

Editorial – The art of listening

The art of listening is important in radio, because it helps us become more aware of what we're receiving than what we're transmitting, although both skills can contribute to one's enjoyment. The traditional suggestion is, *before transmitting to make a contact, first listen, then listen some more*. Both UARC and the ARRL support this [idea of listening first](#).

Technical

One way to improve our ability to hear transmitted amateur signals is by erecting a better antenna. On one hand, creating a better receiving antenna often requires [aperture](#), or the amount of surface area facing a wave front. On the other hand, the physical lemma of [reciprocity](#) states that for a given antenna, *its receive properties are identical to its transmit properties*, such as its [radiation and receive patterns](#), and symmetry of its [impedance matrices](#), which means if your antenna transmits well, chances are, it will also receive well.

One problem that seems to plague many operators is noise, whether that's from surroundings (atmosphere, static, power lines) or generated (inverter, LEDs, defective devices). Indeed, many find that their ability to listen and make contacts seems inversely proportional to received noise, known as SNR, or [signal-to-noise ratio](#). If you can either raise your received signal or lower your received noise, your on-air experience can be greatly improved.



One way to improve reception is by using an SDR, such as the [WebSDR](#) or an RTL-DR dongle. In 2015 [Clint KA7OEI wrote an article](#) about using an early version of the RTL-SDR dongle that suffered from a few issues, such as image due to poor Nyquist sampling, low sensitivity due to passive filtering, and SNR degradation. In 2024 your editor took the liberty of writing [a less-technical article](#) using an updated version of the RTL-SDR dongle, which sports enhanced features as well as many improvements over previous versions.



Personal

Face it: many of us love to talk, and some even possess the [gift of gab](#), or the propensity of avid conversation. For them, talking before an audience, at church, or even on the radio is almost second-nature. For most of us amateurs, however, the speaking part can be anywhere from a little scary to intimidating, even to the point of triggering anxiety.

While it's fun to engage a ham from across the globe, it can also be frightening to strike up a QSO with a complete stranger whose customs and culture are unknown to you. Simply listening might be preferred by hams who are satisfied to armchair the two-way conversations, and that's perfectly fine.

Finally

Remember that your PTT (push-to-talk) button doubles as an RTL (release-to-listen) button. This can be especially important when communicating through a repeater system, such as the [Intermountain Intertie](#) or the [Sinbad System](#). Due to the numbers of linked repeaters that are transmitting because an operator had keyed up, be sure to listen for most, if not all, the repeaters to "drop" before attempting to key up. Pressing your PTT prematurely might cause the first one or two seconds of your voice to not be transmitted by all linked repeaters, resulting in people missing something important you might have said.

Whether or not you're talking through a repeater, be sure to speak up, especially if you normally speak softly or quietly. Unlike the terrific audio amplifiers of mobile phone technology, amateur radio microphones are not often equipped with top-grade audio components, potentially preventing others from fully enjoying the art of listening...to you.

Anything to add? Email editor@utaharc.org