

## EmComm Report – February 2023

This Christmas I added a new tool to my collection of communication devices. I added GMRS radios. Why as a ham radio operator would I even consider a GMRS radio a fun and viable tool?

For those who are unfamiliar with GMRS (General Mobile Radio Service), it is an FM UHF radio service that requires a license in the US. Your ham radio license does not cover GMRS; you need to get a separate license. A license is obtained from the FCC website that you use to renew your ham license (<https://wireless2.fcc.gov/UlsEntry/licManager/login.jsp>). You fill out an application, pay \$35 and get a new callsign. There is no test, but you do need your FRN (FCC Registration Number). The license is good for 10 years and applies not just to you, but to your family. Per FCC Rules part 95 subpart E: family members are the licensee's spouse, children, grandchildren, stepchildren, parents, grandparents, stepparents, brothers, sisters, aunts, uncles, nieces, nephews, and in-laws.

GMRS is meant for short-distance communication, but with GMRS repeaters around town, the range is extended. To use some of the repeaters, you must join the Arizona GMRS radio club. Although, if you have GMRS radio, the club is opening one of their repeaters for public use during the Superbowl. Check their website for more information.

Hand held GMRS radios are limited to 5 watts, mobile stations are limited to 50 watts, and fixed stations are limited to 15 watts. You can use GMRS to transmit short data messaging applications including text messaging and GPS location information; although there are restrictions on GMRS radios that transmit digital data. There are 30 GMRS Channels in the frequency range of 462-467 Mhz. Some of the channels are shared with FRS (Family Radio Service) and have other limitations.



When purchasing a GMRS radio, you may want to avoid the inexpensive “blister pack” radios. To make use of the repeaters, you need a radio that can be programmed for repeaters. You may want a removable antenna so you can replace the stubby antenna with a higher gain antenna. Be aware that GMRS radios used for transmitting digital data cannot have a removable antenna. The Arizona GMRS radio club has a list of recommended radios on their website. I purchased a BTECH GMRS-V2 for \$55.

GMRS radios are useful for communicating with non-hams. Let’s face it, some of our family members are not interested in taking the exam to get a Ham Radio license.

GMRS radios are useful for communicating at camp, during outdoor activities such as hiking when cellphone coverage is compromised or not convenient. Children can use GMRS radios under the umbrella of the family license, but it is not meant to be used as a toy walkie-talkie. GMRS radios are used in some EmComm events.

### References:

- [General Mobile Radio Service \(GMRS\) | Federal Communications Commission \(fcc.gov\)](#)
- [myGMRS.com: GMRS Repeater Directory and Community](#)
- [eCFR :: 47 CFR Part 95 Subpart E -- General Mobile Radio Service](#)
- [Arizona GMRS \(azgmrs.org\)](#)