NVARC
Nashoba Valley
Amateur Radio Club

SIGNAL

SPECIAL SERVICE CLUB
ARRL

December 1997 Volume 6 Number 12

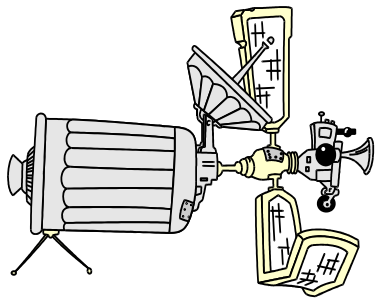
Sun Spot Numbers

While I see the reports from the Guru's who follow sun spot numbers, I must admit I don't understand it all. In fact, most of the numbers like "estimated planetary A indices" and "10.7 cm flux" don't mean anything at all to me. But over this past weekend the ARRL 10 Meter Contest took place. 10 meters has been pretty quite for the past several years. The band wasn't full by any means, but there was activity there all day and I worked quite a few stations. The sun spot numbers must mean something, but seeing more stations on 10 meters means more to me.

Stan KD1LE

This Month's Meeting

The December meeting is Homebrew Nite. Since we have been doing this for several years, and since we announced it in advance, everyone had plenty of warning to get their projects finished up. Hope to see your interesting projects there.



Last Month's Meeting

Our scheduled speaker had to cancel at the last minute due to an illness. But that was not a problem as several people chipped in to give a presentations on a variety of topics.

William K1WD and Bob W1XP brought different types of instruments used to check and set up antennas and feedlines. They went through the collection of instruments and they described the history and usefulness of each. After the presentations various antennas and feedlines were measured and tested. They actually found one antenna with a broken feedline.

Larry Ober W1MW, the Eastern Mass ARRL Section Manager, stopped in an spoke about upcoming events such as the Boxboro Convention which will be August 28th next year. This scheduling will not conflict with the Rochester Flea Market as it has in recent years. Larry also brought some ARRL publications that were raffled off. Stu K1YET and William K1WD were the lucky winners of an Operating Manual and the FCC Rule Book. We reported to Larry that NVARC had "signed up" for the Get On The Air Program that the ARRL New England Division was piloting.

Bruce K1BG reported that he had received some QSL cards from the N1NC Field Day operations. There was some discussion as to whether we should create a club QSL card (or have a design contest) for this and other club uses. If anyone has a suggestion on a design see one of the club officers.

A request was made for someone to coordinate the November highway cleanup, but the weather made that unnecessary since the ground was covered with snow. We resume the cleanup's in April.

Bob W1XP talked about a QSL he received recently. It was from W3TFA and that station had over 10,000 satellite contacts! Quite an accomplishment. Especially considering he was using a Heathkit HW-101 and a WWII receiver on a vertical dipole mounted indoors (at least for this contact).

Ralph provided electronic still pictures of the KB1FJ repeater site and equipment. He also showed the latest version of WinAPRS and live data that is available from an Internet site that he had recorded that morning. The map had about 1200 APRS stations nation wide. Ralph has set up so that APRS information about stations that are visible to him is sent to the web site.

Simulated Emergency Test (SET)

The 1997 Massachusetts wide SET is over. It took place December 6th from 10 to 12 AM. Some of the Hams (KD1SM Ralph, NZID

Bill, KD1LE Stan, N1QIT Jeanine) that are active in emergency communications set up an Emergency Command Center at the Lunenburg Fire Station, operating on 2M (145.45, 145.79 APRS, 146.925), 70 cm (448.175) MHz, 6M and 80M (3.937MHz). We checked into some of the many ARES/RACES/SKYWARN nets that were operating in the area. We ran the ARES/RACES Net on the 145.45 repeater and checked into the West Mass Emergency Net on HF.

Hams checking into the nets, which were run as ARES/RACES, were requested to provide; call, town, temperature, cloud cover, wind direction and speed. SKYWARN operators at the National Weather Service, in Taunton, were collecting information from the various nets to assess coverage.

There was a lot of publicity about the SET for the past month several months on local nets, in newsletters, via SKYWARN releases, and on RACES Nets. I expected many people to check in to the nets with all the publicity and the fact that all you had to do was check in. Not a big commitment, one that you could do while you were running errands. But we only had 11 check ins from the coverage area of the net we ran. There are about 500 Hams in that area. Likewise in the case of 442.900, there are approximately 500 Hams. No net was run on that machine, but I wonder how many checked in from that area to the regular ARES/RACES nets? For the entire state there were about 350 check ins out of the 16,500 Hams. I would hope we could muster more than 2% of the area Hams in an emergency? But maybe that's all that are really active. If we hope to get support from these organizations the next time a spectrum grab is in the works we need to support them now. What we say we can or will do is irrelevant. The only thing that counts is what they actually see us do.

Stan KD1LE

KB1FJ/R Work

The work at the repeater site has probably finished for the year. All the anchor points have been converted to equalizer plates and turnbuckles were added to all the guys. This is a big improvement to the arrangement that has grown up over the years. This work allowed us to do all the tightening and straightening much easier. Everything is now ready for the Winter Season. Thanks to all those who helped out. At the risk of forgetting someone I list the following members who worked at the site or manufactured hardware for the upgrade. Dave N1MNX, Earl WR1Y, Ben KB1FJ, Ralph KD1SM, Stan KD1LE.

Repeaters don't just happen, it takes a lot of work so that they are there when we need or want them. Think about it next time the club or organization that runs some repeater you use regularly needs money or help to maintain their machine.

Stan KD1LE

Where Do The Electrons Go After They Make Toast?

Today's scientific question is: What in the world is electricity? And where does it go after it leaves the toaster?

Here is a simple experiment that will teach you an important electrical lesson: On a cool, dry day, scuff your feet along a carpet, then reach your hand into a friends mouth and touch one of his dental fillings. Did you notice how your friend twitched violently and cried out in pain? This teaches us that electricity can be a very powerful force, but we must never use it to hurt others unless we need to learn an important electrical lesson.

It also teaches us how an electrical circuit works. When you scuffed your feet, you picked up batches of "electrons," which are very small objects that carpet manufacturers weave into carpet so that they will attract dirt. The electrons travel through your bloodstream and collect in your finger, where they form a
spark that leaps to your friends filling, then travel down to his feet and back into the carpet, thus completing the circuit.

AMAZING ELECTRONIC FACT: If you scuffed your feet long enough without touching anything, you would build up so many electrons that your finger would explode! But this is nothing to worry about... unless you have carpeting.

Although we modern persons tend to take our electric lights, radios, mixers, etc. for granted. Hundreds of years ago people did not have any of these things, which is just as well because there was no place to plug them in. Then along came the first Electrical Pioneer, Benjamin Franklin, who flew a kite in a lightning storm and received a serious electrical shock. This proved that lightning was powered by the same force as

carpets, but it also damaged Franklin's brain so severely that he started speaking only in incomprehensible maxims, such as, "A penny saved is a penny earned." Eventually he had to be given a job running the post office.

After Franklin came a herd of Electrical Pioneers whose names have become part of our electrical terminology: Myron Volt, Mary Louise Amp, James Watt, Bob Transformer, etc. These pioneers conducted many important electrical experiments- - Among them, Galvani discovered (this is the truth) that when he attached two different kinds of metal to the leg of a frog, an electrical current developed and the frog's leg kicked, even though it was no longer attached to the frog, which was dead anyway. Galvani's discovery led to enormous advances in the field of amphibian medicine. Today, skilled veterinary surgeons can take a frog that has been seriously injured or killed, implant pieces of metal in its muscles, and watch it hop back into the pond just like a normal frog, except for the fact that it sinks like a stone.

But the greatest Electrical Pioneer of them all was Thomas Edison, who was a brilliant inventor despite the fact that he had little formal education and lived in New Jersey. Edison's first major invention in 1877 was the phonograph, which could soon be found in thousand of American homes, where it basically sat until 1923, when the record was invented. But Edison's greatest achievement came in 1879 when he invented the electric company. Edison's design was a brilliant adoption of the simple electrical circuit: the electric company sends electricity through a wire to a customer, then immediately gets the electricity back through another wire, then (this is the brilliant part) sends it right back to the customer again.

This means that an electric company can sell a customer the same batch of electricity thousands of times a day and never get caught, since very few customers take the time to examine their electricity closely. In fact, the last year any new electricity was generated was 1937; the electric companies have been merely re-selling it ever since, which is why they have so much time to apply for rate increases.

Today, thanks to men like Edison and Franklin, and frogs like Galvani's, we receive almost unlimited benefits from electricity. For example, in the past decade scientists have developed the laser, an electronic appliance so powerful that it can vaporize a bulldozer 2000 yards away, yet so precise that doctors can use it to perform delicate operations to the human eyeball, provided they remember to change the power setting from "Vaporize Bulldozer" to "Delicate."

Unknown Via M Brogna

Board Meeting

The Board Meeting took place December 11th. The Treasurer made his financial report. There was some discussion about the new "Speakers List" which has been updated by Eliot W1MJ. We also discussed preparations for the Homebrew Nite.

Craig N1ABY downloaded the new FCC Exposure Guidelines that will be available at the meeting. Its approximately 65 pages, so were not making copies for handouts.

From The ARRL Newsletter

WRC-97 WRAPS UP IN GENEVA

The 1997 World Radiocommunication Conference concluded its talks in the early morning hours of November 21 in Geneva, Switzerland. Amateur Radio survived WRC-97 largely unscathed, but the stage has been set for renewed spectrum battles at WRC-99.

The Little LEOs (non-voice, non-geostationary mobile satellite interests)--which put a huge scare into the ham radio community in 1996 with their proposals to share ham radio VHF and UHF bands—were unable to muster much support for new allocations at WRC-97. However, they came away with up to 3 MHz of additional spectrum on a regional basis, in the bands between 454 and 460 MHz. The Little LEOs also got a resolution calling for urgent studies in preparation for WRC-99--what some at the conference called "a hunting license" for additional VHF/UHF spectrum. A second issue that will recur at WRC-99 is finding a place in the 420-470 MHz frequency range for the Earth Exploration Satellite Service (EESS). Synthetic aperture radars (SARs) using frequencies in this range are said to be capable of penetrating the rain forest for mapping purposes.

Two significant ham radio-related issues failed to make the cut for consideration at WRC-99. For budgetary reasons, the WRC-97 delegates had to limit the WRC-99 agenda only to the most urgent issues. Pushed back to the tentative agenda for WRC-2001 were the possible realignment of

the 40 meter band to resolve a conflict between hams and broadcasters in part of the band (along with possible expansion of broadcasting bands between 4 and 10 MHz), and Article S25 of the international radio regulations. Article S25 contains the international regulations specific to the Amateur and Amateur-Satellite Services, including the Morse code requirement for operation below 30 MHz. WRC-97 delegates approved a resolution encouraging administrations to facilitate the use of ham radio and other "decentralized means of communications" for disaster mitigation and relief operations. This resolution eliminated the need for Resolution 640, which defined how certain ham bands could be used for international disaster communications by non-amateur stations, so Resolution 640 was suppressed. WRC-97 delegates did agree to upgrade the Earth Exploration Satellite Service from secondary to primary at 1215 to 1300 MHz, which should have only minimal impact on amateur use of 1240-1300 MHz. The presence of EESS there also reduces the possibility that other, less-compatible services might later be introduced into this band.

In other allocations decisions, amateur satellite segments were not included among allocations for wind profiler radars. Except for a worldwide primary allocation at 1270 to 1295 MHz, the only specific allocations for wind profiler radars are in Region 1, and those are on a secondary basis. Region 2 administrations were urged to implement wind profilers in radiolocation bands at 440 to 450 MHz, 904 to 928 MHz (protecting the lower, weak-signal segment), 1270 to 1295 MHz (protecting amateur satellite and weak-signal), and 1300 to 1375 MHz. The delegates agreed that the bands 420 to 435 MHz or 438 to 440 MHz could be considered for use in situations where there was incompatibility between wind profiler radars and other radio applications at 440 to 450 MHz or 470 to 494 MHz (only in some Region 1 countries). In this case, too, the amateur-satellite segment is protected. Several Region 1 (primarily European) countries deleted footnoted exceptions to the international table of allocations in the 1810 to 1830 kHz range, expanding the usability of 160 meters for ham radio. North Korea was persuaded to drop its bid for footnoted exceptions to the allocations table that could have affected some ham radio bands in that part of the world. Amateur Radio was represented at WRC-97 by a multinational team of International Amateur Radio Union officials, including Secretary Larry Price, W4RA, Vice President Michael Owen, VK3KI, and Region 1 Vice Chairman Wojciech Nietyksza, SP5FM. They were assisted for a time by Tafa Diop, 6W1KI, and Eduardo Estrada, HC2EE, who are members of their respective regional executive committees. Numerous radio amateurs attended the conference in official capacities on behalf of their national administrations, including ARRL Technical Relations Manager Paul Rinaldo, W4RI, who served on the US delegation.

In all, 1801 delegates from 142 countries registered at the conference. Another 141 observers from regional and international organizations also attended.

FCC ISSUES RF SAFETY SUPPLEMENT B TO OET BULLETIN 65

Hams now have basic guidelines and tools to evaluate their stations for compliance with the FCC's RF exposure guidelines that start phasing in January 1, 1998. The FCC's Office of Engineering and Technology issued the long-anticipated Amateur Radio Supplement B to its OET Bulletin 65 on November 18. The FCC worked closely with the Amateur Radio community to develop the new supplement. Several ARRL Headquarters staff members and Technical Advisors reviewed preliminary drafts of the supplement. ARRL Lab Supervisor Ed Hare, W1RFI, has been the League's point man for RF safety and exposure issues.

"It has been my pleasure to work with the FCC staff and the amateur community in finalizing Supplement B," Hare said. "All who have been part of this process deserve the thanks of the entire amateur community." Supplement B, entitled Additional Information for Amateur Radio Stations, contains detailed information specific to ham radio stations. It is designed to be used in conjunction with the FCC's OET Bulletin 65 (Version 97-01), Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields. The revised Bulletin 65 was issued earlier this year. Supplement B covers definitions of RF radiation and discusses the FCC exposure guidelines and their applications, methods of predicting human exposure, estimating compliance distances, and controlling exposure to RF fields. The supplement runs approximately 70 pages. Among its noteworthy highlights are numerous easy-to-use tables based on various frequencies, power levels and antenna configurations to help hams determine whether their stations comply with the FCC's published RF exposure guidelines. Most

tables show compliance distance—the distance that an antenna needs to be located from areas of exposure to be in compliance. (For a closer look, see "FCC RF-Exposure Regulations—the Station Evaluation," by Ed Hare, W1RFI, which will appear in the January issue of QST.) The new RF exposure rules go into effect January 1, 1998 for all new stations and for those filing a Form 610 with the FCC after that date. Existing stations have until September 1, 2000 to comply with the new rules. But, existing stations making changes that could affect RF exposure from their station—such as increasing power or relocating antennas—must evaluate that change if done after January 1, 1998.

As first announced, the FCC set a power threshold of 50 W to trigger the need to do a station evaluation. In late August, the FCC revised the power level thresholds to trigger a routine Amateur Radio station RF exposure evaluation. Those changes were welcome news for most hams. The newest guidelines raised its original 50-W PEP threshold on all bands except 10 meters through 2 meters, where it remains at 50 W PEP. The FCC went along in part with an ARRL request and established a sliding scale for threshold levels dependent upon frequency. The revised thresholds (all PEP) are 500 W for 160 through 40 meters, 425 W on 30 meters (the maximum legal power is 200 W), 225 W on 20 meters, 125 W on 17 meters, 100 W on 15 meters, 75 W on 12 meters and 50 W on 10 meters. The threshold for all VHF bands is 50 W. On UHF, the threshold level is 70 W on 70 cm, 150 W on 33 cm, 200 W on 23 cm, and 250 W on 13 cm and higher frequencies.

The threshold for amateur repeaters is 500 W effective radiated power (ERP) if the repeater antenna is located on a building or is less than 10 meters above ground. Stations operating at or below these respective power levels are categorically excluded from having to conduct a routine RF radiation evaluation. Mobile and portable (hand-held) devices using push-to-talk operation generally are also exempt from evaluation. But, all stations—regardless of power level—still must comply with the RF exposure limits that become effective New Year's Day.

OET Bulletin 65 and the new Supplement B are available at http://www.fcc.gov/oet/info/documents/bulletins/#65. Copies are available from International Transcription Service Inc, 1231 20th St NW, Washington, DC 20036; tel 202-857-3800; fax 202-857-3805.

FLORIDA HAMS RESPOND TO SURPRISE TORNADO

Just after midnight on November 2, the beachfront community of New Smyrna Beach, Florida, was struck without warning by a tornado. The storm, rated by the National Weather Service as an F2 twister, carried winds in excess of 150 MPH. Damage surveys estimated more than 350 structures were damaged or destroyed, and 32 people were injured—a half dozen or so badly enough to require hospitalization. Remarkably, no one was killed, but some 200 residents were forced to seek refuge in shelters, hotels or with family and friends.

The surprise storm was a bit of a wake-up call for The Central Florida ARES and RACES teams, which had been lulled into complacency by a rather inactive hurricane season.

Volusia County ARES EC Bill Crandall, KM4AE, and his wife, Mary Ann, KD4MSD, activated the Volusia County Amateur Radio Emergency Communications Service (VARECS) and had the emergency operations center operational by 6:45 AM on November 2. An emergency net soon was humming on the 147.24 MHz repeater. Within a couple of hours, Amateur Radio priority traffic began flowing between the Daytona Beach Red Cross and the New Smyrna Beach ARC field disaster site service center. Telephone communication also was established with the New Smyrna Beach Sheriff's Office to verify and update damage reports. In addition, damage reports were funneled through Air Force MARS channels to FEMA.

By noon, a working communication plan was established between Red Cross Communications Director Paul Branch, K3NON, and KM4AE. All East Central District County ARES teams responded to a call for outside support. In all, KM4AE reports, 54 hams—including two ARRL PIOs—volunteered their services to help in the tornado damage assessment and recovery effort. "Our working relationship with the Red Cross communications director was excellent," Crandall said. Hams actively provided communication service for more than 156 hours between November 2 and November 8.—Bill Crandall, KM4AE; Michael Welch, KF4HFC; Norman Lauterette, WA4HYJ

ARIZONA QRMer TO PAY UP

Hams in Arizona are cheering, now that a man fined by the FCC for malicious interference and other rules violations has finally agreed to pay up. Last year, the FCC fined Timothy Harold Hoffman of Phoenix $6000 for repeated violations, including interference to Phoenix-area repeaters. The violations were called to the Commission's attention by the Arizona Repeater Association's ARRL-sanctioned Local Interference Committee. Hoffman was cited for five specific violations, including transmitting on ham frequencies without a valid operator or station authorization, and willfully and maliciously interfering with ham radio communications. But, as Lance Halle, KW7LH, tells it, "it took a multitude of long distance calls by committee members, support from FCC personal, input from Congress, and the White House, to get a Notice of Forfeiture and then a federal court judgment" against Hoffman, which he called "one of the major interferers." "The system does work," Halle said in alerting the ARRL to the October 26 judgment by US District Court judge Robert C. Broomfield. Hoffman will pay off his fine in increments of $200 per month. "Spread the word! Maybe this will deter some of the would-be interferers."

Club saved at last minute: Jeff Hugabone, N7KBY, reports that the 53-year-old Hampden (Massachusetts) County Radio Association was rescued at the last minute from dissolution and will continue to serve hams in the Pioneer Valley. Following some tense moments and a motion to dissolve the club at its last meeting November 7, a ham, rather new to the area, stepped up and offered his interest in becoming president. The individual was quickly voted in. Hugabone says it turned out that their new president, a retiree with some time and resources to invest, had led several California clubs in years past. "Following his election, a fervor of activity ensued," Hugabone said, adding that the new president's enthusiasm was contagious and new officers and board members soon were in place. "Sometimes it takes hitting rock-bottom, before the realization hits that what you are about to lose is so very valuable," he concluded.

New VP9 Web site: The Radio Society of Bermuda has a new Web site. It's at http://www.bermuda-shorts.com/rsb.—Thanks to Glen, VP9ID

MIR TO BEGIN CROSSBAND EXPERIMENT

Ham radio aboard the Russian Mir space station will go crossband on an experimental basis starting December 1. The crossband test is part of an ongoing "two-phase frequency experiment" aimed at improving Amateur Radio operations aboard Mir and at better understanding which frequencies or combinations of frequencies will work for the International Space Station. Phase 1, a 70 cm-2 meter "crosslink" experiment, will run until March 1, 1998. The uplink frequency will be 437.850 MHz, and the downlink frequency will be 145.800 MHz.

Phase 2 of this experiment, starting March 1, 1998, will use a 2 meter-only set of uplink and downlink frequencies. It will continue until June 1, 1998.

This experiment was developed by the international partners in Manned Space discussions at the recent Toronto AMSAT-NA Space Symposium. It was endorsed by SAFEX; SAREX; AMSAT-UK; the IARU Region 2 President; the IARU Satellite Advisor, ZS5AKV; ARI (Italy); and RAC (Canada). While not present at the Toronto meeting, the US MIREX team also was consulted and has agreed with the spirit of this experiment.

US astronaut Dave Wolf, KC5VPF, has been reported too busy to get on the air from Mir in recent weeks. MIREX officials have been told that the feedline for the Mir packet station was damaged during the November 6 space walk.

Current problems with the attitude control computer aboard Mir might delay the next space walk that could repair the antenna until January. Until the Mir computer problems are resolved, it's expected that the SAFEX II repeater may be shut down for a while.—AMSAT News Service; MIREX

HAMS TRACK SPUTNIK PS2 INTERNAL TEMPERATURE

AMSAT reports that two hams, Richard Goode, W8RVH, of New Carlisle, Ohio, and Clayton Winder, W8ZCF, of Cincinnati, Ohio, have been observing the temperature readings on the Sputnik PS2 satellite since its launch early this month. The audio pitch of the Sputnik model's beacon varies according to temperature. The pair used an audio generator and a frequency counter to come up with their readings.

UTC Date/Time	Freq (Hz)	Temp (Deg C)
06 Nov. 1997 1426	1269.3	27.0
07 Nov. 1997 1327	1257.4	23.0
08 Nov. 1997 1406	1255.9	22.0

09 Nov. 1997 1308	1248.4	19.5
11 Nov. 1997 1249	1248.3	19.5
12 Nov. 1997 1149	1244.3	19.0
13 Nov. 1997 0912	1257.0	21.8
13 Nov. 1997 1403	1241.0	18.0
14 Nov. 1997 1205	1244.5	19.0
14 Nov. 1997 1617	1245.0	19.0
16 Nov. 1997 1419	1246.0	19.0
17 Nov. 1997 1320	1243.0	18.5

W8RVH and W8ZCF have noted the downward drift in temperature during several passes and plan to take a closer look at their data. The current downward trend in unexplained. The Sputnik satellite, a one-third scale model of the original Sputnik 1 launched in 1957 by the USSR, was a joint project of schools in Russia and Reunion Island, with technical assistance from AMSAT-France. The model—also known as RS-17 and Sputnik 40--is expected to continue operating for several more weeks. Reports continue to be received from all over the world, and the news media have picked up on the story.

The mini-Sputnik is orbiting behind and below Mir, and the satellite and the space station are now approximately one minute apart. Both take just over 92 minutes to orbit Earth.

Editors Note: Ralph KD1SM and Stan KD1LE also measured the Sputnik transmissions on numerous passes. It wasn't easy to measure the frequency of a "beep".....Stan

BUSTED PIRATE BROADCASTER IS HAM

A well-known ham who thumbed his nose at the FCC was among those caught up in a Tampa, Florida, sweep by federal agents to shut down unlicensed broadcasting operations there. L. Douglas "Doug" Brewer, KC4HAZ, a General licensee of Temple Terrace, Florida, was detained when armed agents moved in to close down the pirates and confiscate equipment. Brewer is the trustee of several Amateur Radio repeaters in Tampa.

Brewer, 43, operated "The Party Pirate" from his home on 102.1 MHz. He told reporters that he was awakened November 19 at 6:30 AM by armed US marshals who handcuffed him. According to news reports, federal agents seized equipment from his home studio and from a remote broadcasting van that carried a "102.1 FM Pirate Radio" logo. They also dismantled a 150-foot tower. US marshals trucked away the equipment in a rental vehicle as Brewer looked on.

Known on the air as "Craven Moorehead," Brewer is said to have taunted FCC officials on and off the air and has refused to pay a $1000 FCC fine. Brewer has hinted that he plans to return to the airwaves. The Party Pirate was the subject of an article earlier this year in The Wall Street Journal. Brewer's Web site includes pictures of FCC agents taking field strength readings outside his house.

STS-83/84 QSLs: QSLs for space shuttle missions STS-83 (April 3-8, 1997) and STS-84 (July 1-17, 1997) have been forwarded to the Bergen Amateur Radio Association (New Jersey). BARA generously offered to pay for the QSLs and will be handling QSLing responsibilities for these two missions. Hams aboard were KC5RNI, KC5BTK, and KC5FVF.

Ham brochures on the road: If you're traveling through Connecticut, don't be surprised if you see ham radio brochures at several Interstate rest stops or at Bradley International Airport. The Educational Activities Department has distributed Ham Radio . . . Today and Into the Future as part of its efforts to spread the word about our great hobby. The brochures tell what ham radio is all about and refer readers to the ARRL.

UK HAMS LOOK FORWARD TO ANOTHER NEW LF BAND

Hams in the United Kingdom are looking forward to another new low frequency band. The Radiocommunications Agency—the British equivalent to our FCC—has told the RSGB that it hopes to release the 136-kHz band to all UK Class A licensees early in 1998. Like the 73-kHz band opened in the UK last year (see "73 kHz—A New Band for Great Britain," by Paul Duell, G0TLG, QST, Mar 1997, page 40), the new allocation will be a "sliver band." But at 2.1 kHz, it will be slightly smaller than the 2.8 kHz available at 73 kHz. The RSGB says the band likely will be in accordance with a CEPT recommendation for 135.7 to 137.8 kHz. However, unlike the 73-kHz band, hams will not have to apply for special permission to use 136 kHz. Finland made 135.7-137.8 kHz available last April to all holders of general or technical (CEPT 1 or CEPT 2) licenses with an output power limit of 100 W.

The RSGB said it anticipates that the new band soon will be added to the table of allocations and will become available for use shortly thereafter.

Meanwhile, the 73-kHz band will remain available in parallel with the new allocation “for a while,” the RSGB says. Permission to operate on 73 kHz will available through next June. It’s expected the band will be withdrawn from amateur use in the UK after June 30, 2000.

UK hams have managed distances of up to 400 km (248 miles) on 73 kHz, and it’s expected that greater distances will be achieved on the new 136 kHz band.—RSGB

HOW MANY HAMS?

The numbers of Hams listed in the area; Ayer 22, Dunstable 9, Groton 69, Littleton 38, Lunenburg 35, Pepperell 68, Shirley 26, Townsend 40, Tyngsboro 44, West Groton 2, Westford 125. Total 478.

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 Treasurer’s Report $

The Treasurer reports the following financial information. One renewal and one new member. Welcome to Keith Akins KF4QXO, a long distance member.

Income	$41.00
Expenses	$12.80 (postage)

Balances	
General Fund	379.16
Education Fund	573.34

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.

Say What?

"An education isn't how much you've committed to memory, or even how much you know. It's being able to differentiate between what you do know and what you don't know."

William Feather

Two men were walking home after a party and decided to take a shortcut through the cemetery just for laughs. Right in the middle of the cemetery they were startled by a tap-tap-tapping noise coming from the misty shadows. Trembling with fear, they found an old man with a hammer and chisel, chipping away at one of the headstones. "Holy cow, Mister," one of them said after catching his breath, "You scared us half to death -- we thought you were a ghost! What are you doing working here so late at night?" "Those fools!" the old man grumbled. "They misspelled my name!"

NVARC

Nashoba Valley

Amateur Radio Club

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V Pres.: William Davis K1WD

Secretary: Stewart Jackson K1YET

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