



ZERO BEAT

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



Since 1932

Volume 50 Issue 2

SEMARA-W1AEC

February 2014

Generators: Commercial and Residential

Steve Belcher-W1TAV from *FM Generator* gave a Tech Talk on *Generators: Commercial and Residential*. He stayed around to answer questions afterwards. We also discussed the needs for a generator at SEMARA.



DON-WA1PLT, MARTY-KA1YFV, DAVE-K1JGV & SPEAKER, STEVE-W1TAV

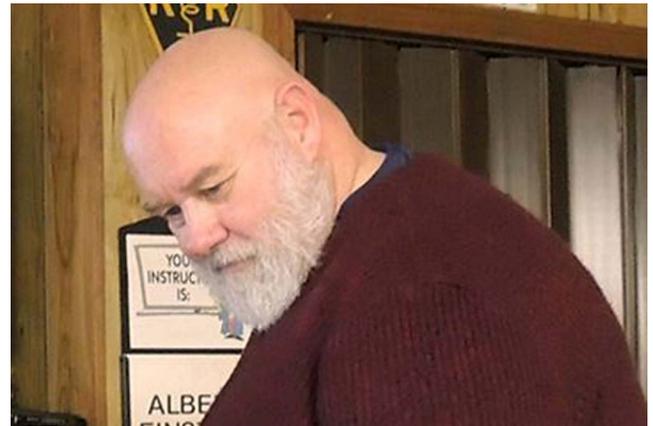
Steve emphasized the nature of the power purity and stability requirements, as well as the need for safe connections to the power source. He was not too happy with the idea of hand-pull setups using patch cords. "It is very easy to forget to disconnect the portable generator when commercial power is restored, or to end up trying to back feed the mains."

The safe way to connect the generator to the load (your home) is through a transfer switch. If the generator doesn't provide a good sinewave output, inserting a UPS will help with that problem.

Steve also spent some time explaining the pros and cons of different kinds of fuel supplies. Each kind requires its own special handling and treatment.

For an installation at SEMARA, the expected electrical load needs to be specified, the fuel source determined, and the probable duration of the outage.

With a little luck, we might be able to have natural gas brought to the clubhouse and the electric baseboard heating converted back to the forced warm air of yesteryear. Steve gave us lots to think about.



OUR SPEAKER: STEVE BELCHER - W1TAV

Tim Smith-N1TI posted on SEMARA's Facebook page:

"I've attended talks at SEMARA for over 30 years (giving quite a few myself)...but Steve's talk was among the best given at the club. Having a speaker that is well prepared, comfortable and confident in the technology makes for a great show. If you missed this one you missed a good one. In hindsight I wish we had videotaped it for the archives. Thanks Steve Belcher!"

(More photos are on page 3.)

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

that some folks are interested in our hobby and in seeing SEMARA become a really active club. Who are they? Their names regularly appear in *Zero Beat*. Want to join their ranks?

It's simple. Just do something to enhance our experience as your club. **Then tell me!** Email me: [editor \[at\] semara \[dot\] org](mailto:editor[at]semara[dot]org). I'll be awaiting your reports...



At the the last Business meeting, I mentioned that the ARRL had a list of topics that need teaching materials. Among those mentioned are: decibels and logarithms, and equivalent circuit elements (especially parallel resistors and the like).

If you need to get some ideas, look at the Technician, General and Extra Question Pools. Then we can talk about how to make the answers easy to understand, and, hence, easy to learn. This could be a fun, club project.

Do you have any suggestions? What topics would you be interested in helping me to develop? We could try out the material out – and call it a Tech Talk.

If you are a member of our VE team, perhaps you can identify the topics that give candidates the most trouble. If you are newly licensed, think about it. What ideas do we need to examine? We'd like to use your input to prioritize our efforts.

Anyway, it's an idea!

Take a look at page 6. How about becoming our *Party Animal*? We once had frequent social events, at least once a season. This position goes under the **Activities Committee** label. There are no members. So, if you like to have parties, become one of the founding members of this committee. If you can get a few others to join the committee, you'll be able to share the credit for the great parties you'll throw.



Another vital position is **Flea Market Coordinator**. Time is running out if we are going to have an event here in Dartmouth this Spring or Summer. This is not a one-man show! You need a lot of help. So think about gathering your team now. The last minute jobs will attract people who won't commit early.

POINT TO PONDER

“There is nothing on this Earth more to be prized than true friendship.”

~Thomas Aquinas

Official Meeting Minutes



January 2, 2014

The meeting was **not** called to order by the President, **Marcel (W1MLD)**. Only 7 members were present when the roll was called. Ten members are required for a quorum.

Respectfully Submitted,
Bob Kelley (K1KVV), *Editor*

Tiny Tid Bits

ARRL EMA SECTION NEWS FEBRUARY 2014

- Do you know a deserving young amateur attending college who could benefit from financial assistance? The non-profit Foundation for Amateur Radio is inviting applications for the Amateur Radio-related scholarships it administers. These academic awards are sponsored by both individuals and by Amateur Radio clubs from across the US. The FAR scholarship application process is open to Amateur Radio licensees worldwide. Awards range from \$500 to \$5000. Applications are due by April 30, 2014. More info can be found at <http://tinyurl.com/n2j6ul7>.
- **KM1CC** ("Kilo Marconi One Cape Cod") was QRV on the airwaves January 17-18 to commemorate the 111th anniversary of Marconi's "Atlantic leap," the first wireless message transmitted from the United States to Europe. KM1CC used three operating stations. QSL via SASE to the KM1CC QRZ.com address.
- A good crew was on hand at the **K1USN** Radio Club in Braintree on January 11 to erect a new Carolina Windom antenna. According to K1USN's **Pi Pugh, K1RV**, the 266-foot-long antenna "will now give us access to 160 meters, as well as being able to handle high power from either of our HF operating positions."
- On the subject of improving your Morse code skills, **KW1U** writes, "Check out the CW Operators Club, at <http://tinyurl.com/nwxdq2>. It's a lot of fun."
- The ARRL has just released a new video, **ARRL at 100: A Century of Ham Radio**. This is a well thought out presentation, with crisp graphics and production values, It's a 25-minute retrospective of amateur radio, presenting not just our illustrious past but a peek at the future. The video can be viewed online at <http://tinyurl.com/kg8sz3f>.

Tech Talk Attendees



MARCEL-W1MLD & PHIL-K9HI



MIKE-W1BZJ

CHRIS-W1EAV

DON-N1PMB



JOE K-N1IXC, MARTY-KA1YFV, JOHN-W1ZYV & ERIC-N1WCO



Tidbits



Technician Class

Started on January 8, 2014.



Tony NN1D offered classes that were given from 7 PM to 9 PM in the Training Room, Dartmouth Police Department 249 Russells Mills Rd., Dartmouth, MA.

The SEMARA VE team administered the tests.

The *results* were 10 new hams; one new General and nine Technician class licensees. Details next issue.

Job well done all around!

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

April 5, 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 noon

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 not held in January.

50 MHz and Up

All Else is Just DC...

by Rich-W2RG

Next article in March issue...

Have a topic you would like to see discussed? Just contact Rich at

W2RD@verizon.net

Eastern MA Hospital Net

Net Control for the February 1, 2014 Eastern MA Hospital Net is **Rick Diaz, KD4OFZ**. He will conduct the net from the Plymouth EOC. The net commences at the usual time of 10am using the following repeaters in the order listed.

1. Plymouth 146.685 tone 82.5
2. Dartmouth 147.000 tone 67.0
3. Bridgewater 147.180 tone 67.0
4. Falmouth 147.375 tone 110.9
Simplex 147.42

The net then returns to the Plymouth Repeater for final comments and net closure.

NET Protocol: Please wait for Net Control to ask for Check-ins.

When asked to check in please use the **standard net check in procedure** which is:

Here is..., *un-key*, wait 3 seconds to check for doubling, then give your or your facilities call sign, your first name, and your facility's name.



RAC President's Report

November 2013

Recently I received an email from an individual who felt that he was being excluded from club activities due to his lack of mobility and physical issues. He noted that there were few supports for persons with physical disabilities and felt excluded from ham radio organizations due to his disabilities.

One of the many things that attracted me to ham radio was amateur radio's inherent inclusiveness. I know senior hams (some very senior ones!), young hams (less than ten years old), blind hams, deaf hams, and there can be mute hams. Race, religion and sexual preferences are irrelevant to the operation of radio equipment! In my view the only prerequisite regarding participation should be competence and character. Ham radio should be a civil pursuit open and supportive to any ham and by civil I mean practiced with civility. I have heard stories of new hams being frozen out of nets or poked fun at for "newbie" errors instead of that error being treated as a "teaching moment". Now the law of human nature has not been repealed and we hams are as human as anyone else. We must strive to grow this great activity by being open to all and being supportive. Reach out and help a newbie, support someone that needs some help due to some "incapacity" ... help grow new hams by continuing to make ham radio accessible.

SEMARA Discussion Mailing List

There are 125 members in this group as of February 1, 2014.

All SEMARA members in good standing have the option to subscribe to the club's discussion mailing list. This list is for members to discuss topics relating to the club, ham radio and related topics of interest. We encourage healthy positive topics of discussion. Any posts with personal attacks or strong negativity are discouraged. Emails from this list always begin with [SEMARA] in the subject field.

Please note that messages sent to this list from your subscribed email address are automatically approved by default. Non-member emails will be held for approval by a member of the SEMARA web committee for spam prevention. If you have more than one email address and send a message to this list using it, your post will only be held the first time. A committee member will add your secondary email address to an automatic approval list for future convenience.

For your privacy, SEMARA will never share, sell or rent individual personal information (including your email address or phone number) with anyone without your advance permission, unless ordered by a court of law. SEMARA only discloses its members full name and municipality (i.e., Dartmouth or New Bedford, MA) in its public membership roster available at SEMARA.org.



SEMARA News



Vacant Chairs

We have five vacancies that need to be filled.

1) Technical Committee Chairman

The technical committee supports all things technical at the SEMARA clubhouse. This committee has no chairman; please step up to fill this position.

2) Activities Committee Chairman

The activities committee has NO members. Help coordinate fun events throughout the year.

3) Auctioneer

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

4) Historian

The club historian keeps a record of historical documents and pictures. The historian updates the club's history as new milestones are reached.

5) Flea Market Coordinator

The flea market coordinator is responsible for organizing all aspects of the club's annual flea market.



[Has anyone stepped forward since this list was posted last month? If not, why not?]

Ham Radio is Like That

Patrick Tice, WA0TDA

Handiham E-Letter for 29 January 2014

We cooperate and follow certain agreed-upon rules while using the electromagnetic spectrum. Some of the rules carry the force of regulatory sanction in *FCC Part 97* here in the United States and similar regulatory oversight in other countries. Other rules are more like "*best practices*" that help us to maintain decorum and use the bands efficiently. An example is "*The Considerate Operator's Frequency Guide*" available from ARRL. The ARRL Frequency Chart shows us the FCC-designated frequencies and modes that carry the force of regulation. The *Band Plan* makes suggestions, but does not carry the force of any sanction other than incurring the possible disdain of your fellow operators when you disregard it.

Disputes can happen in social media or on the ham radio bands. Don't let yourself get drawn into them. Remember these basic tips:

1. People make mistakes. Everyone does. Don't be quick to judge.
2. A kind word is more likely to be well-received than a scolding. This is just human nature.
3. Sometimes it is best to say nothing and just move on. Ask yourself what escalating a small incident into a shouting match will really accomplish, other than creating hard feelings, embarrassing or angering the other party, and raising your own blood pressure, thereby souring your day as well as the other person's.
4. Some situations do need correction and you need to take action. In those cases, take it off the

air in ways recommended by ARRL and guided by the Golden Rule. How would you feel if someone chided you publicly for making a mistake? Is the situation really worthy of further action? Taking time to think about it will help diminish the chances of acting on emotion in the moment, and whatever action you do take can then follow best practices.

5. In an emergency, you need to act more forcefully. For example, if I am driving my car and notice that the driver in front of me is drifting out of his lane and might strike my car, I should use the horn to alert him. On the radio, sometimes there does need to be prompt action to relay emergency information. Interrupting an ongoing repeater conversation to report a car fire or injured person is an emergency. If the repeater users fail to yield the frequency, that should be reported. On the other hand, no one needs to yield the frequency to you because you want to make a routine call. Learn to tell the difference.

2014 Technician Question Pool Study Guide Online

I've started posting sections of the 2014 No-Nonsense Tech Study Guide to my website, KB6NU.com.

Just search for *2014 study guide* to see all of the posts. I'm only through the first several sections, but I'm not seeing many changes so far, mostly just a few extra questions.

I do note, however, that there are only four figures in this question pool, whereas there were seven in the last one. So they must have made some changes in section T7. I just haven't gotten there yet.

At any rate, feel free to have a look. Any and all comments and feedback are appreciated.

Amateur Radio News

Surprise Quiz

Patrick Tice, WA0TDA

Courage Kenny Handiham E-Letter for 29 January 2014

You didn't expect a quiz, did you? Well, I mentioned that I was a policeman, but before that I was a secondary school teacher, and I like to spring pop quizzes on my "students" from time to time, so here goes.

Scenario 1 – You are listening on your regional HF casual social net. The Net Control Station has taken 15 check-ins, most of them on a first-name basis, and without giving much more identification than stating the name of the net. You are pretty sure it has been at least 10 minutes since the guy running the net has identified with his callsign. You should:

- A. Break in and quote directly from Part 97 on station identification, adding that there could be significant penalties for rules violations.
- B. Check into the net when the NCS calls for check-ins, then complain that you could hardly figure out who's who because no one uses their callsign. For good measure, add that "a monkey could do a better job running this net." Your humor will be appreciated!

- C. Immediately notify your ARRL Section Manager or the Official Observers and file a report.
- D. Chill out and think about it. After the net make a phone call to the NCS - and mention that you listened to the net but were a bit confused because of the identification procedures. Explain that you wanted to check in, but had a hard time keeping things straight with callsigns. Helpfully suggest that one thing that helps you out in the ham shack is an app that reminds you to I.D. every 10 minutes.

The correct choice is answer D, of course, since this essay is about chilling out. While answer C - telling the OO's about the situation - isn't really wrong per se, it really is best to determine whether this is a case of ongoing poor operating practice that should be dealt with or a one-time incident where a new person taking the NCS position as a sub doesn't know how to manage the net.

Scenario 2 – You are the NCS today and you tune to your usual 75 meter frequency. Your net has been on that frequency for 20 years, but today there are a few stations carrying on a round table discussion on the frequency.

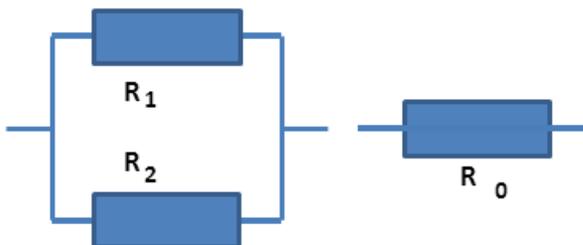
You should:

- A. Break in and tell them to move off of "your" frequency.
- B. Join their conversation then announce that the net is starting and take over.
- C. Move only 1 kHz up or down and begin calling the net. This will give the intruders the right idea and teach them not to squat on the net frequency.
- D. Break in and ask politely if they are willing to move, and if not, thank them and ask that they direct anyone calling in on that frequency to please join the net up or down 5 kHz, which will allow enough separation to avoid interference.

The correct choice is once again answer D. Although the stations using the frequency could be polite and move, they are not obligated to do so. Always be civil and be prepared to yield the frequency, just as you might have to yield the right of way when you drive a car. Don't get upset about it. It's no big deal, just a minor inconvenience. The sun will come up tomorrow whether or not the net runs on its usual frequency. Chill out and relax!



Remember This?



$$R = \frac{V}{I} \text{ or, if } V = 1, \text{ then } R = \frac{1}{I} \text{ and } I = \frac{1}{R}.$$

For resistors in parallel, the currents add.

$$\text{Then } \frac{1}{R_0} = \frac{1}{R_1} + \frac{1}{R_2} \text{ since the voltage is the same.}$$

Some Radio Activity

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

February ARRL Contests

Feb 2, 0000Z - Feb 2, 0359Z 3.5-14
North American Sprint CW

www.ncjweb.com

10 1300Z - 14 2359Z 1.8-28 / 50+
School Club Roundup Ph CW Dig

www.arrl.org/school-club-roundup

15 0000Z 16 - 2359Z 1.8-28
ARRL Int'l CW DX Contest CW

www.arrl.org/contests

22 1800Z - 23 0559Z 3.5-28
North American QSO Party RTTY Dig

www.ncjweb.com

Non-ARRL Contests

Feb 1, 0000Z - Feb 2, 2400Z 1.8-28 / 50,144
Vermont QSO Party Ph CW Dig

www.ranv.org

1 1400Z - 1 2359Z 1.8-28
Minnesota QSO Party Ph CW Dig

www.w0aa.org

1 1600Z - 2 0400Z 1.8-28
British Columbia QSO Party Ph CW Dig

orcadxcc.org

1 1700Z - 2 2359Z 1.8-28 / 50+
Delaware QSO Party Ph CW Dig

www.fsarc.org

8 1500Z - 9 1500Z 3.5-28
OMISS QSO Party Ph

www.omiss.info

8 1600Z - 9 0400Z 1.8-28
New Hampshire QSO Party Ph CW Dig

www.w1wqm.org

12 1300Z - 13 See website 1.8-28
CWops Monthly Mini-CWT Test CW

www.cwops.org/onair.html

23 1500Z - 24 0059Z 3.5-28 / 50, 144
North Carolina QSO Party Ph CW Dig

rars.org/ncqsoparty

24 0100Z - 24 0259Z 3.5-14
CQC Winter QSO Party Ph CW

www.cqc.org

Coming FLEAS & FESTS

www.arrl.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

18 Apr **S. Portland ME** PAWA
 John W1JLB 207-776-2288

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
ARRL2014.org

Special Event Listings

Lost Dutchman Legend Celebration

Feb 20-Feb 23, 0701Z-0700Z,

K7D: "K-7-Dutchman!", *Apache Junction, AZ.*

Superstition Amateur Radio Club Inc.

Certificate & QSL. Steve D. Bowen, 2050 E Balsam Ave, Mesa, AZ 85204.

wb7tjd.org/wiki/K7D

Rotarians on Amateur Radio End Polio Now

Feb 22-Feb 23, 0000Z-2359Z,

KB6NU, *Ann Arbor, MI.*

Certificate. Dan Romanchik, 1325 Orkney Dr, Ann Arbor, MI 48103.

ifroar.org

Snow Bird Field Day

Feb 26, 1521Z-2121Z,

W7ASL, *Mesa, AZ.*

Sun Life Amateur Radio Club. QSL via SASE to N7EP, Earl Palmer, 560 S Rosemont, Mesa Az

85206. www.sunlifearc.webs.com