



ZERO BEAT

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



Since 1932

Volume 47 Issue 1

SEMARA-W1AEC

January 2011

2011 Election Results

At the December 2, 2010 business meeting the following members were elected Officers, Directors, and Trustee (2015).

ELECTION RESULTS

Officers

President

Marcel - W1MLD

Vice-President

Bob - K1KVV

Secretary

Marc - KB1ODE

Treasurer

Mike - KB1NB

Board of Directors - one year

Joe K - N1IXC

John - WA1LSH

Brad - W1BEP

Trustee - five years (2015)

Joe K - N1IXC



Nominations were opened prior to the actual election. Except for the Trustee, who must have been a member for five years, all other offices were open to any member. Anyone nominated at the Business meeting had to be present to confirm a willingness to serve.

ZERO BEAT

Published online monthly
 ©2011 Southeastern Massachusetts
 Amateur Radio Association, Inc.
 54 Donald Street,
 South Dartmouth, MA 02748
 (508) 997-7070

EDITOR: Bob Kelley—K1KVV
 E-mail: [editor\[at\]semara\[dot\]org](mailto:editor[at]semara[dot]org)
 SEMARA: <http://www.semara.org>
 E-mail: [wlaec\[at\]semara\[dot\]org](mailto:wlaec[at]semara[dot]org)

2011 SEMARA OFFICERS

- President*
 Marcel Dumont—W1MLD
Vice President
 Bob Kelley—K1KVV
Secretary
 Marc Dumont—KB1ODE
Treasurer
 Mike McDonald—KB1NB
Directors:
 Joe Krisnowsky—N1IXC
 Brad Paiva—W1BEP
 John Walsh—W1LSH
Trustees: (year term is up)
 Tim Smith—N1TI (2011) chair
 Henry Blanchett—W1GYL (2012)
 John Walsh—W1LSH (2013)
 Louis Mester—W1CH (2014)
 Joe Krisnowsky—N1IXC (2015)

STANDING COMMITTEES

- Building and Grounds*
 Dave Dean—K1JGV
 Marty Jordan—KA1YFV
Scholarship
 Sonny Eddleston—K1USW – chair
 Chuck Moszczenski—KB1FRL
 Alan Dulong—WB1FQP
 Joe Krisnowsky—N1IXC

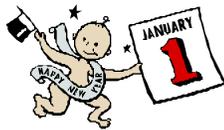
- Technical/Repeater/Website*
 Dave Goldstein—W1DJG: Tech
 Rick Cabral—W1RJC: Repeater
 Rick Cabral—W1RJC: Website
 Ben Jackson—N1WBV: facebook

SPECIAL COMMITTEES

- Activities*
 Scott Szala—W1EV
ARES/SKYWARN/RACES
 Rob Macedo—KD1CY
QSL Manager
 Joe Nery—WA1ESO
Radio Events
 Bob Kelley—K1KVV
Tech Talk
 Eric Pierce—N1WCO

It seems to me ...

de Bob - K1KVV <editor[at]semara[dot]org>



that a New Year is a good time to get involved in new things. Dave-W1DJG is looking to sign up students to study for the *Technician Class* exam. Bob-K1KVV is willing to offer a workshop on Basic Circuit ideas—whatever you might need to deal with both the *General and Extra Class* exams and real world design. Bob-K1KVV is also willing to cover *Basic Antenna* ideas as well as *Basic Ideas of Phone, CW, and Digital Modes*. I am sure there are lots of ‘experts’ out there who would be willing to share what they have learned from their life experiences. *Micro-controllers* anyone?

The **SEMARA Scholarship** is available to students living in Southeastern Massachusetts. Our objective is to promote amateur radio to young persons and the radio hobby in general.

Scholarships are awarded annually in the Spring for the current academic year. Applicants should apply via US Mail during our application filing window of **January 1st to March 1st**.

To apply, three items are required:

1. Signed original application
2. 600-word essay about amateur radio
3. Paper copies of all transcripts

The *application* and full *instructions* may be found at
<http://semara.org/scholarship>.

All required items should be mailed to:

SEMARA Scholarship
 c/o SEMARA, Inc.
 54 Donald Street
 Dartmouth, MA 02748

POINT TO PONDER

“Be always at war with your vices,
 at peace with your neighbors,
 and let each new year find you a better man.”

~Benjamin Franklin

HAMMIN' AROUND

Question* T7B11 What is a symptom of RF feedback in a transmitter or transceiver?

- A. Excessive SWR at the antenna connection
- B. The transmitter will not stay on the desired frequency
- C. Reports of garbled, distorted, or unintelligible transmissions
- D. Frequent blowing of power supply fuses

* 2014 Element 2 Technician Class Question Pool (good thru 2014-06-30) Answer on page 8.

Club Notes

January is the month for change at SEMARA. We elected a slate of officers for 2011 and Joe K (N1IXC) trustee to serve for until 2015. Now we need to make a few resolutions and start the new year with a bang!



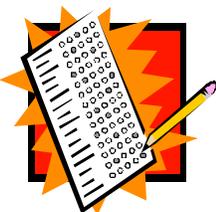
At the December 4, 2010 VE session, the following persons passed their exams.

KB1VAN - Alexander L Davis, Technician

KB1TEE - Richard Emord, General

KA1IB - Paul G Sadeck, Extra

Congratulations on your success!



Interested in license classes? Contact **Dave-W1DJG** <[w1djg \[at\] w1djg \[dot\] com](mailto:w1djg@w1djg.com)>.



2011 VE Session Schedule

- February 5
- April 2
- June 4
- August 6
- October 1
- December 3



NEXT SEMARA VE SESSION

February 5, 2011

Clubhouse @ 10:30 AM

Contact: Larry Houbre-AA1FS

<[LRHgy \[at\] earthlink \[dot\] net](mailto:LRHgy@earthlink.net)>

508-991-6055



Club Numbers

GPS Coordinates:

Lat. N 41° 36.795' Long. W 070° 56.550'

Maidenhead Grid Coordinates: **FN41mo**

For FISTS Sprints: FISTS #10555

LOCAL NETS

Everyone is welcome to check in!

147.000+ (PL 67.0 Hz) (FM) — “*Camel*” Net Roundtable is operating irregularly at 7 PM on the SEMARA Repeater, usually on Mondays and Wednesdays.

50.200 MHz (USB) — Net is held *Wednesdays* at 8:30 PM. **Dick, K1AHA (Dartmouth)** is net control.

28.490 MHz (USB) — Net is held *Tuesdays* at 8:30 PM. **Dick, K1AHA (Dartmouth)** is net control.

3862 kHz (LSB) — SEMARA Morning Net is held *weekdays* from 7:30-8 AM ET.

LOCAL REPEATER DIRECTORY

See <http://www.nerepeaters.com/se.htm>

144 (<http://www.nerepeaters.com/2m.htm>)

222 (<http://www.nerepeaters.com/222.htm>)

440 (<http://www.nerepeaters.com/440.htm>)

902 (<http://www.nerepeaters.com/902.htm>)

Sudoku

Here is a fun Sudoku puzzle to while away the time waiting on net control. (Solution on p. 8.)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 9 | 8 | | | 6 | 2 | | 4 | |
| 6 | | 2 | 7 | 1 | | | | 8 |
| 1 | | | 5 | | 8 | 6 | | 7 |
| | | | 4 | 3 | | | 7 | |
| 2 | | 8 | | 5 | | 3 | | 4 |
| | 6 | | | 8 | 7 | | | |
| 7 | | 6 | 8 | | 5 | | | 3 |
| 3 | | | | 7 | 9 | 4 | | 6 |
| | 4 | | 6 | 2 | | | 1 | 5 |

Official Meeting Minutes



December 2, 2010

The meeting was called to order at 7:15 PM by the president, **Louis (W1CH)** with the salute to the flag. The roll was called with 24 members present.

SECRETARY'S REPORT

A motion was made and seconded to dispense with the reading and accept as posted on the bulletin board. The members voted unanimously.

TREASURER'S REPORT

The treasurer **Mike (KB1NB)** reported that we had a total outflow of \$717.64. The total assets as of this date is \$33,101.33. A motion was made and seconded to refer the report to audit. The members voted unanimously.

STANDING COMMITTEES

Buildings and Grounds—**Dave (K1JGV)** reported the front door has been repaired and they found that the door frame has rotted and needs to be replaced. He also reported that the roof should be replaced. The handicap ramp is on hold for the time being.

Technical Committee—**Dave (W1DJG)** reported that he has not spoken to the other Technical Committee members so doesn't know the status of things. **Rick (W1RJG)** has received the PolyPhasers and should install soon.

Scholarship Committee—**Sonny (K1USW)** reported that the letters to the schools are out and will be going to the newspapers.

SPECIAL COMMITTEES

ARES, RACES, SKYWARN—**Chris (W1EAV)** reported that the RACES net will be on Monday.

Radio Events—**Bob (K1KVV)** reported that there is a listing of events but the list is short. Almost all events are CW. Many other events are listed in *ZERO BEAT*. Info is also on the ARRL website.

Website—Facebook did have a problem with some foreign input of questionable content. The problem was taken care of by **Rick (W1RJG)** and **Ben (N1WBV)**.

PRESIDENT'S COMMENTS

Louis (W1CH) commented that if anyone is trying to cause problems or defame this club as in recent events, that person will be removed from the club.

OLD BUSINESS

The subject of the amateur classes was discussed and **Dave (W1DJG)** will get together with **Tony (NN1D)** to prepare a class for the end of January or early February.

Marcel (W1MLD) reported that he received a letter back from the Dartmouth Building Department and the Massachusetts department of Disabilities. The letters were read and discussion ensued. The discussion led to a motion to hire an Attorney to review the letter and obtain a copy of the letter written to them and a signature. The motion was seconded and the members voted unanimously.

NEW BUSINESS

There was some discussion on the front door, roof and ramp. A motion was made to get quotes on the ramp and front door. The motion was seconded and the motion passed 23 for, 1 against.

A motion was made to get quotes to replace the roof. The motion was seconded and approved unanimously.

Joe K (N1IXC) suggested that and made a motion to install an alarm system in the building due to the break at the NetCom site and other vandalism. The motion was seconded and voted unanimously.

Mike (KB1NB) made a motion to purchase a copy of *Roberts Rules of Order* for the Club. The motion was seconded and voted unanimously.

NOMINATION OF OFFICERS AND VOTING

Nominations of Officers were again opened and there was one additional member added to the Secretary position, **Marc (KB1ODE)**. A motion was made and seconded to close the nominations. The members voted unanimously.

Printed ballots were passed out for the vote.

The results of the vote were as follows. There were 24 ballots cast. [BOLD indicates a plurality.]

| | | |
|-------------------------------|-------------------------------|----|
| <u>PRESIDENT</u> | Louis Mester W1CH | 2 |
| | Marcel Dumont W1MLD | 20 |
| <u>VICE-PRESIDENT</u> | Robert Kelley K1KVV | 23 |
| | Marc Dumont KB1ODE | 1 |
| <u>SECRETARY</u> | Richard Cabral W1RJG | 3 |
| | Marc Dumont KB1ODE | 19 |
| <u>TREASURER</u> | Michael McDonald KB1NB | 23 |
| <u>BOARD OF DIRECTORS (3)</u> | Bradford Paiva W1BEP | 15 |
| | David Dean K1JGV | 12 |
| | Eric Pierce N1WCO | 4 |
| | John Walsh WA1LSH | 18 |
| | Joseph Krisnosky N1IXC | 20 |
| <u>TRUSTEE (1)</u> | Joseph Krisnosky N1IXC | 19 |
| | Charles Days WA1JFD | 4 |

Respectfully submitted,

Marcel Dumont (W1MLD) Secretary



SEMARA News

Official Newsletter of the SOUTHEASTERN MASSACHUSETTS AMATEUR RADIO ASSOCIATION, INC.

222 MHz Repeater

At the November business meeting, **Rick, W1RJG** offered to donate a brand new 222 MHz repeater to SEMARA if the club was willing to purchase duplexers and related accessories to complete the project. After some discussion, the membership voted unanimously to allocate funds and get the repeater on the air. The NESMC construction permit for **224.800 MHz - PL 67.0** has been transferred to SEMARA from SCMARG. Rick anticipates that we could possibly have the repeater on the air by the end of 2010.



The repeater is a Hi Pro R1 by Maggiore Electronic Lab. It was originally going to be placed on the air in Dartmouth along side SCMARG's 927.6500 repeater. The 222 MHz side of our existing Comet CX-333 antenna on the top of the tower will now be used. The existing SCom 7330 controller that is used for our 900 MHz repeater will also be used to control the 222 MHz repeater. Through DTMF, members will be able to cross-link the 222 MHz repeater with our 900 MHz repeater (and NEAR-900 network) on demand.

Repeater Committee Updates

Iwanted to pass along an update on a few repeater projects that are pending.

First, an update on the new **222 MHz repeater**. Shown here is a Sales Order Acknowledgment for the repeater duplexers. They were ordered at the beginning of December and are estimated to ship on January 10, 2011. If they are shipped on time, the repeater could be on the air sometime in January.



Other pending projects include *restoring services* that were interrupted by a lightning strike a few months back. We have the necessary parts to restore the internet service at the site and it should be the first thing completed in the upcoming few weeks. **Ho, KC1HO** and **Jeff, N1ZZN** will be helping me to restore the **900 MHz repeater** to full power by replacing a bad Motorola controller board

once their schedule is open. Finally, we will be testing the **2m repeater power amplifier**, as it appears it is putting out only 60 watts instead of the full 100 watts. This may be sent out for repair if deemed necessary.

Regarding SEMARA's **APRS station**, **Rick, N1RCW** has an updated computer and **Chris, W1EAV** has a commercial radio for SEMARA that will be installed shortly after we get the internet back up. Here is more information from **Rick, N1RCW**:

*"I have completed the setup for the SEMARA APRS digipeater/computer and when ready, I can bring this over and set this up. I have the system running here at my QTH burning in and you may get questions asked if it is back on the air, but it is not at the site and it's still under construction/testing. The computer is a IBM desktop 1.6 GHz processor, Windows XP and 384 MB of RAM. There is one additional COM port available for any other type of system if needed. The radio will be supplied from **Chris, W1EAV** tuned to 144.390 TX+RX CSQ. The TNC is an AEA PK-88 in KISS mode, running the UI-View32 Windows APRS Client for Digipeater and iGate."*

Finally, we are still planning to add a **UHF remote base** to the 2m repeater which was approved at a SEMARA business meeting several months ago. I have a UHF Motorola GM-300 which I am donating to SEMARA to install on the 2m repeater. The remote base once installed, will allow us to link directly to the MMRA repeater network of Greater Boston for the monthly ARES net and on demand for emergencies. This will complete the work needed to make 147.000 the official RACES and ARES machine for our area (the monthly RACES net has already been moved to our repeater). Once most of the other projects listed here are completed, we will focus on adding this new link.

I would like to thank everyone for their patience, as we do this work voluntarily as time allows. I would also like to thank everyone for their help, including but not limited to **KC1HO, N1RCW, N1ZZN** and **W1EAV**. Rest assured, these projects will soon come to completion. We will post another update as further progress is made.

Richard J. Cabral, W1RJG
SEMARA Repeater Committee



More SEMARA News

222 MHz Info & Buyer's Guide

The 222 MHz (1.25 meter) amateur band is underutilized in our region, yet it has some great qualities. It has the long range of 2 meters, some of the signal bounce characteristics of 440 MHz and a lower noise floor since it is further away from public safety and other land mobile services. Best of all, the band has a primary allocation to amateur radio, unlike 440 MHz and 900 MHz. New 222 MHz repeaters in Harwich and Fall River have been placed on the air in the past year, with one on the Bourne water tank and Dartmouth at SEMARA soon to follow.

If the above argument hasn't intrigued you enough to invest in a 222 MHz transceiver, how about the fact that you can get a handheld for under \$125.00? Or, how about the fact that you may already own a Kenwood or Yaesu handheld that can transmit on 222 MHz! I've compiled a list of radios that are currently in production and can easily be purchased online or at your favorite amateur radio supplier.



Shown here are the JT220M, DJ-V27, TH-F6A, VX-8 and KG-UVD1P. Below is a break down of these radios (and a few others) along with links to search for them easily using Google.

Mobiles

- Alinco DR-435T - 35 Watts, Single Band 222 MHz (~\$300)
- Jetstream JT220M - 50 Watts, Single Band 222 MHz (~\$250) - **Best Value! Higher Power, Lower Price**
- Yaesu FTM-350R - 1 Watt*, Triple Band 2m/222*/440 (~\$500)

Handhelds

- Alinco DJ-V27 - 5 Watts, Single Band 222 MHz (~\$200)
- Kenwood TH-F6A - 5 Watts, Triple Band 2m/222/440 (~\$300)
- Wouxun KG-UVD1P - 4 Watts*, Dual Band 2m/222* (~\$110)
- Wouxun KG-UV3D - 4 Watts*, Dual Band 2m/222* (~\$120) - **Best Value!** 1700 mAh battery included
- Yaesu VX-6R - 1.5 Watts*, Triple Band 2m/222*/440 (~\$250)
- Yaesu VX-7R - 0.3 Watts*, Quad Band 6m/2m/222*/440 (~\$325)
- Yaesu VX-8 (DR or GR) - 1.5 Watts*, Quad Band 6m/2m/222*/440 (~\$400)

For more information on other transceivers for the 1.25 meter band, including discontinued and rare models, check out this web site.

[<http://members.shaw.ca/francislyster/220/>](http://members.shaw.ca/francislyster/220/)

The Wikipedia article on 222 MHz is also very comprehensive on providing additional general information on the band.

http://en.wikipedia.org/wiki/1.25-meter_band

QSO with you soon on 1.25 Meters! ☺

- Richard J. Cabral, W1RJC



222 MHz Local Repeater

<http://www.nerepeaters.com/se.htm>

222 MHz New England Repeater

<http://www.nerepeaters.com/222.htm>

Extra Class Exam Questions

E1B01 Which of the following constitutes a spurious emission?

- A. An amateur station transmission made at random without the proper call sign identification
- B. A signal transmitted in a way that prevents its detection by any station other than the intended recipient
- C. Any transmitted bogus signal that interferes with another licensed radio station
- D. An emission outside its necessary bandwidth that can be reduced or eliminated without affecting the information transmitted

E1B02 Which of the following factors might cause the physical location of an amateur station apparatus or antenna structure to be restricted?

- A. The location is in or near an area of political conflict, military maneuvers or major construction
- B. The location's geographical or horticultural importance
- C. The location is in an ITU zone designated for coordination with one or more foreign governments
- D. The location is significant to our environment, American history, architecture, or culture

E1B03 Within what distance must an amateur station protect an FCC monitoring facility from harmful interference?

- A. 1 mile
- B. 3 miles
- C. 10 miles
- D. 30 miles

Sometimes there are multiple correct answers —*select them all*.
Answers are given at the bottom of the page.

E1B05 What height restrictions apply to an amateur station antenna structure not close to a public use airport unless the FAA is notified and it is registered with the FCC?

- A. It must not extend more than 300 feet above average height of terrain surrounding the site
- B. It must be no higher than 200 feet above ground level at its site
- C. There are no height restrictions because the structure obviously would not be a hazard to aircraft in flight
- D. It must not extend more than 100 feet above sea level or the rim of the nearest valley or canyon

E1B08 On what frequencies may the operation of an amateur station be restricted if its emissions cause interference to the reception of a domestic broadcast station on a receiver of good engineering design?

- A. On the frequency used by the domestic broadcast station
- B. On all frequencies below 30 MHz
- C. On all frequencies above 30 MHz
- D. On the interfering amateur service transmitting frequencies

E1B10 Which amateur stations may be operated in RACES?

- A. Only those club stations licensed to Amateur Extra class operators
- B. Any FCC-licensed amateur station except a Technician class operator's station
- C. Any FCC-licensed amateur station certified by the responsible civil defense organization for the area served
- D. Any FCC-licensed amateur station participating in the Military Affiliate Radio System (MARS)

Some Contests

<http://www.arrl.org/contest-calendar>

- Jan 1, 0000Z - Jan 1, 2400Z 80-6 ARRL Straight Key Night
CW www.arrl.org/contests
- Jan 1, 0000Z - Jan 1, 0100Z 3.5 New Years Snowball
Contest Phone_CW ev5agb.com/index.htm
- Jan 1, 0800Z - Jan 1, 1100Z 3.5-7 SARTG New Year RTTY
Contest RTTY www.sartg.com
- Jan 2, 1800Z - Jan 2, 2400Z 3.5-28 Kid's Day
Phone www.arrl.org/FandES/ead/kd-rules.html
- Jan 7, 0230Z - Jan 7, 0300Z 1.8-14 NS Weekly Sprint
CW www.nccsprint.com/rules.html
- Jan 8, 0000Z - Jan 8, 2400Z 3.5-28 070 PSKFest
PSK www.podxs070.com/
- Jan 8, 1800Z - Jan 9, 2400Z 3.5-28 ARRL RTTY Roundup
RTTY www.arrl.org/contests
- Jan 8, 1800Z - Jan 9, 0600Z 1.8-28 North American QSO
Party CW www.ncjweb.com/naqprules.php
- Jan 9, 0900Z - Jan 9, 1059Z 28 DARC 10 Meter Contest
Phone_CW www.darc.de/referate/dx/fedcz.htm
- Jan 15, 1200Z - Jan 16, 1200Z 3.5-28 UK DX RTTY Contest
RTTY www.ukdx.srars.org
- Jan 15, 1200Z - Jan 16, 1200Z 1.8-28 HA DX Contest
Phone_CW www.ha-dx.com
- Jan 15, 1800Z - Jan 16, 0600Z 1.8-28 North American QSO
Party Phone www.ncjweb.com/naqprules.php
- Jan 22, 0000Z - Jan 23, 2359Z 1.8-28 YLISSB QSO Party
Phone www.vlssystem.org
- Jan 22, 1200Z - Jan 23, 1200Z 3.5-28 BARTG RTTY Sprint
RTTY www.bartg.org.uk
- Jan 29, 0600Z - Jan 30, 1800Z 3.5-28 REF French Contest
CW www.ref-union.org/concours
- Jan 29, 1300Z - Jan 30, 1300Z 3.5-28 UBA Contest
Phone www.uba.be/en/hf
- Jan 29, 1700Z - Jan 30, 1700Z 1.8-28 50+ Winter Field Day
All_Modes www.spar-hams.org

Answer: Sudoku ⁶⁴

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 5 | 1 | 7 | 3 | 2 | 9 | 6 | 4 | 8 |
| 9 | 8 | 4 | 6 | 7 | 1 | 5 | 2 | 3 |
| 3 | 6 | 2 | 5 | 4 | 8 | 9 | 1 | 7 |
| 9 | 5 | 1 | 7 | 8 | 2 | 3 | 9 | 4 |
| 4 | 9 | 3 | 1 | 5 | 6 | 8 | 7 | 2 |
| 2 | 7 | 8 | 9 | 3 | 4 | 1 | 6 | 5 |
| 7 | 2 | 9 | 8 | 9 | 5 | 4 | 3 | 1 |
| 8 | 3 | 6 | 4 | 1 | 7 | 2 | 5 | 9 |
| 1 | 4 | 5 | 2 | 9 | 3 | 7 | 8 | 6 |

VE Sessions

Walk-ins permitted unless otherwise noted.
<http://www.arrl.org/find-an-amateur-radio-license-exam-session>



SEMARA – 10:30 AM **Feb 5th**
Larry Houbre-AA1FS
<LRHguy [at] earthlink [dot] net>
508-991-6055

Fall River, MA – 7:00 PM **Jan 17th**
Skip Denault-KB1CNB
<skip [at] newtestamentschool [dot] org>
774-644-3469

Falmouth, MA – 9:00 AM **Jan 8th**
W. Ben Fleck-K2LYE
<BenFleck [at] cape [dot] com>
508-540-2583

Providence, RI – 7:00 PM **Jan 13th**
Louis Mester-W1CH
<W1CH [at] arrl [dot] net>
401-263-6045



Coming FLEAS & FESTS
<http://www.arrl.org/hamfests/search>

Nothing in the ARRL Database for January.

Answer: HAMMIN' AROUND

What is a symptom of RF feedback in a transmitter or transceiver? C. Reports of garbled, distorted, or unintelligible transmissions

CLUB ACTIVITIES

BUSINESS MEETING
7 PM First Thursday of the month

SUNDAY RAGCHEW
7-11 AM SUN

MOST-OF-THE-TIME (call ahead)
LUNCHEON: 11:30 AM FRIDAYS
Meet at the clubhouse at 11:15 AM