

## RESOLUTION 647 (REV.WRC-15)

**Radiocommunication aspects, including spectrum management guidelines,  
for early warning, disaster prediction, detection, mitigation and  
relief operations relating to emergencies and disasters**

The World Radiocommunication Conference (Geneva, 2015),

*considering*

- a)* that natural disasters have underscored the importance of utilizing effective measures to mitigate their effects, including prediction, detection and alerting through the coordinated and effective use of radio-frequency spectrum;
- b)* ITU's comprehensive role in emergency communications, not only in the field of radiocommunications, but also in the area of technical standards to facilitate interconnection and interoperability of networks for monitoring and management at the onset of and during emergency and disaster situations, and as an integral part of the telecommunication development agenda through the Hyderabad Action Plan;
- c)* that administrations have been urged to take all practical steps to facilitate the rapid deployment and effective use of telecommunication resources for early warning, emergency, disaster mitigation and relief operations by reducing and, where possible, removing regulatory barriers and strengthening global, regional and transborder cooperation between States;
- d)* that effective use of telecommunications/information and communication technologies (ICTs), at the onset of and during critical emergencies, is essential for disaster forecasting and prediction, timely detection, early warning, mitigation, management, relief strategies and operations, and plays a vital role in the safety and security of relief workers in the field;
- e)* the particular needs of developing countries and the special requirements of the inhabitants of high-risk areas exposed to disasters, as well as those living in remote areas;
- f)* the work carried out by the ITU Telecommunication Standardization Sector in standardizing the common alerting protocol (CAP), through the approval of the relevant CAP Recommendation,

*recognizing*

- a) that the Tampere Convention on the Provision of Telecommunications Resources for Disaster Mitigation and Relief Operations (Tampere, 1998)<sup>1</sup>, an international treaty deposited with the United Nations Secretary-General, calls on the States Parties, when possible, and in conformity with their national law, to develop and implement measures to facilitate the availability of telecommunication resources for such operations;
- b) Article 40 of the ITU Constitution, on priority of telecommunications concerning safety of life;
- c) Article 46 of the Constitution, on distress calls and messages;
- d) Resolution 34 (Rev. Dubai, 2014) of the World Telecommunication Development Conference, on the role of telecommunications/ICTs in disaster preparedness, early warning, rescue, mitigation, relief and response, as well as ITU Telecommunication Development Sector Question 5/2 “Utilization of telecommunications/ICTs for disaster preparedness, mitigation and response”;
- e) Resolution 36 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, on telecommunications/ICTs in the service of humanitarian assistance;
- f) Resolution 136 (Rev. Busan, 2014) of the Plenipotentiary Conference, on the use of telecommunications/ICTs for monitoring and management in emergency and disaster situations for early warning, prevention, mitigation and relief;
- g) Resolution ITU-R 55, on the ITU Radiocommunication Sector (ITU-R) studies of disaster prediction, detection, mitigation and relief;
- h) that Resolution **646 (Rev.WRC-15)** addresses the broader category of public protection and disaster relief (PPDR), as well as the harmonization of frequency bands/ranges for PPDR solutions<sup>2</sup>;
- i) that some administrations may have different operational needs and spectrum requirements for emergency and disaster-relief applications, depending on their circumstances;

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<sup>1</sup> However, a number of countries have not ratified the Tampere Convention.

<sup>2</sup> Resolution **646 (Rev.WRC-15)** includes *considering* paragraphs to the effect that the term “public protection radiocommunication” refers to radiocommunications used by responsible agencies and organizations dealing with maintenance of law and order, protection of life and property and emergency situations, and that the term “disaster relief radiocommunication” refers to radiocommunications used by agencies and organizations dealing with a serious disruption of the functioning of society, posing a significant widespread threat to human life, health, property or the environment, whether caused by accident, natural phenomena or human activity, and whether developing suddenly or as a result of complex, long-term processes.

j) that the immediate availability of spectrum to support emergency radiocommunication equipment and administration contact information on disaster relief issues are important for successful telecommunications in the very early stages of humanitarian assistance intervention for disaster relief,

*aware*

of the progress made in regional organizations around the world, and in particular in regional telecommunication organizations, on matters related to emergency communications planning and response,

*recognizing further*

a) that ITU-R has developed a Handbook on Emergency and Disaster Relief as well as various Reports and Recommendations relating to emergency and disaster relief operations and radiocommunication resources;

b) that relevant provisions of Resolution **644 (Rev.WRC-12)\*** were incorporated into this Resolution and Resolution **644 (Rev.WRC-12)\*** was consequently suppressed at WRC-15; past versions of the Resolution will continue to be available on the ITU website for reference<sup>3</sup>,

*noting*

a) the close relation of this Resolution with Resolution **646 (Rev.WRC-15)**, on public protection and disaster relief;

b) that when a disaster occurs, the disaster relief agencies are usually the first on the scene using their day-to-day communication systems, but that in most cases other agencies and organizations may also be involved in disaster relief operations;

c) that there is a critical requirement to perform immediate spectrum management actions, including frequency coordination, sharing and spectrum reuse, within a disaster area;

d) that national spectrum planning for emergency and disaster relief should take into account the need for cooperation and bilateral consultation with other concerned administrations, which can be facilitated by spectrum harmonization, as well as agreed spectrum management guidelines pertaining to disaster relief and emergency planning;

e) that in times of disasters, radiocommunication facilities may be destroyed or impaired and the national regulatory authorities may not be able to provide the necessary spectrum management services for the deployment of radio systems for relief operations;

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\* *Note by the Secretariat:* This Resolution was abrogated by WRC-15.

<sup>3</sup> <http://itu.int/go/PPDR>

f) that availability of information, such as the identification of administration disaster-relief contact information, frequency availability within individual administrations within which equipment could operate, and any relevant instructions or procedures may ease the interoperability and/or interworking, with mutual cooperation and consultation, especially in national, regional and cross-border emergency situations and disaster relief activities,

*noting further*

a) that flexibility must be afforded to disaster relief agencies and organizations to use current and future radiocommunications, so as to facilitate their humanitarian operations;

b) that it is in the interest of administrations and disaster relief agencies and organizations to have access to updated information on national spectrum planning for emergency and disaster relief,

*taking into account*

that the Radiocommunication Bureau (BR) has established and maintains a database<sup>4</sup> containing administration contact information, available frequencies/frequency bands for use by terrestrial and space services, and any additional information or instructions relevant to emergency situations within these administrations,

*resolves*

1 that ITU-R continue through its study groups to study those aspects of radiocommunication/ICTs that are relevant to early warning, disaster prediction, detection, mitigation and relief operations taking into account Resolution ITU-R 55;

2 to encourage administrations to communicate to BR the relevant up-to-date administration contact information and, where available, the frequencies or frequency bands for use in emergency and disaster relief operations;

3 to reiterate to administrations the importance of having up-to-date information referred to in *resolves* 2 above available for use in the very early stages of humanitarian assistance intervention for disaster relief,

*instructs the Director of the Radiocommunication Bureau*

1 to support administrations in their work towards the implementation of both Resolutions 36 (Rev. Guadalajara, 2010) and 136 (Rev. Busan, 2014), as well as the Tampere Convention;

2 to coordinate activities between this Resolution and Resolution **646 (Rev.WRC-15)** in order to minimize possible overlap;

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<sup>4</sup> The database may be accessed at <http://www.itu.int/ITU-R/go/res647>.

3 to continue to assist Member States with their emergency communication preparedness activities by maintaining the database<sup>5</sup> of information from administrations for use in emergency situations, which includes contact information and optionally includes available frequencies;

4 to facilitate online access to the database by administrations, national regulatory authorities, disaster relief agencies and organizations, in particular the United Nations Emergency Relief Coordinator, in accordance with the operating procedures developed for disaster situations;

5 to collaborate with the United Nations Office for the Coordination of Humanitarian Affairs and other organizations, as appropriate, in the development and dissemination of standard operating procedures and relevant spectrum management practices for use in the event of a disaster situation;

6 to collaborate, as appropriate, with the United Nations Working Group on Emergency Telecommunications (WGET) and the radio frequency and radio standards group under the UN Emergency Telecommunications Cluster (ETC) for which the World Food Programme (WFP) is the cluster lead;

7 to take into consideration, and collaborate in, as appropriate, all relevant activities in ITU's other two Sectors and General Secretariat;

8 to report on the progress on this Resolution to subsequent world radiocommunication conferences,

*invites the ITU Radiocommunication Sector*

to continue conducting studies as necessary, in accordance with *resolves* 1 and in support of developing and maintaining appropriate spectrum management guidelines applicable in emergency and disaster relief operations,

*invites the Director of the Telecommunication Standardization Bureau and the Director of the Telecommunication Development Bureau*

to collaborate closely with the Director of BR to ensure that a consistent and coherent approach is adopted in the development of strategies in response to emergency and disaster situations,

*urges administrations*

to participate in the emergency communication preparedness activities described above and to provide to BR their information and, in particular, up-to-date contact information related to emergency and disaster relief radiocommunications for inclusion in the database, taking into account Resolution ITU-R 55.

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<sup>5</sup> The database may be accessed at <http://www.itu.int/ITU-R/go/res647>.