NVARC
Nashoba Valley
Amateur Radio Club

SIGNAL

SPECIAL SERVICE CLUB
ARRL

April 1998 Volume 7 Number 4

Hams Needed For Groton Road Race

Erik KA1RV is still looking for Hams to provide communications for the Groton Road Race. The club has supported this event for a number of years by supplying operators and the Net Control Station.

The tasks are varied and include such things as; shadowing a race organizer, monitoring parking and the buses moving from NEBS to the school and registration area, and during the races manning a position along the course to monitor safety and traffic concerns.

Traffic control is a big issue for the 5K and 10K races that go out onto the roads around the center of Groton. Police from area towns man certain intersections where traffic gets diverted during the race. Since they are from different towns they cannot communicate with one another. So we provide that link.

For those who have never been at the event, there are actually several activities. There are children's races on the track behind the elementary school. There are the 5K and 10K races that take place on the roads around the center of Groton, there are displays of running equipment, and food concessions.

On Saturday April 18 at 1:00 PM there will be a pre-race meeting for those who are going to participate at the Squanacook Community Center in West Groton. The Center is opposite the West Groton Fire Station and talk in will be on 147.57 simplex.

Anyone wishing to participate should call Erik KA1RV at 978-448-5536

Last Month's Meeting

At the March Meeting Don Haney KA1T talked a little about the Do's and Don'ts of QSLing. Then we sorted card for the rest of the evening. We tried a new method of sorting where everyone worked onto the same piles of cards. We got all the cards sorted and got a little exercise too.

This Month's Meeting

The first order of business this month will be elections. Craig N1ABY, our one person nominating committee, has been searching high and low for prospective candidates to fill out a slate of officers. Following the elections Erik KA1RV will give a presentation on EGGO.

Next month our speaker will be Terry Stader KA8SCP who is Communications/RACES Officer for MEMA Area 1.

ARES/RACES/SKYWARN Meeting

There will be an introductory training session for amateur radio operators on the basics of ARES, RACES, and SKYWARN. The meeting will be held on May 2nd at 1:30 PM at the Massachusetts Emergency Management Agency's Headquarters (MEMA) in Framingham, Ma.

The session will familiarize the amateur radio operators with the purpose of each of the organizations, how to get involved in each of them, and how these groups work together in emergencies.

The format of the meeting is an introduction followed by a 20 minute presentation by a representative from each of the three groups.

Directions to MEMA HQ;

The site is on Route 9 eastbound in Framingham, just west of Route 126.

From the west take the Mass Pike to the first Framingham exit. Head east on Route 9 until just after the State Police Headquarters. Turn into the fenced in area.

From the east take the Mass Pike to the first Framingham exit. Head west on Route 30. Route 30 will merge with Route 9. Follow Route 9 until the first exit marked Framingham State College. Take an immediate left on the ramp so that you make a U turn and head east on Route (Note that it is illegal to turn left

at the lights at Walgreens). Head east on Route 9 until just after the State Police Headquarters. Turn into the fenced in area.

The facility is an underground bunker with a set of doors controlling access. You can't miss the three 180 foot radio towers on the premises.

Red Cross Damage Assessment Training for Hams

There will be a Red Cross training seminar for amateur radio operators on Red Cross Damage Assessment on May 16th from 1 to 4 PM. The seminar will be presented by Kevin O'Connell the Emergency Services Director for the Massachusetts Bay Chapter of the American Red Cross. The training will be held at the Massachusetts Emergency Management Agency Headquarters in Framingham.

This training is intended to allow amateur radio operators to function as part of a damage assessment team in a large scale disaster rather than just communicators.

For directions see the ARES/RACES/SKYWARN article above.

From my experience in the December noname storm of a few years back it seems like a reasonable mix. I was assigned to a team that was did damage assessment in Scituate during the storm. In that arrangement it took a Ham and a Red Cross volunteer to do something I could have done. Stan

From The ARRL Letter

FCC PROPOSES RULES CHANGES AFFECTING HAMS

In a sweeping Notice of Proposed Rulemaking the FCC has suggested several rules changes that could affect Amateur Radio, including replacement of the venerable FCC Form 610. NPRM Docket WT 98-20, "To Facilitate the Development and Use of the Universal Licensing System in the Wireless Telecommunications Services," seeks comments on proposals to replace Form 610 with FCC Form 605; to permit automatic reciprocal licensing of foreign hams wishing to operate in the US; to privatize the issuance of club station licenses; and to require applicants and licensees to supply a taxpayer identification number (TIN) and to file electronically. The FCC also plans to consolidate the application procedures for all Wireless Telecommunications Services into a single set of rules. All of these proposals are part of the FCC's efforts to implement the Wireless Telecommunications Bureau's Universal Licensing System (ULS). The new Form 605 would apply for Amateur Radio and other services "not presently required to submit extensive technical data to receive a license." The Wireless Telecommunications Bureau is trying to drastically cut down the number of forms for the various services it administers, and to include all of its services under the ULS. The FCC last November began initial collection of licensee data to populate the ULS. Using the ULS, applicants and licensees will be able to file, modify, and renew electronically. Ultimately, the FCC intends to require all applicants, as appropriate, to file all applications and notifications electronically.

The FCC says it's tentatively concluded that there is "little or no need to continue issuing the reciprocal permit" (FCC Form 610-AL) for alien amateur licensees because the license from any foreign country with which the US has a reciprocal agreement would "stand as the proof that the foreign operator is qualified for the reciprocal operating authority." Reciprocal operation under the new regime would be "by rule," which means no special action is necessary on the applicant's part, and the elimination of Form 610-A.

For club station licenses, the FCC proposes to accept the services of VEC-like organizations as volunteer club station call sign administrators. Prospective organizations would have to complete a pilot autogrant batch filing project before being authorized as call sign administrators.

Under the ULS, applicants or licensees would have to supply a TIN, usually a Social Security number, or "its functional equivalent." The FCC says this is "consistent with the requirements of the Debt Collection Improvement Act of 1996." To allay fears of misuse of TINs, the FCC says the ULS would be designed so that TINs will not be available to the public and "only a small number of Commission employees would have access to TIN information in conjunction with their work." The FCC says a Privacy Act submission would be published in the Federal Register "to obtain the requisite public and Congressional

comment and Office of Management and Budget approval prior to implementation of the ULS." A text version of the entire rulemaking proposal is at http://www.fcc.gov/Bureaus/Wireless/Notices/1998/fcc98025.txt (or see the link from the FCC home page). The ARRL plans to file comments on the proposal, released March 20. Comments are due to the FCC 30 days after publication in the Federal Register. Reference WT Docket 98-20. The FCC will not accept e-mail comments on Docket WT 98-20.

GEORGIA HAMS RALLY TO HELP TORNADO VICTIMS

Hams in the Gainesville, Georgia, area responded quickly March 20 after a tornado ripped a ten-mile swath through northeastern Georgia. The storm left a dozen dead and more than 100 injured. Members of LARC—the Lanierland Amateur Radio Club—and Hall County's ARES organization promptly set up a net on LARC's VHF repeater and set to work handling what Hall County Assistant EC and LARC President Terry Jones, K4FB, called "a massive amount of radio traffic." An Amateur Radio communications trailer—owned and sponsored by the Chattahoochee Baptist Association of Gainesville—also was deployed and set up operations next to the Hall County Emergency Management Agency command post. "The unit was set up and operating on emergency power in a matter of minutes," Jones said. Jones also is unit director of the Baptist group's communications unit. Jones said the tornado knocked out power, and cellular telephone systems soon became overloaded and unusable. No telephone service was available in the affected area, so the LARC UHF repeater's autopatch was pressed into service to make emergency phone calls until normal telephone service was restored. ARES members from Lumpkin, Gwinnett, White, Jackson, and Clark counties also pitched in to help, Jones said. He estimated that approximately 100 hams volunteered. Ham radio operators continue to provide logistical support for the American Red Cross in the affected area. The Red Cross dispatched Communications Officer Chet Hallberg, K0TCB, to Georgia (see "Kansas Ham Cited for Helping Blind Become Hams," The ARRL Letter, Vol 17, No 4). Jones said hams will remain on the scene to assist with what he termed a "massive volunteer effort" this weekend to help with cleanup activities. Overall, Jones observed, ham radio's main contribution was to help make sense of the confusion by pulling together the activities of the various responding agencies—in effect, keeping everyone on the same wavelength. "My hat is off to all hams who responded to this disaster," Jones said. "Ham operators are indeed the Amateur Radio Service."

NORTH CAROLINA HAMS MAKE SKYWARN COUNT

Hams in North Carolina activated a SKYWARN net March 20 to track severe storms that crossed the state and provide up-to-the-second reports to the National Weather Service. ARRL PIO Gary Pearce, KN4AQ, says that early on the evening of March 20, hams reported several funnel clouds and tornado touchdowns across southern and eastern Wake County. Another tornado was spotted later near Raleigh-Durham Airport, and a funnel cloud was seen in Granville County. Tornadoes caused considerable damage in Rockingham County and knocked out communication there. North Carolina Emergency Management called on hams to bridge the gap by linking the county with the state Emergency Operations Center in Raleigh. Pearce says that the Amateur Radio station at the National Weather Service office in Raleigh sits right next to the Doppler radar operator. The SKYWARN reports verify radar information and provide details on the ground that radar can't see. "For example, Doppler radar can see hail in clouds, but can't measure the size or detect if the hail is reaching the ground," he said. "Large hail is a good indication that a thunderstorm has the potential to form a tornado," he explained.

In Georgia—where the same line of storms caused several deaths and severe damage in the Gainesville area—ARRL Section Manager Sandy Donahue, W4RU, urged expansion of storm-spotting networks. Donahue blamed NWS budget cutbacks for the fact that residents were caught totally off guard by the storms. He says the NEXRAD and conventional radar at the NWS Headquarters in Peachtree City—some 100 miles northwest of the stricken area—simply cannot see a tornado until it's too late because the radar beam is too high above ground. "Budget cuts caused NWS to close a radar site at Athens, 30 miles away, which would have had a lower beam and would have seen the storm and provided some warning," Donahue asserts. He says the tragic experience points up the necessity for Georgia hams to expand the successful storm-spotter program, "so that more trained eyes can be out there, watching and reporting when heavy weather hits." Donahue says Amateur Radio's storm-spotter relationship with the Weather Service has been "very close and productive," and Georgia will expand its storm-spotter training in the near future. "I hope the rest of the country will also," he added. "The experience of the residents of Hall, White, Dawson, Haber-

sham and Rabun County Georgia should be lesson enough of the consequences of excessive budget cutting of vital services like the NWS." The tornadoes in Georgia were the second disaster in the Peach State this month. ARES members in southern Georgia were active in recovery efforts from flooding in the area around Albany. "Tragedy struck twice this month in Georgia," Donahue said.—thanks to Gary Pearce, KN4AQ, and Sandy Donahue, W4RU

The Dayton Hamvention Technical Excellence Award winner is Bob Bruninga, WB4APR, the "father of APRS." In making the announcement, the Hamvention called APRS "an internationally recognized achievement." Bruninga, who lives in Glen Burnie, Maryland, is being honored for creating and developing the Automatic Packet Reporting System, which became available in 1993. "I should thank the other authors—the Sproul brothers, WU2Z and KB2ICI; Steve Dimse, K4HG; and Brent Hildebrand, KH2Z—for making it possible on all computers," he said. Bruninga says he was surprised to learn he'd been named to receive the award, which he views as a tribute to the thousands of APRS users. "APRS wouldn't be anything without them," he said. Bruninga points out that "330 APRS digipeaters have sprung up all over the country." Bruninga is a contract engineer at the US Naval Academy in Annapolis where he's engineer in charge of the Satellite Lab, operates the satellite system, and is active in integrating space communication into the curriculum. He's also the ARRL Technical Coordinator for Maryland-DC. For Bruninga, APRS is "a 24-hour-a-day job." He says he gets around 200 e-mail messages a day relating to APRS, often with questions from users. "APRS has consumed me," he concedes.

FINAL PHASE 3D INTEGRATION UNDER WAY

Final integration work continues at AMSAT's Phase 3D Integration Lab in Orlando, Florida, as AMSAT remains optimistic for a launch opportunity sometime this year.

Serious negotiations with the European Space Agency for a ride to place the next-generation Amateur Radio satellite into orbit continue.

AMSAT teams from several countries recently converged on the Phase 3D Integration Lab earlier this month to install remaining electronic and communications modules into Phase 3D and get it flight ready.

In a joint statement March 18, AMSAT-DL President and Phase 3D Project Leader Karl Meinzer, DJ4ZC, and AMSAT-NA President Bill Tynan, W3XO, outlined recent progress made on the satellite. "After successfully recovering from the setbacks caused by the major structural reworks of last summer and fall, the spacecraft is now once again rapidly nearing flight readiness," Meinzer said. He expressed his gratitude to AMSAT-NA Vice President of Engineering Stan Wood, WA4NFY, Integration Laboratory Manager Lou McFadin, W5DID, and to other members of the Orlando Lab team, including Dick Jansson, WD4FAB, Rick Leon, KA1RHL, and Bob Davis, KF4KSS, for their hard work in preparing the satellite for the final integration phase.

At the Integration Lab, AMSAT-DL's Digital Integration Manager Peter Guelzow, DB2OS, performed checks and measurements on the spacecraft's Internal Housekeeping Unit (IHU)--Phase 3D's main computer. He also sent and received commands from the spacecraft via radio uplink. Phase 3D North American Command Station Stacey Mills, W4SM, also was in Orlando to put finishing touches on software needed to format and decode the satellite's telemetry stream. "Needless to say, there were big smiles all around when, once again, P3D team members heard the familiar growl' of 400 baud PSK telemetry coming from the new bird," said AMSAT Executive Vice President Keith Baker, KB1SF. Aside from being AMSAT-DL's Vice President, Werner Haas, DJ5KQ, is responsible for coordinating the entire communications suite for Phase 3D. In Orlando, Haas performed yet another bench test on each of the flight electronic modules just prior to their re-installation into the satellite. Then, he directed other members of the communications team in successfully powering up each of the onboard flight electronic modules. Michael Fletcher, OH2AUE, and Harri Leskinen, OH2JMS, also were on hand to reinstall the 10 GHz transmitter. In addition, Stefaan Burger, ON4FG, connected and powered up the 24 GHz transmitter, which performed "as advertised," delivering its designed 1 W output into its 26db gain feed-horn antenna. The RUDAK team thoroughly checked out the RUDAK digital experiment module and declared it electrically flight-ready. Gerd Schrick, WB8IFM, helped the team to put the final touches on the satellite's all-important Earth and Sun sensors. These instruments will help ground controllers determine Phase 3-D's physical orientation in orbit for tracking and motor burn considerations.

Meanwhile, Konrad Mueller, DG7FDQ, AMSAT-DL's Structural Specialist, and his team prepared the second Specific Bearing Structure (SBS) for flight. The SBS is the large cylindrical structure that will ultimately carry the Phase 3D spacecraft to orbit. In addition, Phase 3D Documentation Manager, AMSAT-DL's Wilfred Gladisch, was on hand to insure that all the spacecraft's documentation—including each drawing and photograph—match the "as built" spacecraft.—AMSAT News Service

DXCC List price change: The DXCC List has increased in price effective April 1, 1998 from $2 to $3. The new DXCC List incorporates the recent changes in DXCC rules and criteria developed by the DXCC 2000 Committee and approved by the ARRL Board of Directors. The price increase also reflects higher paper and production cost, and is necessary to maintain the production of the hard copy version of the DXCC List. For those with Internet capabilities, the DXCC List and DXCC forms are available at http://www.arrl.org.

AMATEUR RADIO SPECTRUM PROTECTION BILL INTRODUCED

At the request of the ARRL, a bill has been introduced in Congress to ensure the availability of spectrum to Amateur Radio operators. The bill, HR 3572, the Amateur Radio Spectrum Protection Act of 1998, would protect existing Amateur Radio spectrum against reallocations to or sharing with other services unless the FCC provides "equivalent replacement spectrum" elsewhere. The bill was introduced March 27 by Rep Michael Bilirakis of Florida, a Republican, with the cosponsorship of Rep Ron Klink of Pennsylvania, a Democrat.

If approved, the measure would amend Section 303 of the Communications Act of 1934 to preclude reallocation of any primary Amateur Radio allocations or diminution of any secondary allocations, and would block any additional allocations within such bands that would substantially reduce their utility to Amateur Radio, unless the Commission at the same time provides "equivalent replacement spectrum" to the Amateur Service.

The bill points out that a basic purpose of Amateur Radio is to provide "voluntary, noncommercial radio service, particularly emergency communications," and that Amateur Radio has "consistently and reliably" provided emergency communication during and after disasters. The measure notes that the FCC has "taken actions which have resulted in the loss of at least 107 MHz of spectrum to radio amateurs." HR 3572 has been referred to the House Commerce Committee.

An effort is under way to enlist additional cosponsors for the measure. Amateurs are encouraged to contact their Representatives and urge them to support the bill or to sign on as cosponsors. The full text of the bill is available at http://thomas.loc.gov/cgi-bin/query/z?c105:H.R.3572:

HAM RADIO EASES TORNADO RECOVERY IN MINNESOTA

Ham radio operators from across Minnesota provided a link with the outside world this week after tornadoes struck two towns in the southern part of the state. Tornadoes flattened Comfrey, a farm community of about 500, and badly damaged the City of St Peter, population 9000 and the home of Gustavus Adolphus College. Electricity and telephone service were knocked out by the storm on March 29. At least two people were killed.

For Minnesota Section Manager Randy "Max" Wendel, N0FKU, this was more than a disaster that required the helping hand of ham radio. St Peter is his hometown, and the place where his parents still live. Wendel and Minnesota SEC Gary Peterson, N0ZOD were among dozens of ARES members who responded—after getting word from Mike Langer, WQ0A, in St Peter via ham radio of "unbelievable devastation." Wendel reports Langer went silent as soon as he realized that his own house was among those that no longer existed. Wendel and Peterson alerted other ARES members to be prepared to assist with communication, then headed for St Peter. ARES members from Rochester and the nearby Mankato area were among the others who turned out. Wendel himself arrived in St Peter after nightfall, using his ARES identification to get past state police barricades. Wendel found his parents safe and their home damaged. Others, including their neighbors, found themselves suddenly homeless. Wendel said hams already had situated themselves at key locations, including the Nicollet County Emergency Operations Center, a shelter for victims, and at a sports arena. The ARES team set up an emergency base station at Gustavus Adolphus College. While most students were out of town for spring break, 28 students remained on campus and had no contact with the outside world.

During the next day or so after the tornado struck, ham radio was the only communication out of the city and the primary means to coordinate supplies into the city from the Red Cross in Mankato to the shelters in St Peter. The morning after the tornado, the Salvation Army arrived to distribute food. Hams provided logistical support for that effort as well. Other hams shadowed disaster assessment officials who went door to door throughout the city or handled net control duties at the EOC. Still others simply made themselves available as needed to cooperate in the recovery effort.

"This event once again set a clear example of the importance of Amateur Radio during an emergency," Wendel said. Both he and Peterson stressed the importance of planning. Fortunately, the local government officials and agencies were aware of Amateur Radio as a resource. "When it comes to the unex-

pected, there is no time to explain who we are and why and how we can help," he added.

With typical ham ingenuity, Dave Kleindl, KA0BFP, scrounged enough materials to construct a temporary dipole to put a local broadcast station back on the air after its towers had been downed in the storm. With help from other hams, Kleindl coordinated with the city's public works department to get a generator to a water tower that was still standing and reactivated the local VHF/UHF amateur and public safety repeaters and also provide power for the water tower itself.

Wendel says the police and public works antennas were blown off the water tower, but Kleindl switched the transmitters over to the ham antennas which withstood the estimated 200 mph winds, allowing local government communications to resume. The amateur VHF and UHF repeaters temporarily were put over onto mag mount antennas.

Wendel says the personal impact of the tornado disaster has increased his appreciation for the necessity of helping. "Until you've been in a disaster situation and have had friends and family faced with uncertainty, it's difficult to understand the importance of lending a helping hand, even if it's just handing out sandwiches to victims," he said. "Any of those victims could have easily been me."

On April 1, Wendel said that snow was falling in the stricken area. He said he expected ham radio involvement to wind down by next week as normal communications systems are restored. For a look at the devastation in St Peter, see http://www.sigmamaps.com/StPeter/stpindex.htm

On April 2, Wendel reports, Peterson was asked by the Salvation Army to provide communication support at Comfrey. He reports that Peterson and his wife, Gladys, KB0TUT, managed to haul a FEMA radio communications trailer to Comfrey (with a breakdown along the way). "Additional hams and ARES members are being solicited to assist in Comfrey for the Salvation Army," Wendel said. Hams were expected to shadow two Salvation Army feeding centers in Comfrey while keeping in touch with the Salvation Army warehouse in Minneapolis. He adds that Brown County ARES EC Harvey Stadick, WI0D, who lives on a farm near New Ulm lost all of his outbuildings in the tornado outbreak, but still has his house.

VANITY FEE COULD DROP DRASTICALLY

The fee to obtain an Amateur Radio vanity call sign would drop drastically under the FCC's proposed fiscal year 1998 fee schedule. If adopted, the new fee will be $12.90 for the ten-year term, payable at the time of application for a new, renewal or reinstated license.

The new fee is contained in an FCC Notice of Proposed Rulemaking, MD Docket 98-36, Assessment and Collection of Regulatory Fees for Fiscal Year 1998, released March 25.

The current vanity call sign fee is $50 for the ten-year term. The FCC says it has no plans to refund the difference between the current fee and the new fee for applicants who submit applications before implementation of the FY 1998 fee schedule.

The FCC has calculated the new fee based on an expected 10,000 applicants during FY 1998. The FCC says it will announce the effective date for the new fee either in the Report and Order that terminates the fee schedule rulemaking proposal or by a public notice.

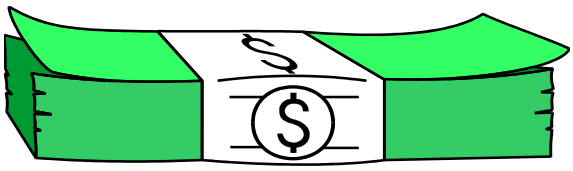
FEMA offers on-line courses:

The Federal Emergency Management Agency (FEMA) offers a series of self-taught courses that might be of interest to amateurs involved in public service disaster response. Course titles include Emergency Program Manager: An Orientation to the Position; Emergency Preparedness, USA; Radiological Emergency Management; Hazardous Materials: A Citizen's Orientation; A Citizen's Guide to Disaster Assistance; and Basic Incident Command System. Course materials are provided as Adobe Acrobat PDF files. See http://www.fema.gov/emi/ishome.htm for details on how to enroll.

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 April Treasurer's Report $



Thanks to two members who sent membership renewals for two years and one very generous member who contributed a little extra in his dues our income for March was $122.00. Expenses were (finally) substantially less than income at $12.80 for newsletter postage.

Current fund balances:

General fund:	$505.76
Community fund:	$540.49

The membership approved renaming the Education Fund to the "Community Service Fund" at the March meeting. The monies in this fund have come from donations as a result of our community service activities and the thinking was that changing the name would suggest that we feel able to use it for other community service activities beyond educational ones.

73 de 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.

How Come?

Why do you press harder on the remote control when you know the battery is dead?

Why do they call it the Department of Interior when they are in charge of everything outdoors?

Calendar of Events

Saturday April 18th NE Antique Radio, Nashua
Sunday April 19th MIT Flea
Monday April 20th Boston Marathon
Sunday April 26th Groton Road Race
Friday May 8th to Saturday May 9th Rochester Flea
Sunday May 17th MIT Flea

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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