

Frequencies for distress and safety, search and rescue and emergencies in the UK



FREQUENCIES FOR DISTRESS AND SAFETY, SEARCH AND RESCUE AND EMERGENCIES

Given the global nature of travel with the potential risk of accidents the international community has agreed that the use of certain frequencies be harmonised globally for distress and safety, search and rescues and emergency use. Collectively, these are referred to as 'Search and Rescue' or 'SAR'. The International Telecommunication Union (ITU) publishes the global rules detailing which frequencies are to be used for SAR.

Distress communication includes all messages relating to immediate assistance required by persons, aircraft, or marine craft in distress, including medical assistance. It may also include SAR communications and on-scene communications by the rescue services. Distress calls take absolute priority over all other transmissions; anyone receiving a distress call must immediately cease any transmissions that may interfere with the call and listen on the frequency used for the call.

Some distress frequencies may be used to call other stations to establish contact, whereupon the stations move to another frequency. Such channels are known as distress, safety and calling frequencies. The object of SAR communications is to facilitate SAR operations. Such communications must allow for:

- a) rapid transmission of distress messages from aircraft, ships and small craft, including for medical assistance;
- b) rapid communication of distress information to the authorities responsible for organising and effecting rescue;
- c) coordination of the operation of the various SAR units; and
- d) liaison between controlling/coordinating authorities and SAR units.

UK organisation of Search and Rescue

The organisation for search and rescue (SAR) in the United Kingdom of Great Britain and Northern Ireland (UK) is an amalgam of separate Government Departments, the Emergency Services and a number of search and rescue charities and voluntary organisations. The UK organisation for civil maritime and civil aeronautical search and rescue is derived from the UK Government's adherence a number of international Conventions.

Responsibility for the overall provision of national civil aeronautical and maritime SAR and its policies rests with the Department for Transport (DfT) through its Aviation Airspace Division (AAD) and Maritime and Coastguard Agency (MCA). Further information on the organisation of Search and Rescue in the UK can be found at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/593127/mca_uk_sar.pdf .

Ofcom is responsible for the management of UK spectrum and the authorisation of frequencies for non-Crown users.

Table of frequency allocations

Frequency	Use
490 kHz	Transmission by coast stations or meteorological and navigational warnings and urgent information to ships by means of narrow-band direct-printing (NBDP) telegraphy (national NAVTEX service).
518 kHz	Transmission by coast stations of meteorological and navigational warnings and urgent information to ships by means of narrow-band direct-printing telegraphy (International NAVTEX service).
2174.5 kHz	International Global Maritime Distress and Safety System (GMDSS) distress frequency for narrow-band direct-printing telegraphy.
2182 kHz	International distress carrier frequency for radiotelephony. Distress calls and traffic, signals of emergency position-indicating radio-beacons (EPIRBs), urgency signal and urgency messages and the safety signal. GMDSS distress and safety traffic by radiotelephony. Search and Rescue (SAR) operations concerning manned space vehicles.
2187.5 kHz	GMDSS distress and safety calls using digital selective calling (DSC).
2226 kHz	Transmission of maritime safety information (MSI), 3 Day weather forecast.
2596 kHz	Carrier frequency for radiotelephony. Used in the UK for SAR purposes by HM Coastguard (HMCG) and the Royal National Lifeboat Institution (RNLI).
3023 kHz	Aeronautical carrier frequency for radio-telephony. Can also be used in co-ordinated SAR operations. SAR operations concerning manned space vehicles.
3500 - 3800 kHz	Amateur band; in the event of natural disasters, may be used by non-Amateur stations to meet the needs of international communications in the disaster area.
4125 kHz	Carrier frequency used to supplement 2 182 kHz for distress and safety. GMDSS distress and safety traffic by radiotelephony. May be used by aircraft to communicate with stations of the Maritime Mobile service for distress and safety purposes, including SAR.
4177.5 kHz	GMDSS distress and safety traffic by NBDP.
4207.5 kHz	GMDSS distress and safety calls using DSC.

Frequency	Use
4209.5 kHz	National NAVTEX service transmissions by coast stations by means of NBDP.
4210 kHz	Transmission by coast stations of Maritime Safety Information (MSI) by means of NBDP.
5680 kHz	Aeronautical carrier frequency for radiotelephony. Used in co-ordinated SAR operations. SAR operations concerning manned space vehicles.
6215 kHz	Carrier frequency used to supplement 2 182 kHz for distress and safety. GMDSS distress and safety traffic by radiotelephony.
6268 kHz	GMDSS distress and safety traffic by NBDP.
6312 kHz	GMDSS distress and safety calls using DSC.
6314 kHz	Transmission by coast stations of MSI by means of NBDP.
6425 kHz	Transmission by coast stations of MSI by means of NBDP
7000 - 7200 kHz	Amateur band; in the event of natural disasters, may be used by non-Amateur stations to meet the needs of international communications in the disaster area
8291 kHz	Carrier frequency for GMDSS distress and safety traffic by radiotelephony.
8364 kHz	Used by survival craft in SAR operations with stations of the Maritime and Aeronautical Mobile services.
8376.5 kHz	GMDSS distress and safety traffic by NBDP.
8414.5 kHz	GMDSS distress and safety calls using DSC.
8416.5 kHz	Transmission by coast stations of MSI by means of NBDP.
10003 kHz	SAR operations concerning manned space vehicles.
10100 - 10150 kHz	Amateur band; in the event of natural disasters, may be used by non-Amateur stations to meet the needs of international communications in the disaster area.

Frequency	Use
12290 kHz	Carrier frequency for GMDSS distress and safety traffic by radiotelephony.
12520 kHz	GMDSS distress and safety traffic by NBDP.
12577 kHz	GMDSS distress and safety calls using DSC.
12579 kHz	Transmission by coast stations of MSI by means of NBDP.
14000 - 14350 kHz	Amateur band; in the event of natural disasters, may be used by non-Amateur stations to meet the needs of international communications in the disaster area.
14993 kHz	SAR operations concerning manned space vehicles.
16420 kHz	Carrier frequency for GMDSS distress and safety traffic by radiotelephony.
16695 kHz	GMDSS distress and safety traffic by NBDP.
16804.5 kHz	GMDSS distress and safety calls using DSC.
16806.5 kHz	Transmission by coast stations of MSI by means of NBDP.
18068 - 18168 kHz	Amateur band; in the event of natural disasters, may be used by non-Amateur stations to meet the needs of international communications in the disaster area.
19680.5 kHz	Transmission by coast stations of MSI by means of NBDP.
19993 kHz	SAR operations concerning manned space vehicles.
21000 - 21450 kHz	Amateur band; in the event of natural disasters, may be used by non-Amateur stations to meet the needs of international communications in the disaster area.
22376 kHz	Transmission by coast stations of MSI by means of NBDP.
24890 - 24990 kHz	Amateur band; in the event of natural disasters, may be used by non-Amateur stations to meet the needs of international communications in the disaster area.

Frequency	Use
26100.5 kHz	Transmission by coast stations of MSI by means of NBDP.
86.30625 - 86.31875 MHz	UK - Land Search & Rescue.
121.45 - 121.55 MHz	Aeronautical emergency frequency for the purposes of distress and urgency for radiotelephony by stations of the Aeronautical Mobile service. May also be used for these purposes by survival craft stations. EPIRBs may also use this frequency. SAR operations concerning manned space vehicles.
123.1 MHz	Auxiliary to 121.5 MHz, for use by stations of the Aeronautical Mobile service and by other mobile and land stations engaged in co-ordinated SAR operations.
132.65 MHz	SAR helicopter co-ordination and counter-pollution operations.
144 - 146 MHz	Amateur band; in the event of natural disasters, may be used by non-Amateur stations to meet the needs of international communications in the disaster area.
147.34375 - 147.49375 MHz	MCA for Land SAR management
155.34375 - 155.35625 MHz	Land Search & Rescue – Scotland only.
155.9625 - 155.9875 MHz	MCA for SAR management
155.7750 - 155.9625 MHz	MCA for Land SAR management
156.0 MHz	HMCG SAR on the UK coast.
156.1250 c/w 160.7250 MHz	MCA for Maritime Safety Information 156.125 MHz also for SAR A2G
156.175 c/w 160.7750 MHz	MCA for Maritime Safety Information
156.225 c/w 160.8250 MHz	MCA for Maritime Safety Information

Frequency	Use
156.3 MHz	Communications between ship stations and aircraft stations engaged in co-ordinated SAR operations. May be used by aircraft stations to communicate with ship stations for other safety purposes.
156.375 MHz	Communication between ship stations, aircraft stations and participating land stations engaged in co-ordinated SAR and anti-pollution operations. HMCG Yacht safety channel (1st reserve).
156.5 MHz	Communication between ship stations, aircraft stations and participating land stations engaged in co-ordinated SAR and anti-pollution operations.
156.525 MHz	In the Maritime Mobile VHF service, the frequency 156.525 MHz is to be used exclusively for digital selective calling for distress, safety and calling (see Resolution 323 (Mob-87)).
156.65 MHz	GMDSS ship-to-ship communications relating to the safety of navigation.
156.675 MHz	Communications between ship stations, aircraft stations and participating land stations engaged in co-ordinated SAR and anti-pollution operations. HMCG 2nd reserve channel for SAR.
156.8 MHz	International distress and safety frequency for radiotelephony. Used for the distress signal the distress call, distress traffic, the urgency signal urgency traffic and the safety signal. GMDSS distress and safety traffic by radiotelephony. May be used by aircraft stations for safety purposes only. SAR operations concerning manned space vehicles.
158.65 MHz	Land SAR - Scotland.
160.6 MHz	HMCG SAR on the UK coast.
161.975 MHz	AIS 1 – used for AIS search and rescue transmitters (AIS-SART) for use in search and rescue operations.
162.025 MHz	AIS 2 – used for AIS search and rescue transmitters (AIS-SART) for use in search and rescue operations.
242.95 - 243.05 MHz	Survival craft stations and equipment used for survival purposes. SAR operations concerning manned space vehicles.
282.8 MHz	Survival craft stations and equipment used for survival purposes. SAR operations concerning manned space vehicles.

Frequency	Use
406 – 406.1 MHz	Satellite EPIRBs in the Earth-to-space direction.
1530 - 1544 MHz	In addition to routine non-safety use, is used for distress and safety purposes in the space-to Earth direction in the Maritime Mobile-Satellite service.
1544 - 1545 MHz	Distress and safety operations including feeder links of satellites need to relay the emissions of satellite EPIRBs to Earth stations and narrow-band (space-to-Earth) links from space stations to mobile stations.
1626.5 - 1645.5 MHz	In addition to routine non-safety use, is used for distress and safety purposes in the Earth-to-space direction in the Maritime Mobile-Satellite service.
1645 - 1646.5 MHz	Distress and safety operations including transmissions from satellite EPIRBs and relay distress alerts received by satellites in low polar earth orbits to geostationary satellites.
9200 – 9500 MHz	Search and rescue Radar transponders to facilitate SAR.