

1 PURPOSE

- 1.1 Provide Basic Training in two-way radio operation.

2 SCOPE

- 2.1 Basic operation of Simple FRS and Walkie-talkie radios.

3 DEFINITIONS & REFERENCES

- 3.1 Section – Once of the various CERT groups such as Medical, Search & Triage, Fire Suppression, or Logistics.

4 SAFETY & ENVIRONMENT

- 4.1 Do no harm. Do not engage in any activity if you are unsure of your ability to perform the activity safely. Your safety is your number one concern.

5 MATERIALS & EQUIPMENT

- 5.1 FRS/ GMRS two-way Radio.

6 METHOD

6.1 Two Way Radio Training

Before beginning search and triage, you must do a 360 on the building and size it up for hazards and potential problems. If there is structural damage, you should turn off the utilities.

If you ever need to use a 2-way radio in a real emergency, it is vital that you are clearly understood. To do this it is important to understand the differences between a telephone and a two-way radio. Two-way radios are not like a telephone. Telephones and cell phones are "full-duplex" which means you can talk and listen at the same time. Most two-way radios are "simplex" which means you cannot hear anyone while you have the talk button pressed.

Note: It is extremely important to take turns talking. To help with this, standard radio procedures have been created.

Note: The single most important mistake people make is failing to identify themselves. There may be several people using the same channel as you, so it's important to know who you are directing your transmission to.

To call someone, say the name of the person you want to call, followed by the words "THIS IS," then say your name and "OVER."

For example: "COMMAND, THIS IS CERT ALPHA, OVER."

It's important to say the name of the person you want to contact before saying your name, as this will get their attention, and they will listen to the rest of your message.

The word "OVER" leaves no doubt about whose turn it is to talk and avoids any confusion. It's important to say "OVER", so they know when you are done speaking. Some radios beep when you're done transmitting, in which case you wouldn't need to say "OVER", but it is still a good practice.

It's basic "radio etiquette" to establish contact and make sure that you have the other person's attention before you start your message. If you hear someone calling you, acknowledge his or her call by saying, "GO AHEAD" or "STAND BY" This lets the caller know that you heard them. Also remember, it may take someone a while to get to their radio and respond. Be patient in waiting for a reply.

Because only one person can talk at a time, it is more important to LISTEN on a 2-way radio than to talk!

When your business is finished, the person who started the conversation should end it by saying their name and the word "OUT," which leaves no mistake that contact has ended.

Note: Always release the push-to-talk (PTT) button whenever you stop talking.

If you forget and keep it pushed down while you are trying to think of something to say, the radio continues to transmit, making your battery run down faster and making "dead air" so that nobody else can speak or be heard. In the least sense, it is impolite. In an emergency, it could prevent someone with vital information from getting through. If you need to collect your thoughts, release the PTT so that somebody else can break in case they have an emergency, additional information or simply wants to join in the conversation. Leave a second or two between "hand-offs" to give others a chance to break in.

Note: Its always best to speak in short simple phrases on the radio and toss the conversion back and forth with the word "OVER."

Note: Don't speak immediately when you press the PTT (push to talk), but wait a second.

Most two-way radios take a second to change from receive to transmit, (remember, they can only do one at a time) so if you speak as soon you press the PTT button, it can chop off your the first syllable or word, making you hard to understand. If that word doesn't make it, you will just have to say it again and run down your batteries faster.

Note: Disable any "privacy codes" on your radio.

"Privacy codes" are misnamed, as they don't really create any privacy. What they do is allow you to filter out other conversations that are using different "privacy codes". However, since radios manufactured by different companies use different codes, they are of no use to us.

6.2 Standard transmission format

Every transmission should begin with: (who your talking to) THIS IS (who you are)

For example: CERT COMMAND, THIS IS CERT ALPHA.

Every transmission should end with: OVER.

To end a whole conversation end with: OUT. (or OVER AND OUT)

When contacted by radio, you should respond with either STANDBY or GO AHEAD.

Any vital information such as street address, number of victims, etc should be confirmed, to make sure you received the entire message.

6.3 Standard Language

Go Ahead – Resume transmission

Say Again – Re-transmit your message

Stand-by – Transmission has been acknowledged, but I am unable to respond now.

Roger – Message received and understood.

Affirmative – Yes – Avoid yup, nope, etc.

Negative – No

Over – Transmission finished.

Out – Communication is over and the channel is available for others.

6.4 Standard Alphabets

Used to spell out letters over the radio.

Name Based Alphabet – Used by Northern Illinois PD and Fire

A – Adam	J – John	S – Sam
B – Boy	K – King	T – Tom
C – Charles	L – Lincoln	U – Union
D – David	M – Mary	V – Victor
E – Edward	N – Nora	W – William
F – Frank	O – Ocean	X - X-ray
G – George	P – Paul	Y – Young
H – Henry	Q – Queen	Z - Zebra
I – Ida	R – Robert	

Standard NATO Alphabet – Used by Military

A - Alpha	K - Kilo	U - Uniform	0 - Zero
B - Bravo	L - Lima	V - Victor	1 - Wun (One)
C - Charlie	M - Mike	W - Whiskey	2 - Two
D - Delta	N - November	X - X-ray	3 - Tree (Three)
E - Echo	O - Oscar	Y - Yankee	4 - Fower (Four)
F - Foxtrot	P - Papa	Z - Zulu	5 - Fife (Five)
G - Golf	Q - Quebec		6 - Six
H - Hotel	R - Romeo		7 - Seven
I - India	S - Sierra		8 - Ait (Eight)
J - Juliet	T - Tango		9 - Niner (Nine)

6.5 Sample Dialog

Below is a sample dialog that puts these standards to use.

CERT A: CERT Command, this is CERT Adam. Over.
Command: CERT Adam, this is CERT Command, Stand By. Over.
Command: CERT Adam, this is CERT Command, Go Ahead. Over.
CERT A: CERT Command, there is a fire at 123 Main St. Over.
Command: CERT Adam, this is CERT Command, confirming a fire at 123 main St.
The fire department will be notified. Over.
CERT A: CERT Command, this is CERT Adam, address is confirmed,
thanks for the help. Over and Out.

6.6 Radio Usage Tips

Be brief and to the point. Stay off the radio unless absolutely necessary.

Engage your brain before your mouth. Think about how best to make yourself understood.

Listen before you begin your transmission. Make sure the channel is clear.

Wait a full second AFTER you push-to-talk and BEFORE you begin to speak. This will insure the beginning of your message is heard.

Speak ACROSS the microphone rather than into it to improve intelligibility. Use a natural speaking voice. The only way to overcome loud ambient noise is to shield the microphone from the wind, point it away from the source of noise or wait until the noise passes.

You should be aware that any portable radio is much less effective when worn on your belt, because your body absorbs the radio signal. This is very noticeable with low powered radios. Unless you are within 1/4 mile of the person you are talking to, hold the radio vertically, at face level, with its antenna in the clear. Also be aware, that you will lose more than half of your range if you use the radio inside a metal vehicle or inside a steel-reinforced building.

Rechargeable batteries that are not kept on a charger slowly drain themselves in less than a month. If your radio has Rechargeable batteries, you must charge it at least once a month.

In cold weather keep the radio warm inside a coat pocket and in your purse, NOT exposed on your belt.

DO NOT shout into the radio. It only distorts your transmission.

DO NOT turn the volume all the way up. This drains the battery and causes distortion. It also has no effect on outgoing transmission quality.

6.7 Team Usage

6.7.1 CERT Command. One channel will be assigned for communication between Command and the Section Chiefs if section chiefs are in use

6.7.2 Sections. Each section will be assigned a channel to communicate among themselves.

Once you are assigned to a section, you turn on your radio to their channel and contact your Section Chief. This is a way to let everyone know you are on duty, this will also serve as a radio check.

When you have been assigned a radio and channel, stay on that channel unless you coordinate a change with CERT Command.

7 TRAINING REQUIREMENTS

7.1 N/A

8 RECORDS

8.1 N/A