



ZERO BEAT

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



OUR 73rd YEAR

Volume 41, Issue 1

SEMARA W1AEC

January 2005

The New Officers for 2005

SEMARA 2005 elections took place during the regular business meeting on December 2, 2004.

The results of the election are, with available photos:

President:



Don Manley, N1PMB

Vice President:

Chuck Moszczenski, KB1FRL

Secretary:

Ron Silvia, WB1HGA

Treasurer:

Scott Szala, W1EV

Trustee (serving through 2009):



Bill Vincent, W1POW

Board of Directors:



Ray Arruda, KB1EVX



Marty Jordan, KA1YFV



Rob Macedo, KD1CY

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**Southeastern Massachusetts
 Amateur Radio Association, Inc.**
 54 Donald Street,
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ADVERTISING

Club members have one free non-
 commercial ad per month.

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

2005 SEMARA OFFICERS

President

Donald Manley, N1PMB

Vice President

Charles Moszczenski, KB1FRL

Secretary

Ronald Silvia, WB1HGA

Treasurer

Scott Szala, W1EV

Board of Directors:

Ray Arruda, KB1EVX
 Marty Jordon, KA1YFV
 Rob Macedo, KD1CY

Trustees: (year term is up)

Norman Riley, W1ATI (2005)-Ch.
 Andrew Reuter, WA1FNM (2006)
 William Miller, Jr., K1IBR (2007)
 Larry Houbre, Jr., AA1FS (2008)
 Bill Vincent, W1POW (2009)

WEBSITE:

<http://www.semara.org>

E-MAIL:

clubinfo@semara.org

FISTS CW

club no. is 10555

GPS Coordinates:

Lat. N 41° 36.795'

Long. W 070° 56.590'

IT SEEMS TO ME ...

That only Art, W1FJI (SEMARA member in Tallahassee, FL), had the gumption to ask me "What's your point!" when he was confused by my remarks on "No, your antenna did not fall down." Well, I guess I had better be more careful in the future to be sure I have a point to make whenever I put something in this column. So what is my point? One point is that solar flares can and do mess up the ionosphere. The HF bands can act like they are VHF. The second point is when the bands seem dead, they may not be. I'm always amazed at how alive "dead" bands become during contests and on the weekends. And my third point is the internet gives us another means to "get a message thru" even when our own RF working conditions cannot. Oh yes, that means you have another way to avoid those "honey-do" chores, if you wish. See what I get for trying to write something "tongue-in-cheek!"

Testing just got more expensive. Starting January 1, 2005 the fee charged all applicants at ARRL VEC-coordinated Amateur Radio examination sessions will \$14. Up to \$6 of this fee can be used to reimburse the VE team's out-of-pocket test session-related expenses. The fee is charged to anyone applying for a new amateur license or an upgrade. It *also* applies to applicants retesting on the same element after being unsuccessful (where examiners permit), or applicants seeking grandfather-credit upgrades and are not taking an exam.

MOBMU, in Hertfordshire, England, recently received three North American LF signals on 2200 meters (137.777 kHz) on October 29, 2004 at about 0300 UTC. The "QRSS120" very slow-speed (0.01 WPM, two minutes to send a dit) CW signals were copied using a computer with ARGO software. **WD2XES** was operated by **W1TAG**, Massachusetts; **VO1NA** was near St Johns, Newfoundland; and **WD2XDW** was operated by **KL1X/5**, Oklahoma. **WD2XDW**'s LF CW signals were detected recently in New Zealand.

Need another example of "sound card" techniques that can produce remarkable results? If you are interested in EME or meteor scatter, check out WSJT at <http://pulsar.princeton.edu/~joe/K1JT/>.

73 de Bob, K1KVV editor@semara.org

HAMMIN' AROUND

Question* Why do most amateur stations use lower sideband on the 160-, 75-, and 40-meter bands?

- The lower sideband is more efficient at these frequency bands
- The lower sideband is the only sideband legal on these frequency bands
- Because it is fully compatible with an AM detector
- Current amateur practice is to use lower sideband on these frequency bands

* Taken from the 2004 General (Element 3) question pool **ANS. on page 7**



MEETING MINUTES

The December 2, 2004 Business Meeting was called to order at 7:00 p.m. by the President, **Donald Manley, N1PMB**. A quorum of 42 members was present.

The Secretary's report (**Ron Silvia, WB1HGA**), as it appeared in the current issue of *Zero Beat*, was accepted without correction.

The Treasurer's report (**Scott Szala, W1EV**) was accepted as read without correction.

STANDING COMMITTEE REPORTS

Buildings and Grounds (**Andy Reuter, WA1FNM**)—Service bill for repairs to club furnace was presented to Treasurer. Suggests we arrange for annual service each spring (call in May for service in June).

Scholarship (**Larry Houbre, Jr., AA1FS**)—No report.

Technical (**Rick Cabral, W1RJ & Tony Duarte, N1XRS**)—no new report.

SPECIAL COMMITTEE REPORTS

Internet (**Larry Houbre, Jr., AA1FS**)—Explains that the system might have had a "burp" and there is no cause for alarm of sudden download of reflector activity log.

Activities (**Scott Szala, W1EV**)—Tickets still available for Xmas party to be held Dec. 15 at Century House.

ARES (**Rob Macedo, KD1CY & Tony Duarte, N1XRS**)—**Rob Macedo, KD1CY**, announced SkyWarn activity for Dec. 3 "SkyWarn Recognition Day,"

Contests (**Ron Silvia, WB1HGA**)—reports that the SkyWarn will be had on Sat. between 8 a.m. and 7 p.m. Looking for ops for those hours to operate HF phone bands.

COMMUNICATIONS: (**Charles Moszczenski, KB1FRL**)—**Henry Keefe Jr, KB1GQC, SK**; Reading of the SPOOK certificate; report in Mt. Tom's Intermod regarding thanks to Don (N1PMB) and SEMARA for their generous donation of 400 feet of new hardline.

RATIFICATIONS—No applications for life membership were received this month.

PRESIDENT'S COMMENTS: (**Donald Manley, N1PMB**)—Thanks to all members for their cooperation making it a successful year.

OLD BUSINESS—None.

NEW BUSINESS:

*Motion** that the club heating furnace be serviced annually, in June or July and to make arrangements for such, each year in month of May.

FOR THE GOOD OF THE CLUB:

"*Learning Morse Code*" CD from **Bob Zeida, N1BLF**, is available for anyone to use.

Larry Houbre, Jr., AA1FS, announced testing at 10:30 a.m. Sat. Dec. 3.

Carl Bredberg, K1KID, reminds everyone about the 6 meter net Wednesdays at 8:30 p.m. on 50.130 MHz USB.

ELECTION OF OFFICERS:

The Officers elected for 2005 are:
President **Don Manley, N1PMB**;
Vice President **Chuck Moszczenski, KB1FRL**;
Secretary **Ron Silvia, WB1HGA**; and
Treasurer **Scott Szala, W1EV**.

The new Board of Directors for 2005 is:
Marty Jordon, KA1YFV; **Ray Arruda, KB1EVX**; **Rob Macedo, KD1CY**

Trustee (through 2009): **Bill Vincent, W1POW**

AUCTION: Auction of donated equipment followed, prior to closing the meeting.

The meeting adjourned at 8:00 p.m.

Submitted by **Ron Silvia, WB1HGA**, Secretary

* *All motions accepted and passed by the members present.*





CLUB NOTES

Happy New Year! January marks the beginning of a brand new year. This is the time to really put your arms around all those things you have been meaning to get around to.



On December 3, 2004, three people passed their written exams:

William W. Allen passed the Technician Exam.

David F. Hill, N1GXV, passed the Extra Class Exam.

Arthur E. Irwin, W1AEI, passed The Extra Class Exam.

Congratulations for a job well done!



Jay Rogers, N1WVQ, was the successful bidder at the December business meeting for the complete SWAN 350 station including the transceiver, 120 volt AC power supply, 12 volt DC power supply, etc.

Our auctioneer, **Dave Dean, K1JGV**, tells me there will be more goods for the next business meeting auction. Remember, you need to be there to bid!



MARYAN J. MIDURSKI, W1EKW SK

Maryan "Joe" Midurski, W1EKW, died unexpectedly at age 81 on December 25, 2004 at St. Lukes Hospital. Henry was a long time member having joined SEMARA in 1954. He was an active member, serving as a Volunteer Examiner.

Our sympathy goes out to his widow, Loretta Midurski, and his family. *May he rest in peace.*



HENRY KEEFE JR., KB1GQC SK

Henry Keefe Jr, KB1GQC, died October 28, 2004 at home in Warren, RI. Henry was licensed in April 2001 and joined SEMARA in December 2003. One of his last activities was attending the 2004 Fleamarket on September 12.

Our sympathy goes out to his widow, Rollande Keefe, and his family. *May he rest in peace.*



AUCTION GUIDELINES

A few suggested guidelines (subject to approval by the membership, of course):

1. The auction has been integrated with the meeting to maintain order. This works well and the format should be adopted.
2. Private sales should not be permitted as the auction is for the benefit of the club as a whole.
3. When bidding, the only verbal comments from the floor should be a loud and clear bid accompanied with a raised hand.
4. Prior to the first bid, the auctioneer shall state "What do I hear for this (item)?" The bids will then advance.
5. Items to be auctioned should be brought to the club shortly before the business meeting.
6. Do not donate items of little or no value.
7. Technical items (not necessarily ham gear) are encouraged.
8. The whole purpose of the auctions is to raise money for the club kitty and quality items are strongly suggested.

Some of these guidelines may change over time. For instance, the setting of a minimum bid for an item does not seem to be popular. Guidelines on what seems to be a good item to auction may need to be added.

I was pleased with the outcome of our December auction. May the club prosper from this monthly effort.



73 de Dave, K1JGV, Auctioneer

SEMARA News & Notes

SEMARA IN EMA SECTION NEWS

FRI 12/17/2004 - 3 ITEMS

One of our section's "unsung heroes" is **Bob Zeida, N1BLF**, of North Dartmouth. Zeida continues his selfless work in the production of audio materials for visually impaired and blind amateurs across the country on behalf of the Courage Center Handiham program in Golden Valley, Minnesota. Bob records material from QST and WorldRadio, as well as many ARRL publications like the ARRL Emergency Communications Course manual. Zeida has recorded tens of thousands of hours of materials for others.

Members of the Marconi Radio Club have done yeomen's work over the years in promoting the life and accomplishments of the hobby's "first" amateur: Guglielmo Marconi. Through several spectacular events and displays, the Marconi club, led by **Bob "Whitey" Doherty, K1VV** has created wonderful public relations opportunities for Amateur Radio. They've opened the eyes of the general public to this great radio pioneer's accomplishments, and to our hobby. (*Bob joined SEMARA in October 2004. Think we could ask him to share his talents for SEMARA?*)

A consistent leader (cheerleader?) of the SKY-WARN program in Southern New England is **Rob Macedo, KD1CY** of New Bedford. A member of the SEMARA, Rob has dedicated incredible amounts of time and energy to ensure that the National Weather Service has hundreds of extra "eyes and ears" providing ground truth during severe weather outbreaks. Over the years, Rob has traveled throughout a four-state area to provide training seminars and coordination for individuals and nets. Last year, KD1CY was awarded one of only 36 nation-wide NOAA Environmental Hero Awards for Earth Day.

NEED HELP PASSING A TEST?

A blind ham relates that as far as getting sighted help to read technical manuals, his 73 year-old non-technical mother is always a good sport about it. If she reads a manual and tells him "Impotence equals 50 horse shoes" He knows that the impedance is 50 ohms. [$Z = 50 \Omega$]

IS HE TALKING ABOUT US?

Phil Temple, K9HI

ap-a-ty, n. 1. Lack of interest or concern, especially regarding matters of general importance or appeal; indifference. 2. Lack of emotion or feeling; impassiveness.

in-dif-fer-ence, n. The quality or state of being indifferent, or not making a difference; want of sufficient importance to constitute a difference; absence of weight; insignificance.

Recently, the EMA ARRL website ran a survey that asked the question, "The biggest threat to the Amateur Radio Service is..." Here is the breakdown of the 155 answers, percentage-wise:

- 18.71 % Broadband over Power Line (BPL) interference
- 28.39 % Apathy and indifference among our ranks
- 25.81 % Aging of our ham population
 - 9.68 % 'Dumbing down' of our hobby
- 12.26 % The public perceiving us as 'antiquated'
 - 5.16 % (Other – please specify)

Active Amateurs, those who visit the section website and provide feedback, feel that A&I (Apathy and Indifference) constitute the biggest threat to our hobby service. I would tend to agree. However, I might argue that this particular threat can be mitigated to some degree—perhaps even more than the aging of our population, or the public's perception of our antiquity.

The 80:20 Principle says, that in all sorts of areas of life, 20 percent of one thing, will give 80 percent of another, dependent thing.

Have you ever noticed how the same, small percentage of individuals in your local ham club does the bulk of the work? What's wrong with that, you ask? On the surface, nothing is wrong. People get comfortable performing tasks that they're competent at, or that they enjoy. Everyone comes to rely on Joe or Tom a little too much. Suddenly, Joe is unavailable. And Tom—well, Tom decides he's had enough. *He's burned out.* There's a last minute scramble to fill the position of Field Day Chairman. "This year," the president says, "We won't have a Field Day unless I get a volunteer by next week." The club members look at each other, sheepishly. No one wants to step forward. It's a heck of a lot of work. *You're staring eyeball to eyeball with the dreaded A&I.* How do you combat the 80:20 princi-

More News & Notes

Is He Talking About Us? (Continued from page 5)

ple that leads to A&I? **Plan ahead!**

You've elected a new, enthusiastic person to be your club treasurer. Great! *Now, make it that person's duty to recruit his or her assistant.* Reach out to someone who is even newer—someone who, perhaps, lacks the confidence to volunteer; someone for whom the job will present a challenge. It's better than playing, "*Eenie, Meenie, Minie, Mo*" at election time, or drafting your former president from three years ago.

Is Tom is getting busier and busier with family obligations? Perhaps it's time for the club leadership to come to grips with this problem before it becomes a crisis! Put your heads together and recruit an assistant—or better yet—a committee, several months before Field Day at the end of June.

Do the younger hams in your club feel included and welcomed to participate to the level of their ability with support from more experienced members? Perhaps young Johnnie or Sally would make the perfect candidate to head up a PR or Education Committee.

Will "growing" your volunteers fix all of ham radio's ills? Sadly—no, it won't. We'll probably see a decline in the number of participants who volunteer for your public service events. Or, your flea market may be struggling to make a profit. And, you might be forced to set up a smaller Field Day operation next year. (Incidentally, consider joining forces with another radio club to produce a more robust effort.)

Is this solely the result of A&I? I think not. As Amateur Radio leaders, it's a constant challenge for us to make our clubs and our hobby as attractive as we possibly can, so that we'll continue to attract members to club meetings and activities instead of losing them to other pastimes. We live in a society that is becoming increasingly crowded with activities and events that vie for our limited time and attention.

Let's be cognizant of the roots of Apathy and Indifference. Let's use a little common sense, combined with imagination, and turn the 80:20 Rule into the 70:30 Rule—or, possibly—into the 60:40 Rule! Lastly, let's not despair. In many measurable ways, Amateur Radio continues to evolve as a growing, vibrant hobby—despite that fact that it's "*not your father's Oldsmobile.*"

2005 FLEAMARKETS

22 Jan Nashua, NH

NE Antique RC — Marty 603-938-5051

19 Feb Marlboro, MA

AARC — Ann 508-481-4988

26 Feb Milton, VT

RANV — Mitch W1SJ 802-979-6589

BANDWIDTH AND EFFECTIVE POWER GAIN

If we compare communication modes, modern communications receivers can provide impressive effective transmitter power gains by matching the receiver bandwidth to the transmitted signal bandwidth. [Gain (dB) = 10 * log (P/p).] Consider, for example, the effect of bandwidth on some popular voice and digital modes with approximate bandwidths of:

HiFi SSB ≈ 4000Hz; (std) SSB ≈ 2000Hz;
15 wpm CW ≈ 60Hz; and PSK31 ≈ 31Hz.

If we put an equal amount of power into each of these modes and look at the amount of power (Watts) per Hertz of bandwidth, HiFi SSB versus SSB suffers about 3dB from its increased noise window; SSB versus 15 wpm CW is about 15dB; and CW versus PSK31 is about 3dB from bandwidth plus another 3dB for coherence (PSK31 is a coherent mode) to give about 6dB power gain.

To match the signal to noise ratio of a HiFi SSB 1kW (1.5kWpeak) signal, SSB needs about 500W (750Wpeak), CW about 15W and PSK31 about 4W. The point is that for the same SNR, the narrower the bandwidth, the less power is needed.

[To be completely fair, you generally need wider bandwidths to send a given amount of information faster. Compare WSJT with QRSS120.]

73 de Bob Kelley, K1KVV

By the way, did you know the QRP miles per watt record was set in **1970** by KL7YU and W7BVV using **1μW** over a **1,650 mile** 10-meter path between Alaska and Oregon? This is the equivalent of **1.65 billion miles per watt**. I wonder what mode they used? Do you think it was slow speed CW?

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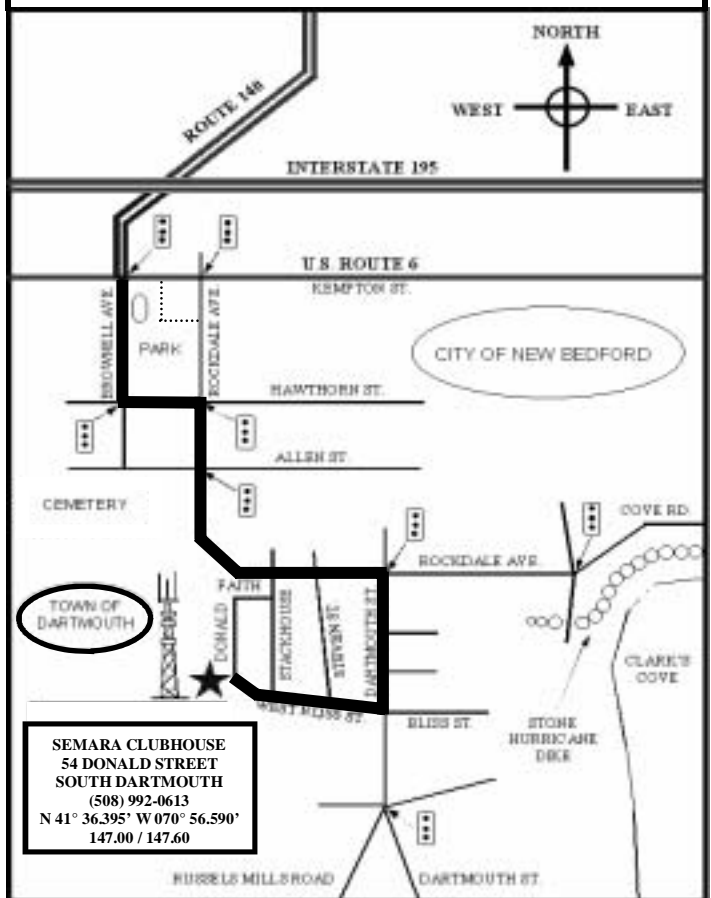
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JANUARY VE SESSIONS

- 8 SEMARA Clubhouse 10:30 a.m.
Larry Houbre, AA1FS
508-991-6055
- 8 Falmouth, MA, 9:00 a.m.
Joanne Reid, N1LNE
508-548-1121
- 13 Providence, RI, 7:00 p.m.
Judy Nelson, KC1RI
401-231-9156
- 17 Fall River, MA, 7:00 p.m.
Skip Denault, KB1CNC
774-644-3469
- 20 Norwood, MA, 7:30 p.m.
Richard J Cantin, AA1TI
508-339-1089
- 29 Slatersville, RI, 9:00 a.m.
Robert E Jones, WB1P
401-333-4787

Directions to SEMARA



SEMARA CLUBHOUSE
54 DONALD STREET
SOUTH DARTMOUTH
(508) 992-0613
N 41° 36.395' W 070° 56.590'
147.00 / 147.60

SEMARA EVENT CALENDAR

January 2005

- 6—Business Meeting & Auction, 7:00 p.m.
- 8—VE Session, 10:30 a.m.
- 13—Ragchewing, 6:30 p.m.
- 20—Tech Talk—*"My Experience with ..."*
Stan Laine, WA1ECF, 7:00 p.m.
- 27—ZERO BEAT folding party, 3:00 p.m.

Ragchew at the clubhouse every Sunday at 7 - 11 a.m.
Drop by and enjoy a cup of coffee and donuts!

POINT TO PONDER

"Unless you try to do something beyond what you have already mastered, you will never grow."
Ralph Waldo Emerson

D. Current amateur practice is to use lower
sideband on these frequency bands.

LOCAL REPEATER DIRECTORY

Frequency	CTCSS	Call	Location
144			
145.150 -	123.0	WA1DGW	Fall River
145.490 -	67.0	KD1CY*	Fairhaven
146.655 -	88.5	WA1GPO	Falmouth
146.685 -		W1LM	Plymouth
146.700 -		K1CR	Cranston, RI
146.730 -	67.0	W1SGL	Sandwich
146.760 -		W1HQV	Scituate, RI
146.955 -	88.5	K1PBO	Dennis
147.000 + SEMARA	67.0	W1AEC	Dartmouth
147.135 +	67.0	KA1GG	Taunton
147.180 +	67.0	W1MV	Bridgewater
147.315 + NEW	67.0	KB1HJG†	Plymouth
147.345 +	88.5	KB1QL	Vineyard

* IRLP #4617 & EchoLink #4611 nodes

440			
441.400 +	100.0	WG1U	Plymouth
443.450 +	88.5	K1MYL	Westport
443.500 +	141.3	K1PBO	Barnstable
443.600 +	88.5	NS1N	Norwell
443.800 +	88.5	W1RJC**†	Dartmouth
444.200 +	118.8	N1YHS	Bourne
444.250 +	141.3	WA1GPO	Falmouth
444.350 +	88.5	W1ACT	Fall River
444.550 +	88.5	W1MV	Bridgewater
447.025 -	77.0	N1JBC†	Johnston, RI
447.075 -	88.5	N1DZD	Kingston

** IRLP #4259 & EchoLink #4259 nodes

† Node on the New England Network

SEMARA ACTIVITY DIRECTORY

— RAGCHEW —

Sat - 8 p.m. 28.700 MHz USB

Sun - 8 a.m. 28.700 MHz USB

Wed - 8 p.m. 50.130 MHz USB

Daily - 7 p.m. 147.000+

M-F - 7:30 a.m. 3.872 MHz LSB

— KD1CY WEATHER NET —

Mon--Fri 8:00 p.m. 145.490-

— W1RJC Sunday Activities 443.800+ —

7 p.m. - New England Net

9 p.m. - ARRL News followed by Amateur Audio News

NEXT SEMARA VE SESSION

JANUARY 8, 2005

10:30 A.M. @ CLUBHOUSE

LARRY HOUBRE, JR., AA1FS

508-991-6055

Southeastern Massachusetts Amateur Radio Association, Inc.

54 Donald Street, South Dartmouth, MA 02748

SEMARA

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