



CERT RADIO COMMUNICATIONS

A practical guide to Ham radio, FRS/GMRS, licensing, and choosing equipment for CERT communications.

As we build up our CERT communications team, it is apparent that we need to include both **licensed Ham radio operators** and **unlicensed members** to support our emergency communications staffing requirements. To that end, we need radio equipment to cover Ham radio as well as FRS/GMRS frequencies.

Ham Radio Licensing

Licensing to become a Ham radio operator requires a little bit of study preparation and taking a test, but it opens up not only local communications but worldwide coverage on several different modes of transmission, including Morse code, analog, digital, and video.

For CERT purposes, the entry-level **Technician license** will suffice. As you get acquainted with Ham radio, you may want to upgrade your license to **General** or **Extra Class** and extend your operating privileges.

- There are many free online study guides available. Visit ARRL.org for study and licensing resources.
- When you are ready, contact one of the local Ham radio clubs. Volunteer Examiners can administer the test.
- The test can also be given online.
- For handheld (HT) radios, the tried-and-true Yaesu and Kenwood brands are options. There are also several new lower-cost radios from TIDRADIO that are worth a look.
- For a handy reference to Ham repeaters across the U.S., visit RepeaterBook.

FRS vs. GMRS

Both services share some of the same frequencies in the UHF band, but their licensing, power, and range differ.

FRS	GMRS
Family Radio Service (FRS) No license required Simple to use Limited output power Shorter range	General Mobile Radio Service (GMRS) \$35 license Good for 10 years One license covers the immediate family Allows higher output power Repeaters can extend range

Meniffee CERT note: There is a Meniffee Office of Emergency Management (OEM) GMRS repeater on **Channel 16** that CERT can utilize.

Apply for a GMRS license through the FCC. A complete FRS/GMRS frequency list includes both simplex and repeater frequencies.

FCC: [Apply for a New License](#) | [FCC: FRS Channel Information](#) | [FCC: GMRS Information](#)

What Radio Should You Buy for CERT Comms?

There are many choices and features to choose from. It is recommended that you get a **5W (minimum) radio** that can cover both FRS and GMRS frequencies and is easy to program and operate.

Having an external speaker/mic capability is desired but not necessary.

Priority	What to look for
Power	5W minimum
Coverage	FRS/GMRS frequencies
Programming	Easy to program and operate
Accessory option	External speaker/mic capability is desirable, but not required

There are many radio-buying guides and equipment options available to help you choose the radio right for you.

Quick Resources

ARRL - Ham Radio Licensing & Study	Study guides, exam preparation, clubs, and licensing information.
RepeaterBook	Ham repeater directory for the U.S. and other locations.
FCC - Apply for a New Radio License	FCC instructions for filing a new license application.
FCC - GMRS Information	GMRS licensing and service information.
FCC - FRS Information & Channels	FRS service and channel information.

Operating reminder: Use frequencies, power levels, and radio equipment in accordance with applicable FCC rules and license requirements.

Questions or Need Help?

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