

ARROW NEWS

Sept. - Oct. 1993

ARROW News is published by
ARROW Communications Assoc., Inc.
P.O. Box 1572
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2742 Beacon Hill
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ARROW NEWS BRIEFS

ARROW VE Exams

Test sessions are scheduled for Sept. 11 and October 9, 1993 at the G.G. Brown Building at UM's North Campus. The paperwork processing fee for Amateur Radio license examinations is \$5.60 for 1993. To preregister for a test session, or for more information, call 663-4625, Roger Place /W8ZRF or 662-6663, Clay Mitchell /W8JNZ.

ARROW MONTHLY MEETING

The general meeting is held on the second Wednesday of each month at 7:30 pm in the basement of the Red Cross building at 2729 Packard Road. All are welcome. The next meeting will be held on Sept. 8. The meeting will feature a demonstration of electrical safety by the Detroit Edison Power Co. This should be a very educational presentation! As of press time, I have no clue as to what the October 13 meeting will be about. But, come on out and see what we have planned!

These monthly meetings are a great way to meet new hams, learn new techniques and to discuss topics of general interest.

ARROW Board of Directors Meeting

The ARROW Board now meets on the fourth WEDNESDAY of each month, at 7 pm in the Red Cross building, 2729 Packard Road. These meetings are open to ARROW members. The next Board meetings are Sept. 22 and October 27.

UPCOMING SWAPS

12 Sept. - Findlay Radio Club Hamfest. Hancock Co. Fairgrounds, Findlay, OH. 8 am - ?. Admission \$4 in advance, \$5 at gate. Vendor set-up times are 3-9 pm Sat., and 6:30 am Sun. Talk-in on 147.75/.15 and 449.15/444.15. Contact: Findlay radio Club, Box 587, Findlay, OH 45839. 419-423-1440.

19 Sept. - L'Anse Creuse Swap n Shop. L'Anse Creuse High School, Mt. Clemens, MI. Outside trunk sales, inside tables, VE exam (11 am), refreshments, snacks. Admission \$3 in advance, \$4 at the door. Vendor set-up at 6 am. Talk-in on 147.08 (+) or 146.52 MHz. Contact: Ed MacKinnon, NW8W, 313-647-1628.

26 Sept. - Adrian Hamfest/Computer Show. Lenawee County Fairgrounds, 8 am - 2 pm. VE Testing (walk-in), inside tables and outside trunk sales. Admission \$4 in advance, \$5 at gate. Vendor set-up after 5 am. Talk-in on 145.37. Contact Dennis Boydston, WE8Z, 517-265-8054.

NOTES FROM THE EDITOR

In the last issue, you may have noticed that it read July-August, and this one reads Sept. - Oct. Yup, we have gone to a bimonthly format. That means more pages per issue, as we voted at the July governing board meeting to go bimonthly, and to run the membership application every other issue. This will save the ARROW about \$500 per year on the newsletter, freeing up some money for other club activities and projects. The newsletter is an important aspect of the club, but I would LOVE more input from members. If it weren't for Kurt Miska, it would be a very slim newsletter, indeed.

Well, it is that time of the year. The time when you should start thinking about what you are going to do through the cooler months ahead. Since you won't be quite as active outdoors, maybe it's time to work on your code speed. The darker months are also a great time to work on building projects. How about building a QRP rig? A 6m transceiver, or a shortwave receiver? With all of the kits now available, there is no excuse for not trying something new. If kits aren't your idea of "building" then check out some recent issues of 73 magazine or QST. Recent issues of 73 have had some great projects, so check them out!

Now that you aren't spending your evenings doing yard work, maybe you could write an article for ARROW News! Now that's a scary thought. One of the reasons I wanted to go to a bimonthly format was to give people more time to get articles together. So, please contribute! Even a couple of paragraphs of a want ad, a short review, or maybe a photo of your ham shack will help out. I became editor to get a newsletter out on a regular basis, but I didn't plan to do most of the writing!

Antennas

Fall is a good time to check your antenna setup. Winter isn't kind to antennas. Make sure the coax connector is soldered to the coax and sealed with coax seal. Tape or tie-wrap loose pieces of coax to the mast or tower, and make sure that supports and guys are secure. Check your SWR to make sure that the antenna is operating the way it should be. Getting water in the coax from a loose seal can effectively put a big dummy load on your system. If you have a dipole, make sure that there aren't any branches waiting to fall on it and put it out of commission this winter.

Band Openings

September and October often present great band

Continued on page 3

THE CONSIDERATE OPERATOR'S FREQUENCY GUIDE

Freqs generally recognized for certain modes or activities
(all in MHz):

160 METERS

1.800-1.830 CW, RTTY and other narrowband modes
 1.830-1.840 CW, RTTY and other narrowband modes,
 intercontinental
 QSOs only
 1.840-1.850 CW, SSB, SSTV and other wideband
 modes, intercontinental
 QSOs only
 1.850-2.000 CW, phone, SSTV and other wideband
 modes

80 METERS

3.590 RTTY DX
 3.606 Packet
 3.610-3.630 RTTY
 3.630 Packet
 3.642 Packet
 3.790-3.800 DX window
 3.845 SSTV
 3.870 AM calling freq
 3.880 AM calling freq
 3.885 AM calling freq

40 METERS

7.040 RTTY DX
 7.080-7.100 RTTY
 7.090-7.100 Packet
 7.160 AM
 7.171 SSTV
 7.195 AM
 7.290 AM

30 METERS

10.140-10.150 RTTY
 10.145-10.150 Packet

20 METERS

14.070-14.099.5 RTTY
 14.100 NCDXF beacons
 14.101-14.110 Packet
 14.230 SSTV

17 METERS

18.100-18.110 RTTY
 18.100-18.110 Packet
 18.150 AM calling freq

15 METERS

21.099-21.105 Packet
 21.070-21.100 RTTY
 21.340 SSTV
 21.400-21.450 AM

12 METERS

24.920-24.930 RTTY
 24.985 AM calling freq

10 METERS

28.070-28.150 RTTY
 28.099-28.105 Packet
 28.190-28.225 Beacons
 28.680 SSTV
 29.000-29.200 AM
 29.300-29.510 Satellite downlinks
 29.520-29.580 Repeater inputs
 29.600 FM simplex
 29.620-29.680 Repeater outputs

6 METERS

50.4 AM calling freq
 50.60-51.78 Packet
 50.62 Packet calling freq
 50.125 SSB calling freq

2 METERS

144.4 AM calling freq
 144.91-145.09 Packet (every 2 kHz)
 145.50-145.80 Packet

222 MHz

223.52-223.64 Packet

NOTES:

Packet is used on the 440, 902 and 1240-MHz bands, but bulletin boards (PBBSs) and live QSOs are sporadic. Most activity on the higher bands is in the form of backbone links that pass traffic between PBBSs and nodes, although some high-speed TCP/IP switches and repeaters operate on these bands and allow 9600-baud (and faster) user access. Check with your local packet groups. Avoid backbones; they're not intended for single-user access.

AM frequencies are listed in current issues of *Electric Radio*, a magazine devoted to coverage of vintage communications equipment and AM operation.

ARRL band plans for freqs above 28.30 MHz are shown in the ARRL Repeater Directory and the FCC Rule Book.

(From the ARRL Forum on America OnLine)

Internet / Packet Radio BBS Gateway

openings for VHF work. It is not unusual to work repeaters in the Cleveland area from Ann Arbor. You can monitor the freqs. in the Cleveland area on your scanner, or listen for FM stations that normally don't come in for hint of a band opening. I have seen conditions change in a matter of minutes, as the signals went from an S3 to practically 0. If you are into ATV, band openings can be a lot of fun!

Hillhopping

In late August, I was visiting the Huron Mountains as a researcher (working on insects). The Huron Mountains are within the Huron Mountain Club, a 60 square mile preserve in NW Marquette County, and a very beautiful area it is. I decided to bring my HT on a trip up one of the mountains with an exposed summit. I could see the Keweenaw Peninsula, about 40+ miles away. So, I was easily able to bring up the Hancock repeater with my HT and a slim duck antenna. I talked for quite a few minutes with KA8QCU and N8XLE. I was also able to hear a repeater from Thunder Bay, Ontario, but they were too far for me to hit with 2.5 watts.

I really enjoy working repeaters with an HT from remote locations. It usually leads to some interesting conversations!

Ham Swaps

There are a few swaps coming up in September and October. I have heard that the Findlay swap is an excellent one, and maybe this year I'll go. I finally have accumulated enough junk that just maybe I'll try and sell something for a change! For you newcomers to the hobby, a ham swap is a lot of fun. Sometimes you can pick up a good used 2 m mobile or HT for a good price. You just never know what you'll find, and sometimes you'll spend \$5 at a swap; other times you'll drop a few hundred. One tip -- if you have a building project coming up, bring a list of commonly used parts. You will often find everything you need at better prices than Radio Shack or mail order.

Monday Night Net

The ARROW Monday Night Net is at 8:30 p.m. I encourage all of you to sign and and if possible, contribute news and comments to the net. We have a good rotating Net Controller schedule, and all have been doing a fine job. Although no one is required to say something except check-in, any contributions to the conversation will be appreciated!

Packet Progress

It is two steps forward, and three back... Just as we were confident that we'd have a 220 MHz packet link, the Icom 37A mobile that was connected to the TNC went down. It seems to be a problem with the transmitter, so we'll have to send it in to ICOM to get repaired. Please be patient, I don't like the situation any more than you do. Anyone out there with a spare 220 mobile radio?

73 for now!
Mark, N8PQJ

Are there any gateways for mail or news between Internet and Amateur Packet radio?

Jim Durham, W2XO, maintains a gateway between Internet and the Packet radio BBS system.

To mail from Internet to Packet:

1. Mail to: "bbs@w2xo.pgh.pa.us"
2. Make the first line of the text a Packet BBS "send" command, ie: SP TOCALL @ BBSCALL.ROUTING-HINTS < FROMCALL
3. The "subject" line of the Internet mail becomes the "title" line of the Packet BBS mail.

NOTE: Because of FCC regulations, Jim must hand filter each message sent FROM Internet TO the Amateur Packet Radio BBS system. Messages should be of minimal length and appropriate content. Read Section 1.9 (Do's and Don'ts: Rules and Regulations) regarding appropriate usage of packet radio for more information. Always include the routing hints with the BBS callsign.

To mail from Packet to Internet:

1. The amateur radio operator must have his callsign registered in the gateway alias list. If you want to mail from packet to a specific amateur on Internet, send mail to 'durham@w2xo.pgh.pa.us' (Internet) or 'W2XO @ W2XO.#WPA.PA.USA.NAOM' (Packet BBS mail) with his/her amateur callsign and their Internet address.
2. Once the above is accomplished, packet BBS mail should be sent to 'CALL @ W2XO.#WPA.PA.USA.NAOM'. The mail will automatically be forwarded to the Internet address of the amateur with the 'CALL' callsign.

Jim Durham's Internet address is 'durham@w2xo.pgh.pa.us'.

LAN Gateways (Packet wormholes via Internet)

Currently a group of amateurs are experimenting with connecting packet LANs together via Internet IP inside IP Encapsulation. Some of the gateways only accept TCP/IP packets, others AX.25 packets. These gateways use the Internet as a transport medium, thus it is impossible to access the packet radio network from Internet. For more information, join the Gateways mailing list by sending mail to "gateways-request@uhm.ampr.org".

There is a local internet gateway/wormhole on packet, and I'll have a report for you in the next issue, after I have more information.

QUICKCROSS - EASY-TO-USE SOFTWARE LOOKS UP WIDE RANGE OF ELECTRONIC COMPONENTS AND ICs

by Kurt H. Miska, N8WGW

The not inconsiderable proliferation of discrete and IC electronic components under an almost infinite number of numbers can present quite a problem to hams wishing to build their own gear. Cross reference guides are published by Harris, Motorola, Radio Shack and NTE Electronics to name just a few. Usually these guides are printed on thin paper and they compress vast amounts of technical information into as little space as possible. If consulted too often, these tomes quickly become dog-eared and unsightly. Further, the often vital cross reference index is invariably set in 6-point type making a strong magnifying glass a prerequisite.

Now, there's one company that offers its printed component guide in the form of software. NTE Electronics in Bloomfield, New Jersey obviously realized that in this day and age it only makes sense to computerize the printed word. Not long ago after I saw NTE's QUICKcross(TM) in action at Purchase Radio, I decided to acquire and evaluate this handy dandy piece of software. My edition is Version 3.0, which was issued in the first quarter of 1993.

COMPUTER REQUIREMENTS AND INSTALLATION

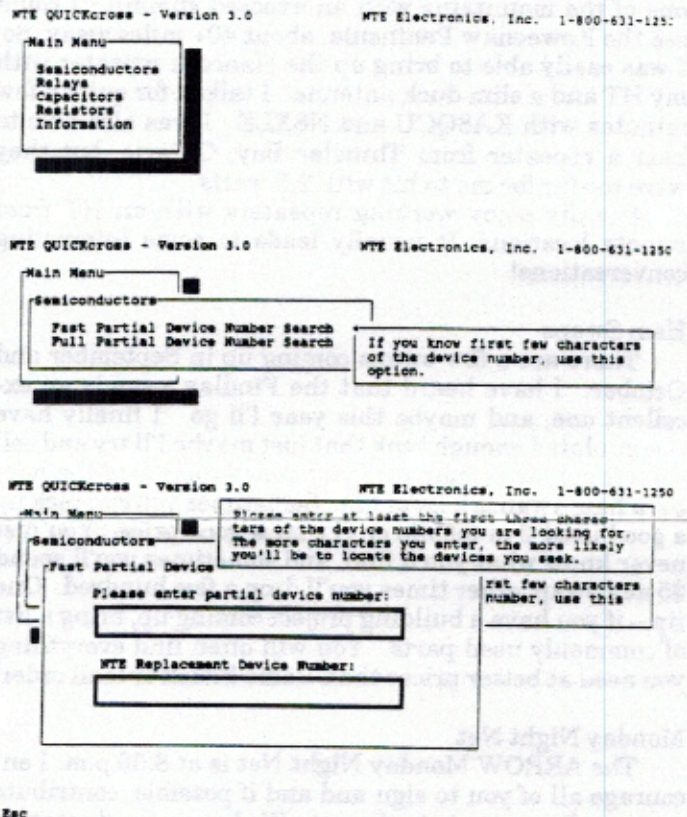
Computer requirements are very straightforward. QUICKcross requires 640K of RAM, and just a touch under 3 Megabytes of hard disc space. My PC at home is an XT running DOS 3.10 and has a 5 1/4 in. floppy drive. For the 5 1/4 in. drive the program consists of no less than six regular floppies, or two high density. The program takes up three 3.5 in. discs. So far, MacIntosh and UNIX are not supported.

My PC at home, an XT with an 8086 processor, and the one in my office both use the Norton Commander 3.0 DOS shell. A lot of programs can't be loaded directly into the DOS shell, something I found out quickly with NTE's QUICKcross. I don't know about other DOS shells, but you can exit Norton and go directly to the DOS prompt. Select the A> prompt and follow the brief but complete directions supplied by NTE. The instructions assume the program is to be loaded by the prompt and not any DOS shell. By the way, the directions include the phone number for Cybersoft, the software developer, in Arizona in case you need help beyond what NTE can offer.

Anyway I became very frustrated when I tried installing the program on my PC at home. I didn't know that I had to exit the DOS shell. It was just too late I guess, and I was tired. I took it to work, copied the big discs onto 3.5 in. discs and loaded them into my IBM PS/2 (a monochrome XT in effect). When the screen told me that everything was duly exploded and loaded, at the C:\NTE> prompt, I typed NTE and, lo and behold, I was up and running.

To provide some good quality illustrations for this article, I installed the program in our office PC AT that drives a Hewlett Packard laser printer. In addition to making good artwork, the faster computer with its color monitor really make this program very pleasant to use. One word of advice, if I may. When printing out on a laser printer use the PRINT SCREEN key rather than the capital letter P that the program wants you to use. For some reason, the PRINT SCREEN key provides a better quality printout. So, here's what QUICKcross can do for you.

SEMICONDUCTOR AND ICs



Fascinating. The first screen that comes up is the MAIN MENU. From it the user can select SEMICONDUCTOR, RELAYS, RESISTORS, CAPACITORS, or more information about NTE. Upon selecting SEMICONDUCTORS, you have two choices. The first is "Fast Partial Device Number Search" and the second is "Full Partial Device Number Search". Now, let's say you want to find out which NTE part numbers match up with 1N60. Type in 1N60 and the computer will come up with no less than 136 equivalent NTE part numbers. For each one it provides a parts description, a typical one being "DIODE-GERMANIUM GEN PURP, 75PRV, DO-7". I think it's all pretty self-explanatory - GENERAL PURPOSE GERMANIUM DIODE, 75 VOLTS IN A DO-7 CASE".

Unquestionably the most useful part of the program is to find out the NTE equivalent. Let's say a schematic calls for an 2N699 transistor. Just type in 2N699 and you'll get six choices with two different NTE numbers.

It's easy to narrow it down to the one you need for your particular project.

The bottom of the screen displays the commands ESC, FOOTNOTES, MAIN MENU, and PRINT. Sometimes it will also display GOTO, if there are more records that fit on the screen. That's a fast way to go to, for example, record 73 out of a total of 335 for the device number selected. The ESC key gets you back to the main menu or hit M and it gets you to the main menu. Hit F for FOOTNOTE and if there is additional information about a device, it will be displayed. Hit P for PRINT and it's the same as the PRINT SCREEN KEY on the keyboard, if you're using a dot matrix printer.

RESISTORS, CAPACITORS, RELAYS, AND INFO ABOUT NTE

Need to find an 82K, 1/8 W resistor? Use the ESC key to return to the main menu, cursor down to RESISTORS, and select 1/8 W as the main category and you'll find exactly what you need and its NTE part number. The same holds for capacitors. I haven't figured out RELAYS. NTE has cross-referenced relays in a separate catalog. Need the services of a domestic or international NTE service representative? They are also listed, and two serve Michigan.

NTE ENCOURAGES SHARING QUICKcross

The installation and user instructions, as well as on-screen messages, encourage making copies of the program to share with others. Copies should be made from disc to disc using the DOS COPY or DISKCOPY commands. Don't attempt to make copies from your hard drive since some files decompress and change their names upon installation. Keep in mind that DISKCOPY requires the source and target discs to be of the same density. That's not a requirement with the COPY command. There is a small fee for the first master copy, but no requirements beyond that. It's public domain software.

So, all in all, QUICKcross is a pretty handy and intuitive program even if you don't do much building. On my old XT it's a bit slow, the PS/2 is markedly faster and I would think that on today's 386/486 machines with color monitors, it's probably quite fast. But, speed doesn't really matter a great deal, after all you wouldn't turn the pages of a printed reference guide so fast that the paper would tear. The program is very user friendly, comes in

handy, and is just kind of fun to browse through. Last, but not least, there is a small fee for the first master copy but no requirements beyond that. Now, if they would just come up with something like this for vacuum tubes.

I thank William Gardecki of NTE Electronics for proofing this article for technical accuracy and providing other valuable assistance.

Kurt H. Miska is public relations manager for French & Rogers, an industrial advertising agency in Troy, Michigan. He is an avid vacuum tube and test equipment junkie but concedes that modern semiconductors are here to stay.

NTE QUICKcross - Version 3.0 NTE Electronics, Inc. 1-800-631-1212

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Main Menu
Semiconductors
Relays
Capacitors
Resistors
1/8 Watt Metal Flameproof Resistors
1/4 Watt Metal Flameproof Resistors
1/2 Watt Metal Flameproof Resistors
1 Watt Metal Flameproof Resistors
1 Watt Fusible Power Oxide Flameproof Resistors
2 Watt Metal Flameproof Resistors
2 Watt Fusible Power Oxide Flameproof Resistors
2 Watt Metal Flameproof Resistors
5 Watt Power Wirewound Flameproof Resistors
10 Watt Power Wirewound Flameproof Resistors
25 Watt Power Wirewound Flameproof Resistors
  
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Esc Main Menu Print Enter : Home Esc

NTE QUICKcross - Version 3.0 NTE Electronics, Inc. 1-800-631-1254

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Main 1 Watt Fusible Power Oxide Flameproof Resistors
Se NTE's line of flameproof resistors are ideal re-
Re placements for carbon composition, metal film, cer-
Ca met film, carbon film, wirewound, and metal glass
Re resistors. This extensive line of replacement and
C.E.M. resistors is used in entertainment, indus-
trial, M.B.O., and in virtually any application
where quality and safety are concerns.
NTE No. Ohms Component Description
FW1D0 1.0 1 Watt Fusible Power Oxide Flameproof Resistor
FW1D1 1.1 1 Watt Fusible Power Oxide Flameproof Resistor
FW1D2 1.2 1 Watt Fusible Power Oxide Flameproof Resistor
FW1D3 1.3 1 Watt Fusible Power Oxide Flameproof Resistor
FW1D4 1.4 1 Watt Fusible Power Oxide Flameproof Resistor
FW1D5 1.5 1 Watt Fusible Power Oxide Flameproof Resistor
FW1D6 1.6 1 Watt Fusible Power Oxide Flameproof Resistor
FW1D8 1.8 1 Watt Fusible Power Oxide Flameproof Resistor
FW1D0 2.0 1 Watt Fusible Power Oxide Flameproof Resistor
  
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Esc Main Menu Print PgUp PgDn Home Esc

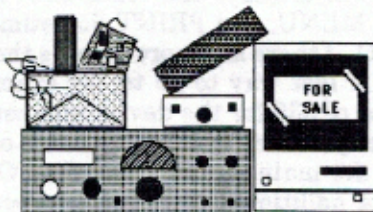
Need to find the NTE equivalent for the ubiquitous 555 timer? Just type in 555 and you'll get 12 devices to choose from. Now, the program will not only bring up 555 timers but other devices that contain those three digits in a row. It happens that five are timers and seven are 2N555 transistors.

You can also type in a specific manufacturer's IC number. For example, the widely used op-amp 741 is made by a number of manufacturers and if you type in LM741 (LM stands for National Semiconductor), you will find out that there is three NTE equivalent for six different 741 op amps.

NTE QUICKcross - Version 3.0 NTE Electronics, Inc. 1-800-631-1250

Industry Device Number	NTE Device Number	Device Description
*1N60	NTE109	DIODE-GERMANIUM GEN PURP, 75PRV, DO-7
1N60(TV)	NTE109	DIODE-GERMANIUM GEN PURP, 75PRV, DO-7
1N60(TV) (FA-1)	NTE109	DIODE-GERMANIUM GEN PURP, 75PRV, DO-7
1N60-1	NTE109	DIODE-GERMANIUM GEN PURP, 75PRV, DO-7
1N60-5	NTE110MP	DIODE-GE MATCHED PAIR, DO-7
1N60-FA1	NTE109	DIODE-GERMANIUM GEN PURP, 75PRV, DO-7
1N60-FM	NTE109	DIODE-GERMANIUM GEN PURP, 75PRV, DO-7
1N60-M3	NTE109	DIODE-GERMANIUM GEN PURP, 75PRV, DO-7
1N60-P	NTE109	DIODE-GERMANIUM GEN PURP, 75PRV, DO-7
1N60-S	NTE109	DIODE-GERMANIUM GEN PURP, 75PRV, DO-7
1N60-T	NTE109	DIODE-GERMANIUM GEN PURP, 75PRV, DO-7
1N60-TF1	NTE109	DIODE-GERMANIUM GEN PURP, 75PRV, DO-7
1N60-Z	NTE109	DIODE-GERMANIUM GEN PURP, 75PRV, DO-7
1N60/0112-0028-6438	NTE109	DIODE-GERMANIUM GEN PURP, 75PRV, DO-7
1N60/3490	NTE109	DIODE-GERMANIUM GEN PURP, 75PRV, DO-7
1N60/4454C	NTE109	DIODE-GERMANIUM GEN PURP, 75PRV, DO-7
1N60/7825B	NTE109	DIODE-GERMANIUM GEN PURP, 75PRV, DO-7
1N600	NTE117	RECTIFIER-SI-600 PRV, 1.0 AMP, DO-26
1N6000A	NTE5019A	ZD-10.0V, 1/2W, DO-35

Esc Footnotes Goto Main Menu Print PgUp PgDn Home End



SWAP & SHOP

TRAVELING WITH YOUR HT: Comments from Rane Curl, N8REG (from GREX)

Rane Curl (rcurl) on Wed, Aug 25, 1993 (00:32):

I took an HT on a recent vacation trip to the state of Washington, and tried calling on several evenings while camping. This is my log of how it went:

(Swap -n- Shop listings are free to all ARROW members)

ATV Enthusiasts: Use the HTF GVID Video IDer in your system. This small .8 x 3.15" board can overlay your call, QTH, and other information in white letters on any clean video source such as from a camera, VCR, TVRO or weather radar. This is not for repeater video with less than P4 signals. The information is held in a PROM, so no loss when power fails. Ideal for putting in the video line from NASA Select or weather radar to meet the legal requirement and per still not interrupt with a full screen video id source. It can also relieve you from remembering to id at the home QTH or at public service events. There is an automatic 5 - 10 min. timer that turns it on for 10 seconds, or it can be set to run continuously. Also has three switch and one analog telemetry input (great for use in ATV R/C aircraft, rockets, balloons). Requires 5VDC @120 ma. Small enough to be put inside most chassis or its own 1590B die-cast aluminum box & connect between video jack & transmitter. \$175.00 Call for our catalog and data sheets on other HTF products. High Technology Flight, 1450 Jeffery St., Ypsilanti, MI 48198. (313) 482-2670.

BUTTERNUT Vertical Antenna - Model HF6V Asking \$75.00. Call before 4:00 PM at 487-5031. Jim Tye, N8JVX.

WANTED: Reasonably priced Heath HP-23 Power Supply. Contact Mike, K8KVN, 483-7384.

WANTED: I am looking for someone who can help me get a Heathkit HW-101 back on the air. I can be reached at 973-7875 daytime and 485-5378 after 6 pm. Chris Francis, N8PVL.

UHF & MICROWAVE - No Code Tech is interested in UHF and microwave. Suffering from much confusion about equipment and how to get started. Very much interested in building his own gear. Please contact: Kurt H. Miska, N8WGW (office) 313-641-0044; (home) 313-663-1642.

AVAILABLE: I can provide operating/maintenance manuals at a modest price for the following test equipment.

H-P DC VTVM 412A, H-P DC Millivolt-Milliammeter 425A,
H-P Oscillator 200CD, Heath VTVM V7A, Heath RF Signal Generator IG-102,
Ballantine AC VTVM 300D, Tektronix Scope 516,
Triplett 630A VOM, Grid Dip Meter AN/ASM-10

HELP WANTED: On the off chance that anyone out there knows anything about a function generator (Model 250) made by Exact Electronics of Portland, Oregon, I'd like to hear from them. Exact Electronics is no longer in business. Contact Kurt H. Miska, N8WGW 313 663 1642 (H); 313 641 0044 (O). (Don't look for me on the air. I have no radio.)

FOR SALE: Macintosh 512 keyboard. Best offer accepted. Call Chris, KB8JRI at (313) 730-6193.

FOR SALE: Tennelec Scanner, 16 channels, programmable, excellent condition, with manual. Asking \$25.00. Call N8PQJ at 971-6033.

FOR SALE: Monochrome monitor w/ card, \$30. Excellent condition, amber display. CGA card \$5. Contact Jim Reuter, Jr., AA8IJ, 663-7876.

**DON'T FORGET TO
RENEW YOUR
ARROW MEMBERSHIP!**

Saturday: From Field Spring state park, at 5000 feet and 20+ miles south of Clarkston/Lewiston, called on the Clarkston 5.39- machine, but no answers. Tried on the Lewiston 6.82- machine, and raised KB7LFO mobile. Chatted with Joel until he arrived home.

Sunday: From Potholes state park, 25 mi. SSE of Ephrata, raised N7RRE on the Ephrata 5.31- machine. Rusty works for the county and told me a bit about life on the Columbia Plateau. We had a sched for the following evening.

Monday: Got into camp at Loup Loup Pass too late for the sched with N7RRE. Called on the 5.45- Omak machine, about 15 miles east, and raised KI7AS, whose QTH is 46 mi N of Omak. Dominick is 18 yrs old, is Extra Class, his mother just made General, and his father is working on 5 wpm. He had heard N7RRE call me, but Rusty didn't join in. Was invited to the Tourist Office in Oroville, where Dominick works, but we were heading west.

Tuesday: Camped at Rockport state park, in a piece of Old Growth Douglas Fir and Cedar forest - trees five feet or more in diameter! (They said they were not responsible for limbs falling off trees on campers.) Heard the "Packet Voice Net" in progress on the Lyman Hill 5.19- machine. Tried to join in, but I learned that it required a *secret* CTCSS tone to open the repeater. I called "subtone please - N8REG" on the repeater tail, and net control informed "whoever was trying to join in" that he could not divulge the subtone. *Then* someone transmitted just "127.3": I coded that in, and joined the net. They were still very cordial! However they were discussing arrangements for a packet radio net demonstration to be held at a County Fair, and I couldn't contribute to that. [The "Packet Voice Net" sounds like an idea that might be of interest in this area - a chance to talk about packet radio, help newcomers, and make other plans.]

Wednesday: Now visiting in Seattle with my brother. Called on the local 6.96- (!) machine, and WA7EEK answered. I asked about the "closed" (secret CTCSS) machine at Lyman Hill, and Forest said he had a letter to the editor in QST about this (see QST 8/93, p. 91). He makes the point that "closed" (secret PL) repeaters aren't of much use in emergency situations!

Why have I posted this? Because I learned a little bit more about operating on repeaters, and talked to some

interesting and friendly hams, who were willing to chat with a traveler, and I thought that a little something about this might be of interest to new hams just getting into 2 m operating - and I might learn something from any discussion that this engenders.

This is N8REG - November Eight Romeo Echo Golf-listening.

NEW ARROW MEMBERS

The ARROW welcomes the following new members!

John L. Scheiger, N8YAU - Tech Class
Douglas T Cox, N8ZLR, Tech Class
Robert Roberts, N8XRG, General Class
Michelle Kennedy (no call)

We also congratulate Joe Pillera, N8QYO, who has upgraded to Extra Class.

In the June issue, there were a couple of people missing from the Roster that should have been included; Kaz Soong, AA8HZ, and Tom Prosser, KT8K. We apologize for those omissions-- they slipped past the editor, and for some unknown reason they were not on the database report I received from Steve Culp.

Look for a new membership form to be mailed with the next issue of the newsletter!

NEW PRODUCT NEWS

Radio Shack has finally produced a 440 MHz handy-talkie. The new HTX 404 is outwardly similar to the good quality HTX 202 2m FM transceiver. The HTX-404 provides 2.5W output from the included 7.2V Ni-Cd battery pack, and up to 5W from 12V DC. Includes CTCSS encoder and tone squelch, DTMF encoder and nine memories for autopatch, a DTMF encoder for touch-tone paging, high/low power select, 16 frequency memories, and multifunction scanning. Like its 2M sibling, the 404 receives only in-band, 440-450 MHz. The HTX-404 comes with AC charger, and AA alkaline battery pack. The suggested retail price for the HTX-404 is a semi-reasonable \$299.99. If it is built like its 2m version, the 404 should offer excellent receptivity, and suppression of out-of-band interference.

I have seen the HTX-404 at the Radio Shack in Arborland, so I suspect other local stores also have it. Maybe one of you ARROW members can get an opportunity to try out a model! If you are shopping, Radio Shack is also having a sale on the HTX-202. At \$60 off, it is selling for \$200. Now, if they'd only offer a 220 model!

Another new Radio Shack item is the BTX-120, a VHF-FM Business Transceiver with 2 channels in the

business band (151.250 - 156.255 MHz). This 1W transceiver supposedly provides communication over several miles. It is crystal controlled and comes with one crystal; you can add the other later. It includes squelch control, and jacks for speaker/mike. Comes with Ni-Cd battery pack, AC charger, case, belt clip, and detachable antenna, all for only \$150!

PACKET ON A CARD

You can now purchase a complete packet station that fits in a standard PC 8-bit slot. That's right, you won't have TNC cables snaking all over your shack. With the PKT Electronics PC Packet Station, you simply plug in the half-card size pc card into your IBM-PC compatible computer. It contains a BayCom style of TNC, and a Motorola 5 watt VHF transceiver that is crystal-controlled with 2 channels available. You can specify the frequencies of choice when you order. You can easily switch frequencies from the keyboard. To get on the air all you need is a 2m antenna and some coax to the BNC connector at the rear of the card.

What's the advantage? Well, if you want to run a dedicated packet station, it frees up your radio, and you can put a cheapo PC to work in the corner. To find out more about the PKT Electronics PC Packet Station, contact: PKT Electronics, Inc., 2668 Haverstraw Avenue, Dayton, OH 454414. Phone: 513-454-0242.

HAM RADIO BOOKSTORE

Okay, so you have enough radio books and don't have time to read them all. One can never have too many books, and if you are looking for a book on almost any aspect of radio, then the Ham Radio Bookstore ought to have something for you. Their latest catalog is 16 pages, and covers Amateur Radio, Shortwave and Citizen's Band. Code practice tapes, CD-ROM callbooks and license study guides are also included. The catalog might be a good idea for those X-mas hints! Contact the Ham Radio Bookstore at 800-457-7373, or write HR Bookstore, P.O. Box 209. Rindge, NH 03461.

INTERNET HAM RADIO CALLBOOK

If you can access the local Merit numbers (764-4800 for 2400 baud), you can Telnet to a national callbook on the Internet! The National Ham Radio Callsign Callbook lets you search for American hams by callsign, city, last name or zip code. A successful search will give you the ham's name, address, callsign, age, type of license and when they received it. As far as I know this database is about six months behind, so it is kept updated regularly. After you have logged into Merit, you'd type at the Which host? prompt:

Telnet callsign.buffalo.edu 2000

You then type the category you are searching under. If you wanted to search for hams by city you'd type:

city city name

and hit enter. For example:

city Ann Arbor [return]

When you are done, type "quit". You can also search by "call", "name" and "zip".

ARROW Officers

Managing Director	Doug Wilson, KA8IGS	482-7360
Secretary	Bob Weldon, NBWUT	697-0963
Treasurer	Jerry Lossia, NBMON	569-5892
Technical Director	Klaus Wolter, NBNXF	761-3210
Activities Director	Chris Brenner, KB8JRI	930-6193
Public Service Director	Gene Clark, N3AAD	429-2896
Voting Trustee	Bob Banta, K8PBA	878-9484
Newsletter Editor	Mark O'Brien, NBPQJ	971-6033

ARROW Stations

K8PBA, FM Repeater	146.96 MHz
N8BJX, FM Repeater	224.38 MHz
W8PGW, FM Repeater	443.50 MHz
W8PGW-4, Digipeater	223.40 MHz
W8MNT, ATV Video	439.25 MHz
FM Control for ATV repeater	144.34 MHz (S)
ARROW ANSWERING MACHINE	665-6616

Regular Nets

All ARROW repeaters are open access, and may be used for any public service function. Advance notice to a board member would be appreciated for routine public service. Public emergency operations involving the Washtenaw County EOC and/or Red Cross may use the repeater without notice.

ARROW Net - Mondays, 2030 hr on the K8PBA repeater, 146.96 MHz. Check-ins, announcements, bulletins and general information exchange. All radio operators are encouraged to participate.

RACES Net - Mondays, 2000 hr on 146.92 MHz. RACES members only.

ARES Net - Wednesdays, 2015 hr, on the N8DUY repeater, 145.15 MHz, (-). All amateurs welcome for emergency net practice.

Chelsea Net - Mondays, 1900 hr on 146.98 MHz.

Newsletter submissions should be sent to:

Mark O'Brien
2742 Beacon Hill
Ann Arbor, MI 48104-6502

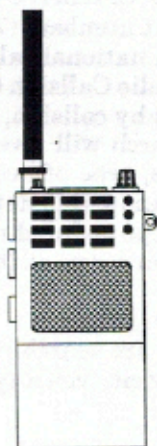
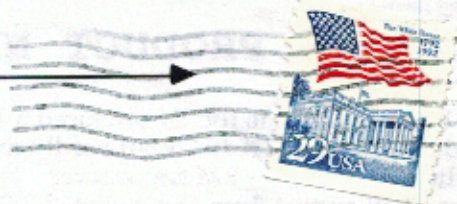
GREX: n8pqj

Internet: userlps5@um.cc.umich.edu

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ARROW News



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