



ZERO BEAT

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



Since 1932

Volume 50 Issue 1

SEMARA-W1AEC

January 2014

Happy New Year - 2014



The election took place at the Business Meeting on Thursday, December 5, 2013.

2014 Offices, Board of Governors, and Trustee

President:

Marcel L. Dumont, W1MLD

Vice-President:

Joseph E. Krisnosky, Jr., N1IXC

Secretary:

Marc M. Dumont, KB1ODE

Treasurer:

Michael J. McDonald, KB1NB

Board of Directors (3):

David G. Dean, K1JGV

David A. DeCosta, KD1YZ

Jean Pierre Chiron, AG1Y

Trustee (1) [5 Year Term; Chairman, 2018]:

Martin G. Jordan, KA1YFV

ZERO BEAT

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EDITOR: Bob Kelley—K1KVV
 E-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)

2013 SEMARA OFFICERS

President

Marcel Dumont—W1MLD

Vice President

Joe Krisnowsky—N1IXC

Secretary

Marc Dumont—KB1ODE

Treasurer

Mike McDonald—KB1NB

Directors:

Dave Dean—K1JGV

David A. DeCosta—KD1YZ

Jean Pierre Chiron,—AG1Y

Trustees: (year term is up)

Louis Mester—W1CH (2014) (ch)

Joe Krisnowsky—N1IXC (2015)

Dick Halliwell—K1AHA (2016)

Brad Paiva—W1BEP (2017)

Martin G. Jordan—KA1YFV (2018)

STANDING COMMITTEES

Building and Grounds

Marty Jordan—KA1YFV

Tony Lessa—KB1UAM

Scholarship

Sonny Eddleston—K1USW – chair

Chuck Moszczenski—KB1FRL

Alan Dulong—WB1FQP

Joe Krisnowsky—N1IXC

Technical/Repeater/Web

VACANT – Technical (chair):

Rick Cabral—W1RJC: Repeater

Rick Cabral—W1RJC: Web

SPECIAL COMMITTEES

Activities

VACANT

ARES/SKYWARN/RACES(ACS)

Ed Caron—KA1RSY

QSL Manager

John Nery—WA1ESO

Radio Events

Bob Kelley—K1KVV

Tech Talk

Brad Paiva—W1BEP

It seems to me... de Bob - K1KVV, Editor

that some folks are really interested in our hobby and in seeing SEMARA become an active club once again. Who are they? You know - just look at the past issues of *Zero Beat*. Their names will jump out to you.

Want to join their ranks? It's simple. Just do something to enhance our experience as a club. If you are impatient you can participate in *Kids Day* this Sunday, January 5.

Then tell me! I'll be awaiting your reports...

President's Message

This past year was a productive year for improvement to the club and clubhouse. After overcoming lots of outside and inside obstacles we were able to repair and reinstall the log-periodic antenna on the 80' tower. Improvements were made on the repeater shack under the direction of **Rick W1RJC**. The large desktop computers were replaced with Raspberry-Pi equipment which operates the IRLP and EchoLink with a small low power draw computer device. The underground cables to the repeater were replaced by a wireless device to the clubhouse where it is tied into the internet and we no longer have to worry about lightning strikes destroying our equipment.

Negotiations were completed with NetCom for the Cell building located behind the 180' tower. That building will be removed and placed on a new foundation behind the clubhouse and attached with an enclosed passage way interface. After the move there will be some clean up work and electrical work to be done before we can decide how the interior layout should be designed. We will need cooperation from the members to accomplish this task. I am planning on maybe three separate stations, a workbench and some much needed storage space. All hard line and coax cables will now enter the new building via the provided ports already in that building. This should clean up the existing mess behind our clubhouse. The exterior wall should be completed with possibly low maintenance vinyl siding. Lastly in the back area a new battery shed should be replacing the existing decrepit battery shed. Hopefully this project should be completed within six months.

I would like to thank all members who participated in various events this past year. I also want to thank **Marty Jordan KA1YFV** and **Ray Arruda KB1EVX** for maintaining the property to look like Fenway Park.

There are other projects that I have in mind but let's get this completed before attempting others.

Marcel W1MLD

POINT TO PONDER

“There is one thing for which we must assume responsibility: the government of our own minds.”

~Samuel McChord Crothers

Official Meeting Minutes



December 5, 2013

The meeting was called to order at 7:06 PM by the President, **Marcel (W1MLD)** with salute to the flag. The roll was called with 26 members and 0 guests present.

SECRETARY'S REPORT

A motion was made, seconded and unanimously voted to dispense reading the report, and accept as posted on the board and in *Zero Beat*.

TREASURER'S REPORT

The Treasurer reported total income of \$2,900.00, Expenses of \$843.00 (largest expense being property insurance at \$520.00). A balance of \$64,061.00 is available and the NETCOM balance is \$10,145.00.

STANDING COMMITTEES

Technical

Dave (W1DJG) reported that he was working on a Tech Talk regarding generators and auxiliary power, possibly to be held next month.

Scholarship

Joe (N1IXC) reported that information packets will be sent out to schools shortly.

SPECIAL COMMITTEES

ARES, RACES, SKYWARN

Ed (KA1RSY) reported that SKYWARN recognition weekend would be this coming weekend beginning on Friday evening on miscellaneous repeaters, as well as Echolink. He also reported a change in the SKYWARN class curriculum and hopefully there will be a class at SEMARA this spring.

Radio Events

Bob (K1KVV) advised of several events this coming weekend, including those associated with Pearl Harbor, as posted in *Zero Beat*.

OLD BUSINESS

Topics discussed were as follows:

1. A reminder of the Christmas Party to be held next Thursday.
2. Update on the status of the engineering regarding the new building.
3. The possibility of NSTAR Gas running a gas line down Donald St, which could open the possibility of eventually converting the building to gas heat.

4. A loose clamp on the Log Periodic antenna having come loose and already having been repaired.
5. A request for volunteers on Saturday, December 14 at 10.00 AM for assistance operating radios for Cub Scouts touring the facility.

NEW BUSINESS

There was some discussion regarding purchase of an Automatic External Defibrillator to be kept in the building. It was decided that someone would look into information and present it at a future meeting.

FOR THE GOOD OF THE CLUB

There was some discussion regarding the ARRL equipment insurance, as replacement estimates on some equipment are still needed.

There was also a request for volunteers to write articles (and/or photographs) for issues of *Zero Beat*.

NOMINATIONS AND VOTING

Nominations for 2014 Officers were reopened. One new nomination was made for Director-**Brad Paiva (W1BEP)**

A motion was made, seconded and unanimously voted to have the Secretary cast one vote for all positions unopposed, and only vote on the Directors position.

Results of the election are as follows:

President: Marcel Dumont (W1MLD)

Vice President: Joseph Krisnosky (N1IXC)

Secretary: Marc Dumont (KB1ODE)

Treasurer: Michael McDonald (KB1NB)

Trustee: Marty Jordan (KA1YFV)

Directors:

David Dean (K1JGV)-21 votes-*elected*

David DeCosta (KD1YZ)-19 votes-*elected*

Jean Pierre Chiron (AG1Y)-19 votes-*elected*

Brad Paiva (W1BEP)-14 votes- *not elected*

ADJOURN

A motion was made, seconded and unanimously voted to adjourn the meeting at 8:15 PM.

Respectfully Submitted,

Marc M. Dumont (KB1ODE), *Secretary*



Tidbits



Technician Class

Starts on Wednesday, Jan. 8, 2014.

Offered by **Tony NN1D** from
7 PM to 9 PM.



Classes in the Dartmouth Police
Department Training Room, 249 Russells Mills
Rd., Dartmouth, MA.

Anyone interested, or if you know anyone
interested, please contact Tony at

NN1D [at] ARRL [dot] net.

Phone 508-525-0949 or 508-579-2671

Come join in the fun - get your licence!

Club Numbers

GPS Coordinates:

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

— o —

Maidenhead Grid Coordinates: FN41mo

— o —

For FISTS Sprints: FISTS #10555

LOCAL REPEATER DIRECTORIES

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>)

LOCAL NETS

Everyone is welcome to check in!

147.000+ (PL 67.0 Hz) (FM) — Massachusetts
RACES/ACS Drill (Region 2, Sector A) is held on
the first Monday of the month at 7:30 PM.

50.200 MHz (FM) — Net is held Wednesdays at
8:30 PM. **Paul, K1PGS** (E. Freetown) is net control.

28.490 MHz (USB) — Net is held Tuesdays at 8:30
PM. **Brad, W1BEP** (E. Freetown) is net control.

1875 kHz (LSB) Net is held Fridays at 7 PM.
Dave, K1JGV (S. Dartmouth) is net control with
back up net control **Dick, K1AHA** (S. Dartmouth).

If QRN is too high, look for them on **50.200 MHz**
(USB)

NEXT VE SESSION @ SEMARA

February 1, 2014

Clubhouse @ 10:30 AM

Contact: **Fred Bacon-N1TF**
exams [at] semara [dot] org

508-748-0047



CLUB ACTIVITIES

BUSINESS MEETING

First THURSDAY of the month @ 7 PM

Sunday RAGCHEW 7-10 AM

Thursday COFFEE CROWD

Dunkin Donuts - Dartmouth & Garfield
Dartmouth @ 1 PM

Friday LUNCH BUNCH

Leave for LUNCH at **12 noon**
Gather @ clubhouse before 12

Call on the repeater, if you will be delayed
or you can phone the club: 508-997-7070

50/50 RAFFLE

The 50/50 raffle was won by

Marcel (W1MLD)

The split was \$28.00/\$28.00..

50 MHz and Up

All Else is Just DC...

by Rick-W2RG
Solar Power

It's January. A good time to talk about solar power. Solar power alone is not very practical for a ham radio station. When the sun goes down, you've got no power. When it's cloudy, you get only a trickle.

But with battery power and the right amount of solar panels to keep the batteries charged, you have a great combination.

I've been operating my base station from a solar-charged battery system for about three years now. I lucked across two almost-new 40 W panels that were being thrown out. (dumpster diving!) Each panel produces up to 17 VDC and 3 A in bright sunshine, for a total of 6 A. These are good values for charging lead-acid batteries.

I mounted the panels on a small wood frame on my deck (photo) and wired them in parallel. For the bus that brings the power into the ham shack, I purchased a 100-ft spool of 12 gauge cable from Lowe's that's designed for powering 12 V outdoor lighting systems. The cable is weather safe, can be buried in soil, and is inexpensive.



At the ham shack end, the cable connects to a solar charge controller and meters to monitor the voltage and current supplied to the batteries.

The circuit board on the left is a solar charge controller I picked up

on Ebay. I chose this one because (a) it's rated for up to 10 A and (b) it was cheap. With at least 15 V supplied by the solar panels, the controller provides over 14 V when the battery voltage is down and they demand a high charging current, and it drops this back to 13+ V as the battery voltage rises and the current demand goes down. The final, "float" voltage is regulated and adjustable +/- a few volts around 13.8 – just right for lead-acid batteries. The feed from the solar panels is the black cable connected to the right side of the board, and the output to the battery bank is the red/black cable on the left.

I monitor the output of the charge controller using two old meters (photo), as I do with the output of the battery bank, as described in last month's *Zero Beat*. I love these old-fashioned meters for this kind of application. The ammeter has an air-wound shunt coil made of 16-gauge tinned wire (visible through the plexiglas), and the voltmeter has a pot for calibration, just like the battery metering setup.



Here's a very rough energy budget for the system:

The two panels with the charge controller produce 6 A at 13.8 V in good sunshine. That's about 80 W. The output varies with the angle of the sun, but over the course of a sunny day the solar system feeds up to about 30 A-h (400 W-h) to the battery bank. (If the battery bank doesn't need that much, the charge

controller feeds the bank only what it needs.)

My IC-746 transceiver draws about 2 A (27 W) in receive mode. So one day's worth of solar power is good for about 15 hours of nonstop listening. When transmitting using SSB, the '746 draws about 5 A (70 W) on average for 100 W PEP output. So I could talk nonstop for about 6 hours on one day's worth of solar power.

In a nutshell, the panels provide more than enough to keep the batteries fully charged. The batteries I currently have total more than 200 A-h. That's more than 6 days with 12 hour-per-day listening and occasional transmitting. In an emergency, with functioning solar panels pumping 30 A-h in every second or third day, there would be no downtime at all.

I probably wouldn't have assembled a solar-battery power supply like this if I had to plan it from scratch. The system evolved over many years. But looking back, I can see that a smaller system that still can deliver more than enough power for my needs – one lead-acid battery and a smaller solar panel from Ebay – would be a good way to go, and I'd prefer it to buying a high-current, plug-in power supply.



SEMARA News



Vacant Chairs

Since we have just elected our 2014 officers, its a good time to mention that we have five vacancies that need to be filled. The vacancies are as follows:

- 1) Technical Committee Chairman (Standing Committee)
- 2) Activities Committee Chairman (Special Committee)
- 3) Auctioneer (Supporting Position)
- 4) Historian (Supporting Position)
- 5) Flea Market Coordinator (Supporting Position)

More details on each of these committee's duties are provided below:

1) Technical Committee Chairman

The technical committee exists to support all things technical at the SEMARA clubhouse. This includes clubhouse computers, network infrastructure (cable modem, router, webcam server, etc.), the club's phone line, television, ham radio gear, towers, feedlines and antennas.

This committee also works together with the repeater committee to support the wireless network link to the repeater site.

The committee has five members at the present (**KD1CY**, **NN1D**, **W1MLD**, **W1RJG**, **WA1ESO**) and has had no chairman to lead the team for almost 2 years. President **Marcel-W1MLD** would appreciate

someone to step up to this position.

2) Activities Committee Chairman

The activities committee exists to support all club member activities. This includes organizing and coordinating cookouts, chicken BBQs, special trips (i.e., to Boxboro, ARRL or Dayton) and more.

This committee also works together with the radio events committee to help coordinate events such as ARRL Field Day each June or a special contest that the club is participating in.

This committee has NO members at the present and has been vacant and virtually abandoned for at least 3 years. Why not step up to this committee and to help make the SEMARA club more active and attractive to members by coordinating fun events throughout the year?

3) Auctioneer

The auctioneer organizes and conducts auctions of donated equipment and other goods.

Traditionally, this has been done at the conclusion of the club's business meeting each month. The auctioneer also works together with the treasurer to transfer funds collected back to the club's bank account.

4) Historian

The club historian keeps a record of historical documents and pictures and occasionally researches and interprets the past history of the club.

In the early 2000s, a history of the association was first published by the late **Bill-K1IBR**, former club historian. The original digital copy of this publication has been lost. However, several hard copies of this

book exist. One of the tasks of the historian would be to digitally scan and copy this publication to make it available on the club's website.

As time passes, the historian will keep the club's history updated as new milestones are reached, with the occasional addition of newly discovered historical facts and tidbits.

5) Flea Market Coordinator

The flea market coordinator is responsible for organizing all aspects of the club's annual flea market. Traditionally, the club has held its flea market in September of each year; recently late spring has been tried.

The flea market coordinator works with the web committee to promote the upcoming flea market on the club's website and social media accounts.

The coordinator also works with the club treasurer for any expenses and income generated by the flea market.

The coordinator additionally works with the activities committee which coordinates food and drinks offered at the flea market.

An always, current list of contacts (officers and supporting positions) exists on the SEMARA website - <http://semara.org/contacts>.

If anyone can assist in these vacancies, we encourage you to contact President **Marcel-W1MLD** @ [president \[at\] semara \[dot\] org](mailto:president[at]semara[dot]org)

Original posted by **Rick W1RJG** on semara.org



Amateur Radio News

Small Cheap HT's

Buddy Sohl, KC4WQ,
on December 22nd, 2013*

OK, did the title grab past several months there of small, cheap, multiband have literally flooded the radios are fairly well made BUT they are small radios limited distance and way well as seasoned hams are them reach well beyond



you? Over the has been a flood VHF/UHF radios market. These and sound good. designed for too many new as trying to make their potential.

Yes, you can add larger antennae and make the radio perform better. However, most folks utilize the antenna that came with the rig and try to make the trip into the local machine. This is resulting in lots of very marginal signals and lots of kerchunking.

These are issues that can be prevented with a little education. As the old adage goes, a little learnin' goes a long way.

Firstly, know the limitations of marginal antennas and the radio itself. Just because you can hear a repeater that is transmitting from 50 miles away doesn't mean it can hear you. Several things work against the HT. First is power. The repeater typically will be transmitting in the 50 or more watt range while your little HT is going to top out at 5 watts (and it will get hot in your hand with extended use). Secondly, the repeater has some listening issues that your little HT doesn't. There is usually a few dB lost in duplexers, feedlines and connectors. Lastly, is location. Sometimes, just moving your HT a few inches can provide 20 dB or more of gain. This can be attributed to things blocking your signal to a variation of polarity.

All in all, these little HT's do a great job but as a knowledgeable ham you should know the limitations of your equipment and some of the tricks of the trade to make it work.

[I hope you] Have a great and Merry Christmas and hope your Santa brings you the radio gear of your dreams.



ARRL Centennial QSO Party

The ARRL Centennial QSO Party is a year-long operating event that celebrates hams making contacts. In the end you will have accumulated points, worked new stations and made new friends all over the world.

The Centennial QSO Party is made-up of two main activities:

- (1) **W1AW** operating portable in each state and most territories; and
- (2) The **Centennial Points Challenge** which is the accumulation of points from qualifying contacts made throughout 2014. To have a score listed online in the Points Challenge competition, logs must be submitted through the *Logbook of the World (LoTW)* system.

W1AW will be on the air from every state and most territories, and it will be easy to work **WAS** working only **W1AW** portable operations. This is the first ARRL-sponsored operating event where every member is worth at least one point, so work as many points as

you can during 2014! Earn awards based upon points, working all states or working **W1AW** portable in every state and territory. This is an on-the-air event like no other.

Operating Period

(0000Z, 1 January, 2014 - 2359Z, 31 December, 2014)

W1AW will operate portable from each state and many territories throughout the year. Each state will be activated twice so that if you miss one operation, you can pick-up the next.



Participation

Everyone may participate. Only ARRL members and appointees/elected officials/staff/**W1AW** are worth points. See the QSO Points Table (online) for a complete list of QSO values.

For more details see

<http://www.arrl.org/centennial-qso-party>



Some Radio Activity

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

January ARRL Contests

ARRL Straight Key Night--CW, from Jan 1, 0000Z to Jan 1, 2359Z. Bands (MHz): 3.5-28, 50+. arrrl.org/contests

ARRL RTTY Roundup--Digital, from Jan 4, 1800Z to Jan 5, 2359Z. Bands (MHz): 3.5-28. arrrl.org/contests

Kid's Day--Phone, from Jan 5, 1800Z to Jan 5, 2359Z. Bands (MHz): 3.5-28. *Exchange: Name, age, location, favorite color.* arrrl.org/contests

Non-ARRL Contests

North American QSO Party--CW, from Jan 11, 1800Z to Jan 12, 0559Z. Bands (MHz): 1.8-28.

New Years Snowball Contest--Phone,CW, from Jan 1, 0000Z to Jan 1, 0100Z. Bands (MHz): 3.5.

SARTG New Year RTTY Contest--Digital, from Jan 1, 0800Z to Jan 1, 1100Z. Bands (MHz): 3.5-7.

AGCW Happy New Year Contest--CW, from Jan 1, 0900Z to Jan 1, 1200Z. Bands (MHz): 3.5-14.

NS Weekly Sprint--CW, from Jan 3, 0230Z to Jan 3, 0300Z. Bands (MHz): 1.8-14.

070 PSKFest--Digital, from Jan 4, 0000Z to Jan 4, 2400Z. Bands (MHz): 3.5-28.

WW Peace Messenger Cities--Phone,CW, from Jan 4, 1200Z to Jan 5, 1200Z. Bands (MHz): 3.5-28.

QRP Pet Rock Sprint--CW, from Jan 4, 1500Z to Jan 4, 1800Z. Bands (MHz): 3.5-28. QRP calling frequencies.

EUCW 160 Meter Contest--CW, from Jan 4, 2000Z - See website. Multiple time periods. Bands (MHz): 1.8.

OK1WC Memorial Contest--Phone,CW, from Jan 6, 1600Z - See <http://www.memorial-ok1wc.cz/>. Multiple time periods. Bands (MHz): 3.5, 7.

ARS Spartan Sprint--CW, from Jan 7, 0200Z to Jan 7, 0400Z. Bands (MHz): 3.5-28.

CWops Monthly Mini-CWT Test--CW, from Jan 8, 1300Z - See <http://www.cwops.org/onair.html>. Multiple time periods. Bands (MHz): 1.8-28. Twice monthly on 2nd and 4th Wed, 18 to 28 kHz above band edge.

YLISSB QSO Party--Phone, from Jan 11, 0000Z to Jan 12, 2359Z. Bands (MHz): 1.8-28.

MI QRP Club Jan QRP Contest--CW, from Jan 11, 1200Z to Jan 11, 2359Z. Bands (MHz): 1.8-28, 50.

Straight Key Weekend Sprintathon--CW, from Jan 11, 1200Z to Jan 12, 2359Z. Bands (MHz): 1.8-28, 50.

DARC 10 Meter Contest--Phone,CW, from Jan 12, 0900Z to Jan 12, 1059Z. Bands (MHz): 28.

Special Event Listing

European Handball Championship for Men Jan. 12-26, 2014 - Jan 1-Jan 31, 0001Z-2359Z, **5P14EHC**, Copenhagen, DENMARK. Certificate & QSL: Jorgen Romming, **OZ0J**, Brandelev Stationsvej 9, DK-4700 Naestved, DENMARK. Danish radio amateurs will be using the special event call **5P14EHC**. All Modes and bands. www.5p14ehc.dk

Acushnet Pack 51 hosted by **Marcilio N1MVR, John WA1ESO, Marcel W1MLD**



Above: Cub scout at the mic
Left: John demos CW
Below: "3 Daves at a Table"
@ the December Business Meeting.



Coming FLEAS & FESTS

www.arrrl.org/hamfests/search

- | | | |
|-----------|------------------------|--|
| 8 Feb | Springfield VT | CVFMA
Steve N1QDT 802-885-8110 |
| 15 Feb | Marlborough MA | AARC
Tim KA1OS 508-919-6136 |
| 16 Feb | Westford MA | NEARC RadioXVL
Bruce 603-772-7516 |
| 22 Feb | S Burlington VT | HAM-CON
Mitch W1SJ 802-879-6589 |
| 15 Mar | Dayville CT | ECARA
Paul KE1LI 860-928-5147 |
| 16 Mar | Southington CT | SARA Flea Market
www.chetbacon.com/flea2013.pdf |
| 28,29 Mar | Lewiston ME | AARC ME Conv
Ivan N1OXA 207-784-0350 |
| 27 Apr | Middletown NY | OCARA
Neil AC2O 914-490-2001 |
| 2,3 May | Deerfield NH | NEARfest XV
Mike K1TWF 978-250-1235 |
| 17 July | Hartford CT | ARRL Nat'l Centennial Conv |