



ZERO BEAT

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



Since 1932

Volume 47 Issue 3

SEMARA-W1AEC

March 2011

Original 13 Colonies Special Event



Ken Villone, **KU2US** of the Original 13 Colonies Special Event Group

<<http://www.13colonies.info>>

invited SEMARA to participate in this year's event. **Bob, K1KVV** accepted the invitation on the part of SEMARA. So far, **Ben, N1WBV** has volunteered.

We'll be sharing the 1x1 Special Event callsign **K2H** with a the other participating Massachusetts stations. The contact station for Massachusetts is **WB1GOF** who will handle the QSL details.

The event runs from July 1, 12:01 AM Eastern to July 5, 11:59 PM Eastern. Operating times will be shared and coordinated by **WB1GOF**. This means that SEMARA will be responsible for only a portion of this period.

Please contact SEMARA's Radio Events Chairman, **Bob, K1KVV** if you are also interested - <[w1aec \[at\] semara \[dot\] org](mailto:w1aec@semara.org)>.



Here is Ken's open invitation to SEMARA:

This is the third year that the "The Original 13 Colonies Special Event" has been on the air. We are in need of a station representing the Colony State of MA. I am extending an invitation to Amateur Radio clubs in your state to possibly participate. We have one club station participating now (PART/WB1GOF) but need another. The event runs from July 1st to July 5th annually. Go to ORZ.com and look up my call bio (KU2US) for detailed information. This is an opportunity to be involved in the fastest growing and popular Special Event to date.

In 2009 we did over 12,000 QSOs and in 2010, over 34,000! An open Colony station slot is very rare, but our other MA. station had to bow out due to personal family reasons. One criteria, operators must be General class or higher and LOVE pile-ups. Email me back if interested and I will give you all the detailed information needed.

*Thanks and 73, Ken Villone-KU2US
The Original 13 Colonies Special Event Group
Awards Manager*



THE 2011 CERTIFICATE FEATURES THE DECLARATION OF INDEPENDENCE AND ALL 13 COLONY STATE FLAGS

ZERO BEAT

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EDITOR: Bob Kelley—K1KVVE-mail: [editor \[at\] semara \[dot\] org](mailto:editor[at]semara[dot]org)SEMARA: <http://www.semara.org>E-mail: [w1aec \[at\] semara \[dot\] org](mailto:w1aec[at]semara[dot]org)

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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—WA1LSH

<<<<<<>>>>>>

Trustees: (year term is up)

Tim Smith—N1TI (2011) chair

Henry Blanchett—W1GYL (2012)

John Walsh—WA1LSH (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

John Nery—WA1ESO

Radio Events

Bob Kelley—K1KVV

Tech Talk

Eric Pierce—N1WCO

It seems to me ...

de *Bob* - K1KVV <[editor \[at\] semara \[dot\] org](mailto:editor[at]semara[dot]org)>

that SEMARA owes **Tim, N1TI** a large debt of thanks for his *Zero Beat Archives* project. Last month, Tim completed the conversion of all the past issues of *Zero Beat* that were in the files into PDF. He published them to our website—semara.org > **ZERO BEAT**.

In this and future issues of **ZERO BEAT**, I'll be using some of this material in each issue. Check out page 6 for material from past issues. There is also an archive challenge on page 5. If you have a favorite article, just give me the reference [issue and title] and I'll see if I can reprise it.

Let's get behind the *Original 13 Colonies Special Event* and participate as **K2H** — *Radio Activities*.

POINT TO PONDER

“Don't compromise yourself. You are all you've got.”

~Janis Joplin

HAMMIN' AROUND

Question* T8B01 Who may be the control operator of a station communicating through an amateur satellite or space station?

- Only an Amateur Extra Class operator
- A General Class licensee or higher licensee who has a satellite operator certification
- Only an Amateur Extra Class operator who is also an AMSAT member
- Any amateur whose license privileges allow them to transmit on the satellite uplink frequency

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

Club Notes

March is the month for new things happening at SEMARA. To get a glimpse of the changes and repairs to the repeater and internet connects, take a look at the postings by **Rick, W1RJG** on our website:



[semara \[dot\] org](http://semara.org).

Licensing classes start March 1. Interested in joining the class? Contact **Dave-W1DJG** [w1djg \[at\] w1djg \[dot\] com](mailto:w1djg@w1djg.com).



The February 5th **VE** session had no successful results.



To all East Mass members of ARRL.

I have been appointed Section Traffic Manager for Eastern Mass and I would like to let you know from time to time what is happening on the traffic nets. Message handling is an important skill all amateurs should possess as we could be called upon to use this skill in an emergency. There are many exciting opportunities in amateur radio and the ability to handle message traffic efficiently and be skilled in net operation is one of those. Folks who have devoted a lot of time to this activity want to welcome you to our nets to learn more about the training opportunities that are available. If you have already done so, keep your skills sharpened by joining us for a little practice from time to time. Check out our website at nts.ema.arrrl.org for information. I look forward to meeting many of you.

Marcia Forde, KW1U
Section Traffic Manager,
Eastern Massachusetts Section

NEXT SEMARA VE SESSION

April 2, 2011
Clubhouse @ 10:30 AM
Contact: Larry Houbre-AA1FS
[exams \[at\] semara \[dot\] org](mailto:exams@semara.org)
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.)

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

Official Meeting Minutes



February 3, 2011

The meeting was called to order at 7:10 pm by the President, **Marcel (W1MLD)**, with salute to the flag. The roll was called with twenty one members and two guests 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 paid approximately \$1500.00 in property tax and \$1260.00 for duplexers this month. There is approximately \$33,780 in total assets as of this date. There was a motion made and seconded to refer the report to audit. The members voted unanimously in favor.

STANDING COMMITTEES

Buildings and Grounds

Dave (K1JGV) mentioned that the electrician will look at the breaker panel soon. He also took the opportunity to thank those members who participated in the cleanup day. A motion was made, seconded and unanimously approved to reimburse **Marty (KA1YFV)** for lunch expenses during cleanup day in the amount of \$31.00.

Technical

Ben (N1WBV) stated that the video camera will be working before the end of the night and that two computers are now working and on line. Progress is being made with a list of repairs and updates to computer and radio equipment. There will be some expenses coming up in the future for miscellaneous equipment, likely addressed at the next meeting. Thanks to **Dave (W1DJG)** for donating some camera and environmental monitoring equipment to the club. **Dave (W1DJG)** spoke of repairs to be made on the antenna and rotor once the weather improves. Other discussions involved internet linking and repairs for the existing repeaters including recent work done by **Rick (W1RJC)**, as well as planning for upcoming Technician licensing classes.

Scholarship

Sonny (K1USW) reported that there were no applications yet but that has been normal in the past as the deadline is March 15, 2011.

SPECIAL COMMITTEES

ARES, RACES, SKYWARN

Chris (W1EAV) thanked members who participated in the recent snowstorms on behalf of **Rob**

(KD1CY), who could not be present at the meeting. **Joe (N1IXC)** reminded the members that the RACES drill will be this coming Monday at 7:30 PM, and that check ins are welcome.

Radio Events

Bob (K1KVV) mentioned that there are 2 ½ pages of contests and non-contests on the ARRL website. **Ben (N1WBV)** mentioned that ARISS SAT will post a date for launch if anyone would be interested.

Renovations

Marcel (W1MLD) stated that he now has all the information needed to complete the variance application regarding the handicap accessible restroom and will soon be submitting it with the \$50.00 fee. The attorney is in the process of attempting to acquire a copy of the original letter of complaint and signature. It was also mentioned that the Town of Dartmouth has a new Director of Inspectional Services and he seems willing to work with the club.

RATIFICATION OF NEW MEMBERS

Two applications for membership were received this month. A motion was made, seconded and unanimously approved to vote on both applications together. Applications were received from John Bonnell (N1NXD) and Jeffrey Gaipo (no call). Both applications were moved, seconded and unanimously approved for membership.

OLD BUSINESS

None.

NEW BUSINESS

There was some discussion regarding heating for the plumbing underneath the building and the need for better temperature regulation or system updating. Some members will research options for the future.

FOR THE GOOD OF THE CLUB

Ben (N1WBV) mentioned that now would be a good time to start thinking about Field Day in June and that any suggestions would be welcome. There was also some talk about equipment needed including a small tent or shelter for shade.

ADJOURN

A motion was made, seconded and unanimously approved to adjourn the meeting at 7:55 PM.

Respectfully submitted,

50/50 Raffle: The 50/50 raffle was won by Marc (KB1ODE). \$43.00 total was split \$21.50/\$21.50

SEMARA News

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

Pedestrian Safety Enhancement Act*

The National Federation of the Blind today commended President Barack Obama for signing into law the Pedestrian Safety Enhancement Act (S. 841), which will protect the blind and other pedestrians from injury as a result of silent vehicle technology.



Because blind pedestrians cannot locate and evaluate traffic using their vision, they must listen to traffic to discern its speed, direction, and other attributes in order to travel safely and independently.

New vehicles that employ hybrid or electric engine technology can be silent, rendering them extremely dangerous in situations where vehicles and pedestrians come into proximity with each other.”

My unscientific and very subjective findings are as follows: Where was I most likely to be surprised by a moving vehicle? Where have I had the closest calls and have almost been struck? Why, the city park paths – and the offending vehicles are always bicycles.

I am trying to keep an open mind, but I predict that it will not be very effective. The urban environment is already full of noise, which will make anything but a rather sharp, loud alert system difficult to hear. Our cities are already noisy enough without adding loud and annoying noises to the din.

What do you think? Will adding sound to quiet vehicles be effective?

Patrick Tice, WA0TDA

**Adapted from the HandiHam Weekly E-Letter*

SEMARA Technician Classes Start March 1



Tony NN1D, Dave, W1DJG and Ben, N1WBV are holding Technician classes, which starts on Tuesday, March 1, at the Dartmouth Police Station Media Center.

Classes are expected to run for four weeks from 7 to 9 PM with a VE session to be held on Saturday April 2.

The class is currently limited to 20 students, so first come, first serve.

For information, contact **Dave, W1DJG** - [w1djg\[at\]w1djg\[dot\]com](mailto:w1djg[at]w1djg[dot]com).

William Field, WA1FYF,SK



William Field, 87, of New Bedford died Wednesday, February 2, 2011 at Sacred Heart Home. He was the husband of Margaret A. (Whitmer) Field.

Bill was a member of our amateur radio club since 1965. He served one term as President, two terms as Treasurer, and six terms as Secretary.

His smiles and wisdom will be missed.

Our sincere sympathy goes out to Bill's family.

Boston Marathon Volunteers Needed - April 18th



Marathon Amateur Radio Communications is seeking amateur radio volunteers for the 115th Boston Marathon on Monday, April 18, 2011. People are needed at stations along the route.

Marathon Amateur Radio Communications is a consortium built on the cooperative efforts of Framingham Amateur Radio Association and Minuteman Repeater Association. These clubs work together to provide radio communications in support of the Marathon from Hopkinton to Boston.

If you are a licensed amateur radio operator and would like more information or to volunteer, please visit <http://www.mmra.org/marc>.



Archive Challenge

Do you remember this article?
When was it published in Zero Beat?

440 MHz Amatur Radio vs. USAF

By Richard J. Cabral, W1RJC

Retrospective

FOR THE GOOD OF THE CLUB*

Members wishing to help out can volunteer for any of these chores:

1. Clean kitchen area
2. Clean windows
3. Sweep and vacuum floors
4. Clean rest rooms
5. Shovel snow as required
6. Pickup soda in Middleboro
7. Empty trash cans
8. Take garbage to dump
9. Pickup donuts (Sunday and Thursday)
10. Check fire extinguishers monthly
11. Pickup groceries and paper goods
12. Setup hotdog machine for business meetings
13. Wash dishes, cups, and hot dog machine
14. Make coffee for meetings
15. Replace burnt out light bulbs
16. Straighten out literature rack
17. Order and pickup coffee at Boston Coffee & Bagel
18. Restock soda in refrigerators
19. Pickup ZERO BEAT at AlphaGraphics
20. Clean and defrost refrigerators
21. Clean curtains each spring
22. Pickup printer supplies (paper, ink cartridges, labels)
23. Pickup pencils and paper pads
24. Spray weed killer on driveway once a month
25. Check club and repeater batteries once a month
26. Seal and waterproof porches each spring
27. Paint trim and doors as required
28. Clean microwave oven weekly
29. Check and replenish supplies in first-aid kit monthly
30. Reset clocks spring and fall
31. Check and replenish cleaning supplies under sink
32. Sharpen pencils in radio room and meeting hall weekly
33. Straighten out books in bookcase
34. Clean whiteboard with special cleaner monthly
35. ...

* Taken from October 2004 Zero Beat

Perhaps this is still relevant to some degree—Should there be a sign-up list on the bulletin board for this?

~Bob(K1KVV)

THE FARNSWORTH SYSTEM*

Donald R. (Russ) Farnsworth, a blind amateur, was first licensed in the 1930's as W9SUV and also held W6TTB and W0JYC. A code instructor during WWII, Russ's method of telegraphy instruction was to maintain a constant 13 word per minute spacing throughout his Epsilon 33-1/2rpm code training record albums. He gradually decreased the time between the characters as code proficiency increased. The Farnsworth system is recognized as the best way to learn the code.

Donald is not to be confused with television pioneer Philo Farnsworth.

* The Handiham World Weekly E-Letter October 20, 2004

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.

$$[\text{Gain (dB)} = 10 * \log (P/p).]$$

Consider, for example, the effect of bandwidth on some popular voice and digital modes with approximate bandwidths of:

HiFi SSB \approx 6000Hz; (std) SSB \approx 3000Hz;
15 wpm CW \approx 60Hz; and PSK31 \approx 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

[originally published in January 2005 Zero Beat]

Extra Class Exam Questions

E1E01

What is the minimum number of qualified VEs required to administer an Element 4 amateur operator license examination?

- A. 5
- B. 2
- C. 4
- D. 3

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

E1E02

Where are the questions for all written US amateur license examinations listed?

- A. In FCC Part 97
- B. In an FCC-maintained question pool
- C. In the VEC-maintained question pool
- D. In the appropriate FCC Report and Order

E1E03

Who is responsible for maintaining the question pools from which all amateur license examination questions must be taken?

- A. All of the VECs
- B. The VE team
- C. The VE question pool team
- D. The FCC's Wireless Telecommunications Bureau

E1E05

What is a VE?

- A. An amateur operator who is approved by three or more fellow volunteer examiners to administer amateur license examinations
- B. An amateur operator who is approved by a VEC to administer amateur operator license examinations
- C. An amateur operator who administers amateur license examinations for a fee
- D. An amateur operator who is approved by an FCC staff member to administer amateur operator license examinations

E1E07

Which of the following persons seeking to become VEs cannot be accredited?

- A. Persons holding less than an Advanced Class operator license
- B. Persons less than 21 years of age
- C. Persons who have ever had an amateur operator or amateur station license suspended or revoked
- D. Persons who are employees of the federal government

E1E08

Which of the following best describes the Volunteer Examiner accreditation process?

- A. Each General, Advanced and Amateur Extra Class operator is automatically accredited as a VE when the license is granted
- B. The amateur operator applying must pass a VE examination administered by the FCC Enforcement Bureau
- C. The prospective VE obtains accreditation from a VE team
- D. The procedure by which a VEC confirms that the VE applicant meets FCC requirements to serve as an examiner

Some Contests

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

- Mar 5, 0000Z - Mar 6, 2400Z *1.8-28*
ARRL Int'l Phone DX Contest Phone
www.arrl.org/contests
- Mar 12, 0000Z - Mar 13, 2400Z *144, 10G+*
Worldwide EME Contest Phone_CW
www.dubus.org
- Mar 12, 1600Z - Mar 13, 1600Z *3.5-28*
EA PSK31 Contest Digital
www.ure.es
- Mar 13, 0000Z - Mar 13, 0400Z *3.5-14*
North American RTTY Sprint Digital
www.ncjweb.com
- Mar 12, 1500Z - Mar 12, 1800Z *3.5-28*
QRP ARCI HF CW
www.qrparci.org
- Mar 12, 1000Z - Mar 13, 1000Z *3.5-28*
RSGB Commonwealth Contest CW
www.rsgbcc.org/hf/calendar10.shtml
- Mar 19, 0001Z - Mar 19, 2359Z *28*
10-10 Mobile QSO Party All_modes
www.ten-ten.org
- Mar 19, 0200Z - Mar 21, 0200Z *3.5-28*
BARTG HF RTTY Contest Digital
www.bartg.org.uk
- Mar 19, 1200Z - Mar 20, 1200Z *1.8-28 50*
Russian DX Contest Phone_CW
www.rdx.org
- Mar 26, 0000Z - Mar 27, 2400Z
1.8-28 CQ WPX SSB Contest Phone
www.cqwp.com

VE Sessions

Walk-ins permitted unless otherwise noted.

<http://www.arrl.org/find-an-amateur-radio-license-exam-session>



- SEMARA – 10:30 AM** **April 2nd**
 Larry Houbre-AA1FS
 <exams [at] semara [dot] ord>
 508-991-6055
- Fall River, MA – 7:00 PM** **Mar 21st**
 Skip Denault-KB1CNB
 <skip [at] newtestamentschool [dot] org>
 774-644-3469
- Falmouth, MA – 9:00 AM** **Mar 12th**
 W. Ben Fleck-K2LYE
 <BenFleck [at] cape [dot] com>
 508-540-2583
- Providence, RI – 7:00 PM** **Mar 10th**
 Louis Mester-W1CH
 <W1CH [at] arrl [dot] net>
 401-263-6045

Coming FLEAS & FESTS

<http://www.arrl.org/hamfests/search>

- 5 Mar 23rd Hamfest** **Feeding Hills MA**
 MtTomARA Mary *NITTOY* 413 967 4008
- 19 Mar Eastern CT Ham Fest** **Dayville CT**
 ECARA Paul *KEILI* 860 928 2456
- 20 Mar Southington Flea Mkt** **Southington CT**
 SARA Norm *W3IZ* 860 584 1403
- 25 Mar Hamfest** **Lewiston ME**
 ME AARC Ivan *NIOXA* 207 577 5152
- 27 Mar Hamfest** **Henniker NH**
 CVRC Donald *NIZIH* 603 651 8000

Answer: Sudoku ³³

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

Answer: HAMMIN' AROUND

Who may be the control operator of a station communicating through an amateur satellite or space station? D. Any amateur whose license privileges allow them to transmit on the satellite uplink frequency.

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