Rochester DX Association

President's Letter

Welcome back!

Yet another year of DXing, informational programming, FD and most importantly, camaraderie in our favorite pastime.

The club grew to 80 members last year, a modern day "milestone"! Great to see the enthusiasm and participation in club events.

As for enthusiasm, thanks to the outstanding support of FD once again. We may not "win" like last year but not for our efforts. We "experimented" with several aspects of the event in the hopes of streamlining the setup and tear down time-frame. A few "after event" sessions were held and suggestions for improvement made for 2019.

We're planning another outstanding year of programs and social events as well as the upcoming contest season.

Things get started this month with the CQWW RTTY contest, one of the digital crowd's favorites. Plenty of activity and with the world of digital interfaces capturing much of the overall radio communities favor of late, should be easy to get on and "play". That event will be held at the end of the month, 29-30 September.

October will bring one of the most "famous" contests of all, CQWW SSB. Even in "poor" conditions, there is plenty of activity. Granted, having something on 40m and the low bands is advisable for maximum fun but you never know about the elusive 10m opening. As many of us say, contests "open the bands".

As with all contests ("club" and others), please consider submitting your logs to the authorized agency and the club "contest grid".

I've always felt taking the time to submit shows "activity" and the next time there is a frequency "fire sale", we may retain some bandwidth that might have been otherwise "sold" due to it's lack of usage.

Speaking of DX, we're planning on having WJ2O, Dave Farnsworth visit us for another presentation on his extensive list of Dxpedition participation. More on that as we settle a date, we "filled the room" last year, the talk was a fascinating one and I'm sure this year will be no exception.

NYQP will once again be supported by the RDXA with Doug and several other members taking the lead on the contest's 10th anniversary. Thanks to those who initially resurrected the NYQP and to the members who have continue to support it – they can ALWAYS use additional help tho!

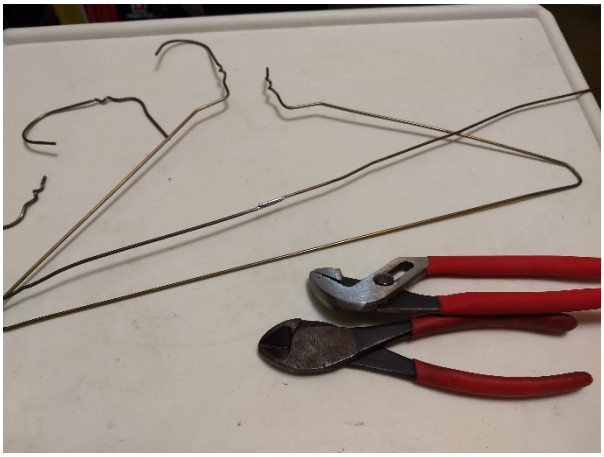
One thing of note regarding NYQP..... disappointingly, we've LOST the club contest to our neighbors to the west... come on, we have more members, better stations and a wealth of contest experience!!! Should be a “no brainer”... More on that as we approach the 20-21 October contest.
Looking forward to another “Show Us Your Shack” session in September as it's become a “crowd favorite” over the last few years. Please consider being a part of the discussion with pictures (on a USB stick so we can project them), charts, diagrams – anything to explain your operating situation.

Best DX es 73,
Chris - K2CS

6 Meter coat hanger antenna project
David Pfonner AC2VE

My interest in the 6 meter band developed when I wished to check into the RVHFG nets and to gain some added contacts during ARRL contests. However, I only have two antennas for my IC-7300. I have a G5RV Jr in the attic and a 148 foot end fed running around my back yard between 20 ft and 12 ft height. The best SWR on either is about 8:1. My MFJ turner does not tune 6 meters. The internal tuner on the 7300 only goes to 3:1 unless I go to "emergency mode" at half power." When I try to make contacts with 50 watts into an 8:1 antenna, the results are marginal. I needed to get a better external tuner or get a better antenna. I decided to try a better antenna. My thinking was that even with a better turner, I would still be trying to radiate with a 8:1 SWR.
I decided on the coat hanger antenna because I could use existing parts I had laying around (no real new costs). If I messed it up totally, no loss. Just gained experience. Also, it looked like something I could actually do.

First step, gather parts and tools.



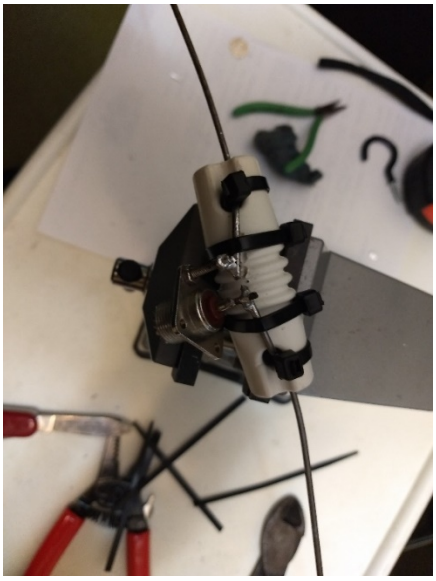
I cut the coat hangers as needed to make the two ends of a dipole. 4 foot, 8 inches each. This is the measurement for the calling freq of 50.125MHZ. I used the web based tools

provided by West Mountain Radio to arrive at this length. My goal was 50.200Mhz. The length for 50.200 was 4 foot, 7.9 inches. My measurement with a tape rule is not able to discern .1in., so went with the 4'8"

I was not able to get 4'8" from just one hanger. I had to solder two pieces together for each half of the dipole. I should have done this last. The hangers act as large springs and would fight my every effort to bend and stay put when I tried to connect them to the SO239. Shorter elements would have made feed point assembly easier. I used steel wool soap pads to remove the insulation from the hangers before soldering. I used my Weller soldering gun for this step. Also, after soldering the two rods together, be careful. They retain their heat a long time. My fingers made more than one trip to the cold water faucet with this project.

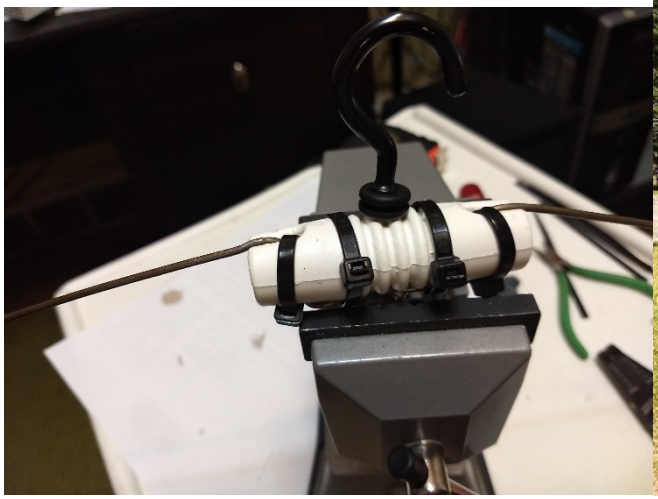
I used an insulator I had left over from the G5RV project and an SO239 I had bought at a hamfest for 50 cents. The nut and bolt were on the antenna connector when I bought it. Note, I just tack soldered the connections. If I end up using the antenna outside or high power, I will add terminal lugs to the hangers and make good mechanical connections and then solder in place. Notice how I have bent the hangers to feed thru the insulator. I did this for strain relief purposes.

After soldering, I bent the coat hanger ends parallel to the insulator.



The tie wraps were needed to hold everything in place. I do not know how the addition of two 90 degree bends in the elements will change the SWR reading or how the bends will change how the antenna will propagate.

I added a hook for antenna mounting. I used a rubber grommet as a spacer to keep the hook screw tip from getting too close to the SO239.



Now comes time to see if this antenna will work.
For testing, used my 9 foot tripod I have set up for my hamstick dipoles.

I used a right angle coax connector to make sure the hook was not pulled away from the mounting bolt. I used a 1 $^{1/2}$ inch 3/8 bolt to extend the hamstick socket. I keep the bolts installed when in storage to protect the socket threads. Attached is 25 feet of LMR240 coax.

This Space left intentionally blank!!

These are the SWR readings using a Surecom SA-160 analyzer:

At my target freq of 50.200Mhz, SWR is 1.13:1.
The antenna is most resonant at 50.500 Mhz. with SWR of 1.10:1.
At 50.00Mhz the SWR is 1.15
At 54.00Mhz the SWR is 1.79
I am not going to trim or add to the elements. I am declaring this project a success.
Next step is to actually mount the antenna where it will be used. I am going hang the antenna in the attic of my garage and run coax to the hamshack when needed. Eventually I will make a permanent run of coax to the garage and a coax switch at the radio.

I only have a small step ladder and do not climb towers anymore. Therefore I can only install things where I can reach them or by throwing a line.

This is my first attempt. I trying to use an existing nail in the garage wall.

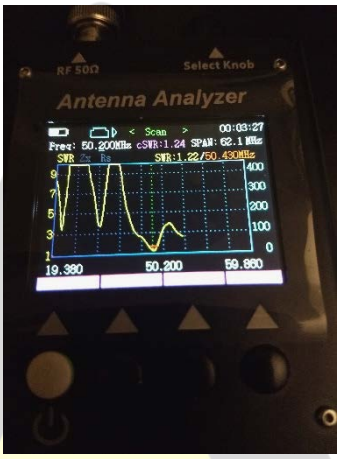
Note that my van was not in the garage and the garage door was open.

What a disappointment.

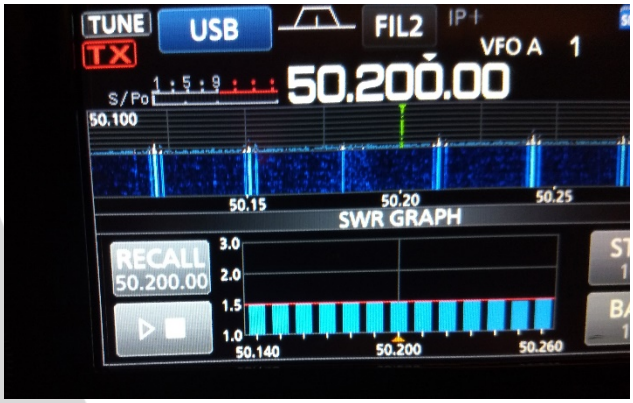
The SWR jumped to 3.26:1 at 50.200 Mhz.
I moved the antenna to beam near the center of the garage. Again using an existing nail for mounting. This is the best I am ever going to be able to do.

Again, I used a string to hoist the antenna up to the nail. The other green string you see holds a foam ball that tells me how far I can pull the van into the garage. It is the highest existing nail in the garage. I needed 30 feet of LRM240 coax for this set up.
Results with the garage door open, van parked outside:

50.200 Mhz- 1.6:1
50.000 Mhz- 1.7:1
54.000 Mhz- 2.24:1
Before moving on to the next test, I set up the IC-7300 to transmit on 50.525Mhz FM at 90 watts for two minutes to make sure the solder connections on the SO239 would hold up. No issues with the connections found.
My next test:
Results with van in the garage and door closed. This is the scenario that would most likely be used regularly.



50.200 Mhz - 1.24:1
Most resonate at 50.430 Mhz with SWR of 1.22:1
50.000 Mhz - 1.30:1
54.000 Mhz - 3.40:1
It seems that the antenna did not care too much about the location van.



The SWR meter in the IC-7300 says SWR is 1.5:1. at 50.200Mhz. That is a difference of about .25:1 compared to the external analyzer readings. Close enough for me.
One final note. When using the radio SWR meter, I had to clear the tuner memory first. It seems the internal SWR meter sensor is not at the antenna jack, but somewhere before the internal tuner.

Now for real world on air testing. I contacted a local 6 meter net and received a good signal reports. TX power was set to 90 watts. RF amp was on and NR was on. I was able to hear a mobile station in FN14 (Ontario Canada) and a local station gave me a S5 report.
I received net control with an S4. Background noise level was S0.

It is amazing what we can do with a coat hanger.

2018 RDXA Field Day

Vic K1PY

After some time to reflect, let's look at this year's Field Day, and look ahead to next year's.

Planning

We started detailed planning in March with a "general" meeting to discuss the big picture and see where we were at and where we wanted to go. We focused on continuing what we believe to be the "best fit" for the club, namely the class and scope that reflects the overall interests of the club. That said, we again decided on 3A, as it's always been felt that with two CW and one PH station, it best reflects the skills and support of our membership.

As always, antennas is the preeminent topic, always the subject of the most discussion. This year, with the impending loss of the Cushcraft 2L 40M monobander (it will be raised to the clouds by its owner), we needed to determine its 40M CW flagpole replacement. Ergo, it was the next topic for the May meeting, and elicited the largest FD *planning* meeting attendance ever – 18 members plus one xyl and 3 harmonics! Also looking to simplify the effort involved, extensive discussion resulted in the formation of an antenna team to review and propose a design for this year.

This also resulted in a high volume of reflector comments to sort and clarify our goals. Initial interest was focused on a 2L inverted-vee, but it was ultimately pared back to a single-wire configuration at 70 feet. We were looking forward to seeing how it would compare to the 40M Yagi. (Take a look at the 2017-2018 comparisons in the band/mode table elsewhere.)

Also in May, came a surprise e-mail. Last year when we won 3A for the fifth time, we beat the team that took first previously, and were looking to regain #1. They laid down a friendly challenge for #1, which of course elevated our competitive spirit even more. All further planning was underscored by ***"Remember K4JJ."***

For several years, adding an untapped mode to increase our QSO count has been discussed, and it finally grew this year to warranting its own meeting. Hence, the third get-together focused on digital, with much initial excitement around FT8. Unfortunately, it was reported that the designers of the mode, headed by **Joe Taylor K1JT** at Princeton University, were opposed to its use in contests, indicating it was a weak signal mode and unsuitable for contest application. (Note that since the time of this meeting, much has been happenning, and it may perhaps yet be a candidate for next year. Also, an ad hoc workaround in fact resulted in some FT8 contacts being made, but we hadn't implemented the fix in time for FD.) Our efforts in setting up PSK31 didn't work out for this year. Needless to say, we are looking forward with some excitement for digital in 2019!

Finally in May we wrapped up with a Strategy & Tactics meeting to discuss what other methods were available to increase our performance. Again, GOTA has always been recognized as a key component and we've always supported it to the same extent as the other three HF stations. We wanted to continue that this year. (See results later.)

Another strategy that's been growing over the past couple of years is implementing a receive-only Spotting station on the inter-station network to provide expanded support during the "slow times" – namely, 1 – 7 a.m. and the last 3 or so hours of the event where we've "worked out" the bands, and need to find those stations that are CQing (as we also continue to do). Murphy played his role in subverting this effor for this year, and we've already come up with plans to alleviate that for next time.

Here's (most of) the Team!

Field Day Weekend

With efforts to simplify, setup went very well. The "new" 40M CW antenna on the flagpole went up in textbook fashion, and the dipoles for the other 80/40 band/modes were strung nicely along the northern tree line.

ADMAR again provided our power with a free 25 kW generator. There is a generator "story" this year: We ran out of fuel 8 minutes after operating ceased at 2 p.m. Sunday. Whew! The cause was running it throughout Saturday night to power the refrigerator for Sunday dinner's food. (We're planning a workaround for that.)

Here's photos showing what FD looked like for 2018.

Here's **Irv AF2K** with **Tom KC2VHS** signing in **Jim Herbst KC2KNJ**, our county Emergency Comm representative (and 100 point bonus provider)

Here's **Vic K1PY** running 20M PH at the start (with a 101 hour), with **Dave N2CK** logging (this is a tradition with the two of us – we've been sharing operating/logging for years for the simple pleasure of it)

As things settle in, so did **Irv AF2K** for a well deserved break.

Here's **Mark K2MTH** setting up **GOTA**, and **Dave K2DH** at digital.

Gayle N2TWI (top) at **GOTA** and **Dave K2DH** with a couple of youger visitors, working with a paddle – hey go for it right at the start! There's also a pretty good crowd at the gathering area in front of the commissary.

Lynn W2BSN (with meter) and **Mike K2GC** and two of his clan, with **Lloyd N2PU** in background next to CW tent. PH tent in far back.

Andy K0SM with daughter **Alana** at **GOTA**. This team has been FD partipants for several years running.

Results

Yeah, I know, you've been waiting. So here's the results, along with comparisons to **K4JJ**.

	A	B	C	D	E
1		2018	W2RDX	K4JJ	
2			3A	3A	
3	CW	80	335	202	
4		40	881	709	
5		20	678	660	
6		15	167	267	
7		10	2	174	
8			2063	2012	
9					
10		GOTA	0	0	
11		VHF	33	2	
12		OTH			
13		TOT CW	2096	2014	
14					
15	PH	80	138	197	
16		40	374	215	
17		20	388	451	
18		15	35	331	
19		10	107	337	
20			1042	1531	
21					
22		GOTA	227	500	
23		VHF	114	39	
24		OTH	0	28	
25		TOT PH	1383	2098	
26					
27	QSO	80 HF	473	399	
28		40 HF	1255	924	
29		20 HF	1066	1111	
30		15 HF	202	598	
31		10 HF	109	511	
32		MAIN	3105	3543	
33					
34		ALL	3479	4112	
35					
36	PTS	CW pts	8384	8056	
37		PH pts	2766	4196	
38		QSO pts	11150	12252	
39		BONUS	1830	2290	
40		TOT pts	12980	14542	
41		PLACE	TBD	TBD	
42					

1562 points!

That's not that much. What did it for them?

They won 15/10 -- no surprise, especially because of their location. Other than paying attention to band openings, not much we can do here.

Phenomenal performance on GOTA. They actually made 590 PH contacts, plus 760 bonus points (mostly from 2 rather new Tech class ops). We made just less than half that. Again, a key focus area for us – it's one of the difference makers.

Digital -- Neither of us made any digital contacts -- something we already are thinking about for next year. It's all that much more important now!

Bragging rights -- Remember, they're a 300 member club, their brochure says they've had the largest FD participation of any group since 2009, and are the 2010 Hamvention Club of the Year. And their brochure and Web site, of course, brag about winning FD 3A in 2015 and 2016, and the goal to do it again in 2018. They did it.

We need to grab it back in 2019! How'd we compare with last year?

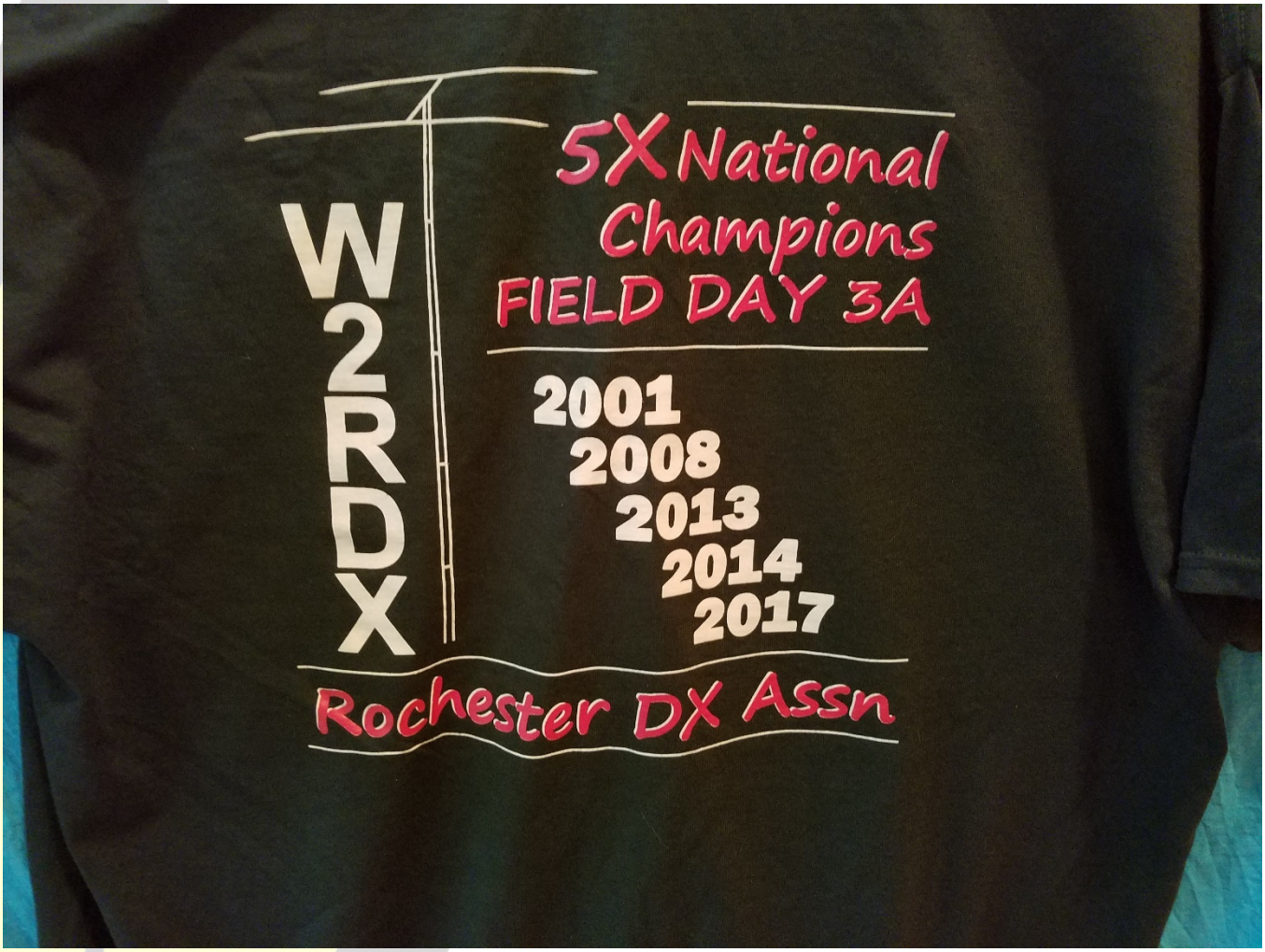
	A	B	C	D	E	F	G	H	I
1			13	14	15	16	17	18	%
2			3A	3A	3A	3A	3A	3A	
3	CW	80	342	409	320	354	358	335	94
4		40	1062	959	976	945	1028	881	86
5		20	545	654	322	508	677	678	100
6		15	167	178	168	110	297	169	57
7		10	15	0	14	0	0	2	
8			2131	2200	1800	1917	2360	2065	88
9									
10		GOTA	0	0	0	0	0	0	
11		VHF	40	37	38	31	61	20	33
12		OTH	3	0	0	0	0	25	
13		TOT CW	2174	2237	1838	1948	2421	2110	87
14									
15	PH	80	172	449	351	365	151	138	91
16		40	510	765	796	563	352	374	106
17		20	223	351	276	201	583	388	67
18		15	24	120	43	0	83	35	42
19		10	8	24	0	0	128	107	84
20			937	1709	1466	1129	1297	1042	80
21									
22		GOTA	289	150	126	133	264	227	86
23		VHF	129	57	96	68	118	108	92
24		OTH	0	0	1	0	0	0	
25		TOT PH	1355	1916	1689	1330	1679	1377	82
26									
27	QSO	80 HF	514	858	671	719	509	473	93
28		40 HF	1572	1724	1772	1508	1380	1255	91
29		20 HF	768	1005	598	709	1260	1066	85
30		15 HF	191	298	211	110	380	204	54
31		10 HF	23	24	14	0	128	109	85
32		MAIN	3068	3909	3266	3046	3657	3107	85
33									
34		ALL	3529	4153	3527	3278	4100	3487	85
35									
36	PTS	CW pts	8696	8948	7352	7792	9684	8440	87
37		PH pts	2710	3832	3378	2660	3358	2754	82
38		QSO pts	11406	12780	10730	10452	13042	11194	86
39		BONUS	2030	1730	1550	1850	2050	1650	80
40		TOT pts	13436	14510	12280	12302	15092	12844	85
41		PLACE	1	1	4	2	1	TBD	

- New 40M CW antenna – 1028 vs 881 this year (86%)
- 40CW also covers 15CW – less, but can't really compare since mostly conditions
- All other bands essentially comparable (despite our perceptions on conditions)
- Note that cell H12 was not claimed as we didn't have complete exchanges

A good takeaway: Intensify the focus on GOTA, Digital, and Spotting and we get back to the 15k point level

Several plans are afoot already. **We'll do it!**

CQ FD 2019 W2RDX
CQ FD 2019 W2AN



K2AV Folded Counterpoises for 160 and 80 meters

John Hall, AC2RL

As I said in my article on receiving loop antennas in the last issue, I'm working on improving my station's performance on the low bands. At the beginning of summer I had an 80 meter horizontal loop, which is an excellent NVIS antenna on 80m, but has too high a takeoff angle for DXing. I had no antenna for 160 meters.

As you can see in Figure 1, I live on a 93 x 140 foot corner lot in East Irondequoit. My shack is in the basement on the west side of the house, and the back yard is bisected by a power line. The best thing about the property is that it has a lot of 60 foot tall mature trees which are great for hanging wire antennas.

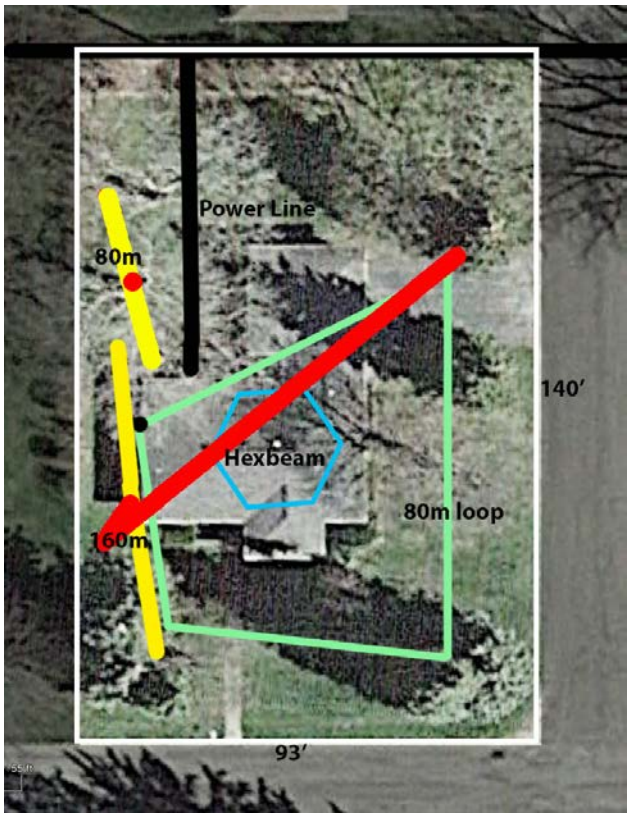


FIGURE 1 - OVERVIEW OF MY PROPERTY – THE YELLOW LINES SHOW THE POSITION OF THE 80M AND 160M FOLDED COUNTERPOISES. RED SHOWS THE ASSOCIATED ANTENNAS.

I wanted to erect a 160 meter inverted-L and an 80 meter wire vertical, but wanted to avoid placing them on the street sides of the property. That left the narrow side yard on the west side of the house. But how was I to ground them? Given the proximity of my neighbor on the west, there isn't a lot of room for a good buried radial field. Besides, grubbing in the dirt burying dozens of radials didn't sound like a lot of fun.

I researched tuned, elevated radials. N6LF (ref. 1) states that four quarter wavelength, elevated radials can be as effective as 60 or more ground based radials, but a quarter wavelength for 160 meters is 131 feet, still too long to fit four on my property.

Then I ran across K2AV's website describing a 5/16 wave folded counterpoise (ref. 2), or FCP, as shown in Figure 2. K2AV says it's roughly equal to four tuned elevated radials. At just 66' long for 160m and 33' for 80m, it looked like a good fit.

Currents in simple elevated radials produce fields that will couple to the earth, causing ground losses. Currents in the overlapping segments of the FCP are out of phase. Their fields cancel, which reduces ground losses.

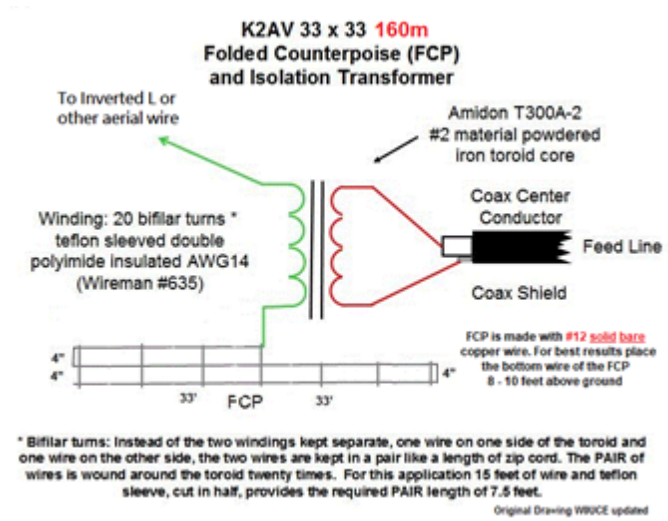


FIGURE 2

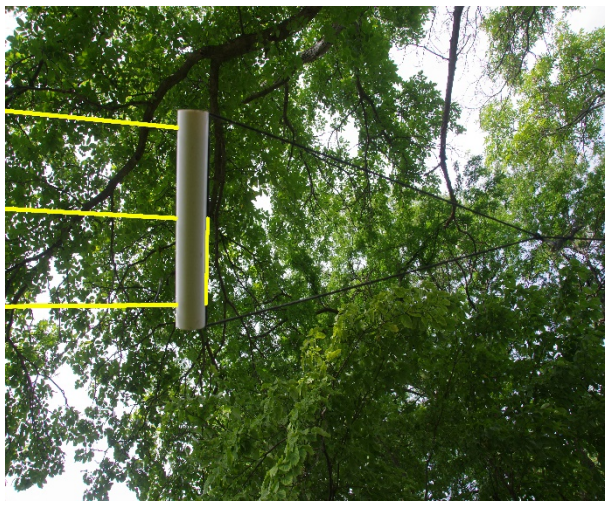
Of course, there are some gotchas. An antenna with an FCP has a narrower bandwidth than one with a good radial field. There can be high voltages on the counterpoise. W8JI (ref. 3) calculates that at 1500 watts, an FCP can have voltages up to 2400 volts. An FCP requires a transformer or choke to prevent common mode currents on the feedline.

The 160 Meter Antenna

The 160 meter inverted-L feedpoint is about ten feet off the ground, right over the basement window of my shack. The vertical part of the L is actually about 25 degrees off vertical because of the position of the tree that supports it. It goes up about 55 feet and then heads northeast to a tree on the other side of the house. It sits about twenty feet above my 80 meter loop and hexbeam, both about 35 feet up. I pruned it for resonance at 1.860 MHz.

FIGURE 3 OVERVIEW OF THE 160M FCP. ENHANCED TO SHOW THE FCP WIRES IN YELLOW AND THE BASE OF THE INVERTED V IN RED.

If you read K2AV's article, you'll see he's insistent that you should use #12 solid bare copper wire. Well, I used #14 stranded THHN from Home Depot for the antennas and FCPs, and it seems to work just fine.



END SPACER

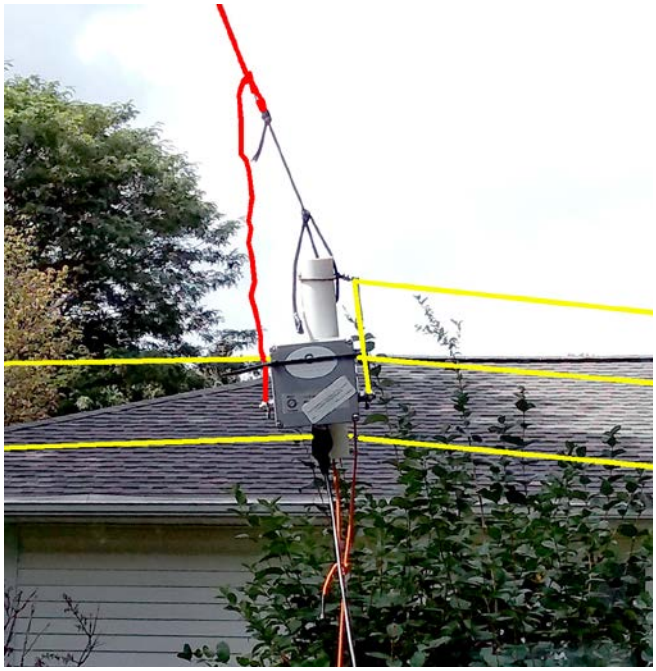


FIGURE 4 – 160M CENTER SPACER, WITH TRANSFORMER AND FEEDLINE. FCP IN YELLOW, ANTENNA IN RED. THE ORANGE LINE IS AN ANCHOR TO KEEP THE ANTENNA FROM PULLING ON THE FEEDLINE WHEN THE WIND STARTS BLOWING THE TREES AROUND.

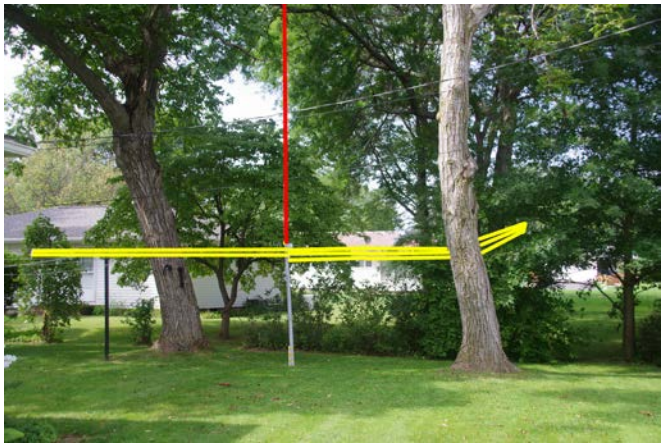


FIGURE 4 - 80M FCP OVERVIEW

I used ¾" PVC pipe for the center and end spacers, with ¼ softwood dowels attached with zipties for the intermediate spacers. Since the wire is insulated, it shouldn't matter if the wood gets a little conductive when wet. At the feedpoint. The end spacers are tethered to handy trees with paracord. The antenna is fed through K2AV's recommended transformer, I bought one ready-made from Balun Designs, their model 1142s. It cost $100, but K2AV warned against just using a regular balun. See Figures 3, 4, and 5 for details of the construction.

It seems to work pretty well. SWR is 1.5:1 at resonance, 1.860 MHz. SWR at the band edges are 5.6:1 at 1.800 MHz and 10.0:1 at 2.000 MHz. That is well within the range of my tuner, and since the feedline is RG-58u and only 15' long, worst case calculated feedline loss is 0.4 dB at 2.000 MHz.

The 80 Meter Antenna

The construction of the 80 meter wire vertical, seen in Figure 6, uses #14 THHN and PVC pipe the same as the 160m antenna. The radiator is a little short for 80 meters, about 45 feet, limited by the height of the tree. This, and the 50 foot buried feedline necessitated a matching network at the antenna base consisting of a loading coil and a shunt match (aka hairpin match) coil. Of course it also needed a transformer. Not caring to spend another $100 for a transformer, I decided to try using a 1:1 MFJ balun from a previous antenna. The resulting network can be seen in Figure 7. Two alligator clips allow me to adjust the loading coil and the shunt. The coil from the upper clip to the top forms the loading coil and the turns between the two clips are the shunt. With four settings of the se clips, I can cover the entire 3.500 to 4.000 MHz band with less than 2:1 SWR.

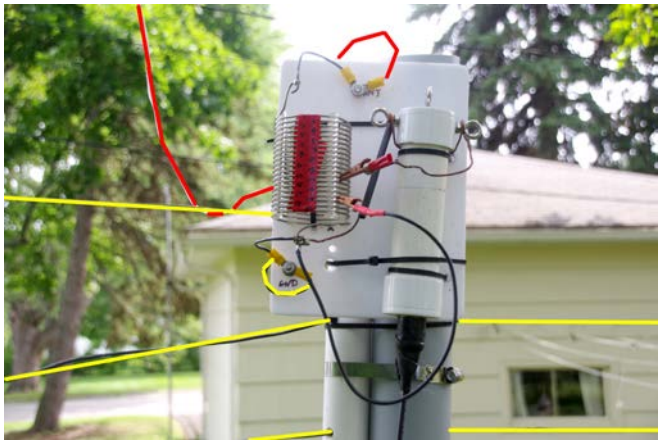


FIGURE 5 - 80M ANTENNA BASE

Now, getting out a stepladder and moving the clips takes some effort, so someday I may wire a switch or even add a little controller to tune it for me. For now, I usually leave it in the lowest 3.500-3,630 setting for CW and FT-8 operation. For SSB contests I move it up to the third position which covers 3.660 to 3.920 MHz at 1:3 SWR or less. The calculator (ref. 4)shows a loss of only 0.6 dB for 50 feet of RG-58 at 1:3 SWR.

I used the WebSDR at Enschede in the Netherlands to test the antenna's DX capability. The WebSDR heard a 100 watt CW signal from the new vertical at S5 over S3 noise. When I switched to the 80m horizontal loop, no signal was heard. It works!

Next Steps

Before winter closes in, I still have to go over the antennas, replacing some of the ziptie-and-paracord prototype construction with something more rugged. Coax seal for the feedlines. Make sure the ropes in the trees are sound and secure. Better to do it now than have to fix it in February.

Conclusions

The K2AV folded counterpoise is a viable ground for a vertical antenna. It is particularly useful in limited space situations that can't support a conventional radial system.

K2AV's website is pretty dogmatic about exactly what kind of wire and transformers you need to use, but satisfactory results can be achieved with other materials, particularly if you're only running 100 watts.

Don't let perfect be the enemy of good. Any antenna is better than no antenna. My antennas break a lot of rules. I don't use the exact materials K2AV calls for. The vertical part of my inverted L slopes a bit. The 160m FCP runs parallel to a rain gutter only four feet away. Nonetheless, both antennas are working well and I'm looking forward to seeing how they perform in the fall contests.

References:

(1) http://www.antennasbyn6lf.com/2012/02/elevated-radial-ground-systems-some-cautions.html

(2) https://k2av.com/

(3) https://www.w8ji.com/fcp_folded_counterpoise_system.htm

(4) http://www.qsl.net/co8tw/Coax_Calculator.htm

Also see:

K9YC's Pacificon presentation: http://audiosystemsgroup.com/160MPacificon.pdf

N6LF's antenna blog: http://www.antennasbyn6lf.com/

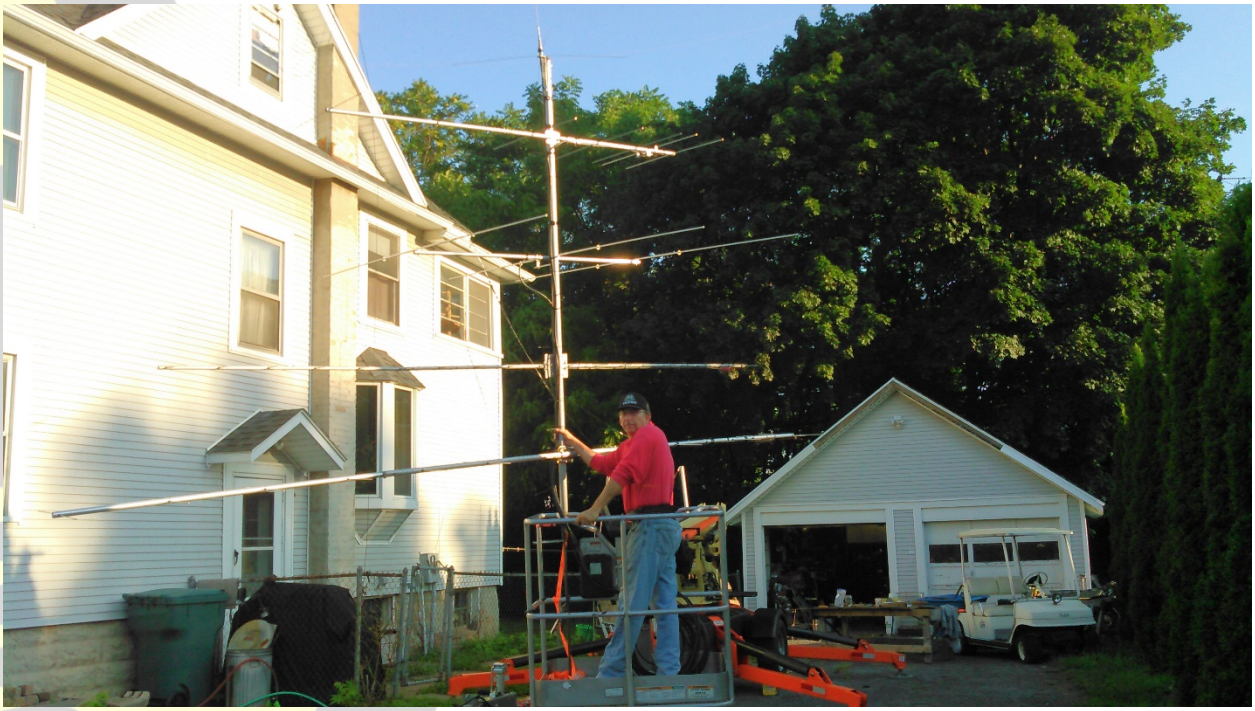
"A Closer Look at Vertical Antennas with Elevated Ground Systems" by N6LF http://rudys.typepad.com/files/elevated-ground-systems-article-final-version.pdf

Counterpoise Systems by W8JI: https://www.w8ji.com/counterpoise_systems.htm

PA3FYM 40m Folded Counterpoise (FCP) experiment: https://www.youtube.com/watch?v=y-FM5R0gPDY

Antenna work by John Gilly with help from Mark Hazel.

Antenna work on steep roofs in tight lots can be a challenge.
A vert-a-lift can provide safe access to installations and maintenance.
A couple of weeks ago, Jeff N2JQR and I were able to rent a 40 foot lift from Home Depot at ~$350 for 24 hours.



Jeff attached a pipe stub to the basket. This allowed a point to set inside the mast of his VHF/UHF array that was easily assembled and aligned on the ground.

With his hands free, he can operate the control quadrant and keep focused on the approach to the chimney mount.

He positions himself at the basket stub, lifts the array free, and transfers it to the rotor pocket.

He aligns the azimuth of the array and tightens the rotor clamps.

Finally he drops the feedline bundle, secures the coax wrap loop, and secures the rest of the feedline bundle down to the entry window.

Next we moved to Mike W3MJH QTH with the absolute minimum width driveway. The hydraulic self leveling outriggers used every bit of clear area.

The extension arm of the lift can be exactly positioned at the roof pitch.

Mike's HAM IV had ceased moving although the brake would release.

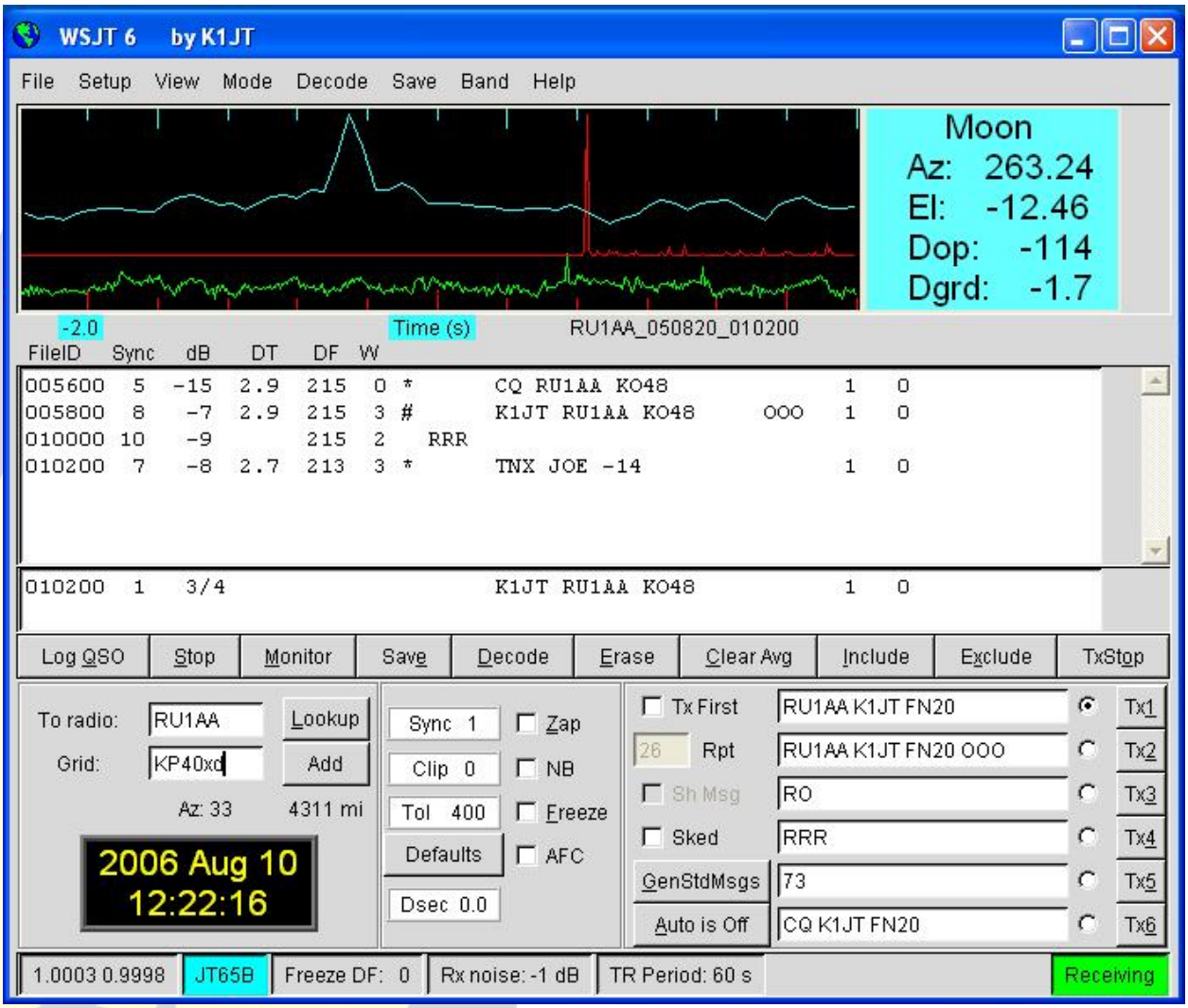
Jeff discovered a squirrel had chewed through Mike's motor winding center tap lead. The rotor pigtail was repaired.

(conclusion)
Although the lift rental isn't cheap, it certainly makes these difficult tasks easy and safe. With cooperation and planning, several hams can share the expense. Work can be spread over two "shifts", afternoon of the pick-up day, and morning of the return day.

Off the network Time Service solution. By M. Hazel

One of the issues I've recently noticed from my limited experiences with FT8, it is critical when running the WSJT-X app that the computer have access to "Internet Time".

This means and internet or Hotspot connection is necessary for proper operation of FT8 to work.



However when running from a remote site such as field day, or NYQP remotely with no access to the internet (Net Time) This presents a challenge.

After looking at configuring a laptop with a GPS Dongle, and/or separately configuring a Raspberry Pi computer to obtain GPS signals, derive the proper time and then create a NTP (network time protocol) service / server. I finally decided to look into cost effective network time servers.

The one I found is the TimeMachines TM-1000A.

The setup and implementation of this is simple and straight forward.

Simply attach the GPS dongle (that is included). Connect Power and Network cable (to either your computer or switch) and configure it using the included documentation.

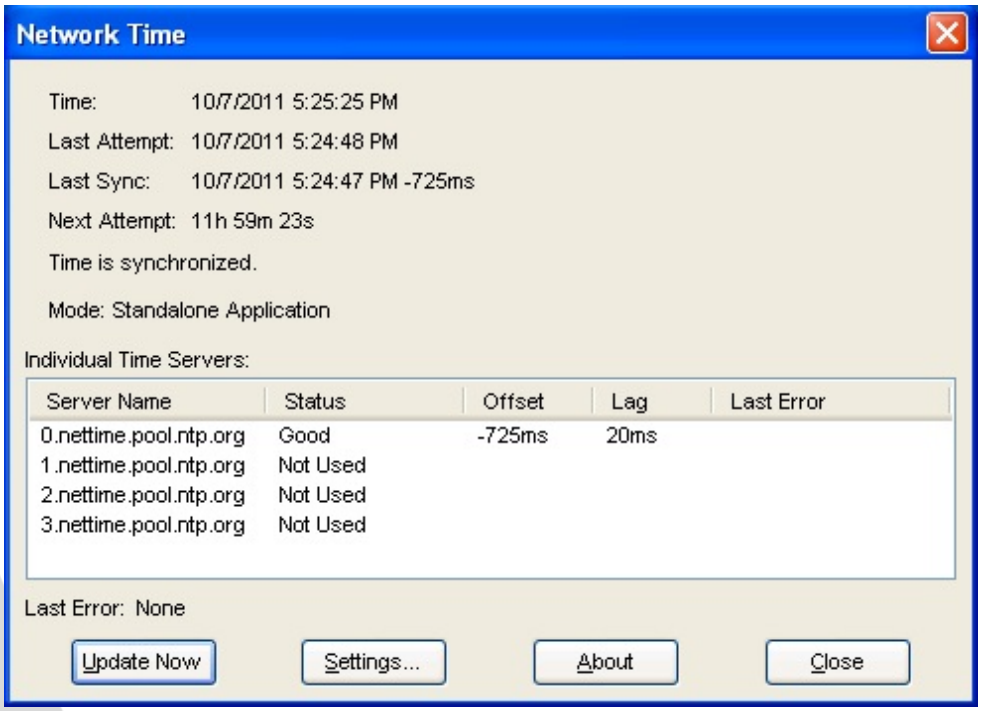
The Time machines Dongle will need a clear view of the sky (preferably outdoors or a window) The device will take a few minutes to lock on 5 or 6 GPS satellites. When accomplished the lock LED will light.

When your computer is polling the Time service, the “SEC” light will blink.

Essentially the TM-1000A has a native static IP address of 192.168.1.15. So if you switch allows it, just point your network time service to that address to update your time independently of the internet.

It is easily configurable via a web application at it’s IP address, so changing the IP or other settings is a snap.

Another recommended app to help facilitate Network time is a downloadable service app that takes the place of the Windows time service called “Nettime” http://www.timesynctool.com



This app easily facilitates setting up an NTP service on your local computer. Simply select settings, and in the first entry in the Server Name window, plug in the IP address of the Time machine's IP address. (In my case, 192.168.1.15) and you're done.

Currently I have mine running at home and am doing checks to make sure it plays nice with FT8.

I'm having Rig control issues…

But that's another story.

Regards,

K2MTH.

Irvfest 2018

On August 21st , the annual event we know as Irvfest was held at the Dolomite Lodge in Penfield. This new venue was chosen to help the events namesake from having to prepare and care for a huge influx of unruly RDXA members that have been known to attend this much anticipated summer gathering. Mike, KM2B secured the new venue and the club members gathered at the prescribed hour. (Irv was early of course) Many delicious dishes were brought, the grill fired up with hots and hamburgers, many adult beverages consumed, and desserts enjoyed. Conversations and comradery continued well into the evening and the predicted storm was evaded. Thanks to all who helped make Irvfest a success! Next year someone needs to take a picture or two!

1st Annual Roc City Hamfest

On August 25th the Roc City gang held their first (annual) hamfest on the grounds of the Log Cabin restaurant in Macedon. Joe, K2ZX went to great lengths to plan a great little hamfest that didn't conflict with any other local hamfest, was FREE and was located in a location that was convenient, had food, door prizes, a 50/50 raffle and most of all plenty of space to grow.

By all indications the event was a huge success. The food was awesome, the crowd good and the weather was perfect. I think Joe said they gave out over 225 tickets (free!!) In talking with Joe afterwards, he has already got a head start on planning next years event with many improvements already in the works. Save the date next year, August 24th2019!

RDXA 2018-19 Calendar

September 2018

~~4 BOD – KM2B~~
~~8-10 ARRL September VHF~~
18 Meeting – Show Us Your Shack
23-24 CQWW RTTY

October 2018

2 BOD – AF2K
16 Meeting –
20-21 NYQP
27-28 CQWW SSB

November 2018

3-5 ARRL SS CW
6 BOD – W2BSN
17-19 ARRL SS SSB
20 Meeting – K2TER
24-25 CQWW CW

December 2018

30-2 ARRL 160m CW
4 BOD – K2TER
8-9 ARRL 10m
18 RDXA Holiday Dinner
TBD RMSC Event
29-30 Stew Perry 160m CW

January 2019

3 BOD – K2CS (note – THUR)
5-6 ARRL RTTY Roundup
15 Meeting –
19-21 ARRL January VHF
25-27 CQWW 160m CW

February 2019

5 BOD –
9-10 CQWW WPX RTTY
16-17 ARRL DX CW
19 Meeting – EOC
22-24 CQWW 160m SSB

March 2019

2-3 ARRL DX SSB
5 BOD –
19 Meeting – EOC
30-31 CQWW WPX SSB

April 2019

2 BOD –
16 Meeting – EOC
TBD RDXA/RVHFG Annual Awards Banquet

May 2019

7 BOD – AWA (tentative)
17-19 Dayton Hamvention
21 Meeting – EOC
25-26 CQWW WPX CW

June 2019

4 BOD –
TBD Rochester Hamfest
8-10 ARRL June VHF
18 Meeting – EOC - **FD**
22-23 ARRL Field Day July 2019
13-14 IARU
20-21 CQWW VHF

August 2019

TBA IRVfest
24 Roc City Hamfest
31 Contest season concludes Membership year concludes

Rochester DX Association

Club Station — W2RDX

Club Website —http://www.rdxa.com

This Bulletin is the official publication of the Rochester DX Association and is published Quarterly. Any news items, articles or pictures should be sent to YOUR NAME HERE? by the second Tuesday of the month for inclusion in that month's issue. All those with an interest in amateur radio, DXing and contesting are cordially invited to any meeting and to join RDXA. Meetings are held at 19:30 Local time on the 3rd Tuesday of each month, September through June. Meetings are located at the Monroe County Emergency Operations Center located at 1190 Scottsville Rd. Rochester, NY 14624.

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Media Coordinator	Paul Kolacki-K2FX
Field Day Chairs	Vic Gauvin-K1PY
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Regular Membership:	$25.00
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