



SIGNAL



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November Presidents Report

The past year has seen a drop in attendance. The board has discussed this problem several times and is struggling on how best to address it. Sadly this is not a phenomenon that is unique to our club. Many larger clubs, radio and those other interests have folded due to competition for peoples limited time and resources. It would be unfortunate for us to follow the same path. My interest is in finding a formula that will help the club maintain and grow its membership. Feel free to contact me, or any other member of the board if you have ideas.

Some of our own ideas have been:

- Reduce the formality of the meetings
- Make the talks shorter, concentrating on less technical content
- Spend more on the social side, with open forums for one-on-one technical assistance.

We are always looking for speakers. If you have a subject that is near and dear to you, don't be shy, volunteer to give a presentation on it. (Or if you know of a speaker for a subject that would be interesting.—ed) Contact our V.P. William Davis K1WD, (603)-888-1611 K1WD@AMSAT.ORG with your subject. During this year expect to hear me talk about one of my favorite subjects, my telescope and CCD camera.

Set aside the 3rd Thursday, and come to the meeting. Let us help you move forward in the fascinating hobby that you have already invested a lot of effort in.
`Erik KA1RV

Board Meeting

The board meeting was held one week early this month due to Eric's schedule for the normal meeting night. Due to the change of nights the turnout was low. Present for the meeting were Eric (KA1RV), Stan (KD1LE), Ralph (KD1SM) and Stew (K1YET).

Ralph gave the treasurer's report. In the past two months the income was from nine membership

renewals. Expenses were for newsletter publishing and mailing as well as Post Office box rental. Details are in the treasurer's report elsewhere in the newsletter.



Stew reported that very little correspondence came in. The ARRL did acknowledge the receipt of the article and picture of the club's Adopt-a-Highway program and said that they will use it in the Up-Front section of QST if space permits.

The club has decided to participate in the Get On The Air program being sponsored by the ARRL. The program is to help new hams get set up to actually use their amateur privileges. Stan will let Don Haney (KA1T know that we will be participating. The first couple of letters to new area hams will be going out this month.

Stan also discussed the possibility for the club to have another QSL Bureau sorting session at one of our winter club meetings. He will contact the QSL manager to set this up. Stu K1YET

This Month's Meeting

This month Terry Stader will talk about Amateur Radio and Emergency Communications.

The December meeting is scheduled to be Homebrew Nite. This gives everyone enough warning to get those projects finished up.

Last Month's Meeting

Last months we had a presentation by Jacques Patry. Jacques talked about the importance of good cable and connectors. He also talked about and then demonstrated the art of putting together various connectors such as BNC's and SO-239's. It was a good presentation about something we all need to know. I apologize for spelling Jacques name incorrectly in the last newsletter.

Rochester VE Session

The VE session was a success and we received many comments about how smooth things ran. It was a bit easier this session as attendance was off slightly. This session had 34 candidates who took fifty total exams (written and code). The spring Hosstraders tends to be more busy than the Fall session. I suppose thats true of the Hamfest in general, but its hard to tell from the 4H building.

Stan KD1LE

Public Service

Soccer Tournament a rousing success for Club.

Carrying on the tradition of providing communications support to the Pepperell Fall Classic Soccer Tournament, many club members gave up a few hours of their time over the Columbus Day weekend to help out.

The weather was perfect and everyone appeared to have an enjoyable time watching the 360 or so teams play and given that there were over 3000 kids playing, the three calls for the ambulances stationed on site, plus numerous EMT requests were not surprising, but were handled swiftly and effectively.

The primary role of the Club's activity is to provide health and welfare emergency communications between the playing fields and the control center for the tournament, but this year our role was extended to working closely with the referees and field marshals who use CB hand-helds. Since the base stations for both groups were co-located it wasn't a big stretch to operate both control points and in fact made communications to the fields much cleaner. Heavy QRM appeared from time to time on the CB bands, but 2M communication was flawless throughout the three days.

Many of us received profuse thanks from the organizers of the tournament for our communications support and participation this year and for past tournaments, gaining a huge amount of great PR in the local community. One strong recommendation for next years tournament is that we circulate a note to Mass. Hams who may have children playing in the tournament, suggesting that they bring their 2M hand helds and help out while their kids are playing. Since many parents have to stay with their kids for most of the day, these additional bodies would help us to get a sufficient numbers of volunteers to staff the fields.

Thanks are due to the following hams who gave their time and expertise over the three days:

Stan KD1LE, Greg N1VAV, Eric KA1RV, Dave N1MNX, Wolfgang KA1VOU, Allyn N1PIP, Stew K1YET, Jon N1JGA, Dan N1LLG, Russ WR1Y, Linda N1PBL, Ian NZ1B, Bob W1XP, Ralph KD1SM, Herm KE1EC, Bob K1QT.

Thanks are especially due to Ian NZ1B who organized this event—ed

MASS ADOPT A HIGHWAY PROGRAM

The morning of Sunday October 18th the club performed the monthly cleanup along our stretch of Rt. 119. It was coordinated by Bob K1QT. The crew was composed of Ralph KD1SM, Jeanine N1QIT, Bob W1XP, Stan KD1LE, Lynda N1PBL, Craig N1ABY, Stu K1YET, and Dwight AA1MT. Since we had nine people this time it took only about one hour. That is compared to a little over two hours the previous times. With nine people we formed 4 teams and covered the whole stretch at once. November cleanup is the last for the year, I thought October was it. So we will be looking for volunteers to help out then. Contact Bob McArthur K1QT if you can lend a hand in a future cleanup. Jim Western AA1PO is our liaison with the State and arranges for the equipment and the pick up of the trash after each cleanup.

Fox Hunts

The NVARC crew (Wolf KA1VOU, Ralph KD1SM, Stan KD1LE) regularly participate in the Saturday morning MMRA Fox Hunts. This has resulted in refinements to our equipment and skills. As a result we are consistently among the first few hunters to locate the fox.

In the Hunt on October 18th, we were again the first to locate the fox. Dave (the fox) KT1X provided us with a good hunt. This entitled us to the "honor" of being the fox for the next hunt. So, on October 25th, we provided a fox/foxbunt on the

Fitchburg machine 145.45 MHz. Ralph and I took turns on the microphone from our hiding place in Ashby. The RV made quite a comfortable foxhole. The first hunters found us in about ninety minutes, with the last hunter at about two hours. After the hunt, the hungry hunters gathered at a local restaurant for lunch. One hunter came up from Connecticut for the hunt.

I would like to encourage anyone interested in hunting (or curious about what it is) to join in on the events when we bring them close to home. As always, we would be happy to take along a guest hunter when we are hunting (and not the fox). Another opportunity to participate, for those who think they are pretty clever, is to volunteer to be the fox. Stan

Eastern Mass Nets

Many Hams think getting on the air means making some random contacts or only in terms of far off places. There are many for which daily or weekly contact with the same people is more to their liking. There are groups of "regulars" that commute during the same hours each day and get to know each other over months and years of commuting. Just the other evening during the commute, one of the "regulars" said "let's meet at Dunkin Doughnuts in Melrose". Unfortunately I was too far west when the call went out. Within five minutes seven or eight people, some who had never met, altered their travel to go meet some fellow hams they had probably talked to for years, but never met in person. Likewise there are nets that meet on some regular basis to exchange information about some common interest, swap equipment, or just chat with the same people. There are also wider coverage nets that cover a State, or an area like New England or United States. There are nets for Religious groups, weather information, retired groups such as FAA/CAA, Boy Scouts, travelers, Tin Can Sailors or Submarine Veterans and NTS traffic. These nets meet on some regular basis whether it be daily or several times a day, weekly, or monthly. The ARRL Net Directory is a good source of information on nets. Below is a partial list of some of nets that meet in Eastern Mass for some common purpose/interest.

EMRI NTS PH	d-5:30P	3.915
EMRI NTS CW	d-7 & 10P	3.658
EM2MN NTS	d-8P	145.230
CM2MN NTS	d-9P	146.925
HHTN NTS	d-10:30P	146.640
BARC Club	M-9P	145.230
MMRA Club	Tu 8P	MMRA Links

HHTN Computer	1 st & 3 rd Tu 8:30P	146.64
EMA Public Safety	Tu 9P	145.230
NETARC Satellite	Tu 9P	146.640
Skywarn Spotters	W 7:30P	145.470
CW Practice	W 8P	145.410
HHTN Swap	W 9P	146.640
AMSAT	Th 8:30P	146.640
NEWS Group SSB	Th 8:30P	144.25
Yankee SSB	Su 9:30A	50.275
Youth Net	Su 3:30P	3.970

From The ARRL Newsletter

A searchable Code of Federal Regulations, which includes Part 97-the Amateur Regulations, is available from the National Archives and Records Administration. Go to; <http://www.access.gpo.gov/nara/cfr/cfr-table-search.html>

FCC ISSUES NEW FORM 610--OLD VERSIONS OBSOLETE

The FCC announced this week that as of January 1, 1998, Amateur Radio applicants may only submit FCC Forms 610, 610 A and 610B that carry an edition date of September 1997. After the first of the new year, previous editions of Form 610 will not be accepted for filing by the FCC or by Volunteer Examiner Coordinators (VECs). Amateurs may begin using the new Form 610s now.

The major change on the new form is a certification that says the applicant has "read and will comply with Section 97.13© of the Commission's Rules" regarding RF radiation safety and the amateur service section of OST/OET Bulletin No 65, Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields. But, Amateur Radio Supplement B of Bulletin 65, which has additional information on how to conduct a routine RF safety evaluation and explains other aspects of RF safety, is still in the draft stages and not yet available to the ham radio community.

ARRL Executive Vice President David Sumner, K1ZZ, says the League is concerned that that the new Form 610 could be in the hands of hams before Amateur Radio Supplement B is complete. Sumner says it's essential that the FCC make Supplement B available in time for hams to complete their evaluations to meet the deadlines in the rules.

ARRL Lab Supervisor Ed Hare, W1RFI, who's been involved in reviewing the draft supplement, said he expects the FCC to release it sometime in Novem-

ber. The ARRL will release a book on the new RF safety regulations near the end of the year. "Above all, it is important that the required station evaluation be as easy as possible for hams," Hare said. "The FCC has pretty much met that goal. Additionally, most hams, by virtue of their power levels, will not need to do an evaluation at all."

Section 97.13© reads: Before causing or allowing an amateur station to transmit from any place where the operation of the station could cause human exposure to RF electromagnetic field levels in excess of those allowed under 1.1310 of this chapter, the licensee is required to take certain actions.

1. The licensee must perform the routine RF environmental evaluation prescribed by 1.1307(b) of this chapter, if the transmitter PEP exceeds the following limits: 160-40 meters, 500 W; 30 meters, 425 W (legal limit is 200 W—Ed); 20 meters, 225 W; 17 meters, 125 W; 15 meters, 100 W; 12 meters, 75 W; 10 meters, 50 W; VHF (all bands), 50 W; 70 cm, 70 W; 33 cm 150 W; 23 cm, 200 W, 13 cm 250 W, SHF/EHF (all bands) 250 W.

2. If the routine environmental evaluation indicates that the RF electromagnetic fields could exceed the limits contained in 1.1310 of this chapter in accessible areas, the licensee must take action to prevent human exposure to such RF electromagnetic fields. Further information on evaluating compliance with these limits can be found in the FCC's OET Bulletin 65, Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields.

The new Forms 610 may be obtained from the FCC' Web site via the Internet at <http://www.fcc.gov/formpage.html>, at <ftp://ftp.fcc.gov/pub/Forms/> <ftp://ftp.fcc.gov/pub/Forms/> or by fax at 202-418-0177 (request index, or for Form 610 use form code 000610, for Form 610A use form code 006101, for Form 610B use form code 006102). The FCC Forms Distribution Center will accept FCC forms orders by calling 800-418-3676.

ARRL VEs and VE teams will be able to obtain a supply of the new Forms 610 in mid to late November—once the ARRL/VEC has had time to obtain a supply of the new forms.

Individual amateurs may obtain a copy of the new Form 610 by sending a self-addressed, stamped envelope (SASE) to: ARRL/VEC, 225 Main St, Newington CT 06111. Include 32 cents postage for each Form 610 requested (this is a four page form).

For general information, contact the FCC, 1270 Fairfield Rd, Gettysburg, PA

17325-7245, or call the FCC's National Call Center at 888-225-5322 (CALL FCC).—FCC

ARRL TO CONTINUE PUSH FOR FEDERAL PREEMPTION

The ARRL Executive Committee has voted to have the League continue to urge adoption of the antenna regulatory preemption policies contained in its petition, RM-8763. The action came on a motion from ARRL Vice President Steve Mendelsohn, W2ML, as the Executive Committee met October 11 in Philadelphia.

The League's petition, filed in February 1996, seeks enhancement of the PRB-1 limited federal preemption of state and local regulation of Amateur Radio antennas. However, the FCC appears to have made no progress with regard to the petition, which asked the FCC to declare that localities must find the least restrictive means to deal with ham radio. Among other things, the petition called on the Commission to amend Section 97.15(e) of the rules to say that any state or local antenna restrictions limiting ham radio antennas to heights below 70 feet would be "presumed unreasonable," unless the state or local authority could show its restrictions were necessary for health, safety or aesthetic reasons.

It was also announced at the Executive Committee meeting that the League will submit comments in Mass Media Bureau Docket 97-182 supporting a comprehensive antenna facilities siting policy, including amateur antenna structures.

The ARRL also continues to pursue FCC preemption of local and state attempts to regulate in the area of RF radiation safety.

The Committee also was told that numerous comments, most of them supportive, were filed on the ARRL's petition (RM-9150) seeking to improve the FCC's handling of private-sector complaints of serious amateur rules violations. The League has filed reply comments in the matter.

In other matters, the Executive Committee

responded to a request from Southwestern Division Director Fried Heyn, WA6WZO, that the ARRL study a possible expansion of the existing special event call sign program to include call signs other than the 1x1 format now available. ARRL Executive Vice President David Sumner, K1ZZ, told the Committee that demand for 1x1 special event call signs has been

low. Just 54 call signs were coordinated during the first six weeks of the new program that lets clubs or individuals reserve 1x1 special event call signs for temporary use via the Internet. Sumner noted, however, that there is some demand for special event call signs outside of the 1x1 block.

-will recommend to the ARRL Board of Directors the creation of the category of International member that would encompass present Associate members who are licensed but are not eligible for Full membership. In addition, the Board will hear a recommendation to have the International Affairs Vice President "bring to the Board the concerns of members in other countries."

-will recommend to the Board that the Technical Excellence Award be renamed the Doug DeMaw Technical Excellence Award, as requested by several members who have earned this award.

-agreed that the League will file in opposition to a waiver request and petition for rulemaking by Sierra Digital Communications Inc. Sierra Digital Communications seeks increased power for its product—an unlicensed point-to-point data communications link operating under Part 15 rules at 24 GHz.

-voted that the President and Executive Vice President shall develop a plan -to reinstate the strategic planning process.

TAUZIN SAYS "WE HEAR YOU" TO AMATEURS, SCANNER FANS

Hams, scanner enthusiasts and others are breathing a tentative sigh of relief this week. Their efforts apparently have paid off to convince House Telecommunications Subcommittee Chairman W. J. "Billy" Tauzin (R-La) that HR 2369, the Wireless Privacy Enhancement Act of 1997, was flawed legislation. Tauzin's so-called "scanner bill" has been rewritten to reflect the concerns of hams, volunteer firefighters, scanner enthusiasts and others.

Many meetings, phone calls and letters with Tauzin's staff followed the introduction of the original bill. At Tauzin's request, the League submitted recommendations to narrow its scope. From Washington, ARRL Legislative and Public Affairs Manager Steve Mansfield, N1MZA, reports that most of those recommendations found their way into a committee markup of the bill, released Wednesday, October 29. While the original version of HR 2369 covered the entire Commercial Mobile Radio Service (CMRS), the current

version restricts its scope to just cellular telephone and the Personal Communications Service (PCS). Mansfield tempered his optimism with caution. "It is still too early to say whether the bill in its modified form, or in any other form, will ever become law," he said.

In introducing the substitute bill, Tauzin praised hams for their constructive cooperation. "The bill was never intended to prohibit the scanning of public safety frequencies or other noncommercial frequencies in which users have no expectation of privacy," he said. It was designed solely "to protect users of wireless services that pay for such services." Mansfield said the League worked with a coalition of other organizations to make sure members' voices were heard on The Hill. Changes also were recommended by scanner interests including Uniden and Tandy.

Unless Congress cuts corners, the bill still has a long way to go. It must be passed by the full Commerce Committee before it goes to the floor of the House. "The ARRL will continue to work with committee staff to fine tune one of the bill's provisions that could have unintended consequences with regard to unrelated modification of equipment," Mansfield said.

In its original form, the bill had generated a good deal of controversy that boiled over into emotional letters and e-mail messages to Members of Congress. Some critics interpreted the bill as outlawing equipment that receives law enforcement, fire, EMS and other nonbroadcast services, and felt it could even prohibit listening to these transmissions. The ARRL believed it could also impede the ability of manufacturers to include expanded VHF and UHF receiving capability, something most hand-held and mobile transceivers now offer.

While the League did not object to the original bill's efforts to curb cellular and PCS eavesdropping—something that's already illegal—its primary objection was that it could adversely affect the efforts of ham radio emergency volunteers, volunteer fire departments and other agencies that monitor public service frequencies using scanners. Among other things, the League pointed out to House members this month that the Electronic Communications Privacy Act (ECPA) of 1986, makes it illegal to intercept cellular, PCS, and other telephone-type communication.

One provision of the latest version calls on the FCC to consider defining the expression "capable of readily being altered" to require scanning receivers to be made in a way that effectively precludes alteration as necessary to prevent illegal use. Another calls on the FCC to consider requiring warning labels for scan-

ning receivers that alert users to the prohibitions in federal law.

Mansfield praised Tausin and his staff for paying attention to Amateur Radio concerns on the proposed legislation. "On the whole, it looks like Congress has listened," he said.

WRC-97: ARTICLE S25 CONSIDERATION PROBABLY DEFERRED UNTIL 2001

Late word from the ITU's 1997 World Radiocommunication Conference in Geneva is that Article S25 of the international radio regulations might not end up on the agenda for the WRC-99 after all. Article S25 was placed on the tentative agenda for WRC-99 at WRC-95, two years ago. A working group of WRC-97 delegates compiling the agenda for WRC-99 decided on Friday, October 31, to recommend that the matter be held over until 2001 because of a long list of other items vying for inclusion on the WRC-99 agenda. The decisions as to what will and will not be included on the WRC-99 agenda will not be final until agreement is reached in the Plenary, much later on in the four-week conference. Article S25 contains the international radio regulations that are specific to the Amateur and Amateur-Satellite Services, including the Morse code requirement for operation below 30 MHz.

The possible realignment of the 40-meter allocation, to resolve the conflict between amateurs and broadcasters in part of the band, tentatively has a place on the WRC-99 agenda. This issue likely will be tied to the desire of HF broadcasting for more spectrum between 4 and 10 MHz. Both issues will be on the WRC-99 agenda unless more urgent items crowd them off before the close of WRC-97.

Ham radio is well represented at WRC-97, which began Monday, October 27. ARRL Technical Relations Manager Paul Rinaldo, W4RI, is a member of the US delegation. Jim Dean, VE3IQ, of the Radio Amateurs of Canada, David Wardlaw, VK3ADW, of the Wireless Institute of Australia, Keigo Komuro, JA1KAB, of the Japan Amateur Radio League, and Y. S. Park, HL1IFM, and J. G. Rhee, HL1AQQ, of the Korean Amateur Radio League, are on their nations' delegations. Each of these delegates has a strong IARU connection. IARU representatives include Larry Price, W4RA, Wojciech Nietyksza, SP5FM, and Michael Owen, VK3KI.

Among many other topics, the so-called "Little LEO" issue will come before the 1800 or so WRC-97 delegates. Current US proposals do not include any plans to share amateur frequencies, but this does not prevent other delegations from bringing up plans that might adversely affect ham radio allocations. That hasn't happened so far. In another action Friday, the

working group that's considering Little LEO allocations agreed to a New Zealand proposal to designate 146 to 148 MHz as "no change," and Rinaldo is optimistic that designation will hold.

Little LEO advocates continue their attempts to justify additional allocations, but a recent FCC order to confirm an agreement to share existing Little LEO allocations warned the industry not to expect additional spectrum in the future. "We had significant difficulty obtaining spectrum for Little LEO service at WRC-95," the FCC said.

Rinaldo has been named chairman of a drafting group that's looking into the issue of wind profiler radars. These systems operate around 50, 449 and 1000 MHz and have some potential for interference to Amateur Radio. No surprise new bands for wind profilers were proposed at today's first meeting, and a European proposal for 420 to 435 and 438 to 440 MHz was taken off the table.

WRC-97 delegates also are being asked to consider adding the Earth Exploration Satellite service to the 430 to 440 MHz band and to upgrade the status of EES in the 1240 to 1300 MHz band.

World Radiocommunication Conferences are held every two years. WRC-97 is scheduled to wrap up on November 21

FCC OPENS VANITY GATE 4!

Christmas will arrive a bit early for General, Technician Plus, Technician and Novice Class hams. The FCC has announced that vanity call sign program Gate 4--the last vanity gate--will open December 2, 1997, for General, Tech Plus, Technician and Novice class hams to request a vanity call sign on or after that date. The potential number of applicants from these four licensee groups is huge--well over a half million hams!

Applicants may use either the electronic Forms 610V and 159 on the Web or hard-copy Form 610V and 159--but not both. Both versions--plus fact sheets and answers to frequently asked questions--are available at <http://www.fcc.gov/wtb/amateur>. The application fee is \$50, payable by check (to "FCC"), bank draft, money order or credit card. Do not send cash. The FCC gives processing priority to electronically filed Forms 610V for which the filing fee and Form 159 have been received. The FCC now requires all vanity filers to include a Form 159, which must be mailed to the FCC with your fee.

It's up to applicants to make sure that their applications do not arrive before December 2, 1997. The

FCC will return all applications that arrive early. All other vanity call sign gates will remain open, and Amateur Extra and Advanced class operators continue to be eligible to file for vanity call signs under those filing gates.

Any call sign requested must be appropriate for the class of license you hold. This means that Technician, Tech Plus, and General class licensees may ask for a Group C (1(3) or D (2(3) call sign. Novice class licensees may only request Group D call signs.

Electronic filers must mail the Form 159 Fee Remittance Advice to FCC, Amateur Vanity, PO Box 358994, Pittsburgh, PA 15251-5994. The Form 159 and the fee must be received within 10 days of electronically filing your Form 610V or your application will be dismissed.

Those filing on document Forms 610V and 159 must mail the application package containing a completed Form 610V with a copy of your license attached, Form 159 and the proper fee in a sealed envelope to FCC, Amateur Vanity, PO Box 358924, Pittsburgh, PA 15251-5924.

Application packages via courier or delivered by hand must be prepared in the same way, sealed in a second, outer envelope, and addressed to Federal Communications Commission, c/o Mellon Bank, 525 William Penn Way, 27th Floor, Room 153-2713, Pittsburgh, PA 15259, ATTN: Wholesale Lockbox Shift Supervisor. This address should only be used for applications delivered by hand or courier.

For general information, call the FCC's toll-free National Call Center, 888-225-5322 (CALLFCC).

SOLAR UPDATE: A STRONG UPWARD TREND; MAJOR FLARES

Solar oracle Tad Cook, K7VVV, Seattle, Washington, reports: Solar Cycle 23 showed renewed activity this week, as solar flux values went well over 100. Average solar flux for the week was up about 19 points, and average daily sunspot numbers were up about 36 points. The average solar flux for the previous 90 days went up two points from 87 to 89 over the week, and daily values were above this average on every day, indicating a strong upward trend. Flux values are measured three times per day at an observatory in Penticton, British Columbia. The one reported here is the noon measurement at 2000 UTC, but the highest flux measured for the week was actually 120.6 at 2200 UTC on November 4.

As solar activity was rising, geomagnetic conditions were very quiet, especially on November 2 and 3, when K indices were at one or zero most of the time. This meant that absorption of radio waves in the up-

per latitudes and over polar paths was minimized, and conditions on higher HF bands improved. These conditions did not last, and as this bulletin is being written on Thursday evening, the K index is six, and a major geomagnetic storm is raging. This is from a major flare that burst from the solar surface at 0558 UTC on Tuesday. Protons from this flare are slow moving, so it takes a couple of days to affect Earth. There was another major flare on Thursday morning at 1155 UTC, so poor conditions may continue, although at this point it is uncertain if the new flare will hit Earth directly with protons or not.

In last week's bulletin, it was mentioned that active geomagnetic conditions created havoc in the recent CQ Worldwide DX Contest. Actually that was mostly true from a West Coast contesters' perspective, since contest stations in that region use a polar path to reach Europe. The East Coast was not affected nearly as much, since that path to Europe is further to the east. It is mainly high latitude paths which are bothered during periods of geomagnetic activity.

For the short term, expect poor conditions until effects from these solar flares pass. If we are not affected by the latter flare, conditions may be back to normal by the middle of next week. Solar flux is expected to drop below 100 by November 11, below 90 two days later, and to the mid-80s after the middle of the month. It should rise above 90 again around November 23, and above right after Thanksgiving. Periods of unsettled to active geomagnetic conditions are forecast around November 20-23, a recurrence of the conditions during the recent DX contest.

For updates on the storm, check WWV at 18 minutes after the hour, or call 303-497-3235. Conditions should be back toward normal when the K index is three or less, although the ionosphere may take some time to recover. Some good sites on the web to check for alerts and information are Cary Oler's Solar Terrestrial Dispatch page at <http://holly.cc.uleth.ca/solar/> or NOAA's Space Environment Center at <http://solar.sec.noaa.gov>.

Sunspot numbers for October 30 through November 5 were 51, 55, 62, 74, 66, 68 and 51 with a mean of 61. The 10.7 cm flux was 88.2, 90.5, 93, 97.8, 109.8, 117.9 and 113.8, with a mean of 101.6, and estimated planetary A indices were 10, 4, 8, 3, 3, 9, and 9, with a mean of 6.6.

SPUTNIK MODEL UPDATE

The hand launching of that Sputnik 1 (PS2) model from the Russian Mir space station now is set for November 3 at 0200 UTC. A working one-third scale model of Sputnik 1 will be tossed out during a space walk by Cosmonaut Anatoly Solovjev. Cosmonaut

Pavel Vinogradov will take pictures from outside the spacecraft. The Sputnik model is nearly eight inches in diameter and weighs just over six pounds. It will transmit a "beep-beep" beacon signal, and the tone will vary with the temperature inside the spacecraft (from 372 Hz at -50 C to 1213 Hz at +50 C). US Astronaut David Wolf, KC5VPF, will remain inside Mir during the space walk. According to Guy Pignolet, secretary of the Aero-Club de France, power is provided by three packs of four lithium batteries at 3.5V each. The transmission frequency will likely be 145.820 MHz, and it will be also possible to listen to 145.841 MHz. The 500 mm antennas are circularly polarized, and it will be possible to listen to PS2 in SSB or FM. "The sound will be nicer with SSB, but the Doppler may make the shift appear more complex at the beginning and at the end of the satellite's visibility," Pignolet said. Reception reports go to FR5KJ, the club station at College Reydelle. Include an SASE and two IRCs for a certificate. For more information, see <http://www.oceanes.fr/~fr5fc/spoutnik.html.--thanks> to Miles Mann, WF1F, and Guy Pignolet

NVARC QSL BUREAU

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

\$The Treasurer's Report \$

As I reported at the September meeting, our income for FY'96-FY97 was down quite considerably from our previous years income. Expenses exceeded income by quite a bit. We're in the black but more membership income will be necessary to keep publishing our newsletter and paying our insurance bill! Income for September was \$157.06. Why the 6 cents? Well, that's what the eagle-eyed road crew found while picking up our adopted highway! And the spear hole in the nickel doesn't even show. HI This is the month our liability insurance premium is due; total expenses were \$274.20.

Thanks again to everyone who renews their ARRL membership through the Club. As an Affiliated Club, the League rebates part of your membership dues to us.
73, Ralph KD1SM

CW Practice Nets

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

Say What?

"A distributed system is one that stops you from getting any work done when a machine you've never even heard of crashes."

Leslie Lamport (Attributed)

"Life is uncertain. Eat dessert first."

Ernestine Ulmer

The most exciting phrase to hear in science, the one that heralds new discoveries, is not "Eureka!" (I found it!) but "That's funny..."

Isaac Asimov

"If a train station is where the train stops, what's a workstation?"

Unknown

If you don't know where your going, you'll end up somewhere else."

Yogi Berra



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Amateur Radio Club**
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V Pres.: William Davis K1WD
Secretary: Stewart Jackson K1YET
Treasurer: Ralph Swick, KD1SM
Editor: Stan Pozerski KD1LE
PIO: Earl Russell WR1Y

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

This newsletter is published monthly. Submissions, corrections and inquiries should be directed to the

newsletter editor. Articles and graphics in most IBM-
PC formats are OK.
You can leave items on PEPMBX or at Packet ad-
dress: KD1LE@N1FT.NH

