



SQUELCH TALES



**NEWSLETTER FROM THE MERRYMEETING AMATEUR
RADIO ASSOCIATION FOR APRIL 2019**



NEW ENGLAND QSO PARTY May 4-5, 2019



*2000z Saturday until
0500z Sunday (4pm EDT Saturday until
1am EDT Sunday) 1300z Sunday until
2400z Sunday (9am EDT Sunday until
8pm EDT Sunday)*

**Come join the fun and help put Maine
in play especially Cumberland,
Sagadahoc & Lincoln counties.**

For more information go to:
<https://www.neqp.org/>



NEAR-FEST

**New England Amateur
Radio Festaival**

May 3rd & 4th

34 Stage Rd., Deerfield

Fairgrounds, NH

Hope to see you there



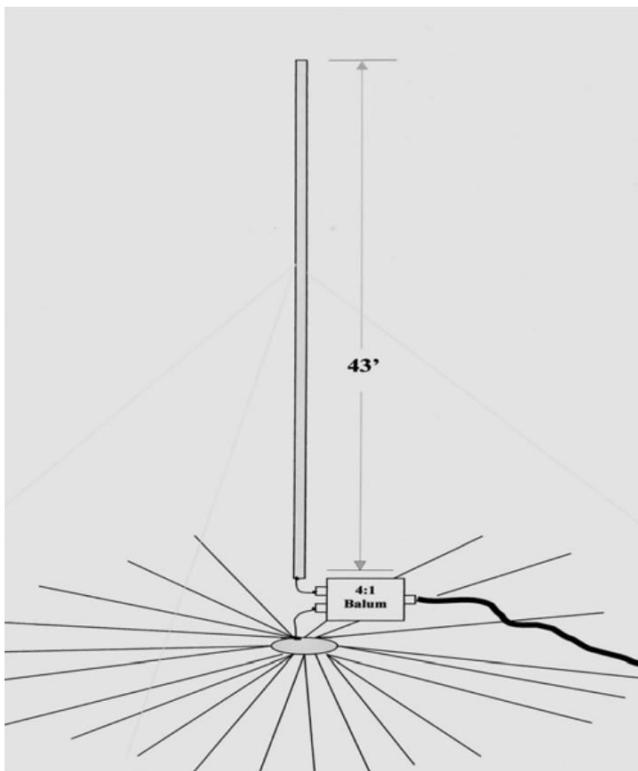
All-Band Vertical Monopole on a Budget

By Bruce Randall, W1ZE

Reprint from the April 2009 newsletter

If you have been reading your ham magazines or surfing the ham web sites you may have seen ads from DX Engineering and MFJ about a 42-foot all-band Monopole vertical antenna. The monopole is not a new antenna. It has been around since the early days of radio. In fact the US Navy uses them on their ships for HF communications since before WWII. As the name implies, it is a single vertical element working against a ground.

Both the DXE- MBVA-1 and the MFJ-2990 monopoles claim that they are all-band (160 through 10 meter) antennas and will handle 1.5 kW. You may be asking, how do they do that with without coils or traps , because 43-feet is far to short for 80 and 160 meters. Well they make it radiate a signal with the aid of a 4:1 balun (or 9:1 UnUn) and a good broad range antenna tuner (transmatch). With most ground-mounted verticals, the key to their success and performance is a good ground system. The more radial wires on (or in) the ground the better.



Both antennas are fabricated from aluminum tubing. The DXE uses tapered sections and both claim to be self-supporting. But if it were me, I would still guy it use some Nylon or Dacron line to steady it up a bit. Both models appear to be well made with an edge going to the DX-Engineering MBVA-1, which uses their popular radial termination plate and mount.

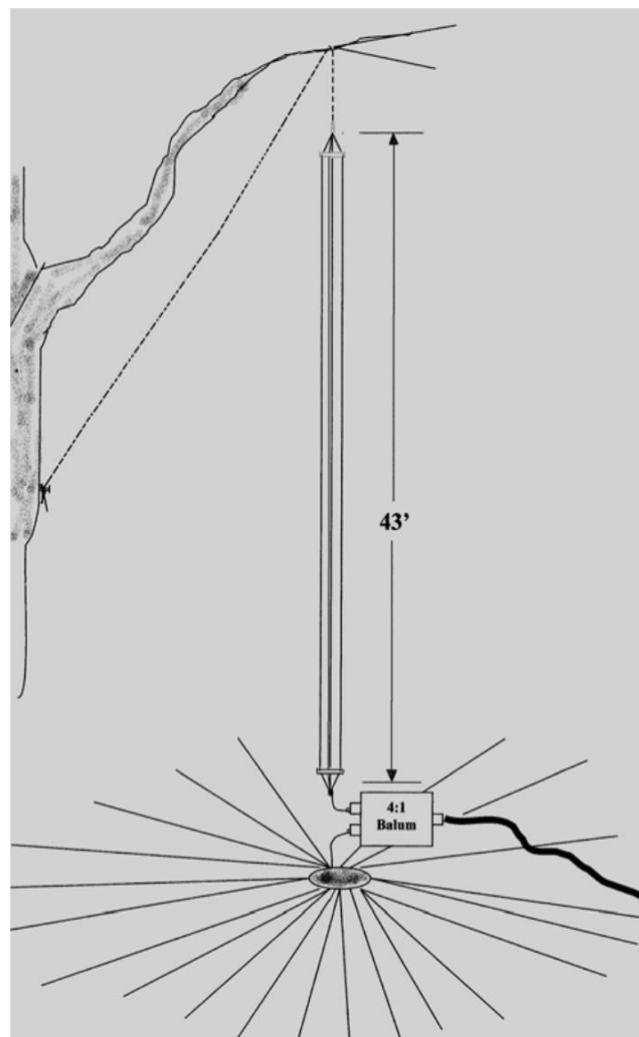
They may work well enough but neither DXE nor MFJ are giving them away. The basic models are in the \$300+ range. Old tightwad Bruce (me) has built monopoles in the past with a few used at Field Day sites in W6-land with some success. I don't think that the monopole will be as effective as a full quarter-wave vertical or inverted "L" on 160 meters because those antennas need to be high and very long (+/- 130-feet).

You could build your own 43-foot monopole using two or three inch aluminum tubing but that stuff is not inexpensive either.

One of the reasons that help the antenna perform at such a short length is the fact the aluminum tubing has a large diameter than

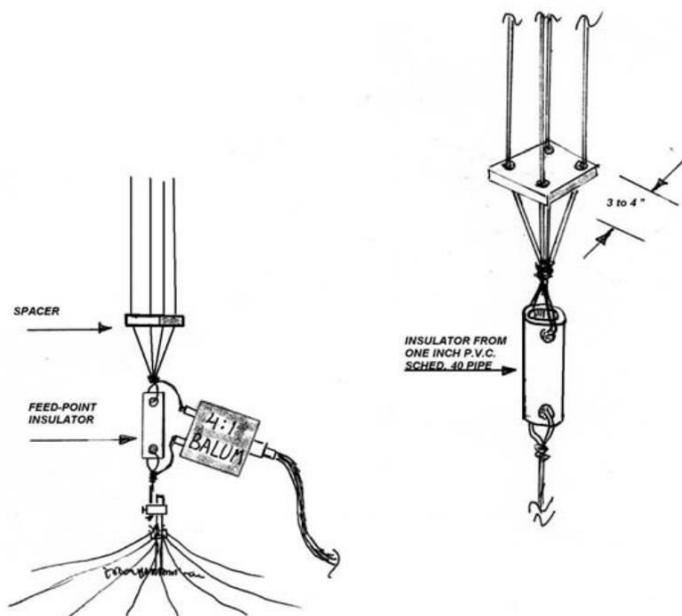
#14 wire. The larger the surface area of a radiating element the shorter the length required for a given frequency. It is common knowledge that making a large diameter radiating element can be done by running several common wires in parallel, which acts the same as a solid element of the same diameter or width.

OK, so how do you make it vertical? Thank goodness for tall trees with limbs sticking out about 45 to 50 feet above ground. A halyard line slung over a tree limb can support the top end of the wire monopole. The bottom end of the vertical element can be supported by a ground rod and attached to the element via an insulator. The balanced output of a 4:1 balun (or 9:1 unun) can be connected to the ground stake and the monopole element at the feed-point insulator.



The vertical element can be made with four each 43-foot long No. 14 or 12 stranded copper.

Solder the wire elements together at both ends. Before you solder the ends, make about six 4"x 4" squares of 1/4-inch thick plywood. These will be used as separators. In each corner of the plywood spacer drill a 1/4-inch hole. Two of them will be used as end spacers and the remaining four will be spaced out along the element and secured by tie-wraps. This should help keep each wire about three inches apart.



The a Balum can be purchased commercially but as described in the February 09 issue of Squelch Tales, you could build a 4:1 kW balun from a kit, saving more money. 50-ohm coax connects the balun to your antenna tuner.

Radial ground : As indicated earlier, to make the monopole or any other ground mounted HF vertical operate efficiently one needs to have at least a minimum of eight but better yet 16 + radial wires. Don't worry about making them a 1/4-wave at some frequency because the ground de-tunes them. Just lay down as many as you can and as long as you can. It is better to have 20 twenty-foot long radials than four 100-foot radial counterpoise wires.

On 160-meters the antenna tuning will be very sharp without much bandwidth. You will need to retune if you move +/- 15 kHz. The other bands will show broader tuning. Have Fun this summer. Build something!

73, Bruce W1ZE



CONTEST ANNOUNCEMENT

Sunday, April 14th, from 12PM - 4PM

The 2019 Maine 2 Meter FM Simplex Challenge takes place Sunday, April 14th, for 4 hours, beginning at 12pm local time!

Getting started is easy!

Choose a power level from: QRP (5 watts or less), Medium (Greater than 5, but less than 100 watts), or High (100 watts or more), and decide whether to operate as Fixed or Mobile.

The Exchange is 3 items: your call sign, the name of the city, village, town, or township you are operating from, and your power level.

For example, if your call sign is W1ZZ, and you're operating from your home station in Gorham, and running 50 watts, you'd say: "Please copy, Whiskey One Zulu Zulu, Gorham, Medium Power".

Suggested frequencies: 146.475, 146.490, 146.505, 146.550, 146.565, 146.580, 147.420, 147.435, 147.450, 147.465, 147.480, 147.495, 147.510, 147.525, 147.540, 147.555, 147.570.

New for 2019: Contacts with an EOC, SKYWARN, Red Cross, or other served agency station are worth 2 points each! Check out the official rules for more details.

Now, get on the air, and have fun!

[Click here](#) for complete rules and details.



Jamboree on the Air (JOTA) in Lincoln County

Submitted & photo by Al Sirois, N1MHC,
POB-2, East Boothbay, ME, 04544



The following article appeared in the March 12th issue of the Lincoln county News, reported by J.W. Oliver

We are pleased to report a successful Meeting of Boy Scout Troop #142 took place at the Waldoboro Legion Hall, 181 Jefferson St, Waldoboro Monday evening 18 March 2019 under the Leadership of Scoutmaster, Cheryl Stone, Warren, ME.

Ceremony took place sharply at 6 PM with Pledge of Allegiance, Scout Honors & Duties. The picture shows from left to right Amateur Radio Instructor, Alan Johnson, N1EJ; Tim Crawford, Master-at-Arms, American Legion; Brock Chandler, Scout; Edwin Stone, Scout; & Blane Stone, Scout. also in attendance were: Cheryl Stone, Scoutmaster; Sara Smith, parent; Peter McCrea, Amateur Radio Instructor, KC1IPZ; Ethan Smith, Scout & Al Sirois, N1MHC, Asst. Section Mgr. & Merit Badge Counselor BSA.

Peter McCrea lead the BSA Merit Badge training

covering Radio Wave Propagation. He brought a globe of earth and explained how radio signals are able to travel from Vancouver, BC around the world keeping in touch the progress of the singlehanded sailboat. Direct communications and relays from around the world cruising sailboat were continuing from Waldoboro, ME, Florida and another Ham in Canada. Peter McCrea is also an active sailor in his 36 ft sloop "Panacea" and lives in Thomaston, ME.

A very important part of the BSA Radio Merit Badge is understanding antennas and the frequencies of operation. Alan Johnson, N1EJ also did a fine job and demonstrated the "468 RULE". The Scouts were able to identify all the different types of antennas they were familiar with, and are now able to identify what frequency is been utilized at these different locations. Conversely, when designing & building an antenna for radio operations, Scouts will be able to find out just how long the wire antenna will operate at it's most efficient length.

Jamboree on the Air (JOTA) is a Boy Scout Activity completed once a year in a thousand locations all over the USA & Canada. This year it will be held the 3/rd week in October, and the location in Maine has not yet been determined. Al Sirois, N1MHC, also an Instructor explained his participation in a JOTA which took place at the Brunswick Naval Air Base in Brunswick, Maine where over 1000 Scouts participated. The Maine Amateur Radio Community supports this activity and provides Operator Controlled Stations, normally in tents, to facilitate Scouts to attain Radio Merit Badges completing the last phase requirement, making contacts with other Scouts in the USA & Canada.

It is very import to keep our youth in an organized, safe, challenging, and healthy environment. The Boy Scouts of America and Amateur Radio Relay League (ARRL), Newington, CT has been supporting this concept for many years. Under the Direction of Scoutmaster, Cheryl Stone, we welcome NEW Scouts or hope to become Scouts to weekly meetings, 6 PM at the American Legion Hall, 181 Jefferson St, Waldoboro, ME. For more information call Cheryl at 207-790-0696



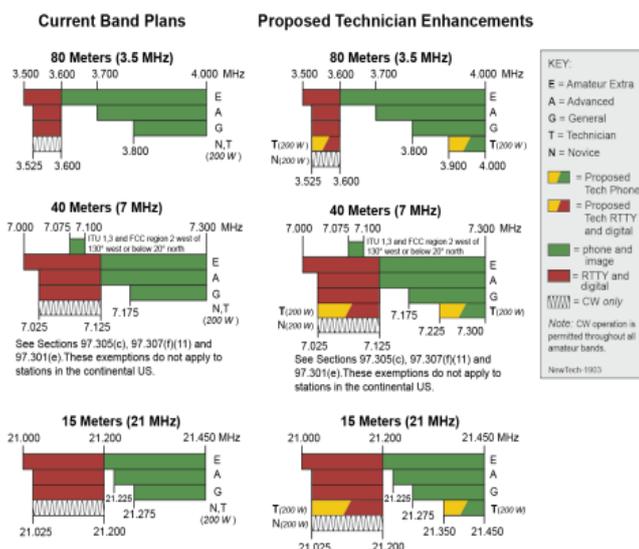
The Two "Entry-Level" Petitions Now Accepting Comments are Very Different

The FCC recently invited public comment on ARRL's 2018 Technician Enhancement *Petition for Rule Making* ([RM-11828](#)). It asks the FCC to expand HF privileges for Technician licensees to include limited phone privileges on 75, 40, and 15 meters, plus RTTY and digital mode privileges on 80, 40, 15, and 10 meters. It does *not* seek to create a new

on an entirely *unrelated* *Petition for Rule Making* ([RM-11829](#)), filed in 2017 by ARRL member Gary A. Hampton, AD0WU, of Longmont, Colorado. Hampton has asked the FCC to create a new "Tyro" entry-level license class, which would require a minimal online examination as well as mentoring by an Amateur Radio licensee of Technician class or higher. Tyro licensees would have to be at least 11 years old and would earn operating privileges on 99 channels in a 70-centimeter segment that Hampton calls a "TyroSubBand." It would offer no HF privileges.

These are *not* competing petitions. Members of the Amateur Radio community should evaluate both proposals on their own merits and comment if they desire. ARRL has provided [a summary of the Technician Enhancement proposals](#) and explained their advantages.

Interested parties have 30 days to comment on both proposals. For information on how to file comments, visit ["How to Comment on FCC Proceedings."](#)



Amateur Radio license class.

Specifically, ARRL proposes to provide present and future Technicians with phone privileges at 3.900 to 4.000 MHz, 7.225 to 7.300 MHz, and 21.350 to 21.450 MHz, and with RTTY and digital privileges in current Technician allocations on 80, 40, 15, and 10 meters.

The FCC has also invited public comment

