

## RESOLUTION ITU-R 55-3

### **ITU-R studies of disaster prediction, detection, mitigation and relief**

(2007-2012-2015-2019)

The ITU Radiocommunication Assembly,

*considering*

- a) the importance of radiocommunication systems in assisting disaster management through techniques for early warning, prevention, mitigation and relief;
- b) that ITU-R Study Groups play an important role in disaster management, particularly in the prediction, detection, mitigation and relief activities necessary to survive the event and to minimize the loss of life and property;
- c) that each ITU-R Study Group brings expertise to the complex mechanisms required to provide relief for the affected area;
- d) that it is vital for the various necessary radio systems to have access to the radio spectrum, in order to effectively predict, detect, mitigate and relieve disaster event situations,

*noting*

- a) Resolution 34 (Rev. Buenos Aires, 2017) of the World Telecommunication Development Conference, on the role of telecommunications/information and communication technologies in disaster preparedness, early warning, rescue, mitigation, relief and response;
- b) § 91 c) of the Tunis Agenda of the World Summit on the Information Society (WSIS), which states: “Working expeditiously towards the establishment of standards-based monitoring and worldwide early-warning systems linked to national and regional networks and facilitating emergency disaster response all over the world, particularly in high-risk regions”;
- c) Recommendation ITU-R M.2083 with regard to disaster prediction, detection, mitigation and relief;
- d) Recommendation ITU-R BS.2107, on use of International Radio for Disaster Relief (IRDR) frequencies for emergency broadcasts in the High Frequency (HF) bands, defines the IRDR frequencies that may be used for HF emergency broadcasts;
- e) Report ITU-R BT.2299, on broadcasting for public warning, disaster mitigation and relief, provides a compilation of supporting evidence that broadcasting plays a critically important role in disseminating information to the public in times of emergencies,

*taking into account*

- relevant resolutions of world radiocommunication conferences relating to this matter;
- Resolution ITU-R 60,

*emphasizing*

that ITU-R Study Groups have an important role in disaster management through their technical and operational studies and Recommendations that support disaster prediction, detection, mitigation and response activities which are critical for minimizing loss of life and property and for providing relief to disaster-affected areas,

*recognizing*

a) Resolution 136 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on the use of telecommunications/information and communication technologies for monitoring and management in emergency and disaster situations for early warning, prevention, mitigation and relief resolved to instruct the Directors of the Bureaux:

- 1) to continue their technical studies and to develop recommendations, through the ITU Study Groups, concerning technical and operational implementation, as necessary, of advanced solutions to meet the needs of public protection and disaster relief telecommunications/ICTs, taking into account the capabilities, evolution and any resulting transition requirements of existing systems, particularly those of many developing countries, for national and international operations;
- 2) to support the development of robust, comprehensive, all-hazards emergency and disaster early-warning, mitigation and relief systems, at national, regional and international levels, including monitoring and management systems involving the use of telecommunications/ICTs (e.g. remote sensing), in collaboration with other international agencies, in order to support coordination at the global and regional level;
- 3) to promote implementation by appropriately alerting authorities of the international content standard for all-media public warning, in concert with ongoing development of guidelines by all ITU Sectors for application to all disaster and emergency situations;
- 4) to continue to collaborate with organizations that are working in the area of standards for emergency telecommunications/ICTs and for communication of alert and warning information, in order to study the appropriate inclusion of such standards in ITU's work and their dissemination, in particular in developing countries;

b) that disaster management in the field of radiocommunications comprises the following, equally important, aspects:

- 1) early warning and prevention, through:
  - disaster prediction, including the acquisition and processing of data concerning the probability of future disaster occurrence, location and duration;
  - disaster detection, including the detailed analysis of the topical likelihood and severity of a disaster event;
- 2) disaster mitigation including the rapid promulgation of imminent disaster information and corresponding alerts to disaster relief agencies;
- 3) post-disaster relief radiocommunications, including the provision of *in situ* terrestrial and satellite communication systems to aid in securing and stabilizing life and property in the affected area,

*recognizing further*

that, generally, the mitigation of a disaster event on the territory of a developed country may have less of an impact on the local economy than that of a similar disaster event on the territory of a developing country,

*resolves*

that, given the importance of the effective use of the radio-frequency spectrum for radiocommunications in disaster situations:

- the concerned ITU-R Study Groups undertake studies and develop guidelines related to the management of radiocommunications in disaster prediction, detection, mitigation

and relief collaboratively and cooperatively within ITU and with organizations external to the Union;

- the relevant ITU-R Study Groups continue studies on new emerging technologies which could support disaster prediction, detection, mitigation and relief,

*invites the Study Groups*

to take into consideration the scope of ongoing studies/activities outlined in the ITU-R webpage on Emergency Radiocommunications<sup>1</sup> and information provided by the Bureau on related activities of the other two Sectors and the General Secretariat, in the development of their work programmes in order to avoid duplication of effort.

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<sup>1</sup> <https://www.itu.int/en/ITU-R/information/Pages/emergency.aspx>.