

## Maximize “FRS” Radio Coverage

There are tricks to getting the most out of your FRS radio. You need to know them since there are areas at MLS where the coverage is spotty. For improved communications:

1. **Key your mike for 1 second before speaking.** This makes sure the carrier has opened up the receiving radios’ squelch circuit.
  2. **If you get requests to repeat...** You may have the radio too close or too far from your mouth. OR, you are eating and talking at the same time... OR, your radio batteries are too low... Try a different radio if needed.
  3. **Make sure your batteries are charged all the way.** Battery voltage decreases the longer you use your radio. As the voltage decreases, so does your power out the antenna. The same thing happens to the light in a flashlight when the batteries get low.
  4. **Keep your radio antennas vertical.** Most FRS users hold their radios up-right with the antenna held nearly vertical. That’s called vertical polarity. If your antenna is not vertical or nearly vertical your incoming signals will be weaker. Also your signal will not be heard as well. If your radio is clipped to your belt with the antenna parallel to the ground that is called horizontal polarity. Imagine this... If you take two pencils (radio antennas) and hold them vertically or parallel to each other, that’s good communications practice. You are properly sending and receiving the majority of the radio signals. If you take one pencil (antenna) and make it 90 degrees to the other...look at the surface area that they have in common... That’s how little signal you will send to the other guy and also receive.
  5. **Get your antenna up in the air for best operation.** FRS radios, by law, can only transmit ½ watt of effective-radiated-power. If there are any obstructions between you and the person you want to talk to, the signals will be deflected or absorbed in different directions.
  6. **Antenna height is everything!** If you are stopped at a red light out on the tracks and can’t contact anyone, stand up! That little bit of increased height can make a difference. If you have a speaker-mike hold the radio above your head if need be while trying to communicate.
  7. **Get in the clear!** FRS radio waves are hindered by metal containers, trailers, cars, and trucks. They are even hampered by foliage, other people, and heavy dust in the air.
  8. **Keep the radio away from your body.** Your body absorbs radio waves. It can stop the signals coming in and going out of your radio.
  9. **Keep the radio between you and where you want to communicate.**
  10. **Hot spots.** Radio waves are actually sine-waves travelling through the air. If you are stopped, move your radio 6-8 inches side-to-side or forward-and-back slowly. You can find the hot spot where the received signal will be the strongest. Your transmitted signals will be the strongest from that spot as well.
  11. **Your FRS radio performs the worst when it is in motion.** These radios are low power. If you are having trouble communicating, STOP. Check the above.
- I hope these tips will help make your adventures in the park more enjoyable. Randy