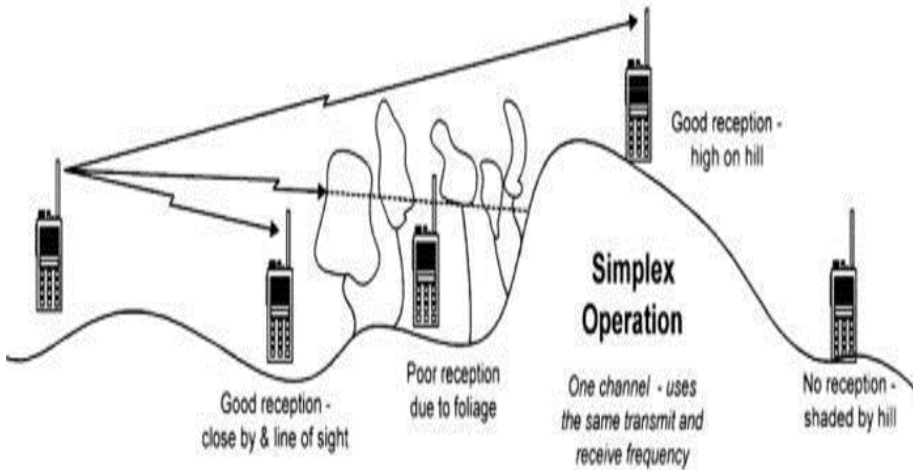
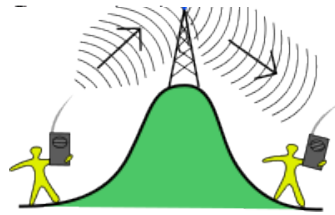


## Radio-to Radio Operation – Simplex vs. Repeater Operation



Radio range will be dependent on a clear line of sight. Range can be improved with the use of hilltop radio repeaters.



## Basics of using a Radio

- Read the manual that comes with the radio!
- Only one person can speak at a time.
- Speak clearly and slowly so you are understood.
- Press the “Push-to-talk” button and wait 1 second to speak.
- Hold the microphone an inch or two away from your mouth.
- Don’t ramble in your message. Be brief.
- You will get better reception outdoors.
- Consider a radio with AA or AAA batteries and store the batteries outside of the radio when not in use.

# Civil Defense Emergency Communications For the County of Waldo, ME



**A Self-Help Disaster Preparedness Program  
Utilizing Radio Communications to Find out  
What’s Happening and How to Contact Others**



Sponsored by  
The Waldo County Emergency Management Agency (EMA)  
685 Swan Lake Avenue, Swanville, ME 04915  
(207) 338-3870  
[ema@waldocountyme.gov](mailto:ema@waldocountyme.gov)  
<https://www.waldocountyme.gov/ema/>

**During a disaster**, normal forms of communication may not be functioning. Both landline and cell telephone and internet services may be out of service. This could be due to wide-area power outages (grid failures) or internet outages (cyberattack). The only form of communication that may still be operational is radio. Please review this document and learn about all your radio options. Feel free to contact the County EMA Office for more information.

### AM 530 Broadcast Radio Station

Atop Aborn Hill in the Town of Knox, ME, Waldo County EMA operates a AM Broadcast radio station located at **530 on the AM** radio dial. Day to day, it operates at 10 watts and won't be heard in most of the County. But during a Disaster event, it will be broadcasting at 300 watts with emergency information for the public. Tune in during a disaster to find out critical information.

### Emergency Alert System (EAS)

The State of Maine may activate the Emergency Alert System which can be heard on most AM and FM broadcast radio stations. It starts off with a very recognizable alert tone and will be followed by a short message. Be sure to have an AM/FM radio w/extra batteries.

### Local FM Radio Station

Your local FM radio station may also be broadcasting news throughout the day. Local Authorities may be providing updates to the radio stations. Be sure to listen in on a regular basis.

### Family Radio Service (FRS)

The Family Radio Service or "FRS" is a Federal Communications Commission (FCC) program. These are inexpensive "walkie-talkies" (\$25) that have 22 channels. There is no license needed and they can communicate around a mile. EMA has designated **Channel 19** as an emergency call channel.



### General Mobile Radio Service (GMRS)

The General Mobile Radio Service (GMRS) is another FCC program. These radios operate on the same 22 channels as FRS but operate at higher power. Generally, they can transmit several miles, and they can also operate through radio repeaters located on hilltops. This can extend the range out to tens of miles. You do need an FCC license, which costs \$35, is good for ten years, and covers your whole family. EMA has designated **Repeater Channel 19T** as an emergency call channel. This may be monitored by the County Emergency Operations Center (EOC) and radio volunteers during disasters. More information can be found at: <https://www.fcc.gov/wireless/bureau-divisions/mobility-division/general-mobile-radio-service-gmrs>

### Amateur Radio Service (HAM Radio)

The ultimate in civilian radio communications is Amateur Radio, also nicknamed "HAM" radio. This is a FCC radio service that requires passing a written proficiency test and costs \$35 for a ten year license. The license is only for the registered individual. HAM radio operators can communicate down the street and around the world, depending on their equipment and level of license. EMA operates a HAM VHF repeater at **147.270+ mHz with PL136.5** as an emergency channel. This is monitored by the County Emergency Operations Center (EOC) and radio volunteers during disasters.

If you are already a HAM radio operator, EMA has two volunteer programs you may be interested in. EMA oversees an emergency radio communications team using RACES and

ARES. (If you do not know what these are – contact EMA!) RACES/ARES HAMs work at the County EOC and deploy with the Mobile Command Post and Radio Comm Van. EMA also utilizes volunteer HAMs as Reservists – operators who work from their home stations or a local fire station.

