

ROCHESTER

DX

ASSOCIATION

rdxa.com



ROCHESTER DX ASSOCIATION NEWSLETTER

DECEMBER 2006

## Holiday Social Meeting

December 12<sup>th</sup> 18:00 local

Scotch & Sirloin  
Winton Plaza  
Rear Dining Room

\*\*\*\*\*

No Regular Meeting

### 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

### More Contest Info

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

### President's Soapbox

By Dave Wright - N2CK



Tuesday night was the Holiday dinner at the Scotch and Sirloin, and with 23 people there (including 3 XYLs) it was well attended. Yours truly was presented with the club's WAS award – so now it's official! Another, more prestigious award was presented as well. The award was the WAE (Worked All Entities). The award recipient was Ed, K2MP. With Ed's successful working of the current hot DXpedition of Lakshadweep

Islands, he has now worked every recognized (and I'm sure some which have been deleted) entity. Please join me in congratulating Ed for this most prestigious award and significant achievement! Thanks to Alan for being ever-present with his camera to capture the moments of the evening.

Have you added VU7LD to the log yet? I've been looking, but haven't heard a peep yet. I've seen the spots, but have yet to find a workable signal. Of course, I think the recent coronal mass ejection could have something to do with it. As a result of the solar activity, I didn't even attempt the 10m contest last weekend – though I did hear comments that the band was open sporadically.

As once again I need to get this column to Mike as the deadline is looming, I'll close for now. I hope Santa is able to find everything on your list this year (you have been good – haven't you?). See you at the January meeting!

### 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

### February Contests

YLRL YL-OM Contest, CW ----- 3-5 Feb  
Mexico Int'l. RTTY, RTTY ----- 3, 4 Feb  
CQWW RTTY WPX, RTTY ----- 10, 11 Feb  
RSGB 1.8 MHz contest, CW ----- 10, 11 Feb  
ARRL Int'l DX CW ----- 17, 18 Feb  
Russian PSK WW Contest, PSK31 ----- 23, 24 Feb  
CQWW 160m Contest, SSB ----- 24, 25 Feb  
NAQP RTTY, RTTY ----- 24, 25 Feb

## General Purpose Logging Software

*This month's Column of the Month topic is general purpose logging software. What do you use to keep track of your non-contest QSOs, as well as to track your progress towards various bits of shack "wallpaper"?*

**K2RNY, Carey** – I am a new member to RDXA. Joined at the Rochester Hamfest and have attended various meetings. Nice group of folks and I am glad I am a member. To your note, I use Logger32 as a logging software package. Being a newer Amateur, I need help from my fellow Amateurs and I get it. All of it is quite useful. There are those times, however, when I don't have someone next to me and I am on my own. So, I like Logger32 because it allows me to incorporate DX aids and propagation aids with the general log window. I have it set up such that I have the DX spot running and it has a map that actually shows where in the world they are. It tells me if I have logged them or not (all, of course, show not logged at this point, Hi, Hi). I have it coupled with HAMCAP, so that I can see if I have a snowball's chance to contact them or not based on the prediction algorithm in HAMCAP.

If I get cocky, I run the awards calculator and that keeps me humble and shows me how well, or not so well I am doing, plus where I need to focus.

It is not for contesting. It is free and does fine by me. I have it hooked up to the CAT interface of my rig and that makes logging much easier (band, freq and mode). If you click on a callsign in the DX spot window, the program will put your rig right at the frequency. That's cool! It also does QRZ lookups on the fly. Logged QSOs are timed automatically as well.

So, there you have it from one of the greener members. Have a safe and enjoyable Holiday Season.

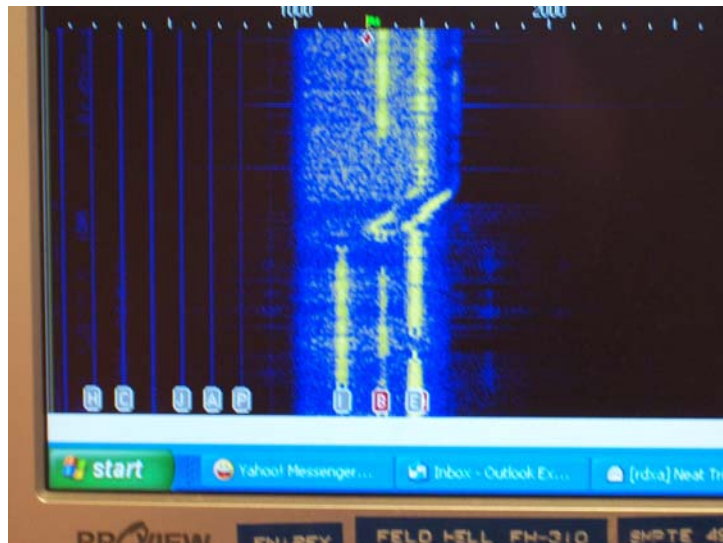
**N2CK, Dave** – One of Mike's suggested topics for this month is what logging software do you use? I use WriteLog for my contesting efforts. I have the MMTTY plugin installed for RTTY decoding. I also use DX4WIN to manage my logs, awards tracking, QSL chores, and more. I currently have an older version of this software, version 5.03 (the current release is 7.02). At \$90.00 it's a pretty pricey piece of software. However, in defense of their product, I feel that it is quite a significant package. As I was preparing to do a demonstration of DX4WIN for a program last year, I scoured the documentation for features, which really highlighted its capabilities. Initially my focus with the application was primarily awards tracking and handling QSL chores. With this application, it's quite easy to generate labels for entities/band/modes desired, as well as generating a label in response to a request for a card. One option I really appreciate is the ability to preview prior to printing. A couple years ago, when attempting to print labels DX4WIN indicated that I would need a large quantity of labels (like 10 pages of labels!) for my print job. After some investigation I determined that many of the QSOs flagged for label generation were from imported contest logs. I needed to clear some – but not all, of the flags; specifically for the contest related contacts. I sent an email to the support address, and received specific detailed instructions on how to search contacts using a date range (i.e. for a specific contest) and how to clear the flags. As someone who works with software, I really appreciate this after-the-sale support! One feature I stumbled across is the ability to interface with packet. Now, as spots come in, DX4WIN looks at the spots and determines, from my log, if they are new mode/band/entity and highlights the spots with colors. Double

clicking on a spot pre-fills basic QSO information into the data entry window.

## November RDXA Program Review

Neat Tricks and Goodies  
Photos by Alan Masson - K6PSP

If you missed the November meeting, here's a look at some of the interesting items presented there by RDXA members.



**Alan, K6PSP** demonstrated use of the DigiPan PSK31 display (above) as a general purpose spectrum scope to show RX filter passband. Using the DigiPan display, Alan showed how to tune an interfering signal out of the receiver passband, for CW and other digital modes in addition to PSK31.



**Paul, N2OPW** shared a schematic for a PTT lockout circuit for use when operating two transmitters in S&P and run modes simultaneously. The circuit permits only one transmitter at a time to be on the air. The circuit



was used with great success at the recent K2NNY SS SSB operation from Hickory Lake, NNY.



**Lynn, W2BSN** showed his fearsome compressed air "spud gun" used for launching antenna lines over trees.



**Vic, K1PY** described his custom 2-keyboard operating desk for use in SO2R contest mode operations.

## Contest Commentary

**ARRL 160m CW, WB2HJV – 160 Meter Fun** – After several weeks of quiet band conditions on 160 meters wouldn't it be just our luck to have a cold front move through Rochester and cause afternoon thunderstorms on Friday afternoon? So as you might expect the noise level was high with +25db static crashes at contest kick-off: 2200Z December 1<sup>st</sup>. The first two hours were a tough go but I managed to log 65 Qs before going out with the XYL and several good friends for the evening.

At 11:30pm local time Friday I jumped back into the contest and noted that the band had quieted down considerably. It was then that I stumbled upon HP1/DJ7AA. There was quite a pileup as he was a good 569 most of the time, the best signal I've ever heard from Panama and a potential new country for the DXCC total. But after 20 minutes he went QRT with no Q in the log for me. He never returned during the remainder of the contest to my knowledge. I



continued on until 2am local time Saturday waiting for an opening to Europe. It did not happen.

I picked up the contest on Saturday afternoon about 4pm Rochester time. The S meter fluttered between S0 and S3 for the entire evening. That was a treat for sure. But two more disappointments were just around the corner. They were 4O3M from Montenegro and OH0M, the Market Reef over in the Baltic. Right at sundown here for about a half-hour they were both in the 339 range. They were certainly not too strong but definitely workable. For a stretch I had them to myself, with no other callers. But I could not even get a nibble out of either one. So two more new ones slipped away. Sunday afternoon at sundown was an exact repeat except they were both a bit weaker. I came up empty.

There was one opening to Europe Saturday evening between 6:30pm and 7:30pm local time. Logged were GI, 9A, IK2, F, G, DL, and finally one new country Estonia ES5Q #98. Again I forged ahead until 2am local time hoping for another opening to Europe at their sunrise. But once again nothing happened in the wee hours of Sunday morning. I was getting bleary eyed so it was time to go QRT. I awoke at 5:30am Sunday, but decided to log in three more hours of sleep. ARRL 160 was history for another year with 265 QSOs.

I ran my Kenwood TS-870S with the Ameritron AL-80B amplifier to the 100 foot long Inverted Vee with the Spiro coils, about 750 watts most of the time. The antenna apex is at 52 feet and the ends are at 16 feet. Due to the narrow SWR bandwidth I only used the amp from 1810 to 1845. Contacts made above and below this range were with 100 watts and did include WWA, OR, and BC.

Logged were 43 states, 5 provinces, 61 ARRL Sections, and 13 DX countries all from the Caribbean and Europe. In my opinion propagation fell somewhat short of what was experienced in 2005. And so it goes...on the bright side though there are just a few weeks until the Stew Perry and CQ 160 CW contests. Hope to hear you on Top Band soon.

**ARRL Sweepstakes SSB, K2NNY** – Several RDXA members joined together to mount a multi-op effort for the ARRL November Sweepstakes SSB from Hickory Lake in St. Lawrence County, Northern New York. Present were: K2DB, K2CS, AF2K, W2LB, N2OPW, W1TY, and N1OKL.

Over the past summer, significant upgrades to the K2NNY antenna farm were made by K2DB and W1TY, many of which have been pictured in past issues of this Newsletter. These new antennas played extremely well. In addition, the incorporation of a separate S&P station, using the N2OPW PTT lockout circuit described elsewhere in this issue, went a long way toward ratcheting up this year's QSO count and insuring a clean Sweep.

Sweepstakes rules permit only a single transmitted signal on the air at any time. In an effort that includes both run and S&P positions, it is essential that some provision be made for preventing simultaneous operation of the transmitters. The PTT lockout circuit accomplished this simply and efficiently. Verification of the permissibility of this approach with the League uncovered the fact that W1AW uses the same approach!

N2OPW's circuit provided a red "busy" LED at each operating position. When the LED was lit, it indicated the other station had the air. During the action, it was sometimes a bit maddening to hit the PTT switch to give a response, only to find that the other station had the "air". Plenty of arm waving usually accompanied these occurrences. Happily though, no QSOs were lost through the delay...a testament to the relative rarity of the NNY Section.



Raw (claimed) score for the event was 1491 QSOs, 236,800 points. Selected photos of the K2NNY action follow.



**N2OPW** and **W2LB** fine tune the PC network for the logging computers.



Foreground: **N2OPW** and **AF2K** man the S&P station. **K2CS** and **W1TY** ragchewing in the background.



**W1TY** operates the run station at the new, custom desk.



**K2DB**, K2NNY trustee, opens the contest at the run station.

**CQWW CW, N2CK** – I played a little bit in the CQ WW CW contest. I ended up with 149 Qs. Best DX worked was Cyprus, Mali, and Suriname. I came across some incredible pileups, but couldn't determine whom the pileup was for. One thing that consistently amazes me, especially in CW contests, are the number of folks who don't ID. Honestly, at 35 WPM, just how much time is lost sending a call? Upon finding someone who didn't ID, if I heard them work more than 2 people without identifying, I kept going. One thing I noted was that I worked no JA's! Usually once it starts getting dark, I point the beam towards Japan, and use the vertical – switching to the beam as needed. Also absent from the log is European Russia and the Ukraine. Of course I worked the usual contingent of Europe, South America and the Caribbean stations. I did feel odd calling US stations, but if WriteLog told me it was a zone multiplier, I called them for the mult. One operating technique I use all the time is to start at the top of a band and work down. On Sunday morning I didn't do this, and found myself in a mini-pileup going up the band as another US ham was doing the same thing! How frustrating is that? He (I assume he) would hit a station first, and would get answered just as I was calling them. Finally, I had enough, and wandered back to the top of the band and worked down.

## Propagation

*AD5Q's notes from Cycle 22  
December 1995*

Solar Flux Range-----69 – 76

**CQWW 1995** – Conditions were excellent in the CQWW CW contest, but very different than in the SSB portion a month earlier. The 15m conditions we enjoyed in October were anomalous. The band was at its seasonal peak, and fluxes were often in the 80s. By late November, darkness covers most of the Arctic. The path to Europe opened on the East Coast, but the openings were very short. Some Easterners ran high rates for respectable totals on this band, but by 1600z attention was shifting to Africa and the Caribbean because the band closed in Europe. The window was marginal for most of the rest of us, and never really opened on the west coast. Some of the East Coast big guns failed to work a JA mult. On 10m, it is likely that nobody stateside worked any Europe. Conditions on 15m will continue to deteriorate into winter, and activity will dry up and move to lower frequencies. It will remain a good band to watch for African activity.

**High bands** – The best daypath band is now 20m, which was loaded with activity during the contest. Conditions are similar to what we would expect on 15m with higher flux levels. The band

closes in Europe a couple hours after dark, which is around 1800z. This is about the same time the path closes on 15m at the top of the cycle. The path to Asia was excellent following the JA sunrise, with access to most of Asia occurring around our sunset.

**40 Meters** – Conditions on 40m were outstanding. Many of the well equipped stations reported daypath propagation to Europe, even from the western USA. The East Coast had its usual pipeline, with high QSO rates well before sunset. There is a period in the evening where MUFs dip below 7 MHz and activity to EU thins out. The polar and high latitude paths (e.g. Russia) are workable, because the sun has already risen. The opening follows the dawn as it sweeps across Europe, and peaks well after midnight for us.

**80m & 160m** – Stations with effective capabilities on all low bands did very well in the contest. Serious 160m operators report exceptional conditions and very low noise. 80m proved to be a good band for nighttime rate from the East Coast, and a good source of multipliers for the rest of us. The seasonal peak for lowband propagation has not yet occurred, however. Conditions will continue to improve during December and be at their best going into January. We are nearing the very bottom of the solar cycle, and the next two lowband seasons will bring out the best in 80m and 160m DXing.

73, de Roy - AD5Q / Houston

<http://www.qth.com/ad5q/>

## Twenty-seven Day Space Weather Outlook Table

Issued 2006 December 12

US Dept. of Commerce NOAA

UT Date	10.7cm Radio Flux	Planetary A Index	Largest Kp Index
2006 Dec 13	90	10	3
2006 Dec 14	90	10	3
2006 Dec 15	90	5	2
2006 Dec 16	90	5	2
2006 Dec 17	90	5	2
2006 Dec 18	85	5	2
2006 Dec 19	80	5	2
2006 Dec 20	80	15	3
2006 Dec 21	80	20	4
2006 Dec 22	85	15	3
2006 Dec 23	85	15	3
2006 Dec 24	85	5	2
2006 Dec 25	85	5	2
2006 Dec 26	85	5	2
2006 Dec 27	85	15	3
2006 Dec 28	85	5	2
2006 Dec 29	90	5	2
2006 Dec 30	95	5	2
2006 Dec 31	100	5	2
2007 Jan 01	100	5	2
2007 Jan 02	95	25	5
2007 Jan 03	95	25	5
2007 Jan 04	90	15	3
2007 Jan 05	90	10	3
2007 Jan 06	90	5	2
2007 Jan 07	90	15	3
2007 Jan 08	90	15	3

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

## Vector Network Analyzer

By Raj Dewan - N2RD

### Part 2- How it Works and How to Get One

#### The Theory

In a previous article, I demonstrated some of the capabilities of a Vector Network Analyzer (VNA.) Let us first explore the theory behind it.

Let us start with the simplest example – that of a single port RF device, i.e., a device that has a single RF input. The port could be balanced or unbalanced. A single balanced port has two physical terminals while an unbalanced port has a single terminal. A ground connection is assumed in the latter case. An antenna is a simple example of a single port device. A resistor, inductor or capacitor with one end grounded are other examples of single port RF devices. Some examples are shown below in Figure 1.

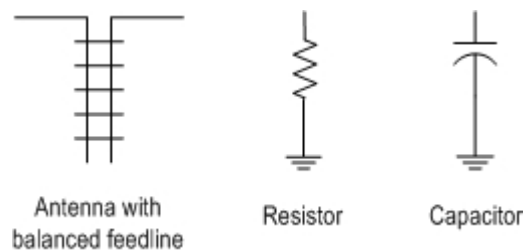


Figure 1. Single-port RF devices.

When RF energy is fed into the device, some of it is reflected back. This is shown in the Figure 2.

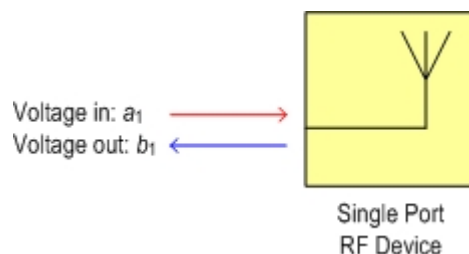


Figure 2. Incident and reflected voltages.

In the diagram we see that the RF is going into the device with voltage  $a_1$  and is reflected back at voltage  $b_1$ . The only time there is no reflection at all, i.e.,  $b_1$  is zero, is when the device impedance exactly matches the impedance of the feed line.

Microwave engineers have a special notation for the ratio of the incident and reflected voltages – they call it the *scattering parameter*  $s_{11}$ . This is a complex number reflecting the magnitude and phase relationship between the two voltages. It is closely related to the Standing Wave Ratio (SWR.)

$$\text{The Standing Wave Ratio (SWR)} = \frac{1 + |s_{11}|}{1 - |s_{11}|}$$

So while a SWR meter provides an indirect measurement of the magnitude of  $s_{11}$ , it does not provide information about the phase which is needed to determine the impedance of a DUT accurately. This is easily done with a VNA.

A VNA can determine the exact impedance of DUT by measuring the magnitude and phase of the reflected wave. The impedance and the scattering parameter  $s_{11}$  are directly related as shown in the formula below.



$$\text{Impedance} = R + iX = \frac{1 - S_{11}}{1 + S_{11}} Z_0 \text{ where } Z_0 \text{ is the characteristic impedance of the feedline.}$$

Figure 1 in the previous article showed the resistance and reactance of a simple carbon composition resistor with long leads. We saw that the reactance of the long leads increased dramatically as the frequency increased. I made that plot by connecting a grounded resistor to the VNA. I similarly tested a capacitor and an inductor to generate Figures 2 and 3 in the previous article.

### How a VNA Works

Now how does a VNA make this measurement? A schematic diagram of a simplified version of a typical VNA is shown below in Figure 3.

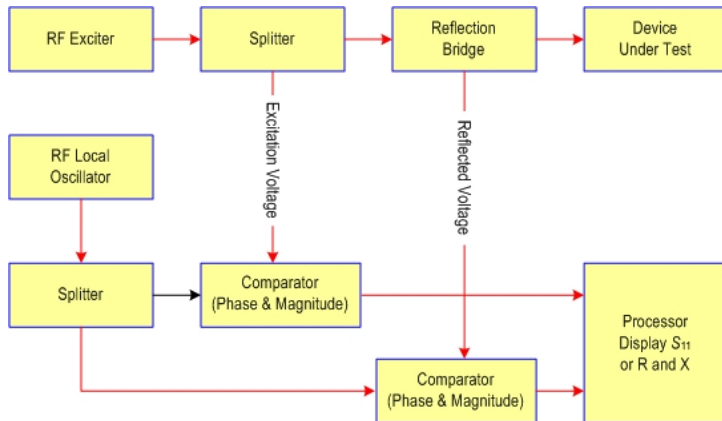


Figure 3. Block diagram of a simple VNA.

Let us follow this diagram from the RF Exciter. The RF signal is fed into a splitter that produces two signals: one to be fed into the Device Under Test (DUT) and the other is used for making measurements of the excitation voltage. The DUT is fed the excitation through a reflection bridge that separates the forward excitation from the reflected wave. The reflected wave signal is also measured. The measurements are made using a reference local oscillator. Essentially the measurement process is similar to that of demodulation which requires a LO for its functioning. The measurements of forward and reflected voltage are passed on for processing / computation of the scattering parameter  $S_{11}$  and / or the impedance of DUT.

In the N2PK VNA that I use, the local oscillators are implemented using AD9851 DDS chips and the comparators are MC1496 single chip receivers hooked up to 24bit AD converters. These components and some additional 'glue/interface' chips and high precision voltage references make up the N2PK VNA. All the computation is done on the PC. I will have more information on this excellent device later on this article.

### Two Port Devices

In the foregoing discussion I have kept the description of the VNA simple by examining only single port RF devices. Many devices have two ports: attenuators, amplifiers, filters, etc. Two port devices have four possible scattering parameters. These are shown in Figure 4.

Most VNA have two detectors and using a reflection bridge two parameters can be measured simultaneously. Then by either switching the direction of the DUT or using relays to do so, the other two parameters can be measured. Inter-stage gain and

impedance match are critical for many modules of RF systems. Here a VNA can be used to characterize the modules and fine tune the performance. Suppose one were adding a crystal filter in an IF stage. You would certainly want to know the passthrough bandwidth. This is provided by plotting  $S_{21}$  vs. frequency. You would also want to match the impedances to get the best performance. This is obtained by measuring  $S_{11}$  and  $S_{22}$ .

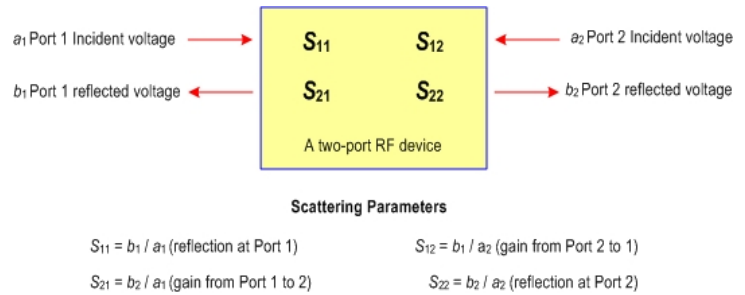


Figure 4. Scattering parameters for 2-port devices.

### How to get a VNA

With advances in RF technology and development of sophisticated RF integrated circuits, building a high quality VNA has become much easier. Here are some ways of getting/building one:

**Build the N2PK VNA** – Parts and PCB cost about \$250. I have built a couple of versions of this one. They are fantastic. The accuracy of this unit compares favorably to commercial units from Agilent and Rohde & Schwartz. It covers 0.1MHz to 60MHz with a 110dB dynamic range. Details are available at <http://www.n2pk.com>.



N2PK Vector Network Analyzer built by N2RD.

**Buy the TAPR VNA from Ten-Tec** – It costs \$655 plus shipping. It covers 1 to 100MHz. It has a 75dB dynamic range. Check <http://radio.tentec.com/Amateur/vna> for more details.



Ten-Tec VNA. Price is \$655 factory direct from Ten-Tec.

**Buy the mini-VNA** – The mini VNA is available from Mini radio Solutions, <http://www.miniradiosolutions.com>. It costs about \$250 (depending on the \$ to € exchange rate.) It covers 1 to 180MHz and has a 35dB dynamic range. I have one of these. It is adequate for antenna measurements.



Mini-VNA from mini Radio Solutions. Adequate for antenna measurements.

## League Asks FCC to Postpone, Modify Part of 75-Meter Band Change

NEWINGTON, CT, Dec 11, 2006 – In separate petitions today, the ARRL asked the FCC to postpone the change in allocation for 3600 to 3635 kHz while it considers a request to maintain the status quo in the segment. The so-called “omnibus” *Report and Order (R&O)* in WT Docket 04-140, which included moving the lower edge of the Amateur Extra 75-meter phone band to 3600 kHz, is set to go into effect Friday, December 15. The League wants the Commission to rectify the “unintended consequence” of the expansion by moving the dividing line between the narrowband and wideband segments of 80/75 meters to 3635 kHz. This would keep 3600 to 3635 kHz available to General and higher licensees for RTTY, data and CW and open to Novice and Tech Plus licensees for CW. The requested change also would maintain access to the automatically controlled digital subband, 3620 to 3635 kHz. In a *Petition for Reconsideration*, the League emphasized that it was *not* seeking reconsideration of the entire 75-meter phone band expansion.

“Rather, we ask only that the Commission restore the privileges unintentionally withdrawn from those who operate and who utilize automatically controlled narrowband digital stations between 3620 and 3635 kHz,” the League said. The ARRL pointed out that while the *R&O* left unchanged rules permitting automatically controlled narrowband digital in that segment, it eliminated RTTY and data as permitted emissions above 3600 kHz. The ARRL also filed a *Petition for Partial Stay of Effective Date of Rule* pending final action on its reconsideration petition.

To justify its far greater-than-requested expansion, the League asserted, the FCC relied on the flawed logic of a handful of commenters who specifically asked for a 3600 to 4000 kHz phone band. Some commenters had made the case during the proceeding that the “CW subband” is vastly underutilized while space for SSB is at a premium.

“It affects considerably more than just those two operating modes,” the ARRL said of the expansion. “Narrowband RTTY and data modes are increasingly used at 80 meters as well, and substantial numbers of RTTY and data users stand to be displaced, as well as precluded entirely, by the extent of the telephony subband expansion there.”

The League contends the FCC contradicted itself by saying the rule revisions wouldn’t result in any licensee losing spectrum privileges. “But operating privileges have been lost by the extent of the expansion at 80 meters,” the reconsideration petition states. The expansion also significantly burdens and adversely impacts

CW nets above 3600 kHz—including emergency and public service nets—most, if not all, of which will have to cease operating or change frequency, the League added.

Most important, however, is the loss of spectrum for automatically controlled digital modes. The ARRL petition cites the comments of several League members decrying the loss of spectrum for PACTOR, CW and RTTY. “The Winlink 2000 system was cited as a best practice by several post-Hurricane Katrina reviews, including the Congressional ‘Failure of Initiative’ report,” remarked ARRL South Texas Section Emergency Coordinator Jerry Reimer, KK5CA.

The ARRL says shifting the band edge slightly upward would provide a “simple and equitable fix” to the obvious error in the *R&O*.

“This is neither a minor matter nor an academic exercise in future band planning,” the ARRL concluded. “It is an urgent problem which, unless corrected, affects a substantial number of existing Amateur Radio fixed facilities and an even more substantial number of mobile facilities.”



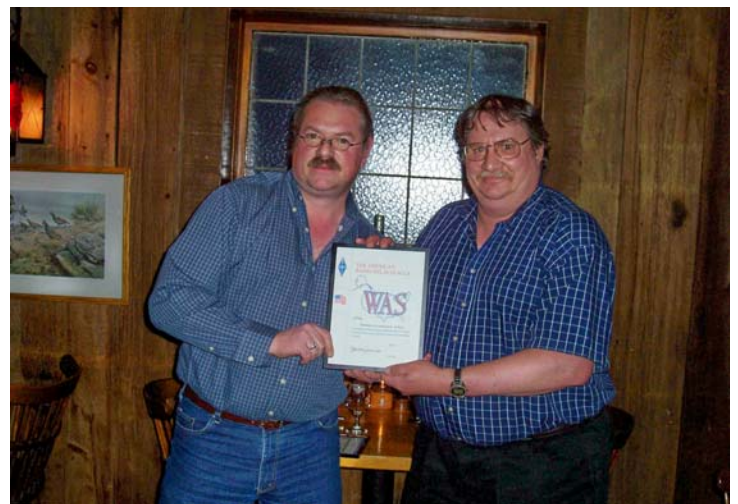
DELIGHTED AT HOW WELL HE GETS OUT WITH A KILOWATT AND AN INDOOR DIPOLE, BOB GIVES LITTLE THOUGHT TO THE EFFECTS OF NEAR-FIELD RF.

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

## RDXA Holiday Banquet

Photos by Alan Masson - K6PSP  
and Brad Allen - KB2CHY

23 RDXA members (and 3 XYLs) gathered at the S&S for this year’s Holiday Banquet. Herewith, a photographic review of the evening’s festivities. [Ed.]



Chris, K2CS (left) presents the Worked All States Award to Dave, N2CK.





Ed, K2MP (left) receives the Worked All Entities Award from Chris, K2CS.



L to R: Vic, K1PY; Scott, NY2A; Paul, N2OPW; Fred, W2TZ.



L to R: Dave, N2CK & XYL; XYL & Doug, N2BEG.



L to R: Lou, K2LKK; Marv, K2ZAA; Charlie, WB2HJV; Tim, WB2KAO.



L to R: Gene, W2LU; Irv, AF2K; Paul, K2DB; Ed, K2MP.



L to R: Roy, WA2JLW; Alan, K6PSP; Brad, KB2CHY.



## End of an Era: FCC to Drop Morse Testing for All Amateur License Classes

NEWINGTON, CT, Dec 15, 2006 – In an historic move, the FCC has acted to drop the Morse code requirement for *all* Amateur Radio license classes. The Commission today adopted, but hasn't yet released, the long-awaited *Report and Order (R&O)* in WT Docket 05-235, the "Morse code" proceeding. Also today, the FCC adopted an *Order on Reconsideration* in WT Docket 04-140 – the "omnibus" proceeding – modifying the Amateur Radio rules in response to an ARRL request to accommodate automatically controlled narrowband digital stations on 80 meters in the wake of rule changes that became effective today at 12:01 AM Eastern Time. The Commission said it will designate the 3585 to 3600 kHz frequency segment for such operations, although the segment will remain available for CW, RTTY and data as it has been. In a break from what's been the usual practice in Amateur Radio proceedings, the FCC only issued a public notice at or about the close of business today and not the actual *Report & Order*, so some details – including the effective dates of the two orders – remain uncertain. Currently, Amateur Radio applicants for General and higher class licenses have to pass a 5 WPM Morse code test to operate on HF. Today's *R&O* will eliminate that requirement.



Will the familiar Morse key, a fixture in hamshacks for the past 90+ years now fade into the pages of history?

"This change eliminates an unnecessary regulatory burden that may discourage current Amateur Radio operators from advancing their skills and participating more fully in the benefits of Amateur Radio," the FCC said. The ARRL had asked the FCC to retain the 5 WPM for Amateur Extra class applicants only. The FCC proposed earlier to drop the requirement across the board, however, and it held to that decision in today's *R&O*.

Perhaps more important, the FCC's action in WT Docket 05-235 appears to put all Technician licensees on an equal footing: Once the *R&O* goes into effect, holders of Technician class licenses will have equivalent HF privileges, whether or not they've passed the 5 WPM Element 1 Morse examination. The FCC said the *R&O* in the Morse code docket would eliminate a disparity in the operating privileges for the Technician and Technician Plus class licensees – something the ARRL also has asked the Commission to correct following the release of its July 2005 *Notice of Proposed Rule Making (NPRM)* in WT Docket 05-235.

"With today's elimination of the Morse code exam requirements, the FCC concluded that the disparity between the operating privileges of Technician class licensees and Technician Plus class licensees should not be retained," the FCC said in its public notice. "Therefore, the FCC, in today's action, afforded Technician and Technician Plus licensees identical operating privileges."

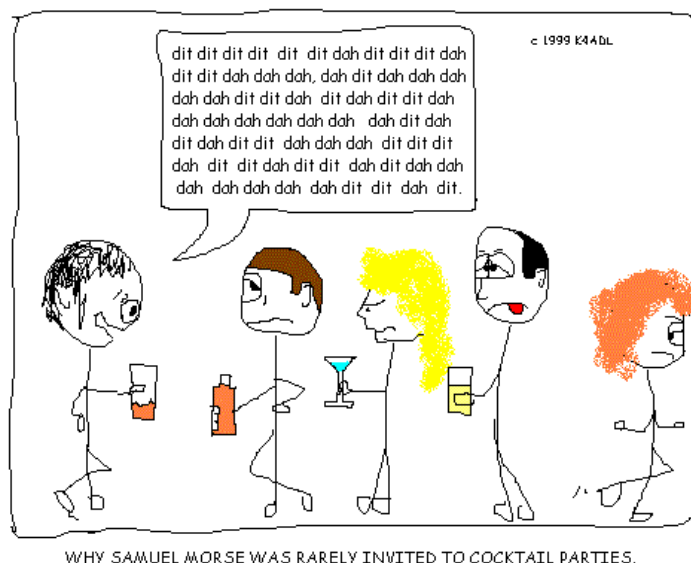
Technician licensees without Element 1 credit (i.e., Tech Plus licensees) currently have operating privileges on all amateur frequencies above 30 MHz. Tech Pluses or Technicians with Element 1 credit have limited HF privileges on 80, 40, 15 and 10 meters. Under the Part 97 rules the Commission proposed last year in its *NPRM* in WT Docket 05-235, current Technicians lacking Morse credit after the new rules went into effect would have had to upgrade to General to earn any HF privileges.

The wholesale elimination of a Morse code requirement for all license classes ends a longstanding national and international regulatory tradition in the requirements to gain access to Amateur Radio frequencies below 30 MHz. The first no-code license in the U.S. was the Technician ticket, instituted in 1991. The question of whether or not to drop the Morse requirement altogether has been the subject of often-heated debate over the past several years, but the handwriting has been on the wall – especially since the FCC instituted an across-the-board 5 WPM Morse requirement effective April 15, 2000, in the most-recent major Amateur Radio licensing restructuring (WT Docket 98-143).

The FCC said today's *R&O* in WT Docket 05-235 comports with revisions to the international *Radio Regulations* resulting from the International Telecommunication Union (ITU) World Radiocommunication Conference 2003 (WRC-03). At that gathering, delegates agreed to authorize each country to determine whether or not to require that applicants demonstrate Morse code proficiency in order to qualify for an Amateur Radio license with privileges on frequencies below 30 MHz.

The list of countries dropping the Morse requirement has been growing steadily since WRC-03. A number of countries, including Canada, the UK and several European nations, now no longer require applicants for an Amateur Radio license to pass a Morse code test to gain HF operating privileges. Following WRC-03, the FCC received several petitions for rule making asking it to eliminate the Morse requirement in the US.

Typically, the effective date of an FCC *Order* is 30 days after it appears in the *Federal Register*. If that's the case, the Morse requirement and the revised 80-meter segment for automatically controlled digital stations would likely not go into effect until late January or early February 2007. That's not clear from the public notice. The FCC can order its decision effective upon release.



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



## 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 3<sup>rd</sup> Tuesday of each month, September through June.

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