

NARS NEWS

The Northwest Amateur Radio Society

Houston, Texas

September 1994

ARRL Division Director to Visit Sept. 16 by Ken Edinborgh, W5BKK

I attended the Texas State Convention in the early part of this month. I always visit the ARRL Forum if there is one, and this year was a good one. I'm always surprised to see the small turnout at these ARRL meetings. They lobby our cause in the Congress and support many club needs. If our continued existence is endangered, or if our frequencies are attacked, the League fights for us. They are our collective voice.

I particularly enjoyed the talk given in Dallas by Tom Comstock, our Division Director, in which he reviewed recent ARRL and FCC actions. For you new hams, our Division of ARRL is the West Gulf Division, which includes all of Texas and Oklahoma. Tom has agreed to talk to us on September 16th on similar things.

Personally, after a stretch in the Air Force, Tom became a professor in the Engineering Department of Texas A & M at College Station. He recently retired as Professor Emeritus there. For a number of years Tom was Vice Director of the Division, and became Director three years ago. He is a spirited speaker, and I guarantee that you will enjoy this meeting as much as any we have had. Come a little early for some eyeball QSO.

Microwave Anyone? by Charles Lafkoff, WD5GNW

I found several old (1985) cell phone units that were designed to be mounted in the trunk of cars similar to mobile radios. They were manufactured by Novatel Communications, Ltd in Korea with an FCC ID of BFC8J7VTR-2881. They operate on 13.6 V with output of 3 watts. Inside, the antenna feeds an 800 MHz duplexer which is connected to a power amplifier unit and a receiver unit. Both the power amplifier and the receiver units seem to connect to a frequency synthesizer (?) board. The receiver box is diecast aluminum with three separate sections containing a total of five 2369E45 devices. The power amp uses 2 MRF559's as finals with 1 NEC C2559 KA38 and 1 NEC C2850 K3X devices. Underneath all of this is a logic/CPU board containing the ESN PROM, which, I guess, controls the frequencies, etc. The whole thing is built like a tank and all of the RF modules are shielded very well.

I would like, at the very least, to attempt to tune the boards to work at 902-928 MHz FM, and/or, using a transverter unit, drive the amp to 6 watts or so for 902.1 MHz SSB with 144 MHz as an IF (assuming it's linear!).

If anyone in NARS is interested in helping with this type of project or can get me pointed in the right direction on how to start, a source for schematics, manuals, etc, I'd sure like to talk. Give me a call at (713) 288-4547 or try to catch me on the 444.75 Rpt.

NARS Calendar

--- *plan now!*

Sept 16 - NARS Monthly General membership meeting
- Cypress Creek Presbyterian Church, 6000 Spring Cypress Rd. Eyeball QSO @ 7 PM.

Sept 24 - Amateur Radio License Examinations by NARS at the Tomball Community Center, 8:30 AM.

Oct 1 - Sierra Club Spin - Sierra Club Bike ride at the George Ranch & Brazos Bend State Park in Brazos Co. -7 AM to noon. Contact Dick Rousseau (370-5714) to volunteer

Oct 7 - NARS Directors meeting - 7:30 PM

Oct 21 - NARS monthly General Membership meeting
@ Cypress Creek Presbyterian Church - Eyeball QSO's @ 7:00.

Oct 22 - Amateur Radio License Examinations by NARS at the Tomball Community Center, 8:30 AM.

**Breakfast
at Bleachers**
2318 W.FM 1960
Saturdays
8:00 AM

Non-Believers Now Believe de Madison, AB5TV

Ta-Dah! North American QSO Results: NARS CRUSHES THE OPPOSITION! The NARS SSB contest team, operating as KJ5IP, garnered 747 QSOs on 20-21 August at the Dentons' superstation. Bill, WA5DWX and Marian, KB5SGV opened their doors to various and sundry for the occasion, and provided the equipment and electricity necessary to run it. The result was wonderful: 97,416 points generated in 12 hours by young guys, old guys, and some we are not so sure of. The majority of the Qs were made by the Mouseketeers, Jason, KC5HTX, and Steve, KC5AMA, who manned the chairs like a pair of seasoned veterans, though this was their first contest other than their Field Day experience at the Novice Station. Even Jesse, KC5IWP, whose license was just 3 days old, made his first contact ever and added a multiplier. Everyone pitched in and had a great time.

The final results are not yet in from about the country, and the results will not be official for several months. However, based upon preliminary reports from the packet cluster it appears that NARS finished in the TOP TEN NATIONALLY in the multi-operator category.

The significance of all this is that it was a great effort by a bunch of amateur contesters (in the words of DWX: lids, kids and space cadets, working with wire antennas and tube radios), not people who prepare for months in advance and have the latest and greatest equipment and years of experience. Narsinians worked contacts throughout the USA and Canada, and even had one from Africa. We didn't know how to log that one, so we didn't put it down, but we know our signal was 59 in Monrovia, Liberia on 150 watts.

We all had fun, met new friends, ate peanuts, drank soda pop, and learned things which will help us in the advancement of our hobby and that perhaps will assist us in helping others when the need arises. Certainly this was a real team effort, with at least 15 souls cycling through NARS' first Shack of the Month. With our apologies to you, in advance, if we missed putting you on the list or misspelled your name, those who comprised our team (in order by age?): Bill Denton WA5DWX, Ken Harlan KA5AKG, Steve Dotson KC5AMA, Jason Rice KC5HTX, Bill Stientenroth K5ZTY, Marian Denton KB5SGV, Van Van Devender AB5KK, Mike Hance KB5YVT, Bill Hermann KB5USW, Maurice Surface KC5FZX, Madison Jones AB5TV, Jesse Stay KC5IWP, Charles Singleton KC5HZP, Rudy Novotny KB5ZXO, and the control operator, whose call we used, Jim Kirk KJ5IP. We even had some non-ham visitors enjoying the activity.

From the President by Mike Lavender, KB5WQJ

NARS folks have had a busy and productive year so far. Coming up on October 1, we have the Sierra Spin with the Special Event Station. This event is a welcome change from being inside at work all day . . . so if you want a fulfilling day of fun-in-the sun, come join us.

The other thing that is approaching us as a club, is electing a new slate of officers for 1995. This is your club and your participation is needed to recommend folks and support them in their tour.

Dick Rousseau will chair the nominating committee so if you know of a spot you would like to serve or have someone to suggest, let Dick know. Get involved and join-in! There are plenty of new ideas to be investigated...See you at the meeting.

From the Board by Alan Majeski, WA5REJ

SEPTEMBER BOARD MEETING

PRESENT: Mike Lavender KB5WQJ President, Jim Kirk KJ5IP Vice- President, Allen Majeski WA5REJ Secretary, Desi Livingston KB5YGG Treasurer, Bill Denton WA5DWX Past President, Dick Rousseau N5JZY Past President, Jay Rubens KI5MD Member-at-Large, Madison Jones AB5TV Member-at Large, and Ken Harlan KA5AKG.

More assistance at VE sessions was discussed. The Board agreed that club owned equipment should be loaned to members on 30 day renewable basis. Regular meetings will primarily be program related with minimal business content. Ideas for programs and speakers is solicited from all members. An updated club roster will be available soon. Notify Jay Rubens of any needed corrections to roster. We will look into portable reusable club signs for club activities (bike rides etc.). NARS will furnish communications for Sierra Club "Sierra Spin" bike ride Oct. 1. Our treasury now stands at \$3784.97 including \$698 designated to the Node project. Membership at the end of August stands at 162. A packet workshop is being looked into for sometime later this year with the location to be announced when scheduled. Next meeting to be October 7th.

Think about being part of the fun next time. There is always another contest just around the corner, so talk it up at the next NARS club meeting. Your talents are vital to presentation of our team's efforts. It's a great way to spend your time, and keeps you out of the pool halls. See you at the set!

What is the NARS Node? by Ken Edinborgh, W5BKK

Vhf and uhf communication is limited by "line of sight" propagation. We know that voice communication at these frequencies is aided by the use of repeaters which extend the range in proportion to the height of the repeater antenna. All packet terminal node controllers (TNC's) can act as "digipeaters", which also extend the range of propagation for packet communication. But, to be an effective digipeater, a packet station must have an antenna which is much higher than that of the average user. Several years ago NARS worked with the Northwest Medical Center in an effort to establish an emergency communication system. We installed a digipeater at the hospital, mounting our antenna on their mast at about one hundred feet. The digi operated on 145.07 Mhz, a frequency selected at the time for emergency use only.

At that time there were "nodes" on other frequencies, principally 145.01 and 145.09. A node is distinguished from a digipeater in that a digipeater can only be used as a relay for connecting to another station, but a node can actually be connected to by the user.

After connecting to a node the user can then connect to another user or another node, in effect using the node as digipeater. A node, however, also contains a bulletin board, from which one can gather information, either originating with the node's users or with a user of another node. The nodes were designated IAH, HOU, and other familiar designations that we currently copy on the packet frequencies. Using IAH as an example, information was exchanged with other nodes such as LAG in Lagrange. The difficulty with this system was that information was exchanged between nodes on the same frequency as that occupied by the users. The situation soon degraded to the point where most of the time was taken in the exchange of information between nodes, leaving little time for the users to access it.

To alleviate the problem, the system was upgraded to include a "backbone". In this system, users occupy a frequency on either the 2-meter or the 70-cm band at a 1200 baud rate, while the exchange between nodes is conducted at a 19,200 baud rate over the backbone on a different frequency in the 70-cm band. The backbone has cleared much of the congestion. But back to the installation at the hospital: As time went on, other services began to occupy 145.07 Mhz, and its use as an emergency frequency went by the way. Users themselves became digipeaters, and the NARS digi was not particularly useful anymore. The digi also recently developed a bug and had to be repaired. In addition, the 9913 cable was found to be wet inside and needed replacing. Since the digi was not used much anymore, a decision had to be made to either abandon it or to improve it for

Amateur License Exam Results by Mark Tyler, K5GQ

Saturday, August 27th, nineteen applicants were examined on thirty-five elements at the NARS-sponsored FCC license examination session in Tomball. 80% passed the written elements and 70% passed morse code.

Technician licenses were earned by Robert Argo, Coleen Bush, Michael Chan, Kenneth Cunningham, George Ford, William Herman, Mike Jone, and Chris Marvel. Tech Plus licenses were earned by Michael Fellyn, KC5HEI, Robert Hollingsworth, KC5IWQ, and Neil Smith. Jason Rice, KC5HTX, and Daniel Williams, KA5SRU, earned General licenses. Element 1C was passed by Bill Denton, WA5DWX; 1A by Jesse Stay, KC5IWP. 2 by Scott Reid, and 1B & 3B by Tom Stamps, N5MFK. What a great group of accomplishments, we congratulate all.

The VE team was made up of Jay Rubens, KI5MD, Bob Judd, WN5G, and W. W. VanDevender, AB5KK with Walter Holmes, WD5GAZ, and David Cain, KA5UHS assisting. Thanks to all the VEs who volunteer their valuable time and skills each month. If you would like to be an examiner or assist in this advancement of amateur radio, please Call Mark Tyler at 587-0256.

The license examinations are given on the fourth Saturday of each month beginning at 8:30 AM at the Tomball Community Center. The next one will be September 24th.

operation as a full node. In discussion with TCAPS, we decided on the latter, which could be done at an estimated cost of \$2000. A total of \$998, including cash and equipment has been donated to date. Packet users may have noticed recently that IAH is somewhat disabled because the 70 cm user frequency is no longer workable, forcing all users to operate at 2-meters. Another node would be very useful in alleviating congestion such as we have at this time. Even when IAH is in full operation, an additional node should greatly speed up the overall system.

Nodes are generally known by their "aliases". IAH and HOU are the aliases of those respective nodes. The NARS node would have an alias of "NARS", providing good club publicity. It will be of primary benefit to NARS, but of general benefit to the Houston packet community and emergency operations. We solicit your contribution now to this worthwhile project. Please send donations marked NARS NODE to Ken Edinborough, W5BKK, 6115 Glenhill Dr. Spring, TX 77389 and lets get this on the air.

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the American Radio Relay League.
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NARS MEETS the third Friday of each
month at the Spring Cypress
Presbyterian Church, 6000 Spring
Cypress Rd. (1.7 mile east of
Stubner-Airline on Spring Cypress Rd.)
Meeting time: 7:30 P.M. Eyeball QSO's :
about 7:00 P.M.

NARS BREAKFAST every Saturday 8 AM
at Bleacher Grill, located at 2318 W
FM1960. (@ Kuykendahl) , Informal
ragchew.

NARS

KEN HARLAN, KA5AKG
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NARS BOARD OF DIRECTORS

PRESIDENT & BOARD CHAIRMAN
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Jay Rubens, KI5MD 893-3023
Bill Denton, WA5DWX 469-8331
Dick Rousseau, N5JZY 370-5714

NARS BOARD MEETS the first Friday of
each month at 7:30 P.M. at a location to be
announced. All members are invited to
attend.

FOR NARS INFORMATION CALL
KEN EDINBORGH, W5BKK 376-7660

NARS NETS

NARS RAGCHEW - MONDAY 8:00 P.M.
28.444 MHz (BT, N5QVS)

NARS CW PRACTICE FOLLOWS
RAGCHEW NET - 28.185 MHz (AB5KK)

NARS INFO - WEDNESDAY 8:00 P.M.
146.06 / .66 MHz (Ken, KA5AKG)

EMERGENCY NETS

NORTHWEST HARRIS COUNTY ARES
WEDNESDAY 8:30 P.M.
146.06 / .66 MHz (Scott, N5KEU)

CITY OF HOUSTON -
EMERGENCY MANAGEMENT NET
SATURDAY 9:00 AM 146.84(-) MHz
SATURDAY 9:30 AM 3.905 MHz

NARS REPEATERS

2 M - 146.060 / 146.660 MHz
70 cm - 449.375 / 444.375 MHz
Digipeter - 145.03 MHz
Call (W5BKK) Alias (NARS)