

February 1995 Volume 4 Number 2

From The President's Desk

Well, things have been hectic here. I operated in the 95 Novice Roundup. I sometimes participate in contests when it seems I can get some contacts that I might not ordinarily find. But this was different. First Bruce threw down the gauntlet of challenge to the club. Secondly, I had never operated in the NR and this was probably the last one ever. Those two things combined seemed to make it an event not to pass up. I submitted my score to the ARRL the Monday after it was over. Now I just have to wait for the listings in a few months. You haven't won yet Bruce!!



I still haven't found any parties interested in taking a turn as one of the club officers. We need four to six volunteers to take the formal positions. Due to the changes where I work I have recently changed It will take jobs. some time to adjust to the new position, so I won't be able to do all the

things I'm doing now. So...in order to make a smooth transition and continue to build on our successes we need to make these club officer changes on schedule. Many of the past officers have moved on to other challenges like running classes, finding speakers, or organizing other club activities. So they have helped to broaden the club. In order to keep those activities active we need new faces in the officer ranks. Think about it.

Stan KD1LE

At The Last Meeting

Kevin Keller WB9MUP talked about FOX hunting. Kevin brought many different type of Fox hunting equipment. He explained the simple methods and equipment on up to the Doppler types. Most of the equipment he brought he had built himself. He also had stories to tell about Fox hunting. He talked about the methods and results of hunting for fun, and for those times when it was not for fun.

Stan

This Months Speaker & Beyond



This month Deke Lightfoot AA6DF will speak on H.F. digital modes. Most of

us are familiar with VHF/UHF packet. But there are a number of digital modes on the H.F. bands. Sounds like a great topic...see you there.



VHF/UHF Mentors Wanted

Do you work SSB, CW, Packet, ATV or Satellites on VHF/UHF/EHF? If so, have you ever considered sharing your enthusiasm with other hams? Amateur radio is experiencing a healthy growth in numbers with most of the new activity focused on the Technician Class license. Most of these new Technicians have not been directly exposed to modes other than narrow band FM. A few have been introduced to packet. We need to help those with VHF and up privileges explore all that their license has to offer.

We have done, and continue to do, a good job with licensing classes. I am proposing that clubs and individuals develop Continuing Education classes, seminars and hands-on demos covering the various modes. A lengthy commitment is not necessary. Many opportunities exist for short term and/or one time demonstrations.

Please consider this and share ideas with your friends and clubs. I would like to hear from interested parties and help in any way I can.

Larry Ober KC1VS ASM EMA Education & VE Lawrence Ober - leo@banzai.ultranet.com - Voice: 508-263-2498 P.O. Box 2133, Acton, MA 01720

SAREX

January 22, 1995 FROM: Phil Temples, K9HI (800) 310-ARRL Section Manager, packet: k9hi@wa1phy Eastern Massachusetts email: k9hi@netcom.com

EMA CLASSROOM TO SCHEDULE SAREX QSO



Davis. K1JRA, a high school teacher, is trying to arrange for a scheduled contact with the upcoming STS-71 mission. According to Davis, all of the slots allotted for scheduled contacts have been filled for the June mission. However, this STS mission affords some extra opportunities: when the shuttle docks with the Russian MIR space station, astronaut Charles Precourt. KB5YSQ, will be able to make QSOs using the antennas aboard MIR!

Davis is in

the process of applying for a SAREX School Application. He is looking for a nearby club or ham expertise to assist with this project. If you can help, please contact Bob Davis, K1JRA, at (508) 365-3078. SB SPACE ARL ARLS003 2 more "astro-hams"

Two more US astronauts have joined the ranks of Amateur Radio licensees and both will fly aboard the Space Shuttle Endeavour during mission STS-67 in March.

Pilot William G. Gregory is KC5MGA and Payload Commander Tamara E. Jernigan is KC5MGF. Both took examinations with ARRL volunteer examiners on January 19 and were issued call signs on January 25, thanks to electronic filing with the FCC that has begun recently.

The 16-day STS-67 mission is scheduled for launch on March 2. Six of Endeavour's seven crew members now have Amateur Radio licenses.

School groups in 26 places around the world are scheduled to make voice contacts with the STS-67 crew as part of the Shuttle Amateur Radio Experiment (SAREX) component of this mission.

\$The Treasurer's Report\$

Income for January was \$215.50, primarily from the



town of Pepperell for the books used in the class. Expenses were \$143.82. We spent \$20.00 from the education fund to buy additional instructor's guides for the classes.

The current fund balances are: General fund \$469.12 Education fund \$220.00

The current full membership tally is 55. **Kenwood Rebate Offer**: Kenwood has sent us information on a rebate program they are running from January 12 to March 20. If any club member purchases a new radio that's on the list they are eligible for a cash rebate *and* the club gets credits which may be accumulated toward the purchase of a used radio. If you have bought a radio since January 12 or plan to do so, see me at the February meeting for the rebate form. **QRZ! CD-ROMs**: Those of you who ordered the QRZ! CD-ROM should come to the February meeting with \$11.00 in hand to pick up your disc.

73 de Ralph KD1SM

GROTON ROAD RACE

The race is coming up quickly now. It will be April 30. Erik KA1RV is looking to sign up volunteers in advance. Call him at 448-5536

NOMINATING COMMITTEE

We have an election nominating committee composed of Ralph KD1SM, Bruce K1BG, and Bob W1XP. A few volunteers would sure make their job a lot easier.

TIP OF THE HAT

January 22, 1995

FROM: Phil Temples, K9HI (800) 310-ARRL I wanted to take this opportunity to publicly thank two EMA Amateurs for their recent contributions to the ARRL.

Raymond Bintliff, K1YDG, of Acton, MA wrote a recent article which was chosen to be included in the 1995 "ARRL Handbook for Radio Amateurs." And David Fox, WA1QGC, of Dighton MA, recently contributed funds towards reprint costs of the Archie ham radio comic. If you know of other individuals who have given something back to the League please let your Section Manager know!

NVARC Classes

The classes are going along nicely at both Groton and Pepperell. At the Pepperell class we picked up three new students. They are two students and a teacher from the North Middlesex High School (NMRHS may be looking for help to set up a station soon). We could still use help with instructors and helpers at the classes. We generally cover three modules in the Now Your Talking Curiculum per week. Even if you only want to teach one module it would give one of us a rest. Sometimes there is a lot of logistics for a module, antennas, etc. It can be a lot of work when one person has to prepare for all of it. Stan

EMA CLASSES

A listing of entry level and upgrade licensing courses. Maintained by KC1VS Initial List 1-22-95 (with corrections)

Use Class Contact As Listed (best resource) or E-mail Maintainer

Туре	Start Date	Sponsor	Location	Contact	Lenght/day	
Т	1-9-95	Boston ARC	Boston	Ed Hennessy	9 Wks Mon	617-391-8257
NT	1-10-95	Nashoba Valley ARC	Pepperell	Stan Pozerski	12 Wks Tue	508-433-5090
T(u)	1-10-95	Nashoba Valley ARC	Groton	Stan Pozersk	8 Wks Tue	508-433-5090
TG(u)	In session	Framingham ARA	Framinghm	Ed W1NXC	Sat	508-881-2301
NT	1-20-95	Norwood ARC	Westwood	Ed Lajoy	8 Wks Fri	617-762-7142
NT	1-28-95	Wellesley ARS	Wellesley	Jerry Driscoll	8 Wks Sat	617-444-2686
?	?	Mayflower ARC	Plymouth	Bob Allan		508-747-6022
NT	2-11-95	Genesis ARS	Plymouth	Dick Eaton	8 Wks Sat	508-224-8513
A(u)	3-04-95	Arline Berry N1OMA	Medfield	Arline Berry 1	Day Review Sat	508-359-6656

N=Novice T=Technician G=General A=Advanced (u)=Upgrade Class

Please submit additions and corrections to Larry Ober KC1VS E-mail: leo@banzai.ultranet.com Packet (e-mail gateway): kc1vs@wa1phy, Voice:508-263-2498, P.O. Box 2133, Acton, MA 01720

To all:

I am putting this list in the newsletter so everyone will have the information. As you can see we are well represented in class offerings in Eastern Massachusetts. One problem with this stuff is the people who don't need it have the info and the people who need it have no way to get it. We publish lists of exams and classes on our packet BBS's and our news letters. But many people looking for classes are not hams and therefore cannot get this information. It's up to us to pass it along. If you hear of someone looking for Ham info and you don't know the answer, give them a club brochure, it has the numbers of a few people that may be able to help. If that's not sufficient there's the ARRL phone number 1-800-32-NEWHAM.

Stan KD1LE

CEMARC

I attended the January meeting of CEMARC in Waltham on the 21st. Phil Temple K9HI and most of his staff (listed in last months newsletter) attended. Much of the meeting was devoted to introducing the appointees and a short sketch of what they plan to do. Phil has many more appointees than the Section Managers before. His approach is to push the work down rather than try to do it all himself. In addition to the special positons he has filled, he has an Assistant Section Manager to back him up. He is also going to appoint an ASM for the north shore and one for the south shore.

There was a discussion of rules changes for the Mass QSO Party. The Framingham Club is running it again this year. Last year they took it at the last minute when the original plan fell through. They decided early to take it for another year so it could be properly planned. They have proposed some rules changes to promote participation. We will be getting the final rules soon. They would like to see increased participation and will come to clubs to speak if we desire. There will be categories for individuals, clubs, and teams. An option for clubs without stations is to participate in "field day" mode.

Some new lists will be coming out like the KY1N VE Exam list to help people find things. There will be a "classes" list run by Larry Ober KC1VS educational activities ASM) for those seeking license classes. There will be a Public Service list run by Ralph KD1SM and Stan KD1LE that will list opportunities to participate in events that need operators to provide communications. Also Mike N1IST is running a list server on Internet which services about 15 existing lists with information from various sources. I will make copies of this for the meeting.

Ed Hennessey N1PBA, the Public Information Coordinator is arranging a workshop for PIO's. The person who has offered to teach it performed in that function for the Red Cross and another national organization.

Dave Potter, the OOC, has asked Phil to find a replacement. Phil said he has a volunteer but wants others who might be interested to contact him. Dave will stay on until a new appointment is mede.

Stan

SPECIAL OLYMPICS

Special Bulletin 7 ARLX007

From ARRL Headquarters Newington CT January 27, 1995 To all radio amateurs

Amateur Radio will play an important role in the 1995 Special Olympics World Games this summer and amateurs around the world are asked to help. The World Games, to be held June 28 to July 9 in New Haven, Connecticut, are expected to draw more than 10,000 athletes and their delegations from 140 countries, in addition to 45,000 volunteers, and perhaps hundreds of thousands of spectators and many celebrities.

Brian Battles, WS1O, Amateur Radio Liaison for the event, said "This is likely to be one of the largest public service communication support opportunities most US amateurs will ever see."

Battles said amateurs will help by operating a special-event station, W1SO (for Special Olympics), originating free radiogram greeting traffic on behalf of Special Athletes and spectators, and in other areas as needed.

All amateurs in Connecticut and nearby are invited to assist, and hams outside Connecticut are asked to be prepared to relay and deliver National Traffic System radiograms, and to make contacts with W1SO.

For more information, send mail to Brian Battles, in care of ARRL HQ, via packet to WS10W1EDH.CT.USA.NOAM, or via e-mail to bbattlesarrl.org.

OTHER CLUB NEWS

Subject: VE EXAMS ON NORTH SHORE BEGIN JAN 28

The North Shore Repeater Association will be holding monthly ham radio VE exams beginning on Saturday, January 28, at the First Church of Christ in Lynn Congregational. The Church has offered us a nice large room on the lower level for the main test area and a smaller carpeted "quiet room" for administering code tests. The Church is located at 678 Lynnfield Street (Route 129) in Lynn, just outside the Goodwins Circle rotary...a short hop from Route 128 and Route 1. Doors will open at 1:00pm with no tests beginning later than 3:00pm. All classes of amateur radio written and code tests will be administered. These will be ARRL VEC sessions and the standard fee of \$5.90 applies for all tests, except for Novice written and CW which are free of charge.

Thanks go out to those that made this possible: The new NSRA VE Committee, chaired by Herb Ryan W1KVQ; Ron Prendergast N1PQE - for connecting us up with the fine folks at the First Church; and the First Church of Christ in Lynn Congregational for the great test site.

These sessions will continue monthly on the fourth Saturday of every month. Please contact Herb Ryan W1KVQ at 508-468-2780 to pre-register for an exam. WALK-INS ARE WELCOME Ken Smith

Board Meeting Notes

At the February meeting we organized the committee to nominate candidates for the April election. We also discussed the need to start collecting volunteers for the Groton Road Race, which is the end of April. The current status of the two classes was reported on.

Stan KD1LE

WORKED ALL STATES...

WAS Here I Come...Worked All States that is. Well, it finally happened. I was in the right place at the right time. Last night I was hunting around on 30 meters and there he was, Sam Kumukahi KH6AFS...I logged Hawaii! That was my 50th state for the "Worked All States" award. I only have it on mixed bands, but they are all CW contacts. So I will be anxiously awaiting the arrival of that QSL card. This may be enough justification to go down to Newington and visit the League. They can check my cards while I'm there doing the tour.



I was reflecting a bit on the 30 meter band and was (no pun intended) thinking that I have spent quite a bit of time on it. It didn't dawn on me at first, that one reason is that it is only used for the digital modes. Another nice thing is that it is limited to 200 watts. That means everyone is fairly equal, antenna's excepted. There are no broadcast stations, no kilowatt sideband stations, and no contests to contend with (no contests are run on the WARC bands). It's a good place to get away from it all. It is also good for significant distances. I've worked much of Europe and the Pacific (i.e. Japan) on it. Older rigs often are not capable of operating there, so it's something to be aware of when shopping for used equipment.

Well, that's my accomplishment (and DX comments) for January. Now I can take it easy till February. Let's hear from you. What have you done for us this month? Stan

ARRL NOTES

ARRL Bulletin 8 ARLB008 From ARRL Headquarters Newington CT January 26, 1995

The ARRL Board of Directors met in San Antonio, Texas, January 20 and 21, 1995. Here are the highlights.

The Board adopted a Strategic Long Range Plan that has been in preparation since May 1994, and instructed President George Wilson, W4OYI, to begin implementation. President Wilson appointed three new committees to coordinate the most critical aspects of plan implementation.



A package of legislative goals was adopted, including positions on special call sign and licensing fees, spectrum allocations, liability protection for volunteers, RF susceptibility of consumer equipment, better rules enforcement, and commercial competition for spectrum.

A fund raising effort in support of the AMSAT Phase 3D satellite project was approved, including a 150,000 dollar matching fund

program.

An operational plan and budget for 1995 and 1996 was approved. ARRL dues were raised by one dollar per year effective April 1, 1995.

Repeater coordinators will be invited to an open meeting to discuss ways of strengthening FCC support of local and regional coordinators, and related issues.

A draft petition for greater flexibility in spread spectrum operation was revised to limit such operation to bands above 420 MHz, and the General Counsel was instructed to file the petition with FCC.

The ARRL will file comments supporting participation by radio amateurs in state and local emergency communications operating plans under the new Emergency Alerting System that will replace the Emergency Broadcast System.

The final report of the Ad Hoc 219 MHz Committee was adopted, in preparation for an expected announcement of an amateur allocation in this band.

The Hiram Percy Maxim Birthday Celebration that was so popular in September 1994 was made an annual event.

Directors Harrison, Kanode, Mendelsohn, and Quiat were elected to one year terms on the ARRL Executive Committee.

Helen Grauer, N0BCI, and Directors Metzger and Butler were elected to three year terms as Directors of the ARRL Foundation. Studies were ordered of ways to oppose restrictive covenants that limit amateur operation, and to increase FCC enforcement of its amateur rules.

The complete minutes of the meeting will appear in March QST.

KOBE, JAPAN

SB QST ARL ARLB006 ARLB006 Hams aid Japan relief

More than 200 amateurs are providing communication in the Kobe, Japan area following an earthquake on January 16 that killed more than 5000 people and left tens of thousands homeless.

Amateur Radio is being used to connect relief centers and to exchange information on road conditions and traffic; the health, welfare, and whereabouts of residents; and the availability of water and food, according to the Japan Amateur Radio League.

The JARL and the Japan Amateur Radio Equipment Industry Association (JAIA) are conducting the effort, at the request of the Ministry of Posts and Telecommunications. 200 hand-held transceivers for 430 and 1260 MHz, as well as three repeater stations, were supplied by JAIA member companies for the operation. Each portable station has been assigned a special call sign -- 8J3AAA, 8J3AAB and so on.

JA3YRL in Kobe serves as communication coordinator, while JA3RL, at the JARL's Osaka office, monitors the activity. 400 of the 600 relief centers (with a total of 240,000 evacuees) are not being served by this communication system, and the JARL is considering equipping at least half of them with amateur stations.

MORSE CHAMP SK

Special Bulletin 11 ARLX011 From ARRL Headquarters Newington CT February 2, 1995 To all radio amateurs

Harry A. Turner, W9YZE, died December 21, 1994, in Alton, Illinois. He was 88 years old.

While in the service in 1942, OM Turner was clocked at 35 wpm using a hand telegraph key, said William J. Garrett, KB8NTE, of the Morse Telegraph Club, a record still standing and recorded in the current Guinness Book of Records.

According to a 73 Magazine article in 1976, Turner in 1964 applied to the Signal Corps for certification of his code speed record, which had been witnessed by General Ben Lear, and got it. Turner said he handled code under "business" conditions and learned to concentrate accordingly. Among Turner's survivors are his wife, Edith.

RUSSIAN RARES (RACES)

FROM: NT2X JAN 25, 1995

AMATEUR RADIO & WAR IN CHECHNYA

Tonight I had a long conversation with Andy, RW3AH, in Moscow, who is heading the Russian Amateur Radio Emergency Service (RARES). He told me of the efforts by his organization, together with the Russian Red Cross, to provide assistance to the refugees from the Republic of Chechnya, which is engulfed by war. Andy told me that the capital city of Grozny had been reduced to rubble, due to constant bombardments (we saw it on TV here). No one at this point knows the casualties count among the civilian population, but it must be staggering. Official refugee count exceeds 300,000. RARES had been overwhelmed with Health & Welfare traffic into the refugee camps - they are mostly located in UA6W and UA6J, oblasts adjacent to Chechnya (UA6P). Over 3500 messages were received so far, from relatives in Russia, seeking their friends and next of kin. Andy told me that their group is working in close cooperation with about 20 Russian Red Cross employees, who are trying to locate displaced families, using mostly telephones (!). Paper files are used to track people - computers are nowhere to be found. RARES runs a net on 14.275 (if I got the freq correct) at 07:00 GMT, with over 50 stations from all over the region participating. They also have a R3ARES/U6P operating in the area (but not in Grozny). A group of operators and Red Cross staffers will be going to the area shortly to establish a base station for AMTOR/PACTOR communications with Moscow and 1-2 mobile stations. Earlier in the war, there were several local stations active - RA6PU/RZ6PZZ. RA6PBA - in the emergency net, but now they are off the air and no one knows what happened to the operators. No Chechen stations can be heard, but there are several active from the UA6J and UA6Wregions with H&W traffic. I'd like to emphasize that all the above activity pertains only to civilian population and has nothing to do with the Russian military.

From another source, located in the Southern Russia, I've learned that there are active Chechen stations on 80 meters, but they don't use their callsigns and attempt to disrupt military communications on that band. Russian military may be found around 3670 on USB (+- QRM). Some US sources indicated that local amateurs had been involved in tracking Russian army movements in the early part of the war.

VANITY CALL SIGNS

The FCC has announced its intention to implement a vanity call sign program, and also to resume the issuance of club and military recreation station licenses. In a January 24 news release, the Commission released a general outline of the new program.

Amateurs will be eligible to apply for a call sign of their choice in four "gates." The first group eligible to apply will be previous holders of a call sign or the close relative of a previous holder of an amateur call sign who is deceased. The second group will be Amateur Extra Class licensees, then Advanced, then all others. The FCC will announce the opening of each "gate" by public notice.

The FCC said that the first gate will open as soon as a new application form, FCC Form 610-V, is available and the Commission's licensing facility is prepared to begin processing the applications -- no sooner than April, according to FCC staff. Applications for club station licenses will be accepted as soon as the FCC's Report and Order on this matter is released. Club station call signs will be issued systematically, unless under the fourth "gate" the trustee of an existing club station applies for the call sign of a deceased member as a vanity call sign for the club.

The fee for the use of vanity call signs will be 7 dollar(s) per year, or 70 for dollar(s) a ten-year license term, according to Wireless Telecommunication Bureau staff. However, on January 12, 1995, in a notice of proposed rule making, the FCC proposed a fee of 3 dollar(s) per year, for fiscal year 1995 (which began October 1, 1994).

Amateurs will be able to list up to 25 call sign choices, from any call area, FCC staff said. It is expected that it will be several weeks before the new form 610-V is approved.

More information was in July 1994 QST, page 84; June QST, page 81; and February QST, page 84. (PR Docket 93-305).

SHUTTLE CONTACTS

QST de W1AW

Space Bulletin 004 ARLS004

From ARRL Headquarters Newington, CT January 27, 1995

To all radio amateurs

Hams may soon get some unexpected opportunities to make QSOs with space shuttle mission STS-63 orbiting astronauts. Mission Specialist Mike Foale, KB5UAC, recently decided he wants to make random QSOs after the shuttle rendezvous with MIR on Day Five, around February 7. Crewmates Vladimir Titov, U1MIR, and Janice Voss, KC5BTK, may also find time to operate. This is an informal mission for SAREX, with no scheduled school QSOs, and all QSOs will be done during crew leisure time. Frequencies will be the standard SAREX frequencies. Standby for more details and information on keplerian elements.

INTERNATIONAL HOST EXCHANGE

FROM: Phil Temples, K9HI Section Manager,,Eastern Massachusetts

Many of you may be unaware of a unique program that the League has in place. The International Travel Host Exchange listing is distributed to foreign hams who plan to visit the United States. The listing gives names, addresses, and other information about hams and their families who are willing to meet, and optionally, accommodate visitors.

In scanning the latest list, I am shocked to see only three entries for all of Eastern Massachusetts! I can speak from first-hand experience--this is a TREMENDOUS opportunity to interact with visitors and see what it's like to be a ham radio "ambassador."

Just two weeks ago, I met Juan, CX6BAU and his wife Ines, CX9BAG. Even though we are not fluent in Spanish, Barb and I were able to arrange for another couple who *are* fluent to join us for a very entertaining social evening. And another local amateur, Myrton, N1GKE, also played a "coambassador" by providing Juan and Ines with a ride up to Ham Radio Outlet.

If you've ever thought it would be interesting to meet real people face-to-face from other parts of the world, I strongly encourage you to get signed up for the League's International Travel Host Exchange list. Drop me a note, or contact Nao Akiyama, NX1L, ARRL International Programs at (203) 666-1541 or email to: nakiyama@arrl.org.

Let's put Eastern Massachusetts on the international "map"!

COLLEGE SCHOLARSHIPS

Special Bulletin 8 ARLX008

From ARRL Headquarters Newington CT January 30, 1995

APPLY FOR SCHOLARSHIPS

The Foundation for Amateur Radio will administer 56 scholarships for the 1995-96 academic year, to assist licensed amateurs who are students. The awards, from 500 to 2000 dollars, are available to full-time college students, including those who have been accepted for 1995.

FAR, composed of more than 75 Washington, DC, area amateur radio clubs, fully funds five scholarships with the income from grants and its annual hamfest in Gaithersburg, Maryland. The remaining 51 scholarships are administered by the foundation without cost to the various donors.

For more information or application forms, contact FAR scholarships, 6903 Rhode Island Ave., College Park, MD 20740, before April 30.

NVARC QSL BUREAU

The "bureau" will be shipping out cards right after the next meeting. Bring in any cards you want to go to the "out going bureau" along with your ARRL QST label.

10 Ghz Record Claimed

QST de W1AW Special Bulletin 9 ARLX009 From ARRL Headquarters Newington CT January 30, 1995

10-GHZ RECORD CORRECTION

A recent bulletin reported that Roger Bowman, VK5NY, and Walter Howse, VK6KZ, have claimed a new world distance record on the amateur 10-GHZ band. The two worked over a 1911kilometer path, on December 30, 1994.

The previous world record of 1660 km was set on July 8, 1983, by I0SNY/EA9 and I0YLI/1E9.

The 10-GHZ record of 1018 km cited earlier was the North American record, set by WA6CGR and XE2/N6XQ, in August 1993.

From the Video Library

The Video Library now has seven titles available to loan.

- The Last Voice From Kuwait
- The all China DF Competition
- Your League at Work
- Signal to Noise Story
- Gonzaga Prep HS Radio Club Satellite Communications
- The New World of Amateur Radio

You can get them anytime you can catch me at home, and I will bring the available tapes to each meeting. Stan

Resource List

Construction Earl Russell	448-5822
DX Bruce Blain	772-4138
NTS, MARS Stan Pozerski	433-5090
RACES Ben Akins	433-9227
TCP/IP Ralph Swick	582-7351



PEPMBX

(145.09 MHz)

Packet address: