



ZERO BEAT

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



Since 1932

Volume 50 Issue 4

SEMARA-W1AEC

April 2014

Spring Antenna Issue



Hi Bob,

I thought I would send you information on the Six-meter Yagi beam I built and use. (See photo at left.) I used 1/2 inch Aluminum for the Elements. The Boom is 1.25" diameter by 6 ft. long.

The Driven Element is an insulated 112 inch Dipole mounted in the middle of the boom. I used a piece of plastic from a lawn chair for my insulator. It is spaced 1/2 inch apart.

The Reflector is 5% longer than the Driven Element and Director is 5% shorter than the driven element. Both are mounted 35 inches from the Driven Element.

I have found that this 3-el Beam has an extremely narrow beam width. I have to point the beam NNE to receive **Brad-W1BEP, Tom-KQ1G, Paul-K1PGS** and **Bob-N1HCW** to get them real good. If I point to the NW, they do not hear me at all.

Well, Bob, I think it's pretty clear. So for now,

73, **Dick-K1AHA**

Dimensions for 1/4-Wavelength DDRR Elements

Band (Meters)	160	80	40	20	15	10	6	2
Feed Point (FP)*	12"	6"	6"	2"	1.5"	3"	1"	1/2"
Gap (G)	16"	7"	5"	3"	2.5"	2"	1.5"	1"
Capacitor, pF (C)	150	100	70	35	15	15	10	5
Spacing (Height) (SP)	48"	24"	11"	6"	4 3/4"	3"	1 1/2"	1"
Tubing Diameter (D)	5"	4"	2"	1"	3/4"	3/4"	1/2"	1/4"
Ring Diameter (RD)	36'	18'	9'	4.5'	3'4"	2'4"	16 1/4"	6"

*See Fig. 10-8 for explanation of designations.

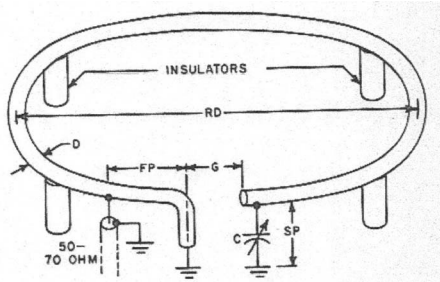


FIG. 10-8 - ACCOMPANIES TABLE

Hi Bob,

Anybody for an antenna that is never mentioned very much? It works pretty good and it radiates vertically. Supposedly, better than a 5/8 wave mag. mount vertical. It is called a DDRR Antenna. (See AC6V.com.)

It only stands 3 inches high for the 2-meter one. Take a 23" piece of 3/8 copper tubing, form it to a 6" diameter, then bend to 90° angle and you mount the 3" tail to a 9" square sheet of PCB. If you have more than 1/2" surplus, you can make a flange, screw it to the 9" base and solder it. The 6" circle is parallel to the base. The coax connects to the base, the inner wire

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 Joe Krisnowsky—N1IXC
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 Marc Dumont—KB1ODE
 Treasurer
 Mike McDonald—KB1NB

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 Jean Pierre Chiron,—AG1Y

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Technical/Repeater/Web
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 Rick Cabral—W1RJC: Web

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Activities
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 ARES/SKYWARN/RACES(ACS)
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 QSL Manager
 John Nery—WA1ESO
 Radio Events
 Bob Kelley—K1KVV
 Tech Talk
 Richard Orluk—K1XRN

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

That we are lucky to have such talented volunteers. Consider ...

SEMARA Webcam Java Fix

Members:

Some people including myself were unable to view the webcam after a recent java update. I had time to play around and figured it out.

Security settings block several Java apps from running on many websites. If Java has been recently updated and you are now unable to view the SEMARA Webcam using Windows, doing the following steps should fix it:

- 1) Click on the "**Start Menu**".
- 2) Go to "**Programs**" or "All Programs" (Windows 7).
- 3) Go to the "**Java**" folder.
- 4) Click on "**Configure Java**".
- 5) In the Java Control Panel, click on the "**Security**" tab.
- 6) Click on the "**Edit Site List...**" button.
- 7) In the Exception Site List, click on the "**Add**" button.
- 8) Type "<http://club.semara.org>" in the field next to the red explanation point (it will turn to an unlocked padlock).
- 9) Click on "**Add**".
- 10) Click on "**OK**".
- 11) Click on "**OK**" again.
- 12) Shut down your web browser and reopen it again.
- 13) Go to "<http://semara.org/webcam>" and view the webcam.

This should work.

Richard J. Cabral, W1RJC
 SEMARA Technical Committee
[technical \[at\] semara \[dot\] org](mailto:technical[at]semara[dot]org)

POINTS TO PONDER

“The heavy chains of worry are forged in idle hours.”

“The gretest mistake a man can make
 is to be afraid of making one.”

“Friends come in all shpes and sizes,
 but their hearts are always BIG.”

“If you never change your mind,
 why have one?”

~Fortune Cookies

Official Meeting Minutes



March 6, 2014

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 25 members and 2 guests present.

SECRETARY'S REPORT

A motion was made, seconded and unanimously approved to accept the report as posted and dispense with the reading.

TREASURER'S REPORT

The Treasurer, **Mike (KB1NB)** reported a total balance on hand of \$66,950.00 with revenue of \$5,980.00 (2 NETCOM payments) and expenses of \$820.00 (electric and telephone being the largest). The total NETCOM balance owed is \$15,500.00 (includes taxes of \$5261). Purchase of the building addition will reduce this amount by \$8000.00. A motion was made, seconded and unanimously voted to refer this report to audit.

STANDING COMMITTEES

Technical

Rick (W1RJC) reported that a computer has been repaired and CAT5 cables have been made for the computer at the radio desk.

Scholarship

Joe (N1IXC) reported that no applications for scholarship have been received yet.

SPECIAL COMMITTEES

ARES, RACES, SKYWARN

Joe (N1IXC) reported there were many check ins during the past ARES net.

Radio Events

Bob (K1KVV) reported several events as posted in *Zero Beat* and the ARRL. Specifically mentioned was **Kids Day** on June 21st from 14:00 to 20:00 e.d.t.

Repeater

Rick (W1RJC) noted future upgrades to the APRS station, to include being run on Raspberry PI, to be brought up later in the meeting.

Website

Rick (W1RJC) reported that all was well with the website and that he is looking to upgrade the platform in the future.

RATIFICATION OF NEW MEMBERS

Four applications for membership were received. After introductions it was decided to vote on all applicants at once. A motion was made, seconded and unanimously approved to accept the following applicants as life members:

Irene Harrop (KC1BGC),
Matthew D. White (N1MUK),
Ralph Joseph (KC1BEW) and
Robert Joseph (KC1BEV).

OLD BUSINESS

Marcel (W1MLD) updated the members on the proposal, written by **Fred (N1TF)** and passed by the *Finance Committee*, for new licensees and membership. The proposal would include ARRL Licensing and Testing fee (\$15.00), SEMARA Life Membership (\$20.00) and ARRL membership (\$ 39.00) totalling \$74.00. Those completing the requirements will receive a *Baofeng UVB5* radio as a gift. A motion was made, seconded and unanimously approved to accept this as policy. The radios have been procured and are in stock.

NEW BUSINESS

Rick (W1RJC) reported on upgrades for the APRS system, as well as future needs of the repeater rack. At this time he requests 2-19 inch rack mounts for Raspberry PI units, 1-SD card for the unit, 1-Raspberry PI unit and 1-TNC device to connect the Raspberry PI. A motion was made, seconded and unanimously approved to purchase indicated equipment, with miscellaneous connecting cables and hardware with an amount not to exceed \$160.00.

The topic of updating SEMARA membership lists was also discussed, as significant work has been done.

Joe (KG1BCF) mentioned he is donating a home-made model of a radio wave to the club.

A request was made from the **Bristol County Repeater Association** to use the 147.00 repeater on Sundays at noon for a time. A motion was made, seconded and unanimously approved for this use.

The President, **Marcel (W1MLD)** updated members on the past BOD meeting as follows.

An architect will soon be brought in to formulate plans for the new building addition.

The Board voted to update the *No Smoking policy*

(Continued on page 5)

Tidbits



Joseph M. Rodriques, N1BZZ (SK)

Joseph M. Rodriques, 89, of New Bedford died March 19, 2014 peacefully at home. He was the husband of Jennie B. (Pontes) Rodriques.



Born in New Bedford, the son of the late Manuel and Mary (Santos) Rodriques, he lived in New Bedford for most of his life. He was formerly employed by Theodore Loranger Construction Company for 28 years before retiring.

Mr. Rodriques served in the U.S. Army during World War II. He was a member of the Cape Verdean-American Veterans Association, Veterans of Foreign Wars Andrews-Dahill Post 1531, and the Turtle Club. Joseph joined SEMARA in 1990. His notary public services were used at one time.

*Our condolences to his family for their loss.
Rest in peace.*

Club Numbers

GPS Coordinates:

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

— 0 —

Maidenhead Grid Coordinates: FN41mo

— 0 —

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. **Net control** is Brad, **W1BEP** (E. Free-town).

28.490 MHz (USB) — Net is held Tuesdays at 8:30 PM. **Net control** is **Dick, K1AHA** (S. Dartmouth).

1875 kHz (LSB) Net is held Fridays at 7 PM. **Net control** is **Dave, K1JGV** (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 @ 12 noon
Gather @ clubhouse before 12 noon

Call on the repeater, or phone the club:
508-997-7070, if you are coming

50/50 RAFFLE

The March 50/50 raffle prize of
\$18.50
was won by **Donald Mara (WA1PLT)**.

SEMARA News

(Continued from page 3)
to include e-cigarettes.

There was some discussion about snow plowing, and the condition of the parking area after a difficult winter.

There was discussion about the stovetop and condition of the countertop it is installed in. After discussion a motion was made, seconded and unanimously approved to purchase a new countertop to accommodate the smaller opening of the new cooktop, and have it all installed.

There was discussion regarding the keyless entry system, resulting in a motion being made, seconded and unanimously approved to look into a self-enclosed keyless entry system.

Volunteers were requested to chair *Field Day committee*. **Brad (W1BEP)** and **Paul (W1PGS)** volunteered and were appointed.

Rob (KD1CY) volunteered to give a SKYWARN class at the SEMARA facility. After discussion a motion was made, seconded and unanimously approved to hold the class *Saturday, May 10, 2014 at 10:00*.

ADJOURN

A motion was made, seconded and unanimously approved to adjourn at 8:30 p.m.

Respectfully Submitted,

Marc M. Dumont (KB1ODE), Secretary



Board of Directors Meeting Minutes

March 1, 2014

The SEMARA Board of Directors meeting was called to order by the President, **Marcel (W1MLD)** at 10:10 AM with 6 members present.

Topics discussed were as follows:

- **New Membership Incentive:** The President, **Marcel (W1MLD)** informed the board that a proposal, prepared by **Fred (N1TF)** has been completed and ready for presentation to members at the next meeting. The proposal includes ARRL testing, membership in the ARRL, membership in SEMARA and a *Baofeng* portable radio. Purchase of radios for the proposal, as outlined in the past business meeting, has been approved by the

Finance Committee. Radios have been ordered but not received.

- **New Building Addition:** The new addition was discussed. An architect will be brought in soon to discuss foundations and transition between the existing and new buildings. It is hoped the building will be attached this spring. Information will be brought at the next business meeting.
- **NETCOM:** The current balance owed to SEMARA is \$15,496.00, which includes \$5261.00 in taxes.
- **E-Cigarettes:** The topic of e cigarettes was discussed and it was decided to expand the existing No Smoking policy to include e cigarettes.
- **Maintenance:** Topics discussed regarding building and grounds included snow plowing, the need to replace the countertop with the cooktop in the kitchen, repairing the keyless (FOB) entry system and participation in maintenance including cleanup of the facility. Other topics included Field Day, ARRL equipment insurance and Tech Talks.

Adjourn: The meeting adjourned at 11:20 AM

Respectfully Submitted;

Marc M. Dumont (KB1ODE), Secretary



PROOF: THE SOMMERS LOG-YAGI SURVIVES HIGH WINDS.

Practical Radio

(Continued from page 1)
connects near the start of the 6" loop. For mobile use, mount some magnets underneath the base.

The DDRR Antenna was originally designed as a 80 Meter antenna. (See following article.) Well Bob, here is another antenna project for people to check out.

73, Dick-K1AHA

— o —

DDRR Tidbits

DDRR means *Directional Discontinuity Ring Radiator*, also known as the Direct Driven Ring Radiator. It was invented by Dr. Boyer, from Northrop, for military applications in the 50s. It stayed classified until Dr Boyer published an article titled "**Hula hoops antennas**" in *Electronics* (Jan 11, 1963). *73 Magazine* also published a two part article from Dr. Boyer titled "**Surprising Miniature low band antenna**".

Boyer designed two basic models: the one ring DDRR and the two rings DDRR. The US Navy showed that the antenna was very low noise and very low angle. He warned them not to cut corners.

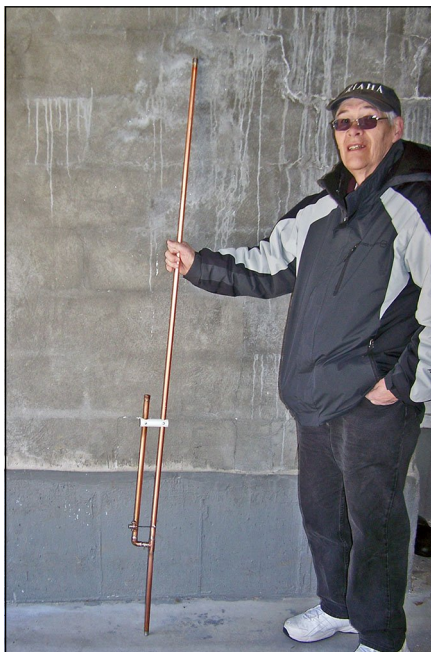
His recommendations were:

- Use big tubing: 4 inches or more for 75m.
- Do not use automotive exhaust pipe. It will rust and contacts losses will transform the antenna into a dummy load.
- All contacts and connections must be A1. Solder corners if you make it square, use Penetrox everywhere.
- Use very high voltage vacuum capacitors, and high quality isolators to support the rings.
- No chicken wire. Dr Boyer was

horrified by some description of DDRRs using chicken wire.

He explained that measurements made by Northrop engineers showed that the near field is in concentric rings on a one ring DDRR and that chicken wire could add losses.

— o —



K1AHA – A NEWLY BUILT 2M J-POLE FOR SOME LUCKY HAM

— o —

"April Fool's" Tradition Continues in QST

April Fool's pranks are a well-established tradition in the *QST* magazine. *QST* Editor in Chief Steve Ford, WB8IMY observes that the April Fool's tradition in *QST* goes back decades. Search the old issues and you'll find some very clever items.

The April 2014 issue of *QST* contains three April Fool's pieces. Some are more obvious than others. *How many readers* spot the jokes?



SEMARA's Program for New Amateur Radio Licensees

There are four (4) steps to the program,

1. Take the SEMARA sponsored training class.
2. Pass the examination given by the SEMARA VE Team at the end of the class.
3. Join SEMARA, maintain membership and participate in club activities.
4. Join the ARRL through SEMARA and maintain membership in the ARRL.

When those four steps have been completed, SEMARA will provide a *Baofeng UV-5B HT* at no charge for your unconditional use except for sale. This means "when you're through with it, return it".

The purpose of the program is to provide the means to use the privileges and an opportunity to advance your knowledge and skills as an Amateur Radio Operator. *This program is not intended to allow for any person who has attained his/her license through another venue.*

The cost of the program is bundled and will be approximately \$75.00.

The cost breakdown is as follows:

- Examination fee is \$15.00 (or current fee as determined by the VEC Authority).
- SEMARA initiation fee - \$20.00 for life membership.
- ARRL Membership fee - \$39.00 (or current annual fee).

Amateur Radio News

Technician Question Pool - July 1, 2014

The new Technician Pool will be in effect as of *July 1, 2014*. If you are studying for your first license, you may want to use on-line Technician study materials: <http://www.arrl.org/exam-practice>. You can download a copy of the 2014-2018 Technician Question Pool for reference: <http://ncvec.org/page.php?id=362>. That pool is the one from which the questions on your exam will be drawn.

The Technician license exam is a 35 question test drawn from a question pool of 426 questions. The question pool is divided into 10 subelements (T0-T9). Subelements are subdivided into question groups (topics). There are 35 topics represented in the question pool. One question will be randomly selected from each topic to make up the Technician exam. You must correctly answer a minimum of 26 questions on the exam to obtain a Technician license.

Do NOT attempt to memorize answers to questions based on the way they appear in the NCVEC question pool. The questions and answer choices on the exam may be shuffled. There is no time limit on exams.

MARCH 2014 SECTION NEWS

Liability at public service events: Alan, K1ALL wrote these insightful comments recently on the PART listserv: "As many of us are asked to sign liability waivers when we volunteer as ham radio operators in support of events sponsored or conducted by non-profit organizations, an understanding of exactly what is being waived is prudent. [...]"

Understanding what you are signing prior to volunteering is key. In some cases you are giving up your right for compensation even if the non-profit is negligent and in others you are also giving up your right to be covered by the organization's liability insurance if you are personally sued by a third party. Many organizations do not require you sign a waiver, but others, such as the BAA (Boston Marathon) and Head of the Charles, require extensive and comprehensive waivers. I am not suggesting that waivers not be signed, but only that you know what you're signing."

73, Phillip Temples, K9HI

Ham Radio Olympics

The World Radiosport Team Championship (WRTC) will be held in Massachusetts July 12-13, 2014. Like the Olympics or the Boston Marathon, this event draws the "best of the best" from around the world. Fifty-nine two-operator teams will be set up with Field-Day-style stations on 16 properties around the Route 495 corridor, from Pepperell in the north to Plymouth and Taunton in the south.

The international teams will compete to see which team can make the most contacts with the most countries and take home the gold medal.

This Olympic-style world championship will be widely covered in the local, regional, and national media and provide excellent publicity for amateur radio.

The WRTC2014 organizers need volunteers to help with this once-in-a-lifetime event. The biggest need at the moment is for people to help set up and keep an eye on the stations and provide local transportation for

the teams between the headquarters hotel in Westborough and the sites.

Several clubs in the area have "adopted" one or more sites. Perhaps your club would be interested in doing this as a club project. We'd be happy to send someone to your next club meeting to provide more details.

Please visit www.wrtc2014.org/volunteer to sign up and tell us how you would like to help make this exciting event a success.

Learn more about WRTC2014 at www.wrtc2014.org.

73, Doug Grant, K1DG

General Question

Question G2D07: Which of the following is required by the FCC rules when operating in the 60 meter band?"

- If you are using other than a dipole antenna, you must keep a record of the gain of your antenna
- You must keep a log of the date, time, frequency, power level and stations worked
- You must keep a log of all third party traffic
- You must keep a log of the manufacturer of your equipment and the antenna used

The correct answer is A: If you are using other than a dipole antenna, you must keep a record of the gain of the antenna. The 60 meter band has different rules than the other bands. The relative difference is:

- Power level limitations are specified as maximum **effective radiated power** of 100 watts PEP. This is the reason the type of antenna must be considered. The gain of the antenna as compared to a dipole can increase ERP.

Radio Tests & Fests

Some Special Events

<http://www.arrl.org/special-event-stations>

Georgia QSO Party Apr 11-Apr 17, 1000Z-2357Z, **N4G**, Atlanta, GA. Southeastern Underground Radio Fellowship. *QSL*. W4TI, PO Box 422261, Atlanta, GA 30342. Work historic DeKalb county, Georgia, EM73, during the GQP either on HF digital (PSK-31) or via Satellites! All stations will receive a special edition QSL card. w4ti.com

102nd Titanic Special Event Station Apr 12-Apr 13, 1400Z-1400Z, **N0SAP**, Nixa, MO. Area Amateurs. *Certificate*. David Beckler, 1137 W Crane Dr, Nixa, MO 65714.

n0sap@yahoo.com

74th Anniversary of Bletchley Park (UK) Timely Decrypt of German Enigma Radio Message Apr 12, 0001Z-2359Z, **N7E**, West Point, UT. Enigma World Code Group. *QSL*. Bruce Culp, EWCG, 660 N 2700 W, West Point, UT 84015.

Anniversary of the Sinking of the Titanic Apr 12-Apr 13, 1200Z-0100Z, **W4S**, Clinton, TN. KC4RD. *QSL*. Jim Womack, 617 Black Oak Rd, Clinton, TN 37716. kc4rd@arrl.org

Bayou Teche Black Bear Festival Apr 12, 1500Z-2000Z, **W5BMC**, Morgan City, LA. Bayouland Emergency Amateur Radio Service. *QSL*. Jackie Price, KA5LMZ, 1412 Maple St, Morgan City, LA 70380.

100 anniversary of the Panama Canal Apr 19-Aug 15, 0000Z-2359Z, **HO100CANAL**, Panama, PANAMA. Radio Amateurs of the Republic of Panama. *QSL*. Victor Sierra, HP1AVS, PO Box 0830-00338, Panama, PANAMA. <http://micanaldepanama.com/centennial/>. Info see www.qrz.com/db/HO100CANAL

SPARC 45th Anniversary Apr 19-Apr 20, 1700Z-2100Z, **VE3SPR**, Leamington, ON. Sun Parlor Amateur Radio Club. *Certificate*. Terry Greenwood, 3392 Baby St, Windsor, ON B9C 1L4, CANADA. Main operation will be the weekend of the 19th April but the call is good for the whole month of April 2014.

www.thesparc.ca

Cape Cod Mini Maker Faire - Radio Demo Apr 26, 1400Z-2000Z, **K1PBO**, Hyannis, MA. Barnstable Amateur Radio Club. *Certificate*. www.barnstablearc.org

Coming FLEAS & FESTS

www.arrl.org/hamfests/search

- 6 Apr **Framingham MA** FARA
Bev N1LOO 508-626-2012
- 13 Apr **Manchester CT** NEWS V/UHFConf
Mark K1MAP 413-566-8118
- 18 Apr **S. Portland ME** PAWA
John W1JLB 207-776-2288
- 20 Apr **Cambridge MA** FLEA at MIT
Mitch 617-253-3776
- 2,3 May **Deerfield NH** **NEARfest XV**
Mike K1TWF 978-250-1235
- 17 July **Hartford CT**
ARRL Nat'l Centennial Conv
ARRL2014.org

Some Radio Activity

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

- 1.8-28 50 **New Mexico QSO Party** All-mode
www.newmexicoqsoparty.org Apr 12, 1400Z - Apr 13, 0200Z
- 1.8-28 50 **Georgia QSO Party** SSB-CW
www.georgiaqsoparty.org Apr 12, 1800Z - web
- 1.8-28 **Lighthouse Spring Lites QSO Party** all-mode
arlhs.com Apr 17, 0001Z - Apr 22, 2359Z
- 3.5-28 **Worked All Provinces of China** SSB-CW
www.mulandxc.org Apr 19, 0600Z - Apr 20, 0559Z
- 3.5-28 **Michigan QSO Party** SSB-CW
www.miqp.org Apr 19, 1600Z - Apr 20, 0400Z
- 1.8-28 50,144 **Nebraska QSO Party** All-mode
www.qcwa.org/chapter025.htm Apr 19, 1800Z - Apr 20, 1800Z
- 1.8-28 50,144 **North Dakota QSO Party** All-mode
www.w0nd.com Apr 19, 1800Z - Apr 20, 1800Z
- 1.8-28 50,144 **Ontario QSO Party** SSB-CW
www.va3cco.com Apr 19, 1800Z - See website
- 3.5-28 **ARRL Rookie Roundup** SSB
www.arrl.org/contests See web 1800Z - Apr 20, 2359Z
- 7-28 **Florida QSO Party** SSB-CW
www.floridaqsoparty.org Apr 26, 1600Z - See website
- 3.5-28 **BARTG 75 Sprint Digital** www.bartg.org.uk
Apr 27, 1700Z - Apr 27, 2100Z