



ZERO BEAT

Southeastern Massachusetts
Amateur Radio Association, Inc.
54 Donald Street, PO Box 80007
South Dartmouth, MA 02748



OUR 65th YEAR

Volume 32, Issue 12



SEMARA



December 1997

BALLOON WITH 2METER BEACON TO BE LAUNCHED FROM PLYMOUTH

As part of an earth science project being conducted at the Plymouth Community Intermediate School, a 2 meter beacon will be aboard a balloon launched from Plymouth, MA. The launch is scheduled for 3:00 PM on Tuesday, December 2nd. The launch will rescheduled if adverse weather conditions preclude a safe launch.

The 100 mw beacon will be transmitting on 144.000600 MHz with a CW ID and short periods of steady carrier to aid tracking. If you are interested in tracking this balloon, please contact Hank Riley, N1LTV, at:

h1riley@umassd.edu

Hank points out that CW or SSB receiving equipment is best suited for beacon tracking. Such equipment will acquire the balloon at a low altitude and track it for the greatest distance. FM equipment can also be used, but at a great sacrifice in sensitivity. To compound the problem, FM receivers make copying the CW ID very difficult.

Full details and information are available on the High Altitude Balloon Launch Information Center (HABLIC) website:

<http://www.geocities.com/CapeCanaveral/3161/hablic.html>



MEETING HIGHLIGHTS

The October business meeting was called to order at 7:08 PM by President Marty Jordan. Twenty-four members and two guest were present. Following the salute to the flag and roll call, the Secretary's report was read and accepted. The Treasurer was absent and no report was available.

Committee reports followed:
Technical - No Report. *Buildings and Grounds* - Chairman John Carreiro thanked all that helped cut grass this year, and in particular **Andy Reuter, WA1FNM**. *Scholarship* - None. *Tower Committee* - None

Ratifications - **Vincent T. Oliveira, N1ZQZ**, was voted a Conditional member of the Association.

Old business - It was reported that the SEMARA club in Michigan has not sent any club newsletters as they agreed to. Efforts to contact them have been fruitless. The 1998 club fleamarket flyer is ready, and copies will be available at the clubhouse shortly. The club's main coffee pot failed, and the spare is now in use.

New business - On a motion by Bill Miller, K1IBR, seconded by Ed Rovas, WA1VXY, **Brad Anselmo, N1VUF**, was voted ARRL "Radio Coach" club liaison - a project to increase the number of amateurs in this country. The

1998 NOMINATIONS ANNOUNCED

The nominating committee has announced the following nominations of 1998 club officers:

President

Richard Cabral, N1RFH

Vice President

Andrew Reuter, WA1FNM

Brian Sladewski, N1XQL

Secretary

(Open)

Treasurer

John Carreiro, W1ZYV

Trustee

Marty Jordan, WA1YFV

Board of Directors (3)

Brad Anselmo, N1VUF

Lawrence Houbre, AA1FS

William Miller, K1IBR

possibility of holding a club Christmas Party was discussed at length. We may hold it at the clubhouse this year. The Nominating Committee noted that all positions are filled except for club Secretary. Final Nominations will be solicited from the floor at the December business meeting just prior to the voting.

The meeting adjourned at 8:00 PM. Following the meeting, a mystery goody box from **Sam Wagstaff, N1PGN**, and a Sony tape recorder and were auctioned off to benefit the club treasury. The auction realized \$19.00

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ADVERTISING

Commercial ads the size of a business card will be accepted. Rates are \$5.00 for one insertion, \$20.00 for six insertions, and \$35.00 for twelve insertions.

Non-commercial ads up to forty words in length will be accepted. Rate is \$3.00 for one or \$12.00 for six insertions. Club members have one free non-commercial ad per month.

NEW FORM 610 MANDATORY IN 1998

The FCC has announced that effective January 1, 1998, a new form 610 will be required of all amateur radio license applications.

Until January 1, 1998 both the new and old form may be used, but after January 1, 1998 the new form is mandatory.

The new Form 610 is available off the Internet at two sites:

<http://www.fcc.gov/formpage.html>

and

<ftp://ftp.fcc.gov/pub/Forms/Form610/>

The form is also available via FAX by requesting Form 000610 at:

202-418-0177

You also can get a copy of Form 610 by sending a self-addressed stamped envelope (SASE) with 32 cents postage for each Form 610 ordered to:

ARRL/VEC

225 Main Street

Newington, CT 06111

The major change on the new form is a certification section where the applicant must state that he has "read and will comply with section

97.13(c) 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".

However, at the present time Amateur Radio Supplement B of Bulletin 65 is still in the draft stages and is not yet available to the amateur community. This supplement has information on how to conduct a routine RF safety evaluation in addition to explaining other aspects of RF safety. It is expected that the supplement will be released by December 1997.

Section 97.13(c) states that before amateurs transmit "from any place where the operation of the station could cause human exposure to RF electromagnetic fields in excess of those allowed" you have to perform a routine RF environmental evaluation if your transmitter PEP exceeds these limits:

AMATEUR RF LIMITS

160 thru 40 meters - 500 watts

30 meters - 425 watts

20 meters - 225 watts

17 meters - 125 watts

15 meters - 100 watts

12 meters - 75 watts

10 meters - 50 watts

VHF (all bands) - 50 watts

70 cm - 70 watts

33 cm - 150 watts

23 cm - 200 watts

13 cm - 250 watts

SHF/EHF (all bands) - 250 watts

If a routine environmental evaluation indicates that the RF electromagnetic fields could exceed the maximum permissible exposure limits, you must take action to prevent human exposure.

NEXT SEMARA VE SESSION

January 3, 1998
 Saturday, 10:30 AM

LOCAL VE SESSIONS IN DECEMBER

06 **Middletown, RI**
 Jack Garforth
 401-683-2250

11 **Providence, RI**
 Judy Nelson
 401-231-9156

13 **Plymouth, MA**
 Dick Eaton
 508-224-8573

13 **Falmouth, MA**
 Joanne Reid
 508-548-1121

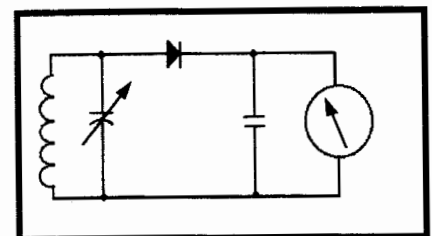
13 **Braintree, MA**
 William J. Needham
 781-843-4400

20 **Dennis, MA**
 Henry Fales Jr.
 508-255-2818

24 **Cambridge, MA**
 Nick Altermdburnd
 617-253-3776

27 **Slatersville, RI**
 Robert Beaudet
 401-333-2129

NAME THAT CIRCUIT



1. Tunnel Diode Transmitter
2. TPTG Oscillator
3. Grid Dip Meter
4. Wavemeter

ANSWER - See Page 6



CLUB NOTES

Where did this year go? Here it is December already. Got your Christmas shopping done? The first day of winter is the 21st. December is the month of religious holidays with Chanukah (Jewish) on the 24th, Christmas (Christian) on the 25th, Kwanza (African) on the 26th, and Ramadan (Moslem) on the 31st.



The November 1st storm blew down one of the two willow trees in front of the club. The northernmost tree blew over and ripped the phone lines off the clubhouse. However, the lines remained connected and phone service to the repeaters was not interrupted. Several large branches were also broken off the willow tree in the rear of the club.



On November 5th, a motley crew of dedicated club members met at the club with chainsaws in hand. They commenced to cut up the old willow tree in the front of the club that blew over 4 days earlier. Thank You Ed, WA1VXY; Andy, WA1FNM; and the Bills - K1IBR, N1LTY, and WA1FYF.



November 12th saw the chainsaws busy again at the club. This time the large branch that broke off the willow tree in the rear of the club was cut up. Ed Rovas, WA1VXY; Andy Reuter, WA1FNM; and Bill Miller, K1IBR made up the work crew.



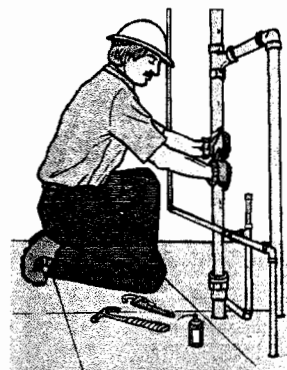
Former member Fr. Charles Pohle, W3GFX, ex-W1AIE, can be heard every Thursday noontime on 7.219 MHz at 12:45. Charlie was club president in 1968 and Vice-President in 1969. Mail: 1030 Lanark Way, Silver Spring, MD 20901, or E-Mail: charles_pohle@twosie.com



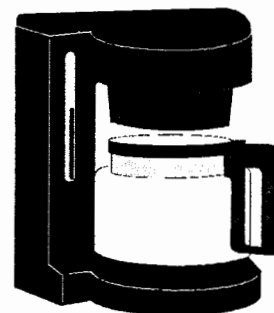
Thanks to Art Valois, W1UID, we don't have to worry about the pipes freezing in the club's cellar. Art donated a large thermostatically controlled heater to be used as a backup in case the oil burner failed. The heater has been installed in the club's cellar and is now in service



After installing the donated heater in the club's cellar, that part of the cellar containing the water pipes was sectioned off from the rest of the cellar using a polyethylene tarp and wood panels. Next a small heat duct was installed off the main heat duct to heat the water pipe area. This move should help keep that part of the cellar heated.



Thanks to Wayne Kingsley, WA1CCM, the club has a used, but functional, Bunn coffee maker. Wayne donated the coffee maker in response to the club's request for one to replace the old unit that failed. A tip o' the hat to Wayne for his generous donation.



Remember, around 1:45 PM Monday to Friday several club members meet at the Boston Coffee and Bagel shop on the corner of Dartmouth and Allen streets. Some members also meet at 11:30 AM Fridays for Fish & Chips at Bob's on Alden road, Fairhaven.





BITS - N - PIECES



Compiled from The ARRL Letter, a publication of the American Radio League, and Ham Radio Online magazine, available free on the Internet at <http://www.hamradio-online.com>

ARRL ANNOUNCES "RADIO COACHES" PROGRAM

In an effort to introduce the youth of our Nation to amateur radio, the ARRL has instituted the "Radio Coaches" program. The goal is to expose thousands of youngsters to the exciting world of amateur radio.

The program starts at the local club level with ARRL affiliated clubs forming "coaching teams". The teams in turn will build relationships with a local school or other institution from which the "athletes" will be recruited.

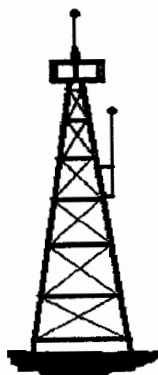
The "athletes" in turn will be coached in basic electronics and amateur radio. Field trips to museums, hamfests, radio/TV stations, airports, and radio conventions may be part of the "coaching" experience.



Hopefully, the "athletes" will not only become amateur radio operators, but also gain a marketable skill in electronics which will benefit them throughout their life.

FCC SETS RF LEVEL FOR REPEATERS

The FCC has released an erratum to its RF safety rules that sets 500 watts ERP as the limit for most amateur repeaters before a routine RF safety evaluation must be conducted. The erratum applies to repeater systems on



all amateur bands.

However, a routine RF safety evaluation is mandated for all repeater systems running over 500 watts ERP and having either (1) a building mounted antenna or (2) a non-building mounted antenna with a height of less than 10 meters (about 33 feet) above ground level to the lowest point of the antenna.

For complete details see:

<http://www.fcc.gov/oet/dockets/et93-62/>

ARRL CLUB SURVEY RESULTS ANNOUNCED

During 1997, almost 700 clubs completed an ARRL survey. Overall the survey indicated that many clubs are not aware of the specific, tangible benefits ARRL affiliation offers.

Interestingly, over 65% of all affiliated clubs have been in existence over 20 years, 30% have been in existence over 40 years, and 10% over 60 years.

The survey indicated that major sources of income for clubs include:

- dues (87%),
- donations (48%),
- hamfests (32%),
- raffles (20%),
- and other (8%).



Three-quarters of all clubs publish a newsletter, and 64% send a copy to ARRL representatives. Additionally, 25% of all clubs have a home-page on the World Wide Web (WWW).

The ARRL can now chart its future direction using the valuable feedback provided by the club survey.

FCC INITIATES UNIVERSAL LICENSING SYSTEM

The FCC is implementing its new Universal Licensing System (ULS). The new system will ultimately replace the 11 different systems now in use. Ultimately, the ULS will allow hams (and others) to make on-line license updates and renewals. The new system also lets you check on the status of a pending application. This will eliminate the need for hardcopy forms like the venerable Form 610.

In an effort to populate the new database, the FCC is asking licensees to register with the new system. You will be required to supply your Taxpayer Identification Number (TIN - for individuals this is your Social Security Number) and your individual call sign along with any club station calls for which you are the trustee.



When registering, you will provide your name and address along with a password you must use along with your TIN to re-enter the system to make future changes.

ULS registration can be made on-line via the Internet at: <http://www.fcc.gov/wtb/uls>

Licensees without access to the Internet can register using FCC Form 60, which is available from the FCC's fax-on-demand service at 202-418-0177, or by calling the FCC Forms Distribution Center at 1-800-418-3676.



SOLDERING TECHNICAL TIPS

- 1.) Water bottles, like those used by bikers and hikers, are great for holding water to wet your soldering sponge.
- 2.) Plastic trays, like those used to organize desks, make nifty holders for your soldering items - various sizes of solder, solder wick, small wire brush, Q-tips, small bottle of flux remover, etc.
- 3.) A wooden block with two spring-type clothes pins screwed onto it (about two inches apart) makes a super holder for those tough to solder items such as small connectors and wires.

1998 FLEAMARKET CALENDAR

February 14 - Marlborough, MA
 March 29 - Southington, CT
 April 5 - Framingham, MA
 April 19 - MIT
 April 25 - W. Greenwich, RI
 May 8,9 - Rochester, NH
 May 16 - Foxondale, RI
 May 17 - MIT
 June 7 - Newington, CT
 June 21 - MIT
 July 19 - MIT
 August 16 - MIT
 August 28,29,30 - Danvers, MA
 September 13 - SEMARA!
 September 19 - Foxondale, RI
 September 20 - MIT
 October 2,3 - Rochester, NH

NET DIRECTORY

— Sunday —
 8am 28.375 General
 9:30am 50.225 Yankee SSB
 3pm 28.470 UFO
 7pm 147.000+ Swap Net

— 4th Sunday —
 9pm 449.575 EM-ARRL

— Daily —
 5:30pm 3.915 EM/RI NTS ssb
 7&10pm 3.658 EM/RI NTS cw
 6:45pm 147.315+ NTS/Trivia
 7pm 146.550 General
 8pm 145.230- EM-NTS

— Monday to Friday —
 8am 14.262 UFO
 8pm 145.490- Weather

— Saturday & Sunday —
 8am 7.237 UFO

— Thursday —
 7pm 14.264 UFO
 8pm 147.180+ Trivia

— Saturday —
 7:30pm 3.978 UFO
 1800G 14.300 Coast Guard

VISIT THE SEMARA WEBSITES



WWW.LRH.NET/PUBLIC/SEMARA.HTM

MEMBERS.AOL.COM/N1RFH/SEMARA/INDEX.HTML

— ARES NET —

1st & 15th of the month
 at 7:30 pm
 147.000+ on the 1st
 145.490- on the 15th

SEMARA OFFICERS

1997



President Martin F. Jordan, KA1YFV
Vice-President William M. Miller Jr., K11BR
Secretary Richard J. Cabral, N1RFH
Treasurer Lawrence R. Houbre, Jr. AA1FS

Board of Directors:
 John Carreiro, W1ZYV
 Robert Peckham, KA1YDG
 William Vincent, N1LTY

Trustees:
 Edward Blouin, KA1AW - Chairman
 Andrew Reuter, WA1FNM
 William M. Miller Jr., K11BR
 Norman Riley, W1ATI
 Frank Fonseca, WB1ASD

SEMARA EVENT CALENDAR

DECEMBER 1997

- 2 - Business Meeting, 7:00 PM
- 16 - Christmas Party, 7:00 PM



JANUARY 1998

- 1 - Business Meeting, 7:00 PM
- 3 - ARES "Get Together" dinner at 99 Restaurant, North Dartmouth, @ 7 PM.
- 15 - Tech-Talk, 7:00 PM
- 26 - ARES Meeting, 7:45 PM



LOCAL REPEATER DIRECTORY

| Frequency | CTCSS | Call | Location | Frequency | CTCSS | Call | Location |
|---------------|-------|--------|--------------|------------|-------|--------|--------------|
| 144 | | | | 440 | | | |
| 145.150 - | | WAIDGW | Fall River | 441.400 + | 192.8 | WG1U | Assonet |
| 145.490 - | | KA1WBF | Fairhaven | 442.200 + | | N1NRL | Fall River |
| 146.445 +1Mhz | 91.5 | KB1BWN | Dartmouth | 442.350 + | 141.3 | N1QWW | New Bedford |
| 146.655 - | 88.5 | WA1GPO | Falmouth | 442.600 + | 100.0 | K1LIQ | Tiverton, RI |
| 146.685 - | | N1OEG | Plymouth | 443.450 + | 88.5 | K1MYL | Westport |
| 146.700 - | | K1CR | Cranston, RI | 443.600 + | | NS1N | Norwell |
| 147.000 + | | W1AEC | Dartmouth | 443.800 + | 88.5 | N1RFH | Dartmouth |
| 147.045 + | | WA1AIC | Yarmouth | 443.850 + | 131.8 | W1ARM | Chatham |
| 147.135 + | 67.0 | ND1N | Taunton | 444.250 + | 141.3 | WA1GPO | Falmouth |
| 147.180 + | 77.0 | N1FDX | Bridgewater | 444.550 + | | N1FDX | Bridgewater |
| 147.315 + | 156.7 | N1BBT | Wareham | 447.075 - | | N1DZD | Kingston |
| 220 | | | | | | | |
| 224.340 - | | N1SGK | Dennis | | | | |

NAME THAT CIRCUIT ANSWER: 1. Manual Pulse Generator

Please support these fine sponsors of our newsletter

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Weddings
Anniversary
Birthdays



The Cake Lady

Lisa Houbre
Cake Consultant
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Southern
Espresso

Bagels
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Cream Cheeses



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FIRST CLASS

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