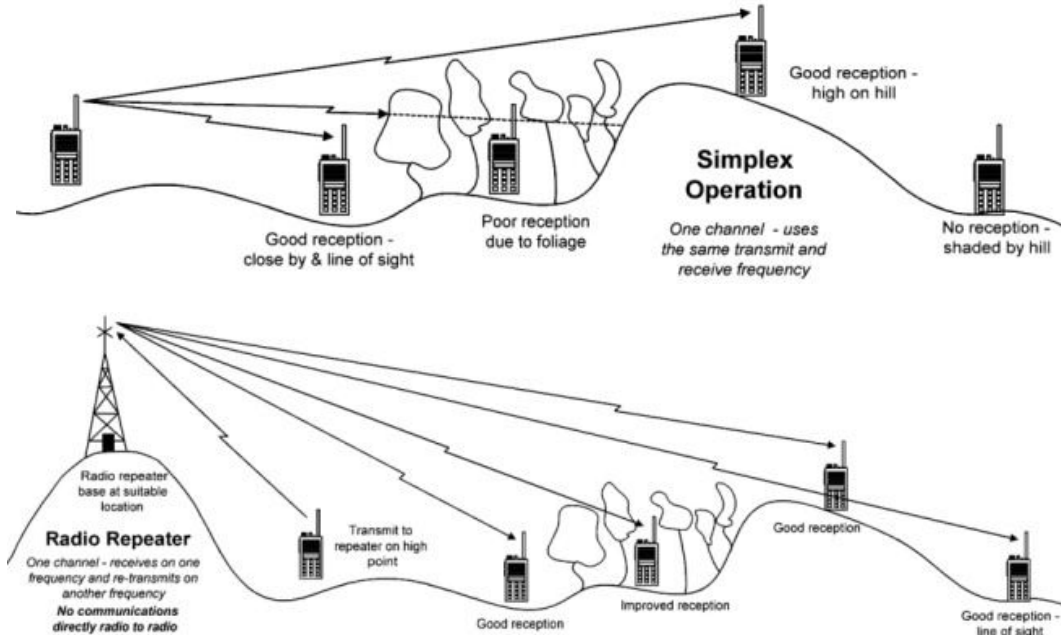


VHF Repeater Tour and Operation

Scott - KX9RT

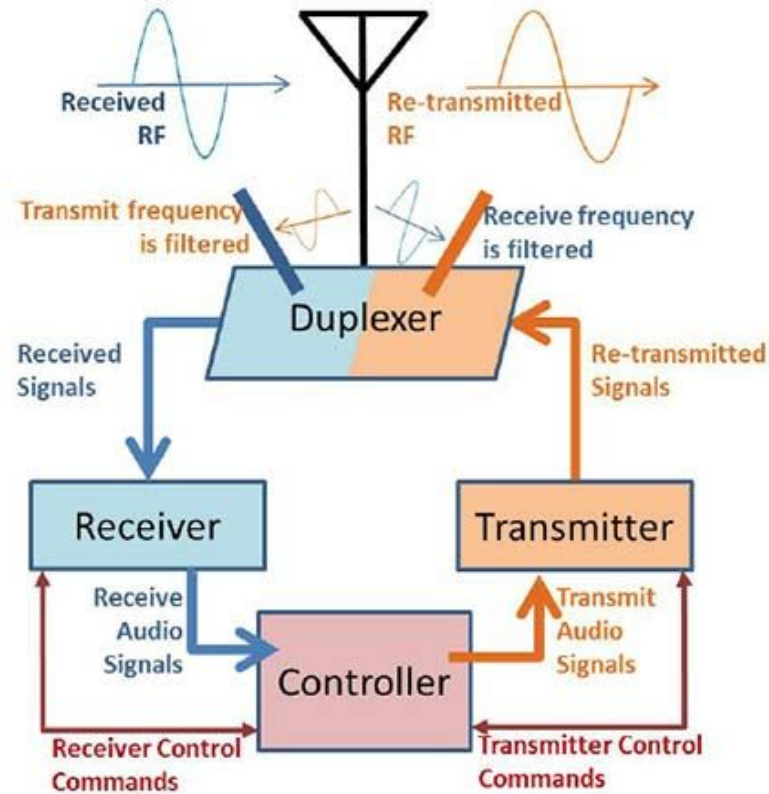
What is a Radio Repeater?



System Diagram

Transmit: 146.925MHz

Receive: 146.325MHz



<https://www.hamradioschool.com/>

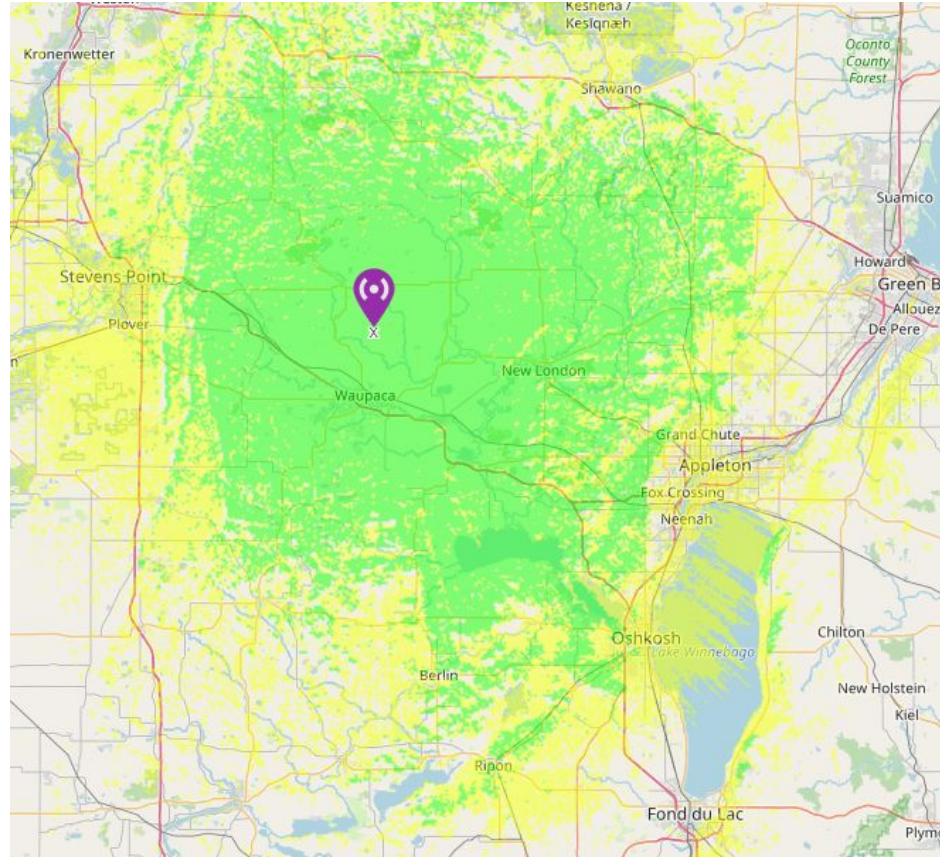
Video Tour

<https://youtu.be/znMdOoF2GeI?si=6Qt5Q6kKgl8MROci&t=10>

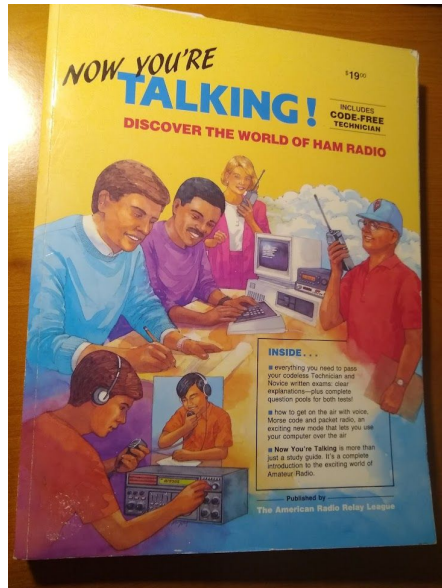
Lightning Damage - April 2023



Coverage (50W mobile)



Voice Operating Procedures - Technician Study Guide



the techniques used by the proficient operators. Proficient operators are the ones who are the most understandable (least confusing) and who sound the best. Don't simply mimic whatever you hear. This is especially true if you're going on the air for the first time.

Whatever band or mode you are undertaking, there are three fundamental things to remember. These fundamentals apply for any type of voice operating you might try. The first is that courtesy costs very little. It is often rewarded by bringing out the best in others. Second, the aim of each radio contact should be 100% effective communication. A good operator is never satisfied with anything less. Third, your "private" conversation with another station is actually open to the public. Many amateurs are uncomfortable discussing controversial subjects over the air. Also, never give any confidential information on the air. You never know who may be listening.

Keep it Plain and Simple

Correct voice operation is more challenging than it may appear. Even though it does not require the use of code or special abbreviations, the proper procedure is very important. Voice operators *say* what they want to have understood. CW operators have to spell it out or abbreviate. The speed of transmission on voice is generally between 150 and 200 words per minute. **Readability and understandability are critical to good communications.**

It is important to speak clearly and not too quickly. This

clear	KN	station transmit
closing station	SK	addressed station only
break or	CL	end of contact
back to you	BK	going off the air
		the receiving station's
		turn to transmit

is an excellent practice to follow. Whether you're working a DX operator who may not fully understand our language, or talking to your friend down the street, speak slowly and clearly. That way, you'll have fewer requests to repeat information.

Avoid using CW abbreviations and prosigns such as "HI" and "K" for voice communications. Also, Q-signals (QRX, QRV and so forth) are for CW, not voice, operation. The use of QSL, QSO and QRZ has become accepted practice on voice, however. Abbreviations are used on CW to say more in less time. On voice, you have plenty of time to say what you mean. On CW, for example, it's convenient to send "K" at the end of a transmission. On voice, it takes less than a second to say "go ahead." Table 9-6 shows the voice equivalents for common CW prosigns.

Use plain language and keep jargon to a minimum. In particular, avoid the use of "we" when you mean "I" and "handle" or "personal" when you mean "name." Also, don't say "that's a roger" when you mean "that's correct." Taken individually, any of these sayings is almost harmless. Combined in a conversation, however, they give a false-sounding "radioese" that is actually less effective than plain language. "Roger" for example, means "I have received what you sent." It doesn't necessarily mean that what was sent was "correct"!

Voice Etiquette

STM Report

Wisconsin Section

SET SPECIAL BEN SESSION OCT 7 3985/7268 10 AM

September 2023

FAQ # 266 Annoyances. We all have 'em. When we're operating, handling traffic, participating in a net, some things others do might bother us, and – you might not believe this – there may be things ***we*** do that bother ***others***. Here are some to avoid:

1. Using Q Signals on voice. Not needed. Inappropriate. Save for CW. QSL?
2. "Roger. QSL. Got it all." and similar recurring repetitive redundancies. Contrary to Jacqueline Susann, once is enough.
3. Naming all the others' calls each time you identify. Just your call would do. That's what the FCC requires.
4. Speech patterns. "Er. . ." "Ahhhhh. . ." "Ok-a-a-a-y. . ." or "Um . . ." when used repetitively. Trust your VOX. You don't need to save the relay. Likewise, waiting too long before responding to a station during a net. Extended pauses makes it sound like the frequency is unoccupied or they weren't heard.
5. Confirming a message – then asking for lots of fills. Roger still means roger. Nothing wrong with asking for fills. Just hold the "Roger" until the end.
6. Breaking in with unsolicited relays and commentary. Comments and relays are usually welcome. Just get recognized first. Who's the NCS anyway?

Etiquette - continued

- Plain English such as in a face to face conversation.
- Callsign once every 10 minutes and last transmission. “Less is more”. (FCC Part 97.119)
- On local repeater, likely on first name basis, no need to say a lengthy callsign repetitively. The other person knows their callsign. :) Only needed when directing discussion in a group.
- Consider using person's name. Only needed in a round table discussion.
- Eliminate "CB talk" or phrases invented for radio-ese. I.e. jargon.



Fun Facts Repeater Identifiers - Knowing the Beeps

- Time out timer is set to 3 minutes. Resets on every beep. No need to let repeater drop after tone.
-
- Voice ID - occurs after 10 minutes of inactivity when keyed up
- Only courtesy tone when activity in recent 10 minutes
- ID every 10 minutes when there is activity, otherwise no ID's.
- Voice at :00 every hour between 8am and 10pm. Shuts up at night. (could be off 1 hour)

Questions?