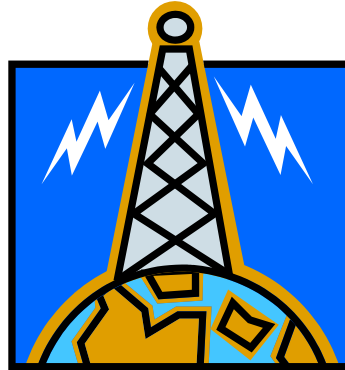
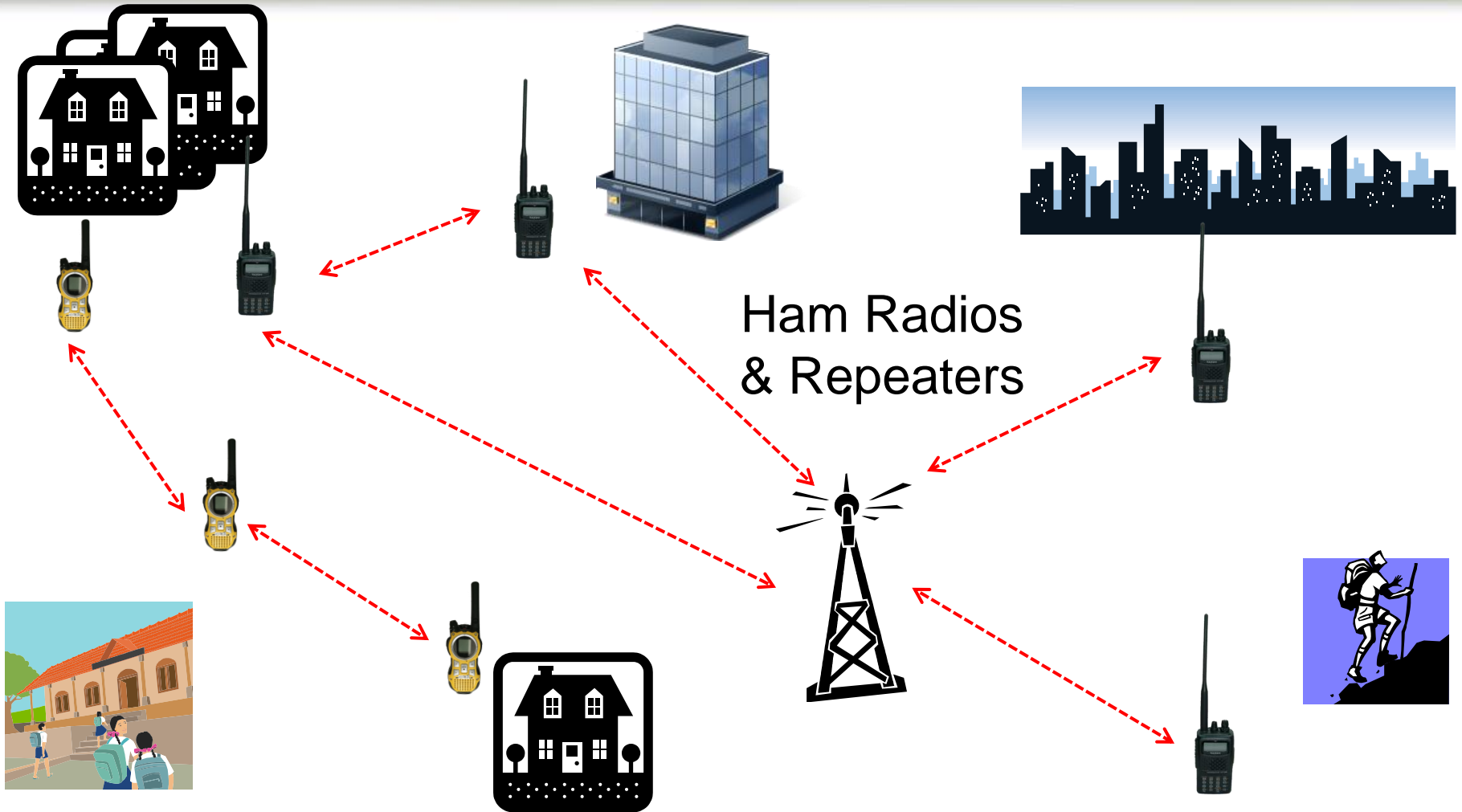


Radios and Communications – For New Licensees

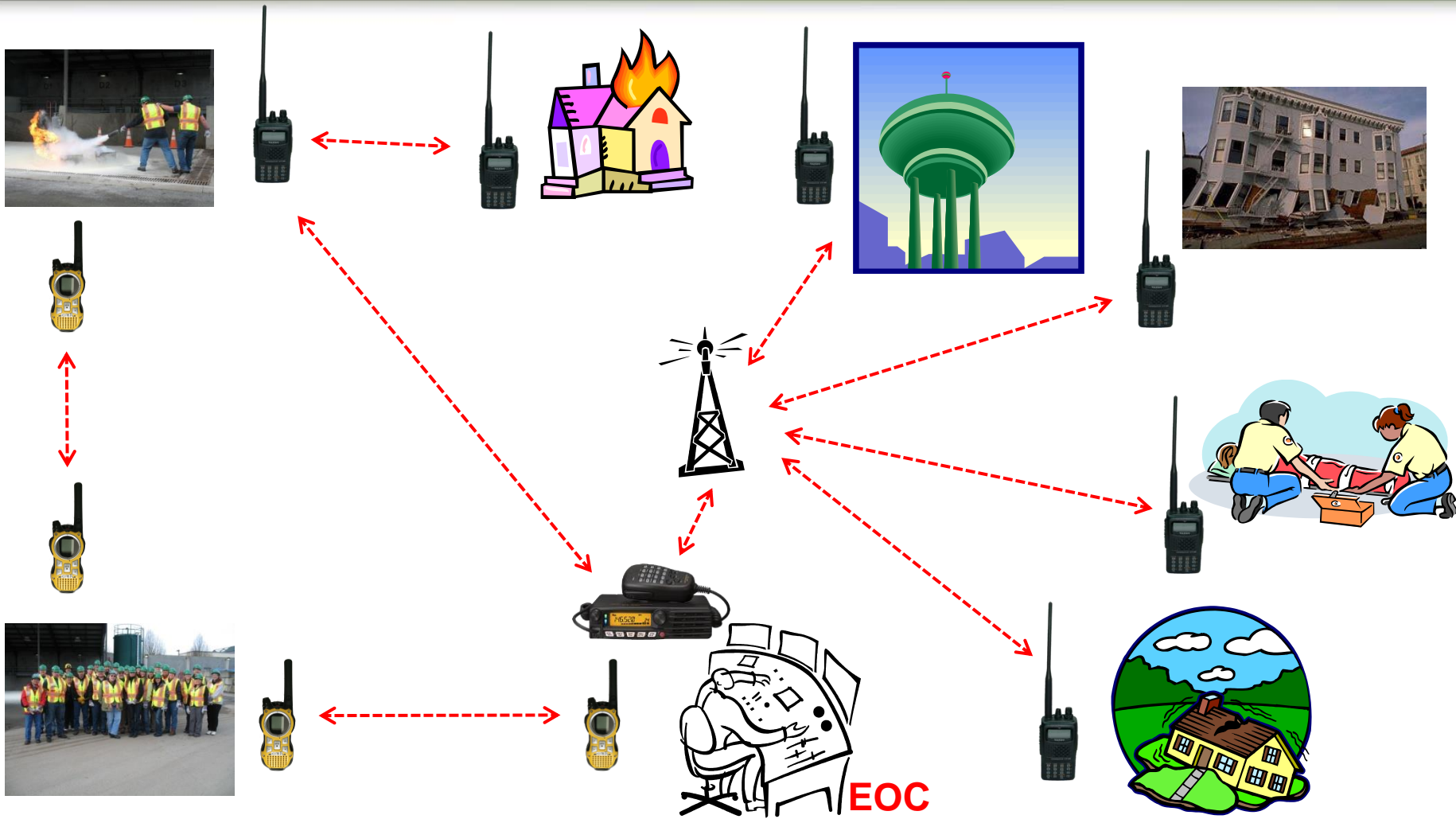


Amateur Radios
For New Licensees

Radios/Communications – Every Day Communication



Radios/Communications – Emergency Situations



Radios/Communications – Obtain a Radio and a License

- Obtain a radio and an FCC amateur radio license
 - ICC has recommendations on inexpensive radio options on the ICC [website](#)
 - Common radios include Icom and Yaesu (more expensive) and Baofeng (inexpensive – good starter radios)

Website – <http://issaquahcitizencorps.org/comm.html>



Radios/Communications – Speaking and Mic Protocol

- Learn the speaking and microphone protocol and etiquette (basically the same as FRS)
 - The ICC website has a [good guide](#) based on a QSI.net webpage

For more, visit the [QSL website](#) or the [ICC website](#)



Radios/Communications – Speaking and Mic Protocol

- Keep the antenna upright and speaker close to your ear – likewise with microphone and mouth
- Change your or your antenna's location if you are not getting a response – use relays if necessary
- Say whom you are calling before your name – Say, “KF7BMD, this is KI7RMO” – ***their call sign first; yours second***
- FCC requires you identify yourself with your call sign ***every 10 minutes*** while in a conversation ***and at the end***

For more, visit the [QSL website](#) or the [ICC website](#)



Radio/Communications – Radio Etiquette and Protocol

- Repeater with shared frequencies – e.g., the Fire Repeater is shared with King County Medic One as a *primary* user. You must immediately yield to their traffic if they break in.
- Repeater with non-shared frequencies – generally, first come-first served, but use common courtesy, especially in bonafide emergencies
- Joining a conversation – it is OK to say your call sign and ask to join a friendly conversation
- No business conversations

For more, visit the [QSL website](#) or the [ICC website](#)



Radio/Communications – Radio Etiquette and Protocol

- Repeater use – keep communications to a minimum and yield to primary users. Note that some repeaters are “Open” meaning anyone can use them, but some are “Closed” and have restricted use, e.g., radio clubs.
- CB jargon – “over”, “10-4”, “what’s your handle”, etc., is discouraged – it is best to use ham standards (next slide)
- Record keeping – good idea if you are a frequent user

For more, visit the [QSL website](#) or the [ICC website](#)



Radio/Communications – Radio Vocabulary

- A few words and phrases
 - “Copy” means “I understand what you said”
 - “Say again” means “Please say your message again”
 - “Standby” means a pause for the next transmission
 - “Clear” means that you have finished
 - “Affirmative” means “Yes”
 - “Negative” means “No”
 - “Break” is used to interrupt an ongoing radio communication – it is normally reserved for ***urgent or emergency situations***

Radios/Communications – Simplex vs. Duplex

- Understand the difference between simplex and duplex (repeaters)
 - Simplex uses a single frequency to both transmit and receive – just like FRS radios, you can't listen and transmit at the same time
 - Duplex uses two frequencies, one to transmit and one to receive depending on whether you are the radio user or the repeater (you can listen and transmit at the same time)

Radios/Communications – Repeaters and Duplex

- Example: Fire Repeater (444.525 + 103.5)



Radio receives
on listed frequency
(444.525Mhz)

Repeater transmits
on listed frequency
(444.525Mhz)

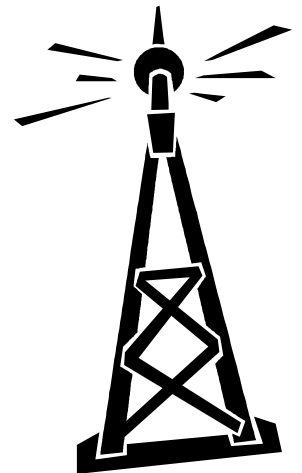


For this frequency, offset is +5 Mhz
Tone to alert repeater is 103.5



Radio transmits
on offset frequency
(449.525Mhz)

Repeater receives
on offset frequency
(449.525Mhz)



Radios/Communications – Your Choice of Frequencies

- Use the IARC frequency list for a file that can be used to program your radio with frequencies used by club members for communications in and around Issaquah (check the [ICC website](#))
- Use a friend's frequencies if they fit your needs
- Explore other radio clubs for repeater or frequency lists (e.g., Mike & Key)
- Explore <http://www.repeaterbook.com> for an extensive list of repeaters throughout the US

Radios/Communications – Emergency Frequencies

- Know the emergency frequencies for ICaST communication – check the ICC [website](#) for both simplex and duplex emergency frequencies
- Program the emergency frequencies
 - Check the [website](#) for detailed instructions on programming the Baofeng UV-5R series and Yaesu FT-60 radios (both manual and computer)
 - Other makes and models should have equally detailed instructions in their user manual or on the internet (YouTube has some good ones)

Website – <http://issaquahcitizencorps.org/comm.html>



Radios/Communications – Practice, Practice, Practice

- Practice, Practice, Practice
 - ICC and ICaST sponsor exercises during the year to integrate emergency practices with the use of radios
 - Radio clubs have regularly scheduled nets that allow members to share information, ask questions and practice
 - ICC Net is every Wednesday @ 7:00 pm – check the ICC [website](#) for more details

Website – <http://issaquahcitizencorps.org/comm.html>



Radio/Communications – ARRL and New Hams

- Final Note: ARRL (American Radio Relay League) has an extensive discussion for new hams – [check it out](#) for more information
- Remember Field Day in June
 - Amateur radio hobbyists gather worldwide to display their wares, have contests and a general good time

Check it out – <http://www.arrl.org/get-on-the-air>



Radio/Communications – Q&A and Final Practice

- Questions and Answers
 - Whatever you want to talk about
- Final Practice