

Newport Beach CERT Communications

DISCLAIMER

This Comm Plan Manual contains information that we believe represents the current best practice suggestions for volunteer emergency communications in the City of Newport Beach. This material is not intended to be comprehensive or complete. This information was written and compiled by RACES, ACS and CERT Amateur Radio Volunteers and is not an official publication of the City of Newport Beach or any of its departments or agencies.

CERT Communications Plan

The Need

The importance of communications between team members during CERT activation and operations cannot be overstated. During either an alert or a mobilization, team members need to rapidly get in touch and stay in touch with each other and with other emergency communications operators. Considerations for team communications should consider the following:

- Intra-squad communications, especially during search-and-rescue operations
- Inter-squad communications, e.g., to coordinate logistics, assistance, etc.
- CERT Communicator to CERT command post
- CERT Communicator and/or CERT command post to civil authority incident command post (e.g., Newport Beach EOC, Newport Beach Fire Department DOC, Newport Beach Police Department DOC, or emergency operations centers) and/or to cooperative agencies (e.g., Red Cross)

The Basics

CERT Members and their families shall insure they use safe and careful judgment including the necessary actions to secure their home and family. It is of major importance that members collect and inventory the contents of CERT Pack(s) and Personal Go-Kit(s) prior to being activated and thereafter responding to the staging area to ensure the necessary equipment and supplies are available.

Communication Team operators will be formed to staff the staging area radios. Assignment of individuals for the purpose of receiving and transmitting messages is critical. These individuals must possess disciplines of accuracy and neatness. Messages shall not be changed or altered from their initial content. Priority of messages shall be of utmost importance as they may pass emergency or critical information.

The CERT Team Leader (or their designate representative) will develop Tactical Call Signs to identify the various CERT Team functional groups (Search & Rescue, Triage, Medical, etc.) deployed during an incident. These Tactical Call Signs are an essential element for the preparation of the Team Incident Radio Communications Plan. Tactical Call Signs may adopt Functional Team identities such as: Search & Rescue, Triage, Medical, etc.

A **Logistics Team** may be formed to inventory the Neighborhood Cache, if one exists and to handle personnel and equipment for the Team.

A **Damage Assessment Team** may be formed to assess damage to the neighborhood infrastructure and structures.

A **Search and Rescue Team** may be formed to search all structures and the open areas of the neighborhood for victims and individuals needing assistance.

A **Medical/Triage Team** may be formed to assess and treat injured and deceased victims.

Descriptive Tactical Callsigns

Tactical callsigns are used to shorten transmissions and provide rapid identification of the responder. Tactical callsigns may be assigned based on a communicator's function or location during an emergency or drill (e.g., 'Net Control', 'Balboa Island', 'Jasmine Creek', 'Broadmoor, etc.). Such situational tactical callsigns typically do not change when a new operator takes over the position -- the tactical callsign goes with the assignment, not with any specific operator. Use descriptive tactical call signs. If you are using an Amateur Radio frequency, identify yourself with your tactical callsign followed by your FCC callsign at the required 10 minute interval.

The airwaves may be crowded and misinformation can be reduced by the use of descriptive tactical call signs. Don't just say "CERT Comms" -- be descriptive. Use the name of your IC -- "Balboa Island Comms" if your Incident Command Post is in the Balboa Island area. If you're the first Search team for Balboa Island IC, you're "Balboa Island Search 1", not simply "Search 1". Should there be another IC or search team within radio range, and there very well may be, the use of descriptive call signs will help eliminate confusion. If you hear "Jasmine Creek IC calling Jasmine Creek Search", and you're "Balboa Island Search", you know they're not calling you. If your tactical call sign is vague -- Search 1, for instance, and Jasmine Creek IC is calling themselves CERT IC and trying to reach *their* 'Search 1", you could be receiving and responding to messages for *their* search team, not yours. "CERT IC to Search 1, return to IC." Is that message for you or another Search 1? There's no way to know without taking additional time and making additional transmissions just to figure out who is calling whom. Your CERT teams should choose tactical call signs that are unique, descriptive and specific to your team and its positions. Agreeing on these ahead of time gets everyone in your group on the same page and avoids additional confusion when working in stressful situations.

Good Radio Practices

The Amateur airwaves in Southern California are crowded and in a widespread incident there may be very few Amateur FM voice frequencies on the most popular bands unused and available. Always follow good Amateur Radio practices and always use the minimum useable power level feasible to minimize interference with other operators. Just because you don't hear someone on frequency doesn't mean there's no one there - you may not be able to hear them, but they may be able to hear you and you might be interfering with emergency traffic and not even know it.

CERT COMM PLAN STANDARD OPERATING PROCEDURES

1. Comm Plan -- Every CERT communicator starts with the same initial comm plan and standard operating procedures so we all know where to begin and what to do -- at least at first. Licensed Amateurs should be sure to program the CERT Amateur Radio channels into their radios prior to an emergency and know which frequencies to use at an incident in any area. If the initial frequencies prove unworkable, use alternate frequencies per the plan. If an incident evolves and requires more complex communications, use the Comm Plan as starting place. Newport Beach RACES may develop further, incident specific, operational plans as necessary. The Incident CERT Comm Officer / CERT Communicator should have the knowledge to make appropriate frequency selections and make sure all involved are aware of them. Do whatever you need to do to get the messages through.

2. Activation -- When activated, CERT Amateur Radio Operators are to proceed to CERT Staging or as directed by your call out instructions. Take your communications equipment and manuals, spare batteries, your Comm Plan and your CERT equipment and supplies with you.

3. CERT Comm Plan Channels -- Immediately after you have checked on yourself, your family, your house, etc., members of the CERT Comms should turn on their personal radios to Channel 1 (or the alternate frequencies as may be necessary). In an emergency, the radio channels will be very busy. Remember to LISTEN (monitor the channel) before talking on the radio. There may already be active emergency communications on that channel.

4. Upon arrival -- Check in with the CERT Staging Officer and determine which frequency is being used by CERT members for the incident. If unknown, the current practice is to use the following frequencies for initial contact:

Primary channel and initial check in – Channel 1.

Secondary channels (in order) – Channels 2, 9, 5 and 6.

5. CERT Comms Officer -- If you are the first CERT Amateur Radio Operator on scene, you become the CERT Radio Communications officer for the Incident until relieved by a radio operator with more experience or a higher skill level. Listen to the City's emergency channels. You will be instructed by NCS as to which channel seems clear and available and let the other CERT Communicators know which channel to use. Use the NB RACES / CERT Comm's Emergency NET Protocol to determine which Amateur Radio frequencies to use at your incident. Don't forget to inform CERT members and all new arrivals of the frequencies in use. The CERT Radio Communications Officer is primarily responsible for communications between the incident and NCS. Use your radio to communicate with your CERT Teams and for all tactical communications at your incident. Set up simplex frequency relays if necessary.

6. Personal Information -- Never transmit personal information such as full names or phone numbers unless you have permission to do so from the individual involved. It's especially important not to transmit personal information of victims, and it's against the law to do so. "30 year old female, conscious and breathing" is good radio protocol. "Mary Smith from 38th Street", is not. Anyone with a radio or scanner set on your frequency may hear your radio communications. Prevent rumors from getting started or from being perpetuated.

7. CERT Comm Plan Amateur Radio Channels -- CERT Comm Plan Amateur Radio channels are set forth in the NB RACES / CERT Comm's Emergency NET Protocol section of the Newport Beach RACES Manual. A copy of the current protocol is attached to this hand out. The protocol is an evolving document – it shall be revised from time-to-time. The greater range of Amateur transceivers and the large number of non-CERT users mean that there may not be enough Amateur Radio Service FM voice frequencies available on the most popular bands (2m and 70 cm) to make them useful as tactical channels in a regional emergency. Designated frequencies may be altered as the need may be.

8. Think before you transmit --Think about what you need to communicate and decide how to say it clearly in the shortest message practical before you key your microphone. Most messages can be distilled down to short, simple messages that accurately convey all the important information. Stop, think about what you need to say, and then think of a short, clear, concise way to say it. Listen for a few moments to the emergency voice frequencies and learn how the professionals transmit emergency information.

9. Hold your Radio Properly -- Hold your radio four or five inches from your mouth and speak across the radio – not directly into it. Speak clearly, calmly, and slowly. If you're transmitting important information, don't talk faster than your listener can write.

10. Quick Keying – When using radios, wait 1 second after pressing the Push To Talk (PTT) switch on the microphone before speaking. Wait one second after speaking before releasing the PTT switch. This extra time gives the receiving radios a chance to recognize and accept your transmission and will prevent your transmissions from being cut off.

11. Emergency Traffic -- Regardless of its origin, Emergency Traffic always has priority. If you have an emergency, let the other operators on the frequency know by stating *“This is (your call sign) and I have emergency traffic”*. Good operating procedures require other operators to give you the use of the frequency until your emergency need for it has ended and you have cleared the frequency. Be sure to thank the other operators for their courtesy.

12. Channel Numbers – To prevent interference from jammers, never give out actual channel frequencies over the air. Always use channel numbers.

“RADIO ETIQUETTE”

Radio is a command and control tool. It is used to pass information across great distances and make coordination of resources possible in a way that smoke signals, mirrors, runners, and other ancient means of communications just can't begin to match. Like any other tool, it can be misused. Here are a few "rules" that will help you to avoid become a source of apoplexy for others.

Use plain English - No "Q" or "10" codes

Use location identifiers or function Title, ie. "RACES Net Control", "Command Post", "Newport Beach EOC", "Newport Beach CERT Net Control," etc.

Know what you want to say before you key the mike

Nothing makes people crazier than the guy who gets on the air and then spends a couple of minutes blathering with tons of ah's', oh's, and-ah's, and other garbage that makes it plain he's making it up as he goes along in hopes that what he really needs to say will come to him.

Keep it short and simple

Never, ever, never pack 5 seconds worth of information into 25 seconds. Don't use long/big words when a short and sweet one will do just as well (and probably better).

Bad: Ah net control this is , canteen one, Ah yeah ah roger that ah net control - got a ah solid copy on your last ah transmission about that ah geographical location that we're ah supposed to be moving towards to ah, rendezvous ah, that is, ah, meet up with the ah, other canteen

Over

Good: Net control this is canteen one

Copy

Out

Pause for breaks every now and then

There's a couple of reasons for this

1. You need to ensure that the person on the other end is getting all this. Nothing worse than getting through some long-winded thing like the Gettysburg Address only to have the command post tell you to "Say again all after 'Four score' will 'va?'"

2. while you're droning your way through the Gettysburg Address someone may have something critical come up that really IS important and that needs to be said NOW, only he can't because some moron (you know the guy - you've all hear him!!) is hogging the air because he loves the sound of his own voice!

Remember the whole world is listening

Scanners abound. Make sure you want what you say to be public knowledge.

Talk across the mike, not into it.

Hold it a couple of inches away from your face and speak at right angles "across" the mike instead of right into it. You'll be easier to understand.

Don't shout. Speak clearly instead.

Shouting may feel emotionally satisfying, but it causes distorting and makes you hard to understand. Contrary to the opinion of some, shouting does not, repeat NOT, increase the range of any radio known to mankind.

For the Command Post guys, DON'T , PLEASE DON'T, read everything back!

You're doubling the necessary air time. Only ask for a "Say again" on the stuff you didn't get. Otherwise, just say "Copy, over" and stand by for the next part

To be really sure you're getting through to the right person, a radio message should include who you're calling and who you are

Here's a sample

"Command Post this is Team one" (Team one wants to talk to the Command Post and is letting them know).

"Team one, this is Command Post, go ahead over" (CP is telling Team one that they're ready to listen.

They might have said

"Team one, this is Command Post, wait, out" (the CP is up to their butts in alligators and will call Team one back.

"Team one, this is Command Post, go ahead, over" (OK alligators dealt with, what's on your mind?

"Command Post this is Team one, we need a 600' rope out of the van, over" (Pause to see, did you get that, Command Post?)

"Team one, this is Command Post, copy, over" (OK Team one, ready for more info)

"Command Post, this is Team one, someone will be there to pick it up, over" (Get that too?)

"Team one, this is Command Post, copy, over" (Yep, got it, anything else?)

"Command Post, this is Team one, out" (Nope, done talking)

This may sound unnecessarily complicated, but it's really simple once you get the hang of it. It may sound 'wordy' but it actually will have a net result of decreasing air time because there are no points of confusion to clear up later if someone misunderstood any part the message.

The “BIG ONE”

After a large-scale earthquake/disaster in our area, the existing communications systems may not be available either due to physical damage or system overload. Wires to telephones may be damaged and cellular phone towers and antennas may fail or lose power. The NB RACES/CERT Comm's Emergency NET Protocol plan is based on Amateur Radio for emergency communications following a major disaster.

Currently, all cities in Orange County affected by the quake will activate their Emergency Operations Centers (EOC's). The County will activate its own EOC. Emergency Communications teams will begin staffing the various local EOC's. Large-scale emergencies undoubtedly will require activation of the state and federal EOC's, as well.

Newport Beach RACES and CERT Comms have a 2 m and 70 cm amateur radios in the emergency trailer. RACES has a wide variety of amateur radios in its radio room at the Newport Beach Police Station. Authorized Newport Beach RACES (Radio Amateur Civil Emergency Services) operators will staff these positions (emergency trailer and radio room) and become the link to the City of Newport Beach Emergency Operations Center, located in the Newport Beach Police Department near Fashion Island.

Immediately after you have checked on yourself, your family, your house, etc., members of the CERT Comms should turn on their personal radios to Channel 1 (or the alternate frequencies as may be necessary). In an emergency, the radio channels will be very busy. Remember to LISTEN (monitor the channel) before talking on the radio. There may already be active emergency communications on that channel.

Emergency communications teams have established special rules for quickly creating a working communications system. The first person on the RACES radio (after making sure the channel is clear) becomes the Net Control Station (NCS). This person may have to handle several command and operations roles until additional help arrives, pursuant to the Incident Command System.

His or her role is to control communications on that channel. Initially, the net control station would ask if any other Newport Beach RACES and/or CERT Comms are listening. NCS's need to keep accurate records of people, the nature of reported emergencies, etc.

All team members should have been provided communications log forms. The emergency trailer also has communications log forms, notebooks, and pens available.

NOTE: Remember to WRITE it, or you will forget it later!

NOTE: Make sure you don't have your PTT depressed unless you are transmitting. An inadvertently depressed PTT will “lock out” the system.

Important Rules for Radio Operations

1. Listen BEFORE talking.
2. Press the PTT (talk button) and then WAIT 1 to 2 seconds. If you do not, the first part of your communications may not be heard.
3. Say who you want to talk to FIRST. People listen for their names, not yours, so always state their name or call sign or role name FIRST.
4. State your name, or call sign, or role (Net Control) next.
5. Hold the PTT an additional 1 to 2 seconds, so they hear the full transmission.
6. Wait for the other party to acknowledge your call.
7. Say your message, slowly, clearly, concisely, and spell confusing names. Remember the two second rules.
8. Wait for the other party to acknowledge the message. Remember, the communication is not complete until the other party acknowledges the message. Another station could have been transmitting at the same time and over-powered your transmission.

Remember the Number "FIVE"

The NCS has a very challenging role. In large emergencies, people are nervous and talk quickly. The NCS has to write the critical information and then forward it to an Emergency Operation Center. NCS will instruct anyone sending a message to say only five words and then wait for the NCS to say "Go Ahead" before continuing with the message. Also, EOC messages need to be specific, concise, and clear.

Emergency Communication Priority

After a large earthquake, there may be hundreds or thousands of emergencies within the County, and hundreds or thousands of people needing help. The City of Newport Beach will not likely have the resources to help everyone, and the Net Control Stations (NCS's) cannot talk to everyone at the same time. Accordingly, the following are the priority assignments for messages.

1. **Life Threatening ("EMERGENCY").**
2. **Property Threatening ("URGENT" or "IMMEDIATE")**
3. **Routine: Reversed for types of messages which are not of sufficient urgency to justify a higher precedence, but must be delivered to the addressee without delay. ("ROUTINE")**

The NCS needs to handle the highest priorities first, before handling lower priorities.

Think Like and Outside Responder

Large earthquakes will be impossible to handle with only local resources. Help will need to come from other parts of California as well as other states.

Remember, when sending emergency messages, especially to persons not from this part of California, be careful about using abbreviations, words, or phrases that only Newport Beach RACES and CERT Comms teams would understand. That will only generate problems at the higher levels, and may result in help being delayed.

This is especially important when talking about locations or using abbreviations that might not be understood outside of Newport Beach.

After the Earthquake: Expect Aftershocks

Safety is always your top priority.

Communications is essential to safety.

Situations can change very quickly.

Always keep your team leader informed of your location BEFORE entering any building or changing your location.

Standard Phonetics

A -	alfa	(AL-fa)
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 -	juliet	(JU-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	(keh-BECK)
R -	romeo	(ROW-me-oh)
S -	sierra	(see-AIR-rah)
T -	tango	(TANG-go)
U -	uniform	(YOU-ni-form)
V -	victor	(VIK-tah)
W -	whiskey	(WISS-key)
X -	x-ray	(ECKS-RAY)
Y -	yankee	(YANG-key)
Z -	zulu	(ZOO-loo)

- If there is a chance of misunderstanding, spell it out with "I spell":
- "go to Kay Street" --- "go to Kay, I spell kilo, alpha, yankee, Street"

Message Handling Prowords

- I SPELL Ex: "I spell Alfa, Bravo..."
- FIGURES Ex: "Figures Wun, ZEE-row, NINE-er" (= 109)
- INITIAL(S)/LETTER GROUP A group of one or more letters - Ex: ARES/RACES
- AMATEUR CALL An amateur call sign; use mixed group if contains "/"
- MIXED GROUP A group of mixed letters and numbers: Ex: AF3JJ/4
- MIXED GROUP FIGURE(S) A mixed group starting with one or more figures
Ex: 2/A
- BREAK Separate different parts/lines of a message
- SAY AGAIN Repeat – usually used with a qualifier ...
- WORD AFTER Ex: "Say again word after..."
- WORD BEFORE Ex: "Say again word before..."
- ALL AFTER Ex: "Say again all after..."
- ALL BEFORE Ex: "Say again all before..."
- BETWEEN Ex: "Say again between... and..."
- AFFIRMATIVE "Yes"
- NEGATIVE "No" or "not received"
- COPY Message received
- ROGER Received and understood. (Does NOT mean "yes")
- OVER This is the end of my transmission to you and a response is necessary. Go ahead; transmit
- OUT This is the end of my transmission to you and no answer is required or expected.