

ROCHESTER

DX

ASSOCIATION

rdxa.com



Regular Meeting

November 21st 19:30 local

300 Jay Scutti Boulevard
Gander Mountain
Meeting Room

Neat Tricks and Goodies

Hear what neat tricks and goodies RDXA ops have developed to optimize their station layouts, get those contacts (DX or Contest), and otherwise have more fun in front of the radio.

Coming in December

Plan now to attend the annual RDXA Holiday Dinner 12 December at the S&S.

Social after the Meeting

Scotch & Sirloin
Winton Plaza

proud to be affiliated with this organization. Once again, thanks to all involved. The official results will be published in the December issue of QST.

I have not been as active in the most recent contests as I would have liked to be. This time of year my primary focus is deer hunting, followed up by the outdoor tasks. I know I should be workin' the bands in the evening hours instead of watching the tube. I'll try to do better – honest!

This just in...



RDXA Field Day Team Scores #2 in 3A Category

RDXA (W2RDX) has again placed in the Top Ten in the highly-competitive 3A Field Day category! For its 2006 effort, the Club posted a score of 12,546 points, finishing in 2nd place behind W9CA (18,142 points) and just ahead of 3rd place finisher NT1N (12,082 points).

In a related story, HLCC (Hickory Lake Contest Club) K2NNY reports placing 9th in the hotly-contested 2D category! "This is hard to believe," said amazed K2NNY trustee Paul Mackanos. "I'm stunned," said Club member and FD op Bob Hunter, NG2P. "Score? I didn't know there was a score," replied FD ops N1OKL and W1TY.

Charlie has advised me that there are a number of folks (in the low 30's) who have not re-upped your membership. If you haven't renewed, now's your chance. As we did last year, we'll be sending out reminder letters. You can either pay in person (if you are going to be paying at a meeting, give Charlie a call prior and he'll have your new membership card all filled out), or send your check to his snail mail address.

President's Soapbox

By Dave Wright - N2CK



Hello All,

By now most of the leaves are off the trees, so it's time to finalize those wire antennas. Hopefully the presentation by Charlie and Chris last month gave you some ideas how to maximize the low bands this contest season. I am waiting for my walnut tree to shed the last of its leaves so I can put up one more antenna.

In case you've been hiding under a rock, the results are in for Field Day this year. RDXA finished #2 (out of 287 entrants) with 12,546 points, in the highly competitive 3A class! WOW, that is amazing. It's results like this that makes me

Mike, N1OKL has announced his intention to the Board to relinquish Editorship of the newsletter. Mike is extremely concerned about the diminishing quantity of local content in the newsletter. He also related the concern that because he's not local, there isn't the urgency to submit content to him. Mike has advised us he will continue through the end of the year. Let's flood Mike with articles and contest observations to bolster the content of the newsletter! Mike has done a wonderful job with the newsletter. If you have ever considered being the Editor, let us know.

The date for the Holiday social at the Scotch and Sirloin has been chosen. The dinner will be December 12th (second Tuesday of the month), in the back room as before. Join us for social hour at 6:00, followed by dinner at 7:00. Feel free to bring your significant other. Thanks go out to Irv for making the arrangements. If you are planning on attending, let us know so we can get a head count.

Once again, RDXA will be partaking in the Rochester Museum and Science Center Science and Technology days. We have permission to erect an antenna on the roof this year, and we'll be doing that in November before the weather makes outdoor work difficult. This year we'll be on the second floor, just off the elevators (if my memory serves me go to the left and there is a double glass door – I think that's where we'll be. The fair runs from the 26th, through the 29th – however the radio exhibit is only set up for the first 3 days. As usual, we'll need a group of folks who like working with kids to man the booth. Let me or someone on the Board know if you are interested in participating. Just a reminder, volunteers don't have to pay to get in. Just tell them at the front desk that you are helping out with the radio display. Also, make sure you bring your callsign badges.

As usual, I'm finishing up on this at the last minute – so I'll close for now. Congratulations to those who got the sweep in SS CW. Don't forget to post your scores to the grid.

November Contests

HA QRP, CW ----- 1-7 Nov
Ukrainian DX, CW, SSB, RTTY ----- 4, 5 Nov
ARRL Sweepstakes, CW ----- 4-6 Nov
WAE DX, RTTY ----- 11, 12 Nov
Japan Int'l. DX, SSB ----- 11, 12 Nov
LZ DX, CW, SSB ----- 18, 19 Nov
ARRL Sweepstakes, SSB ----- 18-20 Nov
CQWW DX, CW ----- 25, 26 Nov

More Contest Info <http://www.sk3bg.se/contest/index.htm>

December Contests

ARRL 160m Contest, CW ----- 1, 3 Dec
TARA RTTY Melee, RTTY ----- 2 Dec
ARRL 10m Contest, CW, SSB ----- 9, 10 Dec
Russian 160m Contest, CW, SSB ----- 15 Dec
OK DX RTTY, RTTY ----- 16 Dec
RAC Canada Winter Contest, CW, SSB ----- 30 Dec
Stew Perry Topband Distance Challenge ----- 30, 31 Dec

January Contests

ARRL Straight Key Night, CW ----- 1 Jan
ARRL RTTY Roundup, RTTY ----- 6, 7 Jan
Kid's Day, SSB ----- 7 Jan
EUCW 160m Contest, CW ----- 6, 7 Jan
Ø7Ø PSK FEST, PSK-31 ----- 13 Jan
Hungarian DX, SSB, CW ----- 20, 21 Jan
UK DX RTTY, RTTY ----- 20, 21 Jan
CQ WW 160m DX, CW ----- 27, 28 Jan
BARTG RTTY Sprint ----- 27, 28 Jan

Neat Tricks and Goodies



November RDXA Program

It doesn't take long after getting the rig on the table and hooking together a few accessories before you start customizing and tweaking the layout. You move this here and that there to optimize your access, shorten your reach, make things quicker and easier to use.

Well, some folks have developed quite a few neat tricks and found some cool goodies in the process, and we wanted to present some of them in this month's program. You don't have to be a big-time DXer or Contester to appreciate and benefit from most of these either. It's just good ol' ergonomics and ease of use. But some are pretty cool, while not being at all difficult. You just need to hear about them to realize how cool they are, and how they'd immediately provide some operating improvement and enjoyment to your own station.

There are several categories we'll cover:

- Layout & Ergonomics
- Gizmos & Goodies
- Cool software and features
- On-air operating tricks and radio utilization

So, what simple but effective little trick have you implemented to make things work easier? How do you organize things? Have you built any handy interfaces or switching schemes? What cool software or software features have you found that help you operate?

If there's something you can take a picture of, please do so and bring it along on a floppy, CD, or flash-drive, and we'll project it to the monitor. Or email it to Vic, K1PY and he'll bring it to the meeting.

And don't be shy about any little thing that has worked for you. It may be just the thing for the other guy in the room, where some of the fancier options don't work for him at all. There's no suggestion too simple or too complex. We all enjoy working and improving our stations at different levels, but we all indeed enjoy it.

So come hear what RDXAers have done. You're guaranteed to bring home at least one improvement for your own station! How can you lose?

Wanted: I'm looking for a cheap (or free) cable-ready VCR with remote for playing and occasional recording. If you have one laying around you don't need, let me know. Dave, N2CK 392-3183.

Contest Commentary

JARTS WW RTTY DX, N1OKL – I operated about 10 of the allotted 48 hours and saw print from N2WK, but no other RTTY Rangers. As in CQWW RTTY, signals were generally weak overall. In addition, the Ap-index was pegged at 16 throughout the contest and many paths experienced deep QSB fades. This was especially true on 15m. I made most of my contacts on 20m, with only a handful on 15m and 40m. Also as in CQWW RTTY, I made no contacts in the central Asia and Far East zones. With the high Ap-index, and my lack of an antenna directed WNW, even QSOs to the Pacific Northwest and U. S. West coast were sparse. A few South American stations made it into the log, but the bulk of the DX contacts were in Western and Central Europe, with a handful of Russians, Mediterranean, and Mid-East stations. I completed installation of a new Rigblaster Plus interface just in time for the contest, and it worked flawlessly. It was a real pleasure not to have to hit the PTT switch to release keying on 20m. Most of my contacts were S&P, as I was really looking for mults. The few times I did call CQ, most responses seemed to be North America. Final totals: 130 QSOs and 17,655 points. I'm still hoping to get that WNW wire up before the snow flies, and maybe even in time for the WAE DX RTTY event.



ARRL Sweepstakes CW, N2RD – what a hoot! hope that you too enjoyed the CW Sweeps we had last weekend. I ended my effort after about 600 Qs with VY1JA which provided the sweep. What a relief. It looked grim for a while. The last six sections I worked, in order starting from the last, were: NT, SB (odd?), NL, AK, PAC, WPA. Rarity of SB and WPA surprised me. Thanks to K2NNY for NNY. I had about 300 Qs on 20m and 200 on 80m. About 100 Qs on 40m and hardly any on the other bands.

ARRL Sweepstakes CW, K2NNY – K2NNY ended up with 1042 Qs and a Sweep. On QSO #911 we changed to 15 meters and something in the feedline system let go. All the upper antennas show a short on the feedline. We ended up using the 40m loop and 80m sloper to finish the contest. It was GREAT, but Murphy did show up and slow us down. Hi Hi. Thanks to all who gave us a Q. 200+ on 80m, 600+ on 40m, 200+ on 20m and 4 on 15m. Ops: K2DB, W1TY, W2LS, K2ZR, W2TB.

ARRL Sweepstakes CW, N2ZN – Thought I would give my SSCW impressions for a first post here. I just recently joined the Club in anticipation of moving to the area in about a month.

This year was a lot of fun because I got to operate more than the normal 6-8 hours. No other commitments for the weekend allowed me to sit in the chair and get some decent time in. I hoped to operate the full 24 hours but only ended up putting in 19. Best band was 80m, by far...Saturday night/Sunday morning was great here; the rate meter hit about 60/hr. Last QSO that night was K2NNY at 0629z and went to bed. They were about 150 QSOs ahead of me at that point.

Sunday was slow per usual, but I did manage to find some straggler mults I missed the night before, like ND, SB, and AK. 15m never seemed to materialize here; only 23 Qs. 77 sections worked altogether; I missed MB, PAC, and NWT. Couldn't get thru to MB or PAC, and I never heard NWT. Oh well, next year. Usually, I miss QC; this year, I worked 6 of them. Wonder where they were for the past few years? W6TK was the only SB station I worked; seems like there have been more in past years. I worked 5

NNY and 6 in my own section, NLI. I hope NLI isn't going to become NNY-esque rare in the next few years, because it seems like it may happen.

Overall, I ended up with 666 Qs x 77 sections for 102,564 claimed. May be good enough for section high and possibly division high, based on previous years activity. That wait until the results come out will be more killer than usual.

As a final note, the following stations from WNY were worked: W2EB, K2QO, K2ZJ, AI2N, K2NPN, WA2RZJ, N2CU, WE2Y, N2XT, WB2KAO, K2MQY, K1OW, WB2ABD, W2EZB, N2YB, K2NV, K2FU. Lots of activity compared to NLI!

Hope to meet everyone soon.

Propagation

*AD5Q's notes from Cycle 22
November 1995*

Solar Flux Range-----71 – 78

October turned out very well. We had a period where the flux numbers were in the 80s, and this opened 15m for some good DXing in the peak of the fall season. Activity was light for most of the month, because the band openings were not well known. Many operators had written this band off because of poor conditions during the summer. These things are seasonal, and October brings out the best that can be expected from the high bands at the bottom of the cycle. The CQWW SSB Contest turned out great numbers of DXers to the 15m band, and now we all know it is really open on many paths. Contacts to Europe from W5 favored western and southern EU, with minimal access to Russia.

15 Meters – At sunspot peaks, October is the best month for polar propagation on 10m, because the expanding polar night closes the path later in the fall and through the winter. With our low sunspot numbers and low MUFs, this expanding area of darkness will effect most high latitude paths on 15m beginning in November. The windows to Europe and Asia will deteriorate, becoming shorter and covering less area. Though we will still have some nice grey line openings, the band will close abruptly around sunset. There will be some access to Europe in the CQWW CW contest, but the length of the openings will depend on how close you are to the Atlantic coastline. The East Coast can expect a nice window with some high rates, but 15m will likely be dead in Europe before it opens in W6.

20 Meters – Polar paths on 20m continue to shift, and the path to Zone 26 now is better in the evening than in the morning. During the recent operation(s) from Burma, we enjoyed openings twice a day and everybody in the States got a good window to that part of the world. Solar fluxes were too low for Antarctic long path to XZ (a favorite path for W5s, since we get to stomp the East Coast). Signals were often coming through on a skew path across northern Europe. This is similar to the crooked path we get at the peak of the cycle from Indonesia on all bands. I think this has something to do with proximity to the Equator.

Low Bands – With the expanding polar night, northern latitude paths continue to improve on 40m. Conditions are best to Europe around our sunset and their sunrise. Later in the evening, the path will often close because the MUF drops below 7 MHz at high latitudes along the path. This is most noticeable during DX contests. On normal days, we don't expect to work EU at 0400 (their time) for other reasons. During the evening, we can follow the sunrise path across Russia or work a more southerly path to

Africa. We can also work the other low bands, as more activity is moving to 80m and 160m now.

73, de Roy - AD5Q / Houston
<http://www.qth.com/ad5q/>

Twenty-seven Day Space Weather Outlook Table

Issued 2006 November 7

US Dept. of Commerce NOAA

UT Date	10.7cm Radio Flux	Planetary A Index	Largest Kp Index
2006 Nov 08	90	5	2
2006 Nov 09	90	20	4
2006 Nov 10	90	15	3
2006 Nov 11	85	10	3
2006 Nov 12	85	8	3
2006 Nov 13	80	8	3
2006 Nov 14	80	5	2
2006 Nov 15	80	5	2
2006 Nov 16	80	10	3
2006 Nov 17	80	15	3
2006 Nov 18	80	10	3
2006 Nov 19	80	5	2
2006 Nov 20	80	5	2
2006 Nov 21	75	5	2
2006 Nov 22	75	5	2
2006 Nov 23	75	8	3
2006 Nov 24	80	12	3
2006 Nov 25	80	20	4
2006 Nov 26	80	8	3
2006 Nov 26	80	8	3
2006 Nov 28	80	5	2
2006 Nov 29	80	5	2
2006 Nov 30	80	8	3
2006 Dec 01	80	8	3
2006 Dec 02	80	5	2
2006 Dec 03	80	5	2
2006 Dec 04	80	10	3

For more see: <http://www.sec.noaa.gov/Data/index.html#alerts>

New Q-Signal from the RAC Canadian Amateur

Here's a handy new Q-signal courtesy of ZLIAN:

QHK? -----How many knobs does your radio have?

QHK 31 7-----My radio has 31 knobs, but I only understand 7 of them.

He also quotes Louise Ramsey Moreau, a noted Morse historian, as saying that the prosign SK derives from the number 30 in American Morse. The "3" was didididahdit and "Ø" was an extra long dash, so "3Ø" was sent as didididahditdahhhhh. In the International Morse code, this sounded like SK or VA.

Vector Network Analyzer By Raj Dewan - N2RD

Not many of us are familiar with a Vector Network Analyzer (VNA), and so before we discuss how it works and how to get one, let us look at what can be done with one.

Essentially, a VNA is a measurement device that characterizes the RF properties of any device under test. It does this by feeding an

RF signal into device and carefully comparing the input signal to what comes back and through the device under test. This comparison reveals a lot about the device under test.

Before we get into the theory of how a VNA works, here are some examples of what we find when we connect the VNA to common devices/components we find around the shack. In Figure 1, the resistance and reactance of a carbon composition 10 Ohm 1/4W resistor with 1" leads are plotted in red, and green, respectively.

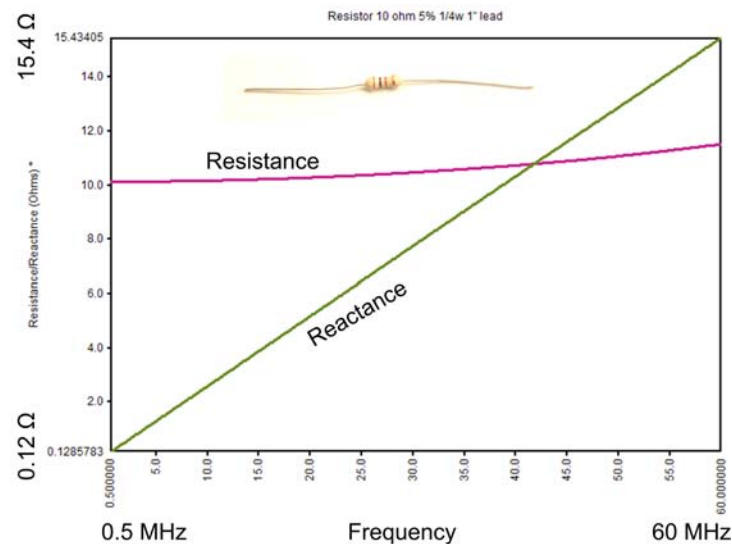


Figure 1. A carbon composition 10 Ω ¼ W resistor with 1 inch leads.

First look at the red line which is the resistance plot. Notice how the resistance slowly increases with frequency. This is due to the skin effect and properties of the resistance material. But this effect is quite small. The reactance curve, shown by the green line, really changes. This reactance is largely due to the inductance of the long leads. At 0.5 MHz, this is quite small at 0.12 Ohms. But at 60 MHz the reactance is 50% larger than the resistance. You can see why manufacturers of tube equipment with large lead lengths had such difficulty in producing equipment that was reliable at 6m.

Now, let us look at a 270 pF Silver Mica capacitor with 1.3" lead. The apparent capacitance as a function of frequency is plotted in Figure 2.

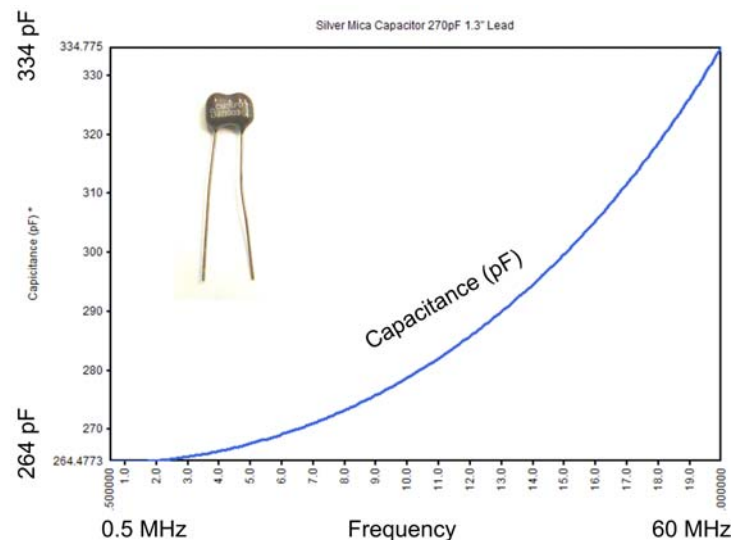


Figure 2. Silver mica 271 capacitor; 270 pF with 1 inch leads.

Notice how the apparent capacitance increases from 264 pF to 335 pF as we increase the frequency from 0.5Mhz to 20 MHz. The 1"

long leads provide an inductance that is in series with the capacitor. As we approach self resonant frequency, about 45 MHz, the net impedance decreases and which corresponds to an increasing apparent capacitance.

Next we hook up a toroidal inductor to the VNA. The device consists of 29 turns of 20 AWG copper enameled wire on a 1.4" FT140 toroid of Type 67 ferrite material. The apparent inductance and the Q of the device are shown in Figure 3.

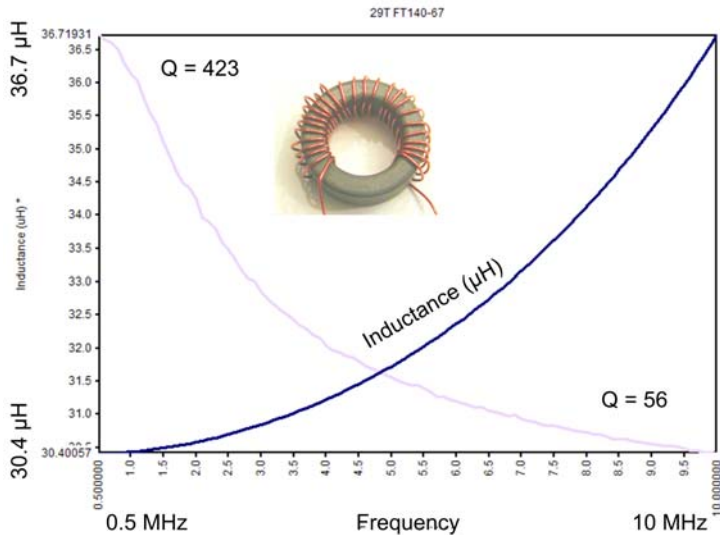


Figure 3. Torodial inductor; 29 turns #20 AWG wire on FT14-67 core.

The darker blue curve is the inductance which increases from 30.4 µH to 36.7 µH as the frequency is increased from 0.5 MHz to 10 MHz. The Q, shown by the lighter curve, decreases from 423 to 56. An interesting question is: Why is the apparent inductance increasing with frequency? It could be for two reasons: properties of the ferrite material which have decreasing Q with increase in frequency and the effect of parasitic capacitance between the turns and leads. So we can see that as a part of the resonance circuit, where we might want a high Q, the toroid will work well only for low frequencies. If we want to use it as a choke, we want low Q and so it will do so at much higher frequencies. This is in line with what Amidon recommends for this material—that it be used in resonant circuits below 80 MHz and as a choke up to 1 GHz.

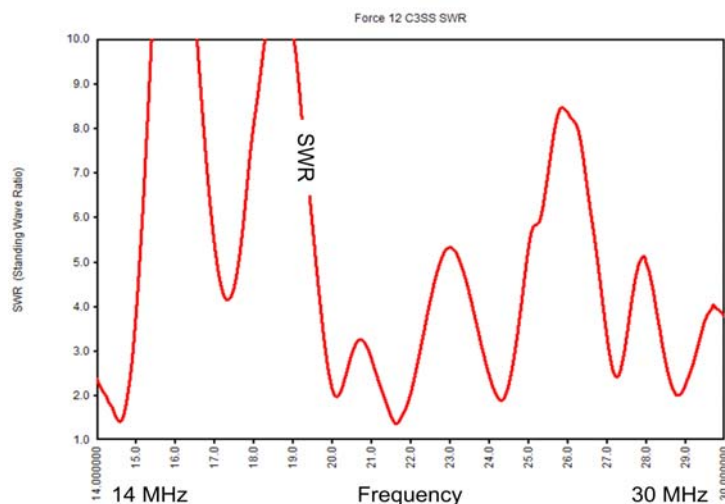


Figure 4. SWR curve of Force 12 C3SS yagi antenna from 14 to 30 MHz. Note the resonance point in the 11m (CB) band. Hmmm.

Now for something quite different. I hooked the unit to the feedline of my yagi—a Force 12 C3SS tribander. The SWR plot is shown

in Figure 4. The antenna is marketed for the 20m, 15m, and 10m bands. The manufacturer also claims that the antenna is somewhat usable at 17m and 12m. Antenna gain and F/B ratio aside, this is what we see in the figure; we note dips in the SWR curve corresponding to these bands. By the way, the antenna also appears to be resonant on the CB frequencies!

If I wanted to build the matching network to use the antenna on 17m, I would need to know the exact resistance and reactance. The VNA makes this a snap. Figure 5 shows the impedance of the antenna on 17m (frequency varied from 18.068 MHz to 18.168 MHz) as a blue line.

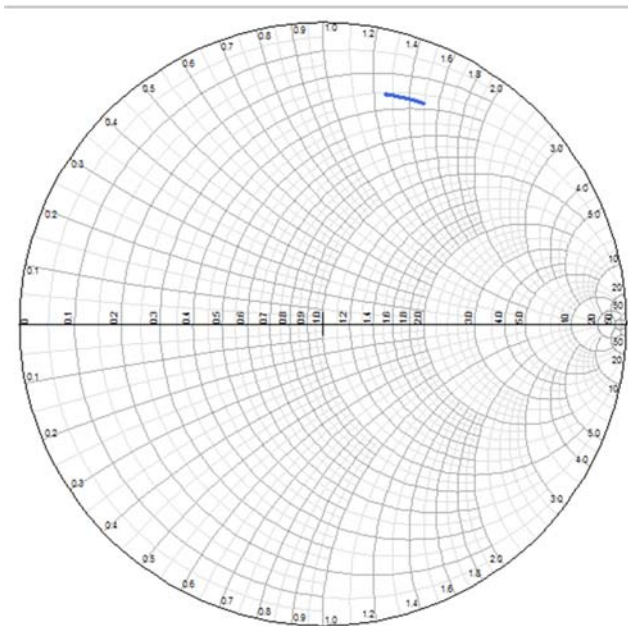


Figure 5. Smith curve of Force 12 C3SS on the 17m band.

A few years ago I built the Tandem Match Power/SWR meter from the ARRL Handbook. It is a very popular project and has been in the ARRL Handbook and the ARRL Antenna book for many years. The Tandem Match is a unique circuit that works well as a dual directional coupler. The VNA lets me measure exactly how well I constructed it. A basic property of directional couplers is the *coupling factor*, which is the ratio in decibels of the sampled signal to the signal fed through the unit. Ideally, it should be quite flat over the working range of the unit. The coupling factor for my version of the Tandem Match is shown in Figure 6.

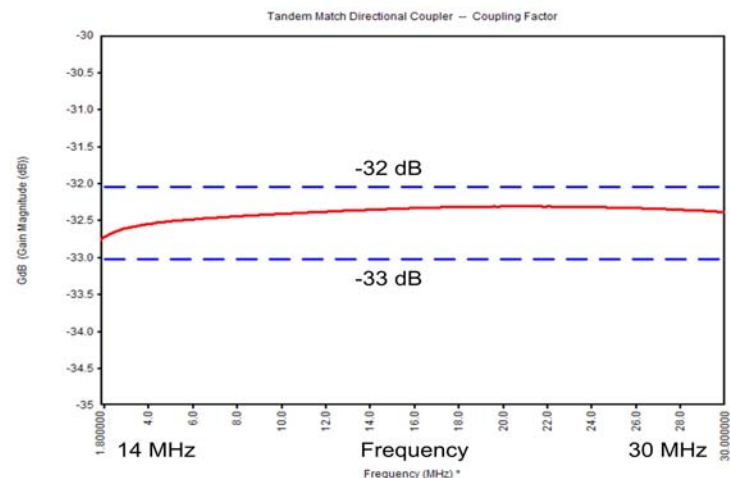


Figure 6. Coupling factor of the Tandem Match directional coupler.

Finally, I characterized a crystal filter that I had in my junk box. I had acquired it at a hamfest and had never tested or evaluated it before. In Figure 7, I plot the passband of the filter.

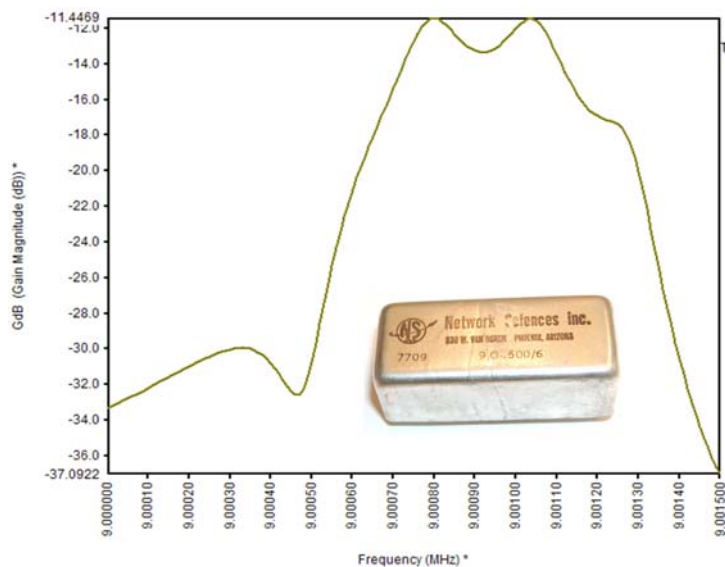


Figure 7. Through gain of a crystal filter (9 MHz IF, 500 Hz BW).

The 3dB bandwidth is indeed 500 Hz but the filter has a 3dB ripple. This would be noticeable. It also has a large insertion loss of 11dB. Notice also that the upper skirt is much tighter than the lower one. Having one skirt tighter than the other is very common for crystal filters. This is why many rigs allow you to select USB or LSB for CW reception. This can allow you to fight QRM more effectively using your crystal filters. In fact, the upper skirt is very steep and rivals the performance of many DSP units. The CW reverse option is very useful indeed.

In the next installment I will discuss how the VNA works and how you might go about acquiring/building one. [Look for Raj's next installment in the December RDXA newsletter. Ed.]



N2PK Vector Network Analyzer built by N2RD.

All of the figures in this document were made using a VNA designed by Paul Kiciak N2PK. More information on this excellent VNA can be found on <http://www.n2pk.com>.

I used software called Exeter by Greg Ordy W8WWV on the PC to interact with the VNA and plot the results. More information on this can be found at:

<http://www.seed-solutions.com/gregordy/Amateur%20Radio/Experimentation/N2PKVNA/N2PKVNA.htm>



Reflection bridge for VNA built by N2RD.

ARRL is Suing the FCC

David Summer - K1ZZ
ARRL Chief Executive Officer

Dear Valued Member,

Let me get right to the point: **The ARRL is suing the FCC**. Here is what led to this decision, why it is the right thing to do, and **how you can help**.

The FCC: Champion of Flawed Technology

Under former Chairman Michael Powell, the Federal Communications Commission cast itself in the role of cheerleader for an over-hyped technology known as Broadband over Power Line, or BPL. **BPL deliberately puts radio frequency (RF) energy on unshielded power lines**. As anyone knows who understands RF, this is likely to interfere with nearby radio receivers using the same frequencies.

The radio spectrum is a priceless asset. BPL, on the other hand, is an unintentional emitter. Any RF energy that a BPL system radiates is **simply spectrum pollution**.

Through careful frequency selection and design, BPL systems can avoid interfering with radio services. Unfortunately, rules for BPL adopted by the FCC in 2004 allow poorly designed BPL systems operating on inappropriate frequencies – **including amateur bands** – to be deployed. The **ARRL** and others petitioned the FCC to reconsider these rules and to give better protection against BPL interference to licensed radio services.

When Kevin Martin replaced Powell as Chairman, we had reason to hope that the FCC would do the right thing. With the departure of the “head cheerleader,” surely the solid technical evidence and arguments we had offered would carry the day. After all, **the FCC has an obligation to protect licensed radio services from unnecessary interference**. There was growing evidence that interference from some BPL systems is a serious problem that is either impossible, or very expensive, to fix.

But it was not to be. The FCC’s reconsideration decisions, adopted on August 3, did not improve things. When the Memorandum Opinion and Order (MO&O) was released a few days later, we couldn’t believe it – they had **made matters worse!**

A new FCC rule is aimed directly against mobile stations - in all services, not just amateur. The new rule, §15.611(c)(1)(iii), exempts BPL operators from having to do anything to correct interference to mobile operations other than to notch emissions to a

level 20 dB (below 30 MHz) or 10 dB (above 30 MHz) below the absolute limit specified elsewhere in the rules. Here's a *direct quote* from the FCC (emphasis added):

Where an Access BPL operator implements such notching, we will not provide further protection to mobile operations, nor will we require the operator to resolve complaints of harmful interference to mobile operations by taking steps over and above implementing the "notch."

Consider what this means. If a BPL system blankets an area with interference, the FCC will require nothing of the BPL system operator beyond putting a 10- or 20-dB notch on the frequency used by a complaining mobile operator.

This isn't just a proposal. It's a rule that is now in effect. With one stroke, **the rights of FCC licensees have been subordinated to those of spectrum polluters!**

ARRL measurements and studies show that this leaves the interference 25 dB higher than the *median* values for man-made noise in residential areas and **up to 40 dB higher** than the minimum values that amateurs routinely use for reliable communication. And as for other services, if a BPL system prevents a dispatcher from reaching a fire truck or ambulance – well, **that's just too bad.**

But that's not all. The FCC also is letting BPL system operators, in determining how much RF energy they can put on the power lines, assume that radiation from power lines decays faster than it really does. In 2004 the FCC said it would revisit this issue if new information became available. The ARRL and others supplied both theoretical analysis and actual measurements to show that the FCC's assumption consistently underestimates the interference levels. Without even attempting to address this evidence, the FCC simply concluded: "No new information has been submitted that would provide a convincing argument for modifying this requirement at this time." Information was submitted; **the FCC ignored it.**

Why We Must Fight

The BPL rules adopted in 2004 were bad enough. The rules adopted in 2006 are **intolerable**. Never before has an unintentional emitter been given a **free pass** to interfere with licensed radio services.

Some well-meaning people tell us, "Why worry? As a means of delivering broadband services to consumers, **BPL is an inferior technology**. According to the FCC's own figures, the BPL industry has managed to reach fewer than 5,000 customers nationwide. **BPL is failing in the marketplace**, as well it should."

Here's the problem. Even if BPL disappears from the scene tomorrow, the FCC's preference for unlicensed, unintentional emitters over the interests of its licensees will remain on the books. **Bad rules left unchallenged will lead to even worse rules later.**

The FCC was heading in the wrong direction under Michael Powell. It's continuing in the wrong direction under Kevin Martin. Reasoned technical arguments backed up by overwhelming evidence have not altered the FCC's errant course. **There was only one thing left that we could do: appeal in federal court.** After carefully considering the costs and consequences, the ARRL Board of Directors concluded that was what we must do.

So, on October 10, 2006 the law firm of Wilmer Cutler Pickering Hale and Dorr LLP (WilmerHale) joined ARRL General Counsel Chris Imlay in filing a Petition for Review on behalf of the ARRL

in the United States Court of Appeals for the District of Columbia Circuit.

Why We Should Win!

The Court of Appeals will not substitute its judgment for the reasoned decision-making of an expert agency. But this long-established principle does not give agencies such as the FCC *carte blanche*. **Deciding the outcome you want and adjusting the facts to fit is not reasoned decision-making.** We will show that the FCC did *not* come to a reasoned decision in developing its BPL rules.

In another case earlier this year, a panel of this Court had this to say about another federal agency: "We therefore owe no deference to [the agency's] purported expertise because we cannot discern it." **When it reviews the FCC's BPL decisions we expect the Court to reach a similar conclusion.**

How You Can Help

Mounting a serious challenge to a federal agency is expensive. Attorneys who specialize in this work must be retained - and the attorneys at WilmerHale are the best in the business. A careful review of the FCC's records must be performed. Complex technical issues must be made understandable to a panel of judges who are not telecommunications experts. Exhibits must be prepared. Arguments must be selected and fine-tuned.

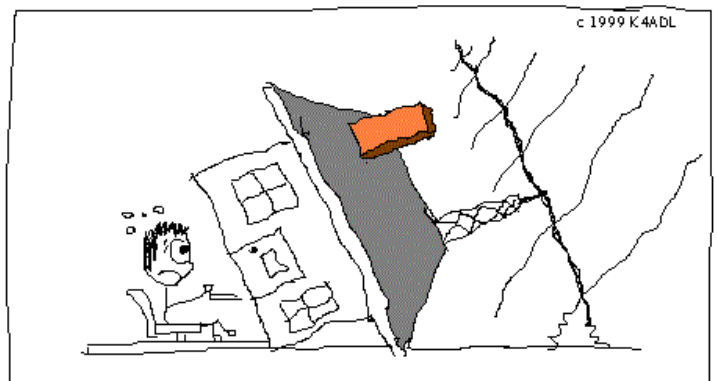
Your financial support of the Spectrum Defense Fund is vital to help fund this appeal. So I'm writing to ask for the most generous contribution you can manage **before December 31**. Our goal is to raise \$250,000 by the end of the year, so the appeal can go forward without shifting resources away from other important ARRL programs.

Your Board of Directors has decided to take these steps to protect you and your ability to use Amateur Radio frequencies. **If you share our sense of outrage** at the FCC's bending its rules to accommodate a polluter of the radio spectrum at the expense of the licensees it is supposed to protect, **please express your support of the ARRL Board's decision with a generous contribution.**

Sincere 73,



To donate, go to: <https://www.arrl.org/forms/fdefense/>



DONALD HAD BEEN WARNED TO CENTER THE 40 METER BEAM ON HIS ROOF.

Courtesy of K4ADL – <http://www.qsl.net/k4adl/>

Keyboard Duplexer

By Vic Gauvin - K1PY

This is a sample of the kinds of things you'll see in our upcoming "Neat Tricks and Goodies" program this month.



The custom K1PY keyboard duplexer.

Vic, K1PY enjoys experimenting with Single-Op 2-Radio (SO2R) operating using WriteLog. However, he doesn't get along well with shifting between two entry windows on a single computer screen, so runs one computer per rig, networked. That of course requires two keyboards, which can occupy a lot of desk space.

This is his implementation of stacked keyboards using a home-brew cut-out in the operating table (an old door) for the top keyboard, putting the top flush with the operating surface, and a home-brew pull-out keyboard tray below that that nestles the lower keyboard right under the upper one. Both are nicely within normal arm's reach and comfortable to use. The lower keyboard can be removed and stored after the contest, and the pull-out tray slid back in out of the way.

BTW, if you're wondering, the two black marks on the front edges of the keyboards are to help line up the seating position centered on the keyboard "home row." And those red and blue dots? They match similar colored dots on the VFO knobs of the rigs each keyboard is for.

So, one perhaps unusual ergonomic set-up, and a couple of very simple markings to keep things straight. The kinds of things you'll see more of in the November program. Don't miss it!

Field Day 2006 - WOW!

By Vic Gauvin - K1PY

Congratulations to the entire RDXA Field Day Team that pulls together at all levels to yet again achieve what has become our tradition – a top 3 finish in 3A! It can never be repeated nor acknowledged often enough that it's all of us, each contributing in our own way at our own comfort levels, that makes this happen. It's an especially noteworthy accomplishment in that we do this as a club in all our diversity, as opposed to a casual group of top ops who get together primarily for FD (with apologies to a well-known and supportive past and current member who shall remain nameless but whose call is First Class ;-).

We've certainly grown and evolved over the years. For those on board from the Harriet Hollister Spencer Park FD days (up to 1988), it's a phenomenal change! For those who joined in during the Webster Park Ridge Shelter days (1989-92), it's still quite significant. But our primary growth has occurred during the Webster Park Boy Scout Commissary era. That's the location that

allowed the greatest opportunity for antenna experimentation and growth. And even that took quite a while.

But that location spawned the birth of the legendary W2TZ Wire Web Arrays, aka the Field Arrays. With the sun glinting at just the right angle, you can see the amazing interconnectivity that maintains proper spacing and orientation and has made them top performers over the years! In fact, looking at the data from previous years, when we changed the "Field" over from CW to phone is readily apparent in the contact numbers – there was a significant jump in Q-count, more than doubling previous numbers. In fact, our phone 2nd highest record of 2461 was set in 2000, while the 1998 numbers were 686. Is there any doubt?

Necessity being the mother of . . . , the Webster Park flagpole also teased and challenged us for several years until we finally met the challenge with the now infamous Gizmo. (We weren't too creative with the naming I'm afraid.) Even though we felt the need to cross our fingers each time it went up, it somehow magically did the job of hoisting a Yagi up that ol' flagpole, giving us a de facto tower without the need to haul it there!

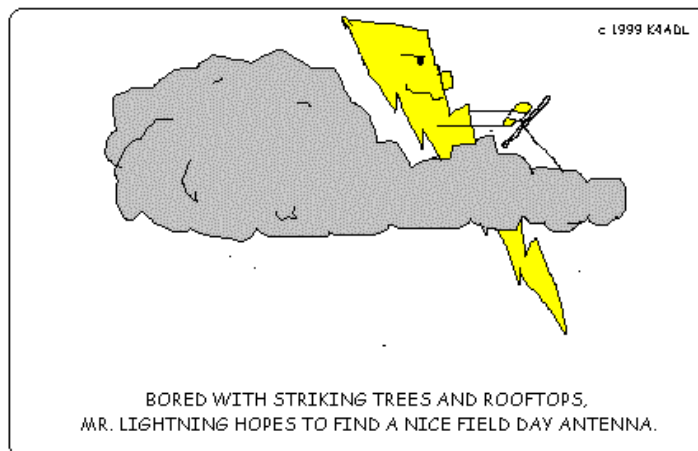
Always seeking improvement, we've had both K9AY-design Pennants, as well as an 80m Beverage to help us along.

The move to Mendon Ponds certainly didn't quash the antenna experimentation initiatives! Even with a more restricted area, we were able to try out double Vee-Beams the first year, and NVIS systems the next. Unfortunately, they didn't play as hoped, but at least we tried! And Mendon also saw the dawn of the generous AWA loan of two 50-foot "rocket launcher" Mil-Masts to hoist our Yagis closer to the sun!

It's that kind of initiative, determination, competitiveness, and support by the club overall that makes our Field Days among the best in WNY, and I'm sure many of us would contend, in the country. It ain't all top scores either. It's the whole package that somehow magically comes together each year to make a top-notch event that has drawn members from respectable distances to join us and participate.

So yes, we have quite a record to be proud of: #2 this year, top 3 five times in recent years, and top 10 since 1989 (excepting a non-competitive laid-back effort in 1996 and the 2002 kW fun lark, neither of which I "count!"). And don't forget #1 in 2001!

We did it, and we hope to continue doing it! Planning and work have already started for FD 2007. Can we? Will we? Boy, we don't know, but it's sure fun as heck trying!



Courtesy of K4ADL – <http://www.qsl.net/k4ad/>

ROCHESTER DX ASSOCIATION

W2RDX

rdxa.com

This Bulletin is the official organ of the Rochester DX Association and is published monthly, September through June. Email your articles, tidbits, ham ads, etc. to Mike, N1OKL at the addresses below 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----- Dave Wright – N2CK
n2ck@arrl.net

Vice President----- Vic Gauvin – K1PY
k1py@frontiernet.net

Sec/Treasurer----- Charles Kuhfuss – WB2HJV
wb2hvj@rochester.rr.com

Board of Directors

Irv Goodman – AF2K----- af2k@juno.com

Doug Stewart – N2BEG----- stewarts@rochester.rr.com

Alan Masson – K6PSP----- k6psp@arrl.net

Chris Shalvoy – K2CS----- chriss@globalhp.com

Appointed Positions

DX Chairman ----- Chris Shalvoy, K2CS

Packet Cluster Sys Op ----- Bob Hunter, NG2P

Webmaster ----- Scott Hoag, K2ZS

NG2P Packet Cluster----- 144.910 MHz
Telnet: ng2p.ham-radio-op.net / Port 7300

Newsletter Editor

Mike Rundle, N1OKL ----- michael.rundle@kodak.com

Alternate email: n1okl@pcilearn.com

Dues (\$15 / year) and Correspondence to:

Charles Kuhfuss, WB2HJV

55 Stoney Path Lane

Rochester, NY 14626

Professional Home Inspection



Paul Mackanos - K2DB
20 Sumac Way
Fairport, NY 14450



Paul - K2DB

www.paulmackanos.com

800.822.7579
585.223.4230