

## Remote Contesting

Remotely operated contest stations are appearing in greater numbers with each passing contest. How do they affect contesting? How do they affect *me*? What can I learn from them? I will try to address these questions in this new *NCJ* column.

How do remote stations affect contesting? I've noticed four effects:

1. Remote stations are being used to win, and place highly, in major contests.

2. Remote stations provide valuable contacts and multipliers for other contest participants.

3. Remote stations are allowing operators to get on the air who might otherwise not be able to participate.

4. Remote stations are developing technology that's useful for all station builders.

Okay, let's break these down. First, remotely operated superstations are being used to win major contests. Just a few examples from only the first three months of 2018 (claimed scores):

KM7W (KL9A) 2018 ARRL DX CW, USA Winner SOAB HP

NN2DX (W2RE) 2018 WPX SSB, USA winner SO(A)HP

KO7SS 2018 Russian DX Contest, USA Winner SO CW HP

Remote operations are also being used to reach the Top 10 box. For example, in

the December 2017 Stew Perry Topband Distance Challenge, remote stations provided the #5 Multioperator HP, three of the Top 10 Single-Operator HP entries,

and the #1 Single-Operator LP. At least 16 other remote stations were on the air for the December 2017 Stew.

Second, remotely operated stations



Hal, W1NN, operates remotely to his station in Ohio from Tokyo. [Hal Offutt, W1NN, Photo]



The KM7W (KL9A) control point that helped Chris win the USA SOAB HP in the 2018 ARRL International DX CW. [Chris Hurlbut, KL9A, Photo]

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provide valuable contacts and multipliers to other participants. While every contact is helpful, an example of a unique multiplier was provided by HH2AA (W2GD) in the 2018 ARRL DX SSB. HH2AA in Haiti is operated by remote control over the internet. The HH2AA QRZ.com profile includes photos, and information on how the station helps the Haiti Air Ambulance Service. For the ARRL DX SSB, W2GD, at home in New Jersey, operated the Haiti station to claim 1st place in the Single-Operator, Unlimited Low Power category. Since he was the only station on from Haiti, he also provided a huge multiplier for everyone else. His 3830 report about his experience in the contest makes for interesting reading. By the way, to read about other remote operations, visit 3830scores.com, search on the call sign, or look for the contest of interest and look for the reports with an "X" in the "Remote" column.

Third, remote operating is allowing operators to get on the air and not miss the contest. A prime example is Hal, W1NN, who frequently operates remotely from Tokyo. As of this writing, he has operated remotely to his home station in Ohio for 14 of the last 16 weeks of Thursday night NCCC Sprint events. He's also been able to get on for the ARRL DX CW, CQ 160, CWOps events, and more. "Like most Tokyo residents, I live in an apartment

where it is not practical to put up a ham antenna," Hal explains. "For much of the contest season I was off the air, missing the 160 contests and the weekly NCCC Sprints that I had come to like. My long-time friend Dan, WA6URY, helped me through the process of setting up a remote station. I made my first contacts from Japan via my Ohio station in the winter of 2011, so I have been at this now for 7 years. Once or twice, I have lost the use of an antenna or had some other problem, but, in general, things have worked out very well. My station in Ohio is quite modest, but it is a lot better than having no station, and [operating remotely] allows me to contest as much as I want while in Japan."

Finally, remote operating is developing technology of benefit to station builders looking to automate their stations. Remote operators need equipment, software, and a layout that lowers complexity and streamlines their operation, so they have a reserve of time and attention to deal with the other potential problems of delays, lost connections, and potential confusion when the station equipment is not right at hand. A look at the "command center" that Chris, KL9A, uses shows how clean and intuitive an SO2R setup can be, even though it operates a superstation more than 2,000 miles away through a stream of bits. For each radio left and right, the rota-

tors, antenna switching and amplifiers are monitored and controlled by software control panels on a screen. For each radio, an Elecraft control head (K3/0-Mini) provides the "knobs and buttons" to access all functions of a K3. In the middle are the *Win-Test* logging software and the YCCC SO2R box. Just looking at the setup for a few minutes might convince you that *you* could run this highly automated superstation.

Automation, monitoring, and internet or computer-control are just a few of the technologies being advanced by remote operators that are useful in any new contest station design. "The KM7W ARRL DX CW (2018) operation was the first time I truly felt like remote operating was immersive," Chris said. "I felt like a guest on the entire time, thinking the station host would check in on me at any point. Remote is cool, no doubt. I believe it is also the future. As the ham population fights with the increased [antenna restrictions imposed by] HOAs and others who are not tower friendly, it provides a fantastic option."

In future columns we'll take a deeper look into remote operation, the technology, and the equipment. In particular, we'll see how these can be applied to your contesting efforts today and in the future.

Send your suggestions and comments, and I'll include them in future columns.