ROCHESTER DX ASSOCIATION
rdxa.com

ROCHESTER DX ASSOCIATION NEWSLETTER DECEMBER 2005

Holiday Dinner

December 13th 19:00 local

Scotch & Sirloin
Winton Plaza

Our regular monthly meeting is replaced this month by a Holiday Dinner. Join us, along with spouses and guests, for a festive celebration.

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No December Meeting

President's Soapbox **By Dave Wright – N2CK**

Seasons' greetings all.

As I sit writing this article, the temperature outside this morning was a balmy 2 degrees. I think prime antenna season is behind us. However, I'm hoping the old Ham observation that antennas put up in miserable conditions seem to work better. I'm hoping that's the case, as I need to take one down first before I can put it up! I should get twice the "miserable conditions" blessing with this move! Vic volunteered to let me use an Alpha Delta antenna to bolster my coverage on 160/80/40 meters.

Last night was the RDXA Holiday get-together at the Scotch and Sirloin. There were 25 folks in attendance. Food and conversation was GREAT. Thanks to Tim, WB2KAO for making the arrangements, and Charlie, WB2HJV for handling the RSVP responses. Allen, K6PSP was circulating with a camera taking pictures for the newsletter. Thanks to all who attended, and to those who missed, consider attending next year.

I recently purchased a new toy for bow hunting. I've always wanted a laser range finder, to determine the distance to areas where I had open shooting lanes. I ended up getting a bottom of the line model, as I couldn't justify the expense of some of the higher end products. What does this have to do with Amateur Radio you ask? Well, check this out. I have 150' of RG-58 coax that is currently not being used. Scoping out a tree in the back yard I want to use for the antenna noted in my first paragraph, I wondered if I would have enough coax. I have a 100' tape measure, but then I have to anchor it to a pre-determined point, then walk back to the tree – if it's greater than 100', pull up the anchored end, re-position it, and do it again. Gotta be an easier way than this! Hmmmm, the range finder! I stood at the side of the house where the coax will need to connect to the Polyphaser. I sighted on the trunk of the tree, and took a measurement. From where I was standing, it was 40 yards to the tree, or 120' Figuring that if I can get the antenna 30' up, I'm all set. I was also planning to bring this to Mendon Ponds Park for Field Day antenna planning to determine distances to various areas/trees etc. According to the specifications, if shooting to a reflective object the range can be up to 400 yards. Certainly will make it easier to figure out optimum coax runs. One other thought just came to mind. I've always wondered just how high my tribander is up on the roof. By noting a position in the back yard, and taking a distance measurement to the peak of the roof, as well as knowing how far I am away from the house, using Pythagorean theorem, the distance to the peak would be the "c" component, the distance to the house would be the "a" component and solve for "b" – the height of the house! Once I determine the peak, I'll add another 8' or so to make up for the height of the tower and mast!

I need to close this, as I'm running long at lunch to finish this. Once again, I'm submitting my article on the deadline date.

I hope that Santa brings you all the goodies you need for your shack. I also hope the New Year brings all the best for you, both in your radio pursuits, and personal happiness.

73 es gud DX…
May you work the P5 on any band(s) you need 'em,

Dave, N2CK

December Contests

ARRL 160 Meter Contest, CW ----------2-4 Dec
ARRL 10 Meter Contest, CW, SSB---------- 10, 11 Dec
OK DX, RTTY----------17 Dec
RAC Canada Winter Contest, CW, SSB----------17 Dec
Stew Perry Topband Distance Challenge, CW---------- 17, 18 Dec

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

January Contests

ARRL Straight Key Night, CW ---------- 1 Jan
ARRL RTTY Roundup, RTTY---------- 7, 8 Jan
NAQP, CW---------- 14, 14 Jan
UK DX RTTY, RTTY---------- 21, 22 Jan
CQ 160 Meter Contest, CW---------- 28, 29 Nov

February Contests

Mexico Int'l. RTTY Contest, RTTY----------4, 5 Feb
CQ WW RTTY WPX, RTTY ----------11, 12 Feb
RSGB 1.8 MHz Contest, CW----------11, 12 Feb
ARRL Int'l DX, CW----------18, 19 Feb
CQ WW 160m Contest, SSB ----------25, 26 Feb

Automated Contest Robot By Bonnie Crystal – KQ6XA

The following article recently appeared on QRZ.com and is reprinted here by kind permission of the author. Ed.

The Latest Advancement in Contesting

How wonderfully advanced the new ham contest stations are now, with operators reaching maximum scores through machine-like precision! A few buttons are pushed by the contest operator to send callsigns and automatically generate signal report numbers. Computers log and check everything, rotate beams, switch antennas, and even QSY in response to a rare DX cluster spot.

Well, the time is now, to take contesting to the next logical step in ham radio evolution: eliminate the human factor entirely!

Enter the ultimate software appliance: the Automated Contesting Robot (ACR)

Automated Contesting Robot, containing the most advanced computing power available, is so much better suited to contesting than humans are. ACR doesn't need a human to press the start and stop button, because the time/date of the contest is automatically downloaded from contesting websites. ACR roams all the amateur bands freely, quickly and efficiently exchanging reports with other ACRs…and ACR is so much more capable of exchanging accurate and truthful signal reports than humans. After all, computers don't make duplicate QSO errors! ACR doesn't take it personally if a frequency is already in use, or if another ACR tries to take over its frequency. ACR simply increases transmitter power, swings the beam, or QSYs.

ACR doesn't get weary during long 48 hour contests. As Automated Contesting Robots become fully utilized by every great contest operator in the world, the duration of contests will be expanded to weeks, months, or even the entire year. Just think, contest lovers, we can soon look forward to continuous contests on the ham bands!

ACR does all the preparation for a contest beforehand, without procrastination. The stored credit card information entered by the purchaser of the ACR is used for other functions:

1. ACR orders the 6-over-6 stacked beams required for every band and emails contracts to construction crews for installation of the entire contesting station hardware system.
2. ACR orders the IC-7800s and high powered amplifiers for each band and has them installed by qualified technicians.
3. Of course, from time to time, the ACR would also order hardware upgrades for itself, such as 100GB of RAM to continue to operate at full potential.

And ACR takes care of all that messy after-contest work before resetting for the next contest:

1. ACR exchanges databases with all other ACRs in the world, comparing scores within microseconds.
2. ACR orders the immediate delivery of award plaques and gold trophies online, which are FedExed overnight to the "Contest Operator" for instant gratification.

The mundane chores of contesting are now completely solved by the ACR appliance, leaving the ACR owner to maintain high standings amongst the ranks of the World's Greatest Contest Operators, while basking in the eternal adoration of fellow hams.

Topic of the Month Changing Interests in Ham Radio

In this month's Topic of the Month column, RDXA members recall how their ham radio interests have changed through the years.

Dave, N2CK – Keeping with Mike's theme this month of changing interest in the hobby, here's my take. When I first started, I had my Tech Plus license. However, I operated on VHF and UHF FM only. I was quite happy playing repeaters, and the occasional VHF contest. I even drove up to Batavia and did the 4 corner dance, all the while working 2 band FM (wow, now that's *exciting!*). [Sorry – couldn't resist!] Vic seemed determined to nudge me into RDXA by asking me to come out to Field Day and log for W2TZ while he operated CW. Let me tell you, that was the most frustrating couple of hours in my life! Fred would write down the call and exchange on paper, and I would type it in! Fred got frustrated with me when I didn't keep up, and I'm sure there was some friction between him and I – the seasoned CW op and FD expert, and this wanna-be ham who was logging for him. I was willing to swear off Field Day altogether. However, at some later time, K2DB – then President of BARK proclaimed to all who attended BARK's FD "Try a new mode/band/etc. Just have FUN!" Well I got on the HF bands (SSB of course), and had a BLAST. Remember, at this time in 1995/96 10m was starting to show real signs of life. If I had an idea how much fun operating HF was, I could have made use of my license – at least on 10M! That FD encounter started me on the license upgrade path, so I could really make use of all the bands available on my recently purchased TS-520. At the time, nothing was more frustrating to me to hear a bunch of stations in the Advanced and Extra portions of the band, knowing I couldn't work them. Eventually, I made Extra and could happily contest away. However, getting back to the initial theme of this paragraph, I discovered RDXA and FD. Having always loved camping, and now having found competitive (sorta) radio operating, RDXA's FD was a match made in heaven for me. Seeing RDXA take a take-no-prisoners' (in Mike's words, hard work, sweat, and radio madness says it all) approach to this annual event was just I needed. I won't go as far as saying it satisfied primal needs in me, however it became something I looked forward to every year, and upon successful completion, there was a little letdown knowing next year was just a scant 360 or so days away. Along the way I discovered CW contesting. I know I will never be competitive in a CW contest. However, I figure that it's folks like me who get in and operate for a bit to hand out some points, make the top stations what they are every year. And, as a

plus, my family doesn't have to hear me screaming into a mike for the weekend. There's something magical about hitting F4 to send my call, F2 to send an exchange, or F6 for a "Huh? I didn't catch that." Also, since I discovered what 250 Hz filters can do, I anxiously look forward to the next CW 'test. Considering when I used to operate primarily fone contests with the pre-amp engaged – now I don't play in a fone contest without 30db of attenuation, CW operating seems much more relaxing. I do operate S&P only, as I usually need to hear a call/exchange a couple of times before I am willing to make the exchange. So, to close, I now really look forward to FD and CW 'tests. Along the way I've also discovered RTTY contesting, however that doesn't have the same attraction, as one cannot decode the signals without external hardware/software. Sorry Rick, to each his own.

Antenna Support Ropes — By Barry Ornitz – WA4VZQ

The following article was written by Dr.Barry L. Ornitz WA4VZQ, a PhD chemical engineer who has worked for several manufacturers of plastics and chemicals, has quite a bit of experience with the physical and chemical properties of plastics, and is familiar with the chemical and ultraviolet resistance of polymers. Ed.

Polypropylene rope is most commonly used here in the States as "ski rope." It is inexpensive, light weight, strong and it floats. But the polymer structure of polypropylene (and most other polyolefins like polyethylene, etc.) is not resistant to ultraviolet. When exposed to sunlight, it quickly degrades from the ultraviolet radiation. The result is considerable weakening of the rope along with surface oxidation. The loss of tensile strength is naturally a bad thing for a guying application. The surface oxidation is of not much concern here, but when used as an insulator (such as on the ends of a wire dipole), the oxidized surface becomes wettable allowing surface contamination to adhere. This can increase the RF losses of the rope slightly. If you observe polypropylene rope after a season or two outdoors, you can visibly see the surface degradation and you can often seen numerous broken strands.

To slow the degradation of polypropylene rope, or any plastic for that matter, anti-oxidants and ultraviolet inhibitors may be added. These increase the life of the rope somewhat, but they do not offer ever-lasting protection. Certain colors offer better ultraviolet protection too. I am sure that most people are familiar with the fact that organic dyes and pigments fade. Red is probably the worst offender, followed by yellow. Bright white and black generally hold up the best. In polypropylene rope, the black will generally do better than the white. Since polypropylene is naturally translucent, it takes little white pigment (usually titanium dioxide) to make it white. Black is cheaply obtained by adding carbon black to the polymer melt. The white pigment tends to reflect the ultraviolet while the carbon black tends to absorb it and convert it to heat. With its low pigment loading, black polypropylene is probably better than the white.

A much better choice is nylon rope. It is strong, readily available, and has a fairly high ultraviolet resistance. It does stretch considerably, and this is an important consideration in antenna work. Chemically, the nylons are in a family known as polyamides. Their chemical resistance is normally good except in areas where acid conditions exist. These tend to occur in industrial areas with high smog or where acid rain is prevalent. Again bright white or solid black is to be preferred in outdoor use.

Probably the best rope materials for outdoor use are the polyesters. Typically these are polyethylene terephthalate (PET) or polybutylene terephthalate (PBT), although I suppose polyethylene naphthalate (PEN) ropes exist today. The most common material is PET [more properly called poly(ethylene terephthalate)], known under such trade names as Dacron (DuPont), Fortrel (Wellman), Kodel (Eastman), A.C.E. (Honeywell). etc. [For some reason, rope vendors at many USA hamfests tend to charge a premium for Dacron, probably because of the name recognition.]

Polyester ropes have very low stretch making them excellent for guying applications. They are excellent in both chemical and ultraviolet resistance. The polyester materials have an interesting property that makes them especially ultraviolet resistant. These materials fluoresce upon exposure to ultraviolet light; they absorb ultraviolet radiation and re-emit it as light at a longer wavelength. Generally the emission is in the near-infrared region but some materials fluoresce in the visible spectrum too. This is an effective way of getting rid of the energy absorbed from the ultraviolet and it provides much of the ultraviolet resistance seen in these materials. Their chemical resistance is even better than the nylons. Black or white colors are still to be preferred, although I have seen surplus military rope in the traditional olive-drab color that should perform well. Since the polyesters are generally clear, they take more white pigment to color them than polypropylene materials. Thus the white rope is almost as good as black for long-term use.

There are other specialty ropes available such as those made from polyaramides (Kevlar and Nomex by DuPont) and polyimides. The Kevlar ropes are extremely strong, but they require special stranding and covering to avoid abrasion problems; their abrasion resistance is quite poor. There are also composite ropes made with a core of one material which is clad with a woven covering. These tend to be rather specialized and are probably not worth much discussion. However there are polyester covered polypropylene ropes on the market today. These rely on the good strength of the inexpensive polypropylene core, while the jacket provides considerable protection of the core from sunlight. Wire ropes are also commonly available, and entire books have been written on their design and application. It is usually best to consult the manufacturers directly about applications of these specialty ropes.

I hope this gives a better explanation of why you might not want to use polypropylene in many applications. However, I do like to use polypropylene ropes for Field Day antennas. These are used only a few days each year, and the bright colors can provide contrast to prevent people from walking into them! They are inexpensive enough to discard too.

Propagation — *AD5Q's notes from Cycle 22, Dec 1994*

Solar Flux Range---------- 76 – 100

CQ WW CW, 1994 – Our monthly solar disturbance arrived pretty much on schedule (during the CQWW CW). Fortunately, its effects weren't as severe as in past months; raising hopes that this recurring nuisance is dissipating. Due to other commitments, I was not able to devote the entire weekend to the contest this year. This means that those of you who did the all-band thing gained a better feel for conditions than I currently have. My non-serious effort was on 80 meters, and it was my first CQWW on packet. Like most packeteers, I contributed to the QRM but won't be sending in my logs. I also learned that it is a mistake to spot rare DX (like SU2MT) before logging it, especially when most of the connected packet nodes are much further east. He sure was loud on 80m!

The activity on 80m was heavy from the start, since the high bands were mostly closed. There were lots of copyable signals from Europe, the most I have ever heard on 80m. Still, I wasn't punching through the pileups like usual on this band. My conclusion is that it was a "horizontal night." Contesters have concluded that low band conditions on some nights are good for horizontally polarized antennas (the majority) and others are good for vertical signals. I use a vertically polarized delta loop. There isn't a lot of documentation on this phenomenon, or scientific study. Are horizontal nights more common than vertical nights, or are they split 50/50? What is the difference in dB, and does it vary from night to night? Does any of this apply to stateside signals? Feedback is appreciated.

The most productive bands this year were 40m and 20m, since 15 meter openings to Europe were brief. Even the east coast multis failed to make 1000 Qs on 15m. Openings to eastern Europe and Russia were especially limited, and this is where a high percentage of contacts are usually made. Daypath conditions on 20m were better, so many spent the morning there.

High Bands and Long Path – For the next several months, 20 meters will be reliable for most daypath work. 15m also opens, but the windows are very narrow across northern latitudes. 17 meters is an excellent choice. In the southern hemisphere it has been late spring, and peak season for nightpath work on 20 meters. The bands don't close early like they do up here. This also means that long path is at its best, though nothing like at the peak of the solar cycle. Southern Asia is workable on Antarctic paths at dawn and dusk, especially when fluxes are up in the 80s. On 40m, most long path activity is from Europe to our west coast. European LP propagation peaks too late for most of the US.

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

Contest Commentary

OK DX RTTY, N1OKL – This was my first serious effort in a RTTY contest after making the change from my old KAM Plus TNC decoder to the MMTTY soundcard software decoder. Thanks to some help from Ranger Rick, I was able to get MMTTY up and running with not too many problems. Rick also gave me some good pointers on programming contest exchange macros, and these proved their worth throughout the contest, greatly streamlining exchanges. This was also the first time I put my Christmas present from the XYL on the air: a used Icom PW-1, capable of making 1kW even when running RTTY.

The contest began at 19:00 local (00:00 UTC) on Friday evening. I started out on 40m and made several excursions up and down the RTTY subband logging all the stations I could print; mostly North Americans with a smattering of Europeans and South Americans thrown in. Signals from Europe were not as numerous as I expected, though it was after midnight there and most I suspect were off the air and in bed. I moved to 80m after a few hours and found lots more stations there than on 40m. I stayed on 80m until 02:00 local and worked plenty of North Americans as well as a handful of Europeans…including several Russians. The PW-1 performed flawlessly, though when all the fans kicked in to high gear, it is a bit noisy. I was also pleased to find no issues with RFI in the shack when running a kilowatt. Just before calling it a night, I switched back to 40m and I did find more EU sigs on the band; Europe was waking up. Tomorrow should be good.

I rejoined the fray at about 08:00 local Saturday morning. The cluster showed most contest activity was on 20m, and even some on 15m, so I moved up to 20m. Immediately, I had an RFI problem. MMTTY would not drop the PTT line to the rig after transmitting, at any power level over about 300 Watts. I tried a ferrite on the FSK line from the PC to the rig, and that got me up to 500 Watts OK, but at any power above 500 W, the PTT line continued to hang up. 500 W was plenty of power to work all the stations I could hear, so I left it at that and dove in.

It was noon before I knew it and between 15m and 20m I had slightly over 100 Qs in the log. Plus, I discovered that there were no RFI problems on 15m. I had a few chores to attend to Saturday afternoon and didn't get back to the contest until about 17:00 local. I finished up the last 2 hours on 40m, with a brief but unsuccessful QSY to 80m at the request of a Russian I worked on 40m.

My final score was 7400; 119 QSOs, 296 QSO points, 21 DXCC countries and 4 OK QSOs.. I lost about 10 Qs to a logging error on my part with MMTTY. All in all it was a good contest. I learned how to run MMTTY and a new amp, and was pleased that all the changes in the shack worked with few problems. The RFI on 20m is not a show-stopper. I think I can probably fix this with enough ferrites on the right lines.

I won't likely be able to solve the RFI problem with the TV upstairs though. The cable feeding the TV is only about a foot away from the ladder line feeding the antennas, and there is little hope of re-routing it. Susan says the entire TV screen alternately flashes red and white when I key the amp! How nice!

Twenty-seven Day Space Weather Outlook Table

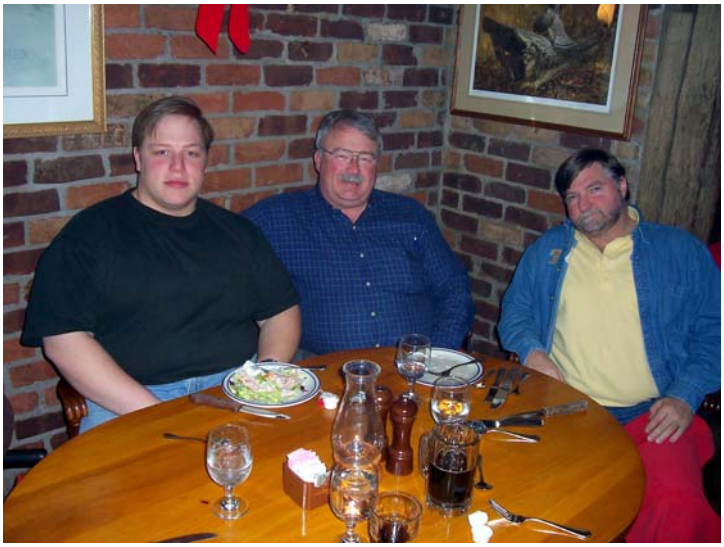
Issued 2005 Dec 13 *US Dept. of Commerce NOAA*

UT Date	10.7cm Radio Flux	Planetary A Index	Largest Kp Index
2005 Dec 16	90	8	3
2005 Dec 17	85	5	2
2005 Dec 18	85	5	2
2005 Dec 19	85	5	2
2005 Dec 20	85	5	2
2005 Dec 21	85	8	3
2005 Dec 22	80	10	3
2005 Dec 23	85	5	2
2005 Dec 24	90	3	1
2005 Dec 25	90	8	3
2005 Dec 26	90	5	2
2005 Dec 27	90	10	3
2005 Dec 28	95	15	3
2005 Dec 29	95	15	3
2005 Dec 30	95	10	3
2005 Dec 31	95	5	2
2006 Jan 1	95	5	2
2006 Jan 2	95	5	2
2006 Jan 3	95	5	2
2006 Jan 4	95	5	2
2006 Jan 5	90	8	3
2006 Jan 6	85	10	3
2006 Jan 7	85	20	4
2006 Jan 8	85	5	2
2006 Jan 9	85	5	2

2005 Holiday Banquet **Photos By Alan Masson – K6PSP G3PSP**

L to R: Bob - NG2P, Charlie - WB2HJV, Tim – WB2KAO

L to R: Paul – K2DB, Chris – K2CS, Gayle – N2TWI, Irv – AF2K



L to R: John – KC2JSJ, Marv – K2ZAA, Curtis – N2HKD

L to R: Ed – K2MP, Alan – K6PSP/G3PSP, Roy – WA2JLW

L to R: Fred – W2TZ, Vic – K1PY, John – KC2JSJ

L to R: Rich – WB2RGK, Dave – N2CK, Ann XYL of N2CK, Kathleen – XYL of N2BEG, Doug – N2BEG, Cyndie – K2SKY, Paul – K2FX

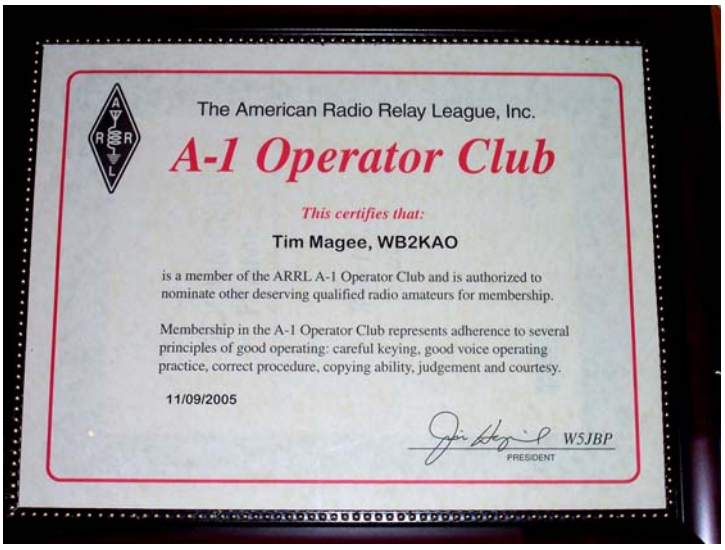
L to R: Tim – WB2KAO, Roy- WA2JLW (standing), Paul – N2OPW, Ed – K2MP (standing), Bob – NG2P, Charlie – WB2HJV (back to camera)

L to R: Tim - WB2KAO, Roy – WA2JLW (standing), Paul – N2OPW

L to R: Kathleen, XYL of Doug – N2BEG

Above and below: Longtime RDXA member Tim Magee, WB2KAO, is inducted into the prestigious A-1 Operator Club.

L to R: Cyndie – K2SKY, Paul – K2FX



DX Logbook **By Chris Shalvoy – K2CS**
Atlantic Division DXAC

Obviously, the "big" news this last few weeks was the KP5 operation from Desecheo. Very brief but still very important for those who needed it. Ranked #8 in "most needed" polls, the operation came and went in a flash. It was interesting to see the local comments on the RDXA reflector as we tried to put them in our logs.

For once, I was one of the fortunate ones who had this worked many years ago, believe it or not, on 10m, SSB and CW…*from my car*! As a young DXer, I listened well. KB2SE continually guided me to the stuff I should spend the time getting, and listening to those wise words got me Peter 1, Desecheo and Navassa within a year of my receiving N2PEB. Granted, I was probably only one of a handful of 20wpm Techs and was blessed with 10m until I upgraded to General.

As I look at my needed list, only a few are obtainable now (H4, S2) and many not (VK9W, BS7H, P5, VU7).

Some interesting background information on KP5 can be found at http://www.dailydx.com/kp5.htm.

3YØX will be on in early February, hold on, if you think the KP5 pileup was bad, just wait! Up to date info on this operation can be found at http://www.t-rexsoftware.com/peterone/.

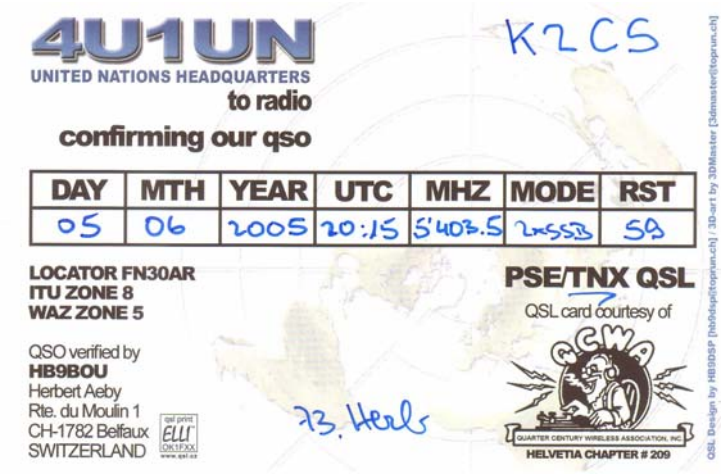
With that, I hope you all had fun in the CQWW CW, ARRL 160m and ARRL 10m contests. Remember to get your scores posted on the website and turn you logs in with RDXA as your club affiliation.

In closing, announced last month was the RDXA 2006 Operating Event that will strive for DXCC status for the club before 2007.

To update you on our current totals, we have **47 DX countries confirmed** and **30 states confirmed**.

We have some work to do!

We'll have signup lists at the January meeting and I'm sure we can get webmaster extraordinaire, K2ZS to do something on the site.



4U1UN confirms QSO with K2CS on 60m.

In The Log (Non Contest)

Station	Bands
ZD8A	40m CW
3DAONW	30m CW

Station	Bands
TZ6NG	40m, 20m CW
5HVMB	40m CW
OY1CT	80m CW
NK3S/KP5	30m CW
XF3NN	15m SSB
R1ANF	20m CW

GM3POI	160m CW
PJ2/WB9Z	160m CW
PZ5RA	17m CW

See you in the pileups.

Best DX es 73

For Sale: Yaesu FL-7000 solid state linear amplifier. Includes FAS-1, 4-position remote coax switch, interconnect cables for most Yaesu rigs, all manuals. Built in auto antenna tuner with memory. 600W CW & SSB, 250W RTTY. With FAS-1, antennas are selectable from amp front panel. Amp memory recalls previous antenna / band combinations. A great medium-power amp. Auto band changing when used with Yaesu rigs. Near mint condition. 120 or 240 VAC, jumper selectable. Asking $1000. Contact N1OKL: n1ok@pcilearn.com, 203-744-5552.

FL-7000 Front Panel.

FL-7000 Rear Panel.

FL-7000 Front Panel, close up.

Rochester DX Association

W2RDX rdxa.com

This Bulletin is a 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 first 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 ---------- open

Sec/Treasurer ---------- Charles Kuhfuss – WB2HJV
wb2hjv@rochester.rr.com

Board Of Directors

Paul Meyers – N2OPW ---------- n2opw@qsl.net
Gene Fuller – W2LU ---------- w2lu@worldnet.att.net
Paul Mackanos – K2DB ---------- paul@prohomeinspector.net
Rick Mintz – W1TY ---------- w1ty@arrl.net

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: 66.67.220.251 / Port 7300

Newsletter Editor

Mike Rundle, N1OKL ---------- rundlem@kpgraphics.com
Alternate email: n1okl@pcilearn.com

Dues ($15 / year) and Correspondence to:
Charles Kuhfuss, WB2HJV
55 Stoney Path Lane
Rochester, NY 14626