



ITU-R activities in climate change and emergency radiocommunication studies

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ITU-R activity

Radiosystem	Task
Earth/space observation	Solar and planetary observation programs. Land/sea/atmosphere parameters (e.g. vegetation biomass, ocean salinity, subterranean reserves of fresh water and cloud relief and etc.) Detection and tracking of earthquakes, tsunamis hurricanes, typhoons, forest fires, oil leaks etc. Providing warning information. Assessment of damage and planning relief activities
Amateur	Receiving and distributing alert messages Assisting in organizing relief operations in areas
Broadcasting	Disseminating alert messages, coordination of relief activities and advice to public
Radio networks (terrestrial and satellites)	Delivering alert messages and instructions to telecommunication centers, exchange of information between different teams/groups for planning and coordination relief activities



World Radio Conference -12

- lightning detection systems;
- spectrum allocation for meteorological satellite systems and for Earth exploration satellite service;
- Procedure for oceanographic radars;
- new provisions in the RR urging Members State :
 - to recognize the importance of Earth observation
 - promote the introduction of new applications to address issues such as emerging technologies, climate change, disaster management and other socio-economic matters



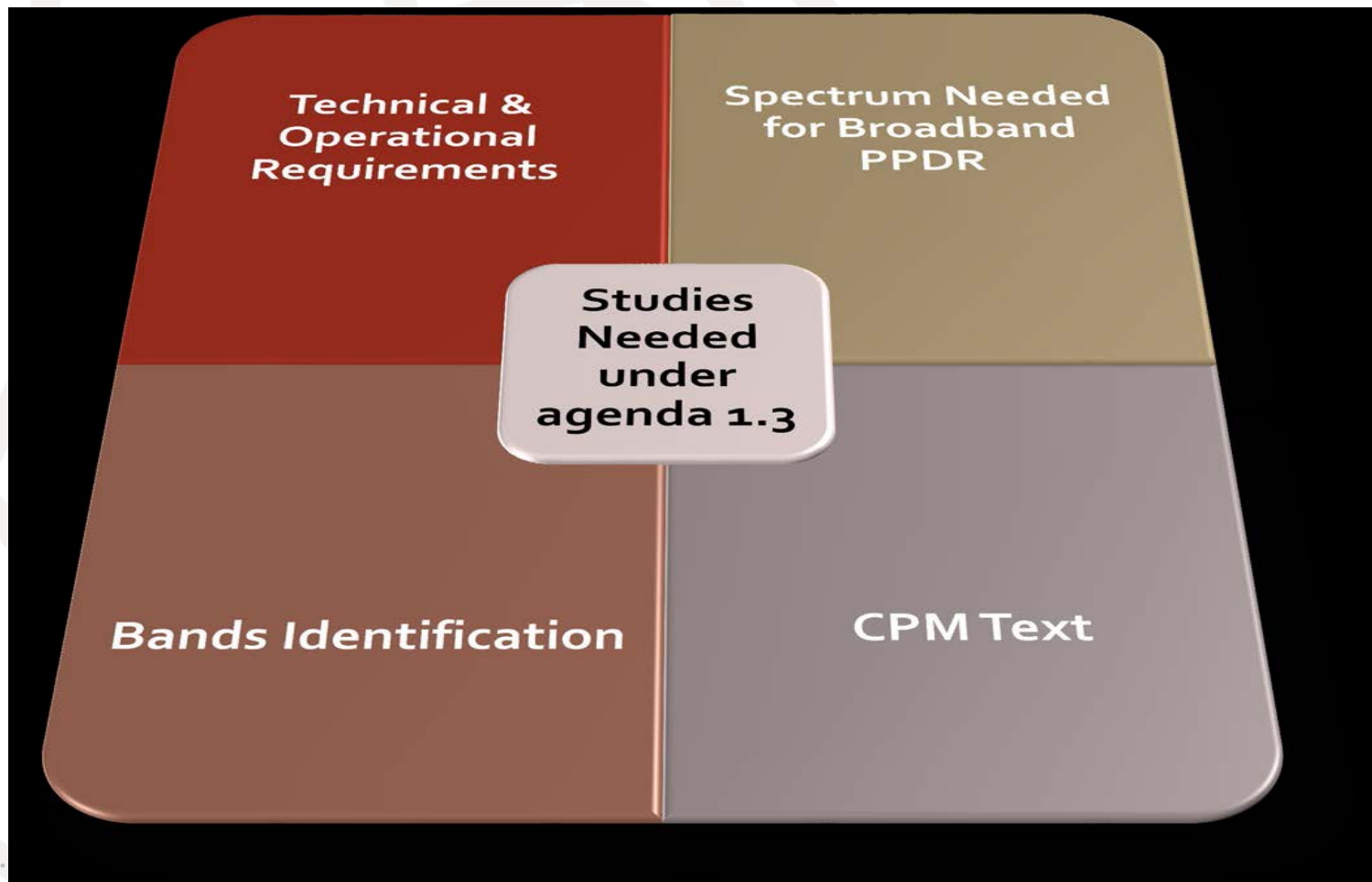
WRC'12

- Res. 644. Radiocommunication resources for early warning, disaster mitigation and relief operation
- Res. 646 Public protection and disaster relief
- Res. 647 Spectrum management guidelines for emergency and disaster relief radiocommunication

WRC'15

- Replacing Aircraft Wiring with Radio
- A380
 - 5 700 kg
 - Harness adds 30% to weight
 - 206 kg CO₂/hour
 - Aim to Replace 30% of Wires\
- Maintain or Increase Safety

WRC-15/PPDR





RA'12

- **Res. 55-1 ITU-R studies of disaster prediction, detection, mitigation and relief**
- **Res 53-1 The use of radiocommunications in disaster response and relief**
- **Reduction of energy consumption for environmental protection and mitigating climate change by use of ICT/radiocommunication technologies and systems**



Output ITU-R activity

ITU-R Special supplement «Emergency and disaster relief»

Rec ITU-R S.1001-2 “Use of systems in the fixed-satellite service in the event of natural disasters and similar emergencies for warning and relief operations”

Rec ITU-R M.1854-1 “Use of mobile-satellite service in disaster response and relief”

Report ITU-R M.2149-1 “Use and examples of mobile-satellite service systems for relief operation in the event of natural disasters and similar emergencies”

Report ITU-R S.2151 “Use and examples of systems in the fixed-satellite service in the event of natural disasters and similar emergencies for warning and relief operations”



Output ITU-R SG activity

Report ITU-R M.2085 “Role of the amateur and amateur-satellite services in support of disaster mitigation and relief”

Report ITU-R BO.1774/BT.1774 on use of satellite and terrestrial broadcast infrastructures for public warning, disaster mitigation and relief

Report ITU-R RS.2178 Use of remote sensing systems in the study of climate change and the effects thereof

Brochure «Radiocommunication and climate change»

Radio based technologies in support of understanding, assesing and mitigation the effects of climate change



Output ITU-R SG activity

- ITU Seminar for Americas Region
Science services: regulatory, technical
and practical implications
Manta, Ecuador, 20-21 September 2012
- www.itu.int/ITU-R/go/itu-sem-americas