Image: With the second secon								
Welcome to NOARS country!								
	March 2009							
NOARS Meetings Are Held at theV.E. Exam Schedule:American Red Cross Building in Elyria1 P.M. Third Sunday of each Month.On The Third MondayElyria Red Cross, 2929 W. River Rd N. Elyria, OH								
SUN	MON	TUES	WED	THUR	FRI	SAT		
1	2 General Class Starts – 6PM	3	4 NOARS NET 9 pm. NCS: WD8ADE	5 Tech NET 8 pm. NCS: WB3JVK	6	7		
8	9 General Class 6PM	10	11 NOARS NET 9 pm. NCS: WD80FG	12 Tech NET 8 pm. NCS: W8KYZ	13	14		
15 VE Testing 1PM ToledoHamfest See pg 3	16* N.O.A.R.S. MEETING 7:3Ø P.M.	17	18 NOARS NET 9 pm. NCS: W8WFQ	19 Tech NET 8 pm. NCS: K8RWC	20	21		
22	23	24	25 NOARS NET 9 pm. NCS: W8KRF	26 Tech NET 8 pm. NCS: N8CX	27	28		
29	30 General Class 6PM	31	Dues must be paid by the end of the March 16 meeting to appear in the new roster.*Mar 16 <sup>th</sup> General Class wi dismiss at 7:00PM Program on HRD after business meeting.(see pg 3)			t 7:00PM hRD after		
Editorial & Who To ContactPg 2Contest Corner, DX and Got 6?Pg 5Roll Call - NOARS News (Please Read) - Upcoming EventsPg 3For Sale & Ad's PagePg 6								



## Welcome To N.O.A.R.S 2009

Winter Hamfest was a fantastic success. I hope you all had a good time and enjoyed the breakfast and fellowship. It was a good feeling to look out from the front tables and see everyone. Of course, we all missed John WD8IQJ. I believe he will be proud of us for making this hamfest a real success. A special thanks to Dee-Dee KA8VTS for her dedication and effort. This is the first year that she put it all together without John directing and she did a fantastic job! Tom W8KYZ also put a tremendous amount of time and effort into the success of the event. I also want to thank the following people for stepping up and helping with setup, operation, and teardown: KC8E Dallas, KD8JKE Frank, KD8JJU Bob, N8RVE John, W8WFQ Joel, WD8ADE Julie, N8PZD Clark, WD8OFG Harold, KD8JNK Morgan, K8RWC Rich, W8FAN Mark, N8QL Alex and Joe (his The kitchen crew did a phenomenal job of feeding brother). everyone. Thanks to Doug WD8BJY, and Angela Lasko. Last, but not least, thank you Gary N8DIU for hosting us, as well as helping with all aspects of the event. I hope I did not miss anyone. If I did, please tell me so I can recognize you. It is this kind of team work that makes us who we are.

The next major event on the NOARS calendar is Field Day on June 27-28, 2009. We will begin organizing our stations and setup at the next few meetings. We will be operating from Indian Hollow Reservation in Grafton, Ohio again this year. If you want to get involved, contact Al N8CX. We will assign Band and Mode Managers at the next meeting. We will be going out to the site in April to survey the area and establish a plan for our setup and operation. If you have never operated during Field Day, plan to come out and join us and find out what it is all about. Everyone, whether a member or not, is welcome. It is a fun time.

I would like to close this month's editorial with a very special thank you to Stephen Robbins WB3JVK. Steve donated a very nice overhead projector to NOARS for use during our classes and meeting presentations. When you see Steve, please thank him.

Carl Best 73 and CUL..... Carl Rimmer - W8KRF Acting Editor of the NOARSLOG Write: Editorlog2ØØ9, 161 Herrmann Drive, Avon Lake, OH. 44Ø12 Or: E-Mail me at: w8krf at noars dot net

## Who's who at NOARS?

#### 2009 Elected Officials

President: W8KRF Carl Rimmer Vice President: *N8CX Al Moriarty* Treasurer: W8KYZ Tom Porter Secretary: KA8VTS Darlene Ohman

**K8KRG** License Trustee W8EU Mike Willemin

*Committee Heads for 2009* Newsletter Production: WD8IQJ John (Editor) W8KRF Carl (Asst Editor) W8KYZ Tom (Producer) A.R.R.L. V.E.: *W8KYZ* Tom Porter *W8KRF* Carl Rimmer Education Committee: W8KYZ, W8KRF, KB8MIS, WA8UGC Property Manager: WD8BJY Doug Krucinski DX Correspondent: *N8CX* Al Moriarty Net operations Managers: WD8IQJ John McKenna WD80FG Harold Drake Hamfest Crew: *KA8VTS* Darlene Ohman *N8CX* Al Moriarty *N8PZD* Clark Beckman Web Master@www.noars.net: K8JWS John Schaaf *W8KRF* Carl Rimmer Sunshine Committee: *KD8SC* Rosemary Shook Repeater Upkeep: WB3JVK Stephen Robbins N8PZD Clark Beckman Membership: WD8IQJ John McKenna Elmer Corp. Representative: W8ADV Ray Smith

#### **NOARS IS ON THE AIR!** Weekly Nets:

146.7ØØ Wednesday Night Rag chews 9 pm local NCS: WD8OFG - WA8ADE - W8KRF - W8WFQ -KD8GXL

146.7ØØ Thursday Technical discussion net 8Pm Local time NCS: W8KYZ - WB3JVK - N8CX - K8RWC



All are welcome on NOARS nets!

#### **Roll Call: February 16th Meeting:** 27 members and guests in attendance N8HDE W8TAS **KD8JJU** N8PZD W8WFQ WD8ADE **KD8JAN** KC8VFE WB3JVK **KD8JKE** WD8IPU WD8OFG N8RVE KC8E K8AGW W8BHJ KD8REW KB8FYB **KB8IOM** W8KRF **KA8VTS** W8KYZ KD8KAA **KC8POL K8RWR** W8GWD W8FAN

# N.O.A.R.S. NEWS

## **Membership** News

Gary Lasko's call sign is KD8KAA. Say hello and congratulate him when you hear him on the air.

The NOARS General Class License class will begin on March 2 at 6:00PM at the American Red Cross Building, 2929 W. River Road N, Elyria, OH. If you are interested in participating, please email w8krf at noars dot net.

**Ray, W8ADV**, has not been able to operate from his QTH in Vermillion due to RFI with Cable Channel 18 which happens to reside in the 2M band. We miss Ray as a regular user but he does operate mobile so listen for him.

Bob, KD8JJU, passed his General test at the VE session on February 15. Congratulations Bob!



On Monday, February 16, I had the pleasure of talking with Commander Mike Fincke aboard the ISS (callsign KA1SS.) Yury Lonchakov and Sandra Magnus were on the side. ARISS had been in repeater mode for the first two passes of the day, but on the third pass I heard Mike call a CQ and responded. We had a brief QSO. The QSO after me was with a gentleman using an HT and Arrow handheld satellite antenna. Listen for ARISS on 145.800 MHz. The uplink for ARISS when it is in cross band repeater mode is 437.800 MHz. ARISS also runs APRS on 145.825 MHz simplex. - Carl W8KRF

The program for the **March 16 meeting** will be a <u>brief</u> **Introduction to Ham Radio Deluxe**. This suite of amateur radio programs is the best in the business, in my opinion, and it is FREE.



Page 3

#### Minutes of the February 16<sup>th</sup>, 2ØØ9 Meeting Submitted by: Darlene Ohman, KA8VTS

The meeting began at 7:30 p.m., 27 members and guests present.

- **Program:** A program by the LCCC Fab Lab staff was presented prior to the business meeting.
- Treasurers Report: Tom Porter, W8KYZ was read and a motion was made and seconded to accept the report. The motion was passed.
- Secretaries Report: Darlene Ohman, KA8VTS, a motion was made and seconded to accept the minutes as printed in the newsletter. The motion was passed.
- Education Committee: Carl Rimmer, W8KRF, General Class classes starting on March 2, 2009, we will be meeting at the Elyria Red Cross. Classes will start at 6:00 p.m. We already have 7 people signed up. Please contact me to sign up for the classes.
- Newsletter and Membership: Carl Rimmer, W8KRF, is coming along well, if you have any input or articles let me know. Don't forget to renew your dues they official expire by the end of March, 2009. We would like to start emailing all the members the newsletter. If you don't have an email address the newsletter will be mailed to you. If you don't want your email address placed in the roster, I will honor that request.
- Nets: Harold Drake, WD8OFG, Sandy, W8KYS is no longer going to do the Thursday night net.
- Sunshine: Rosemary Shook, KD8SC, not in attendance. Glenn Thome, N8AKS, his father passed away this past Saturday.
- Web Site: Carl Rimmer, W8KRF, the first page is the announcement page. There is now a QSL card page. Also the Constitution and By-Laws are on the web site.
- **DX:** Al Moriarty, N8CX, not in attendance.
- **Repeaters:** Steve Robbins, WB3JVK and Clark Beckman, N8PZD, the 4.8 repeater has a poor receiver. We may take the 515 repeater down for maintenance for a week or two. We have been having problems with Echolink, but the problems are being taken care of.

#### **Old Business:**

- Winter Hamfest: We had a very good turn out and we did make a profit. I want to thank everyone for taking the time to help out setting up, tearing down and for helping out during the Hamfest.
- **Field Day:** In April, we are going to hold a meeting at the site to decide how we should set up the antennas and stations. Anyone who is interested in participating in Field Day should be at that meeting.
- **NOARSfest:** It will be held at the Lorain County Community College in the Spitzer Center. It will be held on the third Saturday in July 18, 2009. We are locked in with this location for the next 5 years. Admission will be \$6.00, tables will be \$10.00 and flea market will be \$5.00. Darlene Ohman, KA8VTS will be in charge. Rosemary will <u>not</u> be doing bingo this year. We <u>can not</u> have vendor set up on Friday or overnight parking for flea market.

#### New Business:

- **Post Office Box:** Tom Porter, W8KYZ, The P.O. Box is costing us \$62.00 a year and I would like to suggest that we cancel the P.O. Box and have the club mail come to my address. There is very little mail that comes to the P.O. Box.
- Non-Profit Status (501C3): The subject of becoming non-profit was brought up and discussed. The Executive Committee will look into the pros and cons of becoming non-profit and will have a report next month.
- **Technician Class Manuals**: Tom Porter, W8KYZ, the technician license test will change on June 30, 2009, if you know anyone who wants to start out in ham radio and needs a technician class manual we have some manuals left and we will sell them for \$5.00 each. (Ed. We have since discovered that the test pool will not change until June, 2010, so the manuals will not be for sale at this price but still at the reduced price of \$20.)
- **Overhead Projector:** Steve Robbins, WB3JVK gave the club a brand new overhead projector for the classes.
- Club Property: Carl Rimmer, W8KRF, if anyone knows where any of our club property is located, please let me know.

The meeting was adjourned at 9:05 p.m.

### A Few Of The Callsigns Heard On The NOARS Nets. Wednesday and Thursdays nights

On The 146.7ØØ / 1ØØ Repeater In Elyria February 1 – February19 WD8ADE-WD8ADG-W8ADV-KC8AGU-N8AKS-K8AGW-KC8AMR-KB8BBZ-W8DJM-W8FAN-KD8FGY-KD8GXL-KD8JAN-KD8JJU-KD8JKE-KD8JNK-WB3JVK-W8KRF-W8KYS-W8KYZ-WA8LGM-K3LOW-WD80FG-KB8PEC-K8PGA-WA8PKC-N8RVE-K8RWC-WB6SVK-W8TAS-

#### K8TV-KC8VFE-W8WFQ-K8WRS-NC8X-KB8ZUN

## 146.7ØØ Has Two NOARS Nets For You!

The 9:00 PM Wednesday Night Rag Chew Net One of the longest running two meter nets in northern Ohio! You all are welcome to this informal friendly net. Hosted by: WD8ADE – WD8OFG – W8WFQ – W8KRF - KD8GXL

#### The 8:ØØ PM Thursday Technical Discussion Net. You don't have to be a techno-geek to enjoy this friendly

net slanted toward the technical side of the hobby. Hosted by: W8KYZ - WB3JVK – N8CX – K8RWC

#### Where's the DX? Taken From *KB8NW* Tedd's OPDX Bulletin.

NOTE! This is but a very small part of the complete OPDX Bulletin that can be found at www.papays.com/

The Ohio/Penn DX bulletin now has a new FAX number

Contributors can send DX information to: 1-419-828-7791 FAX only!

- ANTARCTIC OP & CRUISE -- By the time you read this, Mehdi/F5PFP and Jean- Pierre/ON7ZM should be getting ready for their expedition to the Antarctic peninsula. Their sailboat is expected to leave Ushuaia on Wednesday, February 18th, depending on the weather conditions. They plan to visit several Antarctic bases which include the South Shetland Islands (AN-010), Palmer Archipelago (AN-012) and the Antarctic mainland (AN-016). According to Mehdi, both Jean-Pierre and he will mainly be active on 20 meters SSB (14315 kHz), with some activity on 40/30/17 meters. [90% on SSB, 10% on CW, 80% on 20m] They plan to have one station continuously on the air with a trapless vertical using 500 watts and another station sporadically active using a trapless vertical and 100 watts. Operating times are between 1800-2200z, earlier and later when it is possible. Callsigns mentioned are CE9XX, FT5YJ and VP8DLM. Expedition will last through March 17th. QSL via F5PFP, by the bureau or direct: Mehdi Escoffier, Les Closures, 38440 Saint Jean de Bournay, FRANCE. You can download and see the route of the sailboat on GoogleEarth at: <a href="http://www.french-polarteam.fr/Antarcticexpedition2009/maps.html">http://www.french-polarteam.fr/Antarcticexpedition2009/maps.html</a>
- CN, MOROCCO Jim, W7EJ, will be active as CN2R during the CQWW WPX SSB Contest (March 28-29th) as a Single-Op/All-Band entry. QSL via W7EJ. See the station from CN2R at: <u>http://www.arraysolutions.com/Users/cn2r.htm</u>
- E5, SOUTH COOK ISLANDS Tim, NL8F/VK4COF, will be active for 14 days from Rarotonga Island (OC-013) sometime between March 21st and April 4th. Activity will be on 80/40/20/15/10 meters SSB and possibly 17 meters. QSL Manager for this operation is K8NA.
- FG, GUADELOUPE Pat, F4EBT, will be active as FG/F4EBT from the area of Sainte Rose on north Basse-Terre Island (NA-102) in the Guadeloupe Island group between March 21st and April 11th. Activity will a "holiday style operation", SSB only on 80/40/20/17/15/12/10 meters using a TS-50 w/100 watts into a FD4 Multiband antenna.
- FR, REUNION ISLAND (Update/Change) Cedric, F4EGZ, will be active as FR/F4EGZ during the CQWW WPX SSB Contest (March 28-29th) as a Single-Op entry. He informs OPDX that he will be there for 3 weeks but will only be on the air for the contest. During the contest, he states he will be active only on 20 meters band with a moxon antenna using 500W. However, he also states that at the beginning (of the contest) he will be active on 40 meters but does not think there will be a large open window to Europe and USA.
- IOTA NEWS OC-164. John, VK6HZ, will once again be visiting Rottnest Island this year. Dates of operation will be March 3-9th. Operation will be holiday style (he states "in between beer, swimming and, of course, quality time with my family!) Equipment will be IC-7000 running 100w into a Buddipole, running all modes. QSL via VK6NE. Online log will be available after the trip at: <u>http://www.vk6hz.com</u> All logs will be uploaded on LoTW.
- KH6, HAWAII Bill, ACOW, will be operating KH6/ACOW during the ARRL International DX Phone Contest (March 7-8th) from OC-019. Activity will be on 80-10 meters. There is a possibility of some operations a few days before and after the contest, as time allows. QSL LoTW and ACOW.

 PACIFIC TOUR - Operators Minekazu/JA2NQG (SSB) and Yuji/JH2BNL (CW/RTTY) will be active from the Western Pacific during March from the following islands and IOTAs. Their schedule and callsigns are as follows: March 4-6th - Chuuk Island (OC-011); Micronesia; V63AR and V63WW March 6-9th - Pohnpei Island (OC-010); Micronesia; V63AR and V63WW March 9-11th - Kosrae Island (OC-059); Micronesia; V63AR and V63WW
 \*Also, callsigns V63C, V63P and V63K will be active during these dates. March 11-14th - Majuro Island (OC-079); V73J and V73M March 14-16th - Palau Island (OC-009); T88CD and T88WW March 17-19th - Guam (OC-026); NH0AA and AH0F/KH2

Please Note: This is only a <u>SMALL</u> part of: OPDX Bulletin #896 LOG TO: WWW.papays.com for the rest (Only The Parts Relative To The Time Of Distribution Of The N.O.A.R.S. Log Were Included Here.)

MA	MODE				
DATE	BANDS	NAME	PH	CW	DG
2/28-3/1	80-10	North American QSO Party			Х
2/28-3/1	160	CQ WW 160 Meter SSB	Х		
3/1	80-10	High Speed CW Contest		Х	
3/3	10	DARC 10-meter Digital "Corona"			Х
3/7-3/8	160-10	ARRL International DX	Х		
3/15	80-20	North America RTTY Sprint			Х
3/21	10	10-10 Mobile QSO Party	Х	Х	Х
3/21-3/23	160-70cm	Virginia QSO Party	Х	X	Х
3/21-3/22	160-10	Russian DX Contest	Х	Х	
3/21-3/28	80-10	BARTG Spring RTTY Contest			Х
3/22	80-10	QRP ARCI HF Grid Square Sprint		Х	
3/28-3/29	160-10	CQ WPX SSB Contest	Х		

**Got 6?** Contributed By N8OFS Andy

2009:

CQ DX MARATHON DATE1:JAN01 0000Z-DEC31 2359Z 2009 MODES:USB+FM EXCNG:CALL

INLOG:CALL+CQZONE+CQDXCC

SPOTS:OK

LOGTO:scores@dxmarathon.com

RULES:http://cq-amateurradio.com/DX%20Marathon%20Rules%2 0Dec08.pdf

#### WANT MORE 6?

Log to: http://www.noars.net/got6/GOT6.txt

## For Sale & Advertisement's Page

All Submissions must be sent to <u>w8krf@noars.net</u> or sent to: 161 Herrmann Drive, Avon Lake, Oh. 44Ø12 Deadline for submissions is the Third Tuesday of each month. All must include Asking price, sellers name, call sign and phone number. Ad's from current NOARS members (or paying advertisers) only will be accepted! Notice! All ad's will be removed after three months (as space is needed) unless updated! NOARS reserves the right to refuse ads at our discretion.

#### WD8IQJ John (216) 544-5761

- Beam Antenna SIX Meters 5 element antenna (Cushcraft?) New hardware! Get ready for the summer band openings!
- Sears / Konica 35MM SLR (film) camera Many extras / lenses \$2ØØ OBO

W8KYZ - Tom (440.930.9115)

#### Phil'S Ham Radio Store

Ham Gear – Accessories 512 Broadway, Ste 1Ø3 New Haven, IN. 46774 (888) 562-8927 Fax (26Ø) 399-623Ø Email: <u>sales@philshamradiostore.com</u> Web: <u>www.philshamradiostore.com</u> **W8TAS** Ted (44Ø) 365-8Ø41 6/09

• KLM KT-34-A six element beam 1Ø-15-2Ø 36' boom one of a kind (big gun) \$3ØØ (bring your truck)

#### 6/09

- Antenna Specialists "On Glass" 2 meter (144-174 MH.) Antenna. NEVER USED. Have Instructions and all parts....\$10.00
- Micronta SWR/Power Tester-Meter. 20W/200W/2000W. 50 Ohm. Model 21524 (3 - 30 MHZ)...\$15.00.

6/09

- **Power Supply**. 12V DC 1.7 Amp...**\$8.00**.
- World Radio Lab. "Globe Scout" 75 Watt CW Transmitter. Model 90. With Instruction Manual...\$40.00.
- Whisper Fan by Rotron Inc. Model WR2HI 115V 50/60 HZ.
  4 1/2" X 4 1/2 X 2" High....\$5.00
- Electro Products Laboratories Model "BJ" Junior D.C. Power Supply (6 Volts Adjustable) Metered (0 - 20 Volts Input) and (0 - 20 Amperes Output)...\$20.00.
- Manual for World Radio Lab. Transmitter Model 680A. Make Offer.
- **Optimus Model #12-1869B**, Radio Shack 40 WATT Stereo Power Booster...**\$5.00**.



## Your ad could go here.

Contact w8krf at noars dot net

### This was received from Glen Tome and should be shared with all by all:

#### GPS

A couple of weeks ago a friend told me that someone she knew had their car broken into while they were at a football game. Their car was parked on the green which was adjacent to the football stadium and specially allotted to football fans. Things stolen from the car included a garage door remote control, some money and a GPS which had been prominently mounted on the dashboard.

When the victims got home, they found that their house had been ransacked and just about everything worth anything had been stolen.

The thieves had used the GPS to guide them to the house. They then used the garage remote control to open the garage door and gain entry to the house. The thieves knew the owners were at the football game, they knew what time the game was scheduled to finish and so they knew how much time they had to clean out the house. It would appear that they had brought a truck to empty the house of its contents.

(Continued on Page 7)

(Continued from Page 6)

#### **MOBILE PHONE**

I never thought of this......

This lady has now changed her habit of how she lists her names on her mobile phone after her handbag was stolen. Her handbag, which contained her cell phone, credit card, wallet, etc., was stolen.

20 minutes later when she called her hubby, from a pay phone telling him what had happened, hubby says, 'I received your text asking about our Pin number and I've replied a little while ago.'

When they rushed down to the bank, the bank staff told them all the money was already withdrawn. The thief had actually used the stolen cell phone to text 'hubby' in the contact list and got hold of the pin number. Within 20 minutes he had withdrawn all the money from their bank account.

#### Moral of the lesson:

Do not disclose the relationship between you and the people in your contact list.

Avoid using names like Home, Honey, Hubby, Sweetheart, Dad, Mom, etc....

And very importantly, when sensitive info is being asked through texts, CONFIRM by calling back.

Also, when you're being text by friends or family to meet them somewhere, be sure to call back to confirm that the message came from them. If you don't reach them, be very careful about going places to meet 'family and friends' who text you.

## Mission Statement: The Northern Ohio Amateur Radio Society is a public service organization with the purpose and goal to enhance the Amateur Radio Service through education and fellowship.

- Meetings are held at 7:3Ø p.m. sharp on the third Monday of every month. At the Elyria Red Cross facility, 2929 West River Rd. (just South of Detroit (Rt. 254)) in Elyria, OH.
- The meetings are open to the public. And all are welcome. Tune to the 9 pm. Wednesday night NOARS net on the 146.7ØØ/444.8 MHz. repeaters on the E.S.T. bank Building in Elyria, Ohio for changes or updates in this schedule. Also the 146.7ØØ/444.8 repeater hosts the technical discussion net on Thursday Night at 8:ØØ pm.
- N.O.A.R.S. Repeaters Can be heard at 146.7ØØ (-) 444.8 (-) in Elyria, OH. and 145.15 (-) In North Royalton OH..
- Regularly scheduled NOARS nets are every Wednesday night at 9 pm. on 146.7ØØ for the rag-chew net and every Thursday night at 8 pm. for the technical discussion net. All licensed amateurs are welcome. NOARS membership is not necessary to participate. In fact all participation is encouraged and appreciated.
- NOARS can be found on the World Wide Web at: http://www.noars.net
- NOARS Hosts two hamfest/computer shows annually. The winter hamfest in early February and the summer classic NOARSFEST hamfest and computer show in mid July.

If this is your first copy of the NOARS log. Why not become a member and receive it on a monthly basis? Membership is open to anyone interested in communications. The dues schedule is: Full \$1Ø, Associate \$5 (non licensed), Family members of a full member are only \$2 ea. make checks payable to NOARS and mail them to:



The Northern Ohio Amateur Radio Society

Membership Application

Mail Completed Application with a check or money order to: NOARS 161 Herrmann Drive Avon Lake, OH 44012

Call Sign	Class	Birth	nday Month	For Office Use:
Name First	Init	Last		Amt Pd:
Membership type: Full (\$10/yr)_	Associate (\$5/yr)	Family*	(\$2/yr)Life/Honorary_	, Date Pd:
Membership expiration date <u>12</u>	/31/ AR	RL Member?	(Circle one) Y N	Renewal:
Street Address				New:
City				Initials:
eny	,	<u> </u>	ZAP	Data Entry:
Email Address			□Keep private**	* Comments:
Phone ( ) -	N	Iailings: □E-	Mail □Website □USPS	
Ham interests:				
*Call sign of family member	Amou	nt Paid <u>\$</u>		

Mailings = Delivery method for Monthly Newsletter, Roster and/or Roster updates \*\* If checked, Email address will not be disclosed in roster

N.O.A.R.S. 161 Herrmann Drive Avon Lake, OH. 44Ø12



THE NORTHERN OHIO AMATEUR RADIO SOCIETY 45

Years Serving The Amateur Radio Community



Dated Material

Mailing Label