

# ***Two-Way Radio Protocol***

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## **Basic Radio Etiquette Rules<sup>1,2,3</sup>**

- The international radio language is English.
- When using a two-way radio, you cannot speak and listen at the same time, as you can with a phone.
- Do not interrupt if you hear other people talking.
- Do not respond if you aren't sure the call is for you. Wait until you hear your call sign to respond.
- Never transmit sensitive, confidential, or financial information.
- Perform radio checks to ensure your radio is in good working condition.
- Memorize call signs and locations of persons and radio stations you communicate with regularly.

### **THINK BEFORE YOU SPEAK:**

- Decide what you are going to say and for whom it is meant.
- Make your conversations as concise, precise, and clear as possible.
- Avoid long and complicated sentences. If your message is long, divide it into separate shorter messages.
- Do not use abbreviations unless they are well understood by your group.

## **4 Golden Rules of Radio Communication**

- Clarity:** Your voice should be clear. Speak a little slower than normal. Speak in a normal tone; do not shout.
- Simplicity:** Keep your message simple enough for intended listeners to understand.
- Brevity:** Be precise and to the point.
- Security:** Do not transmit confidential information on a radio unless you know the proper security technology is in place. Remember, frequencies are shared, you do not have exclusive use of the frequency.

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<sup>1</sup> See [https://en.wikipedia.org/wiki/Radiotelephony\\_procedure](https://en.wikipedia.org/wiki/Radiotelephony_procedure)

<sup>2</sup> See

<https://www.csudh.edu/Assets/csudh-sites/dhpd/emergency-preparedness/two%20way%20radio%20protocol.pdf>

<sup>3</sup> See <https://quality2wayradios.com/store/two-way-radio-etiquette>

## **Making a Call**

Follow these easy steps to make a call.

1. First listen to ensure the channel is clear for you.
2. Press the PTT (Push-To-Talk) button.
3. After 2 seconds:
  - a. Say "recipient's call sign"
  - b. Followed by "THIS IS" and "your call sign"
4. Once the person replies, convey your message.

## **Sample Dialog**

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

Adam: Mike, this is Adam. Over.

Mike: Adam, this is Mike, Stand By. Over.

Mike: Adam, this is Mike, Go Ahead. Over.

Adam: Mike, there is a fire at 123 Main Street. Over.

Mike: Adam, this is Mike, confirming a fire at 123 Main St. The fire department will be notified. Over.

Adam: Mike, this is Adam, address is confirmed, thanks for the help. Over and Out.

## **Radio Communication Tips**

- **Leave a second or two between "hand-offs"** to give others a chance to break in.
- It is always best to **speak in short simple phrases** on the radio and toss the conversation back and forth with the word **"OVER."**
- **Don't speak immediately when you press the PTT (push to talk)**, especially with digital radios which among all their benefits have slightly longer delay. **Wait 2-3 seconds.**
  - If you speak as soon you press the PTT button, it can chop off 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.
- Ensure the **battery is charged** and the power is on.
- Keep the **volume high enough** to be able to hear calls.

## **Radio User's Language**

<b>Come in</b>	You are asking the other party to acknowledge they hear you.
<b>Correct</b>	Yes – Avoid 'yup', 'nope', etc.
<b>Go Ahead</b>	Resume transmission.
<b>Negative</b>	No
<b>Out</b>	Communication is over and the channel is available for others.
<b>Over</b>	Transmission finished.
<b>Radio Check</b>	What is my signal strength? Can you hear me?
<b>Repeat</b>	Used before you repeat something, e.g., "I require 9, repeat 9, gallons of fuel. Over."
<b>Roger</b>	Message received and understood.
<b>Say Again</b>	Re-transmit your message.
<b>Stand-by</b>	Transmission has been acknowledged, but I am unable to respond now.
<b>Wilco</b>	Means "I <b>will</b> comply."

## **International Phonetic Alphabet**

Used to spell out letters over the radio.

A – Alpha	K – Kilo	U – Uniform
B – Bravo	L – Lima	V – Victor
C – Charlie	M – Mike	W – Whiskey
D – Delta	N – November	X – X-ray
E – Echo	O – Oscar	Y – Yankee
F – Foxtrot	P – Papa	Z – Zulu
G – Golf	Q – Quebec	
H – Hotel	R – Romeo	
I – India	S – Sierra	
J – Juliet	T – Tango	

Communications List<sup>4</sup>

Event:		Date & Time:
Assigned Position	Name (& Call Sign)	Method(s) of Contact (phone, pager, cell, radio channel or frequency, vehicle ID, etc.)

<sup>4</sup> See ICS 205A, [https://training.fema.gov/emiweb/is/icsresource/assets/ics%20forms/ics%20form%2020205a,%20communications%20list%20\(v3\).pdf](https://training.fema.gov/emiweb/is/icsresource/assets/ics%20forms/ics%20form%2020205a,%20communications%20list%20(v3).pdf)