Section E. Emergency Voice Communications and Distress Signals

Introduction
Whether the vessel is providing emergency assistance or in need of it itself, knowledge of the correct procedures and available equipment can save lives.

In this Section
This section contains the following information:

<table>
<thead>
<tr>
<th>Title</th>
<th>See Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Voice Radio Urgency Calls</td>
<td>12</td>
</tr>
</tbody>
</table>

Standard Voice Radio Urgency Calls

E.1. Description
When an emergency occurs, the proper prowords should be used to show the degree of urgency. Hearing one of these urgency calls should trigger specific responses in a listener, such as, preparing to collect information on an emergency or refraining from transmitting on the frequency until all is clear. The meaning of each urgency call is outlined below.

E.2. MAYDAY
MAYDAY is a distress call of the highest priority. Spoken three times, it shows that a person, boat, or aircraft is threatened by grave or imminent danger and requires immediate assistance. Broadcast on 2182 kHz or Channel 16.

E.2.a. Priority
A MAYDAY call has absolute priority over all other transmissions and shall not be addressed to a particular station.

E.2.b. Station Responses
All units hearing a MAYDAY call should immediately cease transmissions that may interfere with the distress traffic, and continue to listen on the distress message’s frequency.

NOTE
If the unit transmitting the distress call is determined to be some distance away, pause a few moments to allow ships or stations nearer the scene to answer.

NOTE
When working a distress situation on Channel 16, do not attempt to change (shift) to a working channel until enough information is obtained to handle the distress in case communications are lost during the act of shifting.

E.3. PAN-PAN
Broadcast on 2182 kHz or Channel 16, this urgency signal consists of three repetitions of the group of words “PAN-PAN” (pahn-pahn). It means that the calling Station has a very urgent message to transmit concerning the safety of a ship, aircraft, vehicle, or person.
E.4. SECURITÉ

“SECURITÉ” (SEE-CURE-IT-TAY) is a safety signal spoken three times and transmitted on 2182 kHz or Channel 16. It indicates a message concerning the safety of navigation, or important weather warnings will be transmitted on 2670 kHz or Channel 22.

E.5. Radio Alarm Signal

The radio alarm signal consists of two audible tones of different pitch sent alternately, producing a warbling sound. If used, the alarm continuously sends the signal for not less than 30 seconds or more than one minute, and the originator of the signal should follow the signal by the radio distress signal and message. There are two primary reasons to use a radio alarm signal:

- To attract the attention of listeners on the frequency.
- To activate the automatic listening devices found on large ships and occasionally at shore Stations.

E.6. Receipt of Distress Messages

When a distressed unit is in the vicinity, receipt for the message should be acknowledged immediately. However, if the unit is determined to be some distance away, crewmembers should pause a few moments to allow ships or Stations nearer the scene to answer. In the areas where communications with one or more shore Stations are practicable, ships should wait a short period of time to allow them to acknowledge receipt.

E.6.a. Receipt Procedure

The receipt of distress messages should be in the following manner.

- The distress signal MAYDAY.
- The call sign of the unit in distress (spoken three (3) times).
- The words THIS IS (spoken once).
- The call sign of the unit (spoken three (3) times).
- The words RECEIVED MAYDAY.
- The proword OVER.

E.6.b. CG Assistance

Inform the distressed unit of any Coast Guard assistance being dispatched and to stand by.

E.6.c. Vessel and Shore Stations

Vessels and shore Stations receiving distress traffic should do so by the most rapid means:

- Forward the information to the Coast Guard.
- Set a continuous radio watch on frequencies of the distress unit.
- Maintain communications with the distressed unit.
- Maintain distress radio log.
- Keep the Coast Guard informed of new developments in the case.
- Place additional people on watch, if necessary.
- Obtain radio direction finder bearing of distressed unit if equipment and conditions permit.

E.6.d. Transmitting Information

Every Coast Guard ship or aircraft which acknowledges receipt of distress messages, ensuring it will not interfere with Stations in a better position to render immediate assistance, shall, transmit as soon as possible the following information to the unit in distress:

- Acknowledgment of unit’s name and position.
- Speed of advance of assisting unit to scene.
- Estimated time of arrival at scene.

CAUTION!

Needless shifting of frequencies by the boat crew or the distressed unit may end in a loss of communications.
E.6.e. Keeping Distressed Unit Informed

The distressed unit should be kept informed of any circumstances that may affect assistance, such as speed, sea conditions, etc. After receiving a distress call or information pertaining to one, Coast Guard units shall, within equipment capabilities, set a continuous radio guard on the frequency of the distressed unit and set up a radio schedule if the distressed unit is unable to stand a continuous watch.

Emergency Position Indicating Radio Beacon (EPIRB) and Emergency Locator Transmitter (ELT)

E.7. Description

The emergency position indicating radio beacon (EPIRB) is carried on vessels to give a distress alert. Aircraft have a similar device called an emergency locator transmitter (ELT). The original EPIRB and ELT transmitted on the frequency 121.5 MHz. However, the 406.025 MHz EPIRB and ELT were developed for satellites to detect these distress alerts. A global satellite detection network, COSPAS-SARSAT, has been established for detecting both 121.5 and 406 MHz distress beacons. (see Figure 0-2). The 121.5 MHz can be detected by facilities that tune into that frequency, typically aircraft and their support facilities. Coast Guard boats carry the 406 MHz EPIRB. Requirements to carry EPIRBs vary:

- Encouraged for recreational vessels.
- Required for U.S. commercial vessels and many commercial fishing vessels.

Figure 0-2
EPIRB System Operation