AMATEUR RADIO EMERGENCY SERVICES

CALGARY

RADIOCOMMUNICATION

GUIDE

Calgary, Alberta
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Acknowledgment

Record of Amendments

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Table of Contents

CHAPTER 1 - INTRODUCTION

1.1 **Purpose**

The purpose of this Radiocommunication Guide is to set out the basic operating procedures that are to be followed by amateur radio operators when participating with the Calgary Amateur Radio Emergency Service (ARES) in emergency support operations and during exercises.

1.2 **Standardization**

The procedures set out in this Guide are based upon internationally recognized and accepted radio operating standards and procedures. Familiarity with, and adherence to, these procedures will reduce confusion and increase reliability of radiocommunication.

CHAPTER 2 - RADIO NETS

2.1   General

A radio net consists of two or more stations operating on the same frequency for the purpose of communicating information of mutual interest. In an Emergency Management context, nets are used to pass information related to an emergency/disaster situation.

2.2   Net Control Station

A net control station (NCS) is a station on the net whose function it is to control the activities on that net. The operator on the NCS is responsible to insure that:

- message traffic is passed in the order of precedence,
- circuit discipline is maintained on the net, and
- to generally ensure the efficient operation of the net.

2.3   Types of Nets

For the purposes of this Guide, two types of nets are recognized, those are: a directed net and a free net.

2.3.1   Directed Net

In a "directed net", stations must obtain permission from the NCS prior to communicating with other stations on the net. This is done in order to maintain order on the net and to avoid interference between the various stations on the net.

2.3.2   Free Net

A "free net" is a net in which the NCS authorizes member stations to transmit traffic to other stations on the net without obtaining prior permission to doing so. Free net operation does not relieve the NCS of the responsibility to maintain circuit discipline. Unless otherwise directed by the NCS, nets are deemed to be free nets.

2.4   Message Forms/Station Logs

For information related to message forms and station logs, operators should refer to the Amateur Radio Plan by the Served Agency.

2.5   Date – Time - Group

The Date/Time/Group is done starting with the date, then time (in 24-hour clock), followed by the month (abbreviated) and lastly the year.

Example:

3:00pm on Sep 27, 2021 would be represented as: 271500 SEP 21

2.6 Time

The time format used is the 24-hour clock system and in LOCAL TIME. See Figure 2.1 for conversion table.

Note: There is no 2400 hours since that is identical to zero hour and technically, there should not be a 0000 hour either but rather a 2359 or 0001, since 0000 indicates no time.

Time Checks: All operators are responsible for synchronizing their watches before going on shift. For those with access to HF radio, the Canadian time signal may be found on 3.330, 7.775 and 14.670 MHz. The US time signal may be found on 5, 10, 15, 20 and 25 MHz.

Net Control Operator Responsibility: In order to ensure that all net operators are on the same time, it is the responsibility of the NCS to ensure that watches/clocks are synchronized.

Figure 2.1 - Time Conversion Table

24 Hour Time	12 Hour Time	24 Hour Time	12 Hour Time
0001	Midnight	1200	Noon
0100	1:00 AM	1300	1:00 PM
0200	2:00 AM	1400	2:00 PM
0300	3:00 AM	1500	3:00 PM
0400	4:00 AM	1600	4:00 PM
0500	5:00 AM	1700	5:00 PM
0600	6:00 AM	1800	6:00 PM
0700	7:00 AM	1900	7:00 PM
0800	8:00 AM	2000	8:00 PM
0900	9:00 AM	2100	9:00 PM
1000	10:00 AM	2200	10:00 PM
1100	11:00 AM	2300	11:00 PM

2.7 Message Originator(s)

The identity of the originator is shown in the FROM line of the message. For clarity, it may be necessary to also identify the location where a particular originator is situated.

Example:

FROM: RCMP "K" Division//DEOC.

This signifies that the originator is one of many possible message originators within the Alberta Provincial HQ of the RCMP. This particular originator is at the RCMP "K" Division, Departmental Emergency Operations Centre (DEOC.).

Note: When transmitting a message in which the characters "II" appear, these are pronounced as "slant slant" (NOT slash slash or forward slash).

2.8 Message Addressee(s)

An addressee, whether "action" or "information", is the location to which the message is being sent.

Most messages have only ONE action or "TO" addressee but can have more than one.

It is the action addressee(s) who has/have the responsibility for taking "action" on the message - hence the name.

Information addressees are contained in the "CC" address line of the message and for these addressees, of which there may be only one, or many, the information is in the category of "nice to know" but for which they have no particular responsibility to take any action.

Note: In most instances, addressing a message to a location (as opposed to an individual) is sufficient. A message addressed to the Alberta EMA would be referred to the responsible party depending upon its content. However, where it is necessary for a message to reach a *specific* person within the organization, the address might appear as follows:

Example:

FROM: RCMP HQ//Jenkins

TO: Alberta EMA//MacMillan

In this case, the CO of RCMP Division "K" wishes to ensure that his message goes to the Alberta ema and specifically to the RCMP Liaison Person – Mr. MacMillan.

2.9   Text of Message(s)

The operator transmitting a message MUST NOT change any of the text of in message.

2.10   Main Body of the Message

The main body of the message is the TEXT. It is in effect the "meat" of the message. It may consist of instructions, requests for information, etc. It should be as concise as possible consistent with clarity. Unnecessary words should not be used.

In general, messages should deal with a single topic. If more than one topic is included, they should be separated into numbered paragraphs. Once drafted, the originator must carefully re-read his/her message to ensure that it is clear, unambiguous and concise.

This notwithstanding, amateur radio operators must never modify or paraphrase the text of a message.

2.11   Signature of Originator

The originator's signature is required in order to indicate that the originator is satisfied with his/her message and has authorized it for transmission. Amateur radio operators shall not transmit a message unless it has been signed by the originator or someone authorized to sign on his/her behalf.

Although the signature should be on the message form, it is not transmitted as part of the message.

2.12   Time Received/Transmitted

The amateur radio operator who receives or transmits a message shall check (✓) the appropriate choice and indicate the time in the time format and date (yy/mm/dd). The radio log is used for recording the sending and receiving of messages. Times are also required to be recorded on the message form.

2.13   Operator's Initials

This is used to record the initials of the amateur radio operator who transmitted a message is located on the bottom of the message form.

2.14   Time Delivered/Delivered To (on message form)

This is used for received messages and indicates the time a message was delivered and to whom.   The time must be in time 24 hr format.

2.15   Copy Distribution

This indicates the proper distribution of the three copies of a message. Note that the copy for the E.O.C. Assistant to the Duty Officer may have to be delivered on completion of the emergency/exercise.

2.16   Page ___ of ___ Pages

This is used to indicate the page number and total number of pages in the message. If the text of a message exceeds a single page, complete the boxes at the bottom of the page and following pages. Ensure that the pages of the message remain together.

2.17   Transmitting a Message

Messages consist of THREE parts:

2.17.1 Message Heading

The heading (header) is the FIRST part of the message. It is normally completed by the radio operator. It can include the circuit the message is to be passed on. It will also contain information furnished by the originator with respect to DATE, TIME, the FROM line, the TO line and the CC line as well as the ORIGINATOR NUMBER.

2.17.2 Message Text

The text is the SECOND part of the message. It contains the information the originator desires to convey to the addressee(s).

Remember, when the message is spoken, the word "MESSAGE"   is used. ("MESSAGE" is not considered to be part of the message, it simply serves as a separative word and immediately precedes and follows the text portion of the message).

2.17.3 Message Ending

The final part of the message, may consist of such things as the prowords MORE TO FOLLOW or other pertinent comments concerning the message, and last, END OF MESSAGE and the proword OVER.

The proword OVER is always the last word transmitted by the sending station when a reply IS expected. The receiving station will acknowledge receipt or obtain needed repetitions before acknowledging receipt.

2.18 Passing a Message

The following is the sequence that is to be followed when passing a message. The words indicated in **bold** are the words spoken.

Words used after initial communication has been established.

1   The call-sign(s) of the station(s) called, e.g., **Rockyview Hospital** (tactical call signs NOT amateur radio call signs are usually used).

2   The proword **THIS IS**

3   The call-sign of the sending station (tactical call sign), e.g., **RED CROSS**.

4   The proword **MESSAGE OVER**

5   Receiving station will acknowledge call sign (receiving) **SEND YOUR MESSAGE OVER**.

6.   The proword **DATE** (stated as follows i.e. [yy/mm/dd]) (201222), which means 2020 Dec 22).

7   The proword **TIME** (stated as follows in 24-hour clock 1630).

8   The proword **NUMBER** (this is the originator's number).

9   The proword **FROM** and the originator's information (i.e., Site Commander).

10   The proword **TO** and the recipient's information (i.e., Foothills General Hospital).

11   The proword CC (i.e., Weather Office, Children's Hospital).

12   If this is an exercise the words Exercise - with the **NAME OF THE EXERCISE** OR EXERCISE EXERCISE EXERCISE if no name.

13   If this is an exercise, the words EXERCISE EXERCISE EXERCISE (if the exercise has a name e.g., Chinook, the words **EXERCISE CHINOOK** is used at the BEGINNING of the message in lieu of the word EXERCISE spoken three times.

14   The proword **MESSAGE** (to notify the receiving station that the text will begin).

15   The proword **END OF MESSAGE** followed by **OVER**.

2.19 Radio Log

An example of the radio log that is to be used by Calgary ARES is shown at ANNEX 2-C of this chapter. Instructions for its use are as follows:

2.19.1 Net

This indicates the net the log is used for: E.O.C., Health Services etc. Each location will have a radio log for each individual net.

2.19.2 Date

Enter the date on which the particular page starts.

2.19.3 Log-in Time

This is used to indicate the time that the net was established (24-hour clock).

2.19.4 Operator(s)

Enter the names of the operators. If the operator changes in the middle of a log sheet, the new operator is to be indicated in the "notes/details" box of the next clear line, with all other boxes on that line ruled out.

2.19.5 Frequency Used

Enter the frequency used for the net. If this changes in the middle of a log sheet, the new frequency is to be indicated in the "notes/details" box of the next clear line, with all other boxes on that line ruled out.

2.19.6 Log-out Time

Enter the time the net was closed (24-hour clock).

2.19.7 Time

Enter the date and time the message was transmitted or received.

2.19.8 Message Received/Sent

In the appropriate box enter the actual time (24-hour clock) that a message was sent or received.

2.19.9 Message Number

Enter the originator's number on the message that is sent or received.

2.19.10 Notes/Details

Indicate the subject of the message in a few words

2.19.11 Delivered

When received messages are delivered to the addressee, check this box to indicate this.

2.19.12 Page ___ of ___

Used to indicate the page number.

SPECIAL NOTE: Radio logs are legal documents that must be turned over to the Served Agency's Communication Coordinator or Duty Officer on completion of the emergency/exercise. Entries shall be neatly printed in ink. Corrections shall be initialed.

ANNEX 2-A: ARES Calgary Message Form

ARES Calgary

O – Immediate
P – Priority
R – Routine

MESSAGE FORM

Note: Please **PRINT** Clearly

Action – Precedence	Info Precedence	Date	Time

FROM:

TO:

INFO:

BREAK

NUMBER:

BREAK

Time Received/Transmitted:	Op. Initials	Originator's Signature
Time Delivered (received msg only)		
Delivered to (received msg only)		

Page ___ of ___

ANNEX 2-B: RAC Radiogram Form

RADIOGRAM
VIA AMATEUR RADIO
Radio Amateurs of Canada

NUMBER	PRECEDENCE	HX	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME FILED	DATE

TO:_____
Address:_____
Address:_____
Phone #: (____) _____ = _____

_____ _____ _____ _____ _____

_____ _____ _____ _____ _____

_____ _____ _____ _____ _____

_____ _____ _____ _____ _____

_____ _____ _____ _____ _____

Revised Radiogram by VA3 IDJ – March 05   Signed _____

REC'D	FROM	DATE	TIME	SENT	TO	DATE	TIME

Precedence

Always spell EMERGENCY, never abbreviate
EMERGENCY
Any message having life and death urgency to any person or group of persons, which is transmitted by Amateur Radio in the absence of regular commercial facilities. This includes official messages of welfare agencies during emergencies requesting supplies, materials or instructions vital to relief of stricken populace in emergency areas. When in doubt, do not use it.

Abbreviate by using first letter for the remainder precedence
(P) = PRIORITY
This classification is for:
a) important message having specific time limit
b) official messages not covered in the emergency category
c) press dispatch and emergency related traffic not of the utmost urgency
d) notice of death or injury in disaster area, personal or official.

(W) = WELFARE
This classification refers to either an inquiry as to the health and welfare of an individual in the disaster area or an advisory from the disaster area that indicates all is well. Welfare traffic is handled only after Emergency and Priority traffic is cleared. The Red Cross equivalent to an incoming welfare message is DWI (Disaster Welfare Inquiry)

(R) = ROUTINE
Most traffic in normal times will bear this designation. In disaster situations, traffic labeled Routine, should be handled last, or not at all when circuits are busy with higher precedence traffic

Handling Instructions   H X __
H X A (Followed by number)Collect landline delivery authorized by addressee within _____ MILES. (If no number, then authorization is unlimited.)

H X B (Followed by number)Cancel message if not delivered within _____ HOURS of filing time; service originating station.

H X C Report DATE and TIME of delivery (TOD) to origination station.

H X D Report to originating station the IDENTITY of station from which received, plus DATE, TIME and METHOD of delivery.

H X E Delivering station GET REPLY from addressee, originate message back.

H X F (Followed by number)HOLD delivery until__(date).

H X G Delivery BY MAIL or LANDLINE toll call not required. If expenses involved, cancel message and service originating station.

ANNEX 2-C: Radio Log

ARES Calgary

O – Immediate
P – Priority
R – Routine

MESSAGE FORM

Note: Please **PRINT** Clearly

Action – Precedence	Info Precedence	Date	Time

FROM:

TO:

INFO:

B R E A K

NUMBER:

B R E A K

Time Received/Transmitted:	Op. Initials	Originator's Signature
Time Delivered (received msg only)		
Delivered to (received msg only)		

Page ___ of ___

CHAPTER 3 - RADIOTELEPHONE PROCEDURES

3.1 General

In the interests of efficiency, transmission by radiotelephone shall be as short and concise as possible, consistent with accuracy. Adherence to prescribed procedures is mandatory.

Unauthorized departures from, or variations in, prescribed procedures often create confusion, and reduces reliability and speed. If the procedure prescribed herein does not cover a specific operating requirement, initiative and common sense should prevail.

3.2 Principles of Emergency Telecommunications

The following general principles are essential to emergency telecommunications:

A. ACCURACY: It is absolutely vital that emergency telecommunications be relayed with the utmost accuracy. Omissions or incorrect information can cause inconvenience at best, and can be tragic at worst. Radio operators must always transmit and copy messages as given to them.

B. CONCISENESS: During an emergency, there is no time for unnecessary or redundant information. While more a function of the message-drafting authorities, radio operators must attempt to be as concise as possible, consistent with accuracy; and

C. SPEED: Speed and efficiency are important operating characteristics for emergency telecommunications. Important messages, even if concise and accurately relayed, are of no use if delivered too late.

3.3 Operating Logs

Operating logs shall be maintained for ALL nets. Instructions for completing station logs are contained in chapter 2.

3.4 Phonetic Alphabet

The phonetic alphabet that appears in Figure 3.1 has been developed after years of research to select words that are easily pronounced by the citizens of many countries of the world.

Home made phonetic alphabets shall not be used.

FIGURE 3.1 - Phonetic Alphabet

Letter	Word	Pronunciation	Letter	Word	Pronunciation
A	ALPHA	AL-FAH	N	NOVEMBER	NO-VEM-BER
B	BRAVO	BRAH-VOH	O	OSCAR	OSS-CAHR
C	CHARLIE	CHAR-LEE	P	PAPA	PAH-PAH
D	DELTA	DELL-TAH	Q	QUEBEC	KEH-BECK
E	ECHO	ECK-OH	R	ROMEO	ROW-ME-OH
F	FOXTROT	FOKS-TROT	S	SIERRA	SEE-AIR-RAH
G	GOLF	GOLF	T	TANGO	TANG-OH
H	HOTEL	HOH-TEL	U	UNIFORM	YOU-NEE-FORM
I	INDIA	IN-DEE-AH	V	VICTOR	VIK-TAHR
J	JULIET	JAW-LEE-ETT	W	WHISKEY	WISS-KEY
K	KILO	KEY-LOH	X	X-RAY	ECKS-RAY
L	LIMA	LEE-MAH	Y	YANKEE	YANG-KEY
M	MIKE	MIKE	Z	ZULU	ZOO-LOO

NOTE: Underlined syllables carry the accent.

3.5   Difficult Words

Difficult or unusual words within the text of a message are to be spelled using the phonetic alphabet and preceded by the proword **I SPELL**. If the operator can pronounce the word to be spelled, he/she will do so before and after the spelling to identify the word.

Example:

TRIVIA - *I Spell*   TANGO ROMEO INDIA VICTOR INDIA ALPHA - TRIVIA

3.6   Numerals

To distinguish numerals from similarly pronounced words, the proword **FIGURES** is to be used preceding the number. When transmitted by radiotelephone, the following rules for their pronunciation will be observed (Figure 3.2):

FIGURE 3.2 – Phonetic Numbers

Numeral	Pronunciation	Numeral	Pronunciation
0	ZE-RO	5	FIFE
1	WUN	6	SIX
2	TOO	7	SEV-EN
3	THU-REE	8	AIT
4	FOW-ER	9	NIN-ER

NOTE: When conditions are good, there is no objection to pronouncing the numbers in the regular way e.g., THREE, FIVE, NINE etc.

3.7   Numbers

A.   Numbers will be transmitted digit by digit except that exact multipliers of thousands may be spoken as such

Example:

NUMERAL	SPOKEN AS
44	FOW-ER FOW-ER
90	NIN-ER ZE-RO
7000	SEVEN - THOUSAND
53128	FIFE THRU-REE WUN TOO AIT

B. The decimal point is to be spoken as DAY-CE-MAL.

Example:

987.6 is spoken as NIN-ER AIT SEV-EN DAY-SEE-MAL SIX

C.   Dates will be spoken digit by digit, with the months in full.

Example:

20 August is spoken as TOO ZE-RO AUGUST

D.   Roman numerals shall be spoken as the corresponding Arabic letters preceded by the words ROMAN NUMERAL.

Example:

XX is Roman Numerals would be spoken as ROMAN NUMERAL X-RAY X-RAY.

3.8   Abbreviations in Text

Abbreviations in the text are transmitted as follows:

A.   Initials used alone or in conjunction with short titles shall be spoken phonetically.

Example:

Paragraph A, is spoken as PARAGRAPH ALPHA

B.   Personal initials shall be spoken phonetically, prefixed by the word INITIALS.

Example:

G.M. Smith is spoken as INITIALS GOLF MIKE SMITH.

C.   Abbreviations frequently used in normal speech may be used in the same manner when transmitted by voice.

Example:

ETA may be spoken as ETA
CEMA. may be spoken as CEMA

D.   Punctuation shall be spoken as follows (Figure 3.3):

Figure 3.3 – Spoken Punctuation

Comma	,	COMMA
Period	.	FULL STOP or PERIOD
Parenthesis	( )	OPEN BRACKETS/CLOSE BRACKETS
Oblique Stroke	//	SLANT SLANT
Quotation marks	" "	QUOTE/UNQUOTE
Hyphen	-	HYPHEN
Colon	:	COLON
Semicolon	;	SEMICOLON
Dash	_	DASH

3.9   Call Signs

A.   Regular amateur radio call signs issued by Industry Canada shall be used at the start and finish of an operator's period of duty on a radio net and at intervals not to exceed 30 minutes.

The expression **FOR ID** is ***not*** to be used.

B.   For simplicity in emergency situations and exercises, ***tactical call signs will be used on EMO nets***, provided the provisions of paragraph A above are met. The tactical call signs will describe the operators' location or function.

Example:

The operator at Foothills General Hospital will use the call sign FOOTHILLS GENERAL.

3.10   Prowords

A.   Prowords are pronounceable words or phrases which have been assigned meanings for the purposes of expediting message handling on circuits where radiotelephone procedure is employed.   In no case shall a proword or a combination of prowords be substituted for the textual component of a message.

B.   The following prowords are authorized for general use (Figure 3.4):

Figure 3.4 - Prowords

Proword	Explanation
ACKNOWLEDGE	An instruction to the addressee that the message must be acknowledged
AFFIRM	Yes (Recent change to avoid confusion with negative)
ALL AFTER	The portion of the message to which I have reference is all that which follows _____.
ALL BEFORE	The portion of the message to which I have reference is all that which precedes _____.
ANSWER AFTER	The station called is to answer after call sign __ when answering transmissions.
ASSUME CONTROL	You will assume control of this net until further notice.
BREAK	I hereby indicate the separation of the text form other portions of the message.
CALL SIGN	The group that follows is a call sign.
CLOSE DOWN	Station(s) are to close down when indicated. Acknowledgments are required
CORRECT	You are correct, or what you have transmitted is correct.
CORRECTION	An error has been made in this transmission. Transmission will continue with the last word correctly transmitted _____.
	An error has been made in this transmission (or message indicated). The correct version is _____.
	That which follows is a corrected version in answer to your request for verification.
DISREGARD THIS TRANSMISSION - OUT	This transmission is in error. Disregard it. (This proword shall not be used to cancel any message that has been completely transmitted and for which receipt acknowledgment has been received).
FIGURES	Numerals or numbers follow.
FROM	The originator of this message is indicated by the address designator immediately following
GRID	The portion following is a grid reference.
I AM ASSUMING	I am assuming control of this net until further notice.
IMMEDIATE	Precedence IMMEDIATE.
INFO	The addressees immediately following are addressed for information.

I READ BACK	The following is my response to your instructions to read back.
I SAY AGAIN	I am repeating transmission or portion indicated.
I SPELL	I shall spell the next word phonetically.
I VERIFY	That which follows has been verified at your request and is repeated. (To be used only as a reply to VERIFY).
MESSAGE	A message which requires recording is about to follow. (Transmitted immediately after the call).
MORE TO FOLLOW	Transmitting station has additional traffic for the receiving station.
NEGATIVE	No.
NO DUFF	The message that follows is NOT an exercise message. Used to indicate an **_actual emergency_** during an exercise.
NOTHING HEARD	To be used when no reply is received from a called station.
OUT	This is the end of my transmission to you and **no** answer is required or expected.
OVER	This is the end of my transmission to you and a response is necessary. Go ahead, transmit.
PRIORITY	Precedence PRIORITY.
READ BACK	Repeat this entire transmission back to me exactly as received.
RELAY (TO)	Transmit this message to all addressees (or addresses immediately following this proword). The address component is mandatory when this proword is used.
RELAY THROUGH	Relay your message through call sign _____.
ROGER	I have received your last transmission satisfactorily (Note that it does not mean "yes").
ROUTINE	Precedence ROUTINE
SAY AGAIN	Repeat all of your last transmission. Followed by identification data means "Repeat - (portion indicated)".
SEND YOUR	I am ready to receive your message, report, etc. (Used only in reply to the offer of a message, etc.).
SILENCE (repeated three or more times)	Cease transmissions on this net immediately. Silence will be maintained until lifted by Net Control.
SILENCE LIFTED	Silence is lifted.

SPEAK SLOWER	Your transmission is too fast. Reduce speed of transmission.
THIS IS	This transmission is from the station whose designator immediately follows.
THIS IS A DIRECTED NET	From now until further notice this net is directed.
THIS IS A FREE NET	From now until further notice, this net is free.
THROUGH ME	Relay your message through me.
TIME	That which immediately follows is the time or date-time group of the message.
TO	The addressee immediately following is addressed for action.
UNKNOWN STATION	The identify of the station which whom I am attempting to establish communications is unknown.
VERIFY	Verify entire message (or portion indicated) with the originator and send correct version. (To be used only at the discretion of, or by, the ADDRESSEE to which the question message was directed.
WAIT	I must pause for a few seconds.
WAIT - OUT	I must pause longer than a few seconds.
WILCO	I have received your signal, understand it, and will comply. To be used only by the addressee. Since the meaning of ROGER is included in that of WILCO, the two prowords are **never used together.**
WORD AFTER	The word of the message to which I have reference is that which follows _____.
WORD BEFORE	The word of the message to which I have reference is that which precedes _____.
WORDS TWICE	Communications are difficult. Transmit each phrase twice (This proword may be used as an order, request, or as information.)
WRONG	Your last transmission was incorrect. The correct version is _____.

ANNEX 3-A - Urgency Signals

Although it is unlikely that urgency signals will be heard on amateur radio frequencies, it is possible that amateur radio operators assigned to an Emergency Operations Centre (E.O.C.) MAY be directed by the Emergency Management Co-ordinator to operate Marine or Aeronautical radios approved and licensed by Industry Canada for that purpose.

In these circumstances, it is important that the amateur radio operator be familiar with the following three urgency signals that may be encountered. It is important to recognize IMMEDIATELY the significance of the following signals which take precedence over IMMEDIATE, PRIORITY and ROUTINE traffic.

MAYDAY: This signal, referred to as the "International Distress Signal", indicates that a station is threatened by grave and imminent danger to life and property and requires immediate assistance. In radiotelephone (voice) the word MAYDAY will be transmitted three times. After the distress signal is sent all traffic will cease and all stations will monitor. Any station in a position to render assistance will do so and all other stations will continue to monitor until the situation is rectified and the frequency is released for normal use.

PAN: This signal, referred to as the "International Urgency Signal", indicates the calling station has a very urgent message concerning the safety of a ship, aircraft or other vehicle and/or the safety of a person or persons. In radiotelephone (voice) the word PAN is transmitted three times. All traffic will cease. All stations will continue to monitor until the situation is rectified and the frequency is released for normal usage.

SECURITE: This signal, referred to as the "International Safety Signal", indicates that a station is going to transmit a message concerning the safety of navigation or send important meteorological warnings that will, or can, affect ships, aircraft or persons. In radiotelephone (voice), the word SECURITE (pronounced SEC-CUR-IT-TAY) will be sent three times. All traffic will cease. All stations will monitor until the frequency is clear.

CHAPTER 4 - OPERATING PRACTICES

4.1 General

A. To use circuit time more efficiently all messages or their substance should be written down prior to transmission. Those messages which must be delivered by the receiving operator to another person, or which are preceded by the proword MESSAGE, shall be written down.

B. Transmissions by radiotelephone shall be as short and concise as possible, consistent with accuracy. The use of standard phraseology enhances brevity. Transmissions should be clear, with natural emphasis on each word except the prescribed pronunciation of numerals. Operators must speak slowly enough that the message can be copied on paper by their counterparts on the receiving end.

C. Operators shall, when transmitting a message, pause after each sentence or two and interrupt their transmission momentarily to allow another station to break in if necessary.

D. To avoid interfering with other traffic operators shall listen to make sure that a circuit is clear prior to making any transmissions thereon.

E. When it is necessary to initiate test signals for the adjustment of a transmitter or receiver, such signals shall not continue for more than 10 seconds. They shall be composed of the word TEST followed by spoken numerals (1, 2, 3, etc.) and the call sign of the station conducting the test.

4.2 Establishing Communications

Before passing traffic over radiotelephone circuits, it is necessary to establish communications between the stations involved.

Example A. (Conditions good)

E.O.C. transmits:

FOOTHILLS GENERAL - THIS IS E.O.C. - OVER

Foothills General Responds:

E.O.C. - THIS IS FOOTHILLS GENERAL - OVER

E.O.C., having no traffic for Foothills General, transmits:

FOOTHILLS GENERAL - THIS IS E.O.C. - OUT

Example B. (Conditions difficult)

    E.O.C. Transmits:

        FOOTHILLS GENERAL - FOOTHILLS GENERAL   - THIS IS E.O.C. - E.O.C – RADIO CHECK   - RADIO CHECK - OVER.

    Foothills General responds:

        E.O.C.- E.O.C. - THIS IS FOOTHILLS GENERAL - FOOTHILLS GENERAL - WEAK BUT READABLE - WEAK BUT READABLE - OVER.

    E.O.C., having no traffic for Foothills General, transmits:

        FOOTHILLS GENERAL - THIS IS E.O.C., ROGER - OUT.

4.3   Sequence of Call Signs

When more than one station is called in one transmission, they shall respond in the same order in which they were called. This should normally be in alphabetical order. If one station fails to answer in its turn, the next in turn responds after a 5-second pause. The defaulting station then answers last, if able to do so.

Example:

E.O.C. transmits:

        FOOTHILLS GENERAL – CHILDREN'S HOSPITAL – ROCKYVIEW GENERAL - THIS IS E.O.C. - OVER.

Foothills Hospital answers:

        E.O.C. - THIS IS FOOTHILLS HOSPITAL - OVER

Not Hearing Children's Hospital, Rockyview General pauses for 5 seconds and answers:

        E.O.C. - THIS IS ROCKYVIEW GENERAL - OVER

E.O.C. then responds with:

        FOOTHILLS GENERAL – ROCKYVIEW GENERAL - ROGER …CHILDREN'S HOSPITAL - NOTHING HEARD - OUT.

4.4   Establishing A Net

A.   The following procedures shall be used when opening a net for the first time or when reopening a net. Proper control by the Net Control Station (NCS) and adherence to operating rules by all stations will enable traffic to be exchanged with a minimum of delay.

B.   To establish a net, the NCS will call all stations on the net, establish communications, identify the NCS, state whether the net is directed or free, pass any special instructions and conduct a time check.

Example:

When ready to establish the Health Services Net, E.O.C. transmits:

>   FOOTHILLS GENERAL – CHILDREN'S HOSPITAL – ROCKYVIEW GENERAL - THIS IS E.O.C. - OVER.

The called stations answer in turn:

>   E.O.C. - THIS IS FOOTHILLS GENERAL - OVER
>   E.O.C. - THIS IS CHILDREN'S HOSPITAL- OVER.
>   E.O.C. - THIS IS ROCKYVIEW GENERAL - OVER.

Having heard all stations respond, E.O.C. transmits:

>   THIS IS E.O.C. - HEALTH SERVICES NET ESTABLISHED - CEMA IS E.O.C. - THIS IS A DIRECTED NET - TIME CHECK ZERO FOUR ONE EIGHT (pause) ONE FIVE SECONDS - ONE ZERO SECONDS   - FIVE, FOUR, THREE, TWO, ONE, TIME ZERO FOUR ONE EIGHT – FOOTHILLS GENERAL - OVER.

NOTE: By stating Foothills General at the end of his transmission, E.O.C. wants ONLY Foothills General to respond.

Foothills General responds.

>   E.O.C. - THIS IS FOOTHILLS GENERAL - ROGER - OVER

Having no other traffic to pass, E.O.C. transmits:

>   FOOTHILLS GENERAL - THIS IS E.O.C. - ROGER - OUT.

4.5   Directing A Shift in Frequency

In order to cease causing interference to other nearby radios, or to escape interference to one's own circuit, it may be necessary to change frequency. This shall be accomplished using the following procedure.

Example

The Net Control Station (NCS) directs a change in frequency to 146.580 MHz.

> FOOTHILLS GENERAL – CHILDREN'S HOSPITAL – ROCKYVIEW GENERAL - THIS IS E.O.C. - CHANGE FREQUENCY TO ONE FOUR SIX DECIMAL FIVE EIGHT ZERO MEGAHARTZ - OVER.

The stations answer in turn:

> E.O.C. - THIS IS FOOTHILLS GENERAL – ROGER - OVER
> E.O.C. - THIS IS CHILDREN'S HOSPITAL - ROGER - OVER.
> E.O.C. - THIS IS ROCKYVIEW GENERAL – ROGER - OVER.

Having heard all stations on the net respond, E.O.C. then replies.

> THIS IS E.O.C. - ROGER   - OUT

All stations then shift to the new frequency. To ensure all stations are ready, the NCS should call each to confirm they are on the correct frequency. If any station cannot establish communications on the new frequency, after two minutes, they will revert to the original frequency and call the NCS. The NCS will therefore monitor both frequencies until all stations re-establish communications.

4.6   Directed and Free Nets

A.   The type of net and method of operation is determined by the NCS after consideration of the factors involved, including volume and precedence of traffic and the experience of the operators staffing the stations. The two types of nets are:

   (1)   <u>Directed Net</u> - In this type of net, stations obtain permission from the NCS prior to communicating with other stations on the net.

   (2)   <u>Free Net</u> - In this type of net, the NCS authorizes member stations to transmit traffic to other stations in the net without obtaining prior permission from the NCS. Free net operation does not relieve the control station of the responsibility for maintaining circuit discipline.

B.   A net is deemed to be a free net unless otherwise ordered. When it is required to change a free net to a directed net, or vice-versa, the prowords THIS IS A FREE NET or THIS IS A DIRECTED NET shall be used by the NCS.

C.   <u>Directed Nets</u>;

   (1)   The following example illustrates the manner in which the NCS announces that the net is directed and requests the volume and precedence of traffic to be transmitted.

Example:

E.O.C. Transmits:

      FOOTHILLS GENERAL – CHILDREN'S HOSPITAL – ROCKYVIEW GENERAL – THIS IS E.O.C. - THIS IS A DIRECTED NET - OF WHAT PRECEDENCE AND FOR WHOM   ARE YOUR MESSAGES - OVER.

Each station then answers in turn, indicating traffic on hand:

      E.O.C. - THIS IS FOOTHILLS GENERAL - ONE PRIORITY FOR ROCKYVIEW GENERAL - OVER

      E.O.C. - THIS IS CHILDREN'S HOSPITAL - ONE IMMEDIATE AND ONE ROUTINE FOR YOU - OVER.

      E.O.C. - THIS IS ROCKYVIEW GENERAL - NO TRAFFIC - OVER.

E.O.C. then informs the stations that their transmissions have been heard and commences to clear traffic in order of precedence.

Example:

      ALL STATIONS - THIS IS E.O.C. - ROGER –
      CHILDREN'S GENERAL - SEND YOUR IMMEDIATE - OVER

After Children's Hospital completes his IMMEDIATE to E.O.C., the NCS then orders the station with the next highest precedence message to transmit:

      FOOTHILLS GENERAL - THIS IS E.O.C. - SEND YOUR PRIORITY - OUT

Hearing this, Rockyview General indicates to Foothills General that it is ready:

> FOOTHILLS GENERAL - THIS IS ROCKYVIEW GENERAL - OVER

(Failure of Rockyview General to indicate that it was ready would necessitate Foothills General making a preliminary call to Rockyview General).

> ROCKYVIEW GENERAL - THIS IS FOOTHILLS GENERAL - MESSAGE - PRIORITY ETC...

After Rockyview General receives the message and uses the proword OUT, the NCS continues to authorize stations to transmit their messages in order of precedence until his traffic list is cleared.

(2)   When the traffic list is cleared, stations having new messages to transmit should call the NCS and request permission to transmit.

Example:

Children's Hospital, having one routine message for Foothills General transmits:

> E.O.C. - THIS IS CHILDREN'S HOSPITAL - ROUTINE FOR FOOTHILLS GENERAL - OVER.

E.O.C. transmits:

> CHILDREN'S HOSPITAL - THIS IS E.O.C. - SEND YOUR MESSAGE - OUT (or if higher traffic is awaiting transmission), CHILDREN'S HOSPITAL - THIS IS E.O.C. - WAIT - OUT.

When circuit conditions permit, E.O.C., informs Children's Hospital that he may transmit his message:

> CHILDREN'S HOSPITAL - THIS IS E.O.C. - SEND YOUR MESSAGE - OUT.

Foothills General, on hearing the authorization, indicates to Children's Hospital that it is ready:

> CHILDREN'S HOSPITAL - THIS IS FOOTHILLS GENERAL - OVER.

The message is then passed.

4.7 Break-In Procedures

A. A station having a message of higher precedence than the transmission in progress may break-in and thus suspend that transmission in the following circumstances:

> (1) <u>IMMEDIATE</u> - may break-in on PRIORITY and ROUTINE messages. A preliminary call may be made before transmitting the message, if necessary. On a directed net, approval to transmit the message must be obtained.

> (2) <u>PRIORITY</u> - as for IMMEDIATE, except that only routine messages may be interrupted.

B. The precedence spoken three times means "cease transmission immediately". Silence will be maintained until the station breaking-in has passed his message.

C. Break-in procedures for messages of IMMEDIATE and PRIORITY precedence are illustrated in the following examples:

(1) On Directed Nets;

Example:

Foothills General is transmitting a PRIORITY message to the Children's Hospital when Rockyview General is handed an IMMEDIATE message for the Children's Hospital. When Foothills General pauses, Rockyview General Transmits:

> IMMEDIATE IMMEDIATE IMMEDIATE - E.O.C. THIS IS ROCKYVIEW GENERAL - IMMEDIATE FOR CHILDREN'S HOSPITAL - OVER.

(On hearing Rockyview General's break-in, Foothills General ceases transmission).

> ROCKYVIEW GENERAL - THIS IS E.O.C. - SEND YOUR IMMEDIATE –

On hearing this authorization, CHILDREN'S HOSPITAL transmits:

> ROCKYVIEW GENERAL - THIS IS CHILDREN'S HOSPITAL - OVER

Rockyview General transmits

> CHILDREN'S HOSPITAL – THIS IS ROCKYVIEW GENERAL – MESSAGE – IMMEDIATE – (text as required) - OVER

Children's Hospital replies:

> ROCKYVIEW GENERAL - THIS IS CHILDREN'S HOSPITAL - ROGER - OUT.

As soon as the IMMEDIATE message has been receipted for, Foothills General continues with his original message:

> CHILDREN'S HOSPITAL - THIS IS FOOTHILLS GENERAL - ALL AFTER (text) ETC.

(2) On Free Nets:

Example:

Foothills General is transmitting a PRIORITY message to Children's Hospital when Rockyview General is handed an IMMEDIATE message for E.O.C.. When Foothills General pauses, Rockyview General transmits:

      IMMEDIATE IMMEDIATE IMMEDIATE

On hearing this, Foothills General ceases transmission and Rockyview General continues:

      E.O.C. - THIS IS ROCKYVIEW GENERAL - MESSAGE - IMMEDIATE - (text as required) - OVER.

 E.O.C. transmits:

      ROCKYVIEW GENERAL - THIS IS E.O.C. - ROGER - OUT.

Foothills General then continues with his original message:

      CHILDREN'S HOSPITAL - THIS IS FOOTHILLS GENERAL - ALL AFTER - (text) ETC.

4.8   Delegating and Assuming Net Control

(A)   It may be necessary for net control to be delegated to another station when effective net control cannot be maintained by the NCS or when the NCS has to leave the net for any reason.

In such cases, the proword ASSUME CONTROL is to be used.

Example:

The NCS is closing down for 30 minutes and decides that Rockyview General is in the best position to assume net control. He transmits:

ROCKYVIEW GENERAL – CHILDREN'S HOSPITAL – FOOTHILLS GENERAL - THIS IS E.O.C. - AM CLOSING DOWN FOR THREE ZERO MINUTES – ROCKYVIEW GENERAL ASSUME CONTROL - OVER.

The stations answer in turn:

E.O.C. - THIS IS ROCKYVIEW GENERAL - ROGER   - OUT
E.O.C. - THIS IS CHILDREN'S HOSPITAL - ROGER - OUT.
E.O.C. - THIS IS FOOTHILLS GENERAL - ROGER - OUT.

(B)   On occasion the NCS may not be able to give warning that he is leaving the net. In such Cases, another station will assume net control after confirming that the NCS cannot be Heard by any other station on the net.

Example:

Nothing has been heard from the NCS, Rockyview General, whose operator is experienced and full of initiative, transmits:

FOOTHILLS GENERAL – CHILDREN'S HOSPITAL   - THIS IS ROCKYVIEW GENERAL - HAVE YOU HEARD ANYTHING FROM E.O.C.? OVER

E.O.C. does not break-in and the other stations transmit:

ROCKYVIEW GENERAL - THIS IS CHILDREN'S HOSPITAL - NOTHING HEARD - OVER.

ROCKYVIEW GENERAL - THIS IS FOOTHILLS GENERAL - NOTHING HEARD - OVER

Rockyview General then transmits:

CHILDREN'S HOSPITAL – FOOTHILLS HOSPITAL - THIS IS ROCKYVIEW HOSPITAL - NOTHING HEARD FROM E.O.C. - I AM ASSUMING CONTROL - OVER

The stations reply in turn:

ROCKYVIEW GENERAL - THIS IS CHILDREN'S HOSPITAL - ROGER - OUT
ROCKYVIEW GENERAL - THIS IS FOOTHILLS GENERAL - ROGER - OUT

(C)   When the NCS re-joins the net, he uses the proword, I AM ASSUMING CONTROL.

Example:

The NCS wishes to resume control of the net and transmits:

> ROCKYVIEW GENERAL – CHILDREN'S HOSPITAL – FOOTHILLS GENERAL - THIS IS E.O.C. - I AM ASSUMING CONTROL - OVER

The stations reply in order:

> E.O.C. - THIS IS ROCKYVIEW GENERAL – ROGER… etc.

4.9   Radio Checks, Signal Strength and Readability

(A)   A station is understood to have good signal strength and readability unless otherwise notified. Strength of signals and reliability will not be exchanged unless one station cannot clearly hear another station.

(B)   A station that wishes to inform another of his signal strength and readability will do so by means of a short and concise report of actual reception such as, WEAK BUT READABLE, LOUD BUT DISTORTED, WEAK WITH INTERFERENCE, etc.

Reports such as "five by five" "four by four" will **NOT** be used to indicate strength and quality of reception.

(C)   The prowords listed below are for use when initiating and answering queries concerning signal strength and readability:

(1)   General:

RADIO CHECK -	What is my signal strength and readability; how do you hear me?
ROGER -	I have received your last transmission satisfactorily. The omission of comment on signal strength and readability is understood to mean that reception is loud and clear. If reception is other than loud and clear, it must be described with the prowords from (2) and (3) below.
NOTHING HEARD	To be used when no reply is received from a called station.

(2)   Report of Signal Strength:

LOUD	Your signal is very strong.
GOOD	Your signal strength is good.
WEAK	Your signal strength is weak.
VERY WEAK	Your signal is very weak.
FADING	At times your signal strength fades to such an extent that continuous reception cannot be relied upon.

(3)   Report on Readability

CLEAR	The quality of your transmission is excellent.
READABLE	The quality of your transmission is readable.
UNREADABLE	The quality of your transmission is so bad that I cannot read you.
DISTORTED	Having trouble reading you because your signal is distorted.
WITH INTER-FERENCE	Having trouble reading you due to interference.

INTERMITTENT   Having trouble reading you because your signal is intermittent.

Example:

E.O.C. desires a radio check with all stations on the net and transmits:

> CHILDREN'S HOSPITAL - FOOTHILLS GENERAL – ROCKYVIEW GENERAL - THIS IS E.O.C. - RADIO CHECK - OVER

All stations hear E.O.C. loud and clear except Children's Hospital and Foothills General. The replies of each station, in order, are:

> E.O.C. - THIS IS – CHILDREN'S HOSPITAL - READABLE - OVER.
> E.O.C. - THIS IS – FOOTHILLS GENERAL - WEAK WITH INTERFERENCE - OVER.
> E.O.C. THIS IS - ROCKYVIEW GENERAL - ROGER - OVER.

E.O.C. indicates his reception of each of the called stations:

> ALL STATIONS - THIS IS - E.O.C. ROGER – CHILDREN'S HOSPITAL - DISTORTED – FOOTHILLS GENERAL NOTHING HEARD - OVER.

n the event E.O.C. heard all stations loud and clear, the reply would have been:

> ALL STATIONS - THIS IS - E.O.C. - ROGER - OUT.

4.10   Preliminary Calls

When communications are difficult or when the calling station wishes to ascertain whether the station called is ready to receive a message, a preliminary call will be sent before transmitting a message.

Example A:

E.O.C. wishes to transmit a message to Children's Hospital and desires to know if the Children's Hospital is ready to accept it. E.O.C. transmits:

> CHILDREN'S HOSPITAL - THIS IS - E.O.C. - ONE ROUTINE - OVER.

Children's Hospital is ready to accept the message, and transmits:

> E.O.C. - THIS IS CHILDREN'S HOSPITAL - OVER

E.O.C. transmits:

> CHILDREN'S HOSPITAL - THIS IS - E.O.C. - MESSAGE – ROUTINE, etc…..

Example B:

E.O.C. wishes to transmit a message to Foothills General and desires to know that Foothills General is ready to accept it. E.O.C. transmits:

> FOOTHILLS GENERAL - THIS IS - E.O.C. - ONE PRIORITY - OVER.

Foothills General is not prepared to accept the traffic immediately and transmits:

> E.O.C. - THIS IS - FOOTHILLS GENERAL - WAIT.

After a short pause, Foothills General is ready and transmits:

> THIS IS – FOOTHILLS GENERAL - SEND YOUR PRIORITY - OVER.

Note: If Foothills General's delay had been longer than a few seconds, he would have transmitted:

> E.O.C. - THIS IS FOOTHILLS GENERAL - WAIT - OUT.

When ready to accept the message, Foothills General would transmit:

> E.O.C. - THIS IS - FOOTHILLS GENERAL - SEND YOUR PRIORITY - OVER.

4.11   Transmitting A Message

(A)   Communication Good

When communication reception is satisfactory, message parts need to be transmitted only once and preliminary calls are optional.

Example A:

Children's Hospital transmits:

> E.O.C. - THIS IS CHILDREN'S HOSPITAL - MESSAGE - PRIORITY - TIME 271125 SEPTEMBER 21 - FROM CHILDREN'S HOSPITAL - TO E.O.C. - BREAK — NUMBER CH201 - AMBULANCE HAS ARRIVED - BREAK - OVER.

E.O.C., having received the transmission satisfactorily, transmits:

> CHILDREN'S HOSPITAL - THIS IS - E.O.C. - ROGER - OUT.

Example B:

E.O.C., having missed the transmission, transmits:

> THIS IS E.O.C. - SAY AGAIN - OVER.

Children's Hospital transmits:

> E.O.C. - THIS IS CHILDREN'S HOSPITAL - I SAY AGAIN - E.O.C. - THIS IS CHILREN'S HOSPITAL - MESSAGE - PRIORITY - TIME   …. etc…

E.O.C. transmits:

> CHILDREN'S HOSPITAL - THIS IS - E.O.C. - SAY AGAIN ALL AFTER AMBULANCE - OVER.

Children's Hospital transmits:

> E.O.C. - THIS IS – CHILDREN'S HOSPITAL - I SAY AGAIN ALL AFTER AMBULANCE - HAS ARRIVED - BREAK - OVER.

 E.O.C. transmits:

> CHILDREN'S HOSPITAL - THIS IS E.O.C. - ROGER - OUT.

(B)   Communications Difficult

When communication is difficult, call signs should be transmitted twice. Phrases and words may be transmitted twice and indicated by use of the proword WORDS TWICE.   Reception may be verified by use of the proword READ BACK. Under such conditions, preliminary calls are normally employed unless stations are on a directed net, in which case stations should have indicated they are ready to receive.

Example:

Children's Hospital transmits:

> E.O.C. - E.O.C. - THIS IS – CHILDREN'S HOSPITAL – CHILDREN'S HOSPITAL - PRIORITY - PRIORITY - OVER

E.O.C. transmits:

> CHILREN'S HOSPITAL – CHILDREN'S HOSPITAL - THIS IS - E.O.C. - E.O.C. - SEND YOUR PRIORITY - SEND YOUR PRIORITY - OVER.

Children's Hospital transmits:

> E.O.C. - E.O.C. - THIS IS – CHILDREN'S HOSPITAL - CHILDREN'S HOSPITAL - WORDS TWICE - WORDS TWICE - MESSAGE - MESSAGE - PRIORITY - PRIORITY - TIME 271125 SEPTEMBER 21 - TIME 271125 SEPTEMBER 21 - FROM CHILDREN'S HOSPITAL - FROM CHILDREN'S HOSPITAL - TO E.O.C. - TO E.O.C. - BREAK - BREAK — NUMBER NUMBER - CH201 CH201 - AMBULANCE HAS ARRIVED - AMBULANCE HAS ARRIVED - BREAK - BREAK - OVER.

(C)   Message RELAY TO

The proword RELAY TO followed by an address designator indicates that the station called is to relay the message to the stations indicated. When more than one station is called, the call sign of the station designated to perform the relay will precede the proword RELAY TO.

Example:

E.O.C. transmits:

> FOOTHILLS GENERAL - THIS IS - E.O.C. - RELAY TO ALL STATIONS - MESSAGE - PRIORITY   - TIME 271200   SEP 97 - FROM E.O.C. - TO ALL STATIONS - BREAK - (text) - BREAK - OVER.

Foothills General transmits:

> E.O.C. - THIS IS FOOTHILLS GENERAL - ROGER - OUT

Foothills General relays the message:

> ALL STATIONS - THIS IS - FOOTHILLS GENERAL - MESSAGE - PRIORITY - TIME 271200 SEP 21 - FROM E.O.C. - TO ALL STATIONS - BREAK - (text) - BREAK - CHILDREN'S HOSPITAL - OVER.

Children's Hospital transmits:

> FOOTHILLS GENERAL - THIS IS – CHILDREN'S HOSPITAL - ROGER - OUT

(D)   Message RELAY THROUGH

The proword RELAY THROUGH allows the NCS or another station to indicate a station which can relay a message.

Example:

Children's Hospital attempts to transmit a message to Foothills General but cannot contact it. E.O.C. directs Children's Hospital to relay through Rockyview General who the operator knows to be in contact with Foothills General.

> CHILDREN'S HOSPITAL - THIS IS - E.O.C. - RELAY THROUGH ROCKYVIEW GENERAL - OUT

Children's Hospital transmits:

> ROCKYVIEW GENERAL - THIS IS CHILDREN'S HOSPITAL - RELAY TO FOOTHILLS GENERAL - MESSAGE - ROUTINE ETC...

(E)   Message THROUGH ME

The proword THROUGH ME allows a third station who knows that he is in contact with the required station to indicate that he is able to relay the message:

Example:

In the previous example, if E.O.C. had known that it was in contact with Foothills General it could have transmitted:

> CHILDREN'S HOSPITAL - THIS IS - E.O.C. - THROUGH ME - OVER.

4.12   Repetitions

When words are missed or are doubtful, repetitions will be requested by stations before receipting for a message. The proword SAY AGAIN, used alone or in conjunction with ALL BEFORE _____, ALL AFTER _____, FROM _____ TO, WORD BEFORE _____, and WORD AFTER _____, will be used for this purpose. In complying with requests for repetitions, the transmitting station will identify that portion which is being repeated.

Example:

E.O.C. is passing a message to Rockyview General:

> ROCKYVIEW GENERAL - THIS IS E.O.C. - MESSAGE - PRIORITY - TIME 271130 SEPTEMBER 21 - FROM E.O.C. - TO ROCKYVIEW GENERAL SLANT SLANT EMERGENCY DEPARTMENT SLANT SLANT BREAK - NUMBER E.O.C.011 - AMBULANCE WILL ARRIVE AT 1235 - BREAK - OVER.

Rockyview General, having missed the words between "ambulance" and "at", transmits:

> E.O.C. - THIS IS ROCKYVIEW GENERAL – SAY AGAIN - FROM AMBULANCE TO AT OVER

E.O.C. transmits:

> THIS IS E.O.C. - I SAY AGAIN - FROM AMBULANCE TO AT - AMBULANCE WILL ARRIVE AT - OVER

Rockyview General, having copied the message this time, transmits:

> THIS IS ROCKYVIEW GENERAL - ROGER - OUT

Alternatively, had Rockyview General not heard the words after WILL, it would transmit:

> E.O.C. - THIS IS ROCKYVIEW GENERAL - SAY AGAIN - ALL AFTER WILL - OVER

E.O.C. would respond

> THIS IS E.O.C. - I SAY AGAIN - ALL AFTER WILL - WILL ARRIVE AT 1235 - BREAK - OVER.

Rockyview General would then respond:

> THIS IS ROCKYVIEW GENERAL - ROGER - OUT

The procedure would be the same for the prowords ALL BEFORE, WORD BEFORE and WORD AFTER.

4.13 Corrections

When an error is made by a transmitting operator, the proword CORRECTION will be transmitted followed by the last word, proword or phrase correctly transmitted. Transmission then continues.

Example:

E.O.C. transmits:

> ROCKYVIEW GENERAL - THIS IS E.O.C. - MESSAGE – ROUTINE - TIME 271145 SEPTEMBER 21 - FROM E.O.C. - TO ROCKYVIEW GENERAL - BREAK - NUMBER E.O.C.012 -   AMATEUR RADIO OPERATORS MAY EAT BREAKFAST - CORRECTION - EAT LUNCH AT 1200 - BREAK - OVER.

Note: In the preceding example it is assumed that the operator misread the message as he/she was transmitting it, not that the operator changed "breakfast" to "lunch". Radio operators must NEVER change the text of a message without the knowledge and permission of the originator.

Note: When an error in transmission is made but not discovered immediately, a correction may be made in the final instructions provided the ending sign has not been transmitted. When making such a correction, the word, phrase or sentence must be properly identified.

Example:

E.O.C. transmits:

> ROCKYVIEW GENERAL - THIS IS E.O.C. - MESSAGE - ROUTINE - TIME 271145 SEPTEMBER 21 - FROM E.O.C. - TO ROCKYVIEW GENERAL - BREAK - NUMBER E.O.C.012 - AMATEUR RADIO OPERATORS MAY EAT BREAKFAST AT 1200 - BREAK - CORRECTION - WORD AFTER EAT - LUNCH - OVER

Note: If it is necessary to make corrections after the receipt of a message, a message may be sent identifying the message and the portion to be corrected.

Example:

> FOOTHILLS GENERAL - THIS IS E.O.C. - CORRECTION - MY E.O.C.012 - TIME 271145 SEPTEMBER 21 - WORD AFTER MAY EAT IS LUNCH VICE BREAKFAST - OVER

4.14   Canceling A Message

During the transmission of a message up to the ending prowords OVER or OUT, the message may be canceled by use of the proword DISREGARD THIS TRANSMISSION - OUT.

Example:

During the transmission of a message, E.O.C. realizes that it is being sent in error and therefore cancels it:

> ROCKYVIEW GENERAL - THIS IS E.O.C. - MESSAGE - ROUTINE - TIME 271400 SEPTEMBER 21 - FROM E.O.C. - TO ROCKYVIEW GENERAL - BREAK - NUMBER E.O.C.013 - HAMS MAY EAT LUNCH AT1200 - DISREGARD THIS TRANSMISSION - OUT.

A message which has been completely transmitted can only be canceled by another message.

Example: —

> ROCKYVIEW GENERAL - THIS IS E.O.C. - MESSAGE - ROUTINE - TIME 271420 SEPTEMBER 21 - FROM E.O.C. - TO ROCKYVIEW GENERAL - BREAK - NUMBER E.O.C.017 - CANCEL MY E.O.C.013 271400 SEPTEMBER 21- BREAK - OVER.

4.15   Read Back

If it is desired that a message or portion thereof be read back to ensure accuracy, the proword READ BACK and identifying data, e.g.: text, call signs, complete message etc., will be transmitted immediately following the call:

Example:

> ROCKYVIEW GENERAL - THIS IS E.O.C. - MESSAGE - PRIORITY - TIME 271430 SEPTEMBER 21 - FROM E.O.C. - TO ROCKYVIEW GENERAL - READ BACK TEXT - BREAK - NUMBER E.O.C.018 - SEND AMBULANCE TO E.O.C. - BREAK - OVER

Rockyview General would respond:

> THIS IS ROCKYVIEW GENERAL - I READ BACK TEXT - NUMBER E.O.C.018 - SEND AMBULANCE TO E.O.C. - OVER.

To which E.O.C. responds:

> THIS IS E.O.C. - CORRECT - OUT.

Note: When read back procedure is used, the proword ROGER is not necessary to indicate receipt of a message.

If the station reading back does so incorrectly, the originating station will call attention to the error by use of the proword WRONG followed by the correct version.

Example:

Rockyview General reads back:

> THIS IS ROCKYVIEW GENERAL - I READ BACK TEXT - NUMBER E.O.C.018 - SEND FIRE TRUCK TO E.O.C. - OVER.

E.O.C. transmits:

> THIS IS E.O.C. - WRONG - CORRECT WORD AFTER SEND - AMBULANCE TO E.O.C. - OVER.

Rockyview General responds:

> THIS IS ROCKYVIEW GENERAL - I READ BACK WORD AFTER SEND AMBULANCE TO E.O.C. - OVER.

E.O.C. transmits:

> THIS IS E.O.C. - CORRECT - OUT.

4.16   Closing Down

No station is to close down without prior permission from the NCS. When it is necessary to close down a net, the NCS does it with the proword CLOSE DOWN.

Example:

E.O.C. orders the close down of the net:

        ALL STATIONS - THIS IS E.O.C. - CLOSE DOWN - OVER.

The stations reply in turn:

        THIS IS - CHILDREN'S HOSPITAL - ROGER - OVER
        THIS IS - FOOTHILLS GENERAL - ROGER - OVER
        THIS IS - ROCKYVIEW GENERAL - ROGER - OVER

E.O.C. then transmits:

        ALL STATIONS - THIS IS E.O.C. - CLOSE DOWN NOW - OUT.

4.17   Synchronizing Time

If a station requires a time check, it may be requested by using the phrase "REQUEST TIME CHECK". Time checks will be conducted in local time using the 24-hour clock unless otherwise requested or directed.

Example:

Rockyview General requires a time check and transmits:

> E.O.C. - THIS IS ROCKYVIEW GENERAL - REQUEST TIME CHECK - OVER.

E.O.C. transmits:

> THIS IS E.O.C. - TIME CHECK ONE FOUR FIVE ZERO (pause) ONE FIVE SECONDS - ONE ZERO SECONDS - FIVE FOUR THREE TWO ONE - TIME ONE FOUR FIVE ZERO - OVER.

Rockyview General responds:

> THIS IS ROCKYVIEW GENERAL - ROGER - OUT.

Should the NCS wish to conduct a time check for all stations (such as when establishing a net) he will pause a sufficient period of time between his warning phrase and the commencement of his countdown to allow all receiving operators to prepare their watches/clocks. The NCS may announce his/her intention of transmitting a time check at a certain time, using the phrase "TIME CHECK AT_____".

Example:

E.O.C. transmits:

> ALL STATIONS - THIS IS E.O.C. - TIME CHECK AT ONE TWO ZERO ZERO (pause to allow operators to prepare) - ONE FIVE SECONDS - ONE ZERO SECONDS - FIVE FOUR THREE TWO ONE - TIME ONE TWO ZERO ZERO - OVER.

4.18   Acknowledgment of Messages

An   acknowledgment should not be confused with a reply or receipt. A prompt reply referring to the message may serve in lieu of an acknowledgment. It is the prerogative of the originator to request ACKNOWLEDGMENT to a message from any or all addressees of that message. If an acknowledgment is desired for a message, the request for acknowledgment normally is included in the text of that message. If the message has been transmitted, the request for acknowledgment will constitute a new message. Acknowledgments are originated only by the addressee to whom the request for acknowledgment was made.

Example:

E.O.C. transmits a message to Rockyview General and requests an acknowledgment:

> ROCKYVIEW GENERAL - THIS IS E.O.C. - MESSAGE - PRIORITY - TIME 271500 SEPTEMBER 21 - FROM   E.O.C. - TO ROCKYVIEW GENERAL - BREAK - NUMBER E.O.C.021 - SEND CASUALTY REPORT ASAP - BREAK - ACKNOWLEDGE - OVER

Rockyview General receipts for the message:

> THIS IS ROCKYVIEW GENERAL - ROGER - OUT

After having shown the message to an authorized official at the hospital, the operator at Rockyview General transmits:

> E.O.C. - THIS IS ROCKYVIEW GENERAL - YOUR E.O.C.021 - 271500 SEPTEMBER 21 - ACKNOWLEDGED - OVER.

4.19   Verifications

When a verification of a message or a portion thereof has been requested by an addressee, the originating station will verify with the originator and send the correct version.

Example:

Rockyview General transmits:

>   E.O.C. - THIS IS ROCKYVIEW GENERAL - VERIFY YOUR E.O.C.021 271500
>   SEPTEMBER 21 -   OVER

E.O.C. transmits:

>   THIS IS E.O.C. - ROGER - OUT (or WAIT or WAIT OUT)

The operator at the E.O.C. checks with the originator of the message and establishes that it is correct. He then transmits:

>   ROCKYVIEW GENERAL - THIS IS E.O.C. - I VERIFY MY E.O.C.021 271500
>   SEPTEMBER 21 - MESSAGE - PRIORITY - TIME 271500 SEPTEMBER 21 - FROM
>   E.O.C. - TO ROCKYVIEW GENERAL - BREAK - NUMBER E.O.C.021 - SEND
>   CASUALTY REPORT ASAP - BREAK - ACKNOWLEDGE - OVER

Rockyview General transmits:

>   THIS IS ROCKYVIEW GENERAL - ROGER - OUT

Had the transmitted message been found to be incorrect, the corrected version would have been sent to all addressees.

4.20   Radio Silence

Radio silence may be imposed or lifted by the Net Control Station of the net affected. Its purpose is to stop all stations from transmitting if, for example, a weak station is attempting to pass emergency traffic and cannot be heard above other stations on the net. It is imposed using the proword SILENCE spoken three times.

Example:

To impose radio silence, E.O.C. transmits:

> ALL STATIONS - THIS IS E.O.C. - SILENCE SILENCE SILENCE - I SAY AGAIN - SILENCE SILENCE SILENCE - OUT

To lift radio silence the NCS transmits:

> ALL STATIONS - THIS IS E.O.C. - SILENCE LIFTED - I SAY AGAIN - SILENCE LIFTED - ROCKYVIEW GENERAL - OVER

Rockyview General responds:

> THIS IS ROCKYVIEW GENERAL - ROGER - OUT