

Richmond City/Stake Emergency Communications Presentation

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WRMX296

Why Radio?

- Cell phones might go down.
- Cell phone towers might be overwhelmed.
- Charging could be a problem.
- Solar charging?
- Some radios work with batteries or have interchangeable batteries.
- 12 volt (car battery) power for some radios.
- Longer operating time than cell.
- More convenient for quick messages.

Advantages of radio

- Works when cell/internet doesn't.
- Inexpensive to have in standby.
- Can be very simple to operate.
- Relatively inexpensive.
- Can have very good range especially if repeaters are used.
- FM radios generally have a very clear signal.

Disadvantages of radio

- No smartphone apps.
- Privacy
- Limited range
- The best radios require a license.
- Can be complicated.
- Requires practice.
- Need a communications plan.

Types of radio communications.

- CB radio
- FRS (Family Service Radio)
- GMRS (General Mobile Radio Service)
- Amateur (Ham) radio
- Public Service Radios

CB radio

- Old technology.
- Limited range.
- AM, Noisy signal.
- Limited availability of held walkie-talkies.

FRS (Family Radio Service)

- Very inexpensive.
- Readily available.
- No license required.
- All FRS radios will generally talk to each other.
- Operates on fixed channels.
- Limited channels and features.
- Low power. Very limited range.

GMRS (General Mobile Radio Service)

- Moderately priced.
- Generally purchased on line.
 - Selection can be confusing. Overlap between GMRS and Ham.
 - Programming can be confusing.
 - Operates on fixed channels.
 - May not talk to other brands of radios (privacy tones).
 - More channels, higher power, better range.
 - Can be repeater capable.
 - Requires \$35 license, no exam. Ten years, all immediate family

Amateur (Ham) radio

- Most expensive.
- Three price tiers: Cheap Chinese, better Chinese, Japanese.
- Need to understand band structure/plan.
- Not “channelized”
- Exam and license required which can be intimidating. Three license classes: Technician, General, Extra, each with additional levels of privileges, license good for 10 years.
- Radios generally require programming.
- Very flexible/DIY.

Amateur (Ham) radio (continued)

- Can be complicated.
- Best range.
- Higher power.
- Many digital options (we're not going there).
- Can talk across the country or around the world with the right radio/antenna, under the right conditions and with the right license class.
- May lead you to an expensive hobby (Huge Amounts of Money)

Public service radios

- VERY expensive.
- Limited vendors.
- Heavily regulated, usually proprietary and limited to public sector users (Public works, Fire/EMS, Law Enforcement, Military)
- Many different channels, frequencies and communications plans.
- Generally switching to encrypted digital (no scanners).

OK, What radio do I get?

Handheld

Self contained, nothing else to buy.

Lower power, limited range unless using a repeaters

Mostly useful outdoors or inside a large building.

Mobile

Need a radio, antenna and cable (magnetic mount, usually combined) and a 12 volt power connection to vehicle power.

FRS

Handheld radios only.

Suggested radio: Radioddity FS-T3

GMRS

Handheld, mobile or base station.

Suggested radios:

Handheld: Radioddity GM-30 and other similar radios;

Mobile: Radioddity DB20-G.

(To use the local repeaters, PL tones will need to be enabled.)

Amateur

- Many options from \$25 hand held to \$10,000 base stations.
- Low to moderately priced Chinese radios are available on on-line from BaoFeng, Radioddity, Retevis, Anytone and others.
- High quality Japanese radios are available from Yaesu, Icom, Kenwood and Alinco from Ham Radio Outlet, DX Engineering or Gigaparts.
- If you are interested in getting your ham radio license let me know or go to <https://barconline.org/licensing/>

A note about the suggested radios:

I don't have any financial arrangements or sponsorship agreements with any of the radio manufacturers or sales outlets. I own at least one of each of the suggested radios, and having compared them with other radios I own or have used, I believe they are a good value and would be a good choice for a new radio operator.

Nets

- The local ham radio operators participate in various weekly and monthly nets. A net is an on-air roll call to practice radio procedure and insure your radio is working properly. Some local nets include:
 - Bridgerland net on Tuesdays (BARC linked repeater system)
 - Richmond Stake ERC net on 2nd and 4th Tuesdays 146.58 Simplex
 - Bishop's Storehouse net on 1st and 3rd Sundays 146.420
- I would like to put together a local GMRS net on the Richmond repeater once a week or twice a month, probably in the evening during the week.
- Participation would require a GMRS license and a handheld or base

Great Utah Shakeout

- Thursday April 20, 2023 approximately 6:00 to 7:30 PM.
- We will have ham operators at various stations around Richmond and Lewiston.
- Need additional participants with FRS or GMRS radios.
- I have at least six loaner FRS/GMRS radios.

Wrap up

- Any questions or comments?
- For more information on GMRS radios, you can go here:
<https://mygmrs.com/>
- For more information on the Bridgerland Amateur Radio Club (BARC):
<https://barconline.org/>
- For information on the Golden Spike Amateur Radio Club (Box Elder county): <https://www.k7ub.org/home>
- For information on the nets mentioned earlier:
<https://barconline.org/nets/>
- The Richmond Stake Emergency Communications Net is on the 2nd

Contact

- You can contact me at
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