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"CAN YOU HEAR ME NOW"?
A Layperson's Guide to Two-way Radios

There are many types of two-way radios in use around the country, but they fall roughly into 4 basic categories:

1. Really basic that you don't even need a permit or license to use. *Example: FRS Radios*
2. Fairly simple that require a registration and check in order to use. *Example: GMRS Radios*
3. Complex radio systems that require examinations and licenses to use. *Example: Ham Radios*
4. Private radio systems that are licensed for the use of a single entity only. *Example: Commercial Radios*

FAMILY RADIO SERVICE (FRS) RADIOS:

- Cheap! ($20-30 each, or sometimes free with a rebate)
- Available off-the-shelf at Best Buy, Fry's Electronics etc
- Have a range of 2-5 miles
- Used by families to keep track of the kids at picnics, etc
- Great for house-to-house or on-site communications

GMRS RADIOS:

- Can be cheap; also available as above
- Range 5 miles with the use of a repeater system
- Requires a registration form and a check. No test.
- More configurable; can be used with repeaters

HAM RADIOS:

- Range in price from cheap used ($100) to very expensive
- Most flexible system, depending on how involved you get with the technology
- Requires a test for each "band" you wish to operate on. Can be technical!
- Ham radios are the agreed radio of choice in disasters- longest range because of availability of repeaters.

PRIVATE SYSTEMS

- Known as "Commercial band", requires a registration fee and exclusive license from the FCC.
- Used by companies and agencies that require an exclusive channel for themselves.
- The frequencies are outside the range of other commercially available radios.
- Most expensive option

SIMPLEX versus REPEATER SYSTEMS

- Simplex systems are simple- one radio talks directly to another one. The signal must not be interrupted by a barrier such as a building or a mountain, or it will deteriorate and fade away.
- Repeater systems use another radio in the middle of the 2 that wish to communicate, to "repeat" the signal from the sender to the receiver, when distance or obstructions are an issue.