BASIC RADIO COMMUNICATION SKILLS

Objective:

This lesson introduces communication skills that are specific to CERT operations, and helps you understand differences from normal Amateur Radio operations.

Information:

An emergency communicator must do his part to get every message to its intended recipient, quickly, accurately, and with a minimum of fuss.

A number of factors can affect your ability to do this, including your own operating skills, the communication method used, a variety of noise problems, the skills of the receiving party, the cooperation of others, and adequate resources. In this unit, we will discuss basic personal operating skills.

Why Are Emergency Communication Techniques Different?

In an emergency, any given message can have huge and often unintended consequences. An unclear message, or one that is modified, delayed, mis-delivered, or never delivered at all can have disastrous results.

Listening

Listening is at least 50% of communication. Discipline yourself to focus on your job and "tune out" distractions. If your attention drifts at the wrong time, you could miss a critical message.

Listening also means avoiding unnecessary transmissions. A wise person once said, "A man has two ears and one mouth. Therefore he should listen twice as much as he talks." While you are asking, "when will the cots arrive?" for the fourth time that hour, someone else with a life and death emergency might be prevented from calling for help.

Microphone Techniques

Even something as simple as using your microphone correctly can make a big difference in intelligibility. For optimum performance, hold the mic close to your cheek, and just off to the side of your mouth. Talk across, rather than into, the microphone. This will reduce breath noises and "popping" sounds that can mask your speech.

Speak in a normal, clear, calm voice. Raising your voice or shouting can result in over-modulation and distortion, and will not increase volume at the receiving end. Speak at a normal pace - rushing your words can result in slurred and unintelligible speech. Pronounce words carefully, making sure to enunciate each syllable and sound.

When using a repeater, be sure to leave a little extra time between pressing the push-to-talk switch and speaking. This will ensure that your entire message is transmitted, avoiding time-wasting repeats for lost first words.

Lastly, pause a little longer than usual between transmissions any time there is a possibility that other stations may have emergency traffic to pass from time to time. A count of "one, one thousand" is usually sufficient.

Brevity & Clarity

Each communication should consist of only the information necessary to get the message across clearly and accurately. Extraneous information can distract the recipient and lead to misinterpretation and confusion. If you can leave a word out without changing the meaning of a message, leave it out. If the description of an item will not add to the understanding of the subject of the message, leave it out. Avoid using contractions within your messages. Words like "don't" and "isn't" are easily confused.

Make your transmissions sound crisp and professional, like the police and fire radio dispatchers and the air traffic controllers. Do not editorialize, or engage in chitchat.

Be sure to say exactly what you mean. Use specific words to ensure that your precise meaning is conveyed. Do not say, "that place we were talking about," when "Richards School" is what you mean. Using non-specific language can lead to misunderstandings and confusion.

Plain Language

All messages and communications during an emergency should be in plain language. "Q" signals, 10 codes, and similar jargon should be avoided. The one exception to this is the list of standard "pro-words" (often called "pro-signs") used in Amateur traffic nets, such as "clear," "copy" and so on. We will discuss some of these pro-words in detail below, and others later in this course.

Avoid words or phrases that carry strong emotions. Most emergency situations are emotionally charged already, and you do not need to add to the problem. For instance, instead of saying, "horrific damage and people torn to bits," you might say "significant physical damage and serious personal injuries."

Phonetics

Certain words in a message may not be immediately understood. For that reason, radio communicators often use "phonetics." To reduce requests to repeat words, use phonetics anytime a word has an unusual or difficult spelling, or may be easily misunderstood. Do not spell common words unless the receiving station asks you to. In some cases, they may ask for the phonetic spelling of a common word to clear up confusion over what has been received. Standard practice is to first say the word, say "I spell," then spell the word phonetically. This lets the receiving station know you are about to spell the word he just heard.

Phonetic Alphabet

ADAM	NORA
BOY	OCEAN
CHARLES	PAUL
DAVID	QUEEN
EDWARD	ROBERT
FRANK	SAM
GEORGE	TOM
HENRY	UNION
IDA	VICTOR
JOHN	WILLIAM
KING	X-RAY
LINCOLN	YOUNG
MARY	ZEBRA

Numbers are somewhat easier to understand. Most can be made clearer by simply "over-enunciating" them as shown below.

One: "Wun"	Two: "TOOO"
Three: "THUH-ree"	Four: "FOH-wer"
Five: "FY-ive"	Six: "Sicks"
Seven: "SEV-vin"	Eight: "Ate"
Nine: "NINE-er	Zero: "ZEE-row"

Numbers are always pronounced individually. The number "60" is spoken as "six zero," not "sixty." The number "509" is spoken as "five zero nine," and not as "five hundred nine" or "five oh nine."

Pro-words

Pro-words are procedural terms with specific meanings. ("Pro" is short for "procedural.") They are used to save time and ensure that everyone understands precisely what is being said. Some pro-words are used in general communication, others while sending and receiving formal messages.

Voice	Meaning and function
Clear	End of contact.
Over	Used to let a specific station know to respond
Go ahead	Used to indicate that any station may respond
Out	Leaving the air, will not be listening
Stand by	A temporary interruption of the contact
Roger	Indicates that a transmission has been received correctly and in full

Tactical Call Signs

Tactical call signs can identify the station's location or its purpose during an event, regardless of who is operating the station. This is an important concept. The tactical call sign allows you to contact a station without knowing the FCC call sign of the operator. It virtually eliminates confusion at shift changes or at stations with multiple operators.

It is often helpful if the tactical call signs have a meaning that matches the way in which the served agency identifies the location or function. Some examples are:

- "Net" - for net control station
- "Topanga EOC" - for the city's Emergency Operations Center
- "Firebase 1" - for the first fire base established, or a primary fire base
- "Checkpoint 1" - for the first check point in a public service event
- "Church Shelter" - for the Red Cross shelter at the Church on Church Rd.
- "Repair 1" - for the roving repair vehicle at a bike-a-thon
- "Mercy" - for Mercy Hospital

Calling with Tactical Call Signs

If you are the "Blue Team" during an operation and want to contact the CERT control station, you would say "Control, Blue Team" or simply "Blue Team." If you had emergency traffic, you would say "Blue Team, emergency traffic," or for priority traffic "Blue Team, priority traffic."

Notice how you have quickly conveyed all the information necessary, and have not used any extra words.

If you have traffic for a specific location, such as Firebase 5, you would say "Blue Team, priority traffic for Firebase 5." This tells the NCS everything needed to correctly direct the message. If there is no other traffic holding, the NCS will then call Firebase 5 with, "Firebase 5, call Blue Team for priority traffic."

Note that no FCC call signs have been used so far. None are necessary when you are calling another station.

Station Identification

In addition to satisfying the FCC's rules, proper station identification is essential to promoting the efficient operation of a net. The FCC requires that you identify at ten-minute intervals during a conversation and at the end of your last transmission. The easiest way to be sure you fulfill FCC station identification requirements during a net is to give your FCC call sign as you complete each *exchange*. Most exchanges will be far shorter than ten minutes. This serves two important functions:

    1) It tells that you consider the exchange complete (and saves time and extra words)
    2) It fulfills all FCC identification requirements.

Completing a Call

After the message has been sent, you would complete the call from Blue Team by saying "Blue Team, *<your call sign>*." This fulfills your station identification requirements and tells that you believe the exchange to be complete.

If the Net Control Station believes the exchange is complete, and Blue Team had forgotten to identify, then the NCS should say, "Blue Team, do you have further traffic?" At that point, Blue Team should either continue with the traffic, or "clear" by identifying as above.

For this method to work properly, the NCS must allow each station the opportunity to identify at the close of an exchange.

A Review of Habits to Avoid

- Thinking aloud on the air: "Ahhh, let me see. Hmm. Well, you know, if..."
- On-air arguments or criticism
- Rambling commentaries
- Shouting into your microphone
- "Cute" phonetics
- Identifying every time you key or un-key the mic
- Using "10" codes, Q-signals on phone, or anything other than "plain language"
- Speaking without planning your message in advance
- Talking just to pass the time.

Review:

Clear, concise communications save time, and reduce misunderstandings. Avoid any non-essential transmissions. Use tactical call signs to call other stations, and give your FCC call sign only at the end of the complete exchange, or every ten minutes during longer exchanges. Plain language is more easily understood by a wider range of people than most codes and jargon.

Additional: When sent into the field you are sent to do a:

1. Search and Resue
2. Medical Assessment and Response

When you report back to the Command Post (CP): You are not asking them what to do!! You are reporting what you have found and what you are doing.

Example: You are sent out to an area: When you arrive you find a damaged building and an injured person outside saying there are more people inside.

-Radio Com calls CP and states: "Arrived on scene we have a moderately damaged building and one person with minor injuries. We are commencing with the size up and treatment of injured person."

-As events unfold you continue to keep Command in the loop. They may give you instructions at their discretion, but your on-scene commander is the lead. That person will be assigned before leaving the CP, and they will assign other positions at the CP or on the way to the incident. Do not argue with them unless there is a life threatening problem or a safety issue. You should not need to ask, via radio, how to treat the injured people found, how to do the size up, etc.