

# COMMUNICATION OPTIONS

## There are three main Emergency Communication Options

1. Cell Phone
2. Ham Radio
3. Starlink

### WHAT ARE CELL PHONES

Typical Cell Phones are linked to commercial cellular networks like AT&T, Verizon, etc. They are easy to use and most people are familiar with them. During a severe emergency when power and cell towers are down, the Cell Phone will not work.

In addition, even if cell towers remain active, most cell phones will be disabled so that first responders (fire, police, medical, etc.) have clear communication.

### WHAT IS HAM RADIO

Ham Radio requires that the operator is licensed. This involves knowledge of electronics and general radio communication principles. There are three types of licenses. Technician, General and Extra. The Technician license may take 3 weeks of study while the General and Extra licenses take months of study. It also requires antennas that range from a few feet to 75 feet.

### WHAT IS STARLINK

Starlink is a recent development that uses a special antenna to connect your cell phone to Satellites without using commercial cellular networks. No licenses are required. You can permanently install a Starlink system at your home or use a portable system that can be set up anywhere. Once the Starlink system is active, the operator has full access to the Internet and can make cell phone calls through the Starlink system. If there is a loss of power, the home setup will require some backup power like a generator. The portable system can be used with batteries and relatively inexpensive portable solar panels during a power outage.

## Examples (with costs) of the different types of Communication options.

### CELL PHONES

Apple or Android phones and each company has a variety of models. There is also a Rapid Radio available but it too is only a cell phone and relies on active cell towers and the Internet. Any kind of cell phone will NOT work during a severe emergency. **Costs range from \$50 to \$1000+** with additional monthly fees.

### HAM RADIO

There are hundreds of models to choose from and once you are licensed you will have more knowledge on how to choose the system for you. **Costs range from \$20 to \$2000** and you also need large (20+ foot) antennas to transmit distances beyond a few miles. Ham radio operators generally communicate with other ham radio operators but can in emergency situations connect into telephone systems.

NOTE: Ham Radio is by far the most reliable short or long distance communication during natural or man made disasters.

### STARLINK (Used with standard cell phones connected to the Starlink system)

The standard Starlink setup for the home ([www.starlink.com](http://www.starlink.com)) costs about \$1000 for equipment and professional installation. There is also a \$120 monthly fee. The cost of a portable Starlink system is the Starlink Mini ([www.starlink.com](http://www.starlink.com)) for \$599 and you are charged (\$50/50GB of data) only when you use the system. The Starlink Mini requires normal house currents to operate but units with batteries and solar panels are available during power outages.