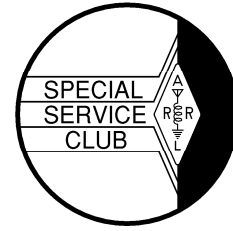




SIGNAL



de N1NC

December 2003 Volume 12 Number 12

This Month's Meeting

This month's meeting program is HomeBrew Night. Dust off one or more of those projects you built this year and bring them in. General interest projects are fine.

The meeting will be held at regular time and place. That's 7:30 at the Pepperell Community Center.

Adopt-A-Highway

The November clean up took place on the 24th. We had a good turn out and picked up our section of road, the boat launch area, and the canoe launch area. Thanks to Erik W1ZBT, Larry KB1ESR, Pat N1VAV, Jim AA1PO, Gary K1YTS, Nancy KB1KEF, and Stan KD1LE for helping out. This was our last cleanup of the year. The next cleanup will take place in April 2004.

Last Month's Meeting

At last month's meeting the first business was a Special Meeting to discuss and vote on the wording of the job description of the Emergency Coordinator. Stan described the purpose for description was the same as the Librarian and Property Master. That is to document the purpose and responsibilities of the position. Like the other two positions it is a Presidential appointment and as such is filled at the discretion of the President. The Board must approve such appointments. There was a short discussion and a motion to approve the description as written. A unanimous vote followed.

Meeting attendance was great with almost 30 persons present. We had a visitor from India.

and a new member from Ashburnham, Walter K1CMF

Last month's meeting program was composed of three Members Short Subjects which turned out to be not so short.

Les N1SV did a presentation on HF Mobiling with pictures of his vehicles and equipment.

Bruce K1BG talked about Buying on Ebay with screen shots and a discussion on buying strategies and software available to automate the bidding process.

Stan KD1LE did a presentation on the Military Affiliate Radio System (MARS) and talked about the MARS mission and how it has changed over the years.

The presentations ended after 9:30 PM and we cleared the hall shortly after 10 PM.

December Board Meeting

The December Board meeting took place December 11th at the KD1LE QTH. In attendance were Peter N1ZRG Vice President, Stan KD1LE President, Ralph KD1SM Treasurer, John KB1HDO Secretary and Board members Les N1SV, Bob W1XP, Dave N1MNX

Ralph gave the Board the Treasurers report.

John had submitted to the League a short article on our soccer tournament support and publicity. They asked for some pictures to be used with it if published.

We need people to coordinate for Groton Road Race and Parker Classic as planning meetings for these events are already taking place.

There was a discussion on Field Day planning issues. One item is the need for a person or persons to coordinate the event. Another discussion was on location and whether we should move to another area town just to "share the wealth" so to speak. After coming up with some possible sites the discussion turned to what the criteria might be that would cause us to change locations. The current location has worked well but the one aspect that might be improved at some other location is public traffic. Further discussion on suggested locations was on the tradeoff between more public traffic and the limitations of space and problems with noise. Everyone was encouraged to keep an eye open for possible sites. A decision on location will have to be made in the next few of months so permission to use the site can be arranged.

Dave discussed the trip to the Marconi Museum which will take place this coming Saturday.

QSL cards were given to the Outgoing QSL Manager.

We had Black Moons, Pumpkin Cake, and an Atkins platter for snacks compliments of Lynda N1PBL. The meeting adjourned about 9:30 PM

From the President

This meeting will wrap up the calendar (as opposed to the meeting) year for NVARC. I think it has been a good one and I am looking forward to the new one. I hope everyone has a great holiday season and New Year.

The pessimist in me says we are just heading into winter but the optimist says spring is just around the corner so you better get ready for it.

I mentioned at the last meeting the Official Field Day results, as reported in QST. We should start thinking about next year. After this meeting we will be half the way to next Field Day. There isn't a lot we need to do now but identifying someone to coordinate the event and choosing a location so that permission can be obtained are to important items that can be done now. There was some talk about the benefit of moving among the members towns. But of course staying put is the low risk choice. If anyone has any suggestions or comments related to this please contact me or one of the other officers or board members.

We have collected some PC's to create a dedicated logging system. That way we don't have to risk someone's home computer. These can be set up just how we want them with a minimum of other clutter. Les is organizing that work and if someone is interesting in helping they should contact him.

Switching hats to the Editor. I plan to print a revised members list section for the Yearbook to be distributed at the January meeting. Please check your information with Ralph or on the list he passes around at the meeting so the update will be as accurate as possible.

Stan KD1LE

Ham Radio History 101

Beginning Amateur Radio History

By Bob Reif W1XP

For this months article we will look at a few interesting aspects of radio propagation and how they may have influenced the development of short wave radio 80 years ago. This will involve sun spot records, a missing footnote and studying great circle paths. As always I hope you find it interesting and informative.

The Case of the Missing Footnote.

Well that title may sound more like something from the pen of Sir Arthur Conan Doyle. Something for Sherlock Homes and Dr. Watson to chase around the streets of the west end of London by gas light. Please excuse the melodrama, but the inspiration for this article came form the fact that a footnote to the October article on WNP was lost in the preparation of the article and did not appear in the Signal copy. Now I know the dedicated readers out there are still watching for an errata to the article with the missing footnote. Well I decided to embellish the footnote a bit and add more thoughts on what our present knowledge of propagation can add to our understanding of the early contacts from stations like WNP and the others.

While preparing the October article my curiosity was raised by the fact that WNP did not work any Eastern US stations from Refuge Bay, Greenland. While looking at the paths worked from WNP I noted something interesting. I was looking at the particularly consistent path to

Prince Rupert BC and the path to Hawaii. The Hawaii path was worked several times with good signals. I was examining the paths on a globe where it is easy to observe the great circle path. The fact that these two paths pass close to the North magnetic pole struck me as significant. The WNP/6CEU (Greenland to Hawaii) path passes directly over the North Magnetic Pole. The WNP/9BP path passes just a few degrees south of the Magnetic pole. Reflecting on this fact it is obvious that since the paths pass over the pole they lie on a radius of the Aurora Circle that is centered on the Magnetic Pole. These paths would therefore travel the least distance in the Aurora Zone of high signal absorption because the radial paths cross the Aurora Zone at right angles. By the same observation the path to the east coast (about the same length as the Prince Rupert path) is at right angles to the radial of the Aurora Circle that passes through Refuge Bay. The east coast path is then Tangential to the Aurora Circle and likely to experience much higher absorption due to longer distance traveled in the Aurora Zone. In this manner the path to the west coast of the U.S. is favored over the path to the east coast. This may be an over simplifies explanation, but it is the essence of the missing footnote.

I also spent several hours looking at the above-mentioned paths using the IONCAP propagation analysis software. Besides the path coordinates and time of the year, the program requires the average sun spot number. Checking back through the sun spot records it is interesting to note that 1923 is in the sunspot minimum between solar cycle 15 and 16. This period of low solar activity should be a good time for operation in the 200-meter region. The low level of solar activity leads to low nighttime MUF (maximum usable frequency) of both the E and F layer. This in turn leads to improved conditions on the lower HF bands and at 200 meters due to low attenuation. Attenuation is minimum at the MUF so the closer the MUF is to the operating frequency (assuming the MUF is above the operating frequency) the less the signal loss. So 1923 was a good time from a propagation standpoint to be trying to set records at 200 meters. The IONCAP analysis was a bit inconclusive. There was a good indication of less path loss on the path between WNP at Refuge Bay Greenland, and 9BP at Prince Rupert, British Columbia, than the path between WNP and New England. But it is hard to make a strong case for the poor propagation based only on these results. Being less than 500 miles from the North Magnetic pole means that

any path from WNP will be a path through the Aurora Zone. They are inside the Aurora Circle. The signals have to pass through the Aurora Zone.

The problem WNP was having with precipitation static caused by the static charge on the wind driven snow was certainly another cause for missed contacts. This phenomenon is caused by each snow flake (or rain drop in milder climates) carrying a small electric charge. When it strikes a metal object such as an antenna, the charge passes to the conductor and the sum of all these small random currents is a wide band noise in the radio receiver. I am sure many readers have observed this for themselves. There is little you can do except wait for it to go away. The interesting thing is the radio equipment was now working well enough that the circuit performance was being established by external sources and not the equipment. The signal to noise ratio was established at the antenna and not in the radio. To be sure there were many improvements in receivers yet to come, but external noise was now a limiting factor.

It seems obvious that had WNP made the voyage in 1924 instead of 1923, there would have been 100-meter wavelength equipment on board. It would have been interesting to see how these paths would have performed on the shorter wavelength. I think it is a safe bet that many more stations would have been worked. The IONCAP results indicate this. The path loss numbers really drop. Had the Bowdoin carried 100-meter gear, I think it would have been more as had been envisioned by the planners. There would have been regular two-way communications between the arctic and the states with many contacts made on both coasts and in between. Communications at high magnetic latitudes is still an unsure thing. Having operated from Alaska and the Yukon, I've listened to a lot of dead bands hour after hour.

So can we conclude that the low solar activity was responsible for the remarkable work that was taking place on both 200 and 100 meter in the winter of 1923/24? Probably not, but it didn't hurt. Probably the more important aspect of this was that as the amateurs were moving to the higher frequencies in the next few years the solar activity was increasing and therefore providing good conditions on these higher frequencies. A fact that no one appreciated in the winter of 1923/24.

Everybody have a Happy Holiday Season.
73 Bob W1XP

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From The ARRL Letter and Bulletins

ARRL'S BPL STUDY IMMINENT; LEAGUE TO SOLICIT BPL TRIAL INTERFERENCE REPORTS

An ARRL-sponsored independent engineering study to accurately quantify the interference potential of Broadband over Power Line (BPL) is set to start in the very near future. In addition, the League soon will elicit interference reports from amateurs in communities where BPL trials are known to be under way.

"We're contracting for an independent measurement of potential interaction between BPL and Amateur Radio," said ARRL CEO David Sumner, K1ZZ. The study--to be conducted under the auspices of certified professional engineers--not only will examine and document how BPL might affect HF and low-VHF amateur operation but how Amateur Radio operation could affect BPL systems.

The ARRL-sponsored engineering study should be completed within a couple of months, Sumner said. The ARRL anticipates that the FCC could issue a Notice of Proposed Rule Making in the proceeding (ET Docket 02-104) early in 2004. The FCC's Notice of Inquiry in the matter, released last April, has attracted more than 5100 comments--many of them from the amateur community.

At this point, while some BPL system trials are operating under existing Part 15 rules for unlicensed devices, other systems have secured FCC Part 5 experimental licenses that permit them to use higher power levels. In either case, however, FCC rules require BPL operators to cease operation if their systems result in harmful interference.

In a related initiative, the ARRL will be contacting amateurs in about a half-dozen US communities where BPL field trials now are in progress. The League will ask amateurs to listen on the air for any increase in noise level that might be related to the BPL trial. Sumner says it's most important that hams in trial areas who detect noise first verify that it is indeed caused by BPL before they document and report their observations to the FCC.

"It is important that each interference complaint be a valid case of actual harmful interference," an attachment to Sumner's letter says. "It is possible to misidentify other noise sources as BPL." Sumner says amateurs must carefully avoid "crying wolf" by filing invalid reports of BPL interference. The League suggests amateurs receiving the solicitation letters enlist the support of "a technically qualified observer"--an ARRL Technical Coordinator, Technical Specialist or local club interference committee--then submit a recording of the interference to the ARRL Laboratory for review and analysis.

The ARRL's solicitation includes a form to document suspected instances of harmful interference from BPL. Sumner says the League hopes the effort will result in a "body of technical evidence that will protect the Amateur Service from this source of potential interference."

In a related development, a California technology company this month wrote the FCC's Office of Engineering and Technology to refute ARRL assertions that BPL necessarily poses a severe interference potential. Corridor Systems <<http://www.corridor.biz>> says its "breakthrough" BPL system, operated under existing Part 15 rules, uses frequencies in the 2 to 20 GHz range, will not interfere with HF and low-VHF reception and can provide up to 216 MB per second throughput.

"Corridor Systems has demonstrated a BPL technology which is completely compatible with the Amateur Radio Service and, indeed, with all users of the HF-VHF spectrum," Corridor's Chief

Technology Officer Glenn Elmore, N6GN, said in the "open letter" <<http://www.corridor.biz/031201-fcc-letter.pdf>> that was copied to ARRL.

Sumner pointed out in responding to Elmore that ARRL only first became aware of Corridor's work in mid-October and that the League's comments were appropriate within the context of the FCC's definition of BPL systems operating in the 2 to 80 MHz HF and low-VHF spectrum. "The Corridor Systems approach deserves to be distinguished from the spectrum-polluting HF and low VHF systems, not only because of its much lower interference potential but also because of the higher data rates it can support," Sumner said.

Additional information about BPL and Amateur Radio is on the ARRL Web site <<http://www.arrl.org/tis/info/HTML/plc/>>.

HAM ANTENNA SUPPORT STRUCTURES NOT MIGRATORY BIRD HAZARD, ARRL SAYS

The ARRL has asked the FCC to specifically exempt Amateur Radio antennas and support structures less than 400 feet tall from routine environmental processing relative to their impact on migratory birds. In reply comments filed December 1, the League said there is no scientific evidence that antenna structures below that height contribute significantly to migratory bird mortality. An FCC Notice of Inquiry, WT Docket 03-187, released in August seeking information on the effects of communications towers on migratory birds, drew more than 250 comments. The League told the FCC that the migratory bird issue often arises at municipal land use hearings and in the drafting of ordinances regulating antenna structures.

"At public hearings before city, town and county authorities, those who are opposed to communications antennas for aesthetic reasons typically raise issues such as migratory bird mortality as one of several arguments" against permitting antennas or limiting their placement," the ARRL comments said. "ARRL's research into the scientific literature reveals that communications towers below 400 feet are almost universally considered not to be contributors to bird mortality."

The League said typical ham radio fixed antennas and support structures are located mostly in residential areas and range from 50 to 120 feet--although some may go as high as 200 feet. The ARRL said amateur antenna installations rarely

go any higher than that because of FAA approval, painting and lighting requirements, not to mention cost and siting restrictions.

"The comments in this proceeding to date support the conclusion that communications towers less than approximately 400 feet do not contribute substantially to migratory bird kills," the ARRL said, adding that no regulatory action is justified beyond what's already in place for aviation safety.

The ARRL also pointed to FWS guidelines released in 2000 that urge communications service providers to utilize towers less than 199 feet above ground level. The FWS concedes, however, that "tower height alone may not necessarily be a critical issue that results in mortality" and that bird kills documented at tall TV towers might be due to the effects of tower lighting rather than height.

Based on the record, the League concluded, "unlit Amateur Radio antennas cannot be considered candidates for regulation under any circumstances."

ON-LINE LICENSING COURSE, LOBBYING KIT PART OF ARRL'S 2004 PLAN

An on-line Amateur Radio licensing course--possibly bundled with ARRL membership--plus additional Certification and Continuing Education courses <<http://www.arrl.org/cce/>> are among the strategic objectives of the League's 2004 Operational Plan. The League also plans to evaluate its existing ARRL on-line class offerings. The item was among several the ARRL Executive Committee (EC) designated to include in next year's plan when it met November 9 in Irving, Texas. Work on the licensing course already is under way, and the ARRL expects to announce its availability in the near future.

At a mid-September strategic planning session, ARRL Board members agreed to let the EC pick the 2004 objectives to incorporate into the 2004 Operational Plan. In the future, the full Board will handle the task. Other strategic objectives include development of a grassroots lobbying kit for ARRL members to use when approaching congressional representatives in their home districts on legislation affecting Amateur Radio and surveying served agencies such as relief organizations to identify their present and future emergency communications requirements and areas

of Amateur Radio performance that may need improvement.

The EC included some bottom-line related strategic objectives: That the League operate profitably to insure its future well being, and that it develop as ARRL Board policy a requirement that all new programs and services have a business plan and at least break even financially.

In other matters, ARRL CEO David Sumner, K1ZZ, told the EC that the League is close to signing a contract calling for independent testing and measurement of Broadband over Power Line (BPL) interference characteristics. Earlier this year, the FCC issued a Notice of Inquiry, ET 03-104, that enthusiastically endorsed the prospect of BPL, which the ARRL and others feel poses the potential of possibly severe interference to licensed HF radio services. The contract would include certification by professional engineers.

The EC discussed and developed draft proposals to implement changes in US Amateur Radio rules in the wake of World Radiocommunication Conference 2003 (WRC-03). Among other significant changes, WRC-03 left it up to individual countries whether to require a Morse code test for access to amateur high-frequency allocations. The ARRL Board of Directors will discuss the EC's recommendations in detail at its January 2004 meeting.

The EC also voted not to go forward with an appeal of FCC actions to permit expanded unlicensed Part 15 operations in the 24.05-24.25 GHz band. The ARRL had filed a Petition for Review October 22 with the US Court of Appeals for the District of Columbia Circuit of two FCC orders that would allow certification of unlicensed 24-GHz equipment at field strengths 10 times the level Part 15 rules now permit. After discussing the pros and cons of the case and the minimal prospects for a positive outcome, the Executive Committee voted to withdraw the League's appeal.

Minutes of the November EC meeting are available on the ARRL Web site <http://www.arrl.org/announce/ec_minutes_472.html>.

HAYNIE PROMOTES HAM RADIO AT HOMELAND SECURITY CONFERENCE

ARRL President Jim Haynie, W5JBP, this month used the Amateur Radio Today <<http://www.arrl.org/catalog/?item=8861>> CD

presentation to promote the potential of Amateur Radio as a part of homeland security at the community level. Haynie served on a panel of national Citizen Corps affiliates during a Volunteers in Homeland Security Conference November 4-6 in Austin, Texas. ARRL became an affiliate of Citizen Corps <<http://www.citizencorps.gov>>--an initiative within the Department of Homeland Security <<http://www.dhs.gov/dhspublic/>>--in June during the ARRL 2003 National Convention. Haynie said Amateur Radio Today turned out to be the proverbial picture worth 1000 words for the crowd of some 300 conference attendees.

"When it was finished and they turned the lights back up, everybody applauded," he said. "I didn't have to say another word." Haynie said several public officials on hand at the event also praised the capabilities of their local Amateur Radio communities in providing assistance during emergencies and disasters.

Citizen Corps is a federal volunteer effort aimed at enhancing public preparedness and safety by bringing together volunteers and first responders. In some localities, ham radio is being incorporated into a Community Emergency Response Team (CERT) <<http://www.citizencorps.gov/programs/cert.shtml>>, a Citizen Corps program. Haynie says the Citizen Corps affiliation is "part of the bigger picture of getting emergency communications aligned with what our government needs."

"Amateur Radio stands ready to serve the country as needed in times of emergency," he said.

Citizen Corps Liaison to the White House Liz DiGregorio, headed the three-day gathering and provided an overview of Citizen Corps. She has urged Amateur Radio operators to explore ways to expand their role in the community beyond being a last resort when other communication systems fail.

Those attending the conference primarily represented agencies and organizations serving Federal Emergency Management Agency <<http://www.fema.gov/>> Region VI. FEMA now is a part of the Department of Homeland Security <<http://www.dhs.gov/>>. They included representatives of volunteer organizations as well as FEMA officials and members of local law enforcement.

INTERNATIONAL SPACE STATION MARKS FIVE YEARS IN SPACE

As of this month, the International Space Station has been in space five years and has had Amateur Radio and a permanent crew onboard for three years. The first component of the unique orbiting laboratory complex—home to the first permanent Amateur Radio station in space, NA1SS—was launched November 20, 1998. Since attaining orbit, the ISS has grown from a lone, uninhabited module into a continuously staffed, house-sized research facility. The Amateur Radio on the International Space Station (ARISS) program has been a part of the ISS since November 2000, when the Expedition 1 crew of William Shepherd, KD5GSL, Yuri Gidzenko, and Sergei Krikalev, U5MIR, arrived on board for a four-month tour.

"Together with our international partners we have learned how to build, operate and maintain a very complex spacecraft, through the good times and the bad," NASA Space Station Program Manager Bill Gerstenmaier said in marking the ISS's fifth birthday. "With this experience to guide us, we look forward to the future, with a vast expansion of the station on the horizon." The US, Russia, Canada, Japan and Europe have cooperated in making the ISS a reality as well as with making ARISS a success.

The first ISS element, the Russian Zarya functional cargo block (or FGB), was launched in 1998 from Baikonur, Kazakhstan. The shuttle Endeavour delivered the second element, the US connecting module called Unity, two weeks later.

The ARISS initial station gear went into space in September 2000. A month later, the FCC granted vanity call signs NA1SS and NN1SS (the official ARISS Earth station at Goddard Space Flight Center in Maryland) to the International Space Station Amateur Radio Club for US ARISS operations. Russia has issued the call signs RZ3DZR and RS0ISS for ISS use.

Using the initial ham station gear, Shepherd—who dubbed the ISS "Space Station Alpha"—made the first ARISS school group contact on December 21, 2000, answering questions posed by students at Luther Burbank Elementary School near Chicago. Some 200 youngsters, teachers, parents and news media representatives were on hand to witness the event.

So far, 22 crew members have staffed the ISS. The current Expedition 8 crew of Commander Mike Foale, KB5UAC, and Alex "Sasha" Kaleri, U8MIR, arrived at the ISS earlier this month and has been settling in aboard the spacecraft. Residents have conducted research in a wide range of disciplines, and the ISS remains the largest and most complex international space research project in history. The February 2003 shuttle Columbia tragedy and the subsequent grounding of the NASA shuttle fleet at least for another year has slowed construction and trimmed crew complements from three members to two. The ISS' scientific capacity will triple with components awaiting the space shuttle's return to flight.

"At five years old, the ISS continues to grow," NASA says. "More than 80 tons of equipment and hardware are in the Space Station Processing Facility at NASA's Kennedy Space Center, being prepared for launch."

The capabilities of NA1SS also are slated to expand in the near future. During the recent AMSAT-NA Symposium and Annual Meeting in October, ARISS International Chairman Frank Bauer, KA3HDO, outlined the delivery of the so-called Phase 2 ham equipment to the ISS. Already on board is a Kenwood TM-D700E VHF/UHF transceiver. The unit will mean a significant boost to the power output of the ARISS initial station gear—from 5 W to 25 W. Additional gear, including SSTV hardware, tentatively is set for transport in January.

For more information on the ISS, visit NASA's Human Spaceflight Web site <<http://spaceflight.nasa.gov/home/index.html>>.-- Information from NASA was used in this report.

UO-14 REACHES THE END OF THE TRAIL

UO-14 has officially ended its long run as an Amateur Radio satellite, although it continues to transmit telemetry and respond to commands from Earth. The Mission Control Centre at the Surrey Satellite Technology Ltd (SSTL) Center for Satellite Engineering Research announced this week that the venerable and popular bird "has reached the end of its mission after nearly 14 years in orbit." Launched in 1990, UoSAT-OSCAR-14 pioneered the PACSAT communication concept as the first 9.6 kbps Amateur Radio data communications satellite, although it became best known in recent years as an FM "easy sat."

"Since launch, UO-14 has completed over 72,000 orbits and as many charge/discharge cycles of its on-board NiCd battery," said AMSAT-UK Chairman Martin Sweeting, G3YJO. "However recently one of the battery cells has become exhausted and can no longer support continuous operation of the repeater." Sweeting said UO-14's transmitter shuts down shortly after it is commanded "on" due to undervoltage, so the microsatellite's mission has been terminated.

"Thank you UO-14 for your long service!" Sweeting concluded.

AMSAT-NA Board Member Bruce Paige, KK5DO, an enthusiastic UO-14 user, called the AMSAT-UK announcement "sad news." He said the loss of UO-14 leaves amateurs with SO-41 and SO-50 as the only two LEO FM voice satellites. He noted, however, that the planned 2004 launch of OSCAR-ECHO would help to fill the void. OSCAR-ECHO is set to launch next March 31.

The popular and heavily used FM satellite's repeater quit working in August, but hope remained within the amateur satellite community that UO-14 somehow could be revived. Ground controller Chris Jackson, G7UPN, at one point was able to reset the satellite, but he later determined that UO-14 had suffered a primary power system failure that was causing the spacecraft to shut down during some eclipses.

During its active lifetime, UO-14 served several roles. After some 18 months as a PACSAT, UO-14 was switched to non-amateur frequencies for humanitarian use by Volunteers In Technical Assistance, which used it for messaging into Africa. After the store-and-forward communications computer proved no longer able to perform that task, UO-14 was turned back to amateur use as a single-channel FM voice repeater.

UO-14 again served a humanitarian role in early 2001 when hams assisting with earthquake relief operations in the Indian State of Gujarat took advantage of the satellite to provide communication from the stricken region.

The beauty of UO-14 was that it required minimal gear to make contacts--typically 5 W and modest antennas would do the trick. Operators with dual-band handheld transceivers and "rubber duckie" antennas often could make QSOs via UO-14.

SPECTRUM PROTECTION ACT COSPONSOR LIST TAKES A GIANT STEP

Encouraging news this week from Washington: The list of House cosponsors for the Amateur Radio Spectrum Protection Act, HR 713, has reached 69. ARRL President Jim Haynie, W5JBP, says he's pleased with the progress since mid-October, when he'd expressed his frustration over a lack of cosponsors. Since that time, the list has grown by 17 representatives. The Senate version of the legislation, S 537, is holding at eight cosponsors.

"I'm cheered up that we've got new representatives to sign on, but we can't just stop," Haynie said. "We gotta keep at it." He said the League has been concentrating its efforts on promoting HR 713 because the bill has the best chance for success of any Amateur Radio-related legislation now before Congress.

Haynie continues to encourage ARRL members to not only urge their senators and representatives to cosponsor HR 713 and S 537 but to write and ask them to actively support them. "This is something that's important to the future of Amateur Radio," Haynie reiterated.

Sponsored in the House by Rep Michael Bilirakis (R-FL) and in the Senate by Sen Michael Crapo (R-ID), the Spectrum Protection Act would require the FCC to provide "equivalent replacement spectrum" to Amateur Radio if the FCC reallocates primary amateur frequencies, reduces any secondary amateur allocations, or makes additional allocations within such bands that would substantially reduce their utility to amateurs.

HR 713 has been referred to the Subcommittee on Telecommunications and the Internet. Haynie testified before that panel in June. S 537 has been referred to the Committee on Commerce, Science, and Transportation.

For the convenience of those writing their representatives and senators to urge cosponsorship of the Amateur Radio Spectrum Protection Act of 2003, ample letters are on the ARRL Web site. For guidance on the best methods of contacting your members of Congress, see "Communicating with Congress," by Derek Riker, KB3JLF, on the ARRL Web site or in the April 2003 issue of QST (p 46).

Additional information--including the text of the Spectrum Protection Act and information on how

to write members of Congress--is on the ARRL's "The Amateur Radio Spectrum Protection Act of 2003" Web page <<http://www.arrl.org/govrelations/arspa.html>>.

Those writing their lawmakers on behalf of the Spectrum Protection Act are asked to copy their correspondence to the League via e-mail to specbill03@arrl.org.

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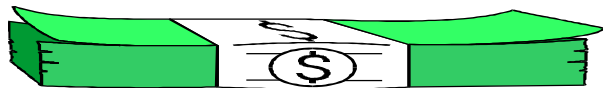
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\$December Treasurers Report\$

Income for November was \$15 in membership dues and \$8 from mug sales. Expenses were \$14.80 for newsletter postage, leaving a net income of \$8.20 for the month.

Current balances:

General fund	\$4496.09
Community fund	\$1842.55



Welcome to new member Walter Carrington K1CMF of Ashburnham.

Unsure of your membership anniversary date? It is on your newsletter address label if you get the newsletter mailed to you. It is also on the member roster that I circulate at the monthly meetings. While putting a check mark next to your name to note that you were there, please glance at the last column where your renewal date is shown.

If you are not an ARRL member and wish to join, as a Special Service Club NVARC can mail your application for you and we will receive a portion of your dues back. Just give me your ARRL dues check made out to NVARC at a meeting or at Saturday breakfast and I will mail it for you. You even save the postage that way.

73,
Ralph KD1SM



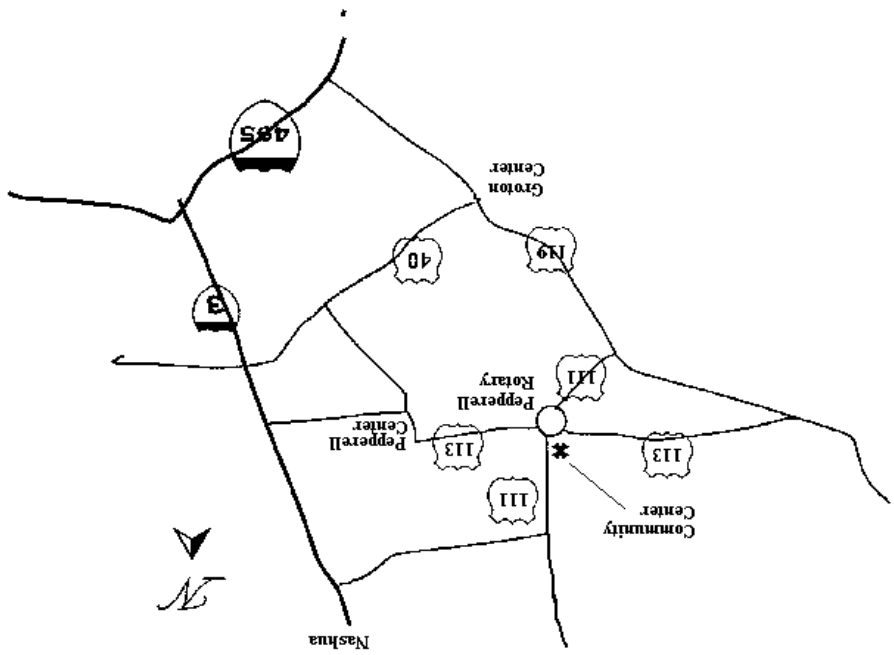
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N1NC Trustee: Bruce Blain K1BG
Meetings are held on the 3rd Thursday of the month - 7:30 p.m. - Pepperell Community Ctr.
Talk-in 146.490 simplex
442.90 + 100Hz Repeater
147.345 + 100 Hz Repeater
53.890 - 100Hz Repeater

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 send items to pozerski@net1plus.com
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