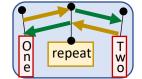
Ham 103 - Philosophy

Dr. Marc & Rosemary © 230427

- 1. *Philosophy* is the love of wisdom and the way we all approach life events.
 - a. *Persons* are our reason and community comes by association.
 - b. Science is our method to make rational, best decisions, and trade-offs.
 - c. Serving is our providing ham access to everyone, but not necessarily in the same way.
- 2. Our objective is to provide quality ham communications to anyone. We even help you get licensed.
 - a. We each live in different locations, conditions, and needs. One size does not fit all.
 - b. At least two methods from multiple choices are better than one. Pick and practice your preferences.
- 3. Elevation is the best way to get radio signal performance. However, that necessitates towers.
 - a. Because of climbing risk to a person, we opted against using tall towers.
 - b. Likewise, towers increase lightning exposure.
 - c. Similarly, the expense of construction is outside our goals.
 - d. The trade-off requires more power, better antennas and equipment, and installation discipline.
- 4. Equipment selection is science-based on best performance, utility, and cost.
 - a. The recommendations for equipment are re-evaluated periodically for new technology.
 - b. Costs are a secondary consideration. If it is not usable, that is false economics.
 - c. We recommend a mix of quality new and top-of-the-line classic systems, which meet current specs.
 - d. In most cases, older equipment is not technologically compatible with today's operations.
- 5. Emergency communications comes in many different forms, which are largely unpredictable.
 - a. The needs of home-bound are not the same as mobile requirements.
 - b. What is the hammer-down situation? History tells us it will be different than last time.
- 6. The methods we support follow. Any license can use these. Select two or more that work for you.
 - a. Traditional VHF repeater at Evergreen.
 - b. Digital nodes to link multiple radios. When you talk on one, you talk on all linked.
 - c. Digital node with mic and speaker. Each of us has one, so there is not radio interference.
 - d. Digital node with local wired-in handi and a portable handi for strolling up to a mile away.
 - e. Cellphone access to the repeater or any other node.
 - f. Cross-link VHF/UHF so a group of handi's can talk to a mobile which links to the repeater.
 - g. Simplex VHF or UHF direct communications between radios. Simplex does not tie together.
 - h. Very important: If you use any one method, you can speak to someone using the other technologies.
 - i. Your radio must be on for the system to work. The design is for 24/7. Mine turns down but not off.
- 7. Digital technology greatly broadens access and utility.
 - a. With serving in mind, we have gone the AllStar node route.
 - b. It operates with any radio, any brand, analog or digital, and cellphones.
 - c. Our engineers evaluated the other options.
 - d. D-Star, Wires, and Fusion are brand specific and digital radio specific.
 - e. DMR is dedicated, restrictive, and is very difficult to use.
- 8. Our VHF repeater hardware is the best of the best, verified by two outside independent repeater gurus.
 - a. From their analysis, its receive sensitivity cannot be reasonably improved with available technology.
 - b. The recent transmit amplifier addition doubled the signal strength, giving a strong voice.
 - c. If you are having receive problems, we need to look at your radio receive or the other radio transmit.
- 9. A repeater system has three stations. Any of them can affect performance and quality.



- a. Your radio has a transmit circuit, receive circuit, and antenna.
- b. The repeater receives, then retransmits on a different frequency.
- c. A complex system of duplexers, coax, and antennas does the work.
- d. The other radio has a receive circuit, transmit circuit, and antenna.
- e. That is a lot of components to reliably work together, but it does.
- 10. Exciting projects are in the wings to give really great options to more people.
 - a. Additional info will be available as the teams flesh out the directions.
 - b. We have very talented people who share their skills. They can use your skills, too.
 - c. Evergreen has been very generous in their support, but we are not a line item in the budget.
 - d. We have a few donors who have heavily funded projects. Get in on the rewards.
 - e. We have no committees. Come, do the part that interests you.

UHF

Antenna

System

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