



See you at our next meeting!
December 3rd, 2001, 7PM
 Nashua Public Library

DON'T MISS THE NARC HOLIDAY PARTY



What are your plans for Saturday night, December 1st?



Are you going to be eating a delicious ham dinner with scalloped potatoes, macaroni and cheese, candied sweet potatoes, deviled eggs, kielbasa, crisp salads, roasted vegetables, and yummy homemade deserts? Will you be tapping your foot to the beat of popular and seasonal music that spans the decades? Will you be laughing and joking with old friends (some of whom you haven't seen for months), or creating new friendship with other interesting people? Will you have a chance to win a free dinner at some of Nashua's best restaurants? Or a \$100 gift certificate at HRO?

The answer to these questions doesn't have to be NO. There is still time to reserve your tickets for the NARC Holiday Party. Just call Nancy (KW1LTR) at 603-465-2788 or send email to nancyr@innermedia.com. Tickets will be available at the door (but Nancy would prefer advanced notice if possible). Here are the party details:

The annual NARC Holiday Party will be held on Saturday, December 1st at 7:00 pm at the Horsepond Fish and Game Club at 13 Horsepond Ave, off of Broad Street in Nashua (near the Nashua Mall). This is a family event, complete with music, great door prizes, a delicious pot luck dinner, games, and a Yankee Swap style gift exchange (optional).

Tickets are \$8.00 for adults and \$4.00 for children 12 and under. As it is a pot-luck dinner, please bring either an appetizer, main dish, vegetable/salad or dessert. The club will supply a honey-baked ham, rolls and butter, soft drinks, coffee and tea. BYOB.

If you wish to participate in the Yankee Swap style gift exchange, please bring a wrapped gift (\$10.00 or less in value). This activity will be lead by our own Yankee Swap master, David Knight, KA1DT. If you are bringing a young child, please bring a gift for them with their name on it. Door prizes are donated by the club and include generous gift certificates at local restaurants and at HRO. Only club members are eligible for the drawings. Hope to see you there!

Nancy Rosenberg, KW1LTR
 NARC Activities Manager

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Nashua Area Radio Club Internet Home Page:
<http://www.n1fd.org>

NARC Internet re-mailer:
narc@bbn.com

FCC Hotline: 1-888-225-5322

FCC ftp site: <ftp.fcc.gov>

ARRL Ham Hotline:
 800-32-NEWHAM

Nashua Area Radio Club meetings are accessible for the physically challenged



Deadline for the January Bulletin is Friday December 7th, 2001

Please contribute to the newsletter! Your meeting notes, a letter, anything you want published. You can email the editor articles, pictures or suggestions

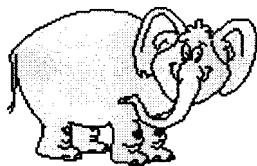
to: malcolm@adsman.com

Tiny Elephant's Contest Corner

The Latest Contest news -

A NARC Bulletin Exclusive

A monthly column by Ed Deicher, K2TE



RF Addiction

The preponderance of cell phones in our society today is another one of those whimsical annoyances that ranks up there with body piercing. They have come to rate their own special brand of commercials, ranging from a well-aimed spear at one incessant user to an agonizing choice between talking on the phone and relieving one's bladder (guess who won?).

Before you roll your eyes at the thought of me bashing modern technology, relax. I only state what is an obvious acceptance today that was just breaking ground a few years ago. As cell phone sales ramped up, some folks complained of strange headaches and even reported tumors and rare brain cancers. Someone made the Chicken Little connection that perhaps these problems were being caused by the exposure to prolonged radiation from cell phones. As with many panic leaps of logic, there is some truth to the assertion since cell phones generally operate at 900 MHz and the cavities in ones head from the eyes and nasal cavities, one could argue, may act as a waveguide. The pro and con camps soon formed with proponents demanding safer phones and opponents claiming that the only way to attribute direct cause to RF radiation would be to stick one's head in a microwave oven - not a bad idea in some cases.

Once the batteries in the dueling phones died down, we were left with Congress bringing its magnanimous wisdom to bear on the problem. The FCC was told to do something that eventually led to a flurry of measurements and a set of emission safety standards for cell phones that made insurance companies happy and negligence lawyers sad.

A common property of Government edicts, however, is that what is decree as best for one part of society rolls downhill to the rest of us. As you probably guessed, in 1997 the FCC's Office of Engineering & Technology (OET) pontificated emission safety guidelines for the amateur community in the form of OET Bulletin 65. I learned about the bul-

letin about a year ago when the ARRL alerted amateurs that compliance to RF maximum permissible exposure (MPE) levels as defined by the bulletin must be in satisfied by September 1, 2000 in order to be able to renew a license.

At the time, I didn't worry much about going through the process since I have until 2005 before I have to renew my license. Besides, I haven't significantly changed my station power levels in 10 years. I had glanced through the bulletin and noticed that much of the data existed in tabular form with simple RF field strength formulas for calculating power levels. The bulletin also has several operating paradigms that are helpful for the occasional operator as well as the rabid contester to determine a reasonable exposure scenario. I finally got around to looking at the bulletin in detail while sitting through a standard 3-hour flight delay at Logan.

I must admit that my motivation was as much fear as scientific curiosity. The emotional part of me fretted whether I was losing my mind because of age or I was being slowly fried by RF. My scientific side wondered how much RF I was dumping into the shack that, whenever I keyed up my linear on the 10-meter beam 60 feet above my station, promptly froze up my computer - without Microsoft's help.

I discovered that the bulletin specifies MPE levels for controlled and uncontrolled environments. A controlled environment simply means that the operator controls who is exposed to RF radiation simply by who is allowed on his property while he is operating. This could be another ham in his shack or his obnoxious brother who is holding a 440 MHz ground plane and looking closely for "escaping gas" while you pump a linear through it. The MPE levels are based on a 6-minute exposure interval that is characterized by various amounts of key-down time, such as 3 minutes on, 3 minutes off. On top of this is an average duty cycle time that is a function of the operating mode. For

conversational SSB without speech compression the duty cycle is defined as 20%, while conversational CW has a figure of 40%. For uncontrolled conditions, the MPE window expands to 30 minutes and the levels are significantly lower. The longer times and lower levels are to simulate a neighboring pool party, for example, that is further away from the shack and the operator has no way of keeping people from being exposed.

The calculation of MPE levels uses the maximum gain figure for an antenna to provide a worse case scenario. Although this may be the case, I thought such an approach was impractical for most amateur situations. It would be useful in rare cases such as an adjoining office or apartment building that could have people on the level as the beam. Fortunately, modeling programs allow an amateur to estimate the gain pattern that angles toward the station or other point on the ground. The simplest approach for me is to use the approximate elevation angle, say 45 degrees, and take that value of gain for the same point at an angle 45 degrees below the beam. This is still more pessimistic than one would expect because of non-homogeneous ground effects but it is a convenient way to get a feel for power levels out of the main lobe.

The power density formula for MPE levels in the 3-30 MHz region, expressed in mW/cm², is $900/f^2$ for the controlled case, and $180/f^2$ for the uncontrolled case. The inverse relationship of frequency leads to a lower MPE level the higher in frequency one goes which is as expected. Since my focus is on 10 meters, I chose 29.0 MHz as the highest frequency that I'm likely to use for contesting. The respective MPE levels for controlled and uncontrolled conditions are 1.07 mW/cm² and 0.214 mW/cm². In microwatts, these numbers convert to 1070 and 214.

The bulletin provides a useful formula that yields a power density value in microwatts/cm² for estimated distances from an antenna:

$$S = (33.4 \times \text{ERP})/R^2,$$

Where S - the power density, ERP - Effective Radiated Power, accounting for gains and losses, and R - distance from the antenna to the point of interest, in meters.

To determine the ERP for my situation, I

Continued on page 4

The Secretary's Report

Respectfully submitted by Fletcher Seagroves, N1MEO

Board Meeting October 29, 2001

Meeting was called to order by Don K1EER at 7:08 PM. Present were Neil K1VY, Nancy KW1LTR, Mark N1ZYZ, Skip K1NKR and Fletch N1MEO.

The Secretary's report was accepted with one change, Skip's call was wrong.

The Treasurer's report was given and accepted. The board worked on the budget for 2002. A new item was added. This will be for the board to have money allotted for a National or Local Declared Emergency. The full board would have to vote to use this fund. The new budget was completed..

Activities- Nancy reported the Xmas party was December 1st.

Membership- Skip reported we have 135 members

An outside vendor will make badges for those that have already paid. New badges will be at the price of the vendor and we will have to change the membership form.

Programs- Neil reported that the November program was Brian K1SNH. December was elections and awards and January was project night.

Old business- Still has no candidates for Programs, Treasurer and Vice President.

New business- no new business.

Meeting adjourned at 9 PM

Club Meeting November 5, 2001

The meeting was called to order by Don K1EER at 7:06 PM. After introductions Neil K1VY introduced the speaker Brian King K1NSH who spoke on New Hampshire ARRL and on satellite communications.

Secretary Report- was accepted as printed in the Bull.

Treasures Report- was presented by Mark N1ZYZ and accepted.

He also presented next year budget which is published in this month's Bull and will be voted on at the December meeting.

Programs- Neil K1VY reported that Dec meeting we will have elections of club officers, awards and a short briefing on ARES.

The Jan meeting is Project night.

Activities - Nancy KW1LTR reported that the Christmas Party was Dec 1st.

Membership- Skip K1NKR reported that we have 138 members.

He also reported that we have to find a new vendor for name tags.

New Business - January is the month that the club gives a gift to the Nashua Library for the use of the library and what should we give them. PAULINE KA1LDF proposed that we give them a check. The membership voted to do so.

Running for next years club officer are:

Chairman: Darryl WA1GON, Vice Chairman: Frank N1DGQ,

Treasurer: Mark N1ZYZ, Secretary: Fletch N1MEO, Programs

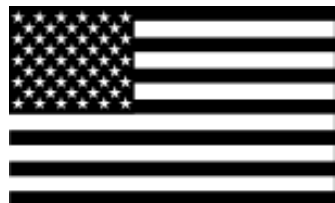
TBA, Activities: Charles KB1DOK, Membership: Dave NR1DX

Meeting was adjourned at 8:59 PM

Field day score 2001

Top 10 score claims for Field Day 2001.

Here is the final score for field day 2001. There were 2062 entry reported to the ARRL. NARC came in at 8th position. Thanks to all that helped.



God Bless America

Call sign	Score	Class	Total qso
W3AO	31750	26a	10141
W4IY	22056	15a	6572
W0CQC	20360	3a battery 2310	
W2GD	17590	4a	5745
N6ME	17362	8a	5453
NC7X	16050	2a battery 1535	
N1FD	15740	23a	4484
N4IR	15100	2a battery 1439	
W6PIY1	4576	18a	4089

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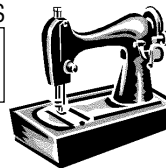
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Tiny Elephant - Continued from page 2

used standard loss figures for RG-213/U coax and a loss of 0.5 dB/connector. My antenna gain is 12.1 dBd based on EZNEC modeling results. Notice that "dBd" is used to reference gain relative to a dipole rather than an isotropic antenna that is commonly identified by "dBi". Using the dBi value would require a conversion from EIRP to ERP, something I was sure to screw up. For a 1Kw amplifier, my ERP totaled 10,447 watts. When this figure is adjusted for a 50% CW duty cycle and an "on time" of 67% (4 minutes out of a 6-minute interval) for when I transmit, my ERP reduces to 3500 watts. Finally, for my shack location relative to my 10-meter beam, I end up with an exposure level of 402 microwatts/cm², or less than half the MPE level. Applying the same analysis for my KT34XA on the big tower, I came up with a value of 33 microwatts/cm², well within the MPE level. Since these figures are based on exposure in the main beam, my actual exposure level is less than 1/10 of these estimated levels based on my antenna gain estimated from EZNEC as 10.5 dB below peak gain at large depression angles.

So what does all this prove? On the surface it says that I'm not in danger of having my brain fried. I fear, however, that years of contesting and long exposure to RF even at reduced levels has resulted in an addiction. I find myself getting edgy when I haven't been on the air in a while. My XYL knows when this happens because I'm usually outside working on antennas as if hoping some residual RF will rub off on me.

Alas, hope is on the way! October starts the contest season! Here are some that are sure to give me a real dose of RF.

Tennessee QSO Party, 1-3 December. This contest starts at 1800Z on Saturday and runs until 0100Z on Monday. Operation takes

place on 160 - 10 meters and VHF/UHF, CW, SSB, and digital modes. The object is to work as many TN counties on as many bands and modes as possible. Categories are Single operator, multi-operator, mobile, and VHF/UHF (Here is a good chance to increase your 6 meter totals). Contacts on SSB are worth 2 points, CW or digital modes count as 3 points; the same modes for VHF/UHF are doubled, respectively. Contacts with bonus station K4TCG are a whopping 100 points/QSO. Score is total QSO points x total TN counties worked. Logs for the contest go to W9WI (w9wi@bellsouth.net) by January 18, 2002.

TARA RTTY Sprint, 1-2 December. This Saturday evening event starts at 1800Z December 1 and ends at 0200Z on Sunday with activity on 80 - 10 meters. Single operator stations may operate low power or high power categories. The exchange is RST and state/serial number for US/DX. Each QSO is worth 1 point and multipliers are the total states, provinces, and countries worked. Total score is the product of the two. Logs go to NY2U by December 31, or may be emailed to rttty@n2ty.org.

ARRL 160-Meter Contest, 7-9 December. No, this is not a mistake. The ARRL's Top Band contest is being held the second week-end of December this year. Activity starts at 2200Z on the 7th and runs until 1600Z on the 9th.. Contacts are allowed with state-side stations as well as DX, with each ARRL section and DXCC country worked counting as multipliers. Exchange for us is RST and section while DX stations send a report and serial number. Operating categories are based on power levels of high power (> 100W), low power (100W) and painful (>5W).


ARRL 10-Meter Contest, 15-16 December. From big antennas and a narrow band to small antennas and lots of bandwidth

comes the 10-meter contest. This contest occupies CW and SSB and is open to all stations that have 10-meter operating privileges - Novices and Techs take note! The contest covers the full 48 hours of the week-end with a maximum of 36 hours operating time permitted. Operating categories favor single operator stations with 9 choices from combinations of QRP, low power, high power, and CW-only, SSB-only, and mixed mode. The exchange is a report and state for us, report and serial number for DX. SSB QSOs are 2 points each, CW contacts count as 4 points, and Novice/Tech CW contacts are worth 8 points, so look for stations signing /N or /T. Multipliers are the 50 states, District of Columbia, 14 Canadian call areas, and total DXCC countries. Logs go to the ARRL by January 16, 2002 in Cabrillo file format, either by snail-mail or to 10meter@arrl.org.

Fire up the rig and soak up some RF!

For HF DX Enthusiasts

The rarest DXCC country in the world is on the air. North Korea, P5, from where only a handful of legitimate amateur radio contacts have ever been made, is being activated by Ed, P5/4L4FN. Ed works for the UN World Food Programme in Pyongyang and after a couple of years has been finally able to obtain verbal permission to operate amateur radio from North Korea. He is awaiting written permission, which it is hoped should be received around Christmas. For the time being Ed has 100 watts, SSB only, and a dipole. His preferred frequencies are 14205 and 28575kHz and he works 'split', listening higher in frequency. His operating times are typically 1400 - 1500 and 2200 - 2300UTC during the week. Thanks to Bruce, KK5DO; Bernie, W3UR, the editor of The Daily DX, and Mauro, I1JQJ, the editor of the 425 DX News, for this news story.



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Neil Rosenberg, K1VY
NARC's playwright and
producer of programs

Be prepared...

First of all, thanks to Brian, K1SNH for sharing with us his experiences working with the new AO40 amateur satellite. Perhaps as a result of Brian's talk, more folks within NARC will feel empowered to get acquainted with this exciting mode of operation.

Now onto the December meeting. This month is a combination of elections, awards and a short program by our own Don Dillaby, KA1GOZ, who will be bringing us up-to-speed on ARES and other emergency preparedness activities. In light of Sept. 11, this is a particularly relevant topic, and more than one NARC member has come to me and requested further information. Come prepared with questions, and bring a pen and paper to jot down frequencies, URLs and the like.

Lastly, I'd like to extend best wishes to the new NARC board. For me, it's been both fun and a pleasure acting as Programs person for these two years, but it's time to get in some new blood.

You don't have be a member of NARC to come enjoy our meetings. It's a great time to make some friends, and become involved in what's goin on, so don't be shy. Meetings are generally held at 7PM on the first Monday of every month (weather permitting, and holidays push it out a week), downstairs at the Nashua Public Library. For more info please contact me, Neil, K1VY at (603) 465-2788, or any of the NARC board members, listed near the back of this bulletin. Hope to see you there!



There's More than FM Mobile

Skip Youngberg, K1NKR

Your Amateur Radio license makes you a radio magician. You can transmit, and you've got incredible latitude and discretion in doing so. The FCC has entrusted you with more freedom of action than any commercial licensee could hope for—and more communications power than a consumer with a credit card in a cell phone store. Now,... How many of the bands have you been on: VLF, 160M, 80M, 75M, 40M, 30M, 20M, 18M, 15M, 10M, 6M, 2M, 1.25M, 432MHz, 70cm, 902MHz, 1240MHz, 1296MHz, 2G, 3G, 5G, 10G, 24G, 47G, higher, light (and 11M, 5M, 2-1/2M when they were ham bands)? What modes have you used: CW, AM, SSB, FM, RTTY, slow-scan TV, facsimile, amateur TV, packet, PSK31, QRSS, HSMS, other digital modes, ham-band radio-controlled modeling? Ever made a contact by: ground wave, grey-line, D-skip, E-skip, F2 skip, tropo, TE, aurora, meteor scatter, airplane scatter, rain scatter, satellite, moonbounce? Have you tried: home-brewing, kit building, antenna-building, TVI/RFI chasing, repeater operation/installation/maintenance, satellite building? Have you operated: QRP, QRO, from home, from a college or club station, portable, DX-peditioning, hilltopping, roving, mobiling, aeromobiling, maritime-mobiling, bicycle mobiling? Ever talked to: an airplane, a ship, a train, the Shuttle, the International Space Station, Skylab, a famous ham, a kid? Done: DXing, ragchewing, traffic handling, nets, MARS, CAP, Field Day, HF contesting, VHF/UHF contesting, certificate hunting, WAS, WAC, WAZ, county hunting, fox hunting? Participated in: Emergency communications (really, in a disaster, rather than

training), public service, special events, Handi-Ham, SkyWARN, A Wouff-Hong ceremony? And how about some other activities that make our hobby what it is: QSLing, elmering, training, presentations, newsletter authoring/editing, club meetings, committee membership, officership? Depending on how you count and what other activities you might come up with, there are about 100 items in the foregoing list. How are you doing? There's no certificate or bragging rights for whatever score you come up with. After all, our hobby is a hobby. .But don't forget to claim credit for FM mobile! ...and on to a related topic. During a recent phone call, a member commented that it would be interesting to see a summary of the club's demographics and interests. How about investing an e-mail or a thirty-whatever cent stamp on the following. (My address and e-mail are on www.qrz.com.) I'll put something together for a NARC-Bull after the holidays. 1. (a) How long have you been a ham? (b) At what age did you get your first license? (c) How many hams are in your family? 2. (a) What is your license class? (b) Do you, or did you have an Elmer? 3. (a) How often do you operate? (b) What bands do you operate? (c) What modes? (d) What types of operation do you do (ragchews, DX, contests, etc.)? 4. Would you describe your station as sparse, average, or big-gun? 5. Do you build any equipment? 6. (a) Has ham radio influenced your profession? (b) How? (c) What other hobbies do you have?



Peter Gailunas/KA1OKQ

ka1okq@nhrc.net

NHRC
REPEATER CONTROLLERS

444 Micol Road Pembroke, NH 03275
email: info@nhrc.net phone: 603-485-2248 <http://www.nhrc.net>

Proposed NARC Budget - 2002

Category	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Totals
INFLOWS													
Ad Income	\$0	\$0	\$0	\$390	\$150	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$540
Dues	\$295	\$120	\$140	\$340	\$140	\$345	\$105	\$120	\$125	\$120	\$80	\$390	\$2,320
Fundraising In Tickets	\$0	\$0	\$0	\$0	\$50	\$350	\$350	\$250	\$0	\$0	\$0	\$0	\$1,000
Holiday	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$350	\$350
Field Day	\$0	\$0	\$0	\$0	\$0	\$800	\$0	\$0	\$0	\$0	\$0	\$0	\$800
Total Inflows	\$295	\$120	\$140	\$730	\$340	\$1,495	\$455	\$370	\$125	\$120	\$80	\$740	\$5,010
OUTFLOWS													
Christmas	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$200)	(\$400)	(\$600)
Bank Charge	(\$5)	(\$5)	(\$5)	(\$5)	(\$5)	(\$5)	(\$5)	(\$5)	(\$5)	(\$5)	(\$5)	(\$5)	(\$60)
Charity													
Public Library	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$100)	(\$100)
Soup Kitchen	\$0	\$0	\$0	\$0	\$0	(\$50)	\$0	\$0	\$0	\$0	\$0	\$0	(\$50)
Discretionary	(\$30)	(\$30)	(\$30)	(\$30)	(\$30)	(\$30)	(\$30)	(\$30)	(\$30)	(\$30)	(\$30)	(\$30)	(\$360)
Educational													
Club Sponsored	(\$150)	\$0	\$0	\$0	\$0	\$0	(\$150)	\$0	\$0	\$0	\$0	\$0	(\$300)
External	(\$150)	\$0	\$0	\$0	\$0	\$0	\$0	(\$150)	\$0	\$0	\$0	\$0	(\$300)
Emergency Reserve	(\$1,000)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$1,000)
Equipment	\$0	\$0	(\$300)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$300)
Field Day Out													
Food	\$0	\$0	\$0	\$0	\$0	(\$700)	\$0	\$0	\$0	\$0	\$0	\$0	(\$700)
Other -non food, support	\$0	\$0	\$0	(\$125)	(\$125)	(\$100)	\$0	\$0	\$0	\$0	\$0	\$0	(\$350)
State Charter Fee	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Fundraising Out	\$0	(\$500)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$500)
Insurance	\$0	\$0	\$0	(\$225)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$225)
Meeting	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Newsstr-Imag & Ideas	(\$140)	(\$140)	(\$140)	(\$140)	(\$140)	(\$140)	(\$140)	(\$140)	(\$140)	(\$140)	(\$140)	(\$140)	(\$1,680)
QSL Cards - N1FD	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Office	(\$100)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$100)
Internic charge	\$0	\$0	\$0	\$0	(\$50)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$50)
Post F&R Guarantee	(\$2)	(\$2)	(\$2)	(\$2)	(\$2)	(\$2)	(\$2)	(\$2)	(\$2)	(\$2)	(\$2)	(\$3)	(\$25)
Post Permit 113 Fee	(\$125)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$125)
Post PO Box fee	\$0	\$0	\$0	\$0	\$0	\$0	(\$55)	\$0	\$0	\$0	\$0	\$0	(\$55)
Post Newsletter	(\$50)	(\$50)	(\$50)	(\$50)	(\$50)	(\$50)	(\$55)	(\$55)	(\$55)	(\$55)	(\$55)	(\$55)	(\$630)
Total Outflows	(\$1,752)	(\$727)	(\$527)	(\$577)	(\$402)	(\$1,077)	(\$437)	(\$382)	(\$232)	(\$232)	(\$432)	(\$733)	(\$7,510)
Total Inflows	\$295	\$120	\$140	\$730	\$340	\$1,495	\$455	\$370	\$125	\$120	\$80	\$740	\$5,010
Total Outflows	(\$1,752)	(\$727)	(\$527)	(\$577)	(\$402)	(\$1,077)	(\$437)	(\$382)	(\$232)	(\$232)	(\$432)	(\$733)	(\$7,510)
Difference	(\$1,457)	(\$607)	(\$387)	\$153	(\$62)	\$418	\$18	(\$12)	(\$107)	(\$112)	(\$352)	\$7	(\$2,500)

New Repeater

Hello NARC...

The new Amherst, N.H. 220Mhz repeater is now up and running after changing frequencies, etc. Call sign is K1ZQ. Transmit frequency is 222.420 Mhz. and receive frequency is 224.020 Mhz. It has a PL of 136.5 Hz. The power output is 100 watts and the antenna is currently at 110 feet. We took the opportunity to add a voter and it has 3 balanced receivers (tuned to commercial <not amateur> specifications). Only one receiver is now active because we need to add antennas for the other two receivers (Spring?). The unit is also on a UPS system. It has a CAT 1000 controller. We'll be doing testing, adjusting and configuring as

the days roll on. Anyone is invited to use the machine and we would appreciate feedback. 73's,

Tom K1ZQ George K3RQ

Amateur Radio Operators Have Been on Alert Again in New York

'SATERN', the American Salvation Army Team Emergency Response Network, was put on standby in New York on the 12th of November, following the aircraft disaster in the Queens

borough of the city. SATERN Amateur Radio Liaison Officer Jeff Schneller, N2HPO, said telephone cables had been destroyed by the crash, cellphone communication "was spotty at best" and power was cut off to the entire area. Amateur Radio support was stood down during the evening of the 13th of November after normal services had been restored.

THE NASHUA AREA RADIO CLUB BULLETIN

is published by the Nashua Area Radio Club, Inc.
just prior to its monthly meeting. It is distributed
free to members and friends of Amateur Radio.

BULLETIN STAFF:

Editor/Publisher: Malcolm Taylor, G0UCX (603)889-3519
Advertising: Marc Slater, KB1DFE (603)673-1674
Circulation: Dave Banks, N1SUE (978)433-8104

MEMBERSHIP INFORMATION:

Annual Dues:	Regular Membership	\$20.00	
	Family Membership		\$30.00
	Student Membership:	\$15.00	
	Senior Citizen (Over 65)	\$15.00	

Club Mail Address: Nashua Area Radio Club
PO Box 248
Nashua, NH 03061-0248

ACTIVITIES & COMMITTEES:

Awards/QSL Manager	Fletcher Seagroves, N1MEO
Club Data:	Jim Heedles, WW1Y
EC/ARES:	Don Dillaby, KA1GOZ
Field Day:	Fletcher Seagroves, N1MEO
Publicity:	Don Dillaby, KA1GOZ
Designated Target:	Gene LostSki, ex-WA1UXA
Station Trustee:	John Gaffey, WS1E
Club Property:	Mark Wagner, N1ZYZ
Training:	Darryl Wagoner, WA1GON
Volunteer Exams:	Jim Heedles, WW1Y
Technical Resources:	Mike Graham, K7CTW
Get-On-The-Air-Program:	Open - TBD

EXECUTIVE BOARD - 2001:

Don Hornbeck, K1EER	Chairman	(603)635-2839
Darryl Wagoner, WA1GON	Vice Chairman	(603)878-1447
Fletcher Seagroves, N1MEO	Secretary	(603)673-3036
Mark Wagner, N1ZYZ	Treasurer	(603)424-1516
Nancy Rosenberg, KW1LTR	Activities	(603)465-2788
Skip Youngberg, K1NKR	Membership	(978) 649-2911
Neil Rosenberg, K1VY	Programs	(603)465-2788

DEADLINE for submitting articles or photographs for the next issue is the Friday following the current month's Club meeting. Electronic submissions are preferred and should be sent via electronic mail to malcolm@adsman.com. On-line images may also be sent electronically in any standard image file format. Material for publication can also be sent to Malcolm Taylor, 2 Osprey Lane, Merrimack, NH 03054.

ALL NON Bulletin correspondence should be sent to the official club address: P O Box 248, Nashua, NH, 03061-0248.

ADVERTISING enquiries should be addressed to Marc Slater, KB1DFE. Advertising matters must not be raised over the Amateur airwaves. Please consult by telephone with our Advertising Manager.

NARC Club Calendar 2001

November 26th, Board Meeting
December 1st, Christmas Party
December 3rd, 7 PM Club Meeting
December 7th, Deadline - January Bulletin

Weekly Events

Tuesdays 8: 15 PM ARES Net 443.35+ PL 110.8

Tuesdays 8:30 PM ARES Net 146.73- PL 88.5

Thursdays 6:30 PM Pizza Night! Location varies.

Saturdays 8:30 AM Breakfast -All Good Things Cafe
(101A Amherst Street, Carriage House Depot strip mall)

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The KY1N Memorial List

Scheduled Amateur Radio Volunteer Examinations CT MA ME NH RI VT December 2001

12/01/01 10:00	Robin J Walls, N1NFK	Bath ME	207-525-5135
12/01/01 11:30	Frank Sileo, N1PE	Brookfield CT	203-438-0218
12/01/01 10:30	Larry Houbre, AA1FS	Dartmouth MA	508-991-6055
12/01/01 09:00	Jack P Garforth, N1HYA	Middletown RI	401-683-2250
12/01/01 09:00	Jim Heedles, WW1Y	Nashua NH	603-672-4035
12/01/01 08:00 *	Conrad Ekstrom, WB1GXM	Newport NH	603-543-1389
12/01/01 10:00 *	Tom Repstad, KB1CGA	Sheldon VT	802-933-4210
12/08/01 09:00	Joanne Reid, N1LNE	Falmouth MA	508-548-1121
12/08/01 12:00	Daniel Miller, K3UFG	Newington CT	860-206-3379
12/09/01 12:00	Bob Quinn, WV1A	Gloucester MA	978-283-4660
12/09/01 15:00 *	Tom Sefranek, WA1RHP	Shirley MA	978-425-6672
12/10/01 19:00	Bob Wondolowski, N1KDA	Brookline MA	508-865-5822
12/11/01 19:00	Lawrence Polowy, KU1L	Thomaston CT	860-283-4089
12/12/01 19:30	Bruce Anderson, W1LUS	Chelmsford MA	978-851-2886
12/13/01 19:00	Judy Nelson, KC1RI	Providence RI	401-231-9156
12/13/01 19:00	Kevin Cellini, N1KGM	Trumbull CT	203-268-5015
12/14/01 18:30	Ralph T Stetson III, KD1R	Burlington VT	802-878-6454
12/15/01 09:00	Douglas Rugg, N1JTH	Auburn ME	207-784-2374
12/15/01 09:00	William R Wade, K1IJ	Marlborough MA	617-699-3670
12/15/01 10:00 *	Scott Kingsley, WB1F	Melrose MA	781-665-7654
12/15/01 11:00	Henry Fales, KZ1V	Orleans MA	508-255-2818
12/15/01 09:00	Bob Jones, WB1P	Slatersville RI	401-333-4787
12/18/01 19:00	Paul Lux, K1PL	Middletown CT	860-635-1742
12/19/01 19:30	Nick Altenbernd, KA1MQX	Cambridge MA	617-253-3776
12/19/01 19:00 *	Paul Upham, KD1YH	Lunenburg MA	978-597-6535
12/21/01 18:00 *	Mitch Stern, W1SJ	Essex Junction VT	802-879-6589
12/22/01 09:00	William D Wilson, K1IN	Bloomfield CT	860-243-1611
12/22/01 12:00	Neil Henden, AA1OA	Danvers MA	978-927-8622
12/28/01 18:00	David Cote, WA1DC	Holyoke MA	413-592-4978

NOTES: * = PREREGISTRATION MANDATORY

T = Technician Exams only Please remember to take the following with you:

- Original and copy FCC-issued license (if already licensed)
- Original and copies of all CSCE's you are claiming
- One photo ID, or two non-photo ID's (one showing address)
- The 2001 test session fee (\$10.00)

For latest update check <http://www.n1fd.org/ky1n.html>

*Tour the World with Amateur Radio
Next meeting December 3 at Nashua Public
Library, 7PM*

Address Service Requested

**Nashua Area Radio Club
P. O. Box 248
Nashua, NH 03061-0248**

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