

Neighborhood Radio Communications Response Guide



August 13, 2020

Submitted by

Andy Davis Eugene/Springfield CERT Steering Committee Chair

Approved by

Eugene-Springfield Area CERT Advisory Board

Kevin Holman, Emergency Manager, City of Eugene

Ken Vogeney, Emergency Manager, City of Springfield

Geoff Simmons, CERT Senior Advisor

Acknowledgement

The Eugene/Springfield CERT Program would like to thank the City of Richmond California for the sharing of their 'CERT Neighborhood Radio Communications Response Guide'. It is from this guide that the Eugene/Springfield CERT Program adapted the 'Neighborhood Radio Communications Guide'. We also want to thank Diane Richwine who was Richmond's project leader for their 'CERT Neighborhood Communications Guide, Edith Alderette-Sellers, Jeff Jones, Rebecca Newburn and David Swanson who are all dedicated Richmond volunteers.

Most of all, we want to give a BIG Thank You to Genevieve Pastor-Cohen who serves as Richmond's emergency Services Manager. It was her direct efforts and support that this endeavor was able to come to pass by connecting us with the Richmond's project Leader and volunteers that made the Eugene/Springfield CERT Program 'Neighborhood Radio Communications Guide' become a reality.

Index

Pre-disaster–Preparations Guide

Personal Radio Response Go-Kit	5
Prepare the ICP for Radio Communications	5
Learn About Two-Way Radios	7
Eugene’s Recommended Radio Communications Process	8
Communication Network Flowchart	9
Team Mobilization at Incident Command Post	11
Responsibilities of Communications Team	12
Documentation Requirements	14
Maintaining Your Skills	15

Field Guide–Communications Response

Radio Team Leader’s Checklist	18
Radio Communications Team Field Guide	21
Field Guide for Runners	23
Communication Tips for All Teams	25
Radio Code Words	27
Clear Text Examples	28
Phonetic Alphabet	29

Appendix

Glossary	30
Locations of Radio Stations	31
City Maps	32
CERT Forms	33
Emergency Radio Nets	34

INTRODUCTION

CERT Neighborhood Communications Response

A 8.2 earthquake has happened in the Eugene Area. You and your neighborhood need help but there is no electricity, cell phones, nor landlines.

Your hand-held, two-way radio may be the best option you have to communicate with the outside and get the help you need. As a trained citizen radio operator you can play a role in gathering and transmitting damage and injury reports that will be relayed to the Eugene Emergency Operations Center (EOC). After a major event, we expect services to be interrupted. The City of Eugene does not have a system of gathering field reports from neighborhoods other than windshield surveys by fire and police department personnel, during which they will drive around and assess damage before starting to respond.

Neighborhood 'Map Your Neighborhood' teams or field teams will need to take the lead. This document provides you with a process for using hand-held radios to communicate with your local neighborhood field teams, your neighborhood Incident Command Post (ICP), your District Incident Command Post, the city's EOC or with other neighborhoods and their Incident Command Posts. By learning basic two-way radio operation skills and processes and staying in practice, you are better prepared to help yourself and your neighborhood.

How to Use this Guide

This guide was written for Eugene citizens. It is divided into two parts.

1. **Pre-disaster Preparations Guide:** The Preparations Guide provides steps to take to prepare yourself, your neighborhood, and your neighborhood Incident Command Post—for communications response—in advance. Begin taking these steps and making these preparations now or as soon as you can.
2. **Field Guide:** The Field Guide provides a checklist for quick action when you're in the field after a disaster. Become familiar with these actions, rehearse them in your mind, and keep printed copies with your emergency supplies. Copies of the Field Guide should be kept by the Radio Operator at each neighborhood Incident Command Post (ICP).

Also refer to the Appendix for useful resources.

Pre-disaster Preparations Guide

This section covers guidelines for preparing yourself and your neighborhood in advance of a disaster. You will be better able to respond if you take the time now to gather radios, equipment and materials, understand processes and team responsibilities, participate in training, and start practicing.

Personal Radio Response Go-Kit

Prepare yourself now by collecting these items in your personal Radio Response Go-Kit.

- Radio (write your name, cell phone #, & Ham call sign, if applicable on radio; if you have additional radios that you intend to loan, write identification codes to track them)
- Extra batteries
- Notepad
- Pencils or pens
- Manufacturer's radio manual
- Clear plastic bag and rubber band (if your radio is not waterproof, cover radio with plastic bag, then wrap rubber band around your wrist when holding radio upright to secure)
- Flashlight (preferably headlamp) and extra batteries in protective bag
- Copy of the Radio Communications Team [Field Guide](#)
- Copy of [Phonetic Alphabet](#)
- ICS Forms such as [General Message \(ICS 213\)](#), [Communications Log \(ICS 309\)](#), [Unit Activity Log \(ICS 214\)](#), and the [Damage Assessment Form](#)

Prepare the ICP for Radio Communications

The neighborhood and District Incident Command Post (ICP) is a location where neighbors agree to assemble after a disaster. The location should be determined ahead of time. Choose a place that is visible from the road and has shelter.

After a major disaster neighborhood field teams members will self-activate by reporting to their neighborhood ICP location. Report to the Incident Command Leader for assignment and to the Radio Team Leader for a radio (if you don't have one) and base channel to use. Field Teams will begin damage assessment while maintaining communications with their neighborhood ICP via FRS radios. The neighborhood ICP Leader will begin to report in to the District ICP Leader on the designated district UHF frequency. The District ICP Leader in turn will pass on the district reports to the City EOC via a designated VHF frequency.

Staffing the Incident Command Post (ICP)

Ideally, two, preferably three individuals are needed to staff the neighborhood ICP.

1. Incident Command Leader
2. Radio Operator (who is the Radio Communications Team Leader)
3. Scribe

Recommended Equipment at ICP for Communications

Ham Radio with antenna (roof antenna preferred)

- Batteries and/or power supply
- Radio owner's instruction manual

FRS radios (at least two) to remain at the ICP and more to loan out to teams

- Extra batteries and/or power supply
- Radio owner's instruction manual
- List of channel numbers and programmed frequencies established by your neighborhood Communications Team

Other equipment

- Headsets, microphones, other accessories
- Solar panels for charging batteries
- Lighting, headlamps with batteries
- Antennas and cables

Recommended Materials at ICP

- Notepads, pencils, highlighters, pens, message pads (duplicate)
- Clock
- Whiteboard with markers and/or cork board with tacks
- Volunteer Sign-In/Sign-Out Sheets
- A stack of Radio Communications Team Field Guides
- Field Guides for Runners
- Expandable file or portable file box for forms
- Binders to sort papers
- Clipboards
- Lots of forms—punch holes in forms before the disaster

Forms

Reminder Sign	SIGN IN/SIGN OUT sheet (Reminder Sign)
ICS Form 211	Volunteer Sign In / Sign Out
ICS Form 213-R	General Message Form for Runners
ICS Form 213	General Message Form
ICS Form 214	Unit Activity Log
ICS Form 303	Equipment and Radio Check-Out
ICS Form 309	Communications Log
ICS Form 204-R	RUNNER Assignment Tracking Form

Learn About Two-Way Radios

This section describes four types of radios and the pros and cons of each.

NOTE on FRS and GMRS Radios: The Federal Communications Commission (FCC) changed the rules in 2017. FRS/GMRS combination radios that many neighborhoods already have will no longer be manufactured or sold as of September 2019. They are being reclassified as FRS radios. The combination radios may continue to be used.

FRS Radios

- No license is required to operate an FRS (Family Radio Service) radio.
- FRS radios are now allowed to transmit up to 2W of power (on channels 1-7 and 15-22) and will now have 22 channels.
- If you plan to communicate in your local neighborhood, e.g., your own block, or within a radius of several blocks, an FRS hand-held radio should accommodate your needs.
- FRS radio operators do not have call signs, but should be assigned tactical call signs (ex. Search and Rescue 2, Medical 1) by the Incident Commander or Radio Team Leader at their local neighborhood Incident Command Post.

GMRS Radios

- A license from the FCC is required to operate GMRS (General Mobile Radio Service).
- Any radio above 2W of power is now classified as GMRS radio.
- If you plan to communicate both in and beyond your neighborhood, GMRS shares the same 22 frequencies with FRS radio users, but GMRS can operate at higher power levels except for channels 8-14 where both radios are limited to 0.5 watts.
- GMRS will have 30 total channels: 22 FRS/GMRS channels plus 8 repeater channels.
- Note that with higher power on channels 1-7 and 15-22, GMRS radios will overpower FRS radios being used on the same channel in the same vicinity. So, it is recommended that teams go to low 0.5 wattage when different radio types are used, especially in a close situation, such as search and rescue operations.
- GMRS radio operators must use their FCC-issued radio call signs when communicating.
- GMRS licensing is now good for 10 years and costs \$35. This covers you and your immediate family. Renewal is required after 10 years at no cost.
- In order to use GMRS as method of communication, Neighborhood Incident Command Posts must ensure that GMRS users possess a valid GMRS license.
- Ham (amateur) radio is the preferred method of communication between Neighborhood Incident Command Posts and the Eugene Emergency Operation Center (EOC).

Ham Radios

- A license from the FCC is required to operate a Ham radio. Additionally, Ham operators must pass an exam before they can use their Ham radio.
- There are three different classes of Ham licenses. Depending upon an operator's license, the power limit for Ham radio is between 200 Watts and 1500 Watts.
- If you plan to communicate outside of your neighborhood, Ham radios are the best method. They are used to establish radio communication throughout the nation and in all major cities for emergency communications.
- Ham radios have the greatest capacity for communications – many frequencies are available and they transmit over longer distances than FRS or GMRS radios.
- Ham radio operators use their FCC-issued radio call signs when communicating.
- All cities have dedicated Ham radio frequencies for emergency use.
- The dedicated emergency frequency in Eugene is **147.46 Simplex**.
- Ham is the recommended radio for communicating with the City of Eugene's EOC.

Frequencies/Channels Available for FRS and GMRS

Channels 1-22 can be used by both FRS and GMRS radios at these maximum power settings:

Channels	FRS	GMRS
1-7	2 Watts (Medium Power)	5 Watts
8-14	0.5 Watts (Low Power)	0.5 Watts
15-22	2 Watts (Medium Power)	50 Watts
23-30 (Repeater channels)	n/a	50 Watts if a GMRS Repeater is available

Emergency Frequency for Ham Radios

The Ham radio station at the District ICP should have the City of Eugene's EOC frequency programmed before an emergency. The City of Eugene's EOC frequency is:

147.46 megahertz (MHz) Simplex.

Simplex frequencies are recommended because repeaters may be non-functional after an earthquake. Simplex is radio-to-radio communication without the use of a repeater.

147.46 MHz	Simplex	City of Eugene EOC
------------	---------	--------------------

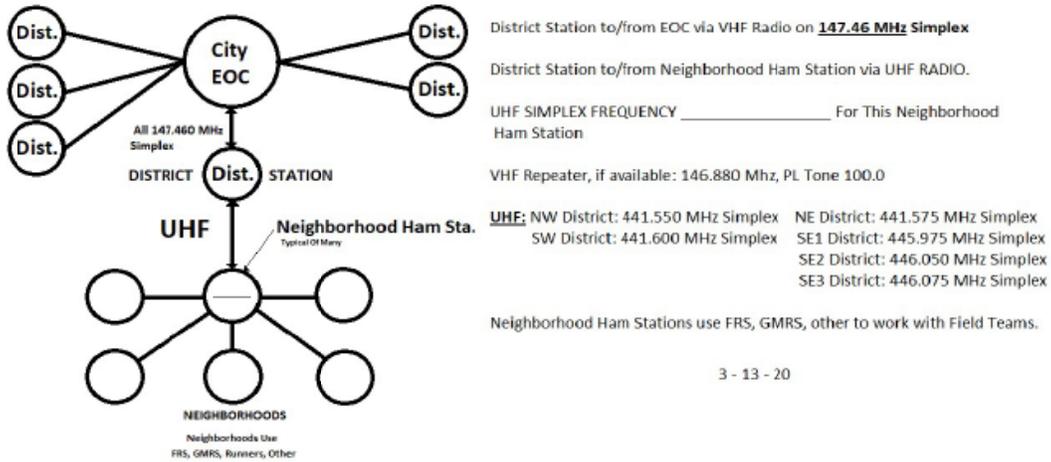
Eugene's Recommended Radio Communication Process

FRS (at 2 Watts) radios are recommended for communicating locally between field teams and the Neighborhood ICP and within field teams. Ham is preferred for communicating between Neighborhood and District ICP and with the Eugene EOC.

Radio	For	Channels and Watts
FRS	INTRA-neighborhood communications <ul style="list-style-type: none"> • Between neighborhood field teams • Between neighborhood field teams and their neighborhood Incident Command Post (ICP) 	1-7 at 2 Watts 8-14 at 0.5 Watts 15-22 at 2 Watts
HAM	Neighborhood HAM's to Neighborhood ICP and District ICP NW District NE District SW District SE1 District SE2 District SE3 District District Incident Command Posts to Eugene EOC	441.550 MHz Simplex 441.575 MHz Simplex 441.600 MHz Simplex 445.975 MHz Simplex 446.050 MHz Simplex 446.075 MHz Simplex 147.46 MHz Simplex

Communication Network Flowchart

Eugene Emergency Communication Operation Plan District Amateur Radio (Ham) Station



3 - 13 - 20

Use the lowest wattage possible to:

1. save batteries
2. minimize interference
3. prevent disruption of other radio operators.

Minimizing interference is important because:

1. You have a limited number of channels.
2. This reduces the need to retransmit message.

Team Mobilization at the Incident Command Post

Understand Your Key Communications Role—Reporting Damage and Injuries

Before you leave your house, make sure you, your house, and your family are safe. Put on the boots or sturdy shoes you keep at the side of your bed. Take care of yourself, check on your family, and your home. Smell for gas and look for water leaks.

Get a notepad and pencil and grab your two-way radio (with extra batteries that you have available in your Radio Response Go-Kit) and head outside to the neighborhood Incident Command Post (ICP).

As you walk towards the ICP, survey the damage you see along the way.

The Damage Assessment Team is usually the first team mobilized at the ICP. The job of the Damage Assessment Team is to walk around the neighborhood and report back to the Neighborhood ICP on any damage. Always work in teams. As you walk the street with your partner or team, survey the damage, takes notes, and report back. Here is an example of how you can use your radio to report to the ICP.

Talking on the Radio to Report Damage and Injuries

When you are transmitting, give four pieces of information:

1. Who you are calling
2. Who you are (use your tactical call sign if you have one – this is a shorthand designation for your team’s function, such as SAR1 for Search and Rescue Team 1)
3. Where you are
4. What you want and need

Then pause and wait for a reply.

For example: **“Northeast IC, this is _____ at the corner of Coburg Rd. and Crescent Ave. Downed power line. Resource request: Need 1 roll caution tape. OVER.”**

Listen carefully for the response and make a note.

If you just want to contact the Incident Command Post, say:

“Northeast IC, this is _____. OVER.” Wait and listen for a reply.

If no reply, repeat transmission 2 more times. If still no reply, call another field team and ask them to relay your message.

For example: **“Could anyone relay for me?”** If yes, you could say: **“This is Damage Assessment 1. Need caution tape at Coburg Rd and Crescent Ave. Can you relay to Northeast Incident Command Post?”**

If no contact, send a runner to deliver your message.

Responsibilities of the Communications Team at the ICP

ICP Radio Team Leader

- Be familiar with Incident Command System (ICS) forms and keep records.
- Be familiar with Ham radio frequencies and communicate with the Eugene EOC (Emergency Operations Center).
- Understand the limitations and uses of Ham and FRS radios.
- Monitor AM and FM radio broadcasts for emergency instructions or evacuation orders.
- Keep spare radio batteries for both field radios and AM/FM radios.
- Set up all radios and ensure they are in working order.
- Determine what channels are open and assign channel(s) for Neighborhood Field Team-to-Neighborhood Incident Command Post communication.
- Inform all radio users of designated channel(s) for Field Team-to-Incident Command Post communication, and update Field Teams of any channel changes that occur during deployment.
 - NOTE: Members of the same Field Team will often need to communicate with each other by radio. In this case they need two radios: one radio set to the Field Team channel and one radio set to the Neighborhood ICP Radio Team Leader channel. The Radio Team Leader will also need extra radios to monitor all Field Team channels.
- Keep channels clear of anything but necessary communication.
- Communicate by FRS radio between the Neighborhood Incident Command Post and the Field Teams and by Ham radio between the Neighborhood Incident Command Post and the City of Eugene EOC.
 - NOTE: If a Field Team is unable to contact the Neighborhood Incident Command Post Radio Team Leader directly, he/she may be able to relay the message to another Field Team that does have contact.

Optional 2nd Radio Operator

If a secondary radio operator is available, he or she can:

- Relieve Radio Team Leader as needed
- Deliver messages to and from the Incident Commander Leader
- Monitor AM/FM radio or television broadcasts
- Supply and re-install spare batteries for radios

Scribe Responsibilities

Often the Radio Operator serves as scribe; but, ideally, a person is available at the Incident Command Post to assist the Radio Operator in writing down incoming messages from FRS and ham radios. Responsibilities are:

- ❑ Assist the Radio Operator in writing down messages. Using duplicate phone message pads is helpful when you need to give a message to the Incident Command Leader and retain a carbon copy.
- ❑ **Record messages as they have been received. Do not alter a message from its initial content.**
- ❑ Also use the Communications Log (ICS 309) to log all messages sent and received.
- ❑ Emergency messages need to be transmitted immediately to the City of Eugene EOC.
- ❑ Messages to the EOC should be written on the ICS 213 General Message form. Be sure to log the status of these messages on the Communications Log (ICS 309) and keep checking for responses.
- ❑ Use General Message Form (ICS 213) for any messages that need to be hand-delivered by runner to the EOC or to another neighborhood Incident Command Post.

Note on General Message Form (ICS 213): Formal written traffic is not simply taking notes and handing them off. Accurate written messages are necessary when recipients are not immediately present to hear, receive, and respond to the message, or when the message is to be further relayed to another station or location, such as the EOC. To be useful written traffic must have certain necessary elements/fields. The essential fields are the “To” and “From” fields, including functional titles/positions, and time and date.

- ❑ Assist the Incident Command Leader by documenting each team's Tactical Call Sign and ensuring the Radio Team Leader has a copy.
- ❑ Assist the Radio Team Leader in documenting the identifying numbers on radios that have been loaned out, including the date and time of their return.
- ❑ Work with the Incident Command Leader to forward all documentation to the EOC at the conclusion of the incident.

Field Team Runners

If all radio and telephone communications fail, the only reliable option may be employing runners from the Field Teams to hand-carry written messages between the District Incident Command Posts and the City EOC. If runners are used, the General Message Form (ICS 213) should be used to communicate these messages.

Runners may travel on foot, bicycle, or vehicle if roads are open. If on foot or bicycle, two (2) people should travel together. The ICP can use the [Runner Assignment Tracking Log \(ICS 204-R\)](#) to document the names of runners, location dispatched to, and times they were dispatched, and the time returned to the Incident Command Post.

Runner responsibilities are to:

- Work in pairs when traveling by foot or bicycle.
- Use the General Message Form (ICS 213), City Map, and information from ICP Radio Team Leader to determine the best and safest route.
- Define your route to the Incident Command Post prior to departure.
- Alert the Incident Command Post Radio Team Leader to your departure time and ensure that the information is logged prior to departure.
- Ensure that each message sent has a sender and recipient on the message.
- Review each message before leaving the Incident Command Post for clarity so that you may answer any questions the recipient may have.
- Check in with Incident Command Post Radio Team Leader immediately upon return and ensure return has been properly logged on the [Runner Assignment Tracking Log \(ICS 204-R\)](#)

Documentation Requirements

At the conclusion of the incident all completed original forms must be given to the Documentation Unit. The Documentation Unit works under the Planning section at the Incident Command Post. It is their responsibility to collect, record, and safeguard all documents relevant to the incident. This will include messages, Volunteer Sign-In / Sign-Out sheets, Unit Activity Logs (ICS 214), and other incident documents.

Documentation is required in order for the City of Eugene to get reimbursement of eligible costs from FEMA and the State of Oregon. The neighborhood Incident Command Leader forwards all documentation to the City of Eugene EOC.

During the incident, use of original ICS forms is encouraged. If these forms are not available, all necessary information should be recorded on any available paper.

All messages need to include the date, time, and the person who sent the message. Messages should not be altered from their initial content.

Neighborhood Team Leaders are expected to be familiar with ICS communication forms. Practice using these forms during communication drills and store copies at your ICP.

Field Teams use:

- General Message Form (ICS 213)
- Unit Activity Log (ICS 214)–**Each team will have their own Unit Activity Log daily.**

Radio Team Leaders use:

- [Radio Communications Plan \(ICS 205\)](#)
- [Communications Log of Messages \(ICS 309\)](#)
- [Unit Activity Log \(ICS 214\)](#)–**Create a new log daily for each team.**
- [Equipment and Radio Check-Out Sheet \(ICS 303\)](#)–to record loaned radios and other equipment

Maintaining Your Skills

How can you maintain a state of readiness so that you are able to function effectively after the stress of a disaster? Training and practice are necessary.

Take advantage of the training and practice drills in your communities. Check <https://eugenecert.com/>.

- com/.
- Participate in regular Ham and FRS radio emergency nets. An “emergency net” is readiness practice, a scheduled session on ham/amateur or FRS radio. A typical net session begins with the “Net Control” (NC) station reading an opening script that establishes the purpose of the net. Individual members check in at the direction of the NC station operator.
- Practice using your radios with your family and your neighbors. Start a neighborhood radio net and call each other regularly.

Radio Nets can be used to:

- Standardize radio equipment within and between neighborhoods
- Practice following a structured radio net control protocol
- Conduct regular practice/drills between neighborhoods
- Designate primary and secondary channels
- Map best locations and dead zones
- Create street maps with addresses
- Identify radio relay points

Make sure you are able to:

- Turn your radios on and off
- Follow the instructions in the owner’s manual for your radio
- Recognize the function of the radio display icons and buttons
- Select and change channels
- Use the push-to-talk button without cutting off your words
- Speak into the microphone without “spitting” consonants
- Hold the radio properly with the antenna upright
- Raise and lower the volume
- Change the batteries in your radio
- Use the protocol recommended in this guide

Review the next section of this guide and make multiple copies of each Field Guide for your neighborhood teams (Radio Team Leader, Field Teams, Scribes and Runners) so you are ready to respond after a disaster.

Neighborhood Emergency Radio Communications



Field Guide

8/13/2020

Neighborhood Communications—ONE Copy for Each DAY

Radio Team Leader's Checklist

Radio Team Leader will follow this protocol every day.

Have a copy for every day.

Time Done	Action	Date _____
	<p>Set up</p> <p>Initiate the Unit Activity Log (ICS 214) form Radio Team Leader: _____ Scribe: _____ Get briefed by Incident Commander (IC). Set your ham radio to the Eugene emergency channel 147.46 megahertz (MHz) Simplex. Set up communication whiteboard (or whatever you can find). Sketch an Incident Command Post Organization Chart. Put out SIGN IN/SIGN OUT Sheet reminder. Incident Commander will put out Volunteer Sign IN/Sign Out sheet. (ICS 211)</p>	
	<p>Collect Material & Determine Channels</p> <p>Radio Team Leader Use Radio Communications Plan (ICS 205) to assign the channel that Field Teams will use and an alternate channel for communicating. Determine what radios and types of radios are available for use. Use Assignment Tracking Log (ICS 204) to assign Tactical Call Signs. Record loaned radios on Equipment and Radio Check-Out sheet (ICS 303). Put a piece of tape with an identification number and owner's name on loaner radios before distributing. Materials Needed at ICP: Communications Log (ICS 309) (log ALL messages here) General Message Forms (ICS 213) (lots for running messages when radios don't work or not enough radios) Unit Activity Logs (ICS 214) (1/day), Assignment Tracking Log (ICS 204) filled in by Incident Commander; include Tactical Call signs, Radio Communications Plan (ICS 205) (1/day), Volunteer Sign In-Out List (ICS 211) (1/day),</p> <ul style="list-style-type: none"> ● Radio Communications Team Field Guide (provide 1 per team) ● Radios with extra batteries ● Citywide and neighborhood maps ● Pens, pencils, notepaper ● Whiteboard, whiteboard markers ● Lighting (headlamps and batteries) ● File folder with forms and portable file box ● Recommended spiral bound phone message book (duplicate) for the initial part of the incident to record messages. 	

	<h2>Assign Radios</h2> <p>Ensure each field team has a radio. Assign Tactical Calls Signs to all teams. Radio Team Leader make sure you ALWAYS have a team with a minimum of TWO people. Use the Radio Communications Plan (ICS 205). Fill in Volunteer Sign In-Out List (ICS 211) Form. Assignments are given by the Incident Commander (IC). Record information on Tactical Call Signs, team members' names, and assignment location. Also record on the whiteboard or paper.</p> <p>Ex. "Search and Rescue 2—even numbered houses on block."</p> <p>Have Field Team Leaders check radios before sending people on assignment.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Turn on radio. <input type="checkbox"/> Check the battery power. <input type="checkbox"/> Set the radio to the assigned channel. <input type="checkbox"/> Have all teams do a radio check with you before going out. <input type="checkbox"/> Bring extra batteries. <input type="checkbox"/> Give a Radio Communications Team Field Guide to each team. <input type="checkbox"/> Give multiple General Messaging Forms (ICS 213).
	<h2>Record Messages</h2> <p>Record emergency messages on the General Message Form (ICS 213) and transmit immediately to the EOC.</p> <p>Record all incoming messages on Communications Log (ICS 309) from Field Teams. Deliver messages to the Incident Commander on duplicate phone message pads. Receive messages back from Incident Commander and relay information and actions to field teams.</p> <p>RECORD! RECORD! RECORD! Include the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Date <input type="checkbox"/> Time in 24 hour time. (Ex. 6:30 AM record as 06:30.) <input type="checkbox"/> To & From and Position/Title <input type="checkbox"/> Message <input type="checkbox"/> Use ABCs—<u>A</u>ccurate, <u>B</u>rief, & <u>C</u>lear <input type="checkbox"/> Collect all General Message Forms (ICS 213) and Communication Logs (ICS 309) at end of assignment and give to Incident Commander.
	<h2>Things to Consider</h2> <ul style="list-style-type: none"> <input type="checkbox"/> Make sure you check in with radio field teams every 30 minutes (minimum) and record status. If you don't hear from them, <ol style="list-style-type: none"> 1) Contact other teams to see if another team can communicate with them. 2) If NO, send TWO runners with a radio to check on missing team. <input type="checkbox"/> Ask for relief if you are getting tired and not thinking clearly. <input type="checkbox"/> Take care of your team. If people are tired or overloaded, tell them to take breaks or replace them. <input type="checkbox"/> Always brief your replacement.

	<ul style="list-style-type: none"> ❑ Monitor broadcast stations for emergency information. ❑ Make sure you account for all team members and this is done by making sure people Volunteer Sign In / Sign Out (ICS 211) as they come and go and also finish their assignment for the day. This is a major safety concern! ❑ Collect all radios. Record on Equipment and Radio Check-Out Sheet (ICS 303). 			
	<p>Communicate with EOC</p> <p>Use the City of Eugene’s Ham radio frequency 147.46 megahertz (MHz) Simplex to communicate from the District ICP to the City of Eugene’s EOC. Use General Message Form (ICS 213) to deliver emergency messages.</p> <table border="1" data-bbox="472 709 1419 747" style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding: 2px;">147.46 MHz</td> <td style="padding: 2px;">Simplex</td> <td style="padding: 2px;">City of Eugene EOC</td> </tr> </table>	147.46 MHz	Simplex	City of Eugene EOC
147.46 MHz	Simplex	City of Eugene EOC		
	<p>Communicate with Other Neighborhoods (INTER-neighborhood) and the EOC</p> <p>If you need to reach the Eugene EOC and are unable to, you may be able to reach a Ham in a nearby neighborhood and ask them to relay your message to the EOC.</p> <p>Additionally, other neighborhoods may have resources available that they can share for mutual aid.</p> <p>Check in with adjacent neighborhood for status on hazards and road conditions.</p>			

Neighborhood Communications—Give ONE copy to each TEAM

Radio Communications Team Field Guide

Radio Check

- Turn on radio.
- Check the battery power.
- Set the radio to the assigned channel.
- Get Tactical Call Sign, ex. Medical Team 1.
- Call Radio Team Leader for radio check.
- Make sure you have extra batteries.
- Take a copy of the [Damage Assessment Form](#) for your team to use
- Take multiple copies of [General Messaging Forms \(ICS 213\)](#). Use these when unable to communicate by radio.

Radio Troubleshooting

IF	THEN
Nothing appears in the LCD display after you turn the radio on (ON/VOL)	Check the batteries. The batteries may be installed incorrectly or dead.
The radio dies or drops in volume	The batteries may be low. Replace batteries.
LCD is lit but you cannot hear anyone	Turn the volume up or relocate to another position in an area away from tall buildings, metal fences, and vehicles. Check to see you are on the assigned channel. You must be on the same channel as the person with whom you are trying to communicate.
You relocated and are on the correct channel, but still cannot hear	Try turning your radio to the highest power setting. Call another station and ask for a relay.
No one can hear you	Make sure VOX is not turned on. Make sure your microphone is not covered.
You cannot change channels or make adjustments	Check to see that the radio is not in the Lock position. If it is, press the Lock button to unlock.

Safety Tips

- Always work with a partner.
- Always bring at least one radio.
- Wear protective gear and weather-appropriate clothing.
- Check in every 15 minutes with Radio Team Leader. If you can't reach Radio Team Leader at the Incident Command Post, see if you can relay through another team to update them on your status.
- Check for and note hazards on your route.
- Do NOT become a victim!
- Return to Incident Command Post and check in with Radio Team Leader when finished with your assignment. Remember to **SIGN OUT**.

On Assignment

Materials: Paper, pencil, [Damage Assessment Form](#), [General Message Forms \(ICS 213\)](#), [Unit Activity Log \(ICS 214\)](#), two radios, extra batteries, personal protective gear, any additional resources for your assignment

1. Check out the radio from the Radio Team Leader on [Equipment & Radio Check-Out Sheet \(ICS 303\)](#) unless you are using your personal radio. Make sure it works before leaving on your assignment and you are on the correct channel.
2. Get your team assignment. Remember your Tactical Call Sign.
3. Decide who will be the team's radio operator.
4. Check in with the Radio Team Leader at the ICP every 15-30 minutes.
5. When you return from the field, report to the Radio Team Leader. Turn off the radio and return all borrowed equipment and paperwork to the Radio Team Leader.
6. At the end of your duties remember to **SIGN OUT** on [Volunteer Sign In / Sign Out](#).

Neighborhood Communications—Give ONE copy to each TEAM

Runners' Field Guide

Radio Check

- Turn on radio.
- Check the battery power.
- Set the radio to the assigned channel.
- Get Tactical Call Sign, ex. Runner 1.
- Call Radio Team Leader for radio check.
- Bring extra batteries.
- Bring multiple copies of [General Messaging Forms \(ICS 213\)](#). Use these when unable to communicate by radio.

Radio Troubleshooting

IF	THEN
Nothing appears in the LCD display after you turn the radio on (ON/VOL)	Check the batteries. The batteries may be installed incorrectly or dead.
The radio dies or drops in volume	The batteries may be low. Replace batteries.
LCD is lit but you cannot hear anyone	Turn the volume up or relocate to another position in an area away from tall buildings, metal fences and vehicles. Check to see you are on the assigned channel. You must be on the same channel as the person with whom you are trying to communicate.
You relocated and are on the correct channel, but still cannot hear	Try turning your radio to the highest power setting. Call another station and ask for a relay.
No one can hear you	Make sure VOX is not turned on. Make sure your microphone is not covered.
You cannot change channels or make adjustments	Check to see that the radio is not in the Lock position. If it is, press the Lock button to unlock.

Safety Tips

- Always work with a partner.
- Always bring a radio.
- Wear protective gear and weather-appropriate clothing.
- Always communicate your route before leaving.
- Check in every 15 minutes with Radio Team Leader.
- Check for hazards on your route.
- Do NOT become a victim!
- Return to Incident Command Post and check in with Radio Team Leader. Make sure that your return status is recorded on the [RUNNER Assignment Tracking Log \(ICS 204-R\)](#).
- At the end of your duties remember to **SIGN OUT** on [Volunteer Sign In / Sign Out](#).

On Assignment

Materials: paper, pencil, [General Message Forms \(ICS 213\)](#), [Unit Activity Log \(ICS 214\)](#), [Damage Assessment](#), two radios, extra batteries, personal protective gear, any additional resources for your assignment

1. Check out the radio from the Radio Team Leader on Equipment and Radio Check-Out Sheet (ICS 303) unless you are using your personal radio. Make sure it works before leaving on your assignment and you are on the correct channel.
2. Get your team assignment. Remember your tactical call sign.
3. Decide who will be the team's radio operator.
4. Check in with the Radio Team Leader every 15-30 minutes.
5. Have a clear route established. Understand that you may need to change your route. Carry a city map.
6. When you return from the field, report to the Radio Team Leader. Turn off the radio and return all borrowed equipment and paperwork to Radio Team Leader.
7. Carry [Damage Assessment](#) reports and note hazards, injuries, & road conditions.
8. Ensure that each message sent has the sender and recipient filled in on the form.
9. Before leaving to deliver message, read the message to make sure the messages is clear.
10. Once you deliver the message, wait for recipient to write a reply. Then return to Incident Command Post.
11. Check in with Incident Command Post Radio Team Leader immediately upon return and ensure your return has been properly logged.
12. Always [SIGN OUT](#) when done with your shift.

Communication Tips for all Teams

Communication Basics

- Only one person can talk at a time, but all people with radios can listen at the same time.
- Listen carefully.
- Acknowledge all transmissions addressed to you. (Say “Copy that.”)
- If two people talk at the same time, stop and start over.
- Check in regularly.
- Follow the **ABCs** of communication—**A**ccurate, **B**rief, and **C**lear.
- Do not tie up radio channels with unnecessary talk..

Talking

- Press the Push to Talk (PTT) button when you want to speak and hold for a half a second before you speak. Hold the button the entire time you are talking. Wait a half second after talking before you release the button.
- Take your time and think of what you’ll need to say before you say it.
- Keep message short but complete. (See [Clear Text vs. Conversation](#) in the Appendix.)
- Speak calmly and clearly in a normal voice. Do not yell.
- Use phonetic alphabet if needed. (See [Phonetic Alphabet](#) Chart in Appendix.)
- Talk at a speed that people can write down what you are saying. Say five words at a time, then pause and let off the Push-to-Talk button in case listener needs to say “slow down” or “speed up!” If nothing is heard, continue transmitting your message at that pace with pauses every five words.
- When giving numbers, say each number separately, e.g., say “one-zero-five-nine”, not “ten-fifty-nine.”

How to hold your radio

- Keep antenna vertical.
- Hold radio about a thumb’s distance from your mouth and at a slight angle.

Messages

Whether a message is urgent, general, or just a radio check-in, it should include these elements:

1. Who you are calling
2. Who you are (name and your Tactical Call Sign, or just your Tactical Call Sign)
3. Where you are
4. What you want and need

Urgent Message!

Urgent messages identify a life threatening situation including active hazards and immediate medical needs. When giving an urgent message, use the words “Emergency!” or “Emergency Traffic!”

Break in to identify an emergency	Say: “Emergency Traffic!” You will also hear and can say, “Break Break” for emergencies.
Who you are calling and who you are	“ICP (tactical call sign for Incident Command Post) this is Team Alpha 1 with Emergency Traffic!”
Response	“Team Alpha, this is ICP. Go ahead.”
Message and Location	“ICP, this is Team Alpha. People trapped in house at one-zero-two-eight Sierra.”

General Message Example

Who you are calling	“ICP” (Incident Command Post is the Radio Team Leader.)
Who you are	“This is SAR2 (tactical sign for Search & Rescue 2). Do you copy?”
Wait for response	“SAR2. This is Incident Command Post. Go ahead.”
Re-identify, Location and Message	“ICP. SAR2 at 31st and Clinton. Resource request: 6 blankets.”

Radio Check-in Example

Who you are calling and Who you are	“ICP this is SAR3 checking-in.” NOTE: The Incident Command Post is the Radio Team Leader.
Wait for response	“SAR3. This is ICP What’s your location?”
Re-identify, Location	“SAR3 at 700 block of 31st Street. OVER.”
Response from Command Post	“SAR3. This is Incident Command Post. Copy that.”

Radio Code Words

CLEAR MESSAGE	AVOID
Copy	"I can hear you clearly."
Over	"I am through talking and waiting for an immediate reply."
Go ahead	"I am here and ready to receive your message."
Standing by	"I am waiting and listening for a reply or further information."
Roger	"I have received your message and I understand it."
Correct or Affirmative	"Yes"– these words are more easily understood on the radio
Say again / Repeat last transmission	"Please repeat what you just said."
Correction	"I am going to correct an error in what I said."
Negative	"No"
Doubled	Two stations are talking at once. Both stations need to pause and re-transmit separately.
Radio Check	"Can you hear me okay?"
Relay	"I'm unable to send my message. Please send my message."
Out	"I am turning my radio off." Don't say "out" unless you are finished with the use of the radio.

Clear Text vs. Conversation

Clear Text	Conversational (don't use radios for conversation)
Unreadable	I can't hear that; there's too much static.
Say Again	What did you say? I didn't hear you. Someone else was talking to me.
Responding	We are on our way to the animal evacuation.
En route Sheldon Park	We are going to Sheldon Park.
Available	We are finished with the delivery of supplies to Sheldon Park and we are on our way back ready for a new job.
Available at scene	We are still at Sheldon Park and unloaded victims, but can take another job if you need us to.
At scene	I have arrived at Sheldon Park.
Emergency traffic	We have just come upon some seriously injured people and need to talk to you right away. Everyone needs to be quiet.
Resource request (Be clear & specific.)	We need some medical help on this one.
Can handle	We have what we need to do this job.
Copy	Ok, I understand what you want me to do.
Incident Command- Search & Rescue 2	Incident Command. This is the Search & Rescue 2 Team.
Radio Check	This radio doesn't seem to be working very well. Can you hear me ok?

Phonetic Alphabet

A	-	Alpha	N	-	November
B	-	Bravo	O	-	Oscar
C	-	Charlie	P	-	Papa
D	-	Delta	Q	-	Quebec
E	-	Echo	R	-	Romeo
F	-	Foxtrot	S	-	Sierra
G	-	Golf	T	-	Tango
H	-	Hotel	U	-	Uniform
I	-	India	V	-	Victor
J	-	Juliet	W	-	Whiskey
K	-	Kilo	X	-	X-ray
L	-	Lima	Y	-	Yankee
M	-	Mike	Z	-	Zulu

Appendix

Glossary

Term/Acronym	Definition
COMM	Written Abbreviation for "communications." COMM is understood by government agencies, fire, police, etc.
EOC	Emergency Operations Center
FCC	Federal Communications Commission
Frequency	Same as "channel" on a radio.
ICP	Incident Command Post. The staging area where neighbors meet after a disaster. Sometimes called the Neighborhood Command Post.
ICS	Incident Command System. A structure and organization for managing and responding to incidents. Typically there is the IC and 4 main sections: Operations (oversees actions such as Search and Rescue), Planning (plans, collects information and documents), Logistics (ex. communication, facilities, resources, medical unit) and Finance.
Mobile Station	If you are walking around with your radio, you are considered a mobile station.
Relay	If a station cannot reach its intended contact, another station that is able to communicate with the sender and the intended contact can forward the message for them.
Repeater	A remote station located in a high position that automatically relays a transmission. If a radio can reach a repeater, it is more likely to reach another radio.
Simplex	Radio-to radio-communication, (i.e., using radios without a repeater)
Station	Each radio is considered a station, including each hand-held.
Tactical Call Sign	The name assigned to your team station that you will use when talking on the radio; for example, "Medical 2" or "Search and Rescue 1."

Locations of Radio Stations

Radio Station	Location	Staffed By
EOC (Emergency Operations Center)		<ul style="list-style-type: none"> Office of Emergency Services Manager (who becomes the EOC Manager after a disaster) Other City employees
Neighborhood Field Teams	Convene at Neighborhood Incident Command Posts. Roam throughout neighborhoods	Citizens with hand-held radios
Neighborhood Incident Command Posts	As designated by each neighborhood	Neighbors

MY NEIGHBORHOOD INCIDENT COMMAND POST (ICP) IS LOCATED AT:

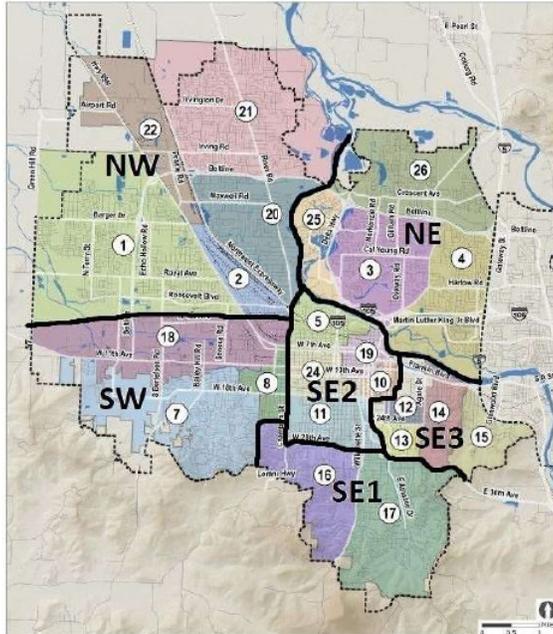
Enter the location of your neighborhood ICP on the line above.

City Maps

It is important to have hard copies of these available with your Neighborhood Incident Command Post. To ensure access, print these out BEFORE an incident as you may have no internet or power.

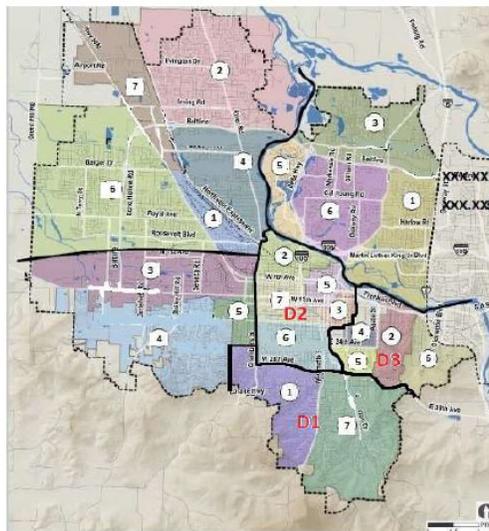
Eugene EmComm District Map

(District to/from EOC freq: 147.460 MHz Simplex)



Neighborhood Organization	Number On Map
Northwest District – 441.550 MHz Simplex	
Active Bethel Citizens	1
Industrial Corridor Community Organization	22
River Road Community Organization	20
Santa Clara Community Organization	21
Trainsong Neighbors	2
Northeast District – 441.575 MHz Simplex	
Cal Young Neighborhood Association	3
Goodpasture Island Neighbors	25
Harlow Neighbors	4
Northeast Neighbors	26
Southwest District – 441.500 MHz Simplex	
Churchill Area Neighbors	7
Far West Neighborhood Association	8
West Eugene Community Organization	18
Southeast District 1 – 445.975 MHz Simplex	
Southeast Neighbors	17
Southwest Hills Neighborhood Association	16
Southeast District 2 – 446.050 MHz Simplex	
Downtown Neighborhood Association	19
Friendly Area Neighbors	11
Jefferson Westside Neighbors	24
West University Neighbors	10
Whitaker Community Council	5
Southeast District 3 – 446.075 MHz Simplex	
Amazon Neighbors Associations	13
Fairmount Neighbors	14
South University Neighborhood Association	12
Laurel Hill Valley Citizens	15

Eugene Emcomm FRS Radio Channel Usage Map



Neighborhood Organization	EmComm channel	EmComm alternate
Northwest District		
Active Bethel Citizens	6	20
Industrial Corridor Community Organization	7	21
River Road Community Organization	4	18
Santa Clara Community Organization	2	16
Trainsong Neighbors	1	15
Northeast District		
Cal Young Neighborhood Association	6	20
Goodpasture Island Neighbors	5	19
Harlow Neighbors	1	15
Northeast Neighbors	3	17
Southwest District		
Churchill Area Neighbors	4	18
Far West Neighborhood Association	5	19
West Eugene Community Organization	3	17
Southeast District 1		
Southeast Neighbors	7	21
Southwest Hills Neighborhood Association	1	15
Southeast District 2		
Downtown Neighborhood Association	5	19
Friendly Area Neighbors	6	20
Jefferson Westside Neighbors	7	21
West University Neighbors	3	17
West Eugene Community Organization	2	16
Southeast District 3		
Amazon Neighbors Associations	5	19
Fairmount Neighbors	2	16
Laurel Hill Valley Citizens	6	20
South University Neighborhood Association	4	18

ICS Forms

Unit Activity Log (ICS 214)	Field Team Leader and Incident Commander: use to record details of notable activities. Use one new form each day
Communications Log of Messages (ICS 309)	Radio Team Leader: use to briefly log all messages received and sent.
General Message Form for Runners (ICS 213) General Message Form (ICS 213)	Two versions. Both used to record messages that need to be communicated to a recipient who is not present. Used by the Incident Commander to give a written message to the Radio Team Leader for transmission to the EOC, other agency or addressee. This form is also used to send any message to incident personnel that requires hard-copy delivery. Runners carry 213 messages to recipient.
Volunteer Sign In / Sign Out (ICS 211)	Records arrival and end times of volunteers, lists their skills and training, helps determine their assignment(s). Form stays at the Incident Command Post.
Equipment & Radio Check Out Sheet (ICS 303)	Identifies and lists equipment and radios and the time and to whom the items were checked out and returned.
Damage Assessment Form	Field Teams: use this form to document hazards, damage and injured persons.
Assignment Tracking Form (ICS 204)	Used by Incident Commander to detail team and individual assignments and log tactical call signs.
RUNNER Assignment Tracking Form (ICS 204-R)	Records when runners leave and return from assignments.
Radio Communications Plan (ICS 205)	Used by Radio Team Leader to list radio frequencies available and assign to team(s)

Eugene Area Emergency Radio Nets

Ham Radio Nets

EMCOMM EUGENE		AMATEUR RADIO FREQUENCY LIST			3/13/2020
<u>FREQUENCY</u>		<u>USE</u>			
146.880	Tone 100	City of Eugene		EMCOMM REPEATER	
147.460	Simplex	City EOC	to/from	DISTRICT STATIONS	
441.550	Simplex	NW DISTRICT STATION	to/from	NEIGHBORHOODS	1, 2, 20, 21, 22
441.575	Simplex	NE DISTRICT STATION	to/from	NEIGHBORHOODS	3, 4, 25, 26
441.600	Simplex	SW DISTRICT STATION	to/from	NEIGHBORHOODS	7, 8, 18
445.975	Simplex	SE1 DISTRICT STATION	to/from	NEIGHBORHOODS	16, 17
446.050	Simplex	SE2 DISTRICT STATION	to/from	NEIGHBORHOODS	5, 10, 11, 19, 24
446.075	Simplex	SE3 DISTRICT STATION	to/from	NEIGHBORHOODS	12, 13, 14, 15

Neighborhood Teams use FRS, GMRS, Other to/from Neighborhood Stations.