

April-May 2009

"Ohio's First DXCC Field Checking Club"



The NODXA RAG



Poolside Chat With KB8NW

Fellow DX'ers,

Well, the Dayton HamVention has come and gone, and summer is just around the corner which means it is time to start planning to attend NODXA's Field Day site (June 27-28th). As of the June 1st membership meeting, the club will operate as a "2A" category (same as last year) with one station on CW and the other on SSB. We will also have a 6 meter station, GOTA station and a satellite station. As always, we need operators especially during the night shift. Everyone is welcome to come out and visit with no pressure to operate. We always have a great time chatting, eating and operating. It's one of the club's annual great get togethers. Bring a friend (ham or non-ham). You will find a map of the location of the Field Day site somewhere in this newsletter. It is at the same location as the last several years. Look for the NODXA Field Day signs.



Hope I see you there.

During the Dayton HamVention it was announced that a DXpedition was going to take place from the Island of Glorioso between July 9-28th. This French military island is ranked 4th on the "DX Magazine's 2008 Most Wanted List".

Many are keeping their fingers crossed on this one because it has been postponed several times over the past few years. Let's hope propagation will pick up for this one. However, summer conditions will probably not favor us and the sunspots during this new cycle are not increasing too quickly. Good luck in the pile-ups (I am sure that they will be very large).

I want to wish everyone a safe and great summer. Hope you can attend the next meeting. Also, just a reminder that club dues are due as of May.

73 and Good DX de Tedd KB8NW

"The Mission of the Northern Ohio DX Association is to promote and support Amateur Radio and the DX Community around the world."

Minutes of the March 2nd, 2009 NODXA Meeting

The meeting was opened by the President, Tedd, KB8NW at 7:34pm. There were 22 members and one guest present.

After a round of introductions, the minutes of the February 2nd meeting were read. After some clarifications, the minutes were approved.



The Treasurer Mary, N8DMM, reported a balance of \$Ka-Ching! in the account and that she had received two renewals today.

Tedd, KB8NW, reported that the repeater is running okay, but as always, needs more use. Pete, N8TR, reported that the cluster was okay as well. Al, N8CX, reported on the status of BART and said he would provide status and future-use information at the next meeting.

Dave, WD8IOU, reported that the newsletter was out two weeks ago. He thanked Dwaine, K8ME, for an article on the Kenwood TL-922 modifications and Mike, W8EVI, who wrote an article on vertical antennas. Mike promised future articles as well.

Ron, K8VJG, questioned if rooms at Dayton were for members only? The short discussion that followed eluded that this was not necessarily the case.

Old-New Business

The President, Tedd, KB8NW, said that we would accept a "white ballot" for the 2009-2010 officers as discussed previously.

Tedd also mentioned that he had received a donation request for an upcoming DXpedition to C21, Nauru. Tedd reported that Nauru is 52nd on the most wanted list. Pete, N8TR moved, seconded by Dennis, W8NW, not to donate. The motion passed. Tedd also reminded everyone that Dayton was coming up.

Dwaine, K8ME, reported that seats were still available for the one-day trip to Dayton. The bus requires 30-35 people to justify the trip. He asked anyone planning on using the bus to sign up as soon as possible. The trip will be Saturday, May 16th.

Ron, K8VJG and Pete, N8TR mentioned the upcoming ARRL DX SSB contest. Pete also commented that 40 meters was becoming the "new 20 meters" due to current propagation conditions.

Bruce, N8DJX, wondered about the status of the Mayotte, FH/G3SWH DXpedition. Bob, W8GC, said that their operation with bands and times specified, did not favor the U.S., only Europe. Interference and QRM were bad for the U.S. on 40 meters.

Tedd reported that Morgana Island is needed by 75% of IOTA members. The DXpedition is due in mid-May.

A discussion was held on the recently-completed K5D Desecheo operation. Bruce, N8DJX, was the only one to work them on 12 meters in northern Ohio. Bob, W8GC, said that there were obvious pirates on 12 meters as well. Tedd, KB8NW, reported that John, K8YSE, worked them on satellite. One, remote via his home station and one with his Arrow antenna from Florida.

Reference was made to Tedd's recent email concerning deleted countries.

Pete, N8TR, reported on John, K3TUP, a big DXer and one of the founders of North Coast Contesters was featured on the cover of CQ Magazine two months ago.

Ron, K8VJG moved, seconded by Dennis, W8NW, that the meeting be closed. The motion passed. The meeting was closed by the President, Tedd, KB8NW at 8:13 PM.

The 50-50 raffle was won by Dave, WD8IOU. The winning amount was \$19.

Respectfully submitted, Al, N8CX, Secretary

Minutes of the April 6th, 2009 NODXA Meeting

The meeting was opened by the President, Tedd, KB8NW at 7:35pm. There were 19 members and 1 guest present.



After a round of introductions, the minutes of the March 2nd meeting were read. The minutes were approved as read.

The Treasurer Mary, N8DMM, reported a balance of \$Ka-Ching! in the account and that she had received a call from a ham in Chicago, Dave, N9DM, who joined and prepaid for 3 years. He found the club via the on-line newsletter.

Tedd, KB8NW, reported that the repeater and the cluster were okay. He also reported that Jim, K8MR, was retiring and that the cluster would probably have to be moved.

Dave, WD8IOU, reported that the newsletter would be out this week.

Old-New Business

John, K8YSE, reported on a new French on-line ham magazine, Ham Mag. The magazine is in English. Google 'Ham Mag'.

Ron, W8WH, reported that he had not heard from Janeen at Dayton recently.

Tedd, KB8NW, discussed Dayton and the hospitality suite. He reported that Hamvention tickets are on sale on the internet.

Bruce, N8DJX, moved, seconded by Dave, WD8IOU, that \$250 be allocated for the hospitality suite at Dayton. The motion passed.

Bob, W8GC, discussed the bus trip to Dayton and if there would be a refund if the bus did not have enough reservations.

Tedd, KB8NW, reported that he has information for a tri-fold brochure with club information and a membership application on the back.

John, K8YSE, reported that Charles Simoni is on the ISS and operating. The uplink is 144.490 Mhz and the downlink is on 145.800 Mhz. See www.issfanclub.com on the internet. John also reported seeing the Launch of STS-119 while wintering-over in Florida. Although he was 6 1/2 miles away, he said he had a very good view.

Tedd, KB8NW, reported on Mellish Reef and Christmas Island. He also noted that Glorioso was still not up and that they still had not cashed our check. Tedd also stated that there was really nothing big until fall.

Tedd also reminded everyone that Field Day is coming up fast and to start getting ready.

The 50-50 raffle was won by Bob, W8GC. The winning amount was \$17.

The meeting was closed by the president, Tedd, KB8NW, at 8:15 P.M.

Respectfully submitted, Al, N8CX, Secretary



Mark your calendars!
Field Day is June 27-29!



Field Day 2009

by David Autry, WD8IOU

It's Field Day time again! June 27 and 28 to be exact. Our perpetual field day chairman, Bill, W8JGU, will once again answer the call to duty and organize this event.

The NODXA site is the same as last year, the Mount Augustine Training Center located on 5232 Broadview Road in Richfield.

Everybody is encouraged to attend this 24-hour marathon, and, most of all, to operate! (Hey, if KB8NW can operate, then you can too!). We especially need CW operators to keep that station running for the full 24 hours.

This year the club will participate in the 2A class using three stations: SSB, CW/RTTY, and 6 meters. John, K8YSE, and Doug, KD8CAO, will also have a satellite station up and operating so here is your chance to learn about satellite operation.

We will also have a GOTA station (Get On The Air) to allow the public and inactive hams to operate. Karen, my XYL, has promised to make some Q's on the GOTA station; I've been trying for 32 years to get her on the air!

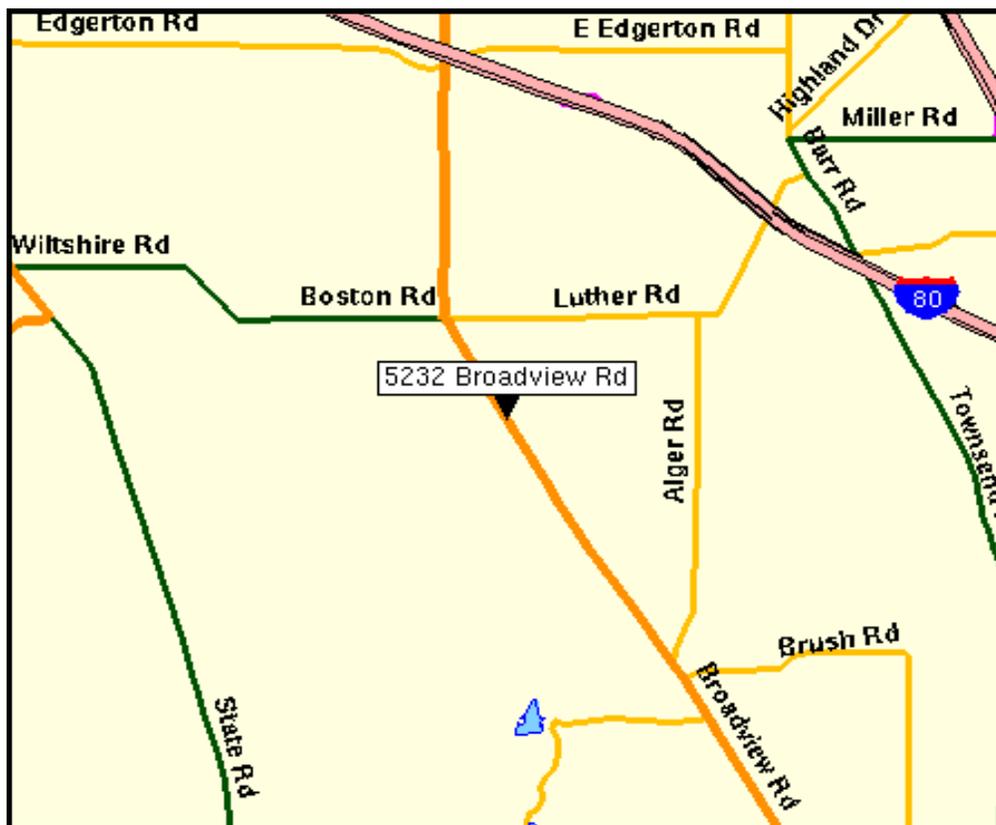
Pete, N8TR, is planning an early setup of tents and antennas Friday evening around 6 PM. Everybody is encouraged to stop by and help out; this will decrease the amount of work required on Saturday morning.

The contest starts at 2 PM Saturday and ends at 2 PM Sunday. Operators are real scarce during the "3rd shift" (12 AM to 8 PM) so it would be a great help for our club's score if we could have a couple more operators during those hours.

The club has allocated some money for food and drink so there should be plenty to eat. But we will need some cooks so, even if you don't want to operate, stop on out and flip some burgers!

Remember to bring the bug spray, folding chairs, sun screen, and 807's!

See you there!



A Tale of Two Tubes By Dan Romnanchik, KB6NU

A couple of weeks ago, I worked N4QR on 40m CW. I could tell by the tone of his signal that he was operating a homebrew transmitter. There wasn't any 60 Hz on his signal, and it didn't chirp exactly, but I could tell it wasn't the pure tone you get out of today's radios.

I asked him about his rig, and he told me that it was a one-tube transmitter made with a 6L6. I forgot to ask him where he got the schematic, but a quick Internet search turned up the following:



- * The May 2005 issue of the K9YA Telegraph (<http://www.k9ya.org>) has an article written by N4QR titled, "The Wonderful One-Tuber," that contains the schematic for the transmitter. The K9YA folks don't make issues of The Telegraph available on their website, but I was able to get a copy of the issue by e-mailing them.

- * A 6L6 Classic (<http://www.io.com/~nielw/6l6/6L6.htm>)

- * WB2MIC 6L6 Transmitter Project (http://www.metaphoria.us/hamradio/6L6_transmitter_schematic.htm)

The 6L6 is a pentode that, according to Wikipedia (<http://en.wikipedia.org/wiki/6L6>), was introduced by the Radio Corporation of America (RCA) in July 1936. Apparently, it was used quite a bit in public address systems.

After the tube became successful, tube manufacturers introduced a number of variations, including the venerable 807. The original 6L6 was capable of delivering 19 W; the latest variation, the 6L6GC is rated for 30 W. The 6L6GC is still used in guitar amps, and is still manufactured in Russia, China, and by Groove Tubes (www.groovetubes.com) in the U.S. They sell a number of different 6L6 variants; the cheapest is \$16, the most expensive \$180!!

Tube #2

One of the reasons I was interested in the 6L6 is because about a year ago I came across a schematic for a transmitter using 6A6 dual triode. I had just come into possession of a couple hundred tubes, and while I didn't have a 6A6 (at least I haven't found one yet), I do have a couple of 6J6 dual triodes. They're not quite as high power as the 6A6, but I'm still thinking about building a little transmitter with one.

As you might expect, there's a bunch of information on the Internet about this tube:

- * The Jones Push-Pull Transmitter (http://wv7g.home.mindspring.com/jones_6j6.html) was built with a 6J6 instead of a 6A6.

- * Another schematic can be found on the AKOB website (<http://www.qsl.net/ak0b/>).

- * 6J6 data sheet (<http://www.garqnas.net:3000/tubedata/6J6.pdf>) from the GE data book.

One interesting fact about the 6J6 is that IBM used it in the 604 computer. Unfortunately, they found it to be not as reliable as they wanted it to be, but at first none of the tube manufacturers were interested in making a more robust version. This led IBM to set up a tube-making laboratory where they could experiment with designs. They developed a more reliable version of the 6J6 and finally convinced RCA to manufacture the tube. According to the author of the history of the 604 (<http://ed-thelen.org/comp-hist/IBM-604.html#new>), part of the concern is that IBM would decide to get into the tube business.

So, the next time you hear a signal that doesn't sound so perfect, remember that there just might be a story behind it. Ask the op about his transmitter, and listen to what he or she has to say.

Dayton Bus Trip By Dwaine Modock, K8ME

The Dayton Hamfest has come and gone, but not without a fun one day bus trip to the Hamfest. The bus left the K-mart on Engle & Bagley road at 3:30 am with 30 riders which included the five guys from western new York, who were the first people waiting for the bus. Thirty-five people signed up for the trip but five people dropped out for various reasons.

The bus pulled into Bob Evans on RT-70 at 5:50 am; after the gourmet breakfast, the bus was back on the road. Little over an hour later the bus pulled into the hamfest around 8:15 am, which was perfect, the flea market opened at 8:00 am and O'Hara Arena opened at 9:00 am.



There was a little bit of rain going down, and it rained off & on all day. The crowd was down and flea market size was down.

The Arena had all the different companies introducing their new products. The Icom & DX Engineering displays were very impressive and Yaesu was handing out maps and hats, with so much to see.

The bus was parked on western side of arena all day and we were able to drop off our purchases off or just rest in the bus throughout the day. I was glad because I never finished the flea market because of my sore feet, I know everyone else was tired also.

The rain started with high winds around 4:00 pm, which blew half the tents down in the flea market. Then after waiting for the tired riders to return at the end of the day, checking the riders off as they boarded, and making sure all was accounted for, the bus left the hamfest around 5:10 pm for the journey home. We stopped for some quick fast food on the way back. The bus pulled into the K-mart lot little after 9:00 pm.

Everyone was tired but happy they went.

THINK ABOUT GOING WITH US NEXT YEAR.

R.F. Grounding By Glen E. Zook, K9STH Copyright 2002 by author

For quite a number of years, the author has been presenting seminars, "talks", etc., on the subject of lightning protection and r.f. grounding to various community, professional, and amateur radio organizations. Although these are two distinct subjects, they are definitely "intertwined" in the amateur radio world. A "primer" on lightning grounding has been included elsewhere on this web site, so this will cover the subject of providing grounds for proper r.f. protection.

First of all, the length of the rods used for r.f. grounding are not that critical except when determining the "spacing" between the rods in multiple rod systems. Frankly, in the vast majority of soil types, any rod with a length of over 5 feet is "wasted"! Well over 95% of the effective grounding takes place within the first 5 feet. Thus, anything longer is basically unused!

The effective grounding volume of an r.f. ground rod is a hemisphere with a radius equal to the length of the rod (picture a tennis ball cut in two and then buried until the cut surface is just even with the ground level). In the case of a 5 foot rod, this means a diameter of 10 feet on the surface of the earth with 5 feet going in a circular fashion to the end of the ground rod. In this hemisphere of grounding about 95% of the effective grounding of the rod takes place.

In a practical situation, two 5 foot ground rods, placed the "appropriate" distance apart, "out perform" a single 10 foot ground rod by at least a factor of 2, if not more. Experimentation has shown that a spacing of 2.4 times the length of the ground rod gives the maximum effective ground. You can go closer or farther apart, but the actual effective grounding will be diminished if this spacing is not used. Basically, you want to get the hemispheres of grounding fairly close to each other while not

"overlapping". Thus, for ground rods 5 feet long, the spacing should be 12 feet. Additional rods can be added in various geometric patterns (i.e. triangle, straight line, "L", etc.). However, the 2.4 ratio spacing should be maintained. Of course, an "inch or two" either way is not going to have any really noticeable effect on the grounding. But, the ratio should be adhered to if at all possible.

The first ground rod should be installed as close to the wall of the shack as possible with as heavy a wire or braid available run from the equipment (as short a wire as possible). Then, the connections between the various ground rods does not have to be that "heavy" a wire. 14 gauge, or even 16 gauge, wire is quite sufficient.

A definite "improvement" in grounding can be made if a "chemical" type of ground rod is used instead of a solid rod. These are available commercially (made for commercial two-way installations for from \$150 up), you can make your own, or they are also available from Z Communications Company at a price well under the commercial rate! Such a ground rod consists of a 5 foot long piece of "hard drawn" copper pipe with an "end cap" soldered at one end. For equipment grounds, 3/4 inch diameter pipe should be used. For grounds under a vertical antenna (and such), smaller 1/2 inch diameter pipe may be used. I understand that there are 3 grades of copper pipe available and these are often "marked" with the colors red, blue, and green. But, the "green" is a very heavy type of pipe used in industrial applications and is not available at the vast majority of home improvement centers (I have never seen it there!). The "red" pipe should never be used since it is very thin walled. "Blue" pipe is what is used for the construction of these "chemical" grounds.

Hard drawn copper pipe normally comes in sections 10 feet long. This length is "perfect" since cutting it "in two" produces two 5 foot long ground rods. Using a propane "torch" and acid core solder (or, even better, use soldering "paste"), solder an "end cap" onto one end of each rod. Next, starting just above where the end cap "ends" on the pipe, drill a 5/32 inch hole all the way through the pipe. Come up 6 inches, rotate the pipe 90 degrees, and drill a second hole all the way through. Continue to rotate the pipe 90 degrees, come up 6 inches, drill, until you reach about 5 inches below the open end of the pipe. About 1.5 inches below the open end of the pipe, drill another hole all the way through the pipe. Then, enlarge these holes to 1/4 inch diameter.

For the next step you will need a bolt with a diameter of 1/4 inches and about 2 inches long, four 1/4 inch "nuts", and two washers with 1/4 inch holes. Insert the bolt into one of the holes in the pipe. Next, using a pair of "needle nosed" pliers, hold one "nut" and "thread" this onto the bolt. Continue until the "head" of the bolt is flush with the wall of the pipe. Thread a second nut onto the exposed portion of the bolt. Tighten this all the way until it is flush with the outside wall of the pipe. Then, thread the nut inside the pipe until it is tight on the wall where the second nut is. Tighten the outside nut with a wrench until the connection is as tight as you can get it. Using the propane torch, etc., solder the head of the bolt to the outside wall of the pipe. Do the same thing with the outside nut. Place two washers on the bolt and then two more nuts. The ground wire(s) is (are) placed between the two washers, the third nut is then tightened with a wrench as tight as possible, and the fourth nut is used to "lock" everything in place. Prepare the second (and additional rods if desired) in the same manner.

Drive the first ground rod into the ground as near the outside wall of the shack as possible. Take the rod down until the bolt is just above ground level. If you use a large hammer, the end will be distorted, but this will be OK. Some people like to use a fence post driver (used to drive the metal posts for wire type fences) which cost around \$20 at the home improvement center. This does not distort the end anywhere near as much as a hammer. Drive the next rod 12 feet away. Connect the ground wire from the shack and one end of the "tie" wire (wire that goes between the ground rods) to the first ground rod. Use of terminals on the end of the wires will definitely "facilitate" making of these grounds. For best reliability, not only "crimp" the lugs, but solder them as well. Connect the "far" end of the "tie" wire to the additional ground rod. Under no circumstances try to "wash" the ground rod into the ground using a garden hose!

Fill both ground rods with "rock" salt ("ice cream" salt) that is available at virtually any grocery store. You will probably have to "hit" the side so that the salt will not "clump" and goes all the way down into the rod. In about 2 weeks, come out and "top" off with more rock salt. Then, about every 6 months "renew" with more rock salt. As the rock salt "leeches" into the ground, it improves the r.f. grounding several times what the "normal" ground will be. Also, the rock salt will not harm the grass, etc.

Inside the shack, I recommend having the equipment desk on the same wall as the ground rod. If this is not possible, I will make suggestions a bit later in this article. If aluminum "flashing" is placed on the desk, wall, etc., and the ground wire is taken from that to the outside, a convenient place to make grounds is made. Use short pieces of braid (that removed from old RG58/U coax is very "cheap" and is of excellent quality - much cheaper than buying braid!) to go from each piece of equipment including receiver, transmitter, transceiver, linear, antenna tuner, etc. Copper flashing is technically slightly superior to aluminum. However, the cost is several times that of aluminum (both are available at home improvement centers). The width of the flashing is much more of a factor in grounding than the material (the wider the better). Thus, you can get aluminum flashing much wider than copper flashing for less money.

If you cannot get the operating position on the same wall as the ground rod, then you need to run aluminum flashing from the operating position to the outside wall. Again, the wider the better. This can be run along the wall, under the rug, etc.

The same thing goes for shacks that are not on the ground floor. If you must have a shack on the second floor of your abode, then you need to run aluminum flashing down the wall (usually from a window) to the ground rod system. In this case, you will need to get the operating position as near the window (or outside wall) as humanly possible. You are already operating with two strikes against you! Use as wide aluminum flashing as you can "get away with".

Diagrams showing the construction of the rods, placement of the aluminum flashing, etc. are also on this web site.

If you have all of the tools necessary to construct the ground rods (propane torch, electric drill and bits, tubing cutter or hacksaw, etc.), then you can make a pair of 5 foot long ground rods for under \$20. If you do not have the tools, or don't want to expend the effort, Z Communications Company does have rods available for sale. They "run" \$50 for the first two ("starter kit") and \$20 for each additional rod. Of course, shipping is extra. Individual rods are only sold with an original order for the "starter" kit or to those people who have purchased "starter" kits previously. All rods come with the "tie" wire and instructions, and are 3/4 inches in diameter.

Setting Up an Echolink Simplex Node Using Signalink USB Interface

By Greg Danes, KJ4DGE via eHam.net

The purpose of this article is to save those users that want to do this the time and aggravation incurred that I and others have went through to get things to work. I bought the Signalink based on the fact that it is a separate sound card and also because it could do double-duty as both a Digital mode device and a Echolink device depending on the cable sets you get when you buy it. I originally had a W2BEM interface hard wired to my Azden PCS-5000 radio for my first setup. The radio was constantly heating up and going into "unlock" mode with the CPU, so I decided I needed something a little more reliable. I currently am running a FT-2800. I also chose the Tigertronics interface because it has very few wires, a USB connection to your PC and separate controls for TX and RX plus a delay pot.

The main thing to understand is the SL-USB is its own sound card, so when you're setting up your communication program you need to choose "USB Codec Device" from the available sound cards. In EL

this is done under the setup, and audio tabs. The next step is to set the delay pot on the SL-USB to the 3 o'clock position and the TX and RX pot to 12 o'clock positions, finally to get the DTMF to function, set the DTMF in Echolink to "Internal" and adjust the ms delay to around to 77-90. Catch my node on 147.590 in the DC area or connect direct to node # 383875.

Mystery Pic of the Month



Who is this NODXA member? What he is doing? And who are the kids?



Meeting Information

*NODXA Meetings are held the first Monday of each month at the **Gourme Family Restaurant** at 15315 Pearl Road (Rt. 42) just west of Interstate 71 and south of Rt. 82 in Strongsville at 7:30 PM. Come early and have dinner and meet your fellow DXers and enter the 50/50 raffle.*

NODXA Information

NO8DX: Special Event Callsign
 W8DXA: NODXA Repeater 147.360
 K8MR: PacketCluster 144.91 & 145.57

Web-site: <http://www.papays.com/nodxa.html>

Newsletter Submission: wd8iou@adelphia.net

NODXA Club Officials for 2009-2010

President:	Tedd Mirgliotta, KB8NW	(440-237-2816)
V. President:	Dwaine Modock, K8ME	(440-582-3462)
Secretary:	Al Moriarty, N8CX	(216-221-3682)
Treasurer:	Mary Michaelis, N8DMM	(440-236-5426)
Newsletter:	David Autry, WD8IOU	(440-238-0417)



DXCC Info

As of December 2007, the current DXCC Entities total is: **338**.

NODXA Application and Renewal Form

The Northern Ohio DX Association is a non-profit organization with a primary interest in DXing. We encourage all DXers to join our group and share the interest and fun of DXing.

Please complete the application below and send along your appropriate dues or renewal to:

NODXA, P.O. Box 361624 , Strongsville, Ohio 44136

First Time Membership/Renewal (U.S. and DX) **\$20.00**

Name _____ Callsign _____
 Address _____
 City _____ State/Prov. _____
 Country _____ ZIP _____
 E-mail _____
 Telephone _____
 ARRL Member? _____ Exp. Date _____ DXCC Member? _____
 Special Interest _____

Newsletter Contributors

Thanks to the following for their contribution to this months edition: N8TR, N8DMM, KB8NW, N8CX, K8YSE, K8ME, KB6NU, K9STH, and KJ4DGE .