

DSC Distress, Urgency & Safety

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Definition of distress

The definition of distress, for DSC purposes, is exactly the same as its definition for voice procedure:-

A distress situation is one in which:-
a vessel, vehicle, aircraft or person
is in
grave and imminent danger.

The Distress alert

A vital feature of every DSC controller is the distress button which, when pressed, prompts the equipment to compose a distress alert, including the vessel's MMSI and its current position. The alert is then passed to the radio to be transmitted — like all DSC messages — on Channel 70.

Unlike an individual DSC call (see page 65), a DSC distress alert is automatically addressed to "all stations", so it triggers an alarm on every DSC controller within range.

Such a highly automated system makes it easy to send distress alerts, but it also has the potential for generating huge numbers of false alerts, either by mistake or by malice. There isn't much that can be done about hoax calls, but to minimise accidental false alarms, the rules say that the Distress button must be protected by a cover, and must not trigger a distress alert unless it is held down for several seconds — usually five seconds.

Unless the situation is so desperate that every second counts, it is well worth refining the basic Distress alert to give an indication of the nature of distress.

As with a routine call, the sequence of operations for achieving this varies between different makes and models: it may, for instance, be achieved through the "Call" menu, or through a special menu which reveals itself when the Distress button is pressed and released.

In either case, you will be presented with a number of options, from which you select the most appropriate:-

Undesignated
(the default option,
included in the basic
distress alert)
Fire or explosion
Flooding
Collision



Grounding
Listing (or in danger of capsizing)
Sinking
Disabled and adrift
Abandoning ship
Piracy
Man overboard

Syllabus Item C2.1



You may have to press the <Enter> key to confirm your selection, but in any case you will have to press and hold the Distress button for several seconds in order to send the Distress Alert.

- Read the manual
- Practise composing distress alerts

but

- **Never** send a distress alert unless you are really in distress

After sending a Distress alert

Syllabus item C2.1

The whole point of GMDSS is that vessels at sea no longer have to rely on luck for their distress alert to be heard: assuming they have the right equipment for their area of operations, there is a very good chance that their distress alert will be received by the Search and Rescue authorities ashore.

- In case it is not, however, all DSC controllers are programmed to automatically repeat the distress alert at random intervals of approximately four minutes until it is either acknowledged or switched off.

A DSC Distress alert does not contain as much information as a Mayday call by voice, nor can it be received by vessels without DSC — some of whom might be very well placed to assist.

A DSC alert should always be immediately followed by a Mayday call and message, transmitted by voice on Channel 16 (see page 44), with the MMSI number included as part of the vessel's identity.

Receiving a distress alert

Syllabus item C2.1

In many respects, a DSC Distress alert is very much like a Mayday message sent by voice, in that anyone receiving it is obliged to accept it, and to offer assistance if they can. Just like a Mayday message, however, that principle needs to be diluted with common sense:-

if it is likely that a coast radio station (such as the coastguard) will have received the message, allow them up to five minutes to respond before doing so yourself

if you are not in a position to offer effective assistance, do not respond

if you are able to assist, and have not heard anything from the coastguard within a few minutes (no more than five), acknowledge the alert by voice on Channel 16, using the procedure on page 48

you should attempt to relay the distress message to a coast station using any available means (see page 51)

unless you are acknowledging and assisting, maintain radio silence on any channel being used for distress communications.

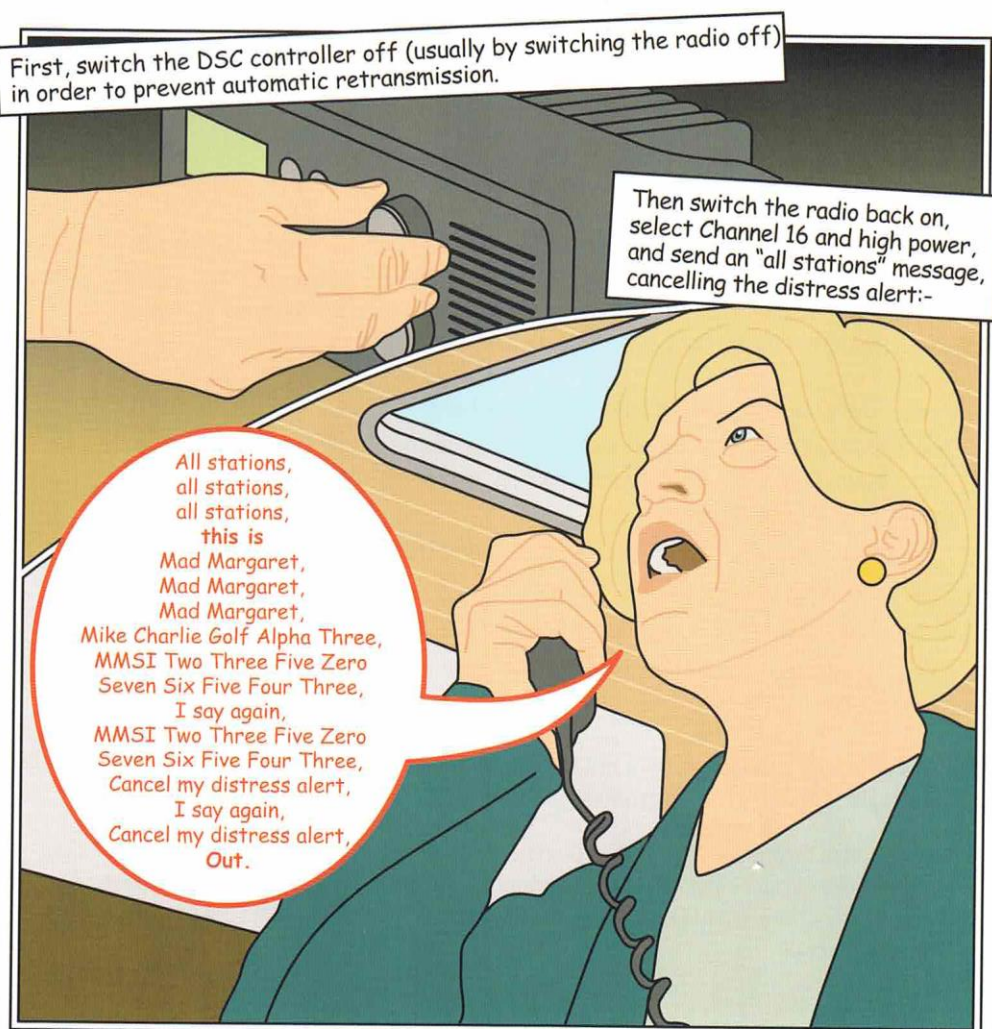
Acknowledging a DSC distress alert by DSC automatically prevents further repetitions, so

- Class D DSC controllers **cannot** acknowledge or relay a DSC Distress alert
- Class A or B DSC controllers **should not** be used to acknowledge or relay a DSC Distress alert except on specific instructions from the Search and Rescue authorities.

Accidental False Alert procedure

Syllabus items C3.1; C3.6

If you are unlucky enough to find that you have somehow managed to transmit an accidental false distress alert, the first thing to do is not to repeat it!



Urgency and Safety

Syllabus item C2.2

DSC can also be used in situations which do not warrant a full-blown distress alert, to draw attention to Panpan or Securitay messages.

A DSC **urgency** call is equivalent to the proword Panpan: it means "I have a very urgent message to transmit concerning the safety of a mobile unit or person".

A DSC **safety** call is equivalent to the proword Securitay: it means "I have an important navigational or meteorological warning to transmit".

Unlike a DSC distress alert, a DSC urgency or safety call contains no information other than the MMSI of the station transmitting it and the working channel that will be used for a subsequent voice message, so it must always be followed up immediately by a Panpan or Securitay message by voice.

Sending an urgency or safety call

There are no dedicated "urgency" or "safety" buttons on a DSC controller, so the procedure for sending an urgency or safety call is, in some respects, more like that required to send a routine call. Just as for a routine call, the exact sequence of buttons to press varies from make to make and model to model, but a typical sequence is something like this:-

1. Press <Call> to show the DSC menu on the screen
2. Select "All ships" from the list of available call types (Individual; Group; All ships; Distress)
 - Press <Enter> to confirm your selection, and reveal the next menu
3. Select "Urgency" or "Safety"
 - Press <Enter> to confirm your selection, and reveal the next menu
4. Select a working channel (usually Channel 16)
5. Press <Call> and <Enter> together to transmit the DSC call
6. Follow up with a voice call and message using the Panpan or Securitay procedure (see pages 52-54)

This is included as an example only, but is based on the procedure for the Class D Icom DS100 DSC controller. Other makes and models are different:-

On the Class D Simrad DSC 1400, for instance, the call types offered are Routine, Safety, Urgency and Group. Having selected Urgency or Group, there are no more options: pressing the <Enter> key immediately sends the call to all ships with Channel 16 as the working channel.

Class A or B controllers offer the option of addressing urgency or safety calls to individual ships or coast radio stations. This feature is deliberately not made available on Class D controllers, to keep them as easy to use as possible.

No two makes or models are identical...so read the manual!

Receiving a DSC urgency or safety call

“Acknowledging” an urgency or safety call that was sent to all ships will mute the alarm and switch your receiver to the specified working channel: it will not send an acknowledgement to the calling vessel.

DSC Distress Relay

One of the problems of DSC is that it is so highly automated that sending distress messages has become almost too easy: it is now possible to send a distress alert without meaning to. To prevent these accidental distress alerts being multiplied by well-meaning radio operators relaying them, Class D controllers are incapable of relaying DSC distress alerts, and operators of Class A or B controllers are not allowed to use their DSC Mayday Relay facility except under exceptional circumstances.

If you receive a DSC Distress alert that has not been acknowledged within five minutes, you should attempt to contact the casualty by voice on Channel 16, and inform the nearest coastguard — also by voice, on Channel 16.

This does not, however, prevent you from relaying a Mayday message that was received by voice. If you have not heard an acknowledgement to a voice Mayday within a minute or so, and there is no radio traffic suggesting that she is in contact with potential rescuers, you should send a DSC Urgency alert, immediately followed by a Mayday Relay message using the voice procedure on page 51.

Mayday relay may also be used if you see another vessel in distress and do not believe that they are capable of sending a Mayday, and you believe further assistance is required.

Remember: the call must be a Mayday Relay call as it is not your vessel that is in distress.

