



ZERO BEAT

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



Since 1932

Volume 47 Issue 2

SEMARA-W1AEC

February 2011

D-STAR Tech Talk



COMPLETE D-STAR REPEATER ON A RACK.



SOME OF THE TECH TALK ATTENDEES.



MORE TECH TALK ATTENDEES.



SEMARA enjoyed the first Tech Talk for 2011 on January 20. **Tony, NN1D** gave his talk on D-STAR to 18 attentive members.

D-STAR is a narrow band, digital networking mode for digital voice, DV. New proposed 10kHz channel-spacing pairs for 2-m D-STAR repeaters are in the 145 MHz segment.

The photo shows a ~\$200 QRP repeater core—just add an amplifier and duplexers for a high power set-up. The controller card sits between the transmitter and receiver units. Although developed by JARL, Icom has treated D-STAR as proprietary—even D-STAR is copyrighted by Icom. So, contrary to expectations, the controller card is available for about \$120, when ordered directly from Satoshi Yasuda (7M3TJZ/AD6GZ). Open source software is available to run the gateway connection to the internet. For more information see

<http://en.wikipedia.org/wiki/D-STAR>

Closer to home, speak to **Tony, NN1D**, or **Brad, W1BEP**.



TONY, NN1D

ZERO BEAT

Published online monthly

©2011 Southeastern Massachusetts
Amateur Radio Association, Inc.54 Donald Street,
South Dartmouth, MA 02748
(508) 997-7070
««««0»»»»**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)
««««0»»»»**2011 SEMARA OFFICERS***President*

Marcel Dumont—W1MLD

Vice President

Bob Kelley—K1KVV

Secretary

Marc Dumont—KB1ODE

*Treasurer*Mike McDonald—KB1NB
««««0»»»»**Directors:**

Joe Krisnowsky—N1IXC

Brad Paiva—W1BEP

John Walsh—WA1LSH
««««0»»»»**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)
««««0»»»»**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
««««0»»»»**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 there may be a renewed interest in amateur radio. Just this last month SEMARA received two email inquiries about licensing classes. That's why we need to be serious about offering licensing classes. What say SEMARA makes a decision to give a sequence of licensing classes? We could commit to giving a Technician class followed by a General class and culminating in an Extra class each year, spaced four months apart.

Were you aware that the Question Pool Committee (QPC) of the National Conference of Volunteer Examiner Coordinators (NCVEC) released the new General class (Element 3) question pool on Tuesday, December 7? This new question pool — including graphics and diagrams — will become effective for all General class examinations administered on or after July 1, 2011; it will remain valid until June 30, 2015. The current General question pool that became effective July 1, 2007 will expire June 30, 2011. The new General pool contains 457 questions, from which 35 are selected for an Element 3 examination. [The current Technician class question pool that was effective July 1, 2010 is valid through June 30, 2014. The current Amateur Extra class pool that was effective July 1, 2008 is valid until June 30, 2012.]

Lets become pro-active in getting more people licensed. We have a great start with our SEMARA Scholarship publicity. We have several members who would like to get a higher grade license. Why don't we help them? After all, what harm would there be if every member upgrades to Extra?

Not every one wants nor needs to be an Extra class licensee; but we should be making the opportunity available to all our members. We might be surprised at how many need only a little nudge to make the effort.

ARRL Outgoing QSL Service

Effective January 17, 2011, a new pricing structure went into effect for the ARRL Outgoing QSL Service. The new rates are:

- \$2 for 10 or fewer cards in one envelope.
- \$3 for 11-20 cards in one envelope, or
- 75 cents per ounce, for packages with 21 or more cards.

For example, a package containing 1.5 pounds — 24 ounces, or about 225 cards — of cards will cost \$18.

POINT TO PONDER

“You don't have anything if you don't have the stories.”

~Leslie Marmon Silko

HAMMIN' AROUND

Question* T7C07 What happens to power lost in a feedline?

- A. It increases the SWR
- B. It comes back into your transmitter and could cause damage
- C. It is converted into heat
- D. It can cause distortion of your signal

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

Club Notes

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

February 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 will be discussed at the February business meeting.

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



VE sessions are scheduled for the first Saturday at 10:00 AM of the even months: February, April, June, August, October, and December. Contact Larry, AA1FS at [LRHGuy \[at\] earthlink \[dot\] net](mailto:LRHGuy@earthlink.net)



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

NEXT SEMARA VE SESSION
 February 5, 2011
 Clubhouse @ 10:30 AM
 Contact: Larry Houbre-AA1FS
[LRHGuy \[at\] earthlink \[dot\] net](mailto:LRHGuy@earthlink.net)
 508-991-6055

Official Meeting Minutes

January 6, 2011

The meeting was called to order at 7:00 PM by the president, **Marcel (W1MLD)** with the salute to the flag. The roll was called with twenty four 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 paid a total of \$1,800.00 last month (taxes) and have total assets of \$37,268.00 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) reported that he received two rough estimates for the roof and door repairs, both in the area of \$5,000.00 for the roof and \$500.00 for the door. Both estimates are not final estimates. He also noted that we should get a group of volunteers needed to give the building a good cleaning some Saturday this winter.

Marcel (W1MLD) stated that he had spoken with different people and that the handicap ramp must follow code, which would include blacktop at the base of the ramp and in the parking area as well. The rough estimated cost, including a wooden ramp, would be over \$7,000.00.

Dave (K1JGV) reported that the circuit breakers in the electrical panel running the east side heat were out but toggling the breaker would power it up. The breakers get warm and should be replaced. He will bring his electrician in to check them.

Technical

Chris (W1EAV) stated that he spoke with **Rick (W1RJG)** and that news of recent updates was posted on the SEMARA website. He also stated that the 222 (repeater) duplexer shipped and should be in shortly and, also, IRLP should be repaired during this weekend.

Scholarship

Sonny (K1USW) stated that the letters were out and everything was on schedule.

SPECIAL COMMITTEES

ARES, RACES, SKYWARN

Ed (KA1RSY) wanted to thank anyone who helped during the recent snowstorm and mentioned the repeater is working well. He also mentioned that the local hospitals have acquired and are soon going online with amateur radio equipment. There was some discussion on training and the traffic this would generate. **Marcel (W1MLD)** mentioned that future combined training between SEMARA, the hospitals and Dartmouth communication needs may be beneficial.

Radio Events

Bob (K1KVV) mentioned that there were several events listed in Zero Beat this month.

RATIFICATION OF NEW MEMBERS

No new membership applications were received but it was mentioned that applications were not available to download from the website. There was some discussion about appointing a member to be a contact for recruiting and fielding questions from potential members.

OLD BUSINESS

Joe (N1IXC) reported he received estimates from two companies to install alarms in the building, both in the area of \$500.00 including alarm and light but not including monitoring or ID entry recording. Discussion ensued regarding exterior lighting, cameras and other specifics of the alarm system.

Marcel (W1MLD) reported that he received a letter back from the lawyer regarding the handicap restroom. The letter was read and discussion ensued. Two motions resulted from the discussion, as follows. A motion was made to apply for a variance on the size of the handicap restroom, expending funds for the application as required. The motion was seconded and unanimously passed. A second motion was made to have the attorney pursue and secure the letter of complaint that was sent to Boston. This motion was seconded and unanimously passed.

A question was brought up during discussion regarding the process of expulsion of members from the association. **Mike (KB1NB)** read from the SEMARA constitution the details of the expulsion process. It was also mentioned during discussion that adding a no trespass order under those circumstances may be a good idea.

NEW BUSINESS

Armand (W1BUG) mentioned that the club should purchase a laptop computer for the treasurer. **Marcel (W1MLD)** added that the copier/printer could also be replaced as it was showing signs of wear. Discussion followed which led to a motion being made and seconded allocating up to \$1000.00 for **Mike (KB1NB)** to purchase a laptop computer and all-in-one copy, fax, scan printer for the club. A vote was taken and passed with 23 in favor and 1 opposed.

Mike (KB1NB) made a motion that the club allocates certain monies as follows: All amounts are to be non-cumulative.

- \$50.00 per year for Treasurer as needed.
- \$100.00 per month for Building and Grounds
- \$100.00 per month for Technical and Repeater
- \$20.00 per month for beverages
- \$25.00 per club meetings and events

(Continued on page 6)

SEMARA News



W1AW 2011 Winter Operating Schedule

Daily Visitor Operating Hours:

1500 UTC to 1700 UTC - (10 AM to 12 PM EST)
 1800 UTC to 2045 UTC - (1 PM to 3:45 PM EST)
 (Station closed 1700 to 1800 UTC (12 PM to 1 PM EST))

Time	Mode	Days
Morning Schedule:		
1400 UTC (9 AM EST)	CWs	Wed, Fri
1400 UTC (9 AM EST)	CWf	Tue, Thu
Afternoon/Evening Schedule:		
2100 UTC (4 PM EST)	CWf	Mon, Wed, Fri
2100 UTC (4 PM EST)	CWs	Tue, Thu
2200 UTC (5 PM EST)	CWb	Daily
2300 UTC (6 PM EST)	DIGITAL	Daily
0000 UTC (7 PM EST)	CWs	Mon, Wed, Fri
0000 UTC (7 PM EST)	CWf	Tue, Thu
0100 UTC (8 PM EST)	CWb	Daily
0200 UTC (9 PM EST)	DIGITAL	Daily
0245 UTC (9:45 PM EST)	VOICE	Daily
0300 UTC (10 PM EST)	CWf	Mon, Wed, Fri
0300 UTC (10 PM EST)	CWs	Tue, Thu
0400 UTC (11 PM EST)	CWb	Daily

Frequencies (MHz)

CW: 1.8025 3.5815 7.0475 14.0475 18.0975
 21.0675 28.0675 147.555

DIGITAL: - 3.5975 7.095 14.095 18.1025 21.095
 28.095 147.555

VOICE: 1.855 3.990 7.290 14.290 18.160 21.390
 28.590 147.555

Notes:

CWs = Morse Code practice (slow) = 5, 7.5, 10, 13 and 15 WPM

CWf = Morse Code practice (fast) = 35, 30, 25, 20,

15, 13 and 10 WPM

CWb = Morse Code Bulletins = 18 WPM

CW frequencies include code practices, Qualifying Runs and CW bulletins.

DIGITAL = BAUDOT (45.45 baud), BPSK31 and MFSK16 in a revolving schedule.

Code practice texts are from QST, and the source of each practice is given at the beginning of each practice and at the beginning of alternate speeds.

On Tuesdays and Fridays at 2330 UTC (6:30 PM EST), Keplerian

Elements for active amateur satellites are sent on the regular digital frequencies.

A DX bulletin replaces or is added to the regular bulletins between 0100 UTC (8 PM EST) Thursdays and 0100 UTC (8 PM EST) Fridays.

In a communications emergency, monitor W1AW for special bulletins as follows: Voice on the hour, Digital at 15 minutes past the hour, and CW on the half hour.

All licensed amateurs may operate the station from 1500 UTC to 1700 UTC (10 AM to 12 PM EST), and then from 1800 UTC to 2045 UTC (1 PM to 3:45 PM EST) Monday through Friday. Be sure to bring your current FCC amateur radio license or a photocopy.

The W1AW Operating Schedule may also be found on the web at

<http://www.arrl.org/w1aw-operating-schedule>.



2011 Boston Marathon

Volunteer registration for the *2011 Boston Marathon* is now open! The Marathon will be held on Monday, April 18th.

Radio operators are needed to provide safety communications and to assist the Red Cross. Assignments are available in Hopkinton, along the route, and in downtown Boston.

To volunteer, go to

<http://marc.mmra.org>

and follow the instructions.

73, Bob - K1IW

More SEMARA News

Board of Directors Minutes January 15, 2011

The meeting was called to order by the President, **Marcel (W1MLD)** at 10:20 AM with five members of the Board present. Items discussed were as follows:

Parking lot snow removal

There was discussion regarding the lack of snow removal during the recent snow storms. **Dave (K1JGV)**, who was present at the meeting, stated that he had told Alan Costello last year not to plow the lot if the snowfall was less than 6 inches. It was concluded that the Treasurer and contact liaison, **Mike (KB1NB)** would include a reminder regarding the contractual obligation provide such services in a letter he normally sends regarding tax assessments for the tower. It was also noted that, as the liaison, **Mike (KB1NB)** should be the only person to speak on behalf of SEMARA.

Technical Committee

Marcel (W1MLD) brought up that it would be a good idea to speak with the Technical Committee in order to get updates and projections for current projects and needs.

Tech Talk Committee

The current vacancies on the Tech Talk Committee were discussed. **Brad (W1BEP)** had volunteered for the position but would like a co-chair to assist. Some discussion followed regarding potential candidates.

Security System

Joe (N1IXC) had earlier spoken with **Armand (W1BUG)**, who offered to prepare an estimate for materials to install an alarm system including fire alarm on the premises. **Armand (W1BUG)** will also install the system with some assistance from members. Information on this system should be available for review at the next business meeting. There was also some discussion regarding security cameras around the premises. It was noted that, along with recent thefts from the property, there has also been dumping of refuse as well. Two computers have also been donated from Dartmouth Police Department which may be used to replace defective SEMARA computers.

Handicapped Restroom/Building

There was some discussion about MA regulations for rest rooms. **Marcel (W1MLD)** stated that he is in the process of applying for the variance. The attorney is working on attaining further details on the original complaint, in accordance with the vote from January's business meeting. There was also some minor discussion regarding the electrical issues discussed during the business meeting.

Computer equipment purchase

Mike (KB1NB) stated that Staples has a HP computer on

sale this week. He will purchase it soon as well as a printer, in accordance with the vote from January's business meeting.

Membership and Dues

An email was received by **Bob (K1KVV)**, who could not be present at the meeting, requesting discussion of removing "Life Membership" and/or instituting annual dues. This topic was discussed, concluding that changes would require constitutional amendments and would be very difficult to implement. It was decided not to pursue this any further at this time.

Wish list for 2011

Brief discussion was conducted regarding needs/wishes of the club for the following year. Some items brought up were straightening out the repeaters and restoring them to full operating potential, repair of the current antennas as needed, hosting a flea market this year as there is a considerable amount of surplus equipment on site and a get together or family function for members.

Audit

It was decided to postpone the Treasurer's audit until the next Board of Director's meeting as the SEMARA computer was not functioning properly and the new computer would be fully in service.

Adjourn

A motion was made, seconded and voted to adjourn at 11:12 AM.

Respectfully submitted,

Marc M. Dumont (KB1ODE), Secretary



(Continued from page 4)

The motion was seconded and passed unanimously.

Eric (N1WCO) stated he is stepping down as Tech Talk coordinator. Some discussion followed regarding tech talks and will continue at a later date.

FOR THE GOOD OF THE CLUB

Ed (KA1RSY) mentioned that RACES has been more active lately, possibly because of SEMARA's repeater.

ADJOURN

A motion was made, seconded and unanimously voted to adjourn the meeting at 8:25 PM.

Respectfully submitted,

Marc M. Dumont (KB1ODE), Secretary

Extra Class Exam Questions

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

E1D01 What is the definition of the term telemetry?

- A. One-way transmission of measurements at a distance from the measuring instrument
- B. A two-way interactive transmission
- C. A two-way single channel transmission of data
- D. One-way transmission that initiates, modifies, or terminates the functions of a device at a distance

E1D02 What is the amateur-satellite service?

- A. A radio navigation service using satellites for the purpose of self-training, intercommunication and technical studies carried out by amateurs
- B. A spacecraft launching service for amateur-built satellites
- C. A radio communications service using amateur stations on satellites
- D. A radio communications service using stations on Earth satellites for weather information gathering

E1D03 What is a telecommand station in the amateur satellite service?

- A. An amateur station located on the Earth's surface for communications with other Earth stations by means of Earth satellites
- B. An amateur station that transmits communications to initiate, modify or terminate certain functions of a space station
- C. An amateur station located more than 50 km above the Earth's surface
- D. An amateur station that transmits telemetry consisting of measurements of upper atmosphere data from space

E1D04 What is an Earth station in the amateur satellite service?

- A. An amateur station within 50 km of the Earth's surface for communications with amateur stations by means of objects in space
- B. An amateur station that is not able to communicate using amateur satellites
- C. An amateur station that transmits telemetry consisting of measurement of upper atmosphere data from space
- D. Any amateur station on the surface of the Earth

E1D05 What class of licensee is authorized to be the control operator of a space station?

- A. Any except those of Technician Class operators
- B. Only those of General, Advanced or Amateur Extra Class operators
- C. A holder of any class of license
- D. Only those of Amateur Extra Class operators

E1D07 Which amateur service HF bands have frequencies authorized to space stations?

- A. Only 40m, 20m, 17m, 15m, 12m and 10m
- B. Only 40m, 20m, 17m, 15m and 10m bands
- C. 40m, 30m, 20m, 15m, 12m and 10m bands
- D. All HF bands

Some Contests

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

Feb 5, 0000Z - Feb 6 0000Z 1.8-28 YLISSB QSO Party CW www.ylssystem.org

Feb 5, 0001Z - Feb 6 2359Z 28 Ten-Ten Winter Phone QSO Party Phone www.ten-ten.org

Feb 5, 1200Z - Feb 6 1200Z 3.5-28 EPC WW PSK Contest PSK www.epcwwdx.srars.org/index.php/contest-rules.html

Feb 5, 1300Z - (see website) 1.8-28 Vermont QSO Party All_Modes vtqsoparty.westriverradio.org

Feb 5, 1400Z - Feb 5 2400Z 1.8-28 50+ Minnesota QSO Party All_Modes www.w0aa.org

Feb 5, 1600Z - Feb 5 1900Z 3.5 Straight Key Party CW www.agcw.org

Feb 5, 1600Z - Feb 6 0800Z 1.8-28 British Columbia QSO Party All_Modes www.deltaamateurradio.com

Feb 5, 1700Z - Feb 6 2359Z 1.8-28 50+ Delaware QSO Party All_Modes www.fsarc.org

Feb 5, 1800Z - Feb 6 1759Z 3.5-28 XE Int'l RTTY Contest RTTY www.fmre.org.mx

Feb 6, 0000Z - Feb 6 0400Z 3.5-14 North American Sprint CW www.ncjweb.com

Feb 12, 0000Z - Feb 13 2400Z 3.5-28 CQ WW RTTY WPX RTTY www.cqwpxrty.com

Feb 12, 1500Z - Feb 13 0300Z 3.5-28 Louisiana QSO Party All_Modes laqso.w5yl.org

Feb 12, 1500Z - Feb 13 1500Z 3.5-28 OMISS QSO Party Phone www.omiss.info

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 Feb 21st

Skip Denault-KB1CNB
<skip [at] newtestamentschool [dot] org>
774-644-3469

Falmouth, MA – 9:00 AM Feb 12th

W. Ben Fleck-K2LYE
<BenFleck [at] cape [dot] com>
508-540-2583

Providence, RI – 7:00 PM Feb 10th

Louis Mester-W1CH
<W1CH [at] arrl [dot] net>
401-263-6045

Coming FLEAS & FESTS

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

5 Feb	Chelsea	ME
	AARA	Bill KINIT 207 623 9075
12 Feb	Windsor	CT
	VR+C Mus	John 860 673 0518
19 Feb	Marlborough	MA
	AARC	Tim KAIOS 978 333 0067
20 Feb	Westford	MA
	GBARC Radio XLII	866 371 0512
26 Feb	Colchester	VT
	HAM-CON	Mitch WISJ 802 879 6589

Answer: HAMMIN' AROUND

What happens to power lost in a feedline?
C. It is converted into heat.

Answer: Sudoku ⁶⁴

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

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