



ZERO BEAT

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



Since 1932

Volume 48 Issue 4

SEMARA-W1AEC

April 2012

New England QSO Party - May 5-6

The New England QSO Party is coming in just one month - the weekend of May 5-6 - and we'd sure appreciate it if you would spread the word within your club through your newsletter or at the next meeting and help us to encourage activity from Eastern Massachusetts. Last year we had 222 different stations from all Eastern Massachusetts counties on the air, and we'd like to have more activity this year.

The NEQP is a great way to test your antennas on 80-10 meters and to be the focus of a lot of activity as stations from around the world look for Eastern Massachusetts stations.

Here is a summary of the New England QSO Party rules:

- **Object:** To contact as many New England stations (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont) in as many New England counties as possible on 80-40-20-15-10m. (New England stations work anyone.)
- **Date:** First full weekend of May. (May 5-6 in 2012)
- **Contest Period:** 2000Z Saturday until 0500Z Sunday (4 pm EDT Saturday until 1 am EDT Sunday) and 1300Z Sunday until 2400Z Sunday (9 am EDT Sunday until 8 pm EDT Sunday).
- **Categories:** Single-operator high power, low power (150W or less) and QRP(5W or less) categories, plus multi-operator, single transmitter. Same four categories for mobiles. Single-operator stations using assistance during the contest (packet or Internet spotting nets, etc.) will compete in the multi-single category.
- **Contest Exchange:** Send signal report and state/province (DX stations send signal report and "DX"). New England stations send signal report, county and state .

- **QSO Points:** Count one point per phone QSO, two points per CW (includes digital modes) QSO.
- **Multiplier:** Stations outside of New England use counties as multipliers for a total of 67 (CT/8 MA/14 ME/16 NH/10 RI/5 VT/14). New England stations use states(50)(Count DC as MD), Canadian provinces(14) and DXCC countries as multipliers. Scoring: Total score is QSO points times the multiplier. Mobiles count QSO points per county and multipliers from all counties (counted once).
- **Suggested frequencies:** CW - 3540 7035 14040 21040 28040; SSB - 3850 7280 14280 21380 28380. — Now that the broadcast stations are mostly out of 7125-7200, try 7180 on 40m SSB.
- **Reporting:** Logs should indicate times in UTC, bands, modes, calls and required contest exchange. All stations include your club's name in the log header or summary. Entries must be submitted within 30 days and sent to NEQP, P.O. Box J, West Suffield CT 06093 or via e-mail to logs@neqp.org (Cabrillo format preferred).
- **Awards:** Certificates will be awarded to the top scorers (25 QSO minimum) in each New England county, U.S. state, Canadian province and DXCC country. A number of special plaques will also be awarded to top scorers. Additional details can be found on the NEQP website at <http://www.neqp.org>

Recall—Falmouth ARA and SEMARA clubs are challenging each other for the *best club score*.

If you think you might be on the air, even for a short time, give us a heads-up at info@neqp.org and editor@semara.org = 73 de Tom-K1KI, for the NEQP Committee, and Bob-K1KVV for SEMARA.

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2011 SEMARA OFFICERS

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Vice President
 Joe Krisnowsky—N1IXC
Secretary
 Marc Dumont—KB1ODE
Treasurer
 Mike McDonald—KB1NB

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Andy Reuter—WA1FNM
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 John Walsh—WA1LSH (2013)
 Louis Mester—W1CH (2014)
 Joe Krisnowsky—N1IXC (2015)
 Dick Halliwell—K1AHA (2016)

STANDING COMMITTEES

Building and Grounds
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Tony Lessa—KB1UAM

Scholarship

Sonny Eddleston—K1USW – chair
 Chuck Moszczanski—KB1FRL
 Alan Dulong—WB1FQP
 Joe Krisnowsky—N1IXC

Technical/Repeater/Website

Dave Goldstein—W1DJG: Technical
 Rick Cabral—W1RJC: Repeater
 Rick Cabral—W1RJC: Website
 Ben Jackson—N1WBV: facebook

SPECIAL COMMITTEES

Activities
 VACANT

ARES/SKYWARN/ACS
 Rob Macedo—KD1CY

QSL Manager
 John Nery—WA1ESO

Radio Events
 Bob Kelley—K1KVV

Tech Talk
 Brad Paiva—W1BEP

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

that we can relive Amateur radio's glorious past in commemorating the 100th anniversary of the Titanic disaster. See the information about special event station K1T (operating CW only).

Look for **GI100MGY**, from Titanic's home city of Belfast, during April. **MGY** was Titanic's callsign, which had been launched in Belfast in May 1911. The **GI100** is a very special prefix, kindly allocated to the "**Project WhiteStar**" special event team by Ofcom, the UK regulator. They plan to be active all modes, 80m - 10m, with a *2 minute station silence* at 01:47 am on 15th April, the exact time when the vessel sank, in memory of all those who lost their lives that night. On the evening of 14th/15th, most operation will be on CW. They also have special permission to use the above callsign on the 501 kHz-504 kHz band from the 12th April until 18th April and will be transmitting on 502 kHz CW. For those people without a 500kHz band licence, a crossband QSDO on 3566 kHz or 7066 kHz as propagation conditions permits. 73 de **John Hudson M0CMW**

Finally, thanks to **Eric-N1WCO**, a photo of **John-WA1LSH**, one of our three Directors.

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Obituary Notices**Fred Maia - W5YI SK - March 28, 2012**

The W5YI Group is one of the major VECs in the United States. See the website at http://www.w5yi.org/ama_news_article.php?id=606.

Rita A. (Conroy) Vezina—February 29, 2012

A card was sent to her daughter, **Arlene M. Arruda-KB1KGG** and her husband, **Raymond-KB1EVX**.



JOHN—WA1LSH,
DIRECTOR

POINTS TO PONDER

“April hath put a spirit of youth in everything.”

~William Shakespeare

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“God means movement, and not explanation.”

~Elie Wiesel

HAMMIN' AROUND

Question* G7A03 What is the peak-inverse-voltage across the rectifiers in a full-wave power supply?

- A. One-quarter the normal output voltage of the power supply
- B. Half the normal output voltage of the power supply
- C. Double the normal peak output voltage of the power supply
- D. Equal to the normal output voltage of the power supply

* 2015 Element 3 General Class Question Pool (good thru 2015-06-30) Answer on page 8.

Club Notes

April is when the weather becomes milder, although the wind still blows! It all helps to dry out the lawn which will need cutting soon enough.

Will we be taking advantage of the weather and mounting the newly repaired Sommers Log-Yagi antenna back on the 85-ft tower?



SEMARA is ready for increased *radio activity* at **Whiskey One Atomic Energy Commission!**

We can look forward to the coming season of renewed use of the club stations thanks to a donation of a high performance contest rig. Listen for us!

See our website for the latest post-ings: <http://semara.org>.

SEMARA has new members!

Two applications for membership was unanimously approved at the March 1, 2012 Business meeting:

- David Masten, KB1JUJ**
- Robert Roderiques Sr., KB1JUQ.**

Welcome to the club!



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) — Massachusetts ACS Drill (Region 2, Sector A) is held on the first Monday of the month at 7:30 PM.

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.

3868 kHz (LSB) — SEMARA Morning Net is held weekdays from 7:30-8 AM EDT.

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>)

Sudoku

Here is another Sudoku puzzle to solve while waiting for the net to start. (Solution on p. 8.)

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

Tech Talks. This space reserved for announcements about the Tech Talk. **Brad, WIBEP,** is in charge. Ask him when we will have our next Tech Talk and what the topic will be.





NEXT SEMARA VE SESSION

June 2, 2012

Clubhouse @ 10:30 AM

Contact: Larry Houbre-AA1FS

<[exams\[at\]semara\[dot\]org](mailto:exams[at]semara[dot]org)>

508-991-6055

Official Meeting Minutes



March 1, 2012

The meeting was called to order at 7:10 p.m. by the President, **Marcel (W1MLD)** with salute to the flag. The roll was called with 18 members and 2 guests present.

SECRETARY'S REPORT

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

TREASURER'S REPORT

The Treasurer, **Mike (KB1NB)** stated that net totals in the accounts are \$33,230.89 and that another bank check had been received by NETCOM. A motion was made, seconded and unanimously passed to refer the report to audit.

STANDING COMMITTEES

Buildings and Grounds

After brief discussion regarding building needs, **Anthony Lessa Jr. (KB1UAM)** was appointed to the Building and Grounds Committee.

Technical

There was some discussion regarding needs of some equipment and the Log Periodic antenna. With repairs taking long on the antenna it was decided to appoint a temporary committee to complete repairs on the antenna.

Scholarship

Joe K (N1IXC) stated that one scholarship application has been received so far. The application is being reviewed.

SPECIAL COMMITTEES

ARES, RACES, SKYWARN

Ed (KAIRSY) spoke of some changes to emergency communications within MEMA. Highlights include RACES being decommissioned and replaced with ACS (Auxiliary Communications Service). Discussion followed on some changes and use of the 147.00 repeater. It was also noted that the hospitals now have radios operating and there are more operators coming online. Further training on these subjects will be forthcoming.

Radio Events

Bob (K1KVV) spoke of the upcoming **K2H 13** Colonies event for the week of July 4, the need to begin plans for Field Day and several other events listed in Zero Beat.

Repeater

Marcel (W1MLD) mentioned that one "Bullet" antenna was installed in the building and the second for the repeater shack still needed to be completed.

RATIFICATION OF NEW MEMBERS

Two membership applications had been received for this meeting. **David Masten (KB1JUJ)** and **Robert Roderiques Sr. (KB1JUQ)** both submitted applications. A motion was made, seconded and unanimously voted to act on both applications at the same time. A motion was then made, seconded and unanimously approved to accept both applicants and Life Members.

OLD BUSINESS

Marcel (W1MLD) stated that inventory was complete but they were waiting for the Tech Committee to get value of the equipment so we can purchase *ARRL Equipment Insurance*.

There was some discussion regarding needed plumbing repairs for the building.

A quote was received for the backup battery to the repeater system. The quote was \$105 for each of two batteries, \$20 for each of two core charges, and miscellaneous cables and connectors. Having been previously approved by the Finance Committee, a motion was made, seconded and unanimously approved to appropriate \$250 plus tax for the purchase.

NEW BUSINESS

Scott (W1EV) asked for use of the grounds on Sat. August 4, 2012 between 11:00 a.m. and 5:00 p.m. for a family function. A motion was made, seconded and unanimously approved to allow use.

Scott (W1EV) also offered his *Icom 756 Pro* radio for SEMARA to borrow, requesting to retain ownership should he need the radio at a later date. A motion was made, seconded and unanimously passed to accept Scott's offer.

Mike (KB1NB) requested further discussion as, in the past, equipment has been donated to SEMARA with the option of the past owner to buy back the equipment for the amount of \$1.00. The motion was then *amended* to accept Scott's donation of the *Icom 756 Pro* radio with the understanding that if he wants the radio back at any time, SEMARA must sell it back to him for \$1.00. A motion to amend was made, seconded and unanimously passed.

(Continued on page 6)

SEMARA News

Baluns Revised by Fred, N1TF

A BalUn is a matching device. The name “BalUn” comes from the words describing one of the functions of the device; balanced to unbalanced. A BalUn's primary function is to prevent common-mode currents on the transmission line while matching an unbalanced transmission line to a balanced load or antenna.

If you think about it, when you erect your new dipole and feed it with a 50 ohm coax what are you doing? I mean besides having a great time.

First: the center point impedance of a dipole at resonance is approximately 70 ohms. Matching it to a 50 ohm line is not that bad.

Second: you are connecting a balance device, the antenna, to an unbalanced feed line, the coax, and operating one-half the antenna against ground. Well, the antenna tuner can handle that.

Think about the antenna system as a whole. Is it going to be able to be used, and here I put in that ugly word, *efficiently* at any frequency other than the frequency you cut the wire for? Well, the *odd* harmonics of the fundamental frequency, the frequency that the antenna was cut for, will work pretty well too but the bandwidth of the antenna will be narrower as the frequency of these harmonics get higher. Keep in mind the band allocations and where the useable harmonics will fall. The harmonic relationship to the fundamental frequency of the antenna is displayed in the table at the end of the article. Care should be taken when planning the use of the antenna on other bands to be sure the cut is such that the harmonic falls within the band allocation.

Example. For an antenna cut for the 75/80 meter band to operate in the allocated portion of the 12 meter band the fundamental cut would have to be for resonance between 3.56 and 3.57 MHz. It may work on 10 meters too.

What if we put a **Current** or **Choke** BalUn at the feed point of the antenna?

Let's make it a 1:1 ratio current balun for two reasons.

One: the feed point impedance of a dipole is approximately 70 ohms and we want to use 50 ohm coax.

Two: a current balun is used because the center feed point is a high current point with low voltage at resonance.

With this configuration we have more of the best and less of the worst characteristics of the dipole we have been discussing.

Best: we are operating a balanced device as a balanced device and reducing the radiation from the feed line. Fewer spurious emissions from the system and an antenna that is easier to tune.

Worst: the system will still require a tuner when operating away from the fundamental frequency; external interference, ie. TVI or other types of RFI may still be present, they are significantly reduced.

All this from just one little piece of hardware that can be whipped together in a few minutes; or if you don't like whipping things together, these devices are readily available from many internet companies. See the URL list at the end.

Above are a couple of BalUn drawings that may give you a clearer picture of the devices. They are not hard to assemble and will help a lot when you put up that new antenna. Another thought. BalUns are not limited in use to a dipole; beams, loops, quads, etc. all benefit from the use of these devices.

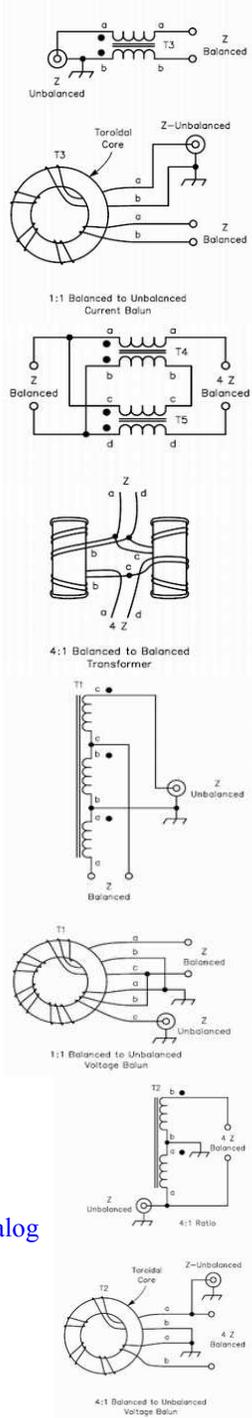
Figure 32 - Ferrite-core baluns. Each uses transmission line techniques to achieve wide frequency coverage. The transmission line can consist of coaxial cable or tightly coupled (side-by-side) bifilar enameled wires.

Typically, twelve turns of #10 wires wound on 2.4- inch toroidal cores with $m = 850$ will cover the whole range from 1.8 to 30 MHz. The 4:1 current balun at the right is wound on two cores, which are physically separated from each other.

Figure 38 - Voltage-type baluns. These have largely been supplanted by the current (choke) type of balun.

Figures 32 and 38 are from the ARRL Antenna Book 21st Edition, pages 26-24 and 26-28. (Copied with permission.)

- Vendors advertising Current Baluns
 BuxComm: www.buxcomm.com/catalog
 Radio Works: radioworks.com/
 Surplus Sales of Nebraska: www.surplussales.com
 MFJ Enterprises: www.mfjenterprises.com



Fundamental (MHz)	3.5–4.0 MHz (80/75-m band)	7.0–7.3 MHz (40-m band)
3rd Harmonic	10.5–12.0 MHz	21.0–21.9 MHz (15-m band)
5th Harmonic	17.5–20.0 MHz (17-m band)	35.0–36.5 MHz
7th Harmonic	24.5–28.0 MHz (12-m band)	49.0–51.1 MHz (6-m band)

Amateur Radio News

K1T Special Event Station

K1T - 100th Anniversary of the sinking of RMS Titanic, April 12-15, 2012

- **Times:** April 12, 1:00 pm - April 15, 4:00 pm EDT
- **On the air:** 10-40m bands
- **In Commemoration:** Titanic 100 Years Later *and* Marconi's Wireless Technology
- **Locations:** Cape Cod National Seashore *and* The Chatham Marconi Maritime Center

Cape Cod National Seashore and the *Chatham Marconi Maritime Center* will join radio operators from around the world to remember souls lost when the Titanic sank and to honor the role that Marconi's technology played in the rescue. A fact that surprises many is that Marconi's historic wireless station in Wellfleet played a role in the rescue.

In a published *New York Times* interview with Harold Cottam, the sole Marconi wireless man onboard the rescue ship *Carpathia*, Cottam recounts his purpose in making radio contact with the Titanic that fateful night. It was to inform the Titanic's Marconi operators that Marconi's long-distance Cape Cod Station was sending a batch of messages to them. However, after receiving the message about Cape Cod, the Titanic Marconi wireless operator instantly replied "**Come at once. We have struck a berg.**" Thus the rescue of survivors began. If not for what Cottam called this "lucky fluke," getting back on his radio after he was done for the night, then perhaps those in lifeboats might have died from exposure.

Chatham Marconi Maritime Museum, Chatham

April 12-15, 2012. 10 am – 4 pm. The Chatham Marconi Maritime Museum will host a wireless radio event for four days as well as open their museum to the public.

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Cape Cod National Seashore

In Wellfleet:

April 14. 9 am – morning April 15 when the Titanic sinks. Cape Cod National Seashore in partnership with the Falmouth amateur Radio Association will operate a wireless station at the historic Marconi Station Site, Wellfleet on April 14, 2012.

This is the original location where messages were sent that resulted in the *Carpathia's* rescue of Titanic survivors. Amateur radio operators will use using the Special Event callsign **K1T** in **Morse Code only**, the mode of

radio communications in 1912, to contact other stations around the world that are commemorating the souls lost on board the Titanic the night of April 14-15, 1912, 100 years ago. No voice operations are scheduled from this location.

April 14. 1 pm-1:30 pm. View Marconi models inside HQ, working 1/8 model of the Marconi spark gap transmitter, Marconi Bust.

April 14. 2 PM. Wreath Laying Ceremony at the Marconi Wireless Station Site.

In Eastham:

April 14-15. The Voice of Cape Cod, a 12 minute film about the building of Marconi's Wireless Station in 1901 in South Wellfleet MA and the historic first transatlantic transmission sent from the USA to Europe on January 18, 1903. The film will be shown hourly starting at 10-4 PM at the *Salt Pond Visitor Center*, Eastham, MA

6 PM: The movie, *A Night to Remember*, (123 minutes) will be shown at the Salt Pond Visitor Center, Eastham. This 1958 black and white film docudrama is based on Walter Lord's book of the same name. It is a factual account of the tragedy. A short demonstration of a "**spark gap**" transmitter will precede the start of the movie.

Look for more details in the weeks ahead...

(Minutes continued from page 4)

FOR THE GOOD OF THE CLUB

Thanks went out to Scott for the good job clearing snow from the property.

Marcel (W1MLD) stated that there was little interest in the Tech class to be given by **Tony (NN1D)**. Only two applicants applied, so the February class was cancelled. Information on future classes will be forthcoming.

ADJOURN

A motion was made, seconded and unanimously voted to adjourn at 8:10 p.m.

Respectfully Submitted,

Marc M. Dumont (KB1ODE), Secretary

The **50/50 raffle** was won by **Brad (W1BEP)**.
The split was \$25.50/\$25.50.

Amateur Radio News

THE AUXILIARY COMMUNICATION SYSTEM (ACS) WILL REPLACE THE RACES PROGRAM



Framingham, MA - Mike Neilsen, W1MPN, Acting State RACES Officer (SRO) announced an agreement with the *Massachusetts Emergency Management Agency* (MEMA) to realign the mission and responsibilities of the present RACES program at the MEMA Headquarters and three regional offices, as well as in the cities and towns where there is an established RACES program. The new organization, the *Auxiliary Communications System* (ACS), will replace RACES as the organization dedicated to assisting MEMA using a broader cadre of volunteers **effective April 1, 2012**.

Over the last fifty years, Amateur Radio (AR) operators provided much needed relief to communities stranded by communication failures during natural and man-made disasters. "That is not the case anymore. The RACES mission has become outmoded and progressively unresponsive to MEMA's needs," Mike said during his briefing of interested AR operators last Saturday in Sutton, MA. "MEMA has asked us to change our mission because more robust state radio systems are now available to public safety first responders." Other realities such as complex training requirements and strict post 9-11 security requirements have dramatically removed the AR operator from the response matrix. W1MPN further stated, "We all have new jobs now."

Highlights of the new program include:

There are no changes planned for the Plymouth, Seabrook, and the Vermont Yankee Nuclear Power Plant Evacuation Plans. RACES Operators will continue to be retained in the cities and towns that support that program. These same RACES operators would also likely be involved with ACS at the local city and town level in other disaster related scenarios at the discretion of it's EMA Director. MEMA has established WEBEOC as their primary communication system, with state radio backup. This redundant radio system greatly reduces the likelihood of needing the services of AR frequencies and the RACES volunteers for a backup ("failover") radio system. Current local city and town RACES volunteers are encouraged to become involved in

ACS, which uses WEBEOC and the backup VHP radio system. In the unlikely event that those systems fail, AR VHF/UHF frequencies would then be utilized including AR HF frequencies since a state HF system does not exist.

MEMA will become one of the *Amateur Radio Emergency Service* (ARES) served agencies (clients), where disaster intelligence data gathering support will be provided on an as needed basis pursuant to future MOU's through a new program to be run similar to the SKYWARN program. ARES uses a similar approach with organizations such as the American Red Cross. MEMA has also asked the current RACES Regional Officers and ARES leadership to help develop the new program criteria and training for delivering damage reports from the local cities and towns to MEMA.

MEMA will build a team of ACS volunteers who will specialize in operating the MEMA backup radio systems, whether or not they possess an amateur radio license. Those operating these radios will be called Radio Operators (RADO's), and will need to meet security and professional standards that are yet to be developed. ACS volunteers will also specialize in multi-task roles that will help the anticipated more centralized MEMA organization of the future. Mike Neilsen, W1MPN, as the acting State RACES Officer, is slated to become the AR Coordinator for the new State MEMA ACS volunteer program. Regional RACES Officers will transition consistent with the development of the regional ACS program.

Cities and Towns will be asked to adopt as much of the ACS tasking in order to transmit their information to the regional and state authorities. The monthly RACES Nets are slated to become the monthly ACS Nets in the new program on the first Monday of every month (second Monday if it is a legal holiday), as coordinated by regional and state ACS representatives.

The planned centralization of MEMA operations at the SEOC may eliminate or materially change the role of the present RACES Regional Officer. To help ensure communication links with local authorities will not be lost, ARES has established regional command centers in the EMA in the town Bridgewater EOC, at the Clay Center in Brookline, at the Acushnet EOC, and one is being developed on the North Shore. Efforts are now underway to establish one each in the Worcester and Springfield areas.

Please contact: Mike Neilsen, W1MPN, Acting State RACES Officer, w1mpn@arrl.net, 978.293.7858





Some Radio Events

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

Phone

Apr 15, 1800Z - Apr 15, 2359Z 3.5-28
ARRL Rookie Roundup arrl.org/contests

Phone/CW/Digital modes

Mar 31, 0000Z - Apr 1, 2400Z 1.8-28
Lighthouse Spring Lites QSO Party arlhs.com

Apr 14, 0000Z - Apr 16, 0000Z 1.8-28/50-432
Montana QSO Party fvarc.org

Apr 14, 1400Z - Apr 15, 0200Z 1.8-28/50
New Mexico Centennial QSO Party
swcp.com/~n5zgt

Apr 21, 0000Z - Apr 22, 1700Z 1.8-28
South Dakota QSO Party w0blk.org

Apr 21, 1800Z - Apr 22, 1800Z 1.8-28/50,144
Ontario QSO Party va3cco.com

Apr 28, 1100Z - Apr 29, 1700Z 1.8-28/50,144
Lighthouse Spring Lites QSO Party arlhs.com

Phone/CW modes

Apr 14, 1800Z - Apr 15, 2359Z 1.8-28/50
Georgia QSO Contest gqp.contesting.com

Apr 21, 1600Z - Apr 22, 0400Z 3.5-28
Michigan QSO Party miqp.org

Apr 28, 1800Z - Apr 29, 2159Z 7-28
Florida QSO Contest floridaqsopaqrty.org

Digital

Apr 7, Noon - Apr 7, 6 PM 14.070-14.080
PODXS 31 Flavors Contest podxs070.com

Local VE Sessions

Walk-ins permitted unless otherwise noted.

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

SEMARA – 10:30 AM June 2nd

Larry Houbre-AA1FS
 <exams[at]semara[dot]org>
 508-991-6055



Fall River, MA – 7:00 PM April 16th

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

Falmouth, MA – 9:00 AM April 14th

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

Providence, RI – 7:00 PM April 12th

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

Coming FLEAS & FESTS

www.arrl.org/hamfests/search

15 Apr Cambridge MA **FLEA@MIT**
 Nick 617 253 3776

21 Apr S Portland ME **PAWA** Bryce 207 799 1116

28 Apr Gales Ferry CT **RASON Auction**
 Gary 860 884 4218

4,5 May Deerfield NH **Nearfest XI** Mike 978 250 1235

Answer: HAMMIN' AROUND

What is the peak-inverse-voltage across the rectifiers in a full-wave power supply? C. Double the normal peak output voltage of the power supply. Recall, full-wave rectifiers present twice the input at the output.

Answer: Sudoku 2

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

CLUB ACTIVITIES

BUSINESS MEETING

First THURSDAY of the month @ 7 pm

Sunday RAGCHEW

7-10 am

Thursday COFFEE /WORLD PROBLEMS

Dunkin Donuts, Bliss Corner,
 S. Dartmouth at 1 pm

Friday MOST-OF-THE-TIME LUNCH

Meet at the clubhouse at 11:00 am (call ahead)

Leave for LUNCH at 11:30 am