

Radio Exercise 200-1: City-Wide FRS-GMRS Radio Net



OBJECTIVES:

At the completion of this training exercise, participants should:

- Be familiar with operating their FRS and/or GMRS radio
- Gain experience checking into a radio net or serving as a net control operator
- Understand local radio propagation impacts and allow users to attempt secondary communication paths

EQUIPMENT NEEDED:

Participants must have a Family Radio Service (FRS) or General Mobile Radio Service (GMRS) radio available during this exercise and the ability to change channels. Having a second radio available or the use of dual watch monitoring will allow the user to monitor two channels at the same time.

PREREQUISITE:

100-1 and 100-2 is preferred but not required.

REFERENCE MATERIAL:

- FRS-GMRS Map&Channel-Freq-Tone Chart V1-3
- FRS MotorolaT600 Channel Plan V1-3
- GMRS HT Frequency Chart V1-3

The referenced items are available on the Lake Oswego Fire Department website at:

<https://www.ci.oswego.or.us/fire/emergency-communications>



BACKGROUND:

A weekly radio check-in net is conducted weekly on Monday nights for General Mobile Radio Service (GMRS) radio users at roughly 7:00 PM using the Lake Oswego GMRS repeater (462.600 MHz having a +5 MHz offset and a tone of 123.0 Hz), referred to as LAK17R. Family Radio Service (FRS) operators are not able to transmit and communicate with GMRS operators on the repeater but can listen to radio traffic.

The fact that FRS users can listen to transmissions on the repeater provides another avenue for emergency management personnel to share information during an emergency. To listen to LAK17R repeater traffic, set your FRS radio to Channel 17 with a tone of 0 (i.e. off) or a tone of 18 (123.0 Hz). FRS radio users may be able to communicate with GMRS radio operators using Channel 17 in simplex mode; but it will not be over the repeater.

On the last Monday of each month the city-wide check-in net will be expanded to allow FRS radio users an opportunity to also check-in by using the assigned channel for their neighborhood.

INSTRUCTIONS:

The following is a general guideline for participating in these exercises.

- 1) At approximately 6:55 PM, turn on your FRS radio and set the channel to Channel 17 with either a tone of 0 or 18.
- 2) Listen to the GMRS check-in net which usually lasts 10-15 minutes
- 3) When the net control station gets all GMRS users checked in, further instructions will be provided for users in the Lake Oswego vicinity to switch to their neighborhood primary simplex channel (refer to the city-wide channel map or list of neighborhoods with corresponding channel).
- 4) After changing your FRS radio to your neighborhood primary radio channel and tone, listen to see if anyone is establishing a 'neighborhood net control station.'

- 5) If no one else has started a neighborhood net, go ahead and initiate one by identifying yourself as the '[neighborhood] Net Control.' Please refer to the tactical call signs that have been developed for each neighborhood net referenced in the channel plan or frequency chart above.
- 6) The neighborhood net control station will call for check-ins.
 - a. Anyone hearing the net control station should answer and check in by providing their first name.
 - b. Net control will write down the names of everyone who responds.
 - c. If you hear someone the net control station cannot hear, say "relay" and wait to be called upon by net control. Then provide the name of the person trying to check in to net control.
 - d. Net control should repeat the request for check ins every so often for a period of roughly 8 to 10 minutes.
 - e. Net control may even call upon those who have been checked in to make a request for anyone else who may want to check in case there are some radio operators beyond the range of the net control station but close enough to someone in the middle.
- 7) If you can't hear or contact the neighborhood net control station:
 - a. Attempt from a closer or higher location or move away from obstructions
 - b. Ask for assistance on the same channel for someone to relay
- 8) After roughly 8 to 10 minutes the neighborhood net control station will switch their radio to the radio channel for their respective division (NE, NW, SE or SW). This is also included in the map of neighborhoods channels or the table list.
- 9) The neighborhood net control stations will again listen to see if someone has established a "divisional" net control station. Whenever possible, this should generally be someone with a GMRS license and more powerful radio/antenna system.
 - a. The divisional nets should be established and operate for at least 10 minutes or so after the neighborhood nets in order to allow FRS radio users to move around to find an appropriate transmission location.
- 10) Similar to the neighborhood net, the divisional net control operator will call from check-ins from the neighborhoods within that division.
- 11) If you cannot contact or hear the division net control station, you may need to:
 - a. Attempt from a closer or higher location or move away from obstructions
 - b. Ask for assistance on the same channel for someone to relay
- 12) If you do contact the division net control station, you'll provide a list of names of radio users in your neighborhood that checked into your net.
- 13) The divisional net control will continue to call for check-ins from neighborhoods to allow time for FRS Stations to move around to more effective locations if necessary.
- 14) Upon completion of the divisional net, the divisional net control station will return to the city-wide GMRS repeater channel (LAK 17R) and provide a report of check ins. FRS radio users may also switch their radios to Channel 17 with a tone of 0 or 18 (123.0 Hz) to listen to the conclusion of the nets, a summary of check ins and any other pertinent information.
- 15) The city-wide GMRS check-in net will be closed once all divisions report their results.