

The News of the
SWAMP FOX CONTEST GROUP
Tales From the Swamp

Editor: Scott Brown, N2OG

JUNE 2022

Presidents Corner, No New Announcements

N2OG Remote Station
By Scott N2OG

Many month ago someone, I think Ed K3DNE suggested I set up a remote station so I could operate in more contests as a club member in South Carolina.

So I have been working toward that end since. I started with what I thought was going to be a way forward and I downloaded and tested Win4Yasu. I liked the interface and purchased the 50 dollar software before I found out that it had no way to connect remotely. I still really love that radio interface. Win4Yasu is really a great program since you are able to link a waterfall and N1MM to it for a great contesting interface! I had to move on to find some way to operate my station remotely.

Enter Frank KG4IGC, he posted a note on the reflector about making a contact with WB2REM from his station while he was flying from New York to Florida. That sounded remote enough for me! I know WB2REM from a few on air QSO's I had with him. So I contacted him with questions about how his remote station worked.

Jim was more than happy to help me with setting my station for remote operation. He uses RemoteHams.com for his remote station. I had tried Remote Hams to attempt this many months ago but was unable to get it to work. I had decided my router was probably not compatible with Remote Hams so I was unsure this time we could get it to work.

Well with help with Gene, K5PA we found our way through the router to make a successful connection with my radio. All of this happened at no additional cost to me.

Now the expensive part of this project. With my radio connected of course I wanted more access to my antennas. I needed a remote antenna switch. Remote Hams has several ways to make this work. I decided on a digital relay interface to a 12V switch. I ordered all the parts and they were waiting for me when I returned to Greenville.

When I arrived home in Greenville I saw that my ZS6BKW was on the ground. And of course my trusty air cannon was at Edisto Beach! So I leaned on Greer Amateur Club member Dave N6YMM. He offered to come over and shoot an arrow into my tree top. No use having a antenna switch with no antenna to switch to!

With that taken care of I had two days to get this switch working before I was headed back to Edisto Beach. So I started to take my station completely apart!

The old manual switch had to come out of line and I was not sorry to see it go. I had taken that switch apart to re solder a number of times. I was also able to finally use my powered USB hub that I had purchased at the recommendation of Kevin, N4XL. (No Photo)



On a side note, when I decided to install the Micro Star USB Hub it will cause less headaches to go into Device Manager and uninstall all hidden devices so the computer will have a fresh set of ports you can name as needed when you start connecting your new setup.

I had to download RCForb client and the RCForb server. Next I located my USB switch relay and installed the software from the manufacturer website. And let the server know to look for the relay via a newly named Com Port. That went smoothly!

Next I install the switch in an outdoor location. And I made my antenna connections.



Three connections to the antennas and a center coax sent to the radio. Simple! This switch is a DXE RR8B-HP.



This is what the switch looks like installed. Bolted to my natural gas meter. Not sure that's the safest installation, but it got me up and running.



1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | POWER

USB POWER - | +

TX
RX

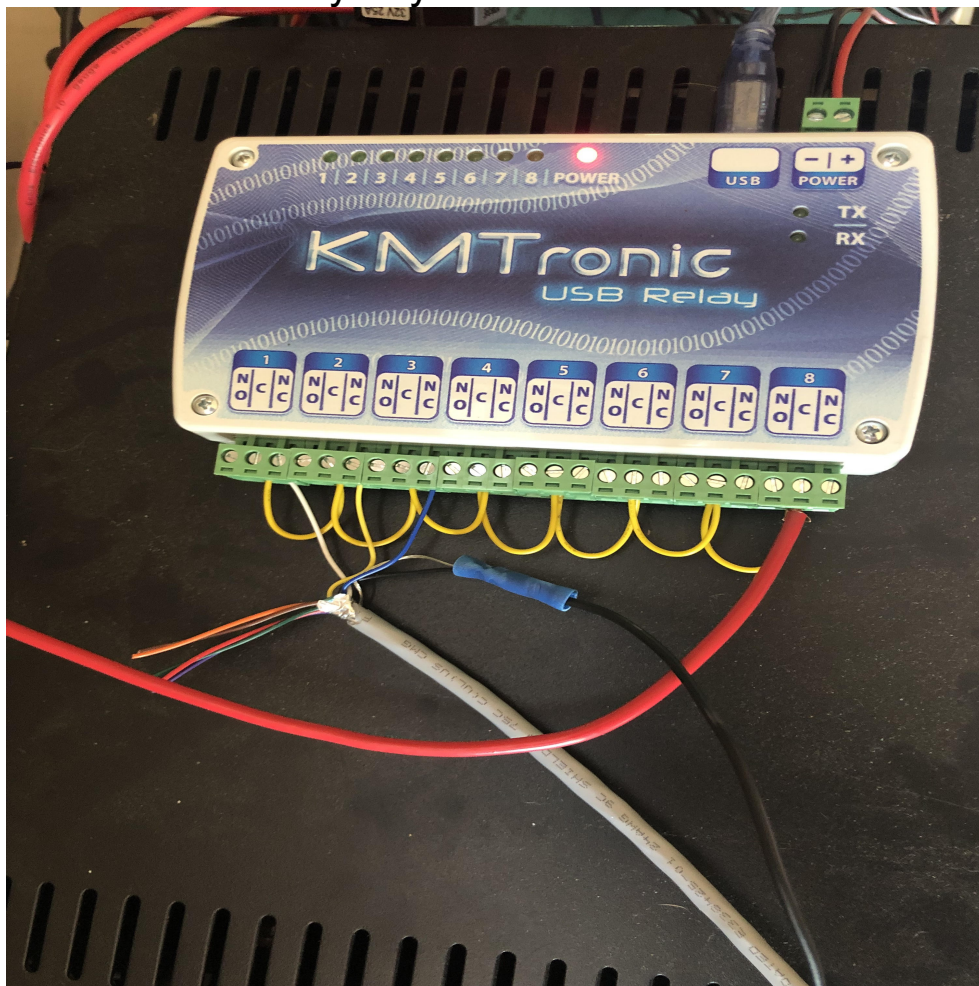
KMTronic
USB Relay

1	2	3	4	5	6	7	8
N	N	N	N	N	N	N	N
C	C	C	C	C	C	C	C
C	C	C	C	C	C	C	C

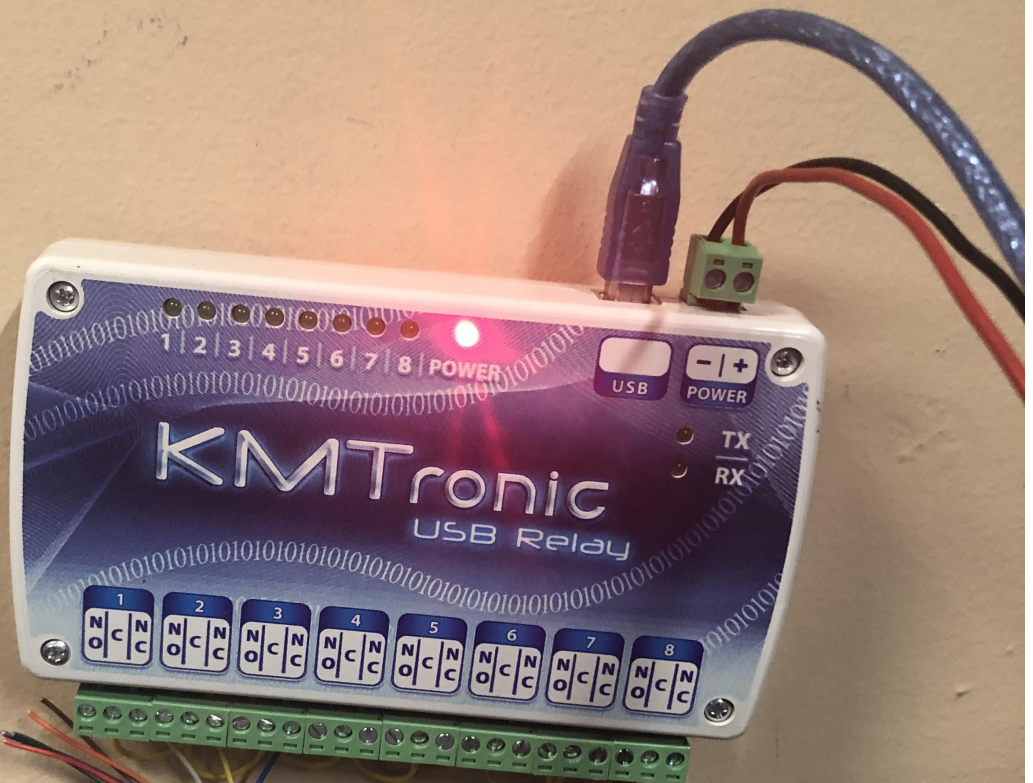


Next I wired the relay to the switch via a control line with 9 separate wires bundled together. In my mind I just needed to run a wire directly to the switch post I wanted to operate to the proper relay port. One neat connection to the antenna switch, right? Wrong.

I needed help at that point and it was late the first night so I slept on it and emailed K5PA the next morning. Gene opened my eyes to the fact I was dealing with two different systems, a 12V switch and a digital interface relay. So I had to complete the 12V circuit before things would work correctly. The lights came on in my head and with Gene's direction I made my relay look like this.



I completed the circuit with a ground connection and then the switch worked flawlessly.



Above you can see my original wiring configuration that did not work.

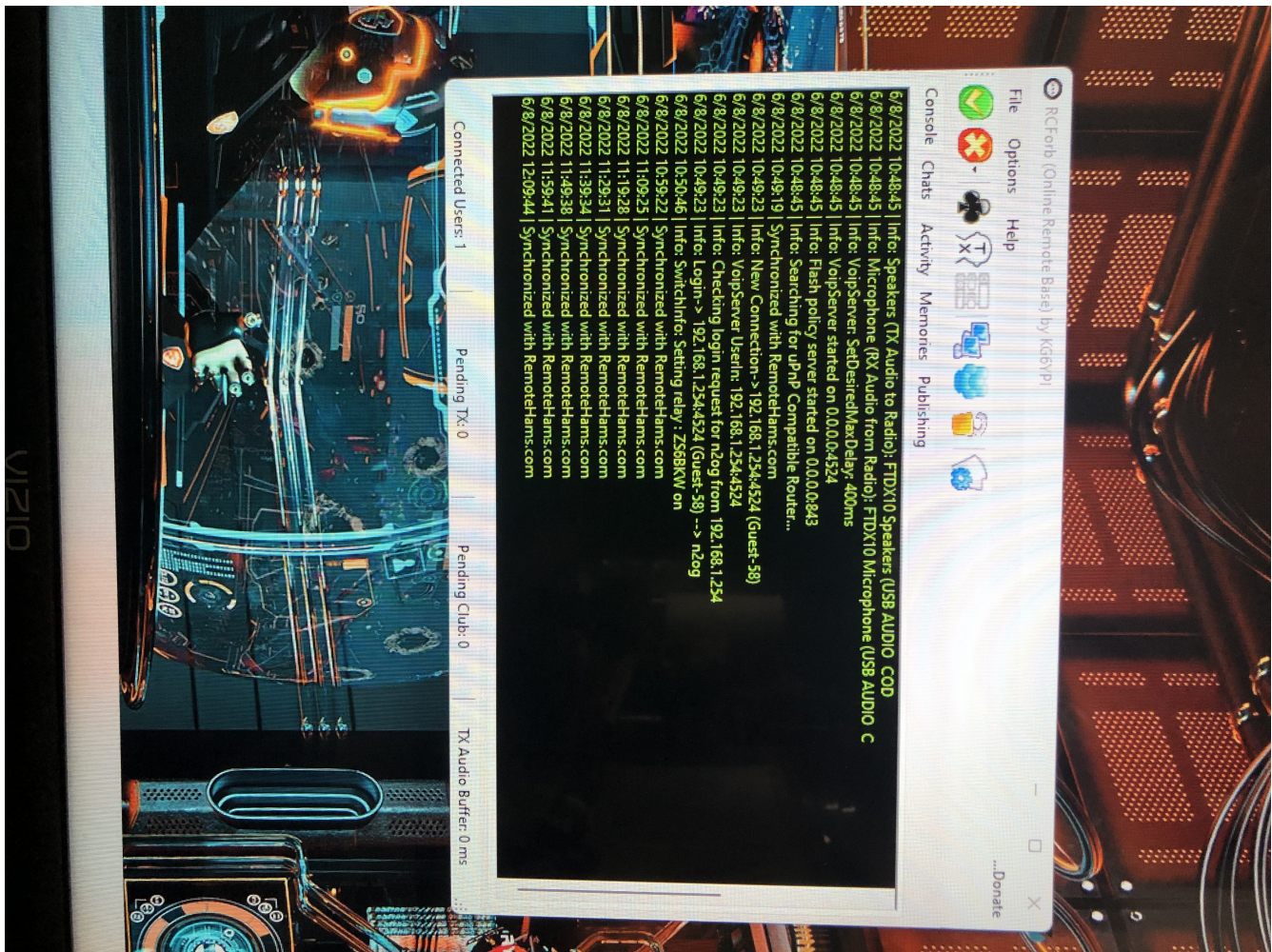
Now when you decide to leave your station ready to go with everything connected you start to think about lightning protection.

Above is a DX Engineering DXE-IS-RCT. It is a control line protector which is suppose to protect the Kmtronics and my computer. I hope I never see its used. This is a one use only device. If lightning hits it then it needs to be replaced.



Another Lightning impulse suppressor I needed to install was a

PolyPhaser coming from the switch to the radio itself. And if all fails I have signed up for the ARRL station insurance. Very inexpensive protection. Sorry I can't get this photo oriented correctly.



Here is a look at the sever where you make all your connections and adjustments to RCForbs client which is your radio interface, you can see it below. There is a issue that is solved with a static IP address. So the server can go to the same address each time. As a side note No-IP is offering a DV SSL certificate. It has something to do with security. Should I take advantage of this or will it be a hassle?

I will be able to connect N1MM to the client and have it follow the radio frequency. N1MM will be running on the computer I have with me so I will be able to easily send in my logs to the sponsors.



This radio interface is not as good as Win4Yasu but it will be OK. Above you can see my MSI gaming computer. I have not had an issue with this machine! I love it.

Which brings me to the thorn in my side, my little Lenovo laptop which I used for about a year until I finally realized it was highly susceptible to RFI. Recently the speakers decided to quit working so I have to hook up headphones to listen to anything. Now for some reason like old age, when I use it to talk through it to the remote it sounds terrible. So I had to purchase another laptop to run my station remotely. What did I get, another MSI. Nearly identical to this one.

So this is now my current setup and I am looking forward to contesting more often.

Currently, I am heavily involved in CWops class, I am enjoying the challenge and hope to be able to contact you in CW mode. If you think you can elmer me on the air in CW mode please reach out to me. I need help!

From The Reflector

“Screening Vacuum Tubes”

by John Atwood

Ran across this while surfing Vacuum Tube Valley issue #1 on worldradiohistory.com. I will soon be trying to bring an old HW101 back to life and thought this information might be useful should I need a tube or two from a hamfest where I don't have my tube tester handy.

Kevan N4XL

Visual Checks

Checking the appearance of a tube can help screen out some obvious problems, plus help determine if a tube in a box is really N .O .S. (New Old Stock - old, but unused).

The first place to look is the getter – that silvery reflective area where metal (usually barium or magnesium) is flashed onto the inside of the envelope to trap stray gas molecules. If the getter is completely white, there is a gross air leak, and the tube is no good. If the getter is very faded with just a small reflective spot left, then the tube has seen hard use and may be gassy. It may still be OK, but it is suspect. If the getter is fresh - with no darkening or discoloration around the edges, then the tube is more likely to be good, or at least have low usage, but it still may have other problems.

Shake the tube. If something rattles, look inside. If it is a small piece of glass, then don't worry, but if it is a piece of metal, then throw the tube away. Sometimes octal tubes will have loose material in the base. This is not usually a problem unless the whole base is loose.

You may find boxed tubes that appear to be unused (N.O.S.). But are they really? They may just be defective tubes ("pullouts") that a service technician stuffed back in the new tube's box. Looking at the tube can help tell if the tube is a pull-out. First, is the brand of the tube the same as the brand on the box? If not, it is unlikely to be N.O.S. Are the markings reasonably clear? Most tubes have very fragile brand markings that easily rub off with handling or cleaning. Are there obvious finger prints or dust accumulations? Is the glass substantially darkened? Is the getter noticeably eroded? While some tubes have some slight darkening or what appears to be slight getter erosion when new, most should look fresh. If any of these visual signs indicate the tube is used, go to the next step, and check its transconductance. And, don't pay an N.O.S. price for the tube!

British technical discussion
by Kevan Nason, N4XL

Ran across this on the groups.io site RSGBTechnical. It was in a discussion about how manufacturers use alternative units of measure to represent power (think dBm and dBi) and how that can be confusing at best and sometimes misleading.

BBC News has occasionally expressed height in giraffes, instead of double-decker busses. To which we have to have to ask the question, "how many feet are there in a giraffe?" Well ... four, of course.

Andy

www.g4jnt.com

N4XL WPX CW Lessons Learned

I believe this is the first time I don't have anything operationally new to write of as being newly learned. Huh. So, I'll talk about two observations and things I remember consciously reminding myself of. The latter might help others and it will help drive those points back into my subconscious where they will be more effective.

Observations

- Don't know if it's the increased sunspots or not, but I'm stronger into the South Pacific than I thought. The RBN added a skimmer on 5W1, Western Samoa. It routinely showed a 20 meter signal from me when beaming west, northwest, and even east. This is my first contest where they would show up on the RBN during CQ's and I now have more confidence to beam that way. The proof was twice working 3D2, Rotuma, with only a single call (20 and 15). (My yagi sacrifices F/B ratio for higher gain and a wider than usual 3 dB point on the front lobe so it isn't unusual to work folk off the back of the beam. Don't think it was long path as the bearing was wrong.)
- I closely watched VOACAP predictions for the band and time I was on. Used that to point the beam to target areas I should be strong in. (Those of you without beams can use your antenna lobe patterns in a similar fashion.) Sure enough, many times people from those areas would answer my CQ's. That's how I snagged EX0M.

Things I knew, but remember reminding myself to do

- It's best to snag the 6 point EU stations Friday night. More EU seems to be on then than on Saturday night. Plus you don't know if propagation will be there on night 2 so snag them on night 1 if you can. Work them through EU sunrise. Especially make a point of being there for EU sunrise. "Gray Line" theory is it often isn't gray line at all. The ionized atmosphere above ground just before sunrise helps funnel your signal towards the ground making you stronger than normal as the sun's terminator approaches. EU stays stronger on 40 till well after their dawn.
- Using Pg Up/Dn in N1MM to rapidly change speed to work slower stations. Saved time in repeats by dropping speed for the slower stations.
- When working rarer mults that aren't normally on it often helped to tail end or wait until after the initial rush to throw in your call. If stations were running in the 20 to 26 WPM range that often proved to be the secret to busting the pileup.
- With a weaker station it often pays to NOT be on the band of choice. My weaker signal stood out more without so much QRM. In the WPX the mults come from everywhere so it paid to CQ on 15 or 40 when 20 had the most action. Rate was less, but steady. I picked up a lot of mults that way from people who weren't big contesters and wanted to stay away from the big QRM pileups. Generally speaking it paid to go higher in frequency rather than lower if you had a choice of open bands.
- S&P. (Jumping to signals in N1MM's Spectrum Display is NOT assisted operating.) Rate was better using spots from the M&Q window but using the Spectrum Display was very productive too. I jumped from signal to signal in the Spectrum Display while watching the Band Map display. After a jump it was immediately obvious if I had worked that station before (showed on Band Map) and I could then either jump again or work a new one.

