



# ZERO BEAT

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



OUR 67th YEAR

Volume 35, Issue 2



SEMARA



February 1999

## OUR 180 FOOT TOWER APPROVED BY DARTMOUTH BOARD OF APPEALS

The club's application to erect a 180 foot tower was approved by the Dartmouth Board of Appeals during its January 19th meeting.

As soon as the statutory 20 day appeals period expires, a building permit will be secured and construction shall begin. It is anticipated that construction will be completed by mid April of this year, barring any bad weather or unforeseen problems.

The approval of our application was the final step in the process begun last fall to secure a building permit. The biggest problem we had to overcome were the environmental issues caused by wetlands in the southern portion of our property.

Please remember that the repeater will be off the air for up to a month as the transfer is made to the new tower. However, the backup repeater may be pressed into service on the old tower once the duplexer is retuned, with the main repeater going online when the new tower is ready, complete with new hi-gain antennas fed with 1-5/8 inch hardline coax!



## 1999 OFFICERS INSTALLED

Outgoing Vice-President Andy Reuter, WA1FNM, presented the gavel to incoming President Chris Smith, K1CJS, at the beginning of the January 7th business meeting. After all officers were seated, the first business meeting of the year was held without further ado.

## NO-CODE RADIO CLASSES NOW IN PROGRESS

The 1999 No-Code Radio Classes formally began with Orientation Night held at the clubhouse on January 10th. A total of 25 students showed up for the class. In fact, there were 37 people in the clubhouse that night!

Students were given a course schedule and class guidelines. They also were introduced to the course instructors. All the students (25) appeared genuinely interested in amateur radio.



## MEETING HIGHLIGHTS

The January business meeting was called to order at 7:12 pm by outgoing Vice-President Andy Reuter. Andy officially transferred the gavel to incoming President Chris Smith. Twenty-seven members and one guest were present. Following the salute to the flag and roll call, the Secretary's and Treasurer's reports were read and accepted.

Standing Committee reports followed:

*Activities* - None.

*Buildings and Grounds* - Oil tank will be topped off in advance of cold weather.

*Technical* - The repeater will be removed from service one month prior to transfer to the new tower for overhaul and tune-up including the cavities. Scott Szala, W1EV, donated a low noise preamp for repeater use, as well as the pressure treated wood required for benches in the new repeater building

*Ways & Means* - None.

Special Committee reports were next:

*Constitution Revision* - In pro-

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Published monthly by the  
**Southeastern Massachusetts  
 Amateur Radio Association, Inc.**  
 54 Donald Street,  
 South Dartmouth, MA 02748

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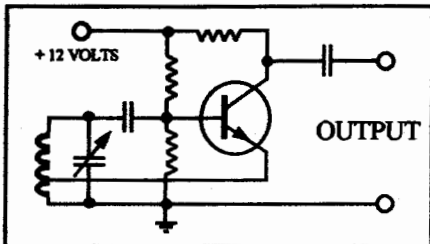
**ADVERTISING**

**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.

**CLUB BUSINESS MEETINGS  
 HELD THE FIRST THURSDAY  
 OF EACH MONTH AT 7 PM  
 IN THE CLUBHOUSE**

**NAME THAT CIRCUIT**



- 1.) Armstrong Oscillator
- 2.) Butler Oscillator
- 3.) Colpitts Oscillator
- 4.) Hartley Oscillator
- 5.) Pierce Oscillator

ANSWER - See Page 6

**MEETING-** continued from page one

gress.

*Ham Class* - Introduction night scheduled for January 10th. About 25 students anticipated.

*Scholarship* - Applications are available for anyone interested in applying. Contact Larry Houbré for details.

*Tower* - Waiting for Board of Appeals meeting on January 19th. Tower should be up by mid April if no delays (such as bad weather) are incurred.

Communications - None.

*Ratifications* - Art Marshall, W1FJI, was reinstated a member. Maurice Gagnon, KA1NMQ, was voted a conditional member. A group of 13 conditional members overlooked in 1998 were voted to full membership: N1ZQZ, N1XTT, N1YLQ, KD1CY, N1MWG, N1MXY, N1XZJ, N1YJO, N1XXQ, N1ZGX, N1OFD, N1YAL, N1ZYT.

*Old Business* - It was pointed out that the club President's birthday was today. Quite definitely OLD business. Possibly REAL OLD business!

*New Business* - The following motion was made and approved: The club's two meter repeater to be removed from service for tune-up and overhaul one month before transfer to the new tower location.

The meeting was adjourned early at 7:37 pm.

## NEXT SEMARA VE SESSION

**February 6, 1999  
 10:30 am  
 SEMARA Clubhouse**

## LOCAL VE SESSIONS IN FEBRUARY

**08 Brookline, MA**  
 Bob Wondolowski  
 508-865-5822

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

**13 Falmouth, MA**  
 Ben Fleck  
 508-540-2583

**17 Cambridge, MA**  
 Nick Alterndburnd  
 617-253-3776

**20 Marlborough, MA**  
 William Wade  
 781-891-9079

WORLDWIDE DISTRIBUTION

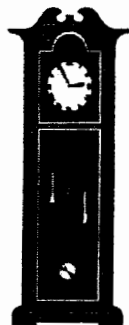


**HAM  
 RADIO  
 OUTLET**

**Chuck Wyrick**  
 Manager  
 KM4NZ


224 N. Broadway  
 Salem, NH 03079  
 (603) 898-3750, 1-800-444-0047

ANAHEIM CA • ATLANTA GA • DENVER CO • OAKLAND CA  
 HOUSTON TX • PORTLAND OR • SALEM NH • SAN DIEGO CA  
 SUNNYVALE CA • VAN NUYS CA • WOODBRIDGE VA



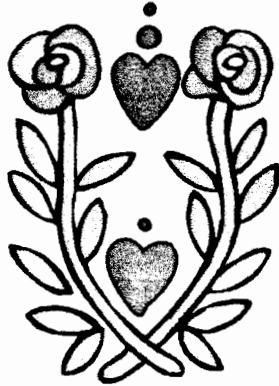
**Even a clock that  
 does not work is  
 right twice a day.**

*Old Polish Proverb*

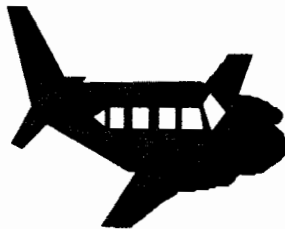


# CLUB NOTES

Valentine's Day is the big event this month. Look for it on Sunday, the 14th. Two former President's birthdays fall in February - Lincoln's on the 12th, and Washington's on the 15th. Finally, we have Ash Wednesday on the 17th. Wow, all those holidays fall within five days!

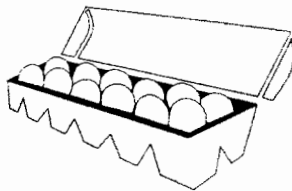


Guess who slid into town for the Christmas Holiday? Art Marshall, W1FJI, who flew up from Tallahassee, Florida. The plane Art was on slid off the end of the icy runway at Green Airport! Art reinstated his club membership while back in town. *Welcome back, Art!*



*Welcome Back,  
Art*

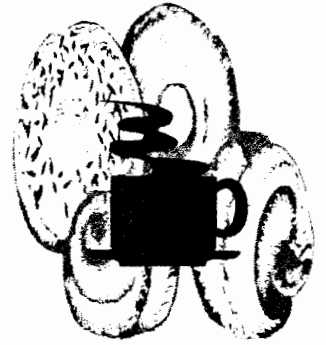
Back in town over the holidays (from Michigan) to visit his folks was Bill Rovas, WA1APX. His dad Ed Rovas, WA1VXY, brought some of his *world famous* deviled eggs to the club to celebrate his son's visit!



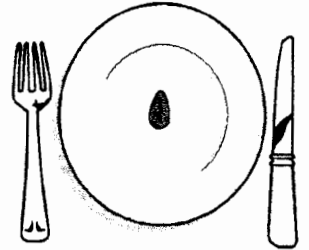
The membership ranks are increasing! They just keep growing and growing... The latest addition is Ken Howland, N1AVA, who rejoined the club after a short absence. Ken took part in several mobile hunts last fall and even won a few! *Welcome back, Ken!*

**WELCOME BACK!**  
**KEN**

What a crowd showed up for the Sunday morning coffee hour at the club on December 27th. Over 15 members showed up to swill down coffee along with donuts and malasadas. It was nothing short of a party!



Speaking of food, about twelve club members met at the Weathervane restaurant by the North Dartmouth Mall for a holiday luncheon get-together on December 30th. A great time was had by all!



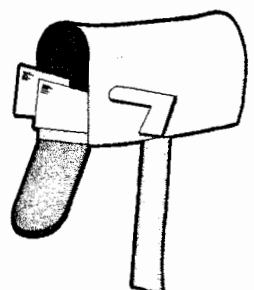
Ham Radio Outlet in Salem, NH sent a box of their catalogs to the club. (Copies were given to all students in the radio class.) If you want one, pick it up next to the front door at the club.



Members are urged not to drop by the club during VE sessions and radio classes. Such visits are disruptive to the scheduled events. Unless your visit is of an emergency nature, please plan to drop by at other times. *Thanks!*



Several members mailed their dues to the old post office box number that the club no longer maintains! Please mail all dues and correspondence to 54 Donald Street, South Dartmouth, MA 02748.



## WHAT A DEAL

One of the best kept secrets is the "Surprise Box" sold by "The Electronic Goldmine", PO Box 5408, Scottsdale, AZ, 85261. Ask for their catalog of high tech electronic components.

They sell a small surprise box that is a steal!. (They also sell a large surprise box, but the small box is a better deal in my opinion.) Look what a typical box contains:

2ea 25k dual potentiometers, 1ea 100k potentiometer, 40 assorted terminal strips, 9ea 125 volt 20 amp rocker switches, 8 slide switches, 14ea 10k potentiometers with switch, 2 ceramic standoffs, 4 TO-220 heatsinks, 4 VHF coils, a 3X7 segment LED bezel, 2ea 24 volt relays, 8 pin connector, a 56 ohm 5 watt resistor, 6ea 6-32X1/2 screws, 11ea 6-32X1 nylon screws, 3ea 24 volt panel lamps, 8ea 1.2 microhenry inductors, 192 PC board headers, 31 opto-interrupter modules, 2 red/green dual 3 lead LEDs, 9 red LEDs, 12 green LEDs, 3ea .0082 mfd 100 volt capacitors, 17ea 91 pf 3% disc ceramic capacitors, 2ea .047 mfd capacitors, 12ea 1.6 mfd mono capacitors, 5ea 10 mfd 25 volt, 9ea 10 mfd 35 volt, 11ea 100 mfd 25 volt, 2ea 100 mfd 10 volt, 6ea 100 mfd 50 volt, 1ea 3,300 mfd 10 volt, 16ea 4.7 mfd 6 volt, 5 spark gaps, 4 signal diodes, 3.3 volt zener diode, 3.7 mhz crystal, 2N3904 transistor, 5 ea MPSU06 power transistors, 2 dual diodes 1 amp @ 100 volts, 2ea 4042 CMOS IC, MC14025 CMOS IC, and 20 other items!

All the above for only \$3.00! That is not a typographical error. The whole shebang cost only \$3.00! (Order catalog #G2200) It's more than the best deal in town, it's a steal. Get your catalog today!

## 1999 DUES

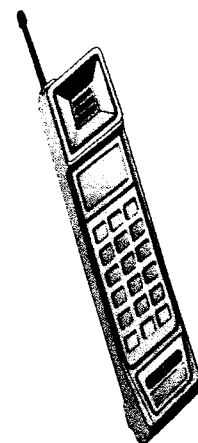
Associate Member ---- \$15.00  
 Conditional Member-- \$25.00  
 Full Member----- \$25.00  
 Family Membership--- \$30.00

## AMATEUR RADIO TO THE RESCUE

Amateur radio came to the rescue in the early afternoon of December 30th. **Sonny Mello, WB1ESG**, came upon an auto accident with personal injuries on Church Street in New Bedford. He used his 2 meter radio to broadcast a call for help, requesting that 911 be called to summon aid.

**Tim Smith, N1BTQ**, heard the call and used yet another radio, his cellular phone, to call 911 and report the accident. It took two different radios, but the message got through!

A "Tip O' The Hat" goes out to both Sonny and Tim who exemplify the true spirit of amateur radio. *Thanks Fellows!*



## FOR SALE and WANTED

## KANTRONICS TNC

Communicator 3

\$65

Bill Vincent, N1LTY (508) 992-1026

## MFJ

TNC mike switch

\$25

## WANTED

Solid State Receiver

Mo Gagnon (508) 994-4790

## TRACKER

800 Mhz, 300 channel  
Handheld Scanner

\$175

## TIMEWAVE Filter

DSP-9

\$80

## MFJ 1278

Multimode Controller  
(Packet, RTTY, WEFAX, etc.)

\$40

Marty Jordan, K1IYFV  
(508) 993-576540 FOOT ROHN TOWER  
(Rotor plate and house bracket)

\$300

## YAESU G-800S ROTOR

\$250

## TENNADYNE

T5 Log Periodic Beam Antenna

\$200

Chuck Gaspar, N1LIW  
(508) 674-3769

HALLICRAFTERS SX-25 receiver with speaker and Q'ser-----\$25

EICO 5" Oscilloscope Model 460-----\$10

B&amp;W 5100B Transmitter, 10-80 meters, AM/CW/SSB, 180 Watts--\$35

RCA WV97A Volt-ohm-meter-----\$5

SUPREME 561 Signal Generator-----\$15

EICO 360 Signal Generator-----\$5

Tony Oliveiva, W1PWL  
(508) 994-8567



# CLUB NOTES

**Jose DeMedeiros, KA2CIK**, suffered a stroke the day before Christmas. He is paralyzed on one side, and is recuperating at Brandon Woods Nursing Home in Dartmouth. Although his speech was originally slurred, he is improving as each day goes by. We miss you Joe!



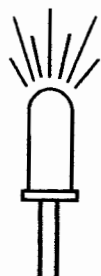
Club members are reminded that the heat goes on "high" whenever the lights are "on" in the clubhouse. Normally, the club is kept at 50°. However, when the main lights are put on the thermostat automatically jumps to 70°. The heat can also be turned on "high" for 3 hours via the repeater – consult your repeater code list for details.



The foxhunt scheduled for January 14th was cancelled due to icy road conditions. **Ken Howland, N1AVA**, (the fox) will get an extra month to select his secret hiding place. The next hunt on February 11th could be a real killer!



The January Tech-Talk on LEDs was presented by Bill Miller, K1IBR. Bill discussed how both electroluminescence and laser LEDs operate. LEDs from infra red to full spectrum white were demonstrated. The talk was very enlightening! ;-)



## AN OPEN LETTER TO CLUB MEMBERS FROM ART MARSHALL, W1FJI



*(Editor's note – Art Marshall, W1FJI, sent this letter via E-Mail for publication in ZERO BEAT. Art lives in Tallahassee, Florida, and dropped by the club for Sunday morning coffee when he visited relatives in this area last Christmas.)*



I can't tell you how great it was to see some of my old friends when I visited the club on 12/27/98. It's nice to see that ya-all still look just about the same as when I left the area 18 years ago. I hope on my next trip up to see even more of ya. Ok, ok, ok, so we really all don't look the same as 18 years ago, but close. Keep up the great work, and I am thankful to once again be a part of SEMARA. I am sure some of ya-all will remember we use to ask prospective members to step outside while we voted on them - there were some nights it was raining and cold.

Mobile cw .....yep W1FJI operates mobile cw on the way home from work almost every night 21.128 +/- QRM and band conditions. I am also on 14.050, 8pm Tuesday and Thursday nights in case anyone is interested. In the truck I run an IC706MKII at about 100 watts to a Valor mono-bander. Ya otta see that thing bend backwards at 80 mph wow !!

Don't give up on those older radios.....  
Real radios GLOW in the dark.....

I have just picked up a TS-520SE transceiver to use as my home station. It's an older radio, somewhere around 1970 something but still performs great. Obviously, it does not have WARC bands but I can live with that as my IC706mklI does. The older radios are still holding their pricing very well. I remember selling my TS-520 back in 1981 for around \$350.00 and today they are still getting around \$300.00 depending upon condition.

Art, **W1FJI**

## BILL ROVAS, WA1APX REVEALS HIS "SECRET METHOD OF LEARNING MORSE CODE"

The following is a suggestion that you may want to try... It has worked for me and several other friends who had difficulty getting over the cw hump... First, some background.... Back when I was a 'kid' I could handle about 18 wpm with pretty good copy. As an 'old guy' in my forties at the time, a friend and I decided to upgrade to Extra. My friend was a very proficient cw enthusiast who thought I was dreamin'. I purchased a single Gordon West 20 WPM QSO style code tape.

Each night during a thirty day period, I sat down at the kitchen table, with my son's 'boom box' cassette radio and a set of stereo headphones... Every night takes discipline... Each CW QSO is only 5 minutes!!! If you want something, you make it work!!! Decide whether you can write or print script faster, and then conclude that this is all you will use to copy code...

Play the first single cw QSO which should cruise along at 20 WPM... DO NOT LISTEN to the voice text translation!!! After you realize you just got massacred because you are not a cw stud, realize that you will 'attack' the same QSO the following night... (If you don't hit it the following night, you don't want the EXTRA bad enough!!!!, sell off your study aids at the next swap you attend.) Commitment required...

Night two play the exact 20 wpm cw QSO... Here is what you are trying to do... Hear the cw and write character on paper... Realize that they are trying to send text with real words and a message. This is what you are trying to write down!!!! Recognize character, write character, move on, make word..., make a sentence. Recognition, Rhythm, Write... Okay, so you only picked up a few more characters... (That is what is supposed to happen)...

Night three, you are playing the same CW QSO tape... DO NOT LISTEN to the voice translation...

Night Four... (Five minutes and you're not wanting to play????? C'mon!!!!) Same cw QSO. Recognition, Rhythm, Write!!!

Night Five... Same CW QSO... Getting Old?????? How good is your copy????? Can you read some text????? You need one minute of straight copy... 20 wpm x 5 characters means 100 characters... They start each QSO with a series of Vs'... (FCC use to count these as contributing to a minute of straight copy). Then two call signs with at least three numerals and a slash mark follow... (This is a bonus... each numeral or punctuation is worth two characters of credit for your one minute of straight copy). About every QSO is started with some type

of conversation which will include a three numeral signal report. Recognition, Rhythm, Write!!!! Remember, they repeat call signs at the end of the cw QSO... (Talk about a second chance...). DO NOT LISTEN to the voice translation!!!! (Okay, copy has improved, but you are concerned that you are memorizing the text... And only 5 minutes per night???? Can this work???)

Night six... Are you still coming around???? It is time for a new cw QSO on the 20 wpm tape... 5 minutes worth of text... Well, you may feel like you attended the 'Butch Cassidy-Sundance' farewell... May have only copied 50% and got panicky... C'mon!!! Privacy of your own home???? You are at the table for one purpose: CW Rhythm, Recognition, Write!!!

Night seven... Here we go again with CW QSO two... Copy was better than 50% I bet...

Night eight... Get your tail over to the table... CW QSO two time!!! Rhythm, Recognition, Write!!!!

Night nine... Hopefully you have the idea... Five minutes per night and you must do it.

The 20 WPM Gordon West CW QSO tape is similar format to what you will be tested on. Learning to link letters, make words and sentences is the secret to proficiency. Also, later in the tape, there are a couple of 22 WPM CW QSOs... Make sure you play them as part of the late term five night CW QSO plan (No guts, no glory!!!!).

After 30 days of this abuse, get a copy of your license in hand and go visit the VE... Friends who failed code testing as many as five times after using computers and random code generators and other hi tech devices were successful in passing the 20 WPM Extra exam... All it is a little Rhythm, Recognition, Write!!!! Friends still marvel at the fact that as a primarily voice operator, I cracked the 20 wpm barrier so easily... As a kid I was good for 18! As an older guy, guess I was good for 20!!!

While you are at it, take the exam for the Advanced AND Extra... You have already paid the price \$\$\$ for testing and might get lucky... Even if you don't pass the exam, you have the experience of seeing some of the exam questions and can then crack the books for some hard study.

Also, here's another method that you can try to enhance cw proficiency. Most modern rigs have side tone... Hook up a dummy load and apply 0 dive for minimal output into the dummy load.... Rig I used

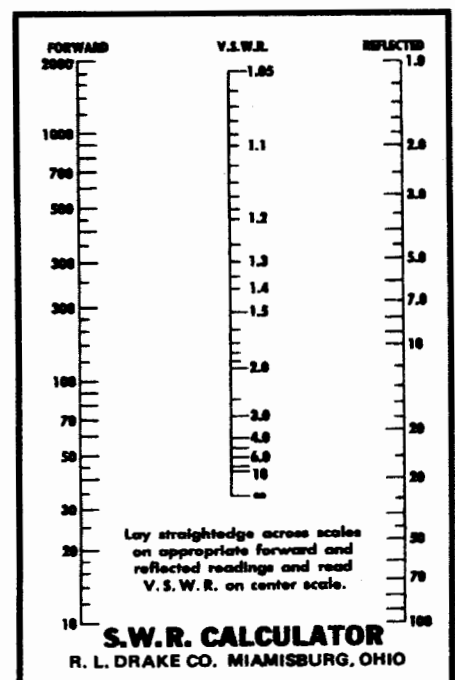
was my 'trusty ol' Ten Tec Triton II'. Sit down with your 'new fangled keyer or bug or straight key' hooked up to the rig. Drag out the license manual... I prefer the Gordon West study manual... Start to send question #1 of the study material you are hitting... It is a lot of trouble!!!! What a screwy idea.... After stumbling through the horrible text you just sent, READ THE ANSWERS related to the question. We must have progress, so move to question #2, #3 ...

What have we done after a few episodes here????? We have developed a measure of proficiency in sending with a keyer, bug or key of some type. (I think the ol' guys use to say, developed a fist?????) We have also hit the books and even learned some of the study material... (I learned how to use the Vibroplex Bug that my SK Elmer, K1BVD gave me when I passed my General).

You can't lose with this method, and though it is not painless, it is a controllable way to gain the proficiency necessary to get the next higher license. Not fancy or hi tech, but it works where other systems have failed... My results are amusing... Friends often query me as to how I got my 20 wpm credit when I do not operate CW on a regular basis. I always tell them that I had to pay someone \$40 to pass the cw exam, and he flunked it the first time so I had to pay him again...

If the FCC wants me to demo proficiency, let me at em!!!!

Bill Rovas, WA1APX/8



### TECHNICAL TIPS

Most mobile radios require a direct connection to the car battery, yet most car batteries have side terminals that make such a connection difficult. One solution is to drill and tap the top of the side terminal bolts to permit connection of the radio cables. An easier solution is to purchase a battery with standard top terminals in addition to the side terminals. Next, buy a set of marine terminals to put on the top terminals. Marine terminals have wing nuts to permit attachment of cables. (I replace the wing nuts with stainless steel nuts and lock-washers.) Plan ahead, buy such a battery next time you replace the existing one, even if you don't plan to install a radio. If nothing else, it makes the connection of jumper cables easier!

### 1999 FLEAMARKET CALENDAR

- \*\*\*\*\*
- Feb 13 - AARC Marlboro, MA
  - March 13 - MARC Gardner, MA
  - March 21 - SARA Southington, CT
  - April 18 - MIT Cambridge, MA
  - May 7-8 - Hoss Traders  
Rochester, NH
  - May 15 - RIAFMRS Forestdale, RI
  - May 16 - MIT Cambridge, MA
  - June 20 - MIT Cambridge, MA
  - September 12 - SEMARA  
Dartmouth, MA

### NET DIRECTORY

- Sunday —
- 8am 28.375 SEMARA NET
- 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 SEMARA NET
- 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
- ARES NET —
- 1st & 15th of the month  
at 7:30 pm
- 147.000+ on the 1st
- 145.490- on the 15th

### VISIT THE SEMARA WEBSITES



[WWW.LRH.NET/SEMARA/SEMARA.HTM](http://WWW.LRH.NET/SEMARA/SEMARA.HTM)

[MEMBERS.AOL.COM/RICABRAL/HAM/SEMARA](http://MEMBERS.AOL.COM/RICABRAL/HAM/SEMARA)

### SEMARA OFFICERS 1999



**President** Chris J. Smith, K1CJS  
**Vice-President** Robert Metivier, N1XZJ  
**Secretary** Henry Blanchett, W1GYL  
**Treasurer** Bradford Anselmo, N1VUF

**Board of Directors:**

Andrew Reuter, WA1FNM  
 Martin Jordan, KA1YFV  
 Scott Szala, W1EV

**Trustees:**

William M. Miller Jr., K1IBR- Chairman  
 Norman Riley, W1ATI  
 Frank Fonseca, WB1ASD  
 Martin F. Jordan, KA1YFV  
 William Vincent, N1LTY

### SEMARA EVENT CALENDAR

#### FEBRUARY 1999

- 4 - Business Meeting, 7:00 pm
- 6 - VE Session, 10:30 am
- 11 - 2 Meter Foxhunt @ clubhouse, 7:00 pm
- 18 - Tech-Talk, 7:00 pm - "Computer Net-working" by Tim Smith, N1BTQ



#### MARCH 1999

- 4 - Business Meeting, 7:00 pm
- 6 - VE Session, 10:30 am
- 11 - 2 Meter Foxhunt @ Clubhouse, 7:00 pm
- 18 - Tech-Talk, 7:00 pm -
- "SkyQuest Balloon Launches" by Hank Riley, N1LTV



Coffee Hour at the clubhouse every Sunday at 9:00 am. Drop by and ragchew!

## LOCAL REPEATER DIRECTORY

Frequency	CTCSS	Call	Location
<b>144</b>			
145.150 -		WA1DGW	Fall River
145.490 -		KA1WBF	Fairhaven
146.445 +1Mhz	91.5	KB1BWN	Dartmouth
146.655 -	88.5	WA1GPO	Falmouth
146.685 -		N1OEG	Plymouth
146.700 -		K1CR	Cranston, RI
147.000 +		W1AEC	Dartmouth
147.045 +		WA1AIC	Yarmouth
147.135 +	67.0	ND1N	Taunton
147.180 +	77.0	N1FDX	Bridgewater
147.315 +	156.7	N1BBT	Wareham
<b>220</b>			
224.340 -		N1SGK	Dennis

Frequency	CTCSS	Call	Location
<b>440</b>			
441.400 +	192.8	WG1U	Assonet
442.200 +		N1NRL	Fall River
442.350 +	141.3	N1OFD	Acushnet
442.600 +	100.0	K1LIQ	Tiverton, RI
443.450 +	88.5	K1MYL	Westport
443.600 +		NS1N	Norwell
443.800 +	88.5	N1RFH	Dartmouth
443.850 +	131.8	W1ARM	Chatham
444.250 +	141.3	WA1GPO	Falmouth
444.350 +	88.5	W1ACT	Fall River
444.550 +		N1FDX	Bridgewater
447.075 -		N1DZD	Kingston

4. Harley Oscillator

Please support these fine sponsors of our newsletter

**Len's Dog Obedience School**  
 Tuesday evenings  
 at New England Dog Training Center, 47 Mason Rd., East Freetown, MA

Do you walk your dog or does he walk you? Will your dog stay put when told or come when called? Solve your problems, come to class.

**Beginners: 6:30 PM, Advanced: 7:30 PM, Open & Utility 8:30 PM**  
**Len Godonski, Trainer** for more info: 508 995-0799

Directions: From Rte. 140 North take exit 8 and turn left or from Rte 140 South take exit 8 and turn right. After the first intersection, we're 1/2 mile down the road on the left.



*Cappuccino*  
*Souffle*  
*Espresso*



*Bagels*  
*Muffins*  
*Cream Cheeses*

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**FIRST CLASS**

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