RADIOCOMMUNICATION

GUIDE

Halifax, Nova Scotia
September 1, 2005

ACKNOWLEDGMENTS

The Halifax Regional Municipality - E.M.O Radiocommunication Guide evolved from a document known as the Emergency Telecommunications Guide (ETC) which consisted of both the HRM-EMO Amateur Radio Plan and, what is now being termed the Radiocommunication Guide. The original document was drafted by two members of the Halifax Amateur Radio Club (HARC), Al VO1NO and Joe VE1CH in 1999.

Although the Emergency Telecommunications Guide served a useful purpose for the past five or more years, the concept of having both a PLAN and an OPERATING MANUAL in the same document, created problems. While the Radiocommunication Guide is based on operating practices and procedures that have been refined over a period of the past 60 years or more and rarely changes, the Amateur Radio Plan is a dynamic document that is subject to amendment based upon changes as Regional policy, procedures and technology evolves.

Although primarily intended for amateur radio operators in the Halifax Regional Municipality (HRM), the Radiocommunication Guide has been adapted for use elsewhere. Although anyone reading the Guide, will recognize the names of various hospitals and other institutions in HRM, these are used as examples only.

Were it not for the dedicated amateur radio operators in the Halifax Regional Municipality who have volunteered their time, facilities and resources to assist the Emergency Measures Organization (E.M.O) in the event of an emergency/disaster, and who have agreed to undertake training, this Guide would likely not have been created.

Likewise, were it not for the enthusiastic support and advice offered by key persons, this Guide would not be as effective a training instrument it has become. The drafters offer their sincere thanks to the following persons and apologize for any names that may have been inadvertently missed: Dave VE1RCN, Joe VE1JAY, Lynn VE1ENT, Dave VE1AJP, Ed VE1EGG, Bill VE1MR and Barry VE1JRG. The drafters also acknowledge input from students who participated in the Basic and Intermediate Emergency Telecommunication Course who offered their critique during and immediately after each session.

Primary Drafters of the Emergency Telecommunications Guide

Alphonse Penney B.Sc.- College Militaire Royal de Saint-Jean, Quebec. (VO1NO) - Is currently a Lieutenant Commander in the Royal Canadian Navy (RCN) at National Defence Headquarters in Ottawa (NDHQ). Al's previous assignment was at NORAD in Colorado Springs, Colorado, USA and prior to that as instructor of Anti-Submarine Warfare at the Canadian Forces Naval Operations School in Halifax. In his 26 year career, Al has served as Communication Officer in three destroyers as well as a variety of other positions including Deck Officer, Naval Landing and Boarding Party Officer and Combat Officer. He served two sea tours as an Air Controller, attaining NATO Grade Alpha qualification, and acted as Helicopter Environment Coordinator for the NATO Standing Naval Force Atlantic. Al has been an amateur radio operator for 29 years and is active on MF, HF, VHF, UHF, Satellites and Digital Modes. He is a past-president of the Halifax Amateur Radio Club, and has served on the Executive of several Amateur Radio clubs across Canada and in the United States. He has also been an instructor for the Halifax Amateur Radio Club's Basic Course and is the member of emergency amateur radio support group for the Halifax Regional Municipality - Emergency Measures Organization. Antennas are his passion!

Joe MacPherson B.A. - University of Waterloo, Waterloo, Ontario (VE1CH) - Is currently retired from the Public Service after 34 years. During his 34-year career, Joe has served as a Radioman in the Canadian Navy, a Telecommunication Operator with Foreign Affairs (India, Washington D.C. and Ottawa). During his career, Joe has held various assignments - most recently in Emergency Telecommunication with Industry Canada and as Senior Advisor NATO. Joe taught on the Emergency Telecommunications Course at the Canadian Emergency Preparedness College (CEPC) in Arnprior, Ontario (as it then was). He has also spent a year on staff with the Canadian Red Cross, Nova Scotia Regional Office in Halifax and has been instrumental in developing a comprehensive radiocommunication network for the Red Cross. Joe has done some teaching with EMO (NS) on the Basic Emergency Management course and was also a trainer with the Public Safety Communications System (PSCS) a division of NS Transportation and Public Works. In his 43 years as an amateur radio operator Joe has been active on HF, VHF, UHF and on Digital Modes. His call signs have included VE1AHC (Halifax) VU2AHC (New Delhi) VE1AHC/W3 (Washington D.C.) VE3CAT (Ottawa) and now VE1CH (Halifax). Joe has served as First Vice President and Secretary of Radio Amateurs of Canada and is currently a Director for NSARA for the Halifax Amateur Radio Club.

Record of Amendments

Amendment No.	Amendment Completed Date	Amended By - Name and Signature

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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 Halifax Regional Municipality - Emergency Measures Organization (H.R.M.- E.M.O.) 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.

1.3 Amateur Radio Plan

This Guide is separate from the H.R.M.- E.M.O. Amateur Radio Plan. This is an operating guide and reference source that has application in any situation where standard radiocommunication procedures are desired.

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 Measures 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 E.M.O. Nets

For information related to the type of nets to be used in H.R.M., refer to the Amateur Radio Plan.

2.5 Message Forms/Station Logs

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

2.6 Message Precedence

For the purposes of this Guide, the term "precedence" refers to the relative importance of a message when compared to others. Responsibility for the assignment of precedence rests with the **originator** of the message. The assignment of precedence is determined by the relative importance of the subject and the anticipated time factor involved in the delivery of the message to the addressee. By assigning a precedence to a message, the originator signifies to handling operators the order in which the message should be handled relative to other messages and denotes the level of importance the originator places on the timely delivery of the message to the addressee.

2.7 Precedence Designators

For the purposes of this Guide, H.R.M. will use THREE precedences, IMMEDIATE, PRIORITY and ROUTINE

2.7.1 **IMMEDIATE (O)**- This precedence is the highest of the three precedences used by H.R.M.. It is designated by the letter **(O),** and is reserved for messages relating to situations of grave importance to public safety. Immediate messages require special handling and immediate delivery.

2.7.2 **PRIORITY (P)** - This precedence is reserved for traffic requiring expeditious action by the addressee, or for conducting operations where a lower precedence would not suffice. Priority messages are processed and delivered in the order received and ahead of all messages of lower precedence.

2.7.3 **ROUTINE (R)** - This precedence is used for all other types of message traffic that do not justify the assignment of a higher precedence. Messages with a "routine" precedence are processed and delivered in the order received and after all messages of higher precedence.

Special Note - Some organizations such as ARRL and ARES recognize WELFARE as a precedence. Welfare is a **type** of message as are messages dealing with logistics, supplies etc. and is **NOT** to be used as a precedence in H.R.M..

Additional Note - Precedence indicates the **urgency** by which a message is to be handled and not necessarily the importance of its content. While the two are not mutually exclusive, it is reasonable to assume that an **urgent** message is also of considerable importance.

2.7.4 Assignment of Precedence

Precedence of a message is assigned by the **originator** and is NOT to be changed without the permission of the originator.

2.7.5 Dual Precedence Messages

Dual precedence messages have both **action** and **information** addressees. Where a message is such that it requires the same level of processing for both the action and information addressees, it will carry a single precedence. (Only one precedence will be indicated when transmitting the message).

If the message is such that its delivery to the action addressee is more urgent than its delivery to the information addressee, the message will carry TWO precedences; one for the ACTION addressee and one for the INFORMATION addressee.

In NO circumstances would an INFORMATION address carry an higher precedence than an ACTION addressee. **Example:** A message may be designated as "P" and "R" but should NEVER be designated as "R" and "P". The first designator is for the action addressee and the second is for the information.

No message may be assigned more than TWO precedences.

2.8 Date-Time Group (DTG)

2.8.1. The date-time group indicates the date and time that a message is originated. It is also used as a means of identifying messages in the event that an originator's number is not assigned. The date-time group is expressed as six digits followed by the month, in abbreviated form, and the last two digits of the year.

2.8.2. The **first** two digits indicate the date on which the message is originated, while the next **four** digits indicate the time in 24-hour format. Since all H.R.M.-E.M.O. nets use local time, **no time designator will be used**. **Example:** 242330 AUG97. Note, there is no space between the date and the time but there is a space between the time and the month. This example indicates that the message was originated on the 24th of August 1997 at 2330. **(This procedure of date-time group designation has been used successfully for years and MUST be used as shown).**

Figure 2.1

Time Conversion Table

24 Hour Time	12 Hour Time	24 Hour Time	12 Hour Time
0000	Midnight	1200	Noon
0100	1 AM	1300	1 PM
0200	2 AM	1400	2 PM
0300	3 AM	1500	3 PM
0400	4 AM	1600	4 PM
0500	5 AM	1700	5 PM
0600	6 AM	1800	6 PM
0700	7 AM	1900	7 PM
0800	8 AM	2000	8 PM
0900	9 AM	2100	9 PM
1000	10 AM	2200	10 PM
1100	11 AM	2300	11 PM

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 insure that all net operators are on the same time, it is the responsibility of the NCS to insure that watches/clocks are synchronized.

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

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

2.10 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 "INFO"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 H.R.M.-E.O.C 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: RCMPHQ//Jenkins TO: E.O.C- E.M.O.(NS)//MacMillan. In this case, the CO of RCMP NS wishes to insure that his message goes to the E.O.C at E.M.O. Nova Scotia and specifically to the RCMP Liaison Person - Inspector Wilson.

2.11 Text of Message(s)

2.11.1 Originator's Number

The Originator's number is the first word of the **text** of a message. It is a unique serial

number assigned to each message in order to identify it. For H.R.M.- E.M.O. purposes, the originator's number will consist of three letters followed by three figures. **Example:** FPO028 - would mean this is the 28th message originated by the RCMP (FPO meaning Federal Police which is the RCMP).

2.11.2 Originator Number Records

As a rule, there are two ways of maintaining a record of originator numbers: One is for the originator him/herself to keep a checklist of numbers and assign a new number to each newly originated message. This is the preferred way when there is more than one radio operator at a particular station.

The second way, is to have the radio operator assign the number from a check-sheet when only ONE radio position is in operation at a particular location. (At the site and in the E.O.C., the former method is preferred while at a hospital or relocation/reception centre, the second method would likely be the more effective).

The following are examples of 'OUT' check-sheet and 'IN' check sheet often used by radio operators as a quick reference. A legend is provided to explain the example. To illustrate, the following is a SINGLE-OPERATOR station located at the QEII Health Sciences Centre (QEH). In this example, all messages, regardless of who originates the message, uses the initials QEH for OUT messages.

For IN messages, which may be received from a number of sites, the Originator's Number on the message will or could be very different. In both transmitted and received messages, it is often wise to put a one or two word statement beside the number to identify the message content.

EXAMPLE

ORIGINATOR'S CHECK SHEET
Queen Elizabeth II Health Sciences Centre (EH)

Originator Number	Subject
QEH001	Supplies
QEH002	Triage Teams
QEH003	Status Report
QEH004	Ambulance Request
QEH005	More staff needed

Note: Each time the radio operator at the Queen Elizabeth Hospital (QEH) is handed a message, he/she will check off the number and give a one or two word description of what the Originator's number relates to. The originator's number then is added to the message as the first word of the text.

EXAMPLE

INCOMING CHECK SHEET
Queen Elizabeth II Health Sciences Centre (EH)

Originator's Number	Subject	Remarks
HDG090	Triage	
ROE015	Casualty Report	From site
NRC125	Evacuation List	Preliminary List
HDG004	Bridge Closure	
NRS027	R&I	Forms needed

Note: This would be in the form of a check-sheet with (blanks). The operator receiving a particular message would fill in the originator's number from the received message and give a brief reference to the subject of that message. This is a quick cross-reference of incoming messages.

The radio log would have the OFFICIAL entry including the time the message is received, the initials of the operator, and the time the message is delivered etc.

2.11.3 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.

2.12 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.

2.13 Time Received/Transmitted

The amateur radio operator who receives or transmits a message shall circle the appropriate choice and indicate the time in the date-time group format.

2.14 Operator's Initials

This is used to record the initials of the amateur radio operator who received/transmitted a message.

2.15 Method of Communications

This is used to identify the method used to transmit or receive a message. Note that amateur radio operators may be required to staff telecommunications systems other than their own. The operator should circle the appropriate letter using the guide given.

2.16 Time Delivered/Delivered To

This is used for received messages and indicates the time a message was delivered and to whom. The time must be in six figure date-time group format.

2.17 Copy Distribution

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

2.18 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 top and bottom of the first page only. On any additional pages clearly note the message number at the beginning of the text section. Ensure that the pages of the message remain together.

2.19 Transmitting A Message

Messages consist of THREE parts:

2.19.1 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 precedence, date-time-group, the FROM line, the TO line and the INFO line.

2.19.2 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, the originator's number is the first word of the text. When the message is spoken, the proword "BREAK" is used. (BREAK 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).

2.19.3 Message Ending

The final part of the message, the message ending (or footer), is that portion following the second separative proword BREAK and is reserved for operators' notes. These notes may consist of such things as the prowords MORE TO FOLLOW or other pertinent comments concerning the message, and last, 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.

2.20 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. i.e., **QEII, E.O.C** (tactical call signs NOT amateur radio call signs usually).

2 The proword **THIS IS**

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

4 The proword **MESSAGE**

5 The precedence **IMMEDIATE, PRIORITY, ROUTINE** (do NOT say the

word precedence BEFORE the actual precedence).

6 the proword **TIME** (stated as follows i.e., 221945 Nov05) (Date, time in 24 hour clock and month/year).

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

.

8 the proword **TO** and the recipients information (i.e., Dartmouth General),

9 the proword **INFO** (i.e., QE2, Weather Office, IWK)

10 the proword **BREAK** (this separates the header from the text). If this is an exercise the words Exercise - with the **NAME of the exercise**.

11 the proword **NUMBER** (this is the originator's number)

12 the text of the message (beginning with the originator's number).

13 If this is an exercise, the words EXERCISE EXERCISE EXERCISE (if the exercise has a name, i.e., Sandpiper, the words EXERCISE SANDPIPER are used at the BEGINNING of the message in lieu of the word EXERCISE spoken three times.

14 the proword **BREAK** (to notify the receiving station that the text is complete

15 the proword **OVER.**

2.21 Radio Log

An example of the radio log that is to be used for H.R.M.- E.M.O. telecommunications is shown at ANNEX 2-B of this chapter. Instructions for its use are as follows:

2.21.1 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.

2.21.2 Date

Enter the date on which the particular page starts.

2.21.3 Log-in Time

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

2.21.4 Operators

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.

2.21.5 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.

2.21.6 Log-out Time

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

2.21.7 Time

Enter the date-time group of the message transmitted or received.

2.21.8 Message Received/Sent

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

2.21.9 Message Number

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

2.21.10 Notes/Details

Indicate the subject of the message in a few words.

2.21.11 Delivered

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

2.21.12 Page ___ of ____

Used to indicate the page number.

SPECIAL NOTE: Radio logs are legal documents that must be turned over the E.M.O. Co-ordinator or Duty Officer on completion of the emergency/exercise. Entries shall be neatly printed in ink. Corrections shall be initialed.

ANNEX 2-A: Message Form

Halifax Regional Municipality

Emergency Measures

O = Immediate
P = Priority
R = Routine

Message Form

NOTE: PRINT CLEARLY:

Action Precedence	Information Precedence	Date Time Group (day and hour, followed by month and year, both abbreviated)
FROM		
TO		
INFO		

B R E A K

Number:

IF this is an Exercise Message be sure to say the words EXERCISE and the name of the exercise BEFORE giving the number.

(Note: the actual message form is larger than this example)

If this is an Exercise Message be sure to say the words EXERCISE -three times before saying break

B R E A K

Time Received/Transmitted (Circle One)	Operator Initials	Radio Net Used (if necessary)
Time Delivered (received msgs only)	Copy Distribution: WHITE: Retained by originator for sent messages. Goes to addressee for received messages	
Delivered to (received msgs only)	YELLOW: Radio Operator	
	PINK E.O.C. Telecom Officer	

ANNEX 2-B: Radio Log

Halifax Regional Municipality

RADIO LOG

Emergency Measures

NOTE: Print Clearly!

Net:	Date:	Log In Time:
Operator:	Frequency Used:	Log Out Time:

Time	Message Sent	Message Rec	Msg #	Notes/Details	Delivered Check Mark

E.M.O.003.1

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 creates 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

When necessary to identify any letter of the alphabet, the standard phonetic alphabet shall be used as shown below:

FIGURE 3.1

The phonetic alphabet that appears below has been developed as a result of years of research in order to select words that are easily pronounced by the citizens of many countries of the world. Home made phonetic alphabets **shall not** be used.

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

NUMERAL	SPOKEN AS	NUMERAL	SPOKEN AS
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 i.e., 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

NATO may be spoken as NATO
H.R.M.- E.M.O. may be spoken as H.R.M. E.M.O.

D. Punctuation shall be spoken as follows:

Comma	,	COMMA
Period	.	FULL STOP or PERIOD
Parenthesis	( )	OPEN BRACKETS/CLOSE BRACKETS
Oblique Stroke	//	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 E.M.O. 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 Dartmouth General Hospital will use the call sign DARTMOUTH 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:

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 verieifed at your request and is repeater. (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 A Urgency Signals

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 the Emergency Operations Centre (E.O.C.) MAY be directed by the Emergency measures 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, refereed 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 staions 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 meterological 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 RULES

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 staion 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:

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

Dartmouth General Responds:

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

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

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

Example B. (Conditions difficult)

E.O.C. Transmits:

DARTMOUTH GENERAL - DARTMOUTH GENERAL - THIS IS E.O.C - E.O.C - RADIO CHECK - RADIO CHECK - OVER.

Dartmouth General responds:

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

E.O.C., having no traffic for Dartmouth General, transmits.

DARTMOUTH 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:

CAMP HILL - DARTMOUTH GENERAL - HALIFAX INFIRMARY - THIS IS E.O.C. - OVER.

Camp Hill answers:

E.O.C. - THIS IS CAMP HILL - OVER

Not hearing Dartmouth General, Halifax Infirmary pauses for 5 seconds and answers:

E.O.C. - THIS IS HALIFAX INFIRMARY - OVER

E.O.C. then responds with:

CAMP HILL - HALIFAX INFIRMARY - ROGER - DARTMOUTH GENERAL - 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:

CAMP HILL - DARTMOUTH GENERAL - HALIFAX INFIRMARY - THIS IS E.O.C. - OVER.

The called stations answer in turn:

E.O.C. - THIS IS - CAMP HILL - OVER
E.O.C. - THIS IS DARTMOUTH GENERAL - OVER.
E.O.C. - THIS IS - HALIFAX INFIRMARY - OVER.

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

THIS IS E.O.C. - HEALTH SERVICES NET ESTABLISHED - NCS 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 - CAMP HILL - OVER.

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

Camp Hill responds.

E.O.C. - THIS IS CAMP HILL - ROGER - OVER

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

CAMP HILL - 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 NCO directs a change in frequency to 146.580 MHz.

CAMP HILL - DARTMOUTH GENERAL - HALIFAX INFIRMARY - 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 CAMP HILL - ROGER - OVER
E.O.C. - THIS IS DARTMOUTH GENERAL - ROGER - OVER
E.O.C. - THIS IS HALIFAX INFIRMARY - 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 refert to the original frequency and call the NCS. The NCS will thereore 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) Directed Net - In this type of net, stations obtain permission from the NCS prior to communicating with other stations on the net.

(2) Free Net - 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. Directed Nets;

(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:

CAMP HILL - DARTMOUTH GENERAL - HALIFAX INFIRMARY - 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 CAMP HILL - ONE PRIORITY FOR HALIFAX INFIRMARY - OVER

E.O.C. - THIS IS DARTMOUTH GENERAL - ONE IMMEDIATE AND ONE ROUTINE FOR YOU - OVER.

E.O.C. THIS IS HALIFAX INFIRMARY - NO TRAFFIC - OVER.

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

Example:

ALL STATIONS - THIS IS E.O.C. - ROGER - DARTMOUTH GENERAL - SEND YOUR IMMEDIATE - OVER

After Dartmouth General completes his IMMEDIATE to E.O.C., the NCS then orders the station with the next highest precedence message to transmit:

CAMP HILL - THIS IS E.O.C. - SEND YOUR PRIORITY - OUT

Hearing this, Halifax Infirmary indicates to Camp Hill that it is ready:

CAMP HILL - THIS IS HALIFAX INFIRMARY - OVER

(Failure of Halifax Infirmary to indicate that it was ready would necessitate Camp Hill making a preliminary call to Halifax Infirmary).

HALIFAX INFIRMARY - THIS IS CAMP HILL - MESSAGE - PRIORITY ETC. . .

After Halifax Infirmary receipts for 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:

Halifax Infirmary, having one routine message for Dartmouth General transmits:

E.O.C. - THIS IS HALIFAX INFIRMARY - ROUTINE FOR DARTMOUTH GENERAL - OVER.

E.O.C. transmits:

HALIFAX INFIRMARY - THIS IS E.O.C. - SEND YOUR MESSAGE - OUT (or if higher traffic is awaiting transmission), HALIFAX INFIRMARY - THIS IS E.O.C. - wait - out.

When circuit conditions permit, E.O.C., informs Halifax Infirmary that he may transmit his message:

HALIFAX INFIRMARY - THIS IS E.O.C. - SEND YOUR MESSAGE - OUT.

Dartmouth General, on hearing the authorization, indicates to Halifax Infirmary that it is ready:

HALIFAX INFIRMARY - THIS IS DARTMOUTH 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) IMMEDIATE - may break-in on PRIORITY and ROUTINE messages. A preliminary call may be made before transmitting the message, if necessary. On a direced net, approval to transmit the message must be obtained.

(2) PRIORITY - 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:

Halifax Infirmary is transmitting a PRIORITY message to Dartmouth General when Camp Hill is handed an IMMEDIATE message for Dartmouth General. When Halifax Infirmary pauses, Camp Hill Transmits:

IMMEDIATE IMMEDIATE IMMEDIATE - E.O.C. THIS IS CAMP HILL - IMMEDIATE FOR DARTMOUTH GENERAL - OVER.

(On hearing Camp Hill's break-in, Halifax Infirmary ceases transmission).

CAMP HILL - THIS IS E.O.C. - SEND YOUR IMMEDIATE - OVER

On hearing this authorization, Dartmouth General transmits:

CAMP HILL - THIS IS DARTMOUTH GENERAL - OVER

Dartmouth replies:

CAMP HILL - THIS IS DARTMOUTH GENERAL - ROGER - OUT.

As soon as the IMMEDIATE message has been receipted for, Halifax Infirmary continues with his original mesage:

DARTMOUTH GENERAL - THIS IS HALIFAX INFIRMARY - ALL AFTER (text) ETC.

(2) On Free Nets:

Example:

Halifax Infirmary is transmitting a PRIORITY message to Dartmouth General when Camp Hill is handed an IMMEDIATE message for E.O.C.. When Halifax Infirmay pauses, Camp Hill transmits:

IMMEDIATE IMMEDIATE IMMEDIATE

On hearing this, Halifax Infirmary ceases transmission and Camp Hill continues:

E.O.C. - THIS IS CAMP HILL - MESSAGE - IMMEDIATE - (text as required) - OVER.

E.O.C. transmits:

CAMP HILL - THIS IS E.O.C. - ROGER - OUT.

Halifax Infirmary then continues with his original message:

DARTMOUTH GENERAL - THIS IS HALIFAX INFIRMARY - 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 Camp Hill is in the best position to assume net control. He transmits:

CAMP HILL - DARTMOUTH GENERAL - HALIFAX INFIRMARY - THIS IS E.O.C. - AM CLOSING DOWN FOR THREE ZERO MINUTES - CAMP HILL ASSUME CONTROL - OVER.

The stations answer in turn:

E.O.C. - THIS IS CAMP HILL - ROGER - OUT
E.O.C. - THIS IS DARTMOUTH GENERAL - ROGER - OUT.
E.O.C. - THIS IS HALIFAX INFIRMARY - ROGER - OUT.

(B) On occasion the NCS may not be able to give warning that he is leaving the net. In such cases, another staion 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, Camp Hill, whose operator is experienced and full of initiative, transmits:

DARTMOUTH GENERAL - HALIFAX INFIRMARY - THIS IS CAMP HILL - HAVE YOU HEARD ANYTHING FROM E.O.C. OVER/

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

CAMP HILL- THIS IS DARTMOUTH GENERAL - NOTHING HEARD - OVER.

CAMP HILL - THIS IS HALIFAX INFIRMARY - NOTHING HEARD - OVER

Camp Hill then transmits:

DARTMOUTH GENERAL - HALIFAX INFIRMARY - THIS IS CAMP HILL - NOTHING HEARD FROM E.O.C.. - I AM ASSUMING CONTROL - OVER

The stations reply in turn:

CAMP HILL - THIS IS DARTMOUTH GENERAL - ROGER - OUT
CAMP HILL - THIS IS HALIFAX INFIRMARY - 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:

CAMP HILL - DARTMOUTH GENERAL - HALIFAX INFIRMARY - THIS IS E.O.C. - I AM ASSUMING CONTROL - OVER

The stations reply in order:

E.O.C. - THIS IS CAMP HILL - 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 receiption 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:

CAMP HILL - DARTMOUTH GENERAL - HALIFAX INFIRMARY - THIS IS E.O.C. - RADIO CHECK - OVER

All stations hear E.O.C. loud and clear except Camp Hill and Dartmouth General. The replies of each station, in order, are:

E.O.C. - THIS IS - CAMP HILL - READABLE - OVER.
E.O.C. - THIS IS - DARTMOUTH GENERAL - WEAK WITH INTERFERENCE - OVER.
E.O.C. THIS IS - HALIFAX INFIRMARY - ROGER - OVER.

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

ALL STATIONS - THIS IS - E.O.C. ROGER - CAMP HILL - DISTORTED - DARTMOUTH GENERAL NOTHING HEARD - OVER.

In 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 Camp Hill and desires to know if Camp Hill is ready to accept it. E.O.C. transmits:

CAMP HILL - THIS IS - E.O.C. - ONE ROUTINE - OVER.

Camp Hill is ready to accept the message, and transmits:

E.O.C. - THIS IS CAMP HILL - OVER

E.O.C. transmits:

CAMP HILL - THIS IS - E.O.C. - MESSAGE - ROUTINE, ETC.

Example B:

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

DARTMOUTH GENERAL - THIS IS - E.O.C. - ONE PRIORITY - OVER.

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

E.O.C. - THIS IS - DARTMOUTH GENERAL - WAIT.

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

THIS IS - DARTMOUTH GENERAL - SEND YOUR PRIORITY - OVER.

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

E.O.C. - THIS IS DARTMOUTH GENERAL - WAIT - OUT.

When ready to accept the message, Dartmouth general would transmit:

E.O.C. - THIS IS - DARTMOUTH GENERAL - SEND YOUR PRIROITY - 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:

Camp Hill transmits:

E.O.C. - THIS IS CAMP HILL - MESSAGE - PRIORITY - TIME 271125 SEPTEMBER 97 - FROM CAMP HILL - TO E.O.C. - BREAK – NUMBER CHH201 - AMBULANCE HAS ARRIVED - BREAK - OVER.

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

CAMP HILL - 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.

Camp Hill transmits:

E.O.C. - THIS IS CAMP HILL - I SAY AGAIN - E.O.C. - THIS IS CAMP HILL - MESSAGE - PRIORITY - TIME ETC...

E.O.C. transmits:

CAMP HILL - THIS IS - E.O.C. - SAY AGAIN ALL AFTER AMBULANCE - OVER.

Camp Hill transmits:

E.O.C. - THIS IS - CAMP HILL - I SAY AGAIN ALL AFTER AMBULANCE - HAS ARRIVED - BREAK - OVER.

E.O.C. transmits:

CAMP HILL - 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:

Camp Hill transmits:

E.O.C. - E.O.C. - THIS IS - CAMP HILL CAMP HILL - PRIORITY PRIORITY - OVER

E.O.C. transmits:

CAMP HILL - CAMP HILL - THIS IS - E.O.C. - E.O.C. - SEND YOUR PRIORITY - SEND YOUR PRIORITY - OVER.

Camp Hill transmits:

E.O.C. - E.O.C. - THIS IS - CAMP HILL - CAMP HILL - WORDS TWICE - WORDS TWICE - MESSAGE - MESSAGE - PRIORITY - PRIORITY - TIME 271125 SEPTEMBER 97 - TIME 271125 SEPTEMBER 97 - FROM CAMP HILL - FROM CAMP HILL - TO E.O.C. - TO E.O.C. - BREAK - BREAK – NUMBER NUMBER - CHH201 CHH201 - AMBULANCE HAS ARRIVED - AMBULANCE HAS ARRIVED - BREAK - BREAK - OVER.

(C). 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:

DARTMOUTH 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.

Dartmouth General transmits:

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

Dartmouth General relays the message:

ALL STATIONS - THIS IS - DARTMOUTH GENERAL - MESSAGE - PRIORITY - TIME 271200 SEP 97 - FROM E.O.C. - TO ALL STATIONS - BREAK - (TEXT) - BREAK - CAMP HILL - OVER.

Camp Hill transmits:

DARTMOUTH GENERAL - THIS IS - CAMP HILL - ROGER - OUT

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

Example:

Camp Hill attempts to transmit a message to Victoria General but cannot contact it. E.O.C. directs Camp Hill to relay through Halifax Infirmary who the operator knows to be in contact with Victoria General.

CAMP HILL - THIS IS - E.O.C. - RELAY THROUGH HALIFAX INFIRMARY - OUT

Camp Hill transmits:

HALIFAX INFIRMARY - THIS IS CAMP HILL - RELAY TO VICTORIA GENERAL - MESSAGE - ROUTINE ETC...

(E). 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 Victoria General it could have transmitted:

CAMP HILL - 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 Victoria General:

VICTORIA GENERAL - THIS IS E.O.C. - MESSAGE - PRIORITY - TIME 271130 SEPTEMBER 97 - FROM E.O.C. - TO VICTORIA GENERAL SLANT SLANT EMERGENCY DEPARTMENT SLANT SLANT BREAK - NUMBER E.O.C.011 - AMBULANCE WILL ARRIVE AT 1235 - BREAK - OVER.

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

E.O.C. - THIS IS VICTORIA 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

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

THIS IS VICTORIA GENERAL - ROGER - OUT

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

E.O.C. - THIS IS VICTORIA 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.

Victoria General would then respond:

THIS IS VICTORIA 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:

VICTORIA GENERAL - THIS IS E.O.C. - MESSAGE - ROUTINE- TIME 271145 SEPTEMBER 97 - FROM E.O.C. - TO VICTORIA 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 transmiting 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:

VICTORIA GENERAL - THIS IS E.O.C. - MESSAGE - ROUTINE - TIME 271145 SEPTEMBER 97 - FROM E.O.C. - TO VICTORIA 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:

VICTORIA GENERAL - THIS IS E.O.C. - CORRECTION - MY E.O.C.012 - TIME 271145 SEPTEMBER 97 - 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:

VICTORIA GENERAL - THIS IS E.O.C. - MESSAGE - ROUTINE - TIME 271400 SEPTEMBER 97 - FROM E.O.C. - TO VICTORIA GENERAL - BREAK - NUMBER E.O.C.013 - HAMS MAY EAT LUNCH AT 1200 - DISREGARD THIS TRANSMISSION - OUT.

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

Example:

VICTORIA GENERAL - THIS IS E.O.C. - MESSAGE - ROUTINE - TIME 271420 SEPTEMBER 97 - FROM E.O.C. - TO VICTORIA GENERAL - BREAK - NUMBER E.O.C.017 - CANCEL MY E.O.C.013 271400 SEPTEMBER 97- 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:

VICTORIA GENERAL - THIS IS E.O.C. - MESSAGE - PRIORITY - TIME 271430 SEPTEMBER 97 - FROM E.O.C. - TO VICTORIA GENERAL - READ BACK TEXT - BREAK - NUMBER E.O.C.018 - SEND AMBULANCE TO E.O.C. - BREAK - OVER

Victoria General would respond:

THIS IS VICTORIA 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:

Victoria General reads back:

THIS IS VICTORIA 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.

Victoria General responds:

THIS IS VICTORIA 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 - CAMP HILL - ROGER - OVER
THIS IS - DARTMOUTH GENERAL - ROGER - OVER
THIS IS - VICTORIA 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:

Victoria General requires a time check and transmits:

E.O.C. - THIS IS VICTORIA 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.

Victoria General responds:

THIS IS VICTORIA 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 Victoria General and requests an acknowledgment:

VICTORIA GENERAL - THIS IS E.O.C. - MESSAGE - PRIORITY - TIME 271500 SEPTEMBER 97 - FROM E.O.C. - TO VICTORIA GENERAL - BREAK - NUMBER E.O.C.021 - SEND CASUALTY REPORT ASAP - BREAK - ACKNOWLEDGE - OVER

Victoria General receipts for the message:

THIS IS VICTORIA GENERAL- ROGER - OUT

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

E.O.C. - THIS IS VICTORIA GENERAL - YOUR E.O.C.021 - 271500 SEPTEMBER 97 - 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:

Victoria General transmits:

E.O.C. - THIS IS VICTORIA GENERAL - VERIFY YOUR E.O.C.021 271500 SEPTEMBER 97 - 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:

VICTORIA GENERAL - THIS IS E.O.C. - I VERIFY MY E.O.C.021 271500 SEPTEMBER 97 - MESSAGE - PRIORITY - TIME 271500 SEPTEMBER 97 - FROM E.O.C. - TO VICTORIA GENERAL- BREAK - NUMBER E.O.C.021 - SEND CASUALTY REPORT ASAP - BREAK - ACKNOWLEDGE - OVER

Victoria General transmits:

THIS IS VICTORIA 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 - VICTORIA GENERAL - OVER

Victoria General responds:

THIS IS VICTORIA GENERAL - ROGER - OUT