

# RADIO DISTRESS CALLING

## USE ONLY

### if in grave or imminent danger

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- Use Ch 16 VHF or 2182, 4125, 6215, 8291, 12290, 16420 SSB
- **MAYDAY MAYDAY MAYDAY**
- **THIS IS** (Name of vessel and call sign) - Spoken three times
- **MAYDAY** (name of vessel & call sign)
- Vessel's position in degrees & minutes of latitude and longitude or bearing & distance relative to a well known geographical feature.
- Nature of distress & the kind of assistance required.
- Any other information which may assist rescuers – number of persons on board, description of vessel, liferaft, EPIRB.
- Allow a short period for shore station to reply. If no answer, activate your EPIRB & repeat the distress call working through all the distress frequencies.
- If contact is made with shore station, inform station that you have activated your EPIRB.

**DO NOT TURN EPIRB OFF until told to do so by rescue authority.**

Authority: Maritime New Zealand

**Digital Selective Calling (DSC)**

1. This is an automatic calling system which makes the initial contact between two stations, groups of stations or stations in a selected area. The caller composes a short message which is transmitted directly to the receiving station(s).

**New Zealand DSC Coverage**

2. The system, based at Taupo Maritime Radio, has a coverage area for the Global Maritime Distress and Safety System (GMDSS) oceanic area designations\* A3 and A4 in the New Zealand monitored sea area NAVAREA XIV.

3. DSC is not used on the maritime VHF or MF frequency bands and does not cover the GMDSS in-shore area designations\* of A1 and A2.

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\* Definitions of GMDSS Sea Areas

A1 – Within range of VHF coast stations (**DSC alerting not available NZ**)

A2 – Beyond area A1, but within range of MF coastal stations (**DSC alerting not available NZ**)

A3 – Beyond the first two areas, but within coverage of geostationary maritime communication satellites (i.e. Inmarsat). This covers the area between roughly 70° N and 70° S.

A4 – The remaining sea areas. The most important of these is the sea around the North Pole (the area around the South Pole is mostly land). Geostationary satellites, which are positioned above the equator, cannot reach this far.

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**DSC Operation**

4. When the DSC equipment receives a call it raises an alarm. Embedded within the alert signal is an indication of how subsequent communications should be made, either radiotelephony or radio telex. A second telecommand provides the receiving station with the appropriate frequency to be used for the subsequent traffic.

If the caller is in distress, the ship's position and nature of distress are included in the DSC message. For distress and urgency alerts, the alarm sounds continuously until the received information has been read by the operator. DSC Distress alerts received by Taupo Maritime Radio are immediately passed to the Rescue Co-ordination Centre New Zealand (RCCNZ).

5. DSC uses the HF maritime radio frequencies in the 4, 6, 8, 12 and 16 MHz bands.

**DSC Distress Procedures**

To be used by all HF DSC-equipped vessels operating in the NAVAREA XIV sea areas A3 and A4 if time permits.

**By a Ship Transmitting a DSC Distress Alert**

1. If time permits, consult the optimum frequency/range table using Taupo Maritime Radio which is published quarterly in the *NZ Notices to Mariners (NTMs)*. As a general rule the DSC distress channel in the 8 MHz maritime band (8414.5 kHz) may in many cases be an appropriate first choice.

2. DSC distress alert may be sent on a number of HF band in two different ways:

- a) either by transmitting a distress call as 5 consecutive calls on one frequency (single frequency call attempt), and waiting a few minutes for receiving acknowledgement by a coast station.
- b) or a distress call attempt may be transmitted as up to 6 consecutive calls dispersed over a maximum of 6 distress frequencies (1 at MF & 5 at HF. Note Taupo Maritime does not monitor the MF DSC distress frequency). Stations transmitting multi-frequency call attempts should be able to receive acknowledgements continuously on all frequencies except for the transmit frequency in use.

Step 3 (below), should only be done AFTER the vessels has received a DSC acknowledgement of their distress alert.

3. Transmit a MAYDAY call on the associated HF Radiotelephony band. (For example, if 8184.5 kHz had been used for the DSC Distress Alert, then 8291 kHz would be used for the MAYDAY message.)

4. Normally a DSC acknowledgement should be received from a Coast Station.

Authority: Maritime New Zealand

**By a Ship Receiving a DSC Distress Alert.**

1. View the details of the Distress Alert (Ship's position, MMSI number etc.).
2. **Do not acknowledge.** Switch to the associated HF Radiotelephony band, and listen to the MAYDAY call and message, which should follow.
3. Wait for at least three minutes for an acknowledgement of the MAYDAY message from a Coast Station using the selected HF Radiotelephony band.
4. If after three minutes, no acknowledgement from a Coast Station is received, transmit a DSC MAYDAY RELAY alert to a suitable shore station if using DSC and inform any Rescue Co-ordination Centre that a MAYDAY messages been received and give the details. This relay message can be sent by any means, on any suitable GMDSS distress and safety frequency.

**The following frequencies have been assigned to Taupo Maritime Radio (ZLM) for Distress, Urgency & Safety use for DSC, Voice and SITOR:**

<i>Bands</i>	<i>DSC</i>	<i>Voice</i>	<i>SITOR (FEC)</i>
HF4	4207.5	4125	4177.5
HF6	6312.0	6215	6268
HF8	8414.5	8291	8376.5
HF12	12577	12290	12520
HF16	16804.5	16420	16695

**The following voice Working Frequencies have been allocated to ZLM:**

<i>Band</i>	<i>Frequency</i>						
MF2	2207						
HF4	4146	4149					
HF6	6224	6227	6230				
HF8	8297	8294					
HF12	12356	12353	12359	12362	12365		
HF16	16531	16528	16540	16543	16546	16534	16537
HF22	22165	22171	22177	22159			