

COVID Innovation Award

NCQP 2021

W4TMO and N4CW's Remote Mobile Operation

We pulled it off. It wasn't easy! Relying on cell phone communications for audio as well as video/control is tricky at best, and Jim found a way!

Jim (W4TMO) engineered the communications setup, made an operating "desk" for the passenger seat, and even built the antenna setups (one on the trailer hitch, and two on a roof rack)...all on a Prius!!! Ignition noise wasn't a problem, and what noise there was came from the power supplies. I had no control



over the situation while operating...I could only use the keyboard (and earphones) and a vision of N1MM+ that reflected what was on Jim's laptop in the car. We pretty much licked the latency problem, but cell communications was not 100% reliable at my end. I would frequently get "pops" when the signal dropped for a few milliseconds, enough to miss a dit! That usually wasn't a problem, but necessitated lots of "?? or "AGN?"...

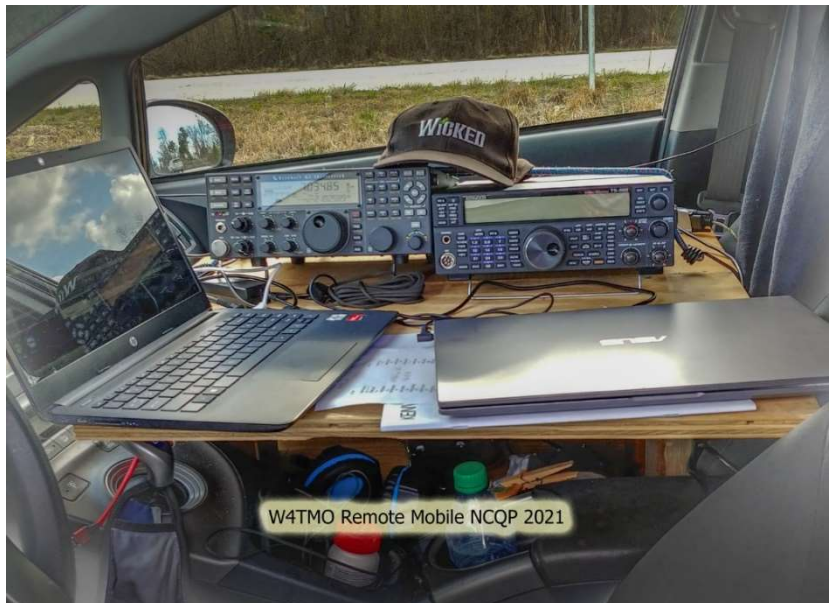
We had "practice" with the setup in the SCQP on Saturday, and plenty went wrong all along. I was in constant cellphone/voice communications with Jim so there were no surprises. Sunday went much smoother except for a late start due to "left over" problems from Saturday. I drove over to Jim's house early to bring him a replacement K3, in case it had a problem (turned out, it didn't). We haven't posted our scores on 3830 yet, but I did manage around 1100 Q's for 183695 points! (*Ed:- 1,113 Q's / 20 Counties*) Not bad for a couple of old guys!

73, Bert



On the Pitt / Edgecombe County line

That's our "go" mobile, 2015 Prius. 80-40-20 antennas back to front. 80M is a "Texas bug catcher" on a homemade 1" copper pipe mast. Pic attached here is the rigs as they sat in the car. TS590SG on the right was the workhorse. K3 on the left rode as a spare. The laptop ran N1MM and RCForb Server, the same software used by most remote stations. Internet provided by a hotspot sitting on the dash connecting to Verizon.



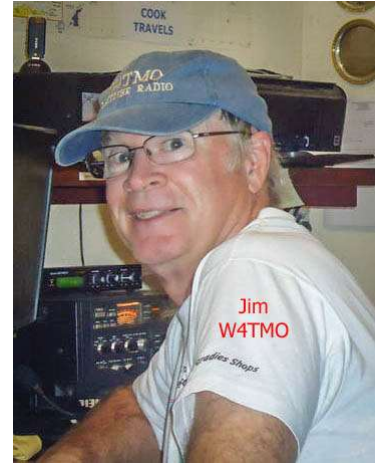
Pre-contest, I drove much of the planned route with 2 phones, one Verizon and one ATT. Verizon coverage won hands down. In fact, Bert only lost connection a couple times when I hit the really "back roads" and then only for a few minutes.

Turns out, running the RCForb Client via a hotspot is easy. The RCForb Server, not so much. The trick: finding a Virtual Private Network that would pass multiple "ports" over cell networks since by default cell providers block most of them. Learned that along the road to success 😊

Had a few people ask if I was a "CBer", chasing storms, or Google mapping. Easiest explanation turned out to be I was out enjoying my amateur radio hobby.

Looked at the rules again, guess I interpreted "apparatus" to mean radio, ant etc. No worries, we had fun in spite of covid!

Thanks to the committee for making it happen each year!



73 Jim, W4TMO, USAF Retired