Club repeaters / sponserships

VHF: 145.150- MHz, 146.700- MHz
UHF: 444.800+ MHz

145.150 home of "BART" the DX Alert
Amateur Radio Home of the **USS COD**
Barf-80 Bulletin Board: (440) 237-8208 300-28800 Baud
NOARS WWW Homepage: http://www.apk.net/noars

NETS

NOARS Net: John WD8IQJ/KC8AOX
146.700 Wednesday at 9:00PM
NOARS Tech Net: Sandy W8KYS
146.700 Thursday at 7:00PM

--==NOARS Nets also on 444.800==--

September 1998

VOLUME 34   ISSUE 09

1998 EXECUTIVE COMMITTEE:

President:	Clark Beckman	N8PZD
Vice President:	John Schaaf	KC8AOX
Treasurer:	Tom Porter	W8KYZ
Secretary:	Mike Willemin	W8EU

STANDING COMMITTEES:

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ARRL/VE:	Dave Willemin	N8DW
DXAC Member:	Tedd Mirgliotta	KB8NW
Membership:	John Schaaf	KC8AOX
Newsletter:	Mike Willemin	W8EU
Repeater:	Glen Thome	N8AKS
Sunshine:	Mike Willemin	W8EU
USS Cod:	Bob Goff	KA8YDS
Banquet:	Gary Gargus	N8DIU

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Christmas
Banquet and Raffle
information inside.

COMING AT NEXT MEETING...

Estate Sale of K8RSH

August Meeting Update

The regular monthly meeting was put on hold for are annual August Picnic.

Thanks to Gary N8DIU for allowing us to have the picnic at his place. We had about 40 members and guests present. The weather was perfect. We had plenty of hamburgers and hot dogs to go around, thanks to John KC8AOX who did an excellent job at the grill. There was also plenty of side dishes to go around, there were chips, brownies and even a pizza as well as soft drinks and even some fine Canadian 807's supplied by Tom, W8KYZ. These were just a few of the goodies there. I was to busy having "eyeball QSO's" and eating to really take inventory.

It was nice to see so many faces that do not usually attend the monthly meetings.

A few members had their HT's with them and let everyone see them as well as play with all the "bells and whistles". If you are not a regular attendee of the meeting but like to get out for a nice summer evening, the NOARS picnic is the place. It is very informal and alot of talk about both ham radio and computers. I hope to see you all there next year.

73 de Mike W8EU

Winterfest '99

As was mentioned in a previous issue of the NOARSLOG, It has come to my attention that the Mansfield hamfest is going to be on the 1st Sunday in February of '99. Traditionally our WINTERFEST is held on this date and Mansfield is the following weekend. The second Sunday in February is Valentine's Day. I do not think that we should compete with Mansield, which brings me to the point. Should we try and have our hamfest earlier in January or later in February. I would like to hear some opinions on this at the meetings. We need to get the date firmed up so that we can get out fliers and letters to vendors. Please attend a meeting and express your opinion. 73 de Mike W8EU

Upcoming Hamfests

Findlay Radio Club   Sept 13
Cleveland hamfest - Sept 27

FCC proposes to streamline amateur rules

The FCC has proposed to phase out the Novice and Technician Plus class licenses, leaving just four amateur license classes in place—Technician, General, Advanced, and Extra. The Commission also has asked the amateur community to express its opinions on Morse code requirements for licensing and testing, but offered no specific changes. And the FCC proposed to permit Advanced class licensees to administer amateur exams up through General class. The proposals were among several suggested rules changes and invitations to comment contained in an FCC Notice of Proposed Rulemaking, WT Docket 98-143, made public August 10.

In proposing to phase out the Novice and Tech Plus tickets, the FCC said ''there appears to be an unnecessary overlap between the Novice, Technician, and Technician Plus license classes.'' The FCC also said that Technician and Tech Plus operators ''predominantly'' use FM and packet on VHF and UHF. In addition, the FCC said Novice applicants last year numbered fewer than 1000, while there were nearly 21,500 Technician applications.

Under the FCC plan, Novice and Tech Plus licensees would retain current operating privileges, but no new Novice or Tech Plus licenses would be granted. For examination purposes, current examination elements 2 and 3A would be combined into a new element 3A. For administrative purposes, the FCC would combine the current Technician and Tech Plus databases into a single Technician database. The proposal would eliminate the 5 WPM code test, Element 1A, as a required element for any class of license.

The elimination of the Novice and Tech Plus license classes would effectively raise the bar for future applicants desiring to gain HF operating privileges, unless the FCC ultimately reduces Morse code testing requirements. Since the General class license would become the entry-level HF ticket under the FCC's proposed rules, applicants would have to pass at least the 13 WPM code test.

The FCC did not propose to change any operating frequencies or license privileges for amateurs. However, the FCC does seeks comment on the disposition of the current Novice HF bands, which carry a 200-W output power limit for all licensees. The FCC invited comment on whether it would be "appropriate" to delete the Novice bands and the power restrictions on higher-class licensees and permit Novices to operate CW anywhere on 80, 40, 15, and 10 meters at 200 W output.

The FCC opened the door to comments on all aspects of Morse code testing from the amateur community. In particular, the Commission said it wants to know if hams prefer the current three-level system or would like to see it reduced to a one or two-tier system—and, if so, at what required speeds. The FCC asked whether hams would be willing to trade a reduction in Morse code requirements for additional written elements on newer digital technologies "which, in part, are replacing the Morse code." And, the Commission asked whether it should consider specifying Morse code examination methods, such as fill-in-the-blank or one minute of solid copy, instead of allowing VEs to determine the testing method.

In a related issue, the FCC also seeks comments on how to deal with potential abuses of the current disability waiver for higher-speed Morse code tests. In RM-9196, the ARRL had asked the FCC to require anyone applying for an exemption pursuant to a doctor's certification to first attempt the higher-speed test before examination credit

could be given. The League also asked that VECs have access to relevant medical information from the certifying physician. The FCC said the ARRL's proposal would place "an unfair burden on examinees" and raised serious privacy and confidentiality issues.

The FCC went along with an ARRL petition and proposed allowing Advanced class hams to be eligible to prepare and administer license examinations up through General class under the VE program. The Commission said the change would permit greater testing opportunities for hams. The FCC also invited comments on whether it should change written examination requirements "to provide VEs and VECs additional flexibility in determining the specific contents of written examinations."

Referring to yet another ARRL petition, RM-9150, the FCC invited comments on how it can improve its Amateur Radio enforcement processes. The FCC applauded the ARRL "for its creative thinking" in that petition, but said the specific proposal was "inconsistent" with the current statutory role of administrative law judges. The FCC raised the possibility of encouraging complainants to include a draft order "to show cause to initiate a revocation or cease and desist hearing proceeding." The FCC said it also wants to hear how it can better use the services of the Amateur Auxiliary in beefing up enforcement.

The FCC proposed to phase out Radio Amateur Civil Emergency Service, or RACES, stations by not renewing their licenses. No new RACES licenses have been issued since 1980, and only 249 valid licenses remain. The FCC said RACES stations no longer are needed because any amateur station that has been properly registered with a civil defense organization has the same privileges as a RACES station. The FCC also took the occasion to clarify the definition of "power" as used in the RF exposure table in Section

97.13(c)(1). The FCC said it refers to peak envelope power (PEP) input to the antenna. It also made clear that no one holding an FCC-issued ham ticket may apply for a reciprocal permit for alien amateur license.

The FCC set a longer-than-normal comment period. The deadline for comments is December 1, 1998. The deadline for reply comments is January 15, 1999. The FCC will accept electronic comments via the Internet at http://www.fcc.gov/e-file/ecfs.html. A copy of the complete NPRM has been posted on the ARRLWeb page, http://www.arrl.org. The FCC NPRM can also be downloaded from the FCC Web site in Word Perfect 5.1 and Text versions as: http://www.fcc.gov/Bureaus/Wireless/Notices/1998/fcc98183.wp http://www.fcc.gov/Bureaus/Wireless/Notices/1998/fcc98183.txt respectively.

Estate Sale of K8RSH

The following items are from the estate of Chuck K8RSH. He was a long time NOARS member.

Spider Mobile antenna for 75, 40, 20 and 10 meters
Hustler Mobile antenna for 75, 40, 20, and 10 meters
Dentron AT 1200 Tuner
2 meter Mag Mount
10 meter Mag Mount
45 Ft Fold over tower w/base
There are 2 or 3 other boxes of odds and ends which will be auctioned off at the upcoming September NOARS meeting.

Dear NOARS Members,

The coming of fall not only brings on the holiday season, but also the excitement of our annual Christmas Banquet and benefit raffle. Last years banquet was a success thanks to all of you who attended. Therefore, we are again offering tickets at the same price, but this means that we all must support our club and this function as we have in the past.

The committee will be sending tickets for the annual raffle. It is our hope that each and everyone of you will try your hardest to sell these and possibly ask either Rosemary Shook KD8SC or Gary Gargus N8DIU for additional tickets to sell.

The prizes will appeal to hams and non-hams as well. The money and ticket stubs can be turned in at either the meetings or before the banquet begins.

Your help is appreciated and we are looking forward to seeing all of you at the banquet.

73 and many thanks.

Rosemary Shook, KD8SC
Gary Gargus, N8DIU

Northern Ohio Amateur Radio Society Christmas Banquet

The NOARS Annual Christmas Banquet has become the largest amateur activity of its type in Northern Ohio. It is open to the entire ham community and their guests. Our banquet has developed a reputation of having great food, great entertainment and lots of FUN. NOARS will provide the entertainment, dinner, and prizes, soft drinks, 807's and wash for your BYOB.

<div align="center">

MUSIC BY: **THE BEAT**

Admission is 18.00 dollars per person

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Advanced ticket sales only. The deadline for tickets is December 1st 1998. Send your check or money order to one of the following people. Tickets may also be obtained at the meeting from Rosemary or Gary. You can also help support club activities by purchasing extra raffle tickets at the cost of $1.00 each or 6 for $5.00.

NOARS Banquet	Gary Gargus,	Rosemary Shook
P.O. Box 432	1965 North Ridge Road	148 Elma Drive
Elyria, Ohio 44036	Phone (440) 277-6171	Elyria, Ohio 44035

<div align="center">

December 12, 1998

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Gargus Hall, Lorain, Ohio   Cocktails...6:00-7:00
Dinner......7:00-8:00
Dancing....8:00-12:00

Menu includes: Carved Steamship Round of Beef, Pork Chops, Pasta Rolli, Potatoes Au Gratin, Buttered Corn, Green Beans with Mushroom Sauce, Tossed Salad, Rolls and Butter, 2 jellos and 3 desserts, coffee, tea and milk.

INTRODUCTION TO PACKET RADIO
- PART 4 - by Larry Kenney, WB9LOZ
USING DIGIPEATERS AND NODES:
DIGIPEATERS: Digipeater is the term used to describe a packet radio digital repeater. Unlike the FM voice repeaters, most digipeaters operate on simplex and do not receive and transmit simultaneously. They receive the digital infor- mation, temporarily store it and then turn around and retransmit it. Your TNC can be used by others as a digipeater if you have the command DIGIPEAT turned ON. You use a digipeater by entering its callsign after a V or VIA in your connect sequence. Here are some examples of proper connect sequences: C W6PW-3 V WB9LOZ-2 C N6ZYX V WA6FSP-1,WD6EOB-3 C W6ABY-4 V K6MYX,N2WLP-2,AB6XO In the first example, the sequence shown means: Connect to W6PW-3 via the WB9LOZ-2 digipeater.

Your TNC will allow you to enter up to eight digipeaters in your connect sequence or in you UNPROTO path, but using more than 3 usually means long waits, lots of repeated packets and frequent disconnects, due to noise and other signals encountered on the frequency.

When entering the list of digipeaters in your connect sequence, you must make sure that you enter them in the exact order that your signal will use them. You must separate the calls by commas, without any spaces, and the EXACT callsigns must be used, including the SSID, if any. That means you need to know what digipeaters are out there before you begin randomly trying to connect to someone. Turn MONITOR ON and watch for the paths that other stations are using.

Something to remember when using digipeaters is the difference between making a connection and sending information packets. If the path isn't all that good, you might be able to get a connect request through, but will have a difficult time with packets after that. The connect request is short so it has much less of a chance of being destroyed by noise or collisions than a packet containing information. Keeping information packets short (PACLEN set to 40 or less) can help keep retries down when the path is less than ideal.

NODES: Net/Rom, TheNet, G8BPQ packet switch and KA-Node are names that refer to a device called a packet node. This is another means of connecting to other packet stations. Later on in this series you'll find a complete review of node operation, but for now we'll cover the basics so that you can begin to use the node network. The difference between a digipeater and a node that you should note here is that you connect to a node rather than using it in a connect path as you do with a digipeater. Some packet stations are set up so that they can be used as a digipeater and as a node. First, you need to determine what nodes are located close to you. You can do this by monitoring and watching for an ID, or by watching to see what other stations in your area are using. It is most common for a node to have an alias ID in addition to its callsign. Once you determine the call- sign or alias of a local node, you connect to it the same way as you connect to any other packet station. You may use either the callsign or the alias to make the connection. For example, the node I operate has the alias ID of BERKLY and the callsign of WB9LOZ-2, so you could connect to it using C BERKLY or C WB9LOZ-2. Either one will work. When you connect to a node, your TNC automatically switches to converse mode, just like when you connect to any packet station. Anything you now type is sent to the node as a packet, and the node acknowledges each packet back to your TNC. For the remainder of your connection your TNC works only with this one node.

To use the node network to connect to another local station, you simply connect to the node and then enter a connect request to the other station. Say you wanted to connect to K9AT using the WB9LOZ-2 node. You first connect to WB9LOZ-2 (C WB9LOZ-2) and then, while you ARE STILL CONNECTED TO THE NODE, you enter the connect request to K9AT (C K9AT). The node will then retransmit your connect request and you'll receive one of two responses: "Connected to K9AT" or "Failure with K9AT". Once you are connected you hold your QSO just as if you had connected direct or via a digipeater. When your QSO is finished, go to command mode on your TNC (Control C) and enter "D" (CR) and you will be disconnected from the node and the station you were working.

(NOTE: If the node you're using is a G8BPQ packet switch, it might have several frequency ports. You'll have to enter a port number between the C and the callsign in your connect request to indicate the frequency you want to use, such as: C 2 K9AT. Enter "PORTS" for a list of the frequency ports.)

NODE NETWORK: The packet nodes work together to form a packet node network. Once an hour each node transmits a list of other nodes that it knows about. The neighboring nodes use this information to keep track of the other nodes in the network. We will discuss how all of this works later on in the series.

When you're connected to a node you can enter: NODES (or N) <CR> and you'll receive a list of other nodes that you can reach on the network from the node you're using. You'll note that the node list will vary in length and in the calls listed as you move from frequency to frequency, since all frequencies are not linked together. The list gives both an alias ID and a callsign for each node. The alias ID often gives you a hint as to where the node is located, but not always. To find out for sure where a node is located you'll need to get a copy of the descriptive node listings that are available on most packet bulletin board systems. These complete lists give the alias, callsign, location, frequency and other information on each node in the

network.

To connect to a station in another area using the node network you first must determine which node is closest to the station you want to work. For demonstration purposes, let's say we want to connect to N6XYZ. He's told you he uses the W6ABC-3 node, so you check the node list and see that GOLD:W6ABC-3 is listed. WHILE YOU ARE STILL CONNECTED TO YOUR LOCAL NODE you connect to the distant node by sending a normal connect request, in this case C GOLD or C W6ABC-3. Your TNC will send this as a packet to your local node and your local node will acknowledge it. The network will then go to work for you and find the best path between your local node and the one you're trying to reach. Remember, with digipeaters you needed to know the exact sequence of stations. With nodes you don't. The network does that for you.

You might have to be a little patient here, since it sometimes takes a few minutes for the connection to be completed. Don't type anything while you're waiting for a response because any new information received by your local node will override any previously entered information. When the network has completed its work you'll receive one of two responses: "Connected to W6ABC-3" OR "Failure with W6ABC-3". If it can't connect for some reason, try again later. It could be that W6ABC-3 is temporarily off the air or the path has decayed and is no longer available. We're going to be positive here and say we received the first option.

Once you're connected to W6ABC-3, enter "C N6XYZ". Again, your TNC will send this as a packet to your local node and the local node will acknowledge it and send it down the path to W6ABC-3. W6ABC-3 will then attempt to connect to N6XYZ. Here again you'll get one of the two responses: "Connected to N6XYZ" OR "Failure with N6XYZ". If you get connected, you hold your QSO just as you normally would, but there's one BIG difference — your TNC is receiving acknowledgements from your local node, and N6XYZ is receiving acknowledgements from W6ABC-3. The acknowl- edgements do not have to travel the entire distance between the two end stations. Each node in the path handles the acknowledgement with the next node in line. Because of this, retries are greatly reduced, and your packets get through much faster than when using a similar number of digi- peaters.

When you're finished with the QSO, you disconnect in the normal manner — go to Command Mode on your TNC and enter "D" <CR>. The entire path will then disconnect automatically for you.

Nodes offer a variety of other features besides allowing you to connect to other stations. We'll look at those and go into much more detail on the packet network in parts 10 and 11 of this series.

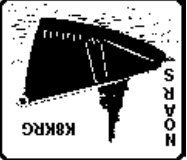The **NORTHERN OHIO AMATEUR RADIO SOCIETY** is a public service organization, with the purpose of education and furtherance of Amateur Radio.

Meetings are held on the third Monday of each month except December at Gargus Hall, 1969 N. Ridge Rd., Lorain, Ohio at 7:30pm. The NOARS general information net is held on the 146.70- repeater located in Elyria, Ohio atop the E.S.T. Bank. at 9pm each Wednesday. The NOARS technical discussion net is held each Thursday at 7pm on 146.70-. Both nets are also avaliable on hte NOARS UHF repeater, 444.80+. NOARS also sponsers a BBS (BARF-80) which is 100% devoted to ham radio information and news. Full open access to all users (440) 237-8208 24 hrs. 300-28800 baud. The NOARS WWW home page is http://www.apk.net/noars.

NOARS operates and maintains a club station aboard the WW II Submarine, U.S.S. COD in the port of Cleveland. The station is open to all members and their guests daily from 11am until 5pm between Memorial Day and Labor Day.

Membership is open to any person interested in communications, whether a licensed amateur or not. Membership dues are 10 dollars per year for a licensed amateur (Full Membership), 5 dollars for a non-licensed (Associate Member), and 2 dollar per family member (whether licensed or not). Checks are to be made payable to NOARS and mailed along with the following form to Noars Membership P.O. Box 432, Elyria, Ohio 44036-0432.

NOARS MEMBERSHIP APPLICATION

Please Indicate___NEW___RENEWAL___CHANGES

Name_____**CALLSIGN**_____**CLASS**_____ **ARRL? YES__ NO__**

Address_____**CITY**_____**ST___ZIP**_____**PH(____)**_____