

GMRS For Family Emergency Communications

Getting Licensed

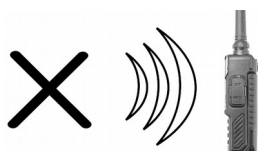
Obtaining a GMRS license is a simple matter of creating an account, filling out an application, and paying a fee. There is no testing required for GMRS licensing. A single license covers your entire family and many members of your extended family, and is valid for ten years.

GMRS Operators may use a set of predefined channels in the Ultra High Frequency (UHF) range, and may operate repeaters, handheld transceivers (HT's) up to 5 watts, or mobile/base units up to 50 watts. At these power levels operators may expect to communicate easily in a 2-25 mile radius, or more, depending on power, terrain and antenna configuration.

Basic Operating Tips

Always check to see that a channel is not in use before transmitting.

Identify your station (ID) at least every 15 minutes, and at the end of your communication. ID simply by stating your FCC Call Sign clearly, followed by an optional self-assigned "unit number" to identify a family member, for your convenience. (Part 95.1751)



Don't speak directly into the microphone. Doing so will cause your voice to be distorted. Your signal may be louder, but it will be harder to understand.



Instead, speak near the microphone, with the radio or mic at an angle, so that you're speaking across the mic. This will capture the audio well, without distortion.

Optional On The Air Vocabulary

Over	Added at the end of a transmission, to explicitly indicate you are done speaking.
Roger	Indicates that you copied and understood the previous transmission.
Say Again	Used instead of "repeat", usually more clearly understood.
Go Ahead	Used when someone calls you, indicates that you are ready to receive.

While "10 codes" are allowed on GMRS, their use, as well as the use of "Q codes" is generally discouraged by operators in the GMRS community.

Have an Operation Plan

Having a simple "Operation Plan" will help you to practice and prepare, and to operate successfully and with less stress during an emergency. An Operation Plan need not be complex, and may include the following elements:

Become familiar with the equipment	Take time to examine your radios and understand their features, so you can benefit from all they have to offer.
Determine a "home channel"	Select a channel that you will always start on for your family communications. Consider setting a "PL tone" on that channel.
Determine a channel movement plan	If you need to move to another channel, having a predefined movement pattern or channel list will help things go more smoothly. For example, you may start at Channel 2 as a home, then move to 4,6,8, etc (evens) as needed if the home channel is in use; odds next.
Understand your IDing responsibilities	Make sure everyone that uses your radios is familiar with the station identification rules. The license holder is responsible for the proper use of the equipment. Make sure all users memorize the Call Sign.
Assign "unit numbers"	To maintain a level of privacy, assign each member of the family a "unit number" to append to your Call Sign when IDing. These might be as simple as "dash one" ("-1) through "dash five" (-5) in a family of five, assigned from oldest to youngest.
Adopt generic language	To maintain a level of privacy, adopt generic language when on the air. Instead of "home" say "base". Instead of "church building" say "unit building." Avoid using street names and addresses if possible.
Avoid personal information	Avoid transmitting personal information, including names, ages, birth dates, schools, church membership, etc. Remember that anyone can listen to a GMRS communication.

Have an Intentional Interference Plan

Due to the nature of the band and the equipment, intentional interference can be common on GMRS. Knowing how to deal with intentional interference, and creating a plan in advance, can help you continue to benefit from the service in spite of intentional interference.

Never acknowledge	This is rule #1, and is the most important. Usually, people who are creating intentional interference are looking for attention. You should never acknowledge that you are receiving their interference. They will usually move on if they're not getting a reaction.
Continue operating	You may attempt to transmit over the top of the interference. If they are using low-powered consumer radios, your licensed 5w-50w radio will easily be heard. If they realize that your conversation is continuing undisturbed, they may simply move on.

Use a "PL Tone"	Your radio may be equipped with CTCSS, DCS, or other tone capacities. These can help minimize unwanted interruptions.
Change channels	Following your predefined channel movement plan, change to a new channel. Do not mention the new channel on the air, or even mention changing channels, simply move to the new channel and wait for the other party to do the same. If the intentional interference follows, abandon this action, as it may signal to them that you are receiving their interference.
Cease transmission	If all else fails, wrap up your communication normally, and cease transmission. Have a per-determined wait time and channel movement plan in this case (i.e. wait 10 minutes and move up two channels in the plan.)

Have an Exercise Plan

As with physical exercise, practicing your radio skills will make you stronger and more capable. If you ever need to use your radio skills in a difficult situation, exercising beforehand will mean you're not trying to learn on the fly.

Amateur radio operators who participate in emergency communications often exercise their radio skills on at least a weekly basis. That said, an exercise might take as little as 15 minutes. No matter how often you exercise, make sure you're consistent. Skills must be maintained to be valuable.

Below is an example exercise plan; each week/month/etc, choose the items that are needful:

Prep: Equipment (5 min, as needed)	Review the equipment. See if you can learn one new about features or capabilities. Once you've learned all there is to know, use this time to regularly check that your equipment is in good order.
Prep: Operating Review (5 min, as needed)	Quick rundown of any Operation Plan items that may need attention. Make sure everyone in the family knows what they're doing. Review Interference Plans if needful.
Exercise Option 1: In-home Practice (15 min)	With radios on low-power, make up a scenario and practice with the radios on. ID and communicate properly. Keep volumes low to avoid feedback. Practice anything from dealing with interference, to communicating with privacy in mind, to radio-specific language.
Exercise Option 2: Take a Walk (15 min)	When the weather is good, get outside with your HTs. Split into groups, and practice communicating as you walk in different directions.
Exercise Option 3: Range Testing (15 min)	Leave one radio at home (your "base"), and send one out in a vehicle with a driver and a station operator. If you have only a driver, you can park while transmitting. See if you can communicate between your base and various points of interest around you.

Do all that you can to make your exercises fun, and look for opportunities to combine radio exercises with other activities.

Connect With Other Families

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From GMRS to Amateur/Ham Radio

Functionally, a GMRS license provides your family with something similar to what an Amateur/Ham radio Technician license offers, minus the ability to reach and participate with a broader emergency communication audience. Once you become versed with GMRS, you may find that you're more comfortable with the ideal of expanding your capabilities.

Amateur/Ham radio offers additional power, wider bands (akin to having many more channels), more repeaters, digital modes, and an enormous community to work with. Having at least one licensed Amateur/Ham radio operator in your home will greatly increase your communication opportunities.

<TBD Conclusion/Summary>