Effective Communication

Many variables influence the effectiveness of two-way radio communications. Classroom discussion/instruction and field experience provide understanding of how these variables affect communication. The physical location/orientation of the radio's antenna can be very important. In the field, moving a portable radio a foot or two one way or the other, or ensuring that the antenna is straight up and down and/or away from your body, may make the difference between good communications and none. Generally, keep the antennas as vertical as possible.

Use of VHF radios is very simple:

1. Turn the radio on and adjust the volume. The on/off switch and volume control are separate on mobile radios; on handheld radios, the volume control functions as the on/off switch.
2. Select the correct channel.
3. Press the Push-to-Talk (PTT) switch (either on the radio or on the attached microphone) , wait a second or so, and speak.
4. Release the switch when you are finished and listen for a response.

When transmitting, remember the following:

- Think before you transmit. Know what you want to say and if it is lengthy, like UTM coordinates, write it down ahead of time
- Listen before you transmit. Keying your radio while others are talking is futile and may jam their receivers. Also, you may get the answer to your question by monitoring traffic first.
- Hold the radio or microphone about two inches from your mouth
- Shield the microphone from wind – wind noise will

usually render your transmission unreadable

- Key the microphone (press PTT) – WAIT a second (take a breath), then speak clearly and slowly. If you begin speaking as you press PTT, the first part of your transmission will likely be cut off.
- Speak across (not into) the microphone. If you become excited and/or shout into the radio, your transmission will be difficult to understand.
- Release the PTT switch AFTER completing your message.
- NEVER push the PTT button unless the antenna is connected to the radio. Doing so will generally damage the radio.
- Be alert to the sounds or lack of sounds in your receiver. Check your volume, channel, and make sure that the PTT is not stuck in the transmit position. A stuck mike blocks radio traffic and may cause Operations to assign an alternate channel.

As mentioned before, we share some frequencies with other rescue teams. Should another team have a mission at the same time in the same area, courtesy must be extended by radio operators on both teams to ensure a smooth operation for both teams. If you are high on Pikes Peak, you can hear (and interfere with) radio traffic as far away as Boulder to the north and even New Mexico to the south. Generally speaking, a rescue involving a more serious injury will take precedence over a rescue with a less serious injury, which will take precedence over a search.

Under NO circumstance should obscenities or other inappropriate language or comments be used on the radio. The FCC, public, media, other public safety agencies, and your fellow members monitor our channels. Observers will judge the competence and abilities of the team based on the manner in which we conduct ourselves on the radio. Always use professional, efficient communications. Radio message brevity allows other important traffic to get through and extends the

life of the battery.

At a mission, you will normally be briefed on what channel to use in the field. The default is Channel 1 (repeater) or Channel 2 (direct). On larger missions, a communications plan will be established when multiple channels are required. When in doubt, ask before transmitting.

The most important determinant of effective communication is understanding who is calling me, what are they saying, do they understand what I am saying, etc. To facilitate this, standardized radio procedures should be used. Common radio transmissions would include:

- "Rescue 24, Rescue 31" – Rescue 31 is calling for Rescue 24
- "Rescue XX responding" – Rescue XX is responding to a mission.
- "Operations, Team 1" – Team 1 is calling for Operations (a typical communication on a mission)

When passing lengthy traffic or numbers such as coordinates, let the receiver know what you will say, and use a who-what-where type format. Example:

- "Operations, Team 1" – Team 1 is calling Operations
- "Team 1 go ahead" – Operations acknowledges
- "Team 1 is on location with the injured party, conscious and breathing, coordinates to follow" – Team 1 provides the who and what
- "Team 1 go ahead with your coordinates"

And the traffic would continue. Try to anticipate what the other station will need, like your location, assistance required, etc. If you are another team and hear this traffic, try to copy the coordinates yourself and begin mapping BEFORE you are requested to take action.

While transmitting lengthy messages, such as locations, you

should introduce a “break” in the transmission. This break allows for repeaters to reset, the receiver the ability to keep up with notation, and for higher-priority or emergency transmissions to be made if needed. An example of this would be:

1. “…coordinates to follow” – Team preparing to send coordinates
2. “Team X, go ahead with coordinates”
3. “13 Sierra zero five two six four three eight, Easting, BREAK”
4. release the PTT, take a breath, if no one breaks into the transmission, continue:
5. “four three one six one four eight, Northing, how copy?” – Completes transmission of coordinates

NOTE: when passing UTM coordinates, pass ALL of each coordinate. The overhead team at the receiving end count the digits/letters to ensure they’ve copied the information correctly. If you “shorthand” the coordinates, you’ll be asked to repeat the complete series again – wasting everyone’s time and energy.

THINK BEFORE YOU TRANSMIT! THINK-LISTEN-TRANSMIT-LISTEN