

NOARS LOG

Volume 40, Issue 4

Welcome to *NOARS* Country

April, 2004



Club FM Repeaters

UHF: 449.800/444.800 MHz

VHF: 146.100/146.700 MHz

6 meters 51.16/51.66 + 91.5

Joined with M2M parent repeater output

144.550/145.150 MHz

Home of BART the DX ALERT

2004 EXECUTIVE OFFICERS

President: Ted Shook, W8TAS

Vice President: Clark Beckman, N8PZD

Secretary: DeeDee Ohman, KA8VTS

Treasurer: Tom Porter, W8KYZ

License Trustee: Mike Willemin, W8EU

NOARS STANDING COMMITTEES:

A.R.R.L. VE: Tom Porter W8KYZ

DX Member: Tedd Mirgliotta KB8NW

Banquet: Gary Gargus N8DIU

Property Manager: Ned Jones WD8CSP

U.S.S. Cod: Ted Jones KA8WMX, Don Winner WD8RZG

K8KRG WEEKLY ON-THE-AIR

REPEATER NETS

WD8IQJ – KC8YJW – W8ADV

NOARS Net Wednesday 9:00 P.M.

W8KYS – K8PJS – Looking

NOARS Tech Net Thursday 8:00 P.M.

146.700 – 444.800

In this issue;

Upcoming Hamfests and Events - VE exam locations

Power supply part 3 of 3 – Contest Corner

DXCC News

Where's the DX? - Swap -N- Shop

Messages from the front table - Spring 2004

Upcoming hamfests and events

Apr 24 – Trunk Sale Iosco County AR Enthusiasts – Ray Knuth, 989-739-2896

Apr 25 – Athens ARA <http://www.ac-ara.org> – Drew McDaniel 740-592-2106

Apr 25 – Twenty Over Nine Radio Club – Don Stoddard, KI8SS 330-793-7072

May 1 – Big Sandy ARC KY <http://www.bsarc.org> - Fred Jones 606-638-9049

May 1 – Wexaukee ARC - <http://members.fortunecity.com/wexaukee> –
Contact: Brian Polk, KC8TXT Marion, MI 49665 Phone: 231-743-6860

May 14-16 Dayton <http://www.hamvention.org/> Gary Des Combes, N8EMO
PO Box 964 Dayton, OH 45401-0964 Phone: 937-276-6930 or 937-276-6934

May 30 – Franklin County OH - Chris Lind 614-267-7779

ARRL Field Day is June 26/27 – if you want to have fun join us this year.

VE Exams – basic instructions;

For VE Exams the candidate must bring the original and copy of the current license and CSCE forms (if applicable), identification, and the correct exams fee monies. It is always a good idea to check with the VE examiner in the case of poor weather cancellation or any special needs. The 605 form can be obtained on-line at arrl.org/arrlvec/ncvec605.pdf, have this filled out ahead of time and make your test less stress.

Elyria, 3d Sunday each month at American Red Cross, 2929 West River Rd, Elyria OH 44035 – Testing begins at 1 PM, walk-ins allowed, park in rear, use rear door. Contact Charles S. Hall, 216-433-3036

Akron, 2nd Saturday odd months at Summit Co. American Red Cross, 501 W Market St, Akron OH 44303 – testing at 3 PM, walk-ins allowed. Contact Bruce M. Ferry, 330-929-2766

Canton, Stark Co. Sheriff Office EOC, 4500 Atlantic Blvd NE, Canton OH 44705
Testing at 9 AM walk-ins allowed. Contact Gary L. Kline, 330-837-2927

Wickliffe AES, 1st Saturday even months at 28940 Euclid Avenue, Wickliffe OH 44092
Testing begins at 12 PM – Walk-ins are welcome, contact Scott Farnham, 440-256-0320 – do not call AES direct.

Independence Town Hall, 6652 Brecksville Rd, Independence OH 44131 – test dates
March 9, May 4, July 13, September 14, November 9, 2003 – Doors open at 9 AM,
pre-registration is appreciated, walk-ins taken. Contact Gary Dewey, 216-642-8705

Ralph Wright KD8REW
Marc Kelemen KB8SPW
Al Rosich N8OFT
Ken Roberts KC8BQO
Pat Sweeney K8PJS
John McKenna WD8IQJ
Bill Phillips KC8TYB
Larry Shimerka KC8VZZ
John W. Schaaf K8JWS
Keith Kennerth KC8YJW
Bill Savage WA8GEO
Rosemary Shook KD8SC
Sylvia Drake KC8TMZ
Harold Drake WD8OFG
James Henderson N8MPC
Glen Thome N8AKS
Frank Hashier KB8IOM
Clark Beckman N8PZD
Dee Dee Ohman KA8VTS
John J. Malloy WA8Q
John R. Pearl K8RWR
Al Moriarty N8CX
Gary Gargus N8DIU
Tom Porter W8KYZ

Roll Call - March 2004

Pat Sweeney K8PJS
Larry Shimerka KC8VZZ
John Pearl K8RWR
John McKenna WD8IQJ
Ken Roberts KC8BQO
Joni Roberts KC8BXH
Bob Super N8HDE
James Henderson N8MPC
Rosemary Shook KD8SC
Larry McIntyre
Don Norman AF8B
Keith Konnerth KC8YJW
Daniel H. Schuck KB8LKH
Harold Drake WD8OFG
D.J. Murray W8DJM
Al Moriarty N8CX
John W. Schaaf K8JWS
Ralph Wright KD8REW
Frank Hashier KB8IOM
Glen Thome N8AKS
Doug Krucinski WD8BJY
Gary Gargus N8DIU
Dee Dee Ohman KA8VTS
Tom Porter W8KYZ
Bill Phillips KC8TYB
Marc Kelemen KB8SPW
Ted Shook W8TAS
Clark Beckman N8PZD

February 16, 2004 Meeting Minutes – The meeting began at 7:30 p.m. with 24 members and guests present.

Al Rosich, who is in the Coast Guard Auxiliary was the guest speaker.

Treasurers Report was read and a motion to approve was made and seconded.

Winterfest was a enormous success and a good time was had by all.

Newsletter - If you are having trouble receiving your newsletter, please contact John McKenna, WD8IQJ or Tom Porter, W8KYZ.

Nets - The nets are going along very well. We are looking for a net control operator for the Thursday night Tech net. Slow Scan Net on 145.15, Saturday at 7:00 p.m.

Contesting - Dxpeditions 160 meters in two weeks.

USS Cod - It's still floating and the radio is still working.

Sunshine - In January a plant was sent to Ted Jones and Bob Super who were in the hospital. Cards were sent to Sylvia Drake, who was in the hospital. Ted Jones a get well card and to Ford and Nadia Cole a sympathy card, Nadia's father passed away. In February a planter was sent to KC8TOL, Bob Met and K8DJW, John Rabal who are in the hospital. Ted Jones is in the hospital again. Fred Collins is in Fairview Hospital again.

Membership - Next month when you get your newsletter if you have a mark on your call sign you have not renewed your dues and you will not be getting anymore newsletters. Rosters will be sent out in April and for the people that get their newsletter via email will get the roster in a PDF file along with the newsletter.

The meeting was adjourned at 8:35 p.m.

March 15, 2004 Meeting Minutes – The meeting began at 7:30 p.m. with 28 members and guests present.

Treasurers Report was read and a motion to approve was made and seconded.

Nets - The nets are going well.

Field Day - A meeting was held after the regular meeting.

Noarsfest - A meeting was held after the regular meeting.

Sunshine - Fred Collins is still in the hospital.

Old Business - Membership dues are being taken. Ken Roberts still needs help with the Special Olympics.

New Business - The Lorain County Computer Group will have a Computer Fair on the April 4, 2004 at the Sheffield Lake Community Center on Lake Road from 10:00 - 5:00, free admission and prizes every half hour. Spotter training for Sky Warn will be held on March 23, 2004 at 6:30 p.m. at the Lorain Community Hospital. Cuyahoga County will be having spotter training on March 30, 2004 at Demetris Restaurant in Parma. March 24 at 9:50 a.m. annual Tornado Drill on 715 for about 20 minutes. A motion was made by Rosemary Shook for Noars to donate \$100.00 to the Harvest for Hunger Food Bank. The motion was passed.

The meeting was adjourned at 8:30 p.m.

John Schaaf won the 50/50 drawing.

Jim Henderson won an American Flag.

ARISS TO MULL HAM RADIO'S ROLE IN DISTANT SPACE TRAVEL

The Elser-Mathes Cup, sitting idle for more than 75 years, is intended to mark the occasion of the first two-way Amateur Radio contact between Earth and Mars. That day may be moving closer. The Amateur Radio on the International Space Station (ARISS) International Team will contemplate ham radio's role as NASA--in response to a recent presidential initiative--seeks to expand the horizons of human spaceflight to the moon, Mars and beyond. During an International Team meeting March 25-26 in the Netherlands, ARISS International Chairman Frank Bauer, KA3HDO, said NASA's Education Office has asked ARISS to consider endorsing the initiative and start laying some groundwork for an Amateur Radio presence. That makes perfect sense to ARISS Secretary-Treasurer Rosalie White, K1STO, of ARRL.

"Our space agencies are going to Mars now, so it's natural we should think about it and do initial planning now," said White, who was among the more than two dozen ARISS delegates on hand at the European Space Research and Technology Center in Noordwijk. "We could start by targeting our educational materials on exploration beyond the International Space Station." The ISS--the home of the first permanent Amateur Radio station in space--is scheduled for completion in 2010 using the space shuttle fleet, which then would be mothballed.

Some ideas Bauer floated during the gathering included an Amateur Radio payload on the Red Planet as well as a Mars telecommunications satellite, remotely controlled Amateur TV and a repeater on the moon. The long-range planning will get further discussion when the ARISS International Team meets again in October.

In other matters, the ARISS team learned that a planned slow-scan television (SSTV) system will not launch to the ISS this year. With just two crew members aboard the space station and a need to make the most use of space aboard Russian Progress supply rockets, NASA has suggested that ARISS hold up the SSTV payload for a Progress rocket flight closer to the space shuttle's return to flight, when the ISS again will have a crew of three.

The two-person crews have not had much time to install and test ARISS projects, including the Phase II gear put into place earlier this year. While it's on the air for RSOISS packet operations, the Phase II gear will not see routine FM voice use for school group contacts and casual QSOs until it gets a full on-the-air checkout. The SSTV gear needs additional preflight testing as well as work on the associated software.

AMSAT-Russia's Karen Tadevosyan, RA3APW, is completing modifications to a Yaesu FT-100 HF/VHF/UHF transceiver. That equipment could go up to the ISS on a Progress rocket flight this fall. Other projects still in the discussion stage include an external digital ATV transponder and beacon. ARISS also is considering a project to use Amateur Radio via IRLP and/or EchoLink to link to the ISS via the Internet.

The ISS could gain a third ham station once the European Space Agency's Columbus module goes into space. Through-hull fittings, or "feedthroughs," are being installed for as many as eight coaxial cable runs, although funding remains an issue. The feedthroughs would permit the module to accommodate UHF, L and S-band operations possibly using patch-type antennas being designed by ARISS volunteers.

ARISS delegates also recognized the achievements and contributions of Roy Neal, 6DUE (SK), toward making the ARISS program a reality. Neal, a former NBC News science correspondent and executive, died last August 15.

Taken from ARRL news

NEW BOOK ("Ham Radio for Dummies" by Ward, N0AX)

Details from a press release: "FOR IMMEDIATE RELEASE -- Every new ham has the 'What do I do now?' feeling after passing the exam. Similarly, how can a prospective ham find out about the great things ham radio has to offer and how to participate? Addressing these issues is why I wrote 'Ham Radio for Dummies', available on April 12th. The book is designed to make ham radio easier to understand whether you have a license or not. (Its ISDN number is 0-7645-5987-7.)

There are 384 pages of explanations, tables, graphics, photos, and links to on-line resources. It can be read from cover to cover or used as a 'get in, get out' desk reference. My goal was to produce the book I wish I'd had when I was just starting out - a Desktop Elmer, so to speak. If you're interested, just enter the title into a Web search engine and find your favorite bookseller. The Wiley site has a sample chapter to browse, as well as a Bonus Content link to a detailed guide to operating a radio that would be a good review for many hams. I hope the book will help us attract more people to ham radio and also help those that have passed the exam stay active in the hobby..... 73, Ward, N0AX"

From the repair bench; Power supply is safe now – part 3 of 3

Replacement parts - Luckily parts values are not critical in this type of power supply. You can always go bigger. For example if the schematic calls for a 35,000MF filter cap, anything larger will work even better. Same with the voltage rating. If the schematic calls for a 25VDC capacitor, you can't go smaller, but larger is just fine. Almost any high current power transistor will work for the pass transistors. Years ago the old 2N3055 was the industry standard. Today the 2N3771 (ECG181 replacement) used by Astron and darlingtontons like the TIP120 (5 amp collector current in a easy to mount TO-220 case) are popular. At hamfest I have been able to find large heat sinks with the power transistors and ballast resistors already attached for a couple of dollars each. These if you can find them save you a lot of work and expense! Filter caps and full wave rectifier blocks are also common and cheap. If you see them buy a few as spares. The same for 2N3771 transistors if you own a Astron power supply. Someday you will need a set for your power supply! Emitter Ballast resistors can be homebrewed if need be. I've made my own by winding copper magnet wire on large value resistor bodies. The wire acts as the resistor and the body of the large resistor simply acts as a form to hold the wire. You can also make ammeter shunts this same way.

Winding coils - To design one get out your ARRL handbook and look up the Copper Wire Specifications chart. This chart gives the current carrying capacity and resistance per one thousand feet for each size of wire. For my last supply I needed .1 ohm at ten amps. The smaller the wire diameter, the greater its resistance. Going down the column for wire in bundles, the smallest wire I could use for ten amps was #18. #18 is rated at 6.38 ohms per 1,000'. That's .00638 ohms per foot (6.38 divided by 1,000). $.1 / .00638 = 15.6$ feet of #18 wire to give .1 ohm resistance. That's makes for a sort of ugly resistor, but they did work as planned, I had them when I need them and they are darned hard to burn up!

Meters - I think meters are a nice feature and I try to test the factory meters on all of my power supplies. Many times I've learned of trouble before it got serious by checking the current and amps that transmitters draw. Same for the power supplies, drooping voltage is a sure sign that one or more pass transistors have failed or other problems have developed. The meters that come on Astron supplies are junk and all that I have owned have failed and had to have been replaced. Lucky for us old meters are cheap at hamfests. Look for easy to mount clean meters with ranges of 0 to 100 microamps to 1 milliamp. These are easy to recalibrate to use as power supply amp and volt meters. For my last power supply I dug through the junk box till I found two meters (one will work just as well with a switch) that I liked. They're 0-1 MA. with scales that read 0-50 something. OK, the scales are useless, but that is not a problem. By CAREFULLY taking the meter out of the case, you can remove the scale. Using a stiff ink eraser careful and slowly rub out the unwanted numbers on the scale. Than using transfer lettering (available at office supply stores) you can place your own scale on the meter. In this case I numbered the main divisions 0 to 25. A little work with ohms law told me that a 18K resistor in series with the meter and a 10K pot for fine calibration gave me my voltmeter. Check the schematic for details and read up in the hand book for more information on calibrating your own meters. For the amp meter I wound my own shunt using copper wire again. A small ten turn pot in series makes fine calibration easier. I wanted my meter to read full scale (1MA) with 25 amps of current coming from the supply. To calculate the shunt resistance I needed to know the resistance of the meter and the center resistance of the calibration pot.

More math - The formula is: $\text{SHUNT RESISTANCE} = \text{Meter Resistance} / (\text{Multiplication factor} - 1)$ My meter resistance is 50 ohms. I'm going to place a 100 ohm pot in series for fine calibration. Setting the pot to midscale gives me a total meter resistance of 100 ohm. The full scale reading of the meter is .001 amps. I want it to read 25 amps. $\text{Multiplication factor} = 25 \text{ amps} / .001 \text{ amps} = 25,000 - 1 = 24,999$. Checking the copper wire specifications, we see that common #14 runs 2.52 ohms per 1,000'. Therefore, $2.52 / 1,000 = .00252$ ohms per foot. $.004 \text{ ohms (our shunt)} / .00252 \text{ (ohms per foot)} = 1.6$ feet of wire for our shunt. Using the formulas and charts in the ARRL handbook and some transfer lettering, you can make up your own calibrated meters for your power supplies.

SUMMARY - To sum things up, armed with a little information you can repair, modify or build your own 13.8 volt power supplies. If you can find the right junk, building is certainly cheaper than buying a new one! Just remember, as long as the power transformer is good, any junk burned out 13.8 volt power supply is a bargain.

Stay on the air with these tips gathered by N8AKS Glen, W8ADW Fred and N8PZD Clark.

Where's the DX? - Taken from Tedd KB8NW OPDX bulletin – www.papays.com/

The Ohio/Penn DX Bulletin now has a new FAX number. – Contributors can now send/fax their DX information to the following number: 1-419-828-7791 (F A X only!)

WERE YOU ACTIVE APRIL 18TH? Just a reminder! If you were active April 18th, you can apply for the "World Amateur Radio Day 2004 Award". The WARD 2004 Award is designed to commemorate the "World Amateur Radio Day" celebrated by IARU on April 18th each year. The Award is issued by the MK QTC, Polish Amateur Radio Journal, with support of PZK (The Polish Amateur Radio Union). The WARD 2004 will be granted for at least the following numbers of contacts: either 10 QSOs on HF bands, or 5 QSOs on VHF+ bands. All contacts must be made between 0000 and 2400z on April 18, 2004. Send a standard application form (log extract), including the list of QSOs, to: Redakcja MK QTC, ul. Wielmozy 5b, 82-337 Suchacz-Zamek, Poland (on or before May 31, 2004). The price of the WARD 2004 Award is 10 IRCs or 5.00 USD or 5.00 EURO. It is a full color award, size: 210 x 297 mm. The WARD 2004 Award is also available to SWLs for the same numbers of reports.

INTERNATIONAL MARCONI DAY (IMD) This annual event day will take place April 24th to celebrate the birth of Guglielmo Marconi (April 25, 1874). The Cornish Radio Amateur Club (G4CRC) organizes this event each year and will be active as GB4IMD. Also, look for other special event stations to be active from historical Marconi sites during IMD. For more details on IMD as well as awards and a listing of participating station in this year's event, please visit the Web page at: <http://www.gb4imd.co.uk/index.htm> Also, visit the Cornish Radio Amateur Club's Web page at: <http://www.cornishradioamateurclub.org.uk>

IOTA NEWS NEW IOTA DIRECTORY. The 40th Anniversary Edition of the IOTA Directory is expected to be published around April 19th and will be available from RSGB HQ shortly afterwards. For details, please visit the RSGB Web page at: <http://www.rsgb.org/shop/> The new directory is larger than ever with 136 pages.

WP2, U.S. VIRGIN ISLANDS – Bill/N4ES and Rich/N4ESS will be active as WP2Z during the CQ WPX CW Contest (May 29-30th) as a Multi/One entry. QSL via KU9C. The two operators will be active from May 26th to June 1st. Outside of the contest, they will be active mostly evenings and early morning hours on CW with some SSB. They will set up on 160-10 meters, but depending on propagation their activity will primarily be 40 meter CW.

YA, AFGHANISTAN – Johnny, YA8G (LA5IIA), continues to be very active on various bands, usually after 1130z for about an hour and again at 0030z for a few hours. Word on the "TOPBAND Reflector" is that YA8G is on almost every day at 0030z on 1815 kHz listen up 2 kHz. QSL via LA4YW.

The DX Magazine has announced the results of its annual "Most Wanted Survey" which was taken between late September and ended during mid-October of 2003. Here are the top 10 Most Wanted:

- 1) Scarborough Reef (BS7) ; 2) Andaman & Nicobar Islands (VU4) ; 3) North Korea (P5); 4) Lakshadweep Islands

Contest Corner - Who said they wanted to sharpen their skills??

432 MHz Spring Sprint 1900 local -2300 local , Apr 21
RSGB 80m Club Championship, Data 2000Z-2130Z, Apr 22
Harry Angel Memorial Sprint 1100Z-1246Z, Apr 23
SP DX RTTY Contest 1200Z, Apr 24 to 1200Z, Apr 25
Helvetia Contest 1300Z, Apr 24 to 1300Z, Apr 25
QRP to the Field 1500Z-2400Z, Apr 24
Florida QSO Party 1600Z, Apr 24 to 0159Z, Apr 25 and 1200Z-2159Z, Apr 25
Kentucky QSO Party 1600Z, Apr 24 to 0400Z, Apr 25
Nebraska QSO Party 1700Z, Apr 24 to 1700Z, Apr 25
CQC PSK31 Kontest 1900Z, Apr 24 to 0100Z, Apr 25
EUCW/FISTS QRS Party 0001Z, Apr 25 to 2359Z, May 1
US IPARC Annual Contest, CW 0000Z-2400Z, May 1
MARAC County Hunters Contest, CW 0000Z, May 1 to 2400Z, May 2

(Continued on page 7)

Swap n Shop

For Sale; Ted W8TAS 440-365-8041

I have used tower 4 sale: two at 40 foot (down) & 1 at 30 foot standing.

Also: 60 ft of Riverview tower (Down_ TH7DXX beam & 40 meter beam (short) see Tom K8PV or call Wellington, Oh

For Sale; Jim Henderson 440-774-1275

BK Model 2160 60 MHz Oscilloscope includes Dual Trace and time base, 2 new probes, manuals and schematics – asking \$350.00

Brand new Bird model 43 wattmeter and 2-30 MHz 250 watt slug, never used – asking \$300.00

For Sale: Jack Hubbard NI8N 419-499-1308

Mosley TA-33, rebuilt last year, \$ 150, located in Milan, on ground, elements are assembled.

70' Rohn 25t foldover tower, stacked on ground ready for pickup. Location Dayton

6 element 10 mtr yagi assembled on ground, location Dayton. – Jack, ni8n@accnorwalk.com.

For Sale; John Ganobsik WD8OTY – 440-988-8755
Kenwood dual band 20 watts each TW4000 with tone and voice modules – asking 75.00

For Sale; Russ Speigelburg WD8EFL 440-774-6143 – IC735 HF AT500 tuner, IC 275H all mode, Kenwood TR751 all mode, Astron 35, Astron 20, 40 ft tower, 60 ft crank-up, 2mtr boomer, many small parts to make offer in Oberlin

For Sale; Ray Sottoriva KC8MCB – Yeasu FT-102 216-226-8319 rjspar2000@msn.com

For Sale; Pat Willemin KB8AK PH 440-324-4575
40 meter beam by Cushcraft 402-CD Down \$250.00

Listings e-mailed to electro7@apk.net must include your call sign in the message. NOARS Log editor, Virden “Clark” Beckman N8PZD

(Continued from page 6)

UBA Welcome to European Union Contest 0000Z-2400Z, May 1

10-10 Int. Spring Contest, CW 0001Z, May 1 to 2359Z, May 2

Microwave Spring Sprint 0600 local -1300 local, May 1

AGCW QRP/QRP Party 1300Z-1900Z, May 1

Indiana QSO Party 1500Z, May 1 to 0300Z, May 2

ARI International DX Contest 2000Z, May 1 to 1959Z, May 2

New England QSO Party 2000Z, May 1 to 0500Z, May 2 and 1300Z-2400Z, May 2

US IPARC Annual Contest, SSB 0000Z-2400Z, May 2

RSGB 80m Club Championship, SSB 2000Z-2130Z, May 3

ARS Spartan Sprint 0100Z-0300Z, May 4

Nevada QSO Party 0000Z, May 8 to 0600Z, May 9

VOLTA WW RTTY Contest 1200Z, May 8 to 1200Z, May 9

Oregon QSO Party 1400Z, May 8 to 0200Z, May 9

Mid-Atlantic QSO Party 1600Z, May 8 to 2400Z, May 9

FISTS Spring Sprint 1700Z-2100Z, May 8

50 MHz Spring Sprint 2300Z, May 8 to 0300Z, May 9

RSGB 80m Club Championship, Data 2000Z-2130Z, May 12

US Counties QSO Party, SSB 0000Z, May 15 to 2400Z, May 16

Portuguese Navy Day HF Contest 0800Z, May 15 to 2300Z, May 16

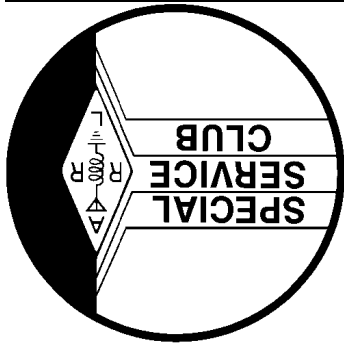
Manchester Mineira CW Contest 1500Z, May 15 to 2400Z, May 16

His Maj. King of Spain Contest, CW 1800Z, May 15 to 1800Z, May 16

ARCI Newcomer's Run 1800Z-2000Z, May 15

RSGB 80m Club Championship, CW 2000Z-2130Z, May 20

So let us know how you are doing at these contests, NOARS would like to get some entries in these contests. You do not all have to operate from the same location for a club entry, you can sit in your flannel jammies at home and nobody will care, just keep track of the contacts and score – the logging program is on NOARS field day page of the web site as shareware.



Amateur Radio Home of the U.S.S. Cod

Northern Ohio Amateur Radio Society
P. O. Box 432
Elyria, OH 44036-0432



The **NORTHERN OHIO AMATEUR RADIO SOCIETY** is a Public Service Organization, with the purpose of education and the furtherance of the art.

Meetings are held on the Third Monday of each Month except December at **Gargus Catering Hall, 1969 N. Ridge Rd., Lorain, Ohio** at 7:30 P.M. The **NOARS 2 METER NET** is held each **Wednesday at 9:00 P.M.** on the **146.700/444.800** repeaters in Elyria, Ohio, located atop the E.S.T. Bank Building.

The **NOARS TECHNICAL NET** is held each **Thursday at 8:00 P.M.** on **146.700/444.800**.

NOARS also operates a **BBS (BARF-80)** 100% Ham Radio information and news, full open access to all users at **(440) 237-8208 24 hr.** 300 - 33,600 baud. Visit **NOARS** on the Internet at <http://www.apk.net/noars/>

The **NOARS** club station donated by manufacturers aboard the **WW II** submarine **U.S.S. Cod** in the port of Cleveland is open from Memorial Day to Labor day. The station is open to all **NOARS** members and their guests daily from 11 AM until 5 PM.

If this is your first copy of the **NOARS LOG** why not become a member and receive it monthly? Membership is open to anyone interested in communications, whether a licensed amateur or not. Dues are \$10.00 US per year for a licensed amateur, \$5.00 for an associate member, and \$2.00 for family members. Checks are to be made payable to **NOARS** and mailed to **NOARS MEMBERSHIP, PO Box 432, Elyria, OH 44036-0432**, please include your call sign. Please fill in the email location to improve contact with our members.

Please Indicate NEW RENEWAL INTEREST IN HOBBY CHANGES * PHONE (____) _____
Name _____ CALLSIGN _____ CLASS _____ ARRL Y/N
Address _____ City _____ ST _____ ZIP _____
E-mail address _____ May we send you the PDF newsletter? Yes