

# The Role of the Amateur Service in Disaster Relief

A paper to the ETSI/CENELEC JWG ad-hoc working group on safety related frequencies  
by the International Amateur Radio Union Region 1

## 1 The Amateur Service

1.1 Article 1.56 of the ITU Radio Regulations defines the Amateur Radio Service as:

*“A radio communications service for the purpose of self training, intercommunication and technical investigations carried out by amateurs, that is, by duly authorised persons interested in radio technique solely with a personal aim and without pecuniary interest”*

1.2 The use of the following amateur radio bands has been recognised by the ITU in the event of natural disasters:

*Bands with lower frequency limits of:*

*3.5 MHz; 7.0 MHz; 10.1 MHz; 14.0 MHz; 18.068 MHz; 21.00 MHz; 24.89 MHz; 144.00 MHz*

1.3 More recently, ITU-R M.1042-1 (10/98) includes a recommendation that administrations encourage the development of the Amateur Service and Amateur Satellite Service networks capable of providing communication in the event of disasters and emergencies.

1.4 Resolution 644 from WRC 2000 again emphasised the role of the Amateur Service in disaster communication.

1.5 The Secretary-General of the UN submitted a paper for WRC 2003 supporting the specific role of amateur radio in disaster communication on 7MHz (this paper was associated with the proposal to re-align the 7MHz amateur band on a global basis).

1.6 CEPT WG PT SE 24 (March 2003) has published a draft compatibility study on a general radiated limit for inductive applications in the frequency range 135 kHz – 30 MHz. In this document, it is clearly recognised that the Amateur Service shall be one of the protected services, alongside e.g. GMDSS (primary search and rescue).

1.7 The role of the Amateur Service in disaster communications is enshrined in virtually every national amateur licence.

1.8 In recent years, and even with modern communications infrastructures, amateur radio has often been the only means of communication between a disaster area and the outside world for some time immediately after the disaster has occurred.

## 2 Broadband telecommunication networks and the protection of the disaster role of the Amateur Service

2.1 Wideband emissions from broadband telecommunications networks, at the levels currently under consideration, represent a very real threat to the disaster communications role of the Amateur Service. By their very nature, communications at times of disaster or emergency generally involve very low-level signals emanating from the disaster area, and maintenance of a quiet background noise floor will be essential to maintain the ability to receive such signals.

2.2 The frequency bands which are often used (and which have, in the past, been recognised by the ITU) for disaster communication, should therefore be safeguarded from high emission levels from broadband telecommunication networks. The frequencies involved are set out in Table 1 below:

**Amateur frequency bands used for disaster communication**

<b>Lower limit of band</b>	<b>Upper limit of band</b>
3500 kHz	4000kHz
7000kHz	7300 kHz
10100 kHz	10150 kHz
14000 kHz	14350 kHz
18068 kHz	18168 kHz
21000 kHz	21450 kHz
24890 kHz	24990 kHz
144.0 MHz	148.0 MHz

**3 Recommendation**

***IARU recommends that the ITU recognised amateur bands remain included alongside other safety and emergency frequencies in the Product Family Standard for Telecommunication Networks (Annex C - informative) of the Final Draft ETSI EN 302262 v1.1.1 (2003-08)***