



# SIGNAL



March 1998 Volume 7 Number 3

## Sharing This Great Hobby With Others

It was 7:30 in the morning of Feb 25<sup>th</sup>, and Bob K1QT, and I, Herm KE1EC, were waiting apprehensively in Erik Jarvi's 5<sup>th</sup> grade science classroom at the Varnum Brook Middle School. We were waiting for his students to arrive, for what they had titled "Ham-Day." Bob had volunteered our services to give the students a brief overview of what ham radio is all about.

We had come over to the school the previous day, which incidentally, was one of those days when the weather was miserable, cold rain, sleet, you name it, and hoisted an 80 meter off-center fed dipole antenna from a tree to the roof of the school. We ran the feed line in through a second floor window. Boy did we luck out. The feed point lined up with the window just right. Well at 8 o'clock, the bell rang, and 25 or so young people came running into the room, all excited about "Ham-Day ". We thought to ourselves, maybe what they were excited about was the cancellation of math studies for that day.

Mr. Jarvi introduced Bob & me, and we were off. Bob gave a description of the history of ham radio and a broad overview of what the hobby is all about. I had the opportunity to explain what UTC is and how it is used.

Then came the fun stuff. Radio!!

Bob sent out a few CQ's before a contact was made. From then on it was all fun, cornering operators in Greece, Canada, and many domestic stations into talking to the youngsters. Enthusiasm was super and we all had a great time. The kids loved an Italian ham that did just that; ham'd it up all but singing (no music allowed on the bands) Arrivederci Roma to the group. They thought that was cool. Another QSO was with an 81 year old retired speech teacher. He very much enjoyed talking with the students and asking them what they would like to be when they grew up. The class had a good time constructing their names in code. Bob and I think that a couple of code practice oscillators for use in the classroom might plant some seeds.

We left them with two copies of "Now You're Talking" for the school library, donated by NVARC. We told Mr. Jarvi that we are available for any classroom teaching or after school Ham Radio related get togethers.

Before leaving we also passed out the NVARC information fliers and stressed that NVARC will help anyone interested in becoming a Ham. This also includes Mr. Jarvi.

Wouldn't it be great if he became licensed and perhaps started a club station at the school?

All in all the day turned out to be totally enjoyable for all, even the little guy who asked the inevitable question---What does HAM stand for?!!!

Bob and I strongly recommend expanding this type of demo to other middle schools in the future. We hope to have more to report in the future.  
KE1EC & K1QT

*Editors Note: I hope everyone noted the use of best amateur practice in putting up the antenna in the worst possible weather.*

## This Month's Meeting

For March Don KA1T will be here for a QSL card sort. Don was the ARRL New England Vice Director until recently. If you have any League type questions he may be able to answer them also.

For anyone who has never done a card sort, its a lot of fun. This is the first step for cards coming into the US. They are sorted in each call area (we are the 1 area) to the first letter of the suffix. That's the part we will be doing. Then the cards move on to people who are responsible for delivering the cards for all the Hams whose call sign suffix starts with a particular letter. Don will be bringing cases of cards for us to work on.

If you have a shoe box or some other convenient container that would facilitate sorting cards from A-Z bring it along.

## Last Month's Meeting

Last month we had a presentation on Digital Signal Processing with hands on using six different models of audio DSP's. We had units from the Radio Shack, W9GR, MFJ, two Timewave units and Brian Beezley's software that uses a Sound Blaster card. Willaim K1WD and Stan KD1LE put on the presentation which was supported by a leading article written for the Signal by Bob W1XP.

## From The ARRL Letter

### US TO PARTICIPATE IN CEPT GUEST LICENSE ARRANGEMENT

US amateurs soon will not need to apply for reciprocal licenses in order to operate during short visits to most European countries. While an official announcement still may be a few weeks away, it's been learned the US request to participate in the European guest license arrangement has been approved. Similarly, most European hams visiting the US no longer will have to submit FCC Form 610A.

Last September, the US State Department applied for US participation in the European Conference of Postal and Telecommunications Administrations (CEPT) Amateur Radio licensing system. A holders of a CEPT license can operate in CEPT-participating countries without having to apply for a reciprocal license.

Approval of the US request came in late January at a meeting of the CEPT Radio Regulatory Working Group (WGRR), in Groningen, The Netherlands. The European Radio Communications Office (ERO) has been instructed to officially notify the FCC of the decision approving US participation.

The State Department's action came at the urging of the ARRL that the US take advantage of the CEPT Recommendation T/R 61-01 arrangements and issue a license that would be recognized by CEPT-participating administrations and would be valid for brief visits.

Also last fall, the FCC proposed amending the Amateur Radio rules to make it easier for hams holding a

CEPT license or an International Amateur Radio Permit (IARP) to operate during short visits to the US.

Under the soon-to-be-implemented arrangement, a US Technician license would be recognized as a CEPT Class 2 (VHF-only) license, with full privileges above 30 MHz. Holders of Tech Plus through Extra tickets would be given a CEPT Class 1 license, with full privileges on HF and VHF. Novice licensees would not be eligible for a CEPT equivalent license since most CEPT countries don't offer a license of this type.

Once the ERO formally advises the FCC of the decision, the FCC must complete the steps to implement the participation before CEPT licensing can become effective.

"We've been urging the Commission to do this since 1991," said ARRL Executive Vice President David Sumner, K1ZZ. "Now that CEPT has given the green light, we hope the FCC will step on the gas."

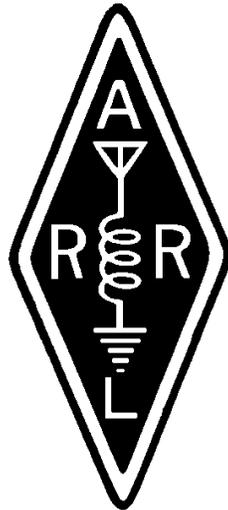
### SAREX TO BE ON JOHN GLENN FLIGHT

A ham radio package will be aboard the shuttle flight that carries US Senator and astronaut John Glenn into space this fall. Word from NASA this week was that the Shuttle Amateur Radio EXperiment or SAREX payload would be carried on STS-95 when it flies in October carrying the 77-year-old space pioneer into orbit for the first time since the early 1960s, when Glenn became the first US astronaut to orbit the Earth.

Two hams—US Astronaut Scott Parazynski, KC5RSY, and European Space Agency astronaut Pedro Duque, KC5RGG, of Spain—will be among an international crew aboard STS-95. The launch date for the only other SAREX mission scheduled for 1998--STS-93--has slipped from August to December. Glenn already has begun his astronaut training, but it's not yet known if he plans to get his ham ticket before his return to space.

### MIR RESUMES SCHOOL CONTACTS!

It's been a long, dry spell for schools that have been waiting for a chance to have their students talk to Mir. But that drought has ended. Amateur Radio contacts between the Russian Mir space station and schools—on hold since a series of problems plagued Mir last year—resumed this week. Aboard Mir, US astronaut Andy Thomas, KD5CHF, spoke with youngsters at schools in California, Colorado, and South Carolina. Another Mir contact with a school in Wyoming is set for March 3, and additional Mir-



school contacts are in the works, possibly for later in March.

On February 23, Thomas spoke with youngsters at Shell Beach Elementary School in Pismo Beach, California. The pupils got to ask Thomas 10 questions during the 10-minute contact—made possible through a telebridge connection via W5RRR at Johnson Space Center in Texas. AMSAT Technical Mentor Bill Hillendahl, KH6GJV, said the children practiced their on-the-air performance several times during the previous week until they had it just right. “After the session with Andy, the kids were very excited,” he said. More than 125 other pupils and adults were on hand at the school during the contact, which was covered by local news media.

The following day, February 24, ten equally excited kids at Prairie Hills Elementary School in Colorado Springs, Colorado, got their chance to speak with Thomas via WA0VTU, the club station of the Pikes Peak Radio Amateur Association. As an audience of around 350—including TV and newspaper reporters—looked on and listened in, Thomas described his activities on Mir and answered six questions. A local repeater retransmitted both sides of the contact. Signals were reported generally good but with some static.

On February 26, pupils at Buist Academy in Charleston, South Carolina, fired off a dozen questions. Thomas—using his Australian-issued VK5MIR call sign for the telebridge contact via VK5AGR—managed to answer 11 of them during the 10-minute contact. In one answer, Thomas spoke of the importance for those in space to have radio contact with Earth to keep in touch with friends and family (he expressed similar sentiments during a NASA press conference where he extolled ham radio as immensely helpful in combating the loneliness of space flight). In answering another question about the value of international cooperation in space exploration, Thomas declared, “Space doesn’t belong to any one country. We have to share it.” An audience of approximately 50 people, including news media, was on hand for the contact.

Some of the schools on the latest schedule originally had been scheduled to talk with US astronaut Jerry Linenger, KC5HBR, who was aboard Mir for the last school-Mir contacts a year ago. Arranging the latest contact schedule took several months and was complicated by equipment malfunctions aboard Mir and—more recently—by the change in crews.

AMSAT Vice President for Manned Space Programs Frank Bauer, KA3HDO, said this week he’s pleased that the school contacts logjam was finally starting to

clear. “It was exciting to hear the students’ reactions to the contacts and rewarding to know that we have provided an experience to these communities they will never forget,” he said.

The school contacts—carried out on 70 cm—were a new experience for the pupils on Earth and for Thomas aboard Mir. In the first few weeks of his stay, Thomas had logged very little time on the spacecraft’s Amateur Radio equipment because of the crew’s busy schedule. But he did make some contacts earlier this month on 70 cm using the R0MIR call sign. The 46-year-old Australian native will work aboard Mir until June.

#### HAMS HELP IN AFTERMATH OF FLORIDA TORNADOES

Hams pitched in to help in the aftermath of intense storms and tornadoes in Central Florida that killed more than three dozen and injured hundreds of others. The tornadoes and heavy thunderstorms struck early Monday while most people were asleep, surprising the residents of the affected areas between Daytona Beach and Orlando. Many were left homeless by the storms, now being called the deadliest and most destructive in Florida’s recorded history. Weather observers blamed the tornadoes on the El Nino weather system. Some families lost their homes and everything they owned. In one tragic incident, a tornado wrenched an 18-month old toddler out of its father’s arms; the child later was found dead. In another miraculous one, the storm picked up a youngster on his mattress and placed him gently on an oak tree.

ARRL Northern Florida Section Emergency Coordinator Nils Millergren, WA4NDA, said the tornadoes mostly affected Florida’s East Central District, while the West Central District—Sumter County in particular—experienced flooding. At least three Red Cross shelters were reported open in the days right after the storms struck. Millergren says amateurs were providing communications for shelters and had put in hundreds of operator-hours in Sumter County alone. Seminole County ARES/RACES member Allen Wilson, WB7BCI, was among dog-handler hams activated to assist in the search and rescue effort. Other hams were involved in damage assessment and in providing backup communication to relieve already-congested commercial systems. Net operations on 2 meters continued this week, and volunteers still were being solicited in Northern Florida.

Osceola County—the only county in the Southern Florida section affected by the storms—was said to have been hardest hit. Osceola County EC Christopher Hammock, KE4DUJ, spent several days at the

county Emergency Operations Center. Osceola has a small ham population. Southern Florida SM Rip Van Winkle, AA4HT, reports hams from outside the county—particularly from Polk County—were helping out. Van Winkle said Osceola ham operations in support of the emergency wrapped up February 26.

President Clinton visited the affected area this week. Damage was reported

to be in the tens of millions of dollars. Curfews were imposed in some areas

to deter looting.—thanks to Nils Millergren, WA4NDA, Rip Van Winkle, AA4HT,

and others

#### FCC COMPUTER SYSTEM BACK ON LINE

The FCC got its errant Amateur Radio licensing computer system back on line February 21 and began processing the backlog of applications. The system went down February 10, and no paper or electronic applications were processed for nearly 11 days as FCC personnel in Gettysburg attempted to troubleshoot the problems with the system.

Gettysburg personnel first processed data submitted on February 11 and 12 by VECs and had an updated file available for the Internet call sign servers on February 21. Since the initial processing went well, VECs then sent on the applications they'd been holding back at the FCC's request. By February 26, it was business as usual. Gettysburg had caught up with the backlog and ran a batch of vanity applications, although a number of applications remained in the work in process (WIPs) stack.

The FCC offered no explanation for the computer breakdown—its longest ever. The situation frustrated those who have been hoping to learn their new call signs or to check on updated licensing status. Call sign servers on the Internet also were affected. The FCC apologized to VECs for the inconvenience.

#### NEW ARRL BOOK—RF EXPOSURE AND YOU—NOW AVAILABLE

If you're worried about how to comply with the FCC's new RF exposure requirements, then you'll want a copy of the new ARRL book RF Exposure and You by ARRL Lab Supervisor Ed Hare, W1RFI. RF Exposure and You became available just this week.

As ARRL Executive Vice President Dave Sumner, K1ZZ, put it: "The new RF exposure rules are now a part of the regulatory landscape and are likely to remain so." RF Exposure and You is the best way available to ease the transition, Sumner said.

This book communicates one simple message: For the vast majority of Amateur Radio operators, the RF exposure rules are not difficult to understand and follow. At 320 pages, RF Exposure and You contains all the background information, suggestions and worksheets you'll need to help you comply with the new RF exposure rules and to operate your station legally and safely.

Hare said that preparing the book was "a real challenge and a real collective effort." The result is a book that's probably the first of its kind. "I have never seen this information pulled together in one place before," he said. ARRL Headquarters staff and volunteers (including the ARRL RF Safety Committee) participated fully with the FCC as the Commission determined the best advice to give amateurs on how to meet the new requirements. The League was able to persuade the FCC to reconsider its rules, and to rewrite them so that amateurs would be less affected. Hare says it took a lot of teamwork between Headquarters staff and outside volunteers to have the book printed and available in just three months.

A. J. Kruger, K7CMM, of Arizona, placed the first advance order for RF Exposure and You early this year. This week, Hare personally autographed the first copy out of the box—indicating it was the first copy purchased from ARRL Headquarters. The order went out this week.

RF Exposure and You is \$15 (plus shipping and handling). Order Item #6621. To order your copy, visit your local Amateur Radio retailer or the ARRLWeb, <http://www.arrl.org/catalog/6621>, or call toll-free 888-277-5289.

New Satellite Handbook available: The ARRL's new Radio Amateur's Satellite Handbook by Martin Daviddoff, K2UBC is off the press. This brand-new edition contains valuable information on satellite operating, types of antennas (including how-to articles on building your own), software, satellite Internet sites, profiles of all the current active satellites and much more. This new edition includes 376 pages of information, such as getting ready for the new Phase 3D satellite and information about Amateur Radio operation from the US space shuttles (SAREX) and the Russian Mir space station. It contains thorough appendices covering profiles of computer programs, Internet sites, FCC Rules, and a complete history of amateur satellite and space operations. The new Radio Amateur's Satellite Handbook is available from ARRL Publications. Order Item #6583. It's \$22 (plus shipping and handling). To order your copy, visit your local Amateur Radio retailer or the ARRLWeb, <http://www.arrl.org/catalog/6583>, or call toll-free 888-277-5289.

### NVARC's DSP Road Show

The NVARC crew of Willaim K1WD, Bob W1XP, Ralph KD1SM, and Stan KD1LE presented the DSP show to the Billerica Amateur Radio Society (BARS) on Wednesday March 4<sup>th</sup>. The meeting was well attended and it gave us the opportunity to met some people that we haven't seen in a long time.

### NVARC Trading Post

Dave N1MNX has some items available for the asking; 110 VAC to 18 VAC transformers and a Power Supply with an output of 5 V at 45 A, 12 V at 6 A, and -12 V at 6 A.

### NVARC QSL Bureau

Bring your cards and a QST label to the meeting or to breakfast and the club will take care of the shipping and bureau fee.

### \$The March Treasurer's Report \$

Sorry for being late with the January report. For January and February, total income was \$26.00 from ARRL renewals and one membership. Total expenses were \$25.60 for newsletter postage for both months. Current account balances are:



General fund	\$379.56
Education fund	\$573.34

73, -Ralph KD1SM

### CW Practice Nets

The NVARC slow speed net meets Tuesday and Thursday at 7:30 p.m. on 28.123 MHz. Except the third Thursday of the month. That being the club meeting night.

### April Flea Markets

April 5<sup>th</sup> Yarmouth, Me.  
April 18<sup>th</sup> NE Antique Radio, Nashua  
April 19 MIT Flea



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Amateur Radio Club**

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Treasurer: Ralph Swick, KD1SM  
Editor: Stan Pozerski KD1LE  
PIO: Earl Russell WR1Y

Meetings are held on the 3rd Thursday of the month -  
7:30 p.m. - Pepperell Community Ctr. Talk-in 146.490  
simplex

442.90 + 100Hz Repeater

This newsletter is published monthly. Submissions, corrections and inquiries should be directed to the newsletter editor. Articles and graphics in most IBM-PC formats are OK.

You can leave items on PEPMBX or at Packet address: KD1LE@N1FT.NH