

REPORT ITU-R M.2085*

Role of the amateur and amateur-satellite services in support of disaster mitigation and relief

(2006)

Scope

This Report is intended to document the role of the amateur and amateur-satellite services in provision of radiocommunications in support of disaster mitigation and relief. It includes information developed after the South-East Asia tsunami in December 2004.

1 Introduction

The amateur services have a long history of providing radiocommunications during emergencies and in support of disaster relief. Some important attributes of the amateur services are that stations are distributed throughout the world in populated and sparsely populated areas, have flexible equipment with frequency agility, and have trained radio operators capable of reconfiguring networks to meet the specific needs of an emergency.

Amateur stations are regularly involved in emergency radiocommunications for relief of hurricanes, typhoons and cyclones; tornadoes, floods; fires; volcanic eruptions; and some man-made emergencies such as chemical spills.

2 Related texts

Much concerning the use of the amateur and amateur-satellite services is documented in ITU-R and ITU-D texts, namely:

- Article 5 of the Radio Regulations (RR) lists frequency allocations for the amateur and amateur-satellite service;
- Article 25 establishes basic rules for the amateur and amateur-satellite services. In particular, it states:
“25.9A § 5A Administrations are encouraged to take the necessary steps to allow amateur stations to prepare for and meet communication needs in support of disaster relief. (WRC-03);”
- Resolution 644 (Rev.WRC-2000) – Telecommunications resources for disaster mitigation and relief operations;
- Resolution 646 (WRC-2003) – Public protection and disaster relief;
- Recommendation ITU-R M.1042 – Disaster communications in the amateur and amateur-satellite services;
- Recommendation ITU-R M.1732 documents the technical and operational characteristics of systems used in the amateur service and amateur-satellite services;

* This Report should be brought to the attention of Telecommunication Standardization Study Group 2.

- Recommendation ITU-D 13 – Effective utilization of the amateur services in disaster mitigation and relief operations;

The ITU-D Handbook on Emergency Telecommunications (2005), in particular: Part II, Chapter 5 – The Amateur Radio Service – includes the following:

- the roles of the amateur service in emergency telecommunications;
- short-, medium- and long-range networks;
- communications modes;
- operating frequencies;
- repeater stations;
- the organization of amateur radio emergency service;
- third party communications in the amateur radio service;
- optimizing the use of the amateur radio service as a public service.

Part III of the ITU-D Handbook lists frequencies allocated to the amateur and amateur-satellite services as well as those allocated to the mobile service likely to be used for emergency radiocommunications. It includes antenna, propagation and other useful information related to emergency radiocommunications.

The contents of the ITU-D Handbook drew heavily on studies developed in ITU-R and ITU-R contributed to the work of the Handbook editorial team.

The ITU-R Special Supplement, *Emergency and Disaster relief*, lists studies carried out by Radiocommunication Study Groups and annexes related texts.

3 GAREC

The first Global Amateur Radio Emergency Communications Conference took place on 13-14 June 2005 in Tampere, Finland. The conference reviewed the possibilities to further improve the contributions the amateur service can make to the goals defined by the World Summit on the Information Society, including:

- the existing structures and agreements of cooperation between national amateur radio organizations and institutional providers of emergency and disaster response services;
- the role of the amateur service in national and international humanitarian assistance and in disaster prevention and preparedness;
- the role of the amateur service in capacity building and in improving affordable connectivity;
- the need for a supportive regulatory framework as part of an enabling environment to improve access to communication.

Among the conclusions of the 2005 conference were that:

- The amateur service has proven capabilities and capacities to serve the international community through its global network of infrastructure-independent stations. Such stations are not only most likely to withstand the physical impact of disasters, but their flexibility furthermore avoids the overload all public networks inevitably experience in the aftermath of disasters. The broad spectrum of technologies used by the amateur service allows the joint use of traditional media and new technologies.
- Beyond its character as a global network, the amateur service is an invaluable resource of skilled operators, trained and experienced in maintaining communications under the most