#### Repeaters

Repeaters are located at high locations that receive transmissions from your radio and re-transmit them over a wide area. This extends the range of your transmission. Many repeaters are linked together to provide an even wider range of communications. Some important repeaters in the Teller County area are:

Mountain Amateur Radio Club Linked Repeaters

Woodland Park 146.82 MHz (-) and 448.650 MHz (-) Badger Mountain 146.685 MHz (-) Cripple Creek 147.015 MHz(+) Colorado Springs 447.475 MHz (-) CTCSS 107.2 Hz

**Pikes Peak FM Association** Pikes Peak 146.97 MHz (-) and 448.450 MHz (-) CTCSS 100 Hz

**Cheyenne Mtn Radio Group** Badger Mtn 147.360 MHz (+) CTCSS 107.2 Hz

**Rocky Mtn Ham Radio DMR** Badger Mtn 446.7625 MHz (-) DMR CC 7

#### More Information

Amateur Radio Relay League

**Mountain Amateur Radio Club** Join us at the Monthly Club meetings at the Woodland Park Library, every 3rd Wednesday, at 7pm

for test info or club info contact Dean Buckhouse KBØVVA dbuckhouse@centurytel.net 719-649-3044 cell www.nxØg.org

Teller County Office of Emergency Management www.co.teller.co.us/OEM/



Emergency Communications *Getting On The Air with Amateur Radio* 



Prepared by the Teller County Office of Emergency Management and the Mountain Amateur Radio Club

## What is Amateur Radio?

In the United States portions of the radio spectrum are set aside for non-commercial use by licensed amateur radio operators (hams). Amateurs can use this spectrum for experimentation and emergency communications.

# What do I need to do to get on the air?

To get on the air you need:

- A license granted by the Federal Communications Commission upon completion of a written test. There is no charge for the license. Test examiners usually charge a small fee for testing.
- A radio. Radios are available from, a wide variety of sources and range in cost from less than \$50 on up.



# **Getting Licensed**

Three levels of licenses are available:

**Technician**—Requires an understanding of basic operating procedures and the FCC regulations. Grants privileges to a limited portion of the radio spectrum. This is usually sufficient for most personal emergency communications over short ranges.

**General**—Requires a more comprehensive understanding of radio propagation and technology. Grants privileges to almost the entire radio spectrum which enables communications that can span the globe.

Amateur Extra Class—Requires extensive understanding of radio technology. Grants privileges to the entire radio spectrum allocated to amateur radio operators.

### Testing

Tests are administered on the first Saturday of odd-numbered months by the Mountain Amateur Radio Club Volunteer Examiners at the Woodland Park Library.

# **Test Preparation**

There are many resources available to help prepare for the tests:

- Online. The ARRL has a list of resources at http://www.arrl.org/ getting-licensed
- Test preparation classes are offered by some local amateur radio clubs and online
- Mentors. Hams are always eager to help new operators. Contact the Mountain Amateur Radio Club for a list of mentors.

## Equipment

The most useful bands for new hams are the 2M (144 MHz) and 70cm (440 MHz) bands. It is important to have battery power capabilities for the radios you will use in an emergency. Portable or handheld radios are all battery powered. The more powerful mobile radios connect to an vehicle power system or an external power supply. Handheld radios have their own antenna while mobile radios require a separate antenna. Amateur radio equipment is available from a variety of online retailers and local stores.