

Ham 50 – What? Two adjacent radios not working?

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1. In keeping with the recent article about what is wrong, this is a real oddity.
2. A very popular group of hand-held ham radios are the Baofeng series. What is their defining characteristic?
3. The radios are unbelievably cheap and we do not mean inexpensive. Because of price, most hams have one, two, or more. They are a throw-away radio no one expects to repair. With the standard rubber-duckie antenna, their range is about as far you can throw the radio.
4. Nevertheless, with a decent, base station grade antenna, the little radios make a common and tolerable ‘first-radio’. Replace it with a real radio as soon as possible to make you and everyone you ‘try’ to talk to happier.
5. We encountered a real oddity that was duplicated by others. When ‘programming’ and then testing a Baofeng, it would not receive. What? The tones must be off.
6. Then I walked off about 10 yards and it started receiving.
7. That afternoon, another Elmer experienced a similar incident, with different radios. Then the next morning, another Elmer had a similar incident with yet another radio.
8. What is happening? It must be sunspots, atmospheric interference, cell towers, or maybe the bad guys blocking signals. No, follow the money.
9. The internal circuitry that makes radios work has an arrangement called a ‘local oscillator.’ In today’s ham world, we little think of the internals. However, in days of yore, we built such arcane objects of torture. The local oscillator connects with a mixer to change the frequency in a receiver. In essence, the receiver of your radio is transmitting on the local oscillator frequency. The signal level is so low that it should not interfere, except for when it does.
10. Another related ghost problem occurred today. A hand-held was on the same receive frequency and close to a base radio. It triggered the base radio, like the repeater was keyed. When the handi was physically moved, or switched to a different frequency, the base no longer acted as triggered.
11. The low price for the handi-talkies leaves out shielding and filtering that would isolate the signal.
12. Keep this in mind if testing a cheap radio near another radio. One or both may not receive or the receive may be locked on because of interference from the other radio.
13. Local oscillator interference is common around a close shack.
14. Now you know.
15. Life is good. Enjoy!

