NVARC
Nashoba Valley Amateur Radio Club

SIGNAL

SPECIAL SERVICE CLUB
ARRL

November 1998 Volume 7 Number 11

This Months Meeting

This months presentation will be on the AMSAT program and will be given by George W1ME.

Next Month's Meeting

Don't forget that Decembers meeting is home-brew Nite. There's still time to build/finish that project you'd like to show off. Let's have a good project turn out. No project too small and big is only limited by the size of the Community Center and the parking lot.

Last Month's Meeting

Last month's speaker was Den Connors. Den spoke on the upcoming STS-93 Shuttle mission which is an AXAF and SAREX mission. He also did some research and explained what happened on the SAREX mission for which we were supposed to handle QSL cards.

The last mission that we volunteered for was STS-75, and that "Mission to MIR" was terminated early, so there was no chance for SAREX operations. The next SAREX mission has QSL cards being handled by the Dayton ARC, but the League has suggested that we handle the cards for ARISS, the Amateur Radio on the International Space Station, which is due for activity in 2002.

Satellite Operators Brace For Meteor Shower

(10/05/98 2:26 p.m. ET) By Andrew Craig, TechWeb

Satellite operators are bracing their equipment for a massive meteor shower next month, but opinion is divided over whether to expect a communications catastrophe or just a gigantic fireworks display.

When the Leonids meteor shower occurs on Nov. 17 and Nov. 18 this year, it will appear as a spectacular visual show for observers on earth. For the several hundred satellites providing telecommunications, broadcasting, and other signals, however, the fast-moving sand-sized particles could cause damage and disruption, said experts in the satellite industry.

Leonids is a meteor shower that trails the Temple-Tuttle comet as it passes the earth every year. The comet is on a 33-year cycle and will be closer to the earth this year than it has been since 1965.

The majority of the particles in the shower are smaller than a grain of sand, but will be traveling at more than 200 times the speed of sound. The particles will vaporize material on impact. This could devastate the electronics on board one of the 800 satellites now orbiting earth.

The impact of a satellite outage was felt in May, when almost all pagers in the United States went out of action after a technical problem with the PanAmSat Galaxy IV communications satellite.

Satellite operators are taking precautions to limit the likelihood of their satellites being damaged by the shower. San Jose, Calif.-based satellite operator Globalstar said it will be taking precautions to make sure it is less vulnerable to damage from the shower.

Globalstar will not be adjusting its solar arrays -- the panels projecting from a satellite -- during the shower, said Globalstar spokeswoman Jeanette Clonan. Globalstar has eight low-earth-orbiting satellites for its satellite-communications system to be launched next year, but the risk is greater to geostationary satellites, of which it has seven, said Clonan.

Between five and 10 satellites are likely to be affected by the shower. Some services, such as pager services could be knocked out, according to satellite-software company AGI. "While we are not talking about meteoroids the size of Texas coming at the Earth, there is a reason to be alarmed," said AGI president Paul Graziani.

"Literally thousands of rocks and debris will be hurling past our satellites, and even a piece of sand going more than 226 times the speed of sound has the potential to do major damage," said Graziani.

But some say the shower may be little more than a visual spectacular. "Satellites get hit all the time, so presumably they are built to withstand the impact," said Chris Tout, an academic at the Institute of Astronomy, at Cambridge University, England.

The intensity of a shower like Leonids does increase the likelihood of a satellite getting hit, said Tout, "but I'm sure we're not going to have a communications catastrophe," he said. http://www.techweb.com/

The Leonids

So why all the concern about the Leonids Meteor Shower coming up November 17th? There are several factors causing concern for satellite operators as the Leonids Meteor Shower approaches. Some experts are concerned that satellites have become so complex that they are more susceptible to failure and damage than they were in the past. This coupled with the fact that there have never been so many satellites aloft and we have never been so dependent on them before. There is also a concern that the rate of building and launching has increased to the point that they are not tested as well as they once were. So far this year eight satellites have suffered varying degrees of lost capability. Only one made the headlines when pagers went off the air for some users up to a day. Analysis indicates that several have been affected by solar events and it is several years to the peak of activity from this solar cycle. On top of all this the upcoming Leonid event will be at its highest rate in 100 years. Typical peak rates for the Leonid Meteor Shower are around 15 per hour. Experts say it is difficult to predict the rate but based on the rates of recent years they predict some where between 200 and 9000 meteors per hour. I have to note here that the numbers above are predictions of what could be observed under ideal conditions falling to earth. Due to the high relative speeds, a satellite could be affected by much smaller pieces of debris than could be observed burning up in the atmosphere. That means that the number of possible 'events' for the satellites could be larger than the number for the ground based observer. Of course space is a big place so we are dealing with probabilities here. But when the numbers of meteors gets into the many thousands per hour it may not seem that way. Past Leonids Meteor Showers have had observed rates exceeding one hundred thousand per hour!

So who knows what will happen? No one knows. But on November 17th if you pick up the telephone and there is no dial tone you may wish you had charged the batteries for your handheld. Stan

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Public Service

Pepperell Soccer Tournament.
October 1998.
Ian Norrish NZ1B

Now an established local annual event, this year's Pepperell Soccer Tournament drew a large crowd of players, parents and supporters for the three day Columbus day weekend. After an ominous first day, when the skies opened up and soaked the fields, the weather cleared up, Sunday was a classic Fall day, with Monday not far behind.

The club's role to provide communications, health and welfare support to the tournament was well supported by many club members, who willingly gave from half a day to two days of their time to the event. Whenever a large group of keen Soccer players, ranging in age from 7 to 16 get together, you expect that there will be accidents, bumps and scratches and again this year there were a few minor calls for medical assistance from the players. These calls were passed via the ham on the field to the Ambulance or EMT's to take care of the situation and fortunately there were no serious problems, at least with the players. (However, one spectator was hospitalized with an apparent stroke.)

This year the Tournament organizers decided to try Cellular Phones for emergency communication be-

tween themselves, with phones donated by one of the regional phone companies. Our net was called on several times to ask particular individuals to turn on their phones as someone was trying to contact them. That weakness, coupled with the fact that no one had a list of phone numbers showed that even the latest in digital phone technology, can not match the speed and coverage of a well manned (and women'ed) ham network. As in past years, the field marshal's were issued CB radios that provided passable coverage to the net control station. The net control operator for the ham network largely ran the CB net also since they were operated from the same location. At times it felt like mission control at NASA, but with only one control operator.

We were fortunate this year in having several ham parents on the fields, armed with handhelds and following their children's' games. Next year we should plan to enlist additional hams from outside the club who have children in the tournament. We will need to tap into the early registration process to get to these hams.

All in all, everyone seemed to enjoy the day(s) on the sidelines. I personally enjoyed the time and the club received major local recognition and goodwill for our efforts, plus heartfelt thanks, (and hats), from the tournament organizers. (If anyone missed out on a hat, please call me. I have some spares.)

My thanks to all those members who participated:

KD2S – Den
N1MNX – Dave
N1PIP – Allyn
N1JGA – Jonathan
N1VAV Greg
N1UPR – Linda
WR1Y – Russ
KA1VOU – Wolfgang
WA1TAC – Rod
N1NWE – Don
K1YET - Stew
KD1SM - Ralph
W1XP - Bob
KD1LE - Stan
K1QT - Bob
K1JKR - Ken
KE1EC - Herman
N1PBL - Lynda
NZ1B - Ian

Adopt a Highway

We completed the October cleanup on the 18th. The following members participated in the cleanup. N1VAW Pat, WR1Y Earl, KD1SM Ralph, KA1VOU Wolf, W1XP Bob, and KD1LE Stan.

The last cleanup of the year is in November. The plan is to do it the Sunday after the club meeting since that seems to be working fine. So the final cleanup will be November 22nd. We will meet at the school parking lot for the Groton Schools. Hope to see many of you there. Let's have a big turn out. That will make quick work of it. Stan

SKYWARN

For those interested in where the action is when the weather turns bad the following are the frequencies used for the SKYWARN nets in Massachusetts. In case of such a weather situation this is where to tune to submit any weather information you have.
The format of the following information is the repeater pair, the location, and area served.

146.910/146.310: MT Greylock, Western MA, Berkshire County
146.940/146.340: MT Tom, Western MA, (Conn. River Valley, MA.)
146.985/146.385: Greenfield, Franklin County MA
146.925/146.325: Worcester, Worcester County Linked with 145.37
145.370/144.770: Templeton, Worcester County Linked with 146.925.
145.470/144.870: Danvers, Essex, Middlesex Counties PL: 136.5 Hz
146.640/146.040: Waltham, Essex, Middlesex and Norfolk Counties
145.230/144.630: Boston, Alternate for Waltham PL: 88.5 Hz
146.625/146.025: Haverhill, Northern Middlesex/Essex County MA

NVARC FoxBox

The FoxBox continues to be put in the field for hunting. There is generally 100% availability since we go pick it up, change the batteries and put it at its new location usually Friday night or early Saturday morning each weekend. On several occasions people have run out of time when looking for it. That may be more common as the daylight fails earlier. If only a few people have found it during the course of the week and there are people actively looking for it, we have generally extended its stay at a given location. So it has spent the last few weekends at the same (very nice) spot off Mulpus Road on some Lunenburg conservation land. There it was found by WN1E Charlie, Barry W1HFN, Bob W1XP, Karen KA1JVU, Jim WA8GSV, Barb WA8GSV/XYL

The weeks ending November 7th and November 14th the fox was located on some equally nice conservation land in the north of Pepperell. The first finder was W1HFN Barry followed closely by KD1SM Ralph. During the week additional hunters N1OMM

Scott, N1PQV Charlie, KA1JVU Karen, and W1XP Bob hunted it down.

As always the frequency is 145.63 and it transmits between the hours of 8 AM and 9 PM. If you find it please sign the log and take a fox badge.

As far as the upcoming schedule it depends on Mother Nature. Once there is snow on the ground we will probably bring the fox in for the winter. While there are some that would hunt it year round there are some problems. One is hiding the footprints of the hiders and of course each hunter will leave his own tracks. So have fun while the weather lasts.

Stan

NVARC Outgoing DX QSL Forwarding Service

The club has for some time provided the service of forwarding Bureau QSL cards for members. I recently agreed to take this task over and thought I would remind every one of the rules and procedures.

First of all you must be a current ARRL member and must provide proof with your card submission. The easiest way is to include a recent address label from QST. A photocopy is acceptable, or you can copy the complete label information onto a piece of paper and submit it along with your cards.

Sorting the cards into alpha/numerical order would be helpful, but I have to sort them when I send in the lot. If the quantity is large I really will ask that they be sorted into order.The bureau does not serve all DXCC countries, so check the list to avoid having your card(s) returned and delayed. If the call prefix starts with a T or a number it is a good idea to check the list of countries not served by the out going bureau. Reviewing the list a good idea every time you start to sort your cards. I will not check them, but if I notice any in during my sort I will pull them out and return them to you.

I will hold cards till I have a quantity to make it worth while to send in, so the more you use the service the faster your cards will get into the QSL system. With the rising sun spots and improving conditions I hope to be seeing lots of cards. Any quantity is welcome. The club picks up the postage and bureau fees so use the service and save a few dollars to buy more cards. Bring your cards to the meeting, or give them to me at breakfast. 73 and Gud DX, Bob W1XP

Reminder From the League

QSLing reminders: Effective January 1, 1999, the ARRL Outgoing QSL Service fee increases to $6 per pound (or portion thereof).

Other fees remain unchanged. It still costs $1 for 10 cards, $2 for 20 cards and $3 for 30 cards, etc. Also, effective January 1, 1999, US first-class postage increases to 33 cents. Remember to send your Incoming QSL Bureau extra postage if you have envelopes on file bearing a 32-cent stamp. Also, include an address label or clearly print your return address on envelopes submitted to your Incoming QSL Bureau. Some Bureau Managers are receiving envelopes with no return address. Information sheets on the ARRL QSL Service are available from ARRL HQ. Send an e-mail request to buro@arrl.org or send an SASE to QSL Service, ARRL, 225 Main St, Newington, CT, 06111

ARRL Newsletter

2000 METERS AND UP? ARRL PETITIONS FOR LF BANDS

The ARRL has petitioned the FCC to create two low-frequency Amateur Radio allocations at 136 kHz and at 160 kHz. “These allocations will permit experimentation with equipment, antennas, and propagation phenomena in a small segment of the radio spectrum that has not been available to the Amateur Service for many years,” the League’s petition declared. The petition was filed with the FCC October 22. Specifically, the League has proposed permitting CW, SSB, RTTY/data, and image emissions for amateurs in a 2.1-kHz “sliver band” from 135.7 to 137.8 kHz and in a 30-kHz segment from 160 to 190 kHz. The 135.7 to 137.8 kHz band adheres to the European Conference of Postal and Telecommunications Administrations (CEPT) band plan. The ARRL has proposed allowing a transmitter output in both LF segments of 200 W PEP, but in no case greater than 2 W EIRP (effective isotropic radiated power). The League’s petition points out that poor antenna efficiencies and ground-loss characteristics likely would keep EIRPs at less than 1 W. The two bands would be available to General and higher licensees. Unlicensed experimenters—some of them hams—currently operate on LF in the US under the FCC’s Part 15 rules. These limit transmitter input power to 1 W and impose substantial restrictions on the size of the antenna. The proposed allocations “will provide the only low-frequency allocation for amateur use and will accommodate more flexible experimentation than is

permitted under current Part 15 regulations," the League's filing said.

Hams would be secondary to the Fixed and Maritime Mobile services in the 136-kHz allocation, and secondary to the Fixed Service in the 160-190 kHz band. The League said its engineering surveys suggest that hams could operate in the two segments without causing problems to power line carrier (PLC) systems already active in that vicinity or to government assignments. Unallocated, Part 15 PLC systems are used by electric utilities to send control signals, data and voice. Calculations included with the League's filing demonstrate how inefficient even relatively large radiators can be on LF (136 kHz is approximately 2205 meters). For example, at 200 W TPO (transmitter power output) and a 200 foot vertical radiator, efficiency is only in the range of 1%, yielding up to 2 W EIRP. A more practical setup--200 W TPO into a 100-foot vertical radiator (efficiency of 0.2%) would yield an EIRP of between 100 and 400 mW. Several countries throughout the world already enjoy LF allocations. These include New Zealand, Great Britain, the Republic of Ireland, and several European nations.

The article "Exploring 136 kHz" by Peter Dodd, G3LDO, appears in the November 1998 issue of QST. It discusses practical equipment and an antenna system for the allocation. Dodd also is the editor of the LF Experimenter's Source Book (2nd ed) published by the RSGB and available from the ARRL for $14. Order Item 7148. Visit ARRLWeb for details or call, toll-free, 888-277-5289.

A special CW LF operation from the Netherlands is scheduled for November 14 at 0900 UTC at 136.5 kHz using the call sign PA2NJN (see In Brief item, "Netherlands LF test" below). The operation will run 150 W to a wire antenna, tethered to a kite at about 920 feet in the air.

A copy of the ARRL petition (lf-pet.pdf, Adobe PDF file, 52,510 bytes) is available on ARRLWeb.

AMATEUR RADIO PROVIDES LIFELINE IN CENTRAL AMERICA

Ham radio is playing a major role in rescue and relief efforts in storm-ravaged Central America. Hams in the Southern US are active in handling health-and-welfare traffic to and from Honduras and Nicaragua, both of which suffered death and destruction at the hands of Hurricane Mitch. Hams in Honduras and Nicaragua who are still on the air also have been using Amateur Radio to coordinate rescue and relief efforts there.

ARRL radio gear that saw service several years ago in Puerto Rico after Hurricane Hugo and in Hawaii after Hurricane Iniki now is on its way to Honduras. ARRL Field Services Manager Rick Palm, K1CE, reports that five 2-meter hand-held transceivers and two 2-meter mobile units have been shipped to Omar Paredes, HR1OP, via his sister, Lidice Paredes, HR1LPS/W4, in Miami. Omar Paredes is affiliated with the Club de Radio Aficionados Central de Honduras in Tegucigalpa.

Responding to a request that came through the Hurricane Watch Net, Palm says a 2-meter repeater also will be sent to missionary Kenton Brown, KC8CXW/HR3, for a club in La Ceiba. The repeater will facilitate mainland communication with the islands of Roatan and Guanaja.

The equipment, part of the League's disaster communications inventory, was to be shipped on a Honduran World Foundation relief flight. The League also has made arrangements with WACOM in Texas to purchase a duplexer at a reduced cost. The duplexer and an antenna for the repeater will be shipped next week. Lidice Paredes, HR1LPS, has been in touch with her brother on a regular 20-meter schedule. "Every day is worse," she said November 5 of the news she's been getting from home via ham radio. "The city is in complete devastation." Lidice Paredes said her brother, a pharmacist, has told her that there is only enough drinking water available for another two or three days. Flooding and mudslides have isolated some residents. Others are still awaiting rescue from trees and rooftops.

"A lot of ham radio operators lost their homes, their equipment," she said, but hams like her brother who are still on the air have been attempting to coordinate their disaster response activities. "It has not been very easy. It's taking a long time," she said. Media reports also indicate that the Texas Baptist Men relief group is coordinating its efforts via ham radio in Nicaragua and Honduras. The organization has sent a planeload of supplies to Central America.

The Central America Emergency Net also has been active on 7090 kHz. Octavio Miranda, TI2OHL, in Costa Rica reports the only contact is via ham radio, with limited help from some military helicopters. The Salvation Army SATERN Net on HF has been operating to assist with emergency, logistical, and health-and-welfare traffic.

DISCOVERY LAUNCHES PANSAT SPREAD SPECTRUM AMATEUR SATELLITE

The PANSAT satellite package after initial integration. [NPS Photo]

PANSAT, the Petite Amateur Navy Satellite, was launched over Australia October 30 from the space shuttle Discovery. The 150-pound Amateur Radio satellite carries a spread-spectrum communication package fabricated by student officers and faculty members at the Naval Postgraduate School here as an educational project and a means of demonstrating spread-spectrum communication. It was launched from Discovery as part of the third International Extreme Ultraviolet Hitchhiker (IEH-3) experiment.

The NPS says the spacecraft will provide store-and-forward digital packet communication using direct-sequence spread-spectrum modulation with a center frequency of 436.5 MHz, a bit rate of 9842 bps and 9 MB of message storage. According to the NPS Web site, "Amateur Radio ground stations will be able to utilize PANSAT via a bulletin-board type user interface." PANSAT's Dan Sakoda, KD6DRA, says the team is doing initial assessments and has heard a reply signal from the spacecraft. But the ground crew has not yet been successful connecting via modems. "We've still got some bugs to shake out of our ground system," Sakoda said this week. He explained that the satellite does not have a beacon and only transmits when commanded to do so from the ground. "The fact that we saw PANSAT's response means that the satellite is working properly," he said. Sakoda does not expect PANSAT to be available to the Amateur Radio community for another couple of months. PANSAT has 18 body-mounted solar panels and four monopole antennas that provide omnidirectional coverage, so it does not need an attitude-control system. It was expected to achieve a low-Earth orbit (300 nautical miles) with an orbital plane of 28.45° and have a lifetime of up to six years.

According to the PANSAT Web site, the pseudo-noise (PN) code used for spreading is one of the already approved codes for Amateur Radio spread spectrum, using a 7-bit shift register with taps at 7 and 1; and one sequence length per bit of information.

For more information, visit the official PANSAT Web site, or see http://131.120.25.103/pansat/danspans/dspansat.html.

BIP-BIP-BIP! NEW MINI-SPUTNIK TO LAUNCH FROM MIR

The Sputnik 40 satellite. Sputnik 41 transmitter will be nearly identical in appearance.

Another mini-Sputnik satellite will be launched by hand this month from the Russian Mir space station. The announcement of the so-called Sputnik 41 comes almost one year to the day after the launch of Sputnik 40, which commemorated the launch of the first artificial Earth satellite by the USSR in 1957. The newest Sputnik arrived on Mir aboard a Progress supply rocket late last month. It's due to be launched by hand during a spacewalk by the Mir crew in the November 10-11 timeframe. Sputnik 41, which is variously being called RS-18, was financed by the Aeroclub de France to mark its centennial. It's part of a program of satellites made in collaboration with Russian and French students. AMSAT-France is cooperating with the education department of the Russian Aeronautic Federation to bring about this latest Sputnik encore.

Sputnik 41 is the same size as its predecessor--20 centimeters (just under 8 inches) in diameter—approximately one-third the size of the original Sputnik. It weighs 4 kg (almost 9 pounds). The latest version will carry a 150-200 mW transmitter that will transmit on or about 145.812 MHz (5 kHz and Doppler shift). The spacecraft will not carry solar cells, and it has an expected operational lifetime of up to 30 days. The last mini-Sputnik outlasted its expected one-month life by some 20 days, however. AMSAT-France's Gerard Auvray, F6FAO, reports that, like Sputnik 40, the new spacecraft will transmit its "bip-bip" beacon plus audio-frequency telemetry that indicates the satellite's internal temperature (see table, below). But, Sputnik 41 also will broadcast prerecorded voice greetings in three languages, French, English, and Russian. One, read by 14-year-old Constantin Sambourov, declares in Russian-accented English: "1998 was the International Year of Air and Space." Sambourov is the son of Sergei Sambourov, RV3DR, who manages Amateur Radio activity aboard Mir. A second English message read by Project Chief Victor Kourilov of the Russian Aeronautic Federation states "International Space School Sputnik Program." The French and Russian messages convey the same greetings. Auvray himself reads one of the French greetings. Visit the 1998 International Year of Air and Space page.

Telemetry of Internal Temperature

179 Hz = -38, 273 Hz = -30, 440 Hz = -20, 634 Hz =-10, 830 Hz = 0, 1025 Hz = +10, 1200 Hz = +20, 1308 Hz = +30, 1405 Hz = +40, 1447 Hz = +45, 1483 Hz = +50

HAMS IN HIGH PLACES

OD5LE elected as Lebanon's president: Another radio amateur soon will become a head of state. Lebanese Army General Emile Lahoud, OD5LE, was elected Lebanon's president October 15. All 118 members of the parliament present voted for Lahoud, who heads Lebanon's army. Lahoud, 62, officially will succeed President Elias Hrawi November 24. He will serve a six-year term. A naval officer, Lahoud trained in the UK and speaks English fluently.

ARRL BOARD REAFFIRMS, MODIFIES ITS RESTRUCTURING PLAN

In a special meeting October 24, the ARRL Board of Directors reaffirmed the bulk of its July 1998 Amateur Radio License Restructuring plan with some modifications. Among other things, the Board's July plan would eliminate the Novice and Tech Plus license classes. To provide a logical entry path to HF for Technicians, the Board now has suggested offering CW privileges to Technicians in the current General CW allocations on 80 through 10 meters. Technicians would be permitted up to 200 W PEP.

"The July plan eliminated the HF door by eliminating the Novice license," observed ARRL Executive Vice President David Sumner, K1ZZ. "This is, in effect, a replacement for the Novice, but without an additional license class."

The Board also agreed to replace its originally proposed A, B, C, and D license class designations with Extra, Advanced, General, and Technician.

Under the July plan—and under the FCC's proposed streamlining—the entry-level HF license would be the General. Board members at the October 24 meeting near St Louis expressed concern that the leap to HF privileges under the July plan could prove too daunting, especially for younger newcomers. Under the ARRL plan, it would require passing two written examinations plus a 5 WPM code test to become a General. Some also were troubled about the growing gulf between the "traditional" HF operator and the newer VHF-only amateurs.

Addressing the Morse code requirement in the International Radio Regulations, Sumner summed up the Board's position by saying that the new privileges would amount to self-testing. "By their very nature, you can't use the privileges until you know the code," he said.

The special ARRL Board meeting was called to consider the League's comments on the FCC's amateur licensing "streamlining" proposals in WT Docket 98-143, released in August. Comments are due December 1. During the daylong session, the Board also proposed that the FCC rules ban multiple-choice Morse code tests and establish that a passing grade for a code test be either 70% correct answers to 10 fill-in-the-blank questions or one minute out of five of solid copy.

The Board affirmed its proposals in RM-9196 to improve the procedures for granting Morse code exam credit on the basis of a physician's certification of a disability. It also affirmed "its strong desire" that written exams be modified as necessary "to demonstrate better the depth of the applicant's current radio technical knowledge and operating skill."

The Board supported retention of the topic definitions to be included in written exams, as contained in §97.503© of the FCC rules, with some modification to accommodate the new four-class structure.

The Board also reaffirmed its desire that Advanced class volunteer examiners be permitted to administer General class exams, and it renewed its request in RM-9115 for several rules changes involving RACES stations.

The Board noted that it had "heard and considered the views of thousands of ARRL members" on the amateur licensing issues raised in both the ARRL and FCC proposals.

FCC sets exam fee reimbursement maximum: The FCC has announced that the 1999 maximum Amateur Radio volunteer examination reimbursement fee will be $6.49, based on a 1.5% Consumer Price Index increase between September 1997 and September 1998. The 1999 ARRL/VEC test fee will be $6.45. The 1998 ARRL/VEC test fee is $6.35. Note: Elements 1(A) and 2 are always free of charge at ARRL/VEC examination sessions.

FCC ISSUES UNIVERSAL LICENSING SYSTEM RULES

The FCC has issued its long-awaited Report and Order on the Universal Licensing System, which affects all Wireless Telecommunications Bureau licensees. Among other things, the ULS will result in replacing Amateur Radio's familiar FCC Form 610 series with a new Form 605. The new rules become official 60 days after publication in The Federal Register—sometime around the end of the year. The FCC said it expects to have the ULS fully operational by next April. Using the ULS, applicants and licensees will be able to file, modify, and renew electronically. Access to the ULS is via http://www.fcc.gov/wtb/uls/. The FCC's action consolidates approximately 40 existing

forms into four ULS applications, including the new Form 605. Electronic filing in the ULS will not yet be mandatory for individual amateurs. Hams will have the option of filing electronically or on paper. However, electronic filing via the ULS will be required for Volunteer Examiner Coordinators in the Amateur Service. Under the ULS, amateurs will use Form 605, the Quick-Form Application for Authorization in the Ship, Aircraft, Amateur, Restricted and Commercial Operator, and General Mobile Radio Services for all purposes. Applicants may continue to use the old forms for six months after the new rules go into effect, however. Responding to comments from the ARRL and the W5YI Group, the FCC said it would include the Physician's Certification of Disability (Physician's Certification) on the new Form 605 in Part 2 of Schedule D.

As part of its Report and Order on the ULS, the FCC also issued amended rules (in WT Docket 96-188) to authorize visiting foreign hams to operate in the US pursuant to recent international reciprocal operating agreements. "We conclude that all alien amateur radio reciprocal operation should be authorized by rule," the FCC said. This means that foreign hams holding a CEPT radio-amateur license from a CEPT country or an International Amateur Radio Permit issued by a participating CITEL country may operate while visiting the US without having to apply for permission. Additionally, it will be easier for US hams to operate in participating countries in Europe and the Americas.

Against ARRL objections, the FCC eliminated the one-year term for an alien reciprocal permit and will not require an FCC license document. The FCC noted that the new system is similar to the one already in place for US and Canadian hams to operate in each other's countries. The authority would not extend to US citizens claiming second citizenship and an amateur license from another country, however.

The FCC said it will require the submission of a Taxpayer Identification Number by applicants and licensees using ULS, "consistent with the requirements of the Debt Collection Improvement Act of 1996." Some commenters, particularly amateur operators, argued against the requirement, saying that disclosure of a TIN—typically a Social Security Number—raised privacy concerns and was unnecessary to the Commission's regulatory goals. But, the FCC said its security measures will limit access to TIN data both online and to FCC staff. "Once data has been entered into ULS, sensitive data such as TINs will not be accessible to the public," the FCC said. The FCC has not addressed how it plans to handle applicants who do not have a TIN, such as foreign nationals who hold FCC licenses.

The FCC stood by its plan to use certain eligible private-sector entities, on a strictly voluntary basis, to issue club and military recreation station call signs.

Both text and formatted versions of the complete Report and Order, WT Dockets 98-20 and 96-188, are available on the FCC Web site, http://www.fcc.gov.

DAN HENDERSON, N1ND, IS NEW ARRL CONTEST BRANCH MANAGER

Dan Henderson, N1ND, says he's not a big-time contester, but he enjoys competing on a casual level. He also feels that his broad view of the hobby gives him the perspective he needs to be the League's new Contest Branch Manager. The 43-year-old Asheville, North Carolina, native joined the HQ staff this fall (September 30 was his first day) promising to make the Contest Branch "more responsive, more timely, and more accurate." He says he'll also seek better ways for contesters to transfer logging data to ARRL HQ. What Henderson says he will not attempt is to "mess with successful contests." His philosophy is that contesting is beneficial on more than one level "as a means of promoting enthusiasm" within the hobby.

Henderson's "Yankee" call sign really has more to do with his alma mater in Indiana than with New England. It stands for "Number One Notre Dame."

A ham for approximately 27 years now, Henderson says his parents enrolled him in an Amateur Radio class as a "bored high school kid." He got his first (of several) Novice licenses in 1971 (he was WN4YMV and WN4QQN among others; as one ticket expired, he'd retake the test and get another).

Once beyond his serial-Novice phase, he progressed to Extra within six months. Henderson, who was WA4QQN for about 20 years, has served as an AEC, EC and DEC for more than 15 years and was active in developing VE exams in the early days of the WCARS/VEC. Over the years, he says, he's been very active in local club activity with an emphasis on Elmering and public service. Before coming to ARRL Headquarters, Henderson taught high school in North Carolina and West Virginia and at the college level in North Carolina, Vermont, Georgia and Alabama. Henderson says his favorite operating event is the ARRL International DX Contest CW, and he's in the process of joining the Yankee Clipper Contest Club. But he'd like to see some entry-level events, "maybe an Elmer-type contest" as a replacement to the Nov-

ice Roundup that pairs new hams with experienced hams to build interest among newcomers.

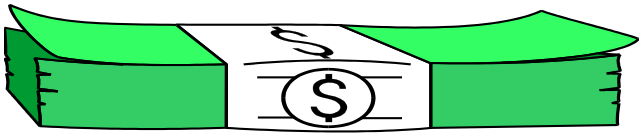
Dan Henderson welcomes your comments and suggestions. Contact him at dhenderson@arrl.org, or call him at 860-594-0232.

$The October Treasurer's Report $

Expenses :
$25.60 Newsletter Postage

Current fund balances:
General Fund: $377.61
Community Fund: $440.92

If your ARRL membership renewal is coming due soon, do yourself and your club a favor and let me send in your payment. You save 32 cents and the club gets to keep part of the money. Make your membership check out to NVARC in the full amount of your ARRL renewal and I will take care of the rest. If you haven't yet joined the ARRL, then there's no better time -- the League needs your input on the



licensing restructuring proposal and it helps amplify our voice in Washington DC to count you as a League member. If you join the League through the Club then NVARC gets an even larger slice of the dues pie.

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.

Calendar of Events

21 Waltham ARA Auction Newtonville

Special Event Stations.
18-19 Mickey and Minnies 70th and Disneys 75th.
28-29 Plimouth Plantation WA1NPO

If anyone is interested in any of these events I have the times and frequencies and they are usually listed

NVARC
Nashoba Valley
Amateur Radio Club
PO Box # 900
Pepperell Mass 01463-0900

Pres.: Erik Piip KA1RV
V Pres.: Den Connors KD2S
Secretary: Ian Norrish NZ1B
Treasurer: Ralph Swick, KD1SM
Editor: Stan Pozerski KD1LE
PIO: Jon Kinney N1JGA

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, at Packet address: KD1LE@N1FT.NH or pozerski@net1plus.com