



Australian Government

Australian Maritime Safety Authority



# DIGITAL SELECTIVE CALLING

FREQUENTLY ASKED QUESTIONS

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## What is Digital Selective Calling (DSC)?

DSC is a semi-automated means of establishing initial contact between stations. Once contact is made, communications on a nominated Very High Frequency (VHF) channel or High Frequency (HF) voice channel should be used to pass messages.

DSC transceivers have the capability to send distress alerts (see below) which have distress priority, contain a vessel's MMSI identification (see below) and the vessel's position in latitude and longitude, and the time the position was valid. The distress DSC alert can be initiated via a single button on the transceiver, and will repeat automatically.

## What is the status of DSC coverage in Australia?

In Australian waters, VHF DSC is for ship-to-ship alerting, since there is no official shore-based infrastructure. However, a number of volunteer marine rescue stations have installed VHF DSC, and a check with your local marine rescue stations should be made.

VHF DSC for small craft is primarily for distress, urgency and safety purposes.



*VHF DSC Radio*

The Australian Maritime Safety Authority is responsible for the maintenance of a high-frequency (HF) DSC capability in Australia for shipping, meeting the requirements for operating under the Global Maritime Distress and Safety System (GMDSS). Other vessels, with HF DSC equipment, may also use the service for distress alerting, urgency and safety-priority communications. Please note that AMSA does not monitor 2 MHz DSC channels.



*HF DSC Radio*

## **VHF DSC in a distress (MAYDAY) situation**

### **1. Send the DSC distress alert and then use the voice procedure**

First send the DSC distress alert (it will repeat automatically, at an interval between 3.5 and 4.5 minutes). Then, if the situation permits, the vessel in distress should transmit the voice distress call and message on Channel 16, as follows;

#### **Format for a voice distress call and message**

MAYDAY MAYDAY MAYDAY;

THIS IS (*once*);

Name/callsign/MMSI (*3 times*);

MAYDAY (*once*);

Name/callsign/MMSI (*once*);

Position: (*relative to a known geographic feature or lat./long.*);

Nature of distress; (*e.g. sinking*);

The kind of assistance required;

Any other useful information (*such as number of people on board*);

OVER.

Then monitor Channel 16.

## 2. Repeat the distress call / message

If no voice distress acknowledgement follows, repeat the voice distress call and message as required. This is to ensure that non-DSC VHF coast stations, and non-DSC VHF vessels in VHF range, become aware of the distress.

## 3. Copy the distress message

If you receive a DSC distress alert, switch to Channel 16 (if the equipment has not already switched), and be ready to write down the contents of any voice distress message that may follow. The same applies to stations receiving only the voice MAYDAY distress call and message.

## 4. Advise the Master/Skipper

The master/skipper or person responsible for the vessel, shall be advised by the person receiving a distress call and message, of the reception of the distress call and message.

Listening time for a distress message following a DSC distress alert, or a voice distress signal/call/message should be at least five minutes.

If the vessel or coast station is monitoring via DSC, additional DSC alerts from the vessel in distress should be expected.

## 5. Make a voice acknowledgement

If the receiving party is able to assist, in the judgement of the Master, Skipper, or coast station, then the receiving party should send a voice acknowledgement to the party in distress, identifying their own station/vessel, and the words "RECEIVED MAYDAY" as follows:

### **Format for voice acknowledgement**

MAYDAY (*once*);

Name/call sign/MMSI of the station in distress (*3 times*);

THIS IS (*once*);

Name and call sign of the station acknowledging receipt (*3 times*);

RECEIVED MAYDAY;

OVER.

## 6. Advise a coast station

After contact is established, the vessel acknowledging by voice should advise an appropriate limited coast station, limited coast marine rescue station or maritime communications station, by any means available.

### When to relay a distress message

You may relay the distress message on behalf of a vessel in distress, if any of the following apply:

- ▶ On receiving a distress DSC alert or voice distress call which is not acknowledged by a coast station or another vessel within five minutes;
- ▶ On learning that the vessel in distress is unable or incapable of participation in distress communications; or
- ▶ The master/skipper or other person responsible for the vessel not in distress considers that further help is necessary.

### Format for a voice relay

Make the MAYDAY RELAY call, followed by the distress message from the vessel in distress as follows:

MAYDAY RELAY (*3 times*);

THIS IS (*once*);

ALL STATIONS (*3 times*);

or Coast Station name (*as appropriate, 3 times*);

THIS IS (*once*);

Name of the relaying station (*3 times*);

Callsign or other identification of relaying station (*once*);

MMSI (if initial alert has been sent by DSC) of the relaying station (*once*);

Then read the distress message immediately:

MAYDAY (*once*);

Name/callsign/MMSI of vessel in distress (*once*);

Position: (relative to a known geographic feature or lat./long.);

Nature of distress; (*e.g. sinking, on fire*);

The kind of assistance required;

Any other useful information (*such as number of people on board*);

OVER.

### **When not to voice acknowledge**

If the receiving party is not in a position to provide assistance, and other stations are heard providing assistance, then no voice acknowledgement should be sent. However, a written summary of the distress traffic should still be kept, as with all distress communications.

### **Let a shore station respond first**

Where shore VHF DSC monitoring is known to exist, vessels receiving a VHF DSC distress alert should wait a short time before voice acknowledging, to allow a limited coast station, or limited coast marine rescue station to acknowledge by voice first.

Vessels then should be ready to provide assistance as required and continue to monitor the distress channel.

### **Acknowledging a MAYDAY RELAY**

If you receive a MAYDAY RELAY from another vessel or coast station, first ensure that you do not interfere with any distress traffic in progress.

#### **Format for acknowledging a MAYDAY RELAY**

MAYDAY RELAY (*once*);

Name/call sign/MMSI of the relaying station (*3 times*);

THIS IS (*once*);

Name and call sign of the station acknowledging receipt (*3 times*);

RECEIVED MAYDAY RELAY;

OVER.

## **Is a call sign or Maritime Mobile Service Identity (MMSI) needed?**

An MMSI is a unique nine-digit code set into your DSC-capable radio transceiver and/or AIS (automatic identification system) transceiver to identify your vessel or coast station. You need only one of these if you have multiple fixed DSC radios and/or AIS transceivers. You use the same MMSI for all fixed DSC and AIS transceivers onboard the one vessel as it is a ship's identity. Australian vessels are issued MMSIs with the first three numbers being 503.

## What qualifications are needed to operate a VHF transceiver?

Marine VHF transceivers operate under a Class Licence, so there is no requirement for an official call sign and maritime ship station licence.

However, the operator must have a minimum radio operator qualification of a Marine Radio Operator's VHF Certificate of Proficiency (MROVCP). This applies to marine VHF transceivers, with or without DSC capability, and also to AIS transceivers (but not AIS receive-only units).

## What qualifications are needed to operate an MF/HF transceiver?

For MF/HF transceivers, a Marine Radio Operator's Certificate of Proficiency (MROCP) is the minimum qualification, as well as a ship station licence (including call sign) issued by the Australian Communications and Media Authority (ACMA).

## Hand-held VHF transceivers with DSC

AMSA allocates separate MMSIs to individual hand-held VHF radio transceivers, rather than to a single, vessel-specific MMSI. In Australia, these transceivers' MMSIs have the format 5039xxxx where x is any figure from 0 to 9. These transceivers can be moved between vessels, and the MMSI is registered to the owner.

These 'portable' VHF DSC transceivers are only currently approved for DSC use on Australian vessels in Australian waters. When a handheld VHF DSC transceiver changes ownership, AMSA is to be advised of the new owner's details.

The requirement to present a copy of an appropriate radio operator's qualification when applying for an MMSI, also applies to MMSIs requested for the 'portable' VHF DSC transceivers described above.

## How can an MMSI be applied for?

The Australian Maritime Safety Authority allocates MMSIs. To apply for an MMSI, complete the application form available for download via [www.amsa.gov.au/mmsi](http://www.amsa.gov.au/mmsi)

This page also contains further information about MMSIs.

# CONTACTS

## Rescue Coordination Centre (RCC)-Australia

24 hour emergency contact telephone number:

1800 641 792

General enquiries during business hours:

1800 406 406

[www.amsa.gov.au/ssar](http://www.amsa.gov.au/ssar)

