How to give signal reports on repeaters and HF
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Giving good or accurate signal reports seems to be a lost art these days. With contests giving 59, 59, 59 reports no matter what, at some point that crept over to many other on the HF bands. Whether it is a lack of knowledge or fear of hurting someone's feelings with less than a 59 report, it is not helpful to those out there wanting to be sure their signal is as good as it can be.

The standard signal reporting method in Amateur Radio is the RST report. This stands for Readability-Signal Strength-Tone.

The one place this system does not work is on a repeaters. Readability would work, but you would be reporting the local repeaters Signal Strength instead of the other station's strength.

An FM repeater signal reporting is generally done by stating the perceived signal Quieting Level. Normally, one would find that a good operator would never give an RST signal report on FM repeaters. They would simply state it as Full Quieting, Partial Quieting, or Percent Quieting etc. The reported quieting level is indicative of the robustness and health of the established communication link. Other terms you may hear used are …

SCRATCHY: if there is some noise mixed in with the other station's signal.

FLUTTER or PICKET FENCING: If a station's signal alternates between being strong and weak into the repeater.

IN and OUT: which means your signal is sometimes copyable, but not enough to maintain communications.

Q5 signal report, this means you are perfectly readable. Q reports are not often used, and not understood by many, so it's best to not use them.

For HF signal reporting, we come back to the RST reporting systems.

R stands for Readability and is a 1-5 scale

S is Signal Strength using a scale of 1-9

T is Tone, and only used when operating CW or Morse Code

For signal strength, many use the S meter on their rig. Meter systems will vary from rig to rig, and even from band to band on some radios. At the same time doing this by ear alone, will vary from operator to operator. The best way to make the S reading is by ear, experience, and using the meter all together. Also, there is nothing more than a S reading of 9 in the RST scale….there is no such thing as a 59 +20 officially.

In contests or DX pileups it is common to just give a 59 signal report. This is to keep things moving as quickly as possible. In casual contacts it is good practice to give a true report. This lets the other station know how well they are getting to your location, and may clue them into a problem with their station. If I got a 29 signal report, I would know something was wrong with my audio, or RF getting into my signal. At the same time, don't get upset if a station you hear is 59 gives you a 53 report. It could be band conditions, difference in the power the two of you are running, antennas, or antenna orientation, at either end. Having a rig's pre-amp on can change some rig's S meter reading also. No preamp on 160-40M and maybe preamp 1 on 30-10M is a good guide, but personal preference is best.

The RST system as listed on the ARRL web site, [Quick Reference Operating Aids](#):

Readability

1 – Unreadable

2 – Barely readable, occasional words distinguishable.

3 – Readable with considerable difficulty.

4 – Readable with practically no difficulty.

5 – Perfectly readable.

Signal Strength

1- Faint signals, barely perceptible.

2- Very weak signals.

3- Weak signals.

4- Fair signals.

5- Fairly good signals.

6- Good signals.

7- Moderately strong signals.

8- Strong signals.

9- Extremely strong signals.

Tone

1- Sixty cycle a.c or less, very rough and broad.

2- Very rough a.c., very harsh and broad.

3- Rough a.c. tone, rectified but not filtered.

4- Rough note, some trace of filtering.

5- Filtered rectified a.c. but strongly ripple-modulated.

6- Filtered tone, definite trace of ripple modulation.

7- Near pure tone, trace of ripple modulation.

8- Near perfect tone, slight trace of modulation.

9- Perfect tone, no trace of ripple or modulation of any kind.