

## **Cumberland County ARES/RACES**

### **A SHORT GUIDE TO EMERGENCY RADIO COMMUNICATIONS**

#### **INTRODUCTION**

The following document is not intended to be detailed and comprehensive. It is intended to be a **SHORT** synopsis of the things a communicator should know in order to be most effective. It is hoped that it can be read and understood in less than thirty minutes, and will enable the reader to function effectively as a communicator.

It is my conviction that when there is an emergency, we should ALL be "reading from the same sheet of music". To that end, this document is submitted in the hope that we can standardize on methods, etc., at least in Cumberland County.

73 – Bryce Rumery K1GAX  
Southern Maine District Emergency Coordinator

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## **Cumberland County ARES/RACES Radio Communications Guide**

#### **PREFACE**

A. The first several paragraphs of this document are not essential to understanding of communication practices and may be skipped if the reader is anxious to save time. Move to the section entitled **OPERATIONS** for more essential information.

B. Please note that the use of the masculine pronoun "he" or similar is intended to encompass the general case of either masculine or feminine. When singular reference is made (as in the case of operator) it may sometimes **ALSO** include the plural case - operators.

C. This information is intended for the use of amateur radio operators, or those who are directly supporting licensed amateur radio operators in emergency communications or exercises. It is therefore assumed that the reader is familiar with the FCC regulations concerning such communications. These regulations are well defined in **Part 97** of the rules and regulations published by the Federal Communications Commission. Obviously, these regulations **must** be adhered to.

D. This manual is intended to cover **ONLY** voice communication. Digital techniques (including CW) are beyond the scope of this document.

E. Much has been written concerning techniques for communication by radio. It is hoped that this will serve as a short guide to Cumberland County ARES/RACES which can be read in a few minutes, and will provide sufficient information to allow an operator to function effectively. For those who have the time and wish to become completely familiar with the system upon which these instructions are based, reference is made to the following:

1. "Maine Amateur Radio Basic Emergency Communications Certification Course, Levels 1 and 2"
2. Cumberland County ARES/RACES Communications Plan
3. Cumberland County RACES Communications Plan
4. Cumberland County ARES/RACES Resource Manual

5. ARRL "Public Service Communications Manual" and other ARRL publications.

While sometimes conflicting with each other, these documents embody the wisdom gathered by radio operators over many years concerning communication by radio.

F. It is imperative that members of Cumberland County ARES/RACES be willing to abide by the procedures herein described. In an emergency, we must all work **together** to provide all possible assistance to our community and to that end, we must all be willing to follow instructions of our leadership. Those who are not willing to conform have no place on the team!

## OPERATIONS

Nothing in the manual should ever be permitted to jeopardize the accurate and timely delivery of message traffic!!! Let common sense prevail.

**THE PUBLIC AND THE MEDIA.** Members of the Amateur Radio community operating during an emergency situation **should not** give any information regarding the emergency situation to the general public or the media. If asked, an Amateur Radio operator should refer the person asking the question to their served agency's **Public Information Officer (PIO)**.

**NET OPERATIONS.** Much of the communication required during an emergency will be conducted on a **network** of radio stations. A radio network (**net**) is an organization of radio stations capable of direct communications on a common frequency.

**Net Control Station** - In order to control the net, one station is assigned to direct all net activities. This station is designated the **net control station**, hereafter referred to as the **NCS**. The NCS is empowered to completely direct the activities of the net. All transmissions on the net frequency should be initially directed to the NCS, who **may** then authorize stations to contact one another directly on the net frequency (or direct them to move to another frequency and conduct their business). The authority of the NCS over the conduct of the net is absolute, and decisions made by the NCS are final so far as net operation is concerned. The NCS may also assign tactical call signs to stations operating in the net.

**Directed Net** - A directed net is one in which it is necessary to obtain permission of the NCS before transmitting to other stations in the net. Emergency nets will always be directed, unless otherwise specified by the NCS.

**Free Net** - A free net is one in which any station may contact any other station **without** obtaining permission of the NCS.

**Checking into a Net.** When a net is opened (by a Net Control Station), the NCS may call for check-ins by callsign as follows:

**NCS** – “This is the Cumberland County Emergency Net. Are there stations for check in, please give your call sign, name and location.”

If you are available for duty during the emergency, please check in in the following manner:

“This is (unkey your microphone to check for doubling with other stations), K1GAX, Bryce, Cape Elizabeth.”

Please do not check into an emergency net “in and out” or “for the count”. The object is to check in to participate in providing emergency communications. There is no “prize” for getting the most number of check in’s during the emergency. If you are not available for duty at the time, please wait to check in when you are available.

Once you have checked into a net, it is imperative that you remain on frequency until excused by the NCS. If you must leave, obtain permission of the NCS first.

**Prowords.** (From the term "procedural words") It is valuable to have a set of special words or groups of words whose meaning is well understood by all participants. Prowords for voice communication within Cumberland County ARES/RACES are as follows (given alphabetically):

**BREAK** - Has two uses. During net operations, the word break, followed by a call sign, indicates to the net control that a station has important information which should take precedence over what is being done on the net at the time. Upon hearing this proword used in this way, all stations should remain silent and allow the NCS to ascertain the cause of the break and what action is required. **BREAK** is also used as a proword to separate the text of a message from the preamble or other parts. See the section on **MESSAGE HANDLING**.

**FIGURES** - Indicates that the numerals following are Arabic, as opposed to the spelled-out form. For example, "**figures** two eight" designates that the receiving operator should write "28" rather than "two eight".

**INFO** - Indicates that the address(es) following should also receive the message, usually for information purposes only.

**I SAY AGAIN** - employed by the Military to mean "I repeat". Used to indicate that a word or group of words will be repeated by the sender. I SAY AGAIN is the preferred proword, but I REPEAT will do nicely.

**I SPELL** - Indicates to a receiving station that a word or group of words is about to be spelled out letter-by-letter, using the International Phonetic Alphabet.

**MESSAGE FOLLOWS** - Indicates to the receiving operator that a formal message in standard ARRL (or other) format is about to be transmitted.

**OUT** - informs the receiving operator that the sender has completed his sending, and that no reply is expected. It also relinquishes control of the channel, usually to the NCS.

**OVER** - informs the receiving operator that the sender has completed a transmission, and is awaiting a reply.

**ROGER** - Indicates to a sending station that a message or transmission has been received and understood. When used in conjunction with the receipt of a **formal** message, it acknowledges complete and accurate receipt of the message transmitted.

**THIS IS** - when followed by a call-sign or other lawful identification gives the identifier of the station, most often the FCC assigned call-sign. FCC rules require that this be done at intervals of no more than ten minutes. Use of this proword and call-sign is **suggested** at the beginning of each transmission.

**WAIT** - Indicates to the receiving operator that the sender requires a short (less than one minute) wait during which he will not be transmitting, but he still wishes to retain control of the channel.

**Phonetic alphabet.** When phonetics are required to convey the spelling of words, the use of the International Telecommunication Union Phonetics is essential for uniformity. All communicators are encouraged to memorize this alphabet and practice its use, so that it can be used without conscious thought

LETTER	PHONETIC	PREFERRED PRONUNCIATION *
A	ALPHA (OR ALFA)	AL fah
B	BRAVO	BRAH voh
C	CHARLIE	CHAR lee
D	DELTA	DELL tah
E	ECHO	ECK oh
F	FOXTROT	FOKS trot
G	GOLF	GOLF
H	HOTEL	hoh TELL
I	INDIA	IN dee ah
J	JULIETT	JEW lee ETT
K	KILO	KEY loh
L	LIMA	LEE mah
M	MIKE	MIKE
N	NOVEMBER	no VEM ber
O	OSCAR	OSS cah
P	PAPA	pah PAH
Q	QUEBEC	key BECK
R	ROMEO	ROW me oh
S	SIERRA	see AIR ah
T	TANGO	TANG go

U	UNIFORM	YOU nee form
V	VICTOR	VIK tah
W	WHISKEY	WISS key
X	XRAY	ECKS ray
Y	YANKEE	YANG key
Z	ZULU	ZOO loo

UPPER CASE indicates the accented syllable(s)

Preferred pronunciation of spoken numerals is as follows:

FIGURE	PRONUNCIATION
0	ZEE RO
1	WUN
2	TOO
3	THUH REE
4	FO wer
5	FI yuv
6	SIX
7	SE ven
8	ATE
9	NIN er

**MESSAGE HANDLING.** Whenever practical, information should be conveyed in the form of formal messages. While this is not always practical, it is always desirable. Several formats for radio messages are in wide usage, e.g. ARRL, Cumberland County EMA Message Form, Red Cross Message Form, ICS Form 213etc.

A. It cannot be too strongly emphasized that when an operator accepts a message with the proword "ROGER number XXXX, he is **absolutely** obligated to see that the message is either:

1. Delivered to the addressee(s) and/or info addressee(s).
2. Serviced back to the originator with an explanation of why it could not be delivered
3. Relayed to another station for delivery or further relay.

B. **Privacy** - all messages are to be considered privileged and should not be revealed nor discussed with anyone other than the originator or the addressee.

## **APPENDIX A DEFINITIONS**

**MESSAGE** - For our purposes, a message is a written communication transmitted by radio conforming to the standard format discussed in the section entitled MESSAGE HANDLING.

**TACTICAL CALLS** - It is often desirable that stations identify themselves with some word or phrase **other than their FCC assigned call-sign**. For example, during an emergency it might be appropriate for an operator to identify as “**South Portland EMA**”, rather than their call-sign. However, this does not relieve the operator of the FCC requirement to identify with the FCC call-sign at intervals of no more than ten minutes.

**ORIGINATING STATION** - The first station handling a message. Usually NOT the originator of the message. See below.

**ORIGINATOR** - The person or office generating the message. It is implied that the originator is a person whose position or authority empowers him to originate messages. He is the one who determines the exact wording of a message, and once he has put the message into the system, **no one** is authorized to change the wording without his express permission. A trained operator **may** assist the originator with format and wording.

**OPERATOR** - The person who directly controls and operates a radio station. Often an FCC licensed amateur, but **may** be a person under the immediate control and supervision of such a licensed amateur. Includes authorized operators of other stations (Government, Civil Defense, MARS, etc.)