure levels
- Precautionary measures to be taken at transmitting stations and in their vicinity
- Exposure limits and derived levels based on:
 - IEEE/ANSI (1992)
 - ICNIRP (April 1998)
 - NRPB (UK, 1993)

Questions?