



Industry  
Canada

Industrie  
Canada

RIC-22  
Issue 3  
October 2002

Spectrum Management and Telecommunications Policy

Radiocommunication Information Circular

# **General Radiotelephone Operating Procedures**

Aussi disponible en français - CIR-22

**Canada**

Radiocommunication Information Circulars are issued for the guidance of those engaged in radiocommunications in Canada. The information contained in these circulars is subject to change without notice. It is therefore suggested that interested persons consult the nearest district office of Industry Canada for additional details. While every reasonable effort has been made to ensure accuracy, no warranty is expressed or implied. As well, these circulars have no status in law.

Comments and suggestions may be directed to the following address:

Industry Canada  
Radiocommunications and  
Broadcasting Regulatory Branch  
300 Slater Street  
Ottawa, Ontario  
K1A 0C8

Attention: DOSP

via e-mail: [spectrum\\_pubs@ic.gc.ca](mailto:spectrum_pubs@ic.gc.ca)

All spectrum publications are available on the Internet at:

<http://strategis.gc.ca/spectrum>

## **General Information**

### **Radio Operating Procedures**

This document contains information useful to all radio operators. It outlines general operating procedures, including the proper manner in which a radio message is structured and sent, as well as the international phonetic alphabet used to avoid confusion and for clarity and precision when spelling out words. General information on distress calling procedures can also be found in this document.

This document originally contained information specifically used by candidates applying for the Restricted Operator's Certificate - Land (ROC-L). This certificate is no longer being issued. The general information however, is still relevant to all radio operators, and thus is being offered for that purpose.

### **Priorities of Communications - Land Service**

The order of priority for the transmission of messages in the land service is:

1. Distress communications
2. Urgency communications
3. Safety communications
4. All other communications

### **Secrecy of Communications**

Radio operators and all persons who become acquainted with radiocommunications are bound to preserve the secrecy of correspondence. No person shall divulge the contents, or even the existence, of correspondence transmitted, received or intercepted by a radio station, except to the addressee of the message or his/her accredited agent, to properly authorized officials of the Government of Canada, to a competent legal tribunal, or to an operator of a telecommunications system, as is necessary to forward or deliver the communication. These restrictions do not apply to a message of distress, urgency, safety or to messages addressed to "ALL STATIONS", that is, weather reports, storm warnings, etc.

Any person who violates the secrecy of communications is liable, on summary conviction, in the case of an individual, to a fine not exceeding five thousand dollars or to imprisonment for a term not exceeding one year, or to both. In the case of a corporation, fines will not exceed twenty-five thousand dollars.

### **Control of Communications**

In communications between a base station and a mobile station, the base station has control of communications, and the mobile station shall comply with all instructions given by the base station in matters relating to the order and time of transmission, the choice of frequency and to the duration and suspension of work. This does not apply in the cases of distress or urgency communications, where the control of the communications lies with the station initiating the priority call.

## **Superfluous Communications and Interference**

Communications should be restricted to those necessary for the transmission of authorized messages. Profane or obscene language is strictly prohibited.

Any person who violates the regulations pertaining to unauthorized communications or profane language is liable, on summary conviction, in the case of an individual, to a fine not exceeding five thousand dollars or to imprisonment for a term not exceeding one year, or to both, or, in the case of a corporation, to a fine not exceeding twenty-five thousand dollars.

All radio stations shall be installed and operated so as not to interfere with or interrupt the working of another radio station. The only situation under which you may interrupt or interfere with the normal working of another station is when you are required to transmit a higher priority call or message, for example, distress, urgency or other priority calls or messages.

Any person who, without lawful excuse, interferes with or obstructs any radiocommunication is liable, on summary conviction, in the case of an individual, to a fine not exceeding five thousand dollars or to imprisonment for a term not exceeding one year, or to both, or, in the case of a corporation, to a fine not exceeding twenty-five thousand dollars.

## **False Distress Signals**

Any person who knowingly sends, transmits, or causes to be sent or transmitted any false or fraudulent distress signal, message, call or radiogram of any kind is guilty of an offence and is liable, on summary conviction, in the case of an individual, to a fine not exceeding five thousand dollars or to imprisonment for a term not exceeding one year, or to both, or, in the case of a corporation, to a fine not exceeding twenty-five thousand dollars.

## **Operating Procedure**

### **Speech Transmission Techniques**

The efficient use of radio depends to a large extent on the method of speaking and on the articulation of the operator. As the distinctive sounds of consonants are liable to become blurred in the transmission of speech and as words of similar length containing the same vowel sounds are apt to sound alike, special care is necessary in their pronunciation.

When using radio, the operator should speak all words plainly and each word clearly to prevent words from running together. Avoid any tendency to shout, to accent syllables, or to speak rapidly. The following points should be kept in mind when using radio:

**Speed**            Keep the rate of speech constant, neither too fast nor too slow. Remember that the operator receiving your message may have to write it down.

**Rhythm** Preserve the rhythm of ordinary conversation. In separating words so that they are not run together, avoid the introduction of unnecessary sounds such as "er" and "um" between words.

### Time and Date

The twenty-four hour clock system should be used to express time in the Land Service. Time should be expressed and transmitted by means of four figures, the first two denoting the hour past midnight and the last two the minutes past the hour.

|                  |                     |                              |
|------------------|---------------------|------------------------------|
| <b>Examples:</b> | 12:45 a.m.....      | is expressed as 0045         |
|                  | 12:00 noon .....    | is expressed as 1200         |
|                  | 11:45 p.m.....      | is expressed as 2345         |
|                  | 12:00 midnight..... | is expressed as 2400 or 0000 |
|                  | 1:30 a.m.....       | is expressed as 0130         |
|                  | 1:45 p.m.....       | is expressed as 1345         |
|                  | 4:30 p.m.....       | is expressed as 1630         |

Time is usually referenced to one standard time zone, Co-ordinated Universal Time (UTC) (formerly referred to as Greenwich Mean Time (GMT)) to avoid confusion between different time zones. The letter Z is the accepted abbreviation for UTC. When operations are conducted solely in one time zone, standard or local time may be used.

Where the date, as well as the time of day, is required, a six-figure group should be used. The first two figures indicate the day of the month and the following four figures indicate the time.

**Examples:** Noon (EST) of the 16th day of the month is expressed as .....161200 E  
2:45 a.m. (PST) of the 24th day of the month is expressed as .....240245 P

### Phonetic Alphabet

The phonetic alphabet is used to avoid confusion when transmitting difficult or unusual words. The following internationally recognized alphabet should be learned thoroughly so that it is readily available whenever isolated letters or groups of letters are pronounced separately, or when communication is difficult. Call signs should also be spelled phonetically.

The ITU (International Telecommunication Union) phonetic alphabet is:

| <b>Letter</b> | <b>Word</b> | <b>Pronounced as</b>                      |
|---------------|-------------|---|
| A             | Alfa        | <b>AL</b> FAH                             |
| B             | Bravo       | <b>BRAH</b> VOH                           |
| C             | Charlie     | <b>CHAR</b> LEE or <b>SHAR</b> LEE        |
| D             | Delta       | <b>DELL</b> TAH                           |
| E             | Echo        | <b>ECK</b> OH                             |
| F             | Foxtrot     | <b>FOKS</b> TROT                          |
| G             | Golf        | GOLF                                      |
| H             | Hotel       | HOH <b>TELL</b>                           |
| I             | India       | <b>IN</b> DEE AH                          |
| J             | Juliett     | <b>JEW</b> LEE <b>ETT</b>                 |
| K             | Kilo        | <b>KEY</b> LOH                            |
| L             | Lima        | <b>LEE</b> MAH                            |
| M             | Mike        | MIKE                                      |
| N             | November    | NO <b>VEM</b> BER                         |
| O             | Oscar       | <b>OSS</b> CAH                            |
| P             | Papa        | PAH <b>PAH</b>                            |
| Q             | Quebec      | KEH <b>BECK</b>                           |
| R             | Romeo       | <b>ROW</b> ME OH                          |
| S             | Sierra      | SEE <b>AIR</b> RAH                        |
| T             | Tango       | <b>TANG</b> GO                            |
| U             | Uniform     | <b>YOU</b> NEE FORM or <b>OO</b> NEE FORM |
| V             | Victor      | <b>VIK</b> TAH                            |
| W             | Whiskey     | <b>WISS</b> KEY                           |
| X             | X-ray       | <b>ECKS</b> RAY                           |
| Y             | Yankee      | <b>YANG</b> KEY                           |
| Z             | Zulu        | <b>ZOO</b> LOO                            |

**Note:** The syllables to be emphasized are in bold.

Numbers are pronounced as follows:

|            |            |
|------------|------------|
| 0 - ZE-RO  | 5 - FIFE   |
| 1 - WUN    | 6 - SIX    |
| 2 - TOO    | 7 - SEV-en |
| 3 - TREE   | 8 - AIT    |
| 4 - FOW-er | 9 - NIN-er |

### Transmission of Numbers

All numbers except whole thousands should be transmitted by pronouncing each digit separately. Whole thousands should be transmitted by pronouncing each digit in the number of thousands followed by the word "thousand".

|                  |                |                          |
|------------------|----------------|--------------------------|
| <b>Examples:</b> | 10 becomes     | one zero                 |
|                  | 75 becomes     | seven five               |
|                  | 100 becomes    | one zero zero            |
|                  | 5,800 becomes  | five eight zero zero     |
|                  | 11,000 becomes | one one thousand         |
|                  | 68,009 becomes | six eight zero zero nine |

Numbers containing a decimal point shall be transmitted as above, with the decimal point indicated by the word "decimal".

|                 |               |                          |
|-----------------|---------------|--------------------------|
| <b>Example:</b> | 121.5 becomes | one two one decimal five |
|-----------------|---------------|--------------------------|

Monetary denominations, when transmitted with groups of digits, should be transmitted in the sequence in which they are written.

|                  |                 |                                    |
|------------------|-----------------|------------------------------------|
| <b>Examples:</b> | \$17.25 becomes | dollars one seven decimal two five |
|                  | .75 becomes     | seven five cents                   |

**Time:** Universal Time Co-ordinated (UTC)

|                  |        |                            |
|------------------|--------|----------------------------|
| <b>Examples:</b> | 0920 Z | Zero nine two zero zulu    |
|                  | 09     | Nine minutes past the hour |

### Procedural Words and Phrases

While it is not practical to set down precise phraseology for all radiotelephone procedures, slang expressions such as "OK", "REPEAT", "TEN-FOUR", "OVER AND OUT", "BREAKER BREAKER", "COME IN PLEASE", etc., should not be used. **Appendix A** contains a list of words and phrases that should be used where applicable.

## Call Signs

A distinctive call sign, consisting of a group of letters and numbers, is assigned to base stations for identification purposes and should be used at least when initial contact is being established and again when the communication is concluded. When two or more users share a common frequency, it is essential that correct identification is used at all times to ensure positive identification of the users. For mobile stations and hand-held units, a readily recognizable identifier such as fleet car or truck number should be used or, in the case of railroad operations, train number or unit identification.

**Examples:**    Land Stations            CJM702            XNM45  
                  Mobile Stations        Car five one       Expressway one four two

## Radiotelephone Calling Procedures

Before transmitting, the operator of every station shall listen for a period long enough to satisfy himself/herself that the transmission will not cause harmful interference to communications already in progress. If such interference seems likely, the operator should wait for the first break in the transmission. A station having distress, urgency or safety communications to transmit is entitled to interrupt at any time a transmission of lower priority that is in progress.

The identifier of the station being called is **ALWAYS** spoken first, followed by the words "THIS IS" and your own station identifier.

## Single Station Call

When a station wishes to establish communication with a specific station, it shall transmit the following items in the order indicated:

1. Call sign of the station called (not more than three times).
2. The words "THIS IS".
3. Call sign of the station calling (not more than three times).
4. Invitation to reply.

**Examples:**    FREIGHTWAY TWO FIVE ZERO  
                  THIS IS  
                  FREIGHTWAY MONTREAL  
                  XMT FIVE NINE  
                  OVER  
  
                  VYD FIVE SEVEN LA RONGE  
                  THIS IS  
                  VXX ONE TWO FIVE PRINCE ALBERT  
                  OVER

## Multiple Station Call

To call more than one station simultaneously, the call signs of the stations may be transmitted in any convenient sequence preceding the words "THIS IS".

**Examples:** RED LINE CABS FIVE TWO, ONE ZERO, THREE SIX  
THIS IS  
XOV FOUR EIGHT TWO  
OVER

XLR TWO NINE, XLR THREE ZERO, XMN THREE EIGHT  
THIS IS  
XOV FOUR EIGHT TWO  
OVER

## General Call

When a mobile station wishes to establish communication with any station within range, or within a certain area, the call should be made as follows:

1. General call (not more than three times).
2. The words "THIS IS".
3. Call sign of the station calling (not more than three times).
4. Invitation to reply.

**Examples:** ALL STATIONS (or ALL STATIONS IN THE VICINITY OF FOURTH  
STREET AND SECOND AVENUE)  
THIS IS  
XJB SIX TWO  
OVER

ALL STATIONS (or ALL ONTARIO FORESTRY STATIONS)  
THIS IS  
XLN ONE EIGHT TWO  
OVER

When a station wishes to broadcast information to all stations that are within the coverage area of the base station and does not require an acknowledgement or a reply, it proceeds with the message immediately after giving its call sign and ends the transmission with its call sign and the word "OUT".

## Replying

An operator hearing a call directed to his/her station shall reply as soon as possible and advise the calling station to proceed with the message using the words "GO AHEAD".

**Examples:** FREIGHTWAY MONTREAL XMT FIVE NINE  
THIS IS  
FREIGHTWAY TWO FIVE ZERO  
GO AHEAD

VXX ONE FOUR NINE  
THIS IS  
VYD TWO FIVE ZERO  
GO AHEAD

If the station is not ready to receive the message, the operator should reply to the call and advise the calling station to "STAND BY", followed by the anticipated number of minutes of delay.

When an operator hears a call but is uncertain that the call is intended for his/her station, he/she should not reply until the call has been repeated and understood.

### **Failure of Communications**

When contact with a base station fails on the selected frequency, the mobile should try to establish contact on another frequency (if available) appropriate to the area in which it is operating.

When normal communications from a base station to a mobile cannot be established, the base station should try to relay the message via any other station which may be able to establish communications.

### **Corrections and Repetitions**

When an error has been made in transmission, the word "CORRECTION" should be spoken, and the last correct word or phrase repeated, and the correct version transmitted. Transmissions or items of transmissions should not be repeated unless requested by the receiving operator.

If the receiving station desires repetition of a message, the operator should request it by saying the words "SAY AGAIN". If repetition of only a portion of a message is required, the receiving operator should use the following appropriate phraseology:

1. SAY AGAIN ALL BEFORE .... (first word satisfactorily received),
2. SAY AGAIN .... (word before missing portion) to .... (word after missing portion), or
3. SAY AGAIN ALL AFTER .... (last word satisfactorily received).

Requests for repetition of specific items of a message should be made using the words "SAY AGAIN" followed by the identification of the portion of the message desired.

**Examples:** SAY AGAIN NAME OF STREET  
SAY AGAIN HOUSE NUMBER

## Message Handling Procedures

When transmitting a message, the operator should:

- (a) deliver the radio message clearly and concisely using standard phraseology whenever practical;
- (b) plan the content of the message before transmitting;
- (c) listen briefly before transmitting to avoid interference with other transmissions.

The message generally consists of four parts:

- (a) The call-up
- (b) The reply
- (c) The message
- (d) The acknowledgement or ending

### Examples:

Call-up:                   XOV FOUR ONE NINE YELLOWKNIFE  
                              THIS IS  
                              XOV SIX ONE EIGHT  
                              OVER

Reply:                    XOV SIX ONE EIGHT  
                              THIS IS  
                              XOV FOUR ONE NINE  
                              GO AHEAD  
                              OVER

Message:                XOV FOUR ONE NINE YELLOWKNIFE  
                              THIS IS  
                              XOV SIX ONE EIGHT  
                              WE WILL HAVE FOUR PASSENGERS ON TONIGHT'S FLIGHT  
                              AND A BAG OF MAIL  
                              OVER

Acknowledgement:    XOV SIX ONE EIGHT  
                              THIS IS  
                              XOV FOUR ONE NINE  
                              ROGER

## Signal (or Radio) Checks

When your radio station requires a signal (or radio) check, follow this procedure:

- (1) Call another station and request a radio check.
- (2) The signal check consists of "SIGNAL CHECK 1, 2, 3, 4, 5. HOW DO YOU READ ME? OVER."

- (3) Your station identification (call sign) should be transmitted during such test transmissions.
- (4) Signal checks should not last more than 10 seconds.
- (5) When replying or receiving a reply to a signal check, the following readability scale should be used:

1. Bad (unreadable)
2. Poor (readable now and then)
3. Fair (readable but with difficulty)
4. Good (readable)
5. Excellent (perfectly readable)

**Examples:** CYM ONE FOUR  
THIS IS  
CYT SIX FOUR NINE  
REQUEST SIGNAL CHECK

CYT SIX FOUR NINE  
THIS IS  
CYM ONE FOUR  
READING YOU STRENGTH FIVE  
OVER

## **Emergency Communications**

### **Emergency Conditions**

Distress, urgency and safety procedures are laid down by international regulations and are designed primarily for aeronautical and maritime services. Use of these types of communications in the land service is very rare.

Since detailed procedures for distress, urgency and safety communications have not been developed for use in the land-mobile service, a brief outline of the procedures used in the safety services is shown in the following sections.

### **Distress Communications**

Distress communications should be conducted in accordance with the procedures outlined in this section. These procedures shall not, however, prevent a station in distress from making use of any means at its disposal to attract attention, to make known its position, and to obtain assistance.

### ***Frequencies to Be Used***

The first transmission of the distress call and message by a station should be made on the frequency in use at the time. If the station is unable to establish communications on the frequency in use, the distress call and message should be repeated on any other frequency available in an effort to establish

communications with any other station.

### ***Distress Signal***

In radiotelephony, the spoken word for distress is "MAYDAY".

The distress signal indicates that the station sending the signal is:

- (1) threatened by grave and imminent danger and requires immediate assistance, or
- (2) aware that an aircraft, ship or other vehicle is threatened by grave and imminent danger and requires immediate assistance.

### ***Distress Call***

The distress call shall only be sent on the authority of the person in command of the station. The distress call should comprise:

- (1) the distress signal "MAYDAY" spoken three times;
- (2) the words "THIS IS";
- (3) the call sign of the station in distress spoken three times.

**Example:**      MAYDAY, MAYDAY, MAYDAY  
                      THIS IS  
                      PIPER CHARLIE FOXTROT X-RAY QUEBEC QUEBEC  
                      PIPER CHARLIE FOXTROT X-RAY QUEBEC QUEBEC  
                      PIPER CHARLIE FOXTROT X-RAY QUEBEC QUEBEC

The distress call shall not be addressed to a particular station and acknowledgement of receipt shall not be given before the distress message is sent.

### ***Priority of Distress***

The distress call has absolute priority over all other transmissions. All stations which hear it shall immediately cease any transmission capable of interfering with distress traffic and continue to listen on the frequency used for the distress call.

### ***Control of Distress Traffic***

The control of distress traffic is the responsibility of the station in distress or of the station which relays the distress message. These stations may, however, delegate the control of distress traffic to another station such as an aeronautical station which, normally, has a very efficient interface with air traffic control (ATC) and all search and rescue (SAR) organizations.

### ***Distress Message***

The distress message shall follow the distress call as soon as possible.

The distress message should include as many as possible of the following elements:

- (1) the distress signal "MAYDAY";
- (2) the call sign of the station in distress (once);
- (3) the nature of the distress condition and the kind of assistance required (i.e. what has happened);
- (4) the intentions of the person in command;
- (5) the particulars of its position (airspeed, altitude, heading);
- (6) the number of persons on board and injuries (if applicable);
- (7) any other information that might facilitate the rescue;
- (8) the call sign of the station in distress.

**Example:**     MAYDAY  
                  PIPER CHARLIE FOXTROT X-RAY QUEBEC QUEBEC  
                  POSITION:         20 MILES EAST OF WINNIPEG  
                  ALTITUDE:        1500 FEET  
                  AIRSPEED:        125 KNOTS  
                  HEADING:         270 T  
                  STRUCK BY LIGHTNING  
                  DITCHING AIRCRAFT  
                  ONE PERSON ON BOARD  
                  PIPER CHARLIE FOXTROT X-RAY QUEBEC QUEBEC

**Note:** If the aircraft can transmit the distress message immediately after the distress call, then items 1 and 2 may be omitted from the message.

### ***Repetition of a Distress Message***

The distress message shall be repeated at intervals by the station in distress until an answer is received or until it is no longer feasible to continue. The intervals between repetitions of the distress message shall be sufficiently long to allow time for stations receiving the message to reply.

Any station that has heard an unacknowledged distress message and is not in a position to render assistance, shall take all possible steps to attract the attention of other stations that are in a position to assist.

In addition, all necessary steps shall be taken to notify the appropriate search and rescue authorities of the situation.

### ***Action by Station in Distress***

When a station is threatened by grave and imminent danger, and requires immediate assistance, the person in command should direct appropriate action as follows:

- (1) transmit the distress call;
- (2) transmit the distress message;
- (3) listen for acknowledgement of receipt;

- (4) exchange further distress traffic as applicable;
- (5) turn on automatic emergency equipment (emergency locator transmitter - ELT) if available and when appropriate.

### ***Distress Traffic***

Distress traffic consists of all transmissions relative to the immediate assistance required by the station in distress. Essentially, all transmissions made after the initial distress call are considered as distress traffic. In distress traffic, the distress signal "MAYDAY" spoken once, shall precede all transmissions. This procedure is intended to alert stations not aware of the initial distress call and now monitoring the distress-channel that traffic heard relates to a distress situation.

Any station in the land, aeronautical, or maritime mobile service that has knowledge of distress traffic and cannot itself assist the station in distress shall follow such traffic until it is evident that assistance is being provided. All stations that are aware of distress traffic, and that are not taking part in it, are forbidden to transmit on the frequencies being used for distress traffic until a message is received indicating that regular transmissions may be resumed (cancellation of distress).

### ***Acknowledgement of Receipt of a Distress Message***

The acknowledgement of receipt of a distress message shall be given in the following form:

- (1) the call sign of the station in distress;
- (2) the words "THIS IS";
- (3) the call sign of the station acknowledging receipt;
- (4) the words "RECEIVED MAYDAY".

**Example:** PIPER CHARLIE FOXTROT X-RAY QUEBEC QUEBEC  
THIS IS  
WINNIPEG TOWER  
RECEIVED MAYDAY

### **Relay of a Distress Message**

A distress message repeated by a station other than the station in distress shall transmit a signal comprised of:

- (1) the signal "MAYDAY RELAY" (spoken three times);
- (2) the words "THIS IS";
- (3) the call sign of the station relaying the message (three times);
- (4) the distress signal "MAYDAY" (once);
- (5) the particulars of the station in distress such as its location, the nature of distress, the number of persons on board, etc.

**Example:** MAYDAY RELAY, MAYDAY RELAY, MAYDAY RELAY  
THIS IS  
CESSNA CHARLIE NOVEMBER JULIETT INDIA  
CESSNA CHARLIE NOVEMBER JULIETT INDIA  
CESSNA CHARLIE NOVEMBER JULIETT INDIA  
MAYDAY  
PIPER CHARLIE FOXTROT X-RAY QUEBEC QUEBEC  
POSITION: 20 MILES EAST OF WINNIPEG  
ALTITUDE: 1500 FEET  
AIRSPEED: 125 KNOTS  
HEADING: 270 T  
STRUCK BY LIGHTNING  
DITCHING AIRCRAFT  
ONE PERSON ON BOARD  
PIPER CHARLIE FOXTROT X-RAY QUEBEC QUEBEC

### **Action by Other Stations**

#### *Action by Stations Other than the Station in Distress*

An aircraft station that is not in distress should transmit the distress message when:

- (1) the station in distress is not in a position to transmit the message, or
- (2) the person in command of the station that intervenes believes that further help is necessary.

When a distress message is received and it is known that the aircraft is not in the immediate vicinity, sufficient time should be allowed before the distress message is acknowledged. This will permit stations nearer to the station in distress to reply.

#### *Action by Stations Acknowledging Receipt of a Distress Message*

- (1) Forward information immediately to the appropriate search and rescue agencies or organizations.
- (2) Continue to guard the frequency on which the distress message was received and, if possible, any other frequency that may be used by the station in distress.
- (3) Notify any station with direction-finding or radar facilities that may be of assistance, etc.
- (4) Cease all transmissions that may interfere with the distress traffic.

#### *Action by Other Stations Hearing a Distress Message*

- (1) Continue to guard the frequency on which the distress message was received and, if possible, establish a continuous watch on appropriate distress and emergency frequencies.
- (2) Notify any station with direction-finding or radar facilities and request assistance unless it is known that this action has been, or will be, taken by the station acknowledging receipt of the distress message.
- (3) Cease all transmissions that may interfere with the distress traffic.

## Imposition of Silence

The station in distress, or the station in control of distress traffic, may impose silence on all stations in the area or on any station that interferes with the distress traffic.

The station in distress, or the station in control, shall use the expression "STOP TRANSMITTING - MAYDAY" or the international expression "SILENCE MAYDAY" or "SEELONCE MAYDAY".

Other stations imposing silence during a distress situation shall use the expression "STOP TRANSMITTING - DISTRESS" or use the international expression "SILENCE DISTRESS" or "SEELONCE DISTRESS".

Should radio silence be imposed during a distress situation, all transmissions shall cease immediately except for those stations involved in distress traffic.

**Examples:** Imposition of silence on a specific station by the station in distress.  
(Cessna C-FNJI is causing interference to distress traffic.)  
CESSNA CHARLIE FOXTROT NOVEMBER JULIETT INDIA  
THIS IS  
PIPER CHARLIE FOXTROT X-RAY QUEBEC QUEBEC  
STOP TRANSMITTING - MAYDAY  
OUT

Imposition of silence on all stations by a station other than the station in distress.

ALL STATIONS, ALL STATIONS, ALL STATIONS  
THIS IS  
CESSNA CHARLIE FOXTROT NOVEMBER JULIETT INDIA  
STOP TRANSMITTING - DISTRESS  
OUT

## Cancellation of Distress

When a station is no longer in distress, or when it is no longer necessary to observe radio silence (i.e. the rescue operation has concluded), the station that was in distress, the rescue vessel or the station that controlled distress traffic shall transmit a message addressed to "ALL STATIONS" on the distress frequency(ies) advising that the distress traffic has ended. The proper procedure for cancelling a distress message is:

- (1) the distress signal "MAYDAY" (once);
- (2) the words "ALL STATIONS" (three times);
- (3) the words "THIS IS";
- (4) the name or call sign of the station transmitting the message (three times);
- (5) the filing time of the message;
- (6) the call sign of the station in distress (once);
- (7) the words "DISTRESS TRAFFIC ENDED" or the international expression "SILENCE FINISHED" or "SEELONCE FEENEE";

- (8) a short plain-language description of why the distress situation is being cancelled;
- (9) the name or call sign of station transmitting the message;
- (10) the word "OUT".

**Example:** MAYDAY  
ALL STATIONS, ALL STATIONS, ALL STATIONS  
THIS IS  
WINNIPEG TOWER, WINNIPEG TOWER, WINNIPEG TOWER  
TIME 1630 Z  
PIPER CHARLIE FOXTROT X-RAY QUEBEC QUEBEC  
DISTRESS TRAFFIC ENDED  
PIPER CHARLIE FOXTROT X-RAY QUEBEC QUEBEC LOCATED BY  
SEARCH AND RESCUE  
WINNIPEG TOWER  
OUT

**Note:** The procedure outlined here is mainly for the benefit of other stations so they can resume regular service on the distress frequencies. To ensure that search and rescue stations are advised that a station is no longer in distress, a normal call to the nearest radio station detailing the reasons for cancelling the distress call **MUST** be made.

## Urgency Communications

### Urgency Signal

The urgency signal indicates that the station calling has a very urgent message to transmit concerning the safety of an aircraft, ship or other vehicle, or the safety of a person.

The urgency signal is "PAN PAN" spoken three times. It should be used at the beginning of the first communication.

The urgency signal and the urgency message may be addressed to all stations or to a specific station.

### Priority

The urgency signal has priority over all other communications except distress.

Stations that hear only the urgency signal shall continue to listen for at least three minutes on the frequency which the signal is heard. After that, if no urgency message has been heard, stations may resume normal service. All stations that hear the urgency signal must take care not to interfere with the urgency message which follows. Stations that are in communication on frequencies other than those used for the transmission of the urgency message, may continue normal work without interruption, provided that the urgency message is not addressed to all stations.

## Frequencies to Be Used

The first transmission of the urgency call and message by a station should be made on the frequency in use at the time. If the station is unable to establish communication on the frequency in use, the urgency call and message should be repeated on any other frequency available in an effort to establish communication with any other station.

## Urgency Message

The urgency signal shall be followed by a message giving further information of the incident that necessitated the use of the urgency signal.

The urgency message should contain as many as required of the following elements and, if possible, in the following order:

- (1) the urgency signal "PAN PAN" (three times);
- (2) the name of the station addressed or the words "ALL STATIONS" (three times);
- (3) the words "THIS IS";
- (4) the identification of the aircraft;
- (5) the nature of the urgency condition;
- (6) the intentions of the person in command;
- (7) present position, flight level or altitude and heading;
- (8) any other useful information.

**Example:**

PAN PAN, PAN PAN, PAN PAN  
ALL STATIONS, ALL STATIONS, ALL STATIONS  
THIS IS  
CESSNA CHARLIE FOXTROT NOVEMBER JULIETT INDIA  
LOST, REQUEST RADAR CHECK  
POSITION: UNKNOWN  
AIRSPEED: 112 KNOTS  
ALTITUDE: 1050 FEET  
CESSNA CHARLIE FOXTROT NOVEMBER JULIETT INDIA  
OVER

**Example of reply:**

PAN PAN  
CESSNA CHARLIE FOXTROT NOVEMBER JULIETT INDIA  
THIS IS WINNIPEG TOWER  
YOUR POSITION IS 20 MILES SOUTH OF WINNIPEG  
WINNIPEG TOWER  
STANDING BY

## Cancellation of Urgency Message

When the urgency signal has been used before a message addressed to "ALL STATIONS" and calls for action by stations receiving the message, the station responsible for its transmission shall cancel it as soon as action is no longer necessary. The cancellation message shall be addressed to "ALL STATIONS".

**Example:** PAN PAN  
ALL STATIONS, ALL STATIONS, ALL STATIONS  
THIS IS  
CESSNA CHARLIE FOXTROT NOVEMBER JULIETT INDIA  
CESSNA CHARLIE FOXTROT NOVEMBER JULIETT INDIA HAS BEEN  
POSITIONED AT 20 MILES SOUTH OF WINNIPEG AIRPORT  
PROCEEDING NORMALLY  
CESSNA CHARLIE FOXTROT NOVEMBER JULIETT INDIA  
OUT

## Safety Communications

### Safety Signal

The safety signal is used mainly in the maritime mobile service. It indicates that the station calling is about to transmit a message concerning the safety of navigation or important meteorological warnings.

The safety signal is the word "SECURITY" spoken three times. It should be used at the beginning of the first communication.

The safety signal and the safety message may be addressed to "ALL STATIONS" or to a specific station.

### Priority

The safety signal has priority over all other communications except distress and urgency.

Stations that hear the safety signal shall continue to listen on the frequency on which the message was transmitted until they are satisfied that the message is of no interest to them.

All stations that hear the safety signal must take care not to interfere with the safety message that follows it.

### Safety Message

The safety message should contain as many of the following elements and, if possible, in the following order:

- (1) the safety signal "SECURITY" (three times);
- (2) the name of the station addressed or "ALL STATIONS" (repeated three times);
- (3) the words "THIS IS";

- (4) the name or call sign of the station sending the message;
- (5) the nature of the condition;
- (6) the words "THIS IS";
- (7) the name or call sign of the station sending the message.

**Example:** SECURITY, SECURITY, SECURITY  
ALL STATIONS, ALL STATIONS, ALL STATIONS  
THIS IS  
VANCOUVER RADIO  
NOTICE TO ALL VESSELS IN THE MERRY ISLAND AREA  
LOG BOOM ADRIFT AND BREAKING UP SIX MILES SOUTH  
OF MERRY ISLAND  
THIS IS  
VANCOUVER RADIO  
OUT

## Appendix A

### Procedural Words and Phrases

| <b>Word or Phrase</b> | <b>Meaning</b>   |
|-----------------------|--|
| ACKNOWLEDGE           | Let me know that you have received and understood this message.  |
| AFFIRMATIVE           | Yes, or permission granted.  |
| BREAK                 | Indicates the separation between portions of the message. (To be used where there is no clear distinction between the text and other portions of the message.) |
| CHANNEL               | Change to channel ... before proceeding.   |
| CLEARED               | Authorized to proceed under the conditions specified.  |
| CONFIRM               | My version is ... Is that correct?   |
| CORRECTION            | An error has been made in this transmission (message indicated). The correct version is ....   |
| DISREGARD             | Consider this transmission as not sent.  |
| GO AHEAD              | Proceed with your message.   |
| HOW DO YOU READ?      | Self-explanatory.  |
| I SAY AGAIN           | Self-explanatory (use instead of "I REPEAT").  |
| MAYDAY                | The spoken word for distress communications.   |
| MAYDAY RELAY          | The spoken word for the distress relay signal.   |
| MONITOR               | Listen on (frequency).   |
| NEGATIVE              | No, or that is not correct, or I do not agree.   |
| OUT                   | Conversation is ended and no response is expected.   |
| OVER                  | My transmission is ended and I expect a response from you.   |
| PAN PAN               | The spoken word for urgency communications.  |

|                 |   |
|-----------------|---|
| READ BACK       | Repeat all of this message back to me exactly as received after I have given "OVER". (Do not use the word "REPEAT".)  |
| ROGER           | I have received all of your last transmission.  |
| ROGER NUMBER    | I have received your message Number ___.  |
| SAY AGAIN       | Self-explanatory. (Do not use the word "REPEAT".)   |
| STAND BY        | I must pause for a few seconds or minutes, please wait.   |
| SEELONCE        | An international expression to indicate that silence has been imposed on the frequency due to a distress situation. The aeronautical phrase is "STOP TRANSMITTING".                       |
| SEELONCE FEENEE | An international expression to indicate that the distress situation has ended. The aeronautical phrase is "DISTRESS TRAFFIC ENDED".   |
| SEELONCE MAYDAY | An international expression to advise that a distress situation is in progress. The command comes from the aircraft in distress. The aeronautical phrase is "STOP TRANSMITTING - MAYDAY". |
| THAT IS CORRECT | Self-explanatory.   |
| VERIFY          | Check coding, check text with originator and send correct version.  |
| WILCO           | Your instructions received, understood and will be complied with.   |
| WORDS TWICE     | (a) As a request: Communication is difficult, please send each word twice.<br><br>(b) As information: Since communication is difficult, I will send each word twice.                      |

## Appendix B

### Equipment Fundamentals

#### Maintenance

##### Microphone and Antenna Connections

There are various types of connectors used to attach cables to the electronic equipment. Each connector requires its own assembly technique. Care should be exercised when repairing or replacing connectors. The main problems with connectors are shorts (when two bare wires are touching either each other or the metal case), or open wires (when the wire is broken inside the plastic shield or outer covering).

All connections should be tight and clean. Where connections are exposed to the weather, they should be protected with a coating of silicone to prevent corrosion build-up and to keep water from getting inside the outer casing of the cable.

##### Fuses

Electric circuits are protected against overload and short circuits by fuses, each rated for a given amperage. **Never replace a fuse with one of a higher rating.** That will simply compromise or negate its protective function and create a definite fire hazard.

Fuses (or circuit breakers, if your electrical system is so equipped) act as safety valves. When something goes wrong with a circuit, the fuse for that circuit blows (or the breaker trips off), shutting down power to the circuit. In addition to preventing overheating and possible fire, this action also warns you that there is a problem on the circuit. The fault should be corrected before the fuse is replaced.

**Note:** Always exercise caution when changing a fuse. Make sure that your hands are dry.

## Appendix C

### Radio Station Licences

Unless otherwise exempted, all radio stations in Canada must be licensed by the Minister. The licence (or copy thereof) must be posted in a conspicuous place near the radio equipment.

The radio station licence generally specifies the call sign of the station, the frequencies to be used for transmitting and any special conditions under which the station should be operated.

To obtain a radio station licence, a completed licence application form with the prescribed fee should be submitted to Industry Canada. To be eligible for licensing in Canada, radio equipment must be type-approved or found to be technically acceptable for licensing by the Department.

Station licence fees are due on April 1 of each year. Billing notices are mailed to licensees directly from departmental headquarters in Ottawa.

**Note:** Any person who establishes a radio station without a radio license is liable, on summary conviction, in the case of an individual, to a fine not exceeding five thousand dollars or to imprisonment for a term not exceeding one year, or to both, or, in the case of a corporation, to a fine not exceeding twenty-five thousand dollars.

Inquiries concerning radio licensing may be directed to any district office of Industry Canada.