

**RADIO PROCEDURES for DISTRICT 11sr
U.S. COAST GUARD AUXILIARY
VHF REPEATER SYSTEM NETWORK**

**Roy L. Lay - DSO-CM
July 2011**

Authorization for the establishment of the Eleventh District (11sr) Coast Guard Auxiliary VHF Radio System (AUXNET) is in accordance with requests made by CCGD Eleven and approvals granted by appropriate government agencies.

The Coast Guard Auxiliary VHF Radio System is to be used for the following purposes:

1. Administrative messages related to Coast Guard Auxiliary Business;
2. Member Training;
3. Emergency Communications; and
4. Support of Auxiliary activities at local levels.

Prior to 2007 most radios used on Auxiliary frequencies were converted or “expanded” amateur radio transceivers FCC type accepted under Part 97 (Amateur) specifications. Effective 1 January 2007 the Federal government re-allocated all VHF commercial and government frequencies (not marine) and at the same time specified that they be used in narrow-band mode with a channel spacing of 12.5 kHz instead of 25 kHz. To ensure compliance with the performance specifications of narrow-band radios a requirement was created that all radios used on Auxiliary frequencies must meet the technical specifications of FCC Part 90 type accepted equipment. Part 90 is the standard for Land Mobile Radio (LMR) equipment in commercial use by taxis, tow trucks, etc. Therefore all VHF radios offered for use as Auxiliary Communications Units (ACU's) must be FCC Part 90 type accepted. Amateur radio equipment can no longer be used.

The System is not to be used as a substitute for personal telephone messages unrelated to Auxiliary functions or for the type of personal communications typical of those on Amateur Radio repeaters.

Administration of the Eleventh District (SR) Auxiliary VHF Radio System is the direct responsibility of the District Staff Officer - Communications (DSO-CM) and the Director of Auxiliary. Additional members of the Eleventh District (SR) Auxiliary may be appointed by the DSO-CM as necessary to maintain the various technical and operational aspects of the system.

A. USER QUALIFICATIONS

Applicants for NET call signs and authorization to operate radio equipment on assigned simplex and repeater frequencies must meet the following qualifications:

1. Be a Basically Qualified (BQ) or AUXOP member in good standing;
2. Have successfully completed the current TCO-PQS, or the Auxiliary Communications Specialty Course prior to 1 August 2008 ; and
3. Be willing to operate along guidelines set forth in this publication and other Auxiliary Communications manuals.

B. CALL SIGNS

Call signs are required to identify each qualified member authorized to use the radio system. Use of systematically assigned call signs eliminates the need to use first or last names, staff symbols, or other identifiers in order to address a discussion to a specific person.

Call signs are issued by the DSO-CM from blocks of two-letter combinations from AB through ZZ. Requests for call sign issue shall be directed to the DSO-CM through the appropriate FSO-CM and SO-CM. Requests received without the necessary endorsements will be returned.

Special call signs will not be issued on the basis of office held, past office, status, rank or similar recognition of past or present authority.

Call signs are assigned to qualified members, not to their stations or radios. Individuals are to use their own call signs regardless of who owns the particular equipment being used, except when operating equipment at Auxiliary-owned D.F. or relay stations. AUXNET call signs are separate from, and different than, radio facility call signs.

There is an AUXNET call sign directory on the District web site under Operations/Communications.

C. USER PROFICIENCY AND STATION CAPABILITIES

Users are encouraged to use the system for administrative messages and training in a manner similar to those which are used in regular operational communications. Procedures established for use on this system are essentially the same as those used on regular Coast Guard calling and working frequencies. Only through frequent use of, and proper adherence to, these procedures can proficiency be maintained.

The Auxiliary VHF Radio System is **not** approved for use in Operations such as a SAR case. This means that communications relative to a SAR case in progress must be directed to the regular Coast Guard Sector or Station handling the case on the assigned primary VHF-FM Marine frequency as directed by the O.S.C. or S.M.C. in control of the case.

Regarding Auxiliary aircraft patrols, the guarding of the aircraft while patrolling over water or responding to SAR cases is performed on the assigned frequency of 157.175 MHz. Marine VHF-FM Channel 83a.

Preparation or coordination of vessel and aircraft patrols or training exercises and other special activities using the Auxiliary VHF Radio System is considered administrative and therefore permissible.

As a rule of thumb, operational facilities on an actual SAR mission must direct all communications affecting the mission to the cognizant Coast Guard Sector/Station and not to the Auxiliary Direction Finding Stations. Likewise, any direction finding information determined by the Direction Finding Stations must be directed to the Coast Guard Sector or Station via landline. Unless otherwise directed by the Coast Guard, direction-finding L.O.P.s must never be transmitted over Marine frequencies. This line of communication is necessary in order that the Coast Guard receives the latest and most complete information in order to coordinate the mission.

NOTE: If the primary means of communication fails or becomes difficult at best, the Auxiliary VHF Radio System may be used as a back-up system. For aircraft patrols, this rule applies after primary frequency channel 83a (157.175MHz) and secondary VHF-AM Aeronautical frequency (123.1 MHz) have both failed.

D. STATION IDENTIFICATION

All Coast Guard Auxiliary frequencies are considered government frequencies and are controlled by the Coast Guard, not the Federal Communications Commission. The Coast Guard requires that each transmitting station be:

1. Identified as being associated with the Coast Guard;
2. Uniquely identified as to who is the operator; and
3. Identified at frequent intervals not to exceed five minutes.

These requirements are necessary to allow rapid identification of the source of transmissions in the event such transmissions may be causing interference with other services.

The words "station" or "radio" should not be used when identifying. These are only used by inspected Auxiliary Communications Units (ACU) operating under Coast Guard orders.

Only the assigned NET call sign will be used in identifying. Use of your facility's name, aircraft tail number, ACU call sign, etc., is not authorized.

E. CONTACTING ANOTHER STATION

The initial call to a station shall include the full call of the station being called and the abbreviated call of the calling station.

Example: "COAST GUARD AUXILIARY ALFA BRAVO, THIS IS
ALFA CHARLIE, OVER."

The first response to such a call would be:

"THIS IS COAST GUARD AUXILIARY
ALFA BRAVO, OVER."

If a station does not respond to an initial call, a second attempt should be made. This is in case the operator missed the call (out of the room, ambient noise, etc.)

Subsequent transmissions during a contact may be made without ID or with abbreviated call signs.

EXCEPTION: Stations must identify with their **full** call sign at least every five minutes during a contact. This also applies to all stations in a roundtable **net**.

The ICAO/Military phonetic alphabet must be used with call signs at all times. There should be a pause of two seconds after a station has said "over" before the next transmission starts. This allows the repeater to "re-set" and prevent overheating due to prolonged conversations. A single transmission lasting longer than 10 minutes without a break will cause the repeater to time out and stop transmitting until it resets.

The last word of every transmission should be either "OVER" or "OUT", but never both.

If a called station does not respond within a reasonable period of time (two calls or about one half minute), the calling party will release the frequency by saying nothing. It is not necessary to say "This is (xx) monitoring, out."

In any case, other stations shall wait a reasonable time before attempting to use the frequency, as the called party may have heard the call but been unable to respond immediately.

F. TERMINATING A CONTACT

When a contact is completed and a station has no further business, the station shall use the proword "OUT" to indicate that the frequency is released for others to use. It is not necessary for the second station to say "OUT" as well. This is called a "double out" and is unprofessional. In a roundtable discussion, use of the proword "OUT" by one station terminates the contact for all stations.

G. BREAK-IN

A station waiting to transmit should not break-in just for a routine contact with another station. However, when an on-going contact lasts more than five minutes, the on-going contact should break and ask:

"BREAK ... IS THERE ANOTHER STATION WAITING TO USE
THE FREQUENCY?"

Otherwise, waiting stations may break-in as follows:

"BREAK ... THIS IS ALFA BRAVO."

NOTE: Remember the repeater is not intended for long-winded conversations. When lengthy discussions are needed regarding Auxiliary business, they are permitted, but subject to breaking and asking for waiting traffic from another station.

A station wishing to join in an on-going contact may do so by giving his or her abbreviated call sign using PHONETICS. The breaking station would be recognized by the station which would normally be next to transmit. The breaking station will then identify using his or her FULL call sign.

Example 1: BC: "Roger, I expect to be en route in five minutes, over."

FC: "Let me know when you arrive, over."

(At this point, AB attempts to break in.)

AB: "Break ... this is Alfa Bravo, over."
(BC was about to answer FC, therefore BC acknowledges the break.)

BC: "Alfa Bravo, this is Bravo Charlie, over."

AB: "This is Coast Guard Auxiliary Alfa Bravo with some information for you, over."

BC: "I'm ready to copy, over."

Example 2: AB: "Do you know where we can get this info? Over"

AF: "Negative, but I will look into it, over."

(At this point, MH attempts to break in.)

MH: "Break...this is Mike Hotel, over."

AB: "Mike Hotel, wait. Vince I'll call you tomorrow. Break, Mike Hotel this is Alfa Bravo, over."

MH: "This Coast Guard Auxiliary Mike Hotel. I might have that info for you Jim, over."

H. PRIORITY, URGENT OR EMERGENCY TRANSMISSION

In the event of a priority, urgent or emergency situation, the breaking station shall say:

"BREAK ... PRIORITY (or URGENT or EMERGENCY), THIS IS
COAST GUARD AUXILIARY MIKE HOTEL OVER."

The station that was about to transmit next will acknowledge the breaking station and must release the frequency by saying:

"MIKE HOTEL, SEND YOUR TRAFFIC, OVER."

NOTE: The use of the prowords PRIORITY, URGENT or EMERGENCY must be used with discretion and good judgment.

The prowords PRIORITY, URGENT and EMERGENCY are defined as follows:

PRIORITY: A message which is of a nature that is more important than routine traffic and deserves attention over all other traffic except URGENT and EMERGENCY.

URGENT: A situation which has the potential to develop into a life and or property threatening situation.

EMERGENCY: A situation where life or property is threatened by grave and imminent danger.

The following is a guideline for use of these prowords on this radio system.

Example 1: If the Auxiliary Radio System is being used as the primary radio system in a back-up situation for guarding an Auxiliary aircraft patrol and it is time for a position report to the Auxiliary Radio Station and the frequency is in use, the aircraft should break in and say:

"BREAK ... PRIORITY, THIS IS BRAVO CHARLIE, OVER."

(And vice-versa if the Auxiliary Air Radio Station needs to contact the aircraft.) In this manner, the breaking station has alerted everyone to the importance of the communication.

Example 2: A member encounters a traffic accident with no apparent injuries but which is obstructing traffic and police are not on scene. The member may break into an on-going conversation as follows:

"BREAK URGENT, THIS IS BRAVO CHARLIE, OVER."

The next station to transmit acknowledges Bravo Charlie and Bravo Charlie proceeds to ask the acknowledging station to telephone the local authorities while giving an exact location if possible and an accurate description of the problem.

Example 3: Take the same situation as in Example 2, but with injuries (or vehicle fire). This is an EMERGENCY situation and requires a break-in using the proword EMERGENCY.

I. ROUNDTABLE PROCEDURES

A roundtable NET is a contact among three or more stations. This type of contact is not very easy to control but can be very effective if properly conducted. Each station in the group must identify property (using their call sign) as to which station he is directing to transmit next. In this manner, only one station will respond. If a discussion is anticipated among a large group of stations, a rotation list should be kept of stations in the group.

J. TESTING

Testing without contacting another station should be done only after making sure the frequency is clear. Unnecessary or prolonged testing is discouraged, and is annoying to other stations that may be monitoring the frequency. Stations conducting tests will identify using the FULL call sign.

Example: "THIS IS COAST GUARD AUXILIARY ALFA BRAVO TESTING ONE, TWO, THREE, FOUR, FIVE, OUT."

Do not test by transmitting an unmodulated carrier or repeatedly "kerchunking" the repeater.

K. GENERAL CALLS

To make a general call to any station listening (general inquiry, need of assistance, etc.), the following opening statement should be made:

"ANY STATION THIS NET, THIS IS COAST GUARD AUXILIARY ALFA BRAVO. I NEED"

For bulletins or broadcasts, the following opening statement should be made:

"HELLO ALL STATIONS, THIS IS COAST GUARD AUXILIARY ALFA BRAVO. THE FOLLOWING INFORMATION IS FOR"

In order to let other stations listening know that another member station has started monitoring, the following may be announced when it is determined that the frequency is clear:

"THIS IS COAST GUARD AUXILIARY ALFA BRAVO, (MOBILE), OUT."

It is not necessary to say "... monitoring, out." It is assumed that if you are not calling someone else, you are listening. When securing from monitoring, simply announce, "THIS IS COAST GUARD AUXILIARY ALFA BRAVO SECURING, OUT."

L. REPEATER CONSIDERATIONS

When operating on the repeater, please refrain from discussing the input frequency, frequency offset, CTCSS (PL) tone frequency, or DTMF control tone codes. This information is "privileged" and it is not to be broadcast or disclosed to non-members, as it could be received by unauthorized persons and compromise the security of the system.

The use of simplex operation on the repeater output frequency is authorized and encouraged. Using simplex (transmitting and receiving on the same frequency) greatly restricts the range of transmission, and avoids broadcasting local conversations throughout the wide range of our repeater. It is especially important to use simplex when conducting local drills and training exercises.

When multiple vessels are working together in a training exercise, it is highly recommended that each vessel use the simplex method of communications. Especially

when in an area of poor access to the repeater, such as near rocky bluffs, marinas' where there are many sailboat masts or other obstructions to radio wave propagation. Our repeaters are located on mountaintops to give the best coverage. In areas of structural congestion, low power hand-helds must find their way to the repeater and all the way back again. By using the simplex method, you can obtain crystal clear communications even on one watt power. Either the output frequency of our repeater (150.700 MHz), or better still, our National simplex frequency of 143.475 MHz (YANKEE 3) may be used. By using the latter, you will not be interrupted by the normal repeater traffic.

Performance of the repeater system is enhanced when stations use outside or external antennas, rather than the "rubber duckie" flexible antenna supplied with most hand held radios. Installation of an outside antenna at your home base, as high up as possible and clear of obstructions, and an outside trunk lid or rooftop antenna on your vehicle, will improve your output signal significantly, and you will be received by others more clearly and noise-free.

M. CORRECT CALLING PROCEDURE AND PROWORDS

There are a number of hints which, if applied, can help to maintain smooth system operation and add a touch of professionalism. Also, there are a number of common procedure errors, which waste time and detract from the quality image we want to project. Common sense will avoid most of them.

NOTE: Only military prowords are permitted. Amateur radio "Q" signals, police "10 codes", and Citizen Band jargon are not authorized or permitted on the Auxiliary Radio System. The following paragraphs contain a summary of the most commonly used calls and prowords. Please use the following calling procedures and prowords:

1. Calling another station:

"COAST GUARD AUXILIARY ALFA BRAVO, THIS IS ALFA
FOXTROT, OVER"

If no reply is received, call again. If no reply is heard on the second try, nothing further need be said.

DO NOT put your call sign first when calling. It would be incorrect and confusing to say, "This is Alfa Foxtrot calling Alfa Bravo."

2. Answering a Call:

"THIS IS COAST GUARD AUXILIARY ALFA BRAVO, OVER."

Use the full call sign when responding to an INITIAL call. Do not use phrases like "Here is ..." in place of "This is ..." or "Back to you .." in place of "Over."

3. Transmitting the Message

Once contact has been made using steps 1 and 2 above, no call signs need be used during the exchange but you may use your abbreviated call sign. Remember, the maximum interval between station identification is 5 minutes.

Example: THIS IS ALFA FOXTROT THERE WILL BE A MEETING TOMMORROW NIGHT AT 1930, OVER."

"THIS IS ALFA BRAVO. .ROGER OUT."

Avoid using full call signs at the beginning of each exchange during a contact, especially the call sign of the person you called as well as your own. It serves no useful purpose to hear these full calls of both parties continually during a contact. It only serves to lengthen the contact and fill the message with a lot of unnecessary words and waste "air time".

4. Acknowledging the Message

To acknowledge a message, say "ROGER." Roger is the correct way, not "Roger that" or "That's a Roger." These extra words are not necessary and sound unprofessional. They add nothing to the meaning of the proword ROGER. Sounds great in the movies, but not on our frequency. Also, "ROGER" means the entire previous message is understood. Do not use "ROGER" if you missed part of, or did not understand the message.

Do not use ROGER when answering a question. The correct response would be "AFFIRMITIVE."

5. Answering a Question

To avoid misunderstandings when answering a question, always use "AFFIRMATIVE" for "YES" and "NEGATIVE" for "NO."

6. When You Miss All or Part of a Transmission

"SAY AGAIN, OVER."

or

"SAY AGAIN ALL AFTER."

or

"SAY AGAIN ALL BEFORE."

7. Waiting While Getting Information

Know the difference between "WAIT" and "WAIT, OUT." When you know your pause will last no more than several seconds, use "WAIT". When you know it will take several minutes, say "WAIT, OUT."

When you use "WAIT", this alerts the other station to standby and wait for the completion of your contact before transmitting. When you use "WAIT, OUT," the other station may transmit pending your return to the air.

N. STRUCTURED NETS

Normally the repeater operates in "open" mode; that is, there is no Net Control station controlling who has permission to transmit. There are two exceptions to this; the weekly Administrative Net, and any emergency condition or special situation that requires a Net Control station to manage the communications.

Once a station announces that a structured net is in operation and assumes Net Control, no station may transmit until permission is received from Net Control. When a station assumes Net Control responsibility that station will use the call sign "Net Control" instead of his or her normal NET call sign. Any station that has traffic to send or wishes to contact another station must first call Net Control and request permission to do so. Net Control will grant permission to transmit by saying "send your traffic". Once the administrative traffic and roll call have been completed or the emergency condition has passed, Net Control will secure the net and the repeater will again be available for use by anyone.

O. TACTICAL CALL SIGNS

Occasionally during a major event, drill or exercise tactical call signs will be assigned in lieu of normal NET call signs. Tactical call signs will replace normal call signs for the duration of the event or exercise. At the start and end of any event where tactical call

signs are used, Net Control will announce his or her full NET call sign – including “Coast Guard Auxiliary” – to identify the agency using tactical calls. Occasions where tactical call signs are used are infrequent and must be approved by the DSO-CM prior to the event.

* * * * *

Thank you for your compliance with these procedure guidelines. By doing so, and participation on the “NET”, you will enhance the professional image that we try to project to those both in our organization, and others who may be listening.