

LINE OF SIGHT

A Message from the Editor

It's Like Changing Diapers

If you were to look back to the table of contents of the first issue of the new *CQ VHF* magazine, you would see a focus on content that leaned in the direction of weak-signal activities. There are two reasons for this. First, my specialty is weak-signal activities. When I became the editor of *CQ VHF*, I brought to the table this expertise.

The second reason is that only a few short years ago the predominant activities on the VHF and above frequencies consisted of FM repeater, packet, weak-signal, space (including satellite and ARISS), and amateur television operations, plus a small interest in radio control on 6 meters. Now, activities on the VHF and above frequencies also include ballooning and HSMM. Furthermore, within the weak-signal specialty there has been a growing interest in EME activities, thanks in large part to the work of Joe Taylor, K1JT, and the various iterations of his WSJT software which have been pushing the envelope of how weak a signal can be detected via EME communications—and what constitutes a QSO. It is the latter that has been causing so much consternation in the EME community as of late. This concern, while confined to EME, can have spillover effects to other activities as well.

Getting to the title of this editorial, it is said that the only person who really desires change is a wet baby. The rest of us, by nature, are resistant to change. Even so, as with diaper changing, change can be a bit messy, but change we must.

Here is where Joe Taylor's controversy began. At the 2004 EME Conference this past August, Joe proposed an entirely new concept of what he wanted to develop for his next software package—something that was going to nearly reach the limit of what level of intelligible signal can be detected. He incurred the wrath of those who do not want to change what they understand to be the rules of what constitutes a legitimate QSO.

In understanding what constitutes a legitimate QSO, we need to understand where this concept for us in the weak-signal community came from. It was most likely in the days when meteor-scatter communications on 2 meters was in its infancy. In 1953, two fellows, Paul Wilson, W4HHK, and Tommy Thompson, W2UK, were experimenting with communications via this mode and needed to define what was considered to be a QSO.

Here is the background: Our friends on HF have refined the QSO, and especially in contests, where they have streamlined the definition to often be just an exchange of callsigns and signal reports. In some net operations, it's become even more streamlined. The net con-

trol tells each station the other's call and asks simply that they exchange signal reports. The contact lasts mere seconds, and the net control declares that a contact is "complete" when he or she hears both operators correctly repeat the other operator's signal report—even though it's sometimes clear that one operator simply has guessed at the signal report of the other operator.

We on VHF and above have slightly different standards. We will not accept a QSO as complete until both operators acknowledge to one another that they have received both a signal report, or a grid locator, or some other mutually agreed upon exchange of information, and the complete calls of both stations. When did this different standard develop? Some believe that when what I call "fractional" (by "fractional" I mean the contact takes place over a predetermined, mutually agreed upon period of time, and by bits and pieces at a time) QSOs started taking place, a definition of what was considered to be a QSO had to be specified.

Probably one of the earliest examples of this was the first 2-meter meteor-scatter contact, which took place between Paul and Tommy. As this mode of propagation was experimental, there was no definition of what was considered to be a legitimate QSO. Therefore, Paul and Tommy looked to the League—specifically to Ed Tilton, W1HDQ, then editor of *QST*'s "The World Above 50 Mc." column—to define what was necessary for a completed contact. Ed determined that both operators had to acknowledge to one another that they had received both calls and the correct signal report; the latter had to be confirmed by repeating the signal report received back to the other operator.

Reliance on Ed's definition led to the rejection of Paul and Tommy's first claimed contact in August 1953. It wasn't until the second contact that both Paul and Tommy received enough information from one another for Ed to consider the QSO complete.

Over the passage of time, the definition of a QSO has undergone little change. The only minor modification is that the signal report received need not be repeated back to the other operator. A simple acknowledgement, using the word "Roger" on voice or "R" on CW, is considered sufficient. What has undergone change is what constitutes the signal report. For example, EME enthusiasts have adopted a "TMO" signal-report system, while meteor-scatter operators using voice have adopted an "S1-3" signal-report system. These signal reports generally provide the only unique information exchanged between the two operators, because

most of the time both callsigns and grid locators are known to both operators ahead of time.

In Joe's new version of his software, he wants to redefine what constitutes a signal report. Gone are the TMO reports, being replaced by a measurement of relative weakness in the signal as measured in dB.

If this is not bad enough for those of us who are challenged by change, Joe also wants us to be totally dependent upon the radio and the computer for what constitutes a QSO. This is probably the most controversial aspect of his proposed software. How can we say we had a QSO with someone when we never heard the other station? Even our HF friends rely upon having actually heard the other station, even though some may have mistaken a burst of noise as a number in the exchange of the two-digit numbers used for signal report.

It is in this use of the computer that Joe assures us that the integrity of what constitutes a QSO is actually better preserved, since the computer is responsible for interpreting the data received and displaying it on the screen. It is up to the operator to confirm that the data received is what was expected.

Even so, for some of us, it is illogical to consider that a computer can preserve the integrity of what constitutes a legitimate QSO better than we can. There is something tangible about actually hearing the signal.

This need to hear the actual signal takes me to one of the other newer users of our VHF and above spectrum, HSMM. Here the operators have no interest in hearing the signal. All they want to experience is what the computer is interpreting as data. Legitimacy for them is that the computer is receiving and translating a data stream into something intelligent. Hmm . . . this seems to me to be what Joe is also trying to accomplish, using the computer to interpret a data stream so that the operator receiving the data stream can decide as to its legitimacy, whether that legitimacy is a signal report from a very weak signal or a computer game played between two or more HSMM operators.

It's the change that we are most troubled by. In all change there are early adopters, those who eventually come on board, and finally, there are those who will never change. For those of us who are early adopters and those of us who do eventually come on board, it is my desire that we practice patience and tolerance of those who find it very difficult to change.

Perhaps we may be able to encourage our slow to adopt change fellow hams to come along with us as we change by gently reminding them that they, too, were once wet babies. Until the next issue... 73, Joe, N6CL