Volume 21, Issue 12

December 2025

THE AERO AERIAL

THE NEWSLETTER OF THE AERO AMATEUR RADIO CLUB

Meetings

DECEMBER 3 AND 17

Ham News

America250 WAS

From Steven Fook, K2EJ

The League is planning America250 WAS, a year-long, all-states operating event celebrating the 250th Anniversary (Semiquincentennial) of the signing of the Declaration of Independence. Steven will be the state coordinator for Maryland and DC, and will be handling the scheduling and collecting the logs to forward to the League. As of now, Maryland is scheduled to activate W1AW/3 from 5/6 - 5/12, and from 11/11 - 11/17. If you are interested in operating, contact Steven directly at steven@k2ej.com. Visit the event page for more information.

Events

Winterfest 2026

Date: 3/15/2026

Location: Vienna, VA

Sponsor: Vienna Wireless Society

Website: http://viennawireless.net/wp/winterfest/

Thawfest IV

Date: 4/11/2026

Location: Madison, VA

Sponsor: Greene County ARC

Website: https://www.arrl.org/hamfests/thawfest-iv

Delmarva Amateur Radio and Electronics Expo, ARRL Delaware State Convention

Date: 4/18/2026

Location: Georgetown, DE

Sponsor: Sussex Amateur Radio Association

Website: https://www.arrl.org/hamfests/delmarva-amateur-radio-and-electronics-expo-arrl-delaware-state-convention-1

More Ham News

Special Event Station K2K to Celebrate Krampusnacht

From Amateur Radio Daily

December 4-6: Special event station K2K will be on the air marking a very old European Alpine region holiday tradition that has gained popularity in recent years in the US: Krampusnacht! Look for one of the many Krampus calling stations on HF using CW and SSB, or on DMR/YSF/DSTAR - (see the QRZ.com listing). Read more

Resources for New Digital Voice Operators

From EvoHam

EvoHam.com recently launched as a resource for amateur radio operators interested in digital voice modes. The new site focuses on DMR, D-STAR, Yaesu Fusion, P25, NXDN, M17, and FreeDV with how-to guides, reviews, and tutorials. Learn more

Ho! Ho! Ho! Santa's on Ham Radio

From CQ Santa

Share the magic of Ham Radio and Santa Claus with your children, grandchildren, and neighborhood kids. Nets run till December 23. Check in here

Aero Club's 80th Anniversary in 2026

From Bob Landis, WA3SWA

We are looking to do a special event station for the Club's anniversary in the end of September or early October 2026. Looking to get the 1x1 callsign of W3P for the event. All QSLs and the certificates would be electronic. Members could work stations from home using the special event callsign in whichever mode they wish. We could set a radio at the Skypark for members to use that don't have home stations.

More Events

Octoberfest

Date: 5/2/2026

Location: Maugansville, MD

Sponsor: Antietam Radio Association

Website: https://antietamradio.org/

In case you missed it,


Volume 21, Issue 11 November 2025

THE AERO AERIAL

THE NEWSLETTER OF THE AERO AMATEUR RADIO CLUB

1 Ham News
2 Events
3 SKYWARN/ ARES/RACES
3 Training
4 Wings & Wheels
6 VE Corner
7 Contests
10 Nets
11 From the Skies Over Mt. Essex
12 About the Club

Meetings
NOVEMBER 5 AND 19

Halloween Pilot at Wings and Wheels

Ham News

Wings and Wheels 2025

From W3PGA
The club participated in the Wings and Wheels event at the Essex Sky Park again this year. Equipped with a booth and an HF antenna, members demonstrated ham radio operations for the community! Check out some of the highlights on pp. 4-5.

Aero Club's 80th Anniversary in 2026

From Bob Landis, WA3SWA
We are looking to do a special event station for the Club's anniversary in the end of September or early October 2026. Looking to get the 1x1 callsign of W3P for the event. All QSLs and the certificates would be electronic. Members could work stations from home using the special event callsign in whichever mode they wish. We could set a radio at the Skypark for members to use that don't have home stations.

W3PGA Middle River, MD 1

check out the November issue.

SKYWARN, ARES, RACES

SKYWARN® is a national network of volunteer severe weather spotters. The spotters are trained by local National Weather Service Forecast Offices on how to spot severe thunderstorms, tornadoes, hail and flooding. In some parts of the country, spotters also report snowfall and ice accumulation.

To learn more about SKYWARN® and how to become a spotter, click here.

Harford County ARES/RACES Group meets at the Harford County Emergency Operations Center in Forest Hill, MD, the first Thursday of each month, 7:00-9:00 p.m. Let them know in advance if you would like to attend, via email to Steven Fook (K2EJ), Harford County Emergency Coordinator.

To learn more about Amateur Radio Emergency Service (ARES) and Radio Amateur Civil Emergency Service (RACES), click here.

Training

SKYWARN® Classes

UPDATE 11/24/2025: The SKYWARN classes cancelled during the shutdown will be rescheduled over the next month. Given the upcoming holidays, most of these will be rescheduled for early next year (January-February). Thank you for your patience.

Radio License Exams

The Aero Amateur Radio Club sponsors Amateur Radio License Exams with the ARRL VEC. Examination sessions are offered throughout the year (dates TBD). Visit our new licensing page to prepare:

https://w3pga.net/getting-your-license/

W3PGA Exam Location

TBD

Contact

Patricia Stone, AC3F
email: ac3f@juno.com
landline: 410-687-7209

VE Corner
Pat Stone, AC3F

Next testing date TBD.

Other Maryland Test Sites
Confirm in Advance

12/2/25, 5:45 pm: Severna Park, register or call ahead

12/6/25, 2:30 pm: Catonsville, walk-ins allowed

12/13/25, 8:45 am: Forest Hill, register or call ahead

12/6/25, 9:00 am: Rising Sun, walk-ins allowed

12/13/25, 12:15 pm: Davidsonville, walk-ins allowed

12/13/25, 8:45 am: Forest Hill, walk-ins allowed

12/14/25, 3:00 pm: Rockville, register or call ahead

1/10/26, 2:30 pm: Catonsville, walk-ins allowed

1/11/26, 12:15 pm: Davidsonville, walk-ins allowed

1/14/26, 5:00 pm: Fort Washington, register or call ahead

1/17/26, 10:00 am: Rising Sun, walk-ins allowed

2/3/26, 5:45 pm: Severna Park, register or call ahead

2/7/26, 2:30 pm: Catonsville, walk-ins allowed

2/7/26, 9:00 am: Rising Sun, walk-ins allowed

2/14/26, 12:15 pm: Davidsonville, walk-ins allowed

3/3/26, 5:45 pm: Severna Park, register or call ahead

3/7/26, 2:30 pm: Catonsville, walk-ins allowed

3/14/26, 12:15 pm: Davidsonville, walk-ins allowed

3/21/26, 10:00 am: Rising Sun, walk-ins allowed

Contest Corral December 2025

Check for updates and a downloadable PDF version online at **www.arrl.org/contest-calendar**.
Refer to the contest websites for full rules, scoring information, operating periods or time limits, and log submission information.

Start - Finish				Bands	Contest Name	Mode	Exchange	Sponsor's Website
Date	Time	Date	Time					
2	0100	2	0300	3.5-28	ARS Spartan Sprint	CW	RST, SPC, pwr	**ars-qrp.com**
4	0000	4	0300	1.8	QRP ARCI Top Band Sprint	CW	RST, SPC, mbr or pwr	**qrparci.org**
4	0000	5	0300	7	Walk for the Bacon QRP Contest	CW	Max 13 WPM; RST, SPC, name, mbr or pwr	**qrpcontest.com/pigwalk40**
4	1800	4	2200	28	NRAU 10m Activity Contest	CW Ph Dig	RS(T), 6-char grid square	**nrau.net**
4	2000	4	2200	1.8-28,50	SKCC Sprint Europe	CW	RST, SPC, name, mbr or "none"	**www.skccgroup.com**
5	0100	5	0130	See rules	NCCC FT4 Sprint	Dig	4-char grid square	**www.ncccsprint.com**
5	0145	5	0215	3.5-28	Weekly RTTY Test	Dig	Name, SPC	**radiosport.world/wrt.html**
5	2200	7	1600	1.8	ARRL 160-Meter Contest	CW	W/VE: RST, ARRL/RAC Section; DX: RST	**www.arrl.org/160-meter**
5	0230	5	0300	See rules	NCCC Sprint	CW	Serial, name, QTH	**ncccsprint.com**
6	0000	7	2359	3.5-28	Kalbar Contest	Ph	RS, serial	**kalbarcontest.com**
6	0600	6	0800	7,14	Wake-Up! QRP Sprint	CW	RST, serial, suffix of previous QSO	**qrp.ru/contest/wakeup**
6	1200	7	1159	3.5-28	PRO CW Contest	CW	RST, serial, "/M" if mbr	**proradiocontestclub.com**
6	1400	7	1359	3.5-14,21	INORC Contest	CW	RST, club, mbr or serial	**www.inorc.it**
6	1800	7	2359	3.5-28	FT Challenge	Dig	Signal report, 4-char grid square	**www.rttycontesting.com**
9	1800	9	1859	3.5	DARC CW-Training Contest	CW	RST, DOK/"NM" or serial	**www.darc.de**
10	0130	10	0330	3.5-14	NAQCC CW Sprint	CW	RST, SPC, mbr or pwr	**naqcc.info**
12	0100	12	0130	See rules	NCCC FT4 Sprint	Dig	4-char grid square	**www.ncccsprint.com**
12	0145	12	0215	3.5-28	Weekly RTTY Test	Dig	Name, SPC	**radiosport.world/wrt.html**
12	0230	12	0300	See rules	NCCC Sprint	CW	Serial, name, QTH	**ncccsprint.com**
13	0000	14	2359	28	ARRL 10-Meter Contest	CW Ph	RST, state/province or serial	**www.arrl.org/10-meter**
13	0000	15	2359	1.8-7	PODXS 070 Club Triple Play Low Band Sprint	Dig	RST, SPC	**www.podxs070.com**
13	0600	14	1800	1.8-28	TRC Digi Contest	Dig	RST, serial, "TRC" if mbr	**trcdx.org/rules-trc-digi**
13	1200	14	2359	1.8-28,50	SKCC Weekend Sprintathon	CW	RST, SPC, name, mbr or "none"	**www.skccgroup.com**
13	1300	14	1359	3.5,7	ARI 40/80 Contest	CW Ph Dig	RS(T), 2-letter province code	**www.ari.it**
13	1600	14	1559	3.5-28	International Naval Contest	CW Ph	RS(T), club and mbr or serial	**www.marinefreunde.com**
14	2000	14	2300	1.8-28	QRP ARCI Holiday Spirits Sprint	CW	RST, SPC, mbr or pwr	**qrparci.org**
15	0100	15	0300	1.8-28	4 States QRP Group Second Sunday Sprint	CW Ph	RS(T), SPC, mbr or pwr	**www.4sqrp.com**
17	0130	17	0330	3.5-14	NAQCC CW Sprint	CW	RST, SPC, mbr or pwr	**naqcc.info**
18	0000	19	0300	14	Walk for the Bacon QRP Contest	CW	Max 13 WPM; RST, SPC, name, mbr or pwr	**qrpcontest.com/pigwalk20**
18	1900	18	2000	3.5-14	NTC QSO Party	CW	Max 25 WPM; RST, name, mbr or "NM"	**pi4ntc.nl**
19	0100	19	0130	See rules	NCCC FT4 Sprint	Dig	4-char grid square	**www.ncccsprint.com**
19	0145	19	0215	3.5-28	Weekly RTTY Test	Dig	Name, SPC	**radiosport.world/wrt.html**
19	0230	19	0300	See rules	NCCC Sprint	CW	Serial, name, QTH	**ncccsprint.com**
19	1600	19	1700	3.5,7	AGB-Party Contest	CW Ph Dig	Serial, name, QTH	**www.ev5agb.com**
20	0000	20	2359	1.8-28,50	Feld Hell Sprint	Dig	RST, mbr, SPC, grid	**sites.google.com/site/feldhellclub**
20	0000	20	2359	3.5-28	OK DX RTTY Contest	Dig	RST, CQ zone	**okrtty.crk.cz**
20	0000	20	2359	1.8-28,50,144	RAC Winter Contest	CW Ph	RS(T), province/territory, or serial	**www.rac.ca**
20	1400	21	1359	1.8-28	Croatian DX Contest	CW Ph	RS(T), 9A county or ITU zone	**www.hamradio.hr**
21	1800	21	2359	3.5-28	ARRL Rookie Roundup, CW	CW	Name, 2-digit year first licensed, SPC	**www.arrl.org/rookie-roundup**
21	2300	22	0100	1.8-28	Run for the Bacon QRP Contest	CW	RST, SPC, mbr or pwr	**qrpcontest.com**
24	0000	24	0200	1.8-28,50	SKCC Sprint	CW	RST, SPC, name, mbr or "none"	**www.skccgroup.com**
26	0100	26	0130	See rules	NCCC FT4 Sprint	Dig	4-char grid square	**www.ncccsprint.com**
26	0145	26	0215	3.5-28	Weekly RTTY Test	Dig	Name, SPC	**radiosport.world/wrt.html**
26	0230	26	0300	See rules	NCCC Sprint	CW	Serial, name, QTH	**ncccsprint.com**
26	0830	26	1059	3.5,7	DARC Christmas Contest	CW Ph	RS(T), DOK or "NM," serial	**www.darc.de**
27	1500	28	1500	1.8	Stew Perry Topband Challenge	CW	4-char grid square	**www.kkn.net/stew**
27	1500	28	1500	3.5-14	Original QRP Contest	CW Ph	RST, serial, pwr category	**www.qrpcc.de**
28	0000	28	1159	3.5-28	RAEM Contest	CW	See rules	**raem.srr.ru**
29	1000	29	2159	3.5-28	YOTA Contest	CW Ph	RS(T), age (avg age for multi-ops)	**yotacontest.mrasz.org**
29	1300	29	1400	1.8-28	QCX Challenge	CW	RST, name, SPC, rig	**www.qrp-labs.com**
29	1900	29	2000	1.8-28	QCX Challenge	CW	RST, name, SPC, rig	**www.qrp-labs.com**
30	0300	30	0400	1.8-28	QCX Challenge	CW	RST, name, SPC, rig	**www.qrp-labs.com**
31	0900	31	2359	3.5,7,28	Bogor Old and New Contest	Ph	RS, age	**contest.orari-bogor.org**

There are a number of weekly contests not included in the table above. For more info, visit: **www.qrpfoxhunt.org**, **www.ncccsprint.com**, and **www.cwops.org**. All dates and times refer to UTC and may be different from calendar dates in North America. Contests are not conducted on the 60-, 30-, 17-, or 12-meter bands. Mbr = Membership number. Serial = Sequential number of the contact. SPC = State, Province, DXCC Entity. XE = Mexican state. Listings in blue indicate contests sponsored by ARRL or *NCJ*. The latest time to make a valid contest QSO is the minute listed in the "Finish Time" column. *Data for Contest Corral is maintained on the WA7BNM Contest Calendar at* **www.contestcalendar.com** *and is extracted for publication in* QST *2 months prior to the month of the contest. ARRL gratefully acknowledges the support of Bruce Horn, WA7BNM, in providing this service.*

Margie Bourgoin, W1MRG, events@arrl.org; www.arrl.org/special-event-stations

Special Event Stations

Working special event stations is an enjoyable way to help commemorate history. Many provide a special QSL card or certificate!

Nov. 18 – Nov. 22, 0000Z – 0000Z, K9UXZ, Effingham, IL. National Trail Amateur Radio Club. **K9L Club 66 Years Celebration**. 1.975 7.235 14.235. QSL. National Trail Amateur Radio Club, P.O. Box 903, Effingham, IL 62401. *Call may change*. **byroncordes@icloud.com**

Nov. 21 – Nov. 22, 0000Z – 2359Z, WØW, Hattiesburg, MS. Pine Belt Amateur Radio Association. **In Support of University of Southern Mississippi Annual Pow-Pow**. 7.033 14.033 14.260; digital any band. QSL. N5CW, P.O. Box 52, Petal, MS 39465. **www.qrz.com/db/w0w**

Dec. 1 – Dec. 7, 0000Z – 2359Z, W2MM, Sandpoint, ID. Quarter Century Wireless Association, Inc. **QCWA Anniversary Special Event Activity**. CW: 3.540 7.035 14.040 21.050 28.050; SSB: 3.810 7.244 14.262 21.365 28.325; FT8/FT4. Certificate. QCWA Activities Manager, 1613 Poplar St., Sandpoint, ID 83864-2081. **activitiesmanager@qcwa.org**

Dec. 1 – Dec. 11, 1300Z – 2200Z, W2W, Hunt Valley, MD. Amateur Radio Club of the National Electronics Museum. **W2W Pearl Harbor Day Commemoration**. 7.041 7.241 14.041 14.241. Certificate & QSL. ARCNEM, 338 Clubhouse Rd., Hunt Valley, MD 21031. Primary operation will be Dec. 1 – Dec. 7 with additional operation possible during the Dec. 8 – Dec. 11 period as operator availability permits. Operation on 80 meters (3.541, 3.841) and digital modes possible during event. **https://ww-2.us**

Dec. 6, 0000Z – 2359Z, W9WWI, Bethlehem, IN. Clark County Amateur Radio Club of Indiana. **Christmas in Bethlehem**. Local repeater (W9JBQ) 146.850 (no tones). 7.2. Certificate. Clark County Amateur Radio Club, P.O. Box 201, Sellersburg, IN 47172. **www.clarkcountyarc.org**

Dec. 11 – Dec. 14, 1400Z – 2200Z, WX3MAS, Nazareth, PA. Christmas City ARC. **Extending Christmas Greetings to the Amateur Radio Community Since 1969**. 3.850 7.270 14.265. QSL. WX3MAS c/o DLARC, 14 Gracedale Ave., Nazareth, PA 18064. **www.dlarc.club**

Dec. 13, 1700Z – 2359Z, NI6IW, San Diego, CA. USS *Midway* Museum Ship. **Pearl Harbor Remembrance Day**. 7.250 14.320; 14.070 PSK31; D-STAR on PAPA System Repeaters. QSL. USS *Midway* Museum Ship COMEDTRA, 910 N. Harbor Dr., San Diego, CA 92101. **www.qrz.com/db/ni6iw**

Dec. 13, 1430Z – 2200Z, K3S, Port of Baltimore, MD. Nuclear Ship *Savannah* Amateur Radio Club. **Ike's Atoms for Peace Anniversary**. 7, 14, 18, 21, 28. Certificate. Ulis Fleming, 980 Patuxent Rd., Odenton, MD 21113. *Check spotting networks for frequency*. **www.qrz.com/db/k3s**

Dec. 19 – Dec. 24, 1500Z – 2359Z, KC5OUR, Peralta, NM. Valencia County Amateur Radio Association. **Christmas in Bethlehem, New Mexico**. 7.183 14.283 21.283 28.383. QSL. VCARA, P.O. Box 268, Peralta, NM 87042. **www.kc5our.com**

Certificates and QSL cards: To obtain a certificate from any of the special event stations offering them, send your QSO information along with a 9 × 12-inch self-addressed, stamped envelope (3 units of postage) to the address listed in the announcement. To receive a special event QSL card (when offered), be sure to include a self-addressed, stamped business envelope along with your QSL card and QSO information.

Special Events Announcements: For items to be listed in this column, use the ARRL Special Events Listing Form at **www.arrl.org/special-events-application**, or email information to **events@arrl.org**.

Submissions must be received by ARRL HQ no later than the 1st of the second month preceding the publication date; a special event listing for **March** *QST* would have to be received by **January 1**. In addition to being listed in *QST*, your event will be listed on the ARRL Web Special Event page. Note: All received events are acknowledged. If you do not receive an acknowledgment within a few days, please contact us. ARRL reserves the right to exclude events of a commercial or political nature.

You can view all received Special Events at **www.arrl.org/special-event-stations**.

Strays

Improve Your Morse Code Skills with Morsle

Practice your Morse code with Morsle, a free game available at **https://morsle.fun**. Each day you will be provided with a word played out loud in Morse code. You have 21 tries to decode the word. Playback starts at 40 WPM and decreases by 5 WPM every three tries. The display will indicate if you guess a letter in the correct spot. You can adjust the tone frequency from 400 – 800 Hz. The game keeps track of your win rate, current streak, and best streak.

A practice mode is also available, where you can select the starting speed and practice words or call signs.

Morsle was developed by Rockwell Schrock, WW1X, on behalf of Remote Ham Radio. Morse code generation is provided by jscwlib, by Fabian Kurz, DJ5CW.

Dave Casler, KEØOG, askdave@arrl.org

Ask Dave

Get more information from the "*QST:* Ask Dave" YouTube playlist at **https://bit.ly/3z2MBMI**.

Antennas and Feed Lines

When to Get an Amplifier

Q Brandon Godsell, KQ4ZUT, asks: I am a new General-class licensee running a Kenwood TS-120S. I've made several DX contacts, and I keep getting 5 × 5 reports. A ham friend gave me a homebrew RF amplifier and power supply. Do you think it would be worthwhile to try them?

A The general rule of thumb is, if you hear stations that cannot hear you, you may want to look at an amplifier. Otherwise, look at updates to your antenna, such as replacing a dipole with a hexbeam.

If the DX stations are hearing you and giving you a 5 × 5 report, that simply means they hear you fine but you're not as strong as the high-power stations with their legal-limit amplifiers, tall towers, and 10-element Yagis. So, a 5 × 5 report (the first 5 is the maximum for readability; the second 5 means medium signal strength) is a perfectly good report — your 100 W Kenwood got through just fine. The fact that you caught the DX station at all means that your DXing technique is great! I would say your next upgrade might be a higher-gain directional antenna.

If your friend gave you a homebrew amplifier, it is probably tube-based. Here are a few things to consider. First, be very careful with the high voltages — they can be lethal! Second, make sure that the input impedance is 50 Ω resistive; if not, you may need to put an antenna tuner between your transistor rig and the tube amplifier to match impedances and get the standing wave ratio (SWR) down to 1:1. Note that this may require different adjustments on different bands. Third, learn what the amplifier's push-to-talk circuit requires, as it might be more than your Kenwood can supply. Tube amplifiers with older designs can ask more of transistor rigs than they are designed to provide. You may have to put a keying relay in the circuit. Talk to your benefactor about these concerns. Good luck with your future DXing!

Stacking Antennas on Towers

Q Woody Morton, W5RMI, asks: What is the spacing distance for a hexbeam antenna and a 40-meter Yagi on a tower?

A There's no hard-and-fast rule. I'd put the hexbeam on top, maybe 5 feet above the beam. Note that the Yagi will act as a bit of a ground plane for the hexbeam, so there might be some subtle changes to the hexbeam's pattern. When you're rotating the hexbeam, you're also rotating the 40-meter Yagi. The Yagi is rather ponderous and requires a sturdy rotator, so keep this in mind as you rotate the hexbeam. I'd also feed the Yagi and the hexbeam with separate feed lines.

DC vs RF Shorts

Q Jim Kelley, N8YDM, asks: The coaxial cable to my end-fed half-wave (EFHW) antenna shows a direct current (dc) short between the center conductor and the shield. Is this normal?

A Yes, absolutely. EFHW antennas are just as described: fed at the end. The antenna impedance is the ratio of the voltage to the current (including the phase difference) at the feed point. It's low in the center of the dipole, on the order of 30 – 75 Ω; however, it's quite high at the ends. Many EFHW designers find that 2450 Ω provides a good match. An impedance transformer of 49:1 is most often used, which is actually a turns ratio of 7:1. The schematic is shown in Figure 1.

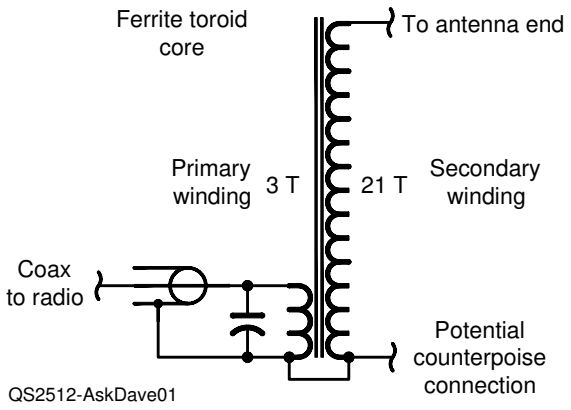

Figure 1 — A standard schematic for the unun transformer used for EFHW antennas. The grounded ends of each winding are attached together to use the outside of the coax shield as the counterpoise. You can attach an additional counterpoise if needed. The small capacitor is connected across the input to help reduce the inductive reactance.

You'll see that the input inductor is connected directly across the feed line. This serves to provide a dc short, which is what you're measuring. At RF, however, this will be an impedance that your rig's built-in antenna tuner can handle easily.

An EFHW Antenna Needs Space

Q Pete Langevin, K1PML, asks: Can I coil the end of an EFHW antenna if I don't have room to extend it fully? I will be using an MFJ-1982MP, which is 120 feet long and fed by a 49:1 balun, along with a Xiegu G90 transceiver with its built-in antenna tuner. I have limited space. My plan is to wrap the excess coil around a length of PVC pipe. Is this workable, or should I just cut the wire to fit the room I have available and let the antenna tuner do its thing?

A The short answer is "no." The antenna needs to be extended its entire length to work at all. Shortening it as you suggest will throw the impedance of the various bands so far out of whack that even a wide-range tuner will not be able to transfer much power to it.

However, there is a solution: The entire 120 feet does not need to run in a straight line. Build the antenna as a straight line for as far as you can, then make a bend (ideally 90 degrees or less) and extend the rest in a different direction. Yes, this makes for a compromise antenna, but not by much. The pattern will be slightly affected, but your gain will be about normal on all bands.

I modeled two cases in *EZNEC* — first, a straight wire at a height of 30 feet (good near vertical incidence skywave height); next, the wire stretched to 100 feet, with the remaining wire bent to the right by 90 degrees for the same total length. The elevation slices were nearly identical. The azimuth slice in the bent case rotated the pattern right by 8 degrees. At this height, the 80-meter portion of your EFHW has a nearly omnidirectional pattern with only a 3 dB loss (half an S-unit) broadside to the antenna, as shown in Figure 2. The bottom line is that you can create bends in the antenna to keep it within your backyard.

Unusual Antenna

Q YouTube user Rbh1151 commented on Ask Dave Video 808, "Counterpoise for Long Wire Antenna." He asks: I did much experimentation, as you suggest, to get an EFHW to work on 160 – 6 meters. 160 and 80 were my biggest problem, as my 107-foot wire is kind of short for those bands. A 9:1 unun with a 120+ feet counterpoise running off at a 90-degree angle and

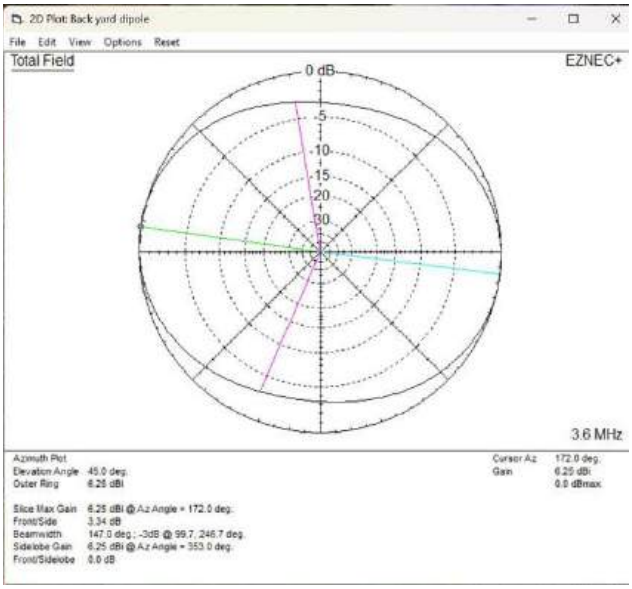

Figure 2 — An *EZNEC* azimuth plot of an 80-meter antenna at 30 feet elevation stretched out to 100 feet and then bent sideways at 90 degrees for a further 32 feet. The azimuth plot shows that the dipole's radiation pattern is shifted slightly in the same direction as the dipole's bend, but the antenna at this height is nearly omnidirectional anyway. The plot is taken over real ground.

downhill away from the antenna did the trick for me. I added a choke just before the coax entered the unun to help keep the coax out of the antenna system, and another choke right before the ground rod. Every band requires the rig's internal tuner, but all bands tune fine and make contacts well. Could you call this a random wire dipole?

A Random, yes; dipole, no. A "standard" EFHW 80 – 10 antenna is about 130 feet long, fed at the end with a 49:1 unun. The coax shield operates as the counterpoise. This requires the coax shield to be convincingly connected to ground prior to running into your station. That's the way I set them up — I have one set up that way for use as a ZachTek WSPR beacon that sends out beacon signals on 80, 40, 30, 20, 17, 15, 12, and 10 meters. The usual definition of a random (or long) wire antenna is one that is several wavelengths long.

You have an interesting assembly of radiating elements along with the 9:1 unun, and I'm pleased to hear it works!

Send your questions to **askdave@arrl.org**. I answer some questions here, and some via videos on my YouTube channel (**www.youtube.com/davecasler**), or during my weekly livestream on Thursdays at 6:45 to 8:15 PM Mountain Time on my channel.

Club Nets

Second Wednesday Net

70 Centimeters (449.575 MHz Repeater) @ 8 p.m. Local Time

Fourth Wednesday Net

2 Meters (147.24 MHz Repeater) @ 8 p.m. Local Time

Fifth Wednesday Net

10 Meters (28.445 MHz) @ 8 p.m. Local Time

CW Sunday Net

2 Meters (146.550 MHz simplex) @ 8 p.m. Local Time

Net Reports

440 Net Report, From Joe Miko, WB3FMT

Held on November 12, 20:00-20:13, with three participants:

W3PGA	NCS	Joe	Essex
KB3VAE		Richard	Essex
KB2QWC		Larry	Middle River

Vecteezy

Local Area Nets

Day	Time	Freq. (MHz)	Net Name
Daily	9 – 10 am	146.670	Oriole Net
Daily	6 pm	3.820	Maryland Emergency Phone Net
Daily	6:30 – 7 pm	146.670 PL 107.2	Baltimore Traffic Net
Daily	7 pm & 10 pm	3.557 CW	MD/DC/DE Traffic Net
2nd Tue	7:30 pm	146.670	Baltimore County RACES Net
2nd & 4th Tue	7 pm	146.775, (-) PL 146.2	Harford County, MD, ARES
3rd Fri	8 pm	WASH_DC Node 6154	MDC Section EchoLink
When activated by NOAA		147.030	SkyWarn (primary)

Volume 21, Issue 12 December 2025

From the Skies Over Mt. Essex

For current solar activity, visit https://www.solarham.com/

SKY Events for December 2025

	Time EST	EST – GMT 5
Dec 03	21:54	Pleiades 0.8°S of Moon
04	06:06	Moon at Perigee: 356962 km
04	18:14	FULL Oak MOON
07	10:48	Jupiter 3.7°S of Moon
07	11:21	Pollux 2.9°N of Moon
07	16	Mercury at Greatest Elong: 20.7°W
10	01:32	Regulus 0.8°S of Moon
11	02:35	Moon at Descending Node
11	15:52	LAST QUARTER MOON
14	02	Geminid Meteor Shower
14	11:27	Spica 1.4°N of Moon
17	01:09	Moon at Apogee: 406324 km
18	07:29	Antares 0.4°N of Moon
19	20:43	NEW MOON
21	10:03	Winter Solstice
22	11	Ursid Meteor Shower
25	17:03	Moon at Ascending Node
26	22:24	Saturn 4.0°S of Moon
27	14:10	FIRST QUARTER MOON
31	08:21	Pleiades 0.9°S of Moon

Planet Lookout at Mid-Month

Sunrise 07:18 EST and Sunset 16:43 EST

Mercury Evening Rises 05:41 Sets 19:35, Mag +0.5, and Size 8.7 Arc Sec.

Venus Morning Rises 06:55, Sets 16:21 Mag -3.9 and 9.9 Arc Sec.

Mars Evening Rise 07:51 Sets 17:05, Mag +1.3 and 3.9" Arc Sec.

Jupiter Morning Rises 18:47 Sets 09:27, Mag-2.6 size 45.6.4" Arc Sec.

Saturn Evening Rises 12:24, Sets 00:05, Mag+1.1 size 17.6" arc sec.

Uranus Morning Rises 15:00, Sets 06:24, Mag +5.6 size 3.7"

Neptune Morning Rises 12:29, Sets 00:26, Mag +7.9 size 2.5

Solar System by the Numbers! 11/20/25

The following is a contrast in years, numbers and technology. In 1955 President Dwight Eisonhower was the 34th President from 1953 thru 1961. The U.S.'s first satellite mission was the launch of Explorer 1 on January 31, 1958, which was the first successful orbital satellite for the United States. The mission was a response to the Soviet Union's launch of Sputnik 1 and was designed to study cosmic rays, leading to the discovery of the Van Allen radiation belts. Under Eisenhower's guidance the National Aeronautics Space Administration (NASA) was created on July 29 1958. The U.S. has launched over 8,500 satellites and space probes to other planets.

Since the mid-50's some 70 years ago our own Solar System has grown by leaps and bounds.

Now for the Numbers: Then 1955 and now 2025.

Planets	Moons	Planets w/Moons
9	31	6

Planets w/Rings
1 (47)

In 2025, 75 years later.

Planets	Moons	Planets w/Moons
8	288	6

Dwarf Planets*	Planets w/Rings
5 & 8 Moons	4 (319)

Pluto was demoted to a Dwarf Planet in 2006.

About the Aero Amateur Radio Club

Officers		Committees	
President	Joe Miko, WB3FMT	*Repeater*	Phil Hock, W3VRD Ken Erisman, NE3A Dave Brunner, AC3EO
Vice President	Rob Ballou, AE3B	*VE Testing*	Pat Stone, AC3F
Recording Secretary	Larry Hill, KB3QWC	*Public Service*	Bob Landis, WA3SWA
Corresponding Secretary	Pat Stone, AC3F	*Webmaster, Facebook*	Rob Ballou, AE3B
Treasurer	Tom Hawkins, WA3QLY	*Trustee*	Dave Frederick, KB3KRV (W3PGA) Jim Marshall, KC3FBL (AE3RO)
Resource Coordinator	Ron Distler, W3JEH	*Club Nets*	Joe Miko, WB3FMT
		Contests	Harry Rundall, AC3EK
Newsletter Editor	Cathy Feinman, W3CLF		

Aerial archives dating to 2004 are available at https://w3pga.net/the-aerial-newsletter-library/

Website: http://w3pga.net

Facebook: https://www.facebook.com/W3PGAClub

Email: w3pgaclub@gmail.com

Meetings

We meet via Zoom at 7:00 PM ET (channel will open around 6:00 PM).
Check your email for the link or inquire at w3pgaclub@gmail.com.
All are welcome to attend. Arrive early to socialize.

W3PGA	**2 M**	INPUT: 147.84 MHz, OUTPUT: 147.24 MHz, PL 123.0
W3PGA	**70 Cm**	INPUT: 444.575 MHz, OUTPUT: 449.575 MHz, PL123.0
W3JEH	**1.25 M**	INPUT: 222.24 MHz, OUTPUT: 223.84 MHz