



ZERO BEAT

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



OUR 69th YEAR

Volume 37, Issue 9

SEMARA W1AEC

September 2001

W1LHY DONATES ITEMS TO CLUB

Norman J. Cartmill, W1LHY, of Marion, MA recently donated a large amount of radio equipment and parts to the club. Norman is moving to Hyannis and felt the club could use the equipment he no longer needed. A complete listing of the donated items is posted to the right on this page.

The Cushcraft R5 vertical antenna was mounted atop the roof on Norman's home. Bill Miller, K1IBR, went up on the roof and removed it. He also removed the tripod it was mounted on and tarred the holes left in the roof shingles. Assisting Bill were Ray Arruda, KB1EVX, and Andy Reuter, WA1FNM. Ray manned the top of the ladder, while Andy was the groundsman and "gopher."

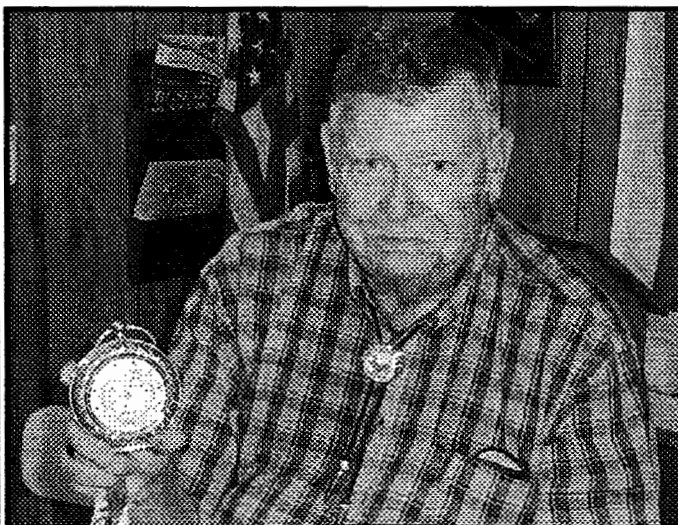
Norm supervised the whole operation with a big bullhorn as he sat at the picnic table in his garden sipping on a mint julep. JUST KIDDING! Bet I got your attention... Actually, Norm just stood back and watched as the antenna was dismantled and lowered to the ground. The event went very smoothly thanks to Norm's having coated all antenna joints with an anti-seize compound.

"Thank You" Norman for this generous donation.

W1LHY DONATION

- Cushcraft R5 Vertical Antenna
- Johnson Model 250-20
- Low-Pass Filter
- Unadilla/Reyco Low-Pass Filter
- Electrovoice Model 727
- Microphone
- Master Mobile "Micro-Z-Match"
- Roll of 300 ohm ladder line
- Several rolls of RG-8 and
- RG-58 Cable
- Several boxes of radio tubes
- Assorted CB radio crystals
- Several small speakers
- Two boxes of radio parts

THERMOMETER TECH-TALK A HIT WITH MEMBERS



Richard Porter, "The Thermometer Man", shows off an ornate thermometer in the picture on the left. Dick captivated the members and guests present at his August 16th talk "All About Thermometers."

Dick outlined the history of thermometers, the various scales used (Fahrenheit and Celsius being just two of many), and showed samples of the various technologies used to determine temperature. Thermometers run the gamut from the common mercury and colored alcohol types to liquid crystals, bimetallic strips, and modern electronic units.

Dick is curator of the Porter Thermometer Museum in Onset, MA. The museum is open to the public daily and admission is free. Call Dick at (508) 295-5504 to arrange a visit, or to book a lecture for your group or club.

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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.

THE DEADLINE FOR
SUBMITTING ARTICLES FOR
PUBLICATION IS THE 15TH
OF THE PRECEDING MONTH.

N1RXZ RETIRES!

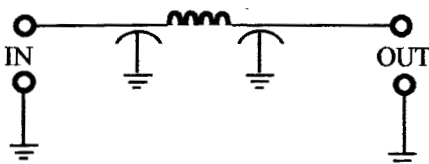


CHIEF WARRANT OFFICER GERALD FORTIN N1RXZ

Coast Guard Chief Warrant Officer Gerald Fortin, N1RXZ, was the guest of honor at a retirement party held on July 14th at Otis AFB, Cape Cod. Gerry retired from the Coast Guard after 30 years of service. Gerry also received the Coast Guard Achievement Medal with gold star for superior performance of duty. (Gerry's dad is Joe Fortin, K4KYZ.)

Congratulations, Gerry. We wish you the very best in retirement!

NAME THAT CIRCUIT



- 1.) RFI Filter
- 2.) Linear Accelerator
- 3.) Phase Shift Oscillator
- 4.) Hi-Pass Filter
- 5.) Form E Pulse Network

ANSWER - See page 7

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*"Government is not reason,
it is not eloquence,
it is force."*

George Washington

MEETING MINUTES

The August business meeting was called to order at 7:02 pm by President Bill Miller, K1IBR. Twenty-one members were present. Following the salute to the flag, the Secretary's and Treasurer's reports were read and accepted.

Committee reports:

Technical – Repeater autopatch not working after lightning hit. Both repeaters are now on the dual-band antenna while work is underway at top of tower.

Buildings and Grounds – No report.

Scholarship - No report.

Constitution – Fall completion anticipated.

Fleamarket - No report.

Communications - Mohawk ARC sent raffle tickets and fleamarket flyer for members consideration.

Ratifications - **Roland Daignault, N1JOY**, voted into membership. *Welcome to the club, Roland!*

Old Business - None.

New Business - The following motions were made and passed:

1. Motion to donate \$100 in support of Richard Porter's museum following his Tech-Talk on thermometers August 16th.
2. Motion to advance \$400 to Fleamarket committee for food and supplies required to complete 40' X 60' tent.
3. Motion to keep the Cushcraft R5 antenna and coax donated to club by **Norman Cartmill, W1LHY**. All other donated items to be sold at the club's fleamarket.
4. Motion to bag all fleamarket small parts and sell for \$1 a bag, or 6/\$5, and 15/\$10. All fleamarket items will be tagged with a selling price.
5. Motion to table until the next business meeting discussion on eliminating all membership dues and implement a one-time initiation fee.

The members voted not to hold a fall Chicken Bar-B-Cue or a spring Clambake.

The members discussed **Tim Smith's, N1TI**, proposal to construct a giant Tesla coil as a club project. The super Tesla coil would be used to promote interest in radio-electronics at hamfests, schools, and fairs.

For the good of the club - **Bill Hargreaves, N1QMU**, was appointed Christmas Party chairman. President Miller announced he would be appointing a SEMARA Internet Committee to develop a website using our SEMARA.ORG domain name.

The meeting adjourned at 8:43 pm.

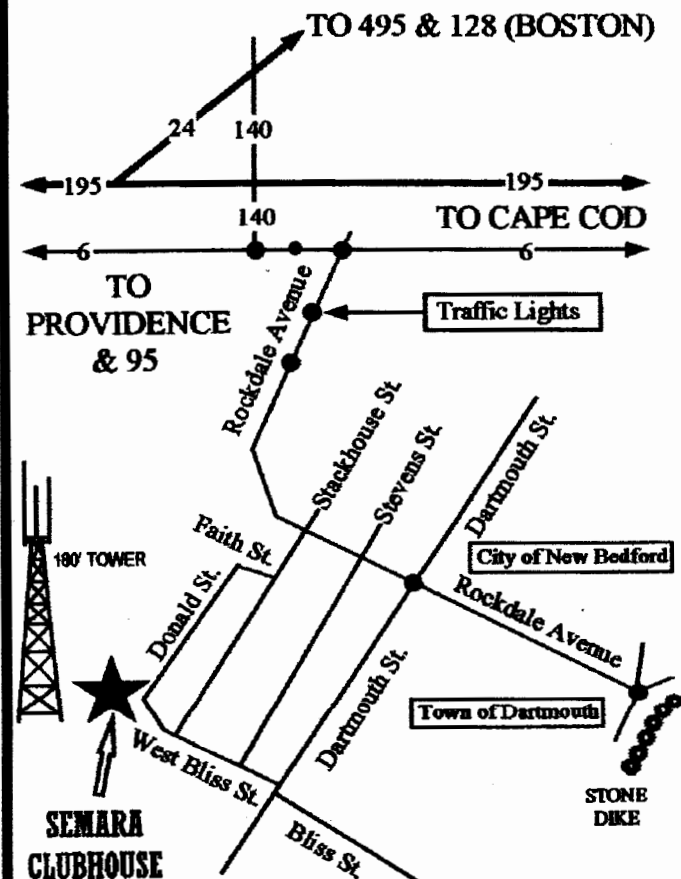
BOARD OF DIRECTORS MEETING

July 26, 2001

Major items discussed at the meeting are listed below, the full minutes are posted on the club bulletin board:

- 1) Field Trip to the New England Wireless and Steam museum in East Greenwich, RI set for Saturday, October 13, 2001. \$10 entrance fee at museum. Caravan leaves club at 8 am.
- 2) Board recommends a fall *Chicken Bar-B-Cue* and a spring *Clambake*.
- 3) Board recommends holding two foxhunts a year, one in the spring and one in the fall. Third Thursdays of each month will be foxhunt meeting nights with construction projects and talks.
- 4) Board recommends abolishing yearly dues. There will be a small initiation fee for new members. This move shall increase membership, reduce the Treasurer's workload, simplify the membership application form, and eliminate sending out dues "overdue" notices.

DIRECTIONS TO CLUB





CLUB NOTES

September marks the end of summer, particularly for children who must return to school. Labor Day falls on Monday the 3rd. Watch for cooler evenings and less daylight as we move into fall.



Club member **Charles K. Gaspar, N1LIW**, upgraded from general class to amateur EXTRA at the August 4th VE session. *Congratulations Charles!*

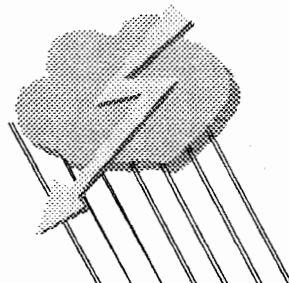
**CHARLES GASPAR
N1LIW
AMATEUR EXTRA**

Larry Houbre, AA1FS, was appointed Chairman of the SEMARA Internet Committee by President Bill Miller on August 4th following the VE session. Rick Cabral, W1RJC, and Tim Smith, N1TI, have joined the committee to help develop the SEMARA.ORG website. *Thanks fellows!*



SEMARA.ORG

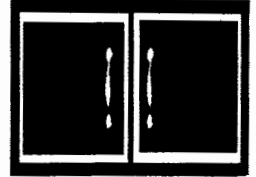
Lightening hit the repeater the first week of August and knocked out the autopatch. Fortunately the damage was only two blown protective resistors. They were replaced on Saturday, August 4th and the repeater was back to normal.



Roland Daignault, N1JOY, was voted into membership during the August business meeting. Roland lives in Westport, MA. *Welcome aboard, Roland!*

N1JOY

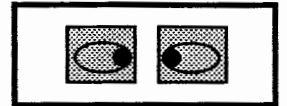
Al Dulong, WB1FQP, donated two kitchen cabinets to the club. One was installed above the kitchen sink, and the other above the microwave oven.



Thanks Al!

An excellent Tech-Talk on "Stereo Photography" was presented by **Charlie Days, WA1JFD**, and **Tim Smith, N1TI**, on July 19th. Especially interesting were stereo slides that appeared to jump out of the screen at you!

STEREO
PHOTOGRAPHY



Thanks fellows for the great presentation!

"3D"

RECENT MEMBER DONATIONS

Jean Jason, KB1GGM, donated the following items to the club:

- 1) Bogen Challenger PA amplifier
- 2) Bogen CHA10 PA amplifier
- 3) Nova Star II VHF Aeronautical Transceiver
- 4) Heathkit HW202 2 meter Transceiver set-up for packet operation.
- 5) Heathkit HW-18 Transceiver with a matching HP-23A power supply
- 6) Bearcat BC-III scanner

Thanks Jean!

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Roy Rehbein, AD1M, donated about 5 years worth of QSTs to the club.

Thanks Roy!

.....

Bob Brocklehurst, KB3SM, donated 35 issues of QST including several early 1951 issues that were needed to complete certain years in our library. (Bob's old call was WA1MYH.)

Thanks Bob!

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Tony Oliveira, W1PWL, donated two Heathkit oscilloscopes and a National NC-57 receiver to the club.

Thanks Tony!

APOLOGY AND CORRECTION

In my biggest screw-up yet as editor of ZERO BEAT, last month I gave credit to Roy Rehbein, AD1M, for a robot designed and built by Ron Rissane, KV4EZ. The error wasn't noticed until the day the newsletter was mailed. An E-Mail was immediately sent to both Roy and Ron alerting them to the error. (Roy pointed out by return E-Mail that although he is a registered engineer in three states and holds two patents, he's done nothing with robots!) Printed below is the corrected article in full. I apologize to both gentlemen and also to the readers for this error.

Bill Miller, K1IBR, Editor

RON RISSANE, KV4EZ, DEMONSTRATES ROBOT

During the July 1st Sunday morning coffee & donut hour, Ron Rissane, KV4EZ, demonstrated a robot he is currently designing and building.

At the current stage of its evolution, the robot scurries along the floor according to a preprogrammed route plan. Ron commented that in a week or two he plans to have sensors integrated into the robot's system so the robot can roam freely without smashing into objects.

Drive for the robot is via two stepper motors. Three plastic disks mounted above the motors hold the various sub-assemblies and battery packs that make up the robot. The top array even sports an LCD display where messages are read out.

It was a very interesting and informative session as Ron showed off his robot and answered questions.



RON RISSANE, KV4EZ, DEMONSTRATES DISTANCE SENSOR FOR ROBOTIC USE



At the July 22nd Sunday morning coffee hour, Ron Rissane, KV4EZ, demonstrated the distance sensing system he is designing and developing for use in his robot.

Ron has the system configured so it outputs a tone with the frequency proportional to the distance to any object in front of the sensor subassembly. He moved a book back and forth in front of the sensor to demonstrate how the tone's pitch went up and down as the book was moved.

Future plans call for the distance sensing system now under design and development to be integrated into the robot. Once this is accomplished, the robot will be able to "free roam" without hitting any objects in its path. Stay tuned!

SPRINT PCS NOW ON TOWER



The newest cellular vendor on the tower is SPRINT PCS. The above photo shows the 219 foot high crane used to install the new antenna panels at the top of the tower. The picture was taken just as the work began. The 2M and 440 Stationmaster antennas were removed first to facilitate installing the cellular panels. (The repeaters were both put on the dual-band backup antenna by using a diplexer.)

During removal of the 2 meter Stationmaster a broken coaxial connector was discovered on the 1/2 inch hardline jumper from the 1-5/8 inch mainline to the antenna. A new factory manufactured hardline jumper has been ordered and shall be installed when the antenna is put back in place. This discovery may explain the noise problem that has plagued our repeater the last few months!

NEXT SEMARA VE SESSION

September 9, 2001
10:00 am
SEMARA Clubhouse

LOCAL VE SESSIONS IN SEPTEMBER

- 08 Falmouth, MA
Ben Fleck
508-540-2583
- 10 Brookline, MA
Bob Wondolowski
508-865-5822
- 13 Providence, RI
Judy Nelson
401-231-9156
- 15 Marlborough, MA
William Wade
781-891-9079
- 19 Cambridge, MA
Nick Alterndbernd
617-253-3776

UNDERSTANDING ENGINEERS



Three engineering students were discussing the possible designers of the human body. One said, "It was a *mechanical engineer*. Just look at all the intricate joints." Another said, "No, it was an *electrical engineer*. The nervous system and brain have thousands of electrical connections." The last said, "Actually it was a *civil engineer*. After all, who else would run a toxic waste pipeline through a recreational area?"

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TECHNICAL TIPS

- 1) Marine supply stores are a great source of stainless steel screws, hardware, hose clamps, and similar fittings for antenna work.
- 2) Don't throw away that big roll of old coax. It can be used as a power attenuator. For example, 100 feet of new RG-58 has an attenuation of .75 dB at 3.5 MHz and 2.6 dB at 30 MHz. 400 feet of such coax will cut the power in half at 3.5 MHz. Old coax will have an even higher attenuation. Where to use it? Put the old roll of coax in the line to your dummy load and the dummy load will run cooler!

2001 FLEAMARKETS

Sept 8 - Ballston Spa, NY
 Sept 9
SEMARA FLEA!
 Sept 15 - Forestdale, RI
 Sept 16 - MIT Cambridge, MA
 Sept 16 - Newtown, CT
 Oct 5/6 - HOSSTRADERS,
 Hopkinton, NH
 Oct 7 - Wallingford, CT
 Oct 21 - MIT Cambridge, MA
 Nov 4 - Framingham, MA
 Nov 17 - Newton, MA (auction)

NET DIRECTORY

— Sunday —
 8 am 28.700 SEMARA NET
 9:30 am 50.225 Yankee SSB

— 4th Sunday —
 9 pm 449.575 EM-ARRL

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

— Monday to Friday —
 7:30 am 14.262 SEMARA NET
 8 pm 145.490- Weather

— Thursday —
 8 pm 147.180+ Trivia

— Saturday —
 1800G 14.300 Coast Guard

— SEMCARES NET —
 1st Sunday of the month at 7:30 pm
 145.490- (Fairhaven Repeater)



VISIT THE SEMARA WEBSITES

WWW.LRH.NET/SEMARA/SEMARA.HTM
 GROUPS.YAHOO.COM/GROUP/SEMARA
 SEND E-MAIL TO: W1AEC@ARRL.NET

"NAME THAT CIRCUIT" ANSWER
 1) RFI Filter

SEMARA OFFICERS

2001

President William Miller Jr., K1IBR
Vice-President Raymond Arruda, KB1EVX
Secretary Henry Blanchett, W1GYL
Treasurer Scott Szala, W1EV

Board of Directors:

Edward Blouin, KA1AW
 Martin Jordan, KA1YFV
 Robert Metivier, N1XZJ

Trustees:

Frank Fonseca, WB1ASD - Chairman
 Martin Jordan, KA1YFV
 William Vincent, W1POW
 Edward Blouin, KA1AW
 Norman Riley, W1ATI

SEMARA EVENT CALENDAR

SEPTEMBER 2001

- 6 - Business Meeting, 7:00 pm
- 8 - SEMARA FLEAMARKET!
 VE Session, 10:30 am
- 13 - Foxhunt Workshop, 7:00 pm
- 20 - Tech-Talk, 7 pm,
 "EOC and Communications"
 by Richard Buckley, N1KMM,
 Training Coordinator,
 Neponset Valley Emergency Group

OCTOBER 2001

- 4 - Business Meeting, 7:00 pm
- 6 - VE Session, 10:30 am
- 11 - FOXHUNT, 7:00 pm
- 13 - Field Trip to Wireless Museum in
 RI Leave club at 8 am.
- 18 - Tech-Talk, 7 pm, "Submarine
 Radio Communications"
 by Peter S. Grinnell Jr., W1IAZ
- 25 - Board of Director's mtg., 6:30 pm

Coffee Hour at the clubhouse every Sunday at 7 - 11 am. Drop by and ragchew!

LOCAL REPEATER DIRECTORY

Frequency	CTCSS	Call	Location
144			
145.150 -	123.0	WA1DGW	Fall River
145.490 -		KD1CY	Fairhaven
146.445 +1Mhz	91.5	KB1BWN	Dartmouth
146.655 -	88.5	WA1GPO	Falmouth
146.685 -		WILM	Plymouth
146.955 -	88.5	K1PBO	Dennis
147.000 +	67.0	W1AEC	Dartmouth
147.135 +	67.0	ND1N	Taunton
147.180 +	67.0	W1MV	Bridgewater
147.315 +	156.7	N1BBT	Wareham
146.730 -		W1SGL	Sandwich
220			
224.340 -		K1KEK	Dennis
224.840 -	100.0	K1LIQ	Tiverton, RI

Frequency	CTCSS	Call	Location
440			
441.400 +	192.8	WG1U	Assonet
442.200 +	88.5	N1NRL	Fall River
442.600 +	100.0	K1LIQ	Tiverton, RI
443.450 +	88.5	K1MYL	Westport
443.500+	141.3	K1PBO	Barnstable
443.600 +		NS1N	Norwell
443.800 +	88.5	N1RFH	Dartmouth
444.200 +	118.8	N1YHS	Bourne
443.850 +	131.8	W1ARM	Chatham
444.250 +	141.3	WA1GPO	Falmouth
444.350 +	88.5	W1ACT	Fall River
444.550 +	88.5	W1MV	Bridgewater
447.075 -	88.5	N1DZD	Kingston

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