Rochester DX Association

February Presentation

K1N DXpedition

Presented by Ed Gable, K2MP

Tuesday, February 16, 7:30pm
Monroe County EOC
Room 101 (not the usual meeting room)
1190 Scottsville Road

RMSC Holiday Science and Technology Days – WRAP UP

Vic Gauvin K1PY

G5RV on RMSC 3rd floor roof [N2BEG photo]

4 days, 182 contacts, and 15 volunteers contributing 124 public service hours summarize this year's stats for the **RDXA** portion of the annual joint club effort with **RARA** and **XRX** to display Amateur Radio to a well-attended **RMSC Holiday Science and Technology Days**.

Monitors dwarf John W3OAB and Vic K1PY at W2RDX/RMSC (note W2RDX/60 in upper right) [N2BEG photo]

KB2CHY has the attention of visitors [N2JAC photo]

But the real success is both the inter-club camaraderie that make it happen, and the interaction with those folks that stop by to see and hear what we're doing.

We were back to the main lobby this year – prime real estate. The G5RV was again on the roof thanks to **Doug N2BEG** and the team (see later).

XRX ARC again provided the IC-746 thanks to **Bob K2OID**.

Peter W2SKY and **RARA** provided the neat tech hands-on displays.

At the **RDXA W2RDX** station, we had two really nice monitors (read "large"), one provided by **John W3OAB,** and one from the museum for the first time.

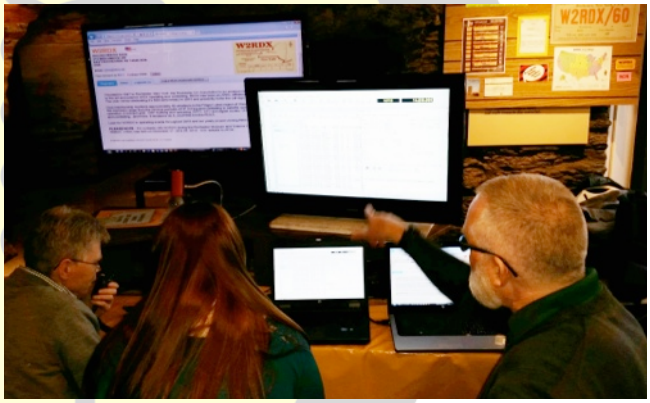
We love these monitors because they provide a great, attention-grabbing visual accompaniment to the back-and-forth audio of the on-going QSO.

The photo in this article didn't happen to catch the QRZ page for the current contact, but the left monitor is used for that as it's right next to the walking area past the station. We engage passersby by pointing to the QRZ info and then telling them that this is the person we're talking with. It's a great ice-breaking tool.

RMSC Holiday Science and Technology Days (Cont'd)

And of course, RDXA provided what it takes to make the **W2RDX/RMSC** station part of this event happen – people! Thanks to (alphabetically):

- Bob K2OID
- Chris K2CS
- Dan N2DD
- Dave N2CK
- Doug N2BEG
- Duane K2SI
- Gayle N2TWI
- Irv AF2K
- Jennifer N2DD daughter (up from MS!)
- John W3OAB
- Kathleen KD2JZU (congrats on new call!)
- Larry W2LB
- Mike N2UJN
- Rich W2FBS
- Tom KC2VHS
- Vic K1PY



N2UJN, Jennifer, N2DD at station [K2OID photo]

Mike KD2KCL, who hadn't yet received his call as of the museum event, was a big help with our laptop/monitor interface challenges, and we want to extend our thanks to him for this,

N2BEG with curious visitor [N2JAC photo]

along with **Rich W2FBS** and **John W3OAB** – our IT team.

It's always nice to have YLs on board, especially, as we all know, on the air. **Gayle N2TWI**, **Kathleen KD2JZU**, with a nice new call, and N2DD's daughter **Jennifer**, who grew up around the radio with Dad, were all participating this year.

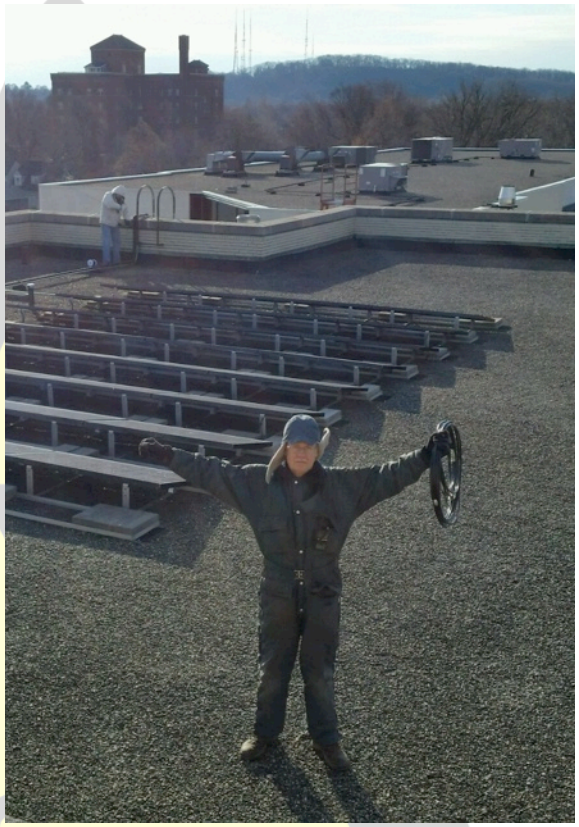
Irv, **John**, and **Vic** win the **"Iron Men Award"** for participating all four days. (Perhaps this really might be the **"Tolerance for crowds in a**

W3OAB at mic [N2JAC photo]

Public Area Award," but we won't nit-pick.)

RMSC Holiday Science and Technology Days (Cont'd)

Doug N2BEG, **John W3OAB**, and **Larry W2LB**, as has become the tradition, win the **"Outdoorsmen Award"** for G5RV installation and takedown. (This has its name from the typically challenging and unpleasant weather on the days for this task – this year they got a nice break.)



W3OAB and W2LB (way back) on RMSC roof
[N2BEG photo]

Crowd gathers around N2BEG at W2RDX/RMSC
[W3OAB photo]

Thanks to **Peter W2SKY** for coordinating the **RARA** side of the exhibit. Together we've expanded our club's joint efforts to being by far the largest and one of the best received of the event. The museum has repeatedly indicated how much they appreciate our being there.

We want to extend our thanks to **Kara Verno** and the **museum staff** for being gracious and very helpful hosts for this event. They provided wonderful support, and make it easy for all three clubs to proudly display Amateur Radio to folks in our little corner of the world.

Making low band antennas out of scrap

Let me preface this article with an observation that I watch a lot of television programming where folks are constantly visiting the scrap yard to repurpose stuff for reuse. It is with that spirit that I was able to construct a ¼ wave inverted L for 160 and a dual band 80/40 dipole to augment the low band antenna options for my station.

A little background - I haven't been as active in contests as of late because I really want to focus on the lower bands – 40, 80 and 160. I didn't have much – 40 M using either the big antenna on the roof or GAP vertical, and 80 using the vertical. Since my big maple tree was taken down last year, I'm kind of height limited. I had an antenna I purchased somewhere in my travels that I thought was supposed to cover 40, 80 and 160. When I last used it, I had a vague recollection that it didn't work all that well. I thought it was an Alpha Delta DX-LB antenna – however after some research I found out it was not. The antenna had 2 wire elements off each side of the balun. One leg had a trap, the other leg did not. The leg with the trap measured 33' to the trap and 56 ½' overall. The leg without the trap measured 64' to the end. I fired off an email to Don Tyrrell, W8AD at Alpha Delta describing the antenna; his response was that it wasn't made by Alpha Delta and he had no clue what it was.

Prior to actually trying it, I did some basic DC resistance tests from the feed point to each end, and through the traps – just to make sure the wire wasn't broken or intermittent anywhere. While I was initially examining it, I noticed that the feed pigtails that transferred the RF energy from the balun connection to the wire elements was badly frayed – like only 4 of the 9 strands of wire were still connected. I had a spare balun I picked up at a hamfest somewhere so I thought, "I'll just wire in the new one". As anyone who has ever tried to solder corroded copper wire knows, it's just not that easy. I did a google search for how to clean copper wires for soldering and found a wonderful site that explained how to use a mixture of vinegar and salt along with a mixture of baking soda and water http://www.instructables.com/id/How-to-perfectly-clean-wires-in-minutes/ The solution is really slick – separate the wires into individual strands and immerse them in the vinegar/salt solution for 5 minutes or so, then dunk them into the baking soda/water bath to neutralize the vinegar/salt solution. After cleaning the wires as noted above, I was able to use the soldering gun to heat up and solder the now cleaned elements with the pigtails connected to the balun.

Initially, when I had it up in the tree and extended, I was able to find settings in the tuner to make it resonant in the 40 M band – but once I tried 80 or 160, it was like nothing was connected. Darn – after all that effort, the only thing it was going to provide me was one band. I started looking at one of my antenna books and found a simple plan for a ¼ wave inverted L for 160. I asked my neighbor for permission to use one of his pine trees as an antenna support device.

Using nothing but stuff I already had in the garage (wire, insulators, a so-239 female connector) I started fabricating parts. I needed a way to mount the SO-239 connector so I could attach the shield side to a ground rod. Rummaging through the junk drawers, I found a bracket that came with an automobile horn – just a simple metal L shaped bracket. I drilled some holes to mount the connector and then trimmed a smidge of metal off the bracket so I could use a ground rod clamp to mount the bracket. I took some ground radials I previously used for a different antenna, stretched them out and connected them to the ground rod. When done, initial tests with the MFJ analyzer revealed it was close to perfect at the bottom of the 160M band and was easily tunable throughout the rest of the band. Total cost to build – nothing! Initial on-air testing, I received good reports.

Now back to the other piece of my puzzle – wanting something else for 40 and 80. In conversations with Gene, W2LU, he observed that my wire antenna – with leg dimensions of 33' to the trap and 64' to the end of the second wire element were very close to the sweet spot lengths of 33 and

Making low band antennas out of scrap (Cont'd)

66'. So, on a lark, I cut the traps off from each leg – now I have a wire antenna that tunes on both 40 and 80! Total cost – again nothing!

I actually did price out an Alpha Delta antenna for 40, 80, and 160 – and was close to pulling the trigger on a purchase. In retrospect, I'm glad I didn't. I was able to repurpose stuff I already had, learn some things along the way AND end up with the desired result – more antenna choices on the low bands.

— David Wright, N2CK

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Rochester DX Association

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This Bulletin is the official publication of the Rochester DX Association and is published monthly, September through June. Email your articles, tips, ham ads, etc. to Andrew, W2FG at andrew.lesny@gmail.com by the second Tuesday of the month for inclusion in that month's issue.

All those with an interest in amateur radio and 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.

President .....Chris Shalvoy – K2CS
cshalvoy@att.net

Vice-President.....Mark Hazel — K2MTH
mthazel2151@yahoo.com

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Daniel R Guyor
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Any other correspondence to: Mike Sanchez, N2UJN