

Clallam County Amateur Radio Club



Volume 25 Issue 2

February 2025

President's Corner

February 2025

Outreach

One of the core activities that Sheldon emphasized last year and that I want to continue is OUTREACH, getting the club more involved with our community and, in return, making them more aware of us and how we impact our community.

Emergency Communications

One obvious area for outreach is emergency communications. In partnership with Clallam County ARES, we provide valuable communications services, particularly in the less populated western parts of the county. Unfortunately, because ARES has the operational responsibility during an emergency, the club gets little recognition for the role we play in providing and maintaining the repeater network on which ARES operates. We will work with CCARES to raise community awareness, through local press, radio, and event participation, of the services both organizations provide.

Education

Many clubs have highly active and successful partnerships with local schools and home-schooling groups. (cont upper right)

This not only gets us recognition but exposes new generations of potential hams to our hobby. We can provide both demonstrations of ham operations and hands-on activities in which groups of students could participate. A good example of the latter is the antenna building workshop that we held last year, coupled with a foxhunt for the students (cont next page)

CCARC Hybrid Meeting Jan 8th 1900L. Meetings are held at The First United Methodist Church Social Hall at 7th and Laurel in Port Angeles. Enter via the covered walkway on Laurel.



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(con from previous page) that participate. Low-cost hands-on activities such as this could be set up as standard packages and offered to interested groups. We could even involve community organizations as sponsors so that there would be little or no cost to the students.

Events

Along with the club's annual field day, which we plan to publicize more heavily this year, we can participate in other events such as the Clallam County Fair, Sequim Safety Day, the Lavender Festival and others. A small booth, POTA setup and suitable handouts could significantly raise awareness of the club.

In addition, some events already use amateur radio through CCARES to supplement event communications. Since we provide the repeater network, it should not be a problem to display joint CCARES/CCARC signage at events to raise awareness. The only cost to us would be sign production.

Summary

These are just a few suggestions. I am sure that you can come up with many more. Please let me know your thoughts through Groups.io. Remember that the success of any outreach efforts will require member participation.

I will be making specific requests at next week's board meeting, which all members are invited to attend online (Check the calendar at the club website for the link). Hopefully we will see you there.

John DeVries, President

KK7PJL

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CLALLAM COUNTY AMATEUR RADIO CLUB
MEMBERSHIP MEETING
January 2025

Attending:

Officers & Board: See Roster

At Approximately 1900 Called to Order by John DeVries KK7PJL.

Old Business:

Motion and Second to approve meeting minutes as published in Newsletter, passed unanimously.

Treasurer: 3 CD's \$3,289.32, Checking \$5,944.49, Savings \$16,092.58 (Total \$25,326.39)

New Business:

WARRA: Narrow banding in Western Washington Repeater Systems, Club Tech committee will evaluate outcome (WARRA voted in narrow band). Group discussion about the Cons (not any pros for our location).

President John presented his 2025 Public Relations Plan, and how to increase membership, generate interest and overall increase the activity and revenue of the Club. Discussion of ideas, Kitsap ARC and the trailer project.

Member Next Wednesday February 12.

Motion to adjourn at approximately 1932, unanimously carried.

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Respectfully Submitted,
Jeramey Johnson, KF7PMC
Secretary/Treasurer

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Upcoming Events

Club meeting PA First United Methodist Church, February 12th 1900

Social Breakfast Cruise In, PA, February 15th, 0900

Mike & Key Swap Meet, March 8 2025

June 28-29, 2025 Field Day - Probably back to the Fairgrounds.

Trivia

1. Her call-sign is K5PSG, her name is Peggy Sue, and her then-boyfriend wrote a song about her. Who was this famous early rock and roller?
2. Where would you tune for a signal that has the same numeric value of frequency in MHz and wavelength in meters
3. What is a "lid" in ham radio lingo?

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Member Bio

Your bio could go here.....



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Answers to Trivia Questions

1. Answer: Singer Buddy Holly wrote a classic 50's song "Peggy Sue" about his Texan girlfriend, which peaked at number 3 on the Billboard singles chart.

2. Answer: 17.320508 MHz = 17.320508 meters

3. Answer: A poor operator. No one can really say from where the term originated but to be called a lid is generally the ultimate insult. An unlicensed operator is called a variety of things - pirate, bootlegger, slim, but he may operate respectfully otherwise so not qualify as a true "lid".

MISCELANOUS

Equipment For Sale

Icom 746 Pro, Power Supply and Speaker \$800

2 ea MFJ 259 SWR Meter(s)

1 Bird 43 Thruline SWR Meter

Bob Sampson, K6MBY 360-477-0776

Raffle

A raffle will be held with \$1.00 tickets. Winner gets 50%. The Church gets a 50% donation for the use of the Social Hall. Hoping for at least a \$50 donation to the Church.

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Officers and Board Members

President John DeVries KK7PJJ	Vice President Sheldon Koehler N7XEI
Secretary Jeramey Johnson KF7PMC	Treasurer Jeramey Johnson KF7PMC
COB Mike Barnes N7WPO	2nd Year Bob Sampson K6MBY
3rd Year Thomas Clark N7DWU	Trustee Chuck Stroehrer WA7EBH

Local Nets and Repeater Frequencies

CCARC Net every Thursday at 7:00 pm on Striped Peak Repeater 146.760 minus with tone 100 Hz.

Clallam ARES Net Tuesdays at 7:00 pm on Striped Peak Repeater 146.760 minus with tone 100 Hz.

Olympic Peninsula DMR Sunday afternoon 4:30 pm Talk Group 31531 on K6MBY DMR TS1, or KC7EQO DMR TS1 or your local hotspot.

WF7W - Port Angeles - 145.310 minus tone 100 Hz. .

KC7EQO - Dual Mode - Blyn Lookout 442.100 plus tone 100 Hz and DMR CC1 on Time Slot one and two.

K6MBY/W6MPD - 444.900 plus. K6MBY (Sequim) tone 131.8 Hz. W6MPD (PA) tone 102.7 Hz. W6MPD -

New Or Returning Members

Welcome!!

Scott Witt - KM6NQB

Neil Van Blaricom - N7HBV

Ivan Welch - AA7KK

Mark Seward - KH6FU

Bryon Gunnerson—WB0CZA



Newsletter Editor... Long ago Chuck Jones (SK), N7BV, and I did the newsletter by alternating months. I ran with this months newsletter as the Board has not sought out a new Editor. If you would like the opportunity to give the editor position a try, give me a call or email. Bob Sampson 360-477-0776.

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CCARC Standing Committees

Field Day: Vacant

Health and Welfare: [Lee Bond, N7KC](#)

Membership Chair: [Lee Bond, N7KC](#)

Net Coordinator: [Lee Bond, N7KC](#)

Program Committee: Vacant

Public Relations: [John DeVries, KK7PJL](#)

Publications (Newsletter): [Bob Sampson, K6MBY](#)

Technical Committee Coordinator: [Chuck Stroehler WA7EBH](#), [Doug Welcker WB4KGY](#), [Ed Bowen N7OZZ](#), [Bill Peterson K7WWP](#)

VE Education and Training: [Rick DeWitt AAORD](#) (ARES)

Web Site Administrator: [Bill Peterson K7WWP](#)



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This month has seen a flurry of interest in End Fed Antennas. The following articles were submitted.....

Submitted by Carole Woods, KC7CW

End Fed Antennas.....

I should have, but have not focused on antennas and am woefully ignorant of them. I know I should get and study the ARRL Antenna Book. I do, nevertheless, have an end-fed antenna.

I have had an Icom AH-4¹ since 2005. I bought it to use with the back stay of our boat. Not knowing any hams, I just tuned around and found very little and was afraid to transmit, so that was it. Then we had our standing rigging replaced by Port Townsend Rigging in 2007 and though we asked them to put the insulators in the same place they did not. After that I couldn't transmit because the insulated part of my back stay was shorter than the minimum 23 feet required for the AH-4 on 80-10 meters. We moved ashore in 2013. Bob Sampson (K6MBY) and Earnie Rader (W5NH) came over and shot a line over a neighbor's tree and I got my AH-4 attached to a wire. At first the AH-4 was attached to my house outside under an eave. It worked but caused RFI in my shack. So now it is at the top of a pole about 30 feet away from my radio.

I simply do not know how long my wire is ... and I should. There are some lengths one should avoid with the AH-4 and I haven't checked to see if I'm close to any of them. My wire is up maybe 20 ft. so I guess it is an NVIS antenna. My neighbor's tree fell down so now both ends are supported by aluminum poles. The far end is rigged with a pulley (or block as a sailor would call them) and a little pot with a rock in it so if the poles sway the pot goes up and down and the antenna stays reasonably tight. It has been like this several years. I am astounded that my AH-4 continues to work so well. I use long UV-resistant line to support everything - similar to the stays on a gaff-rigged mast. I guess most people would say that is ugly, but my neighbors do not complain.

I also have a Hustler 5BTV vertical (also thanks to Bob) so my wire with the AH4 is mainly for 80M. I have worked Asia and Europe and some islands off Australia with this set-up. My Elmer, Mark, K7NEW, really encourages me to do cw contesting. I am reluctant because I have trouble copying at 30 WPM and worry that I am not responding correctly. Still, I seem to get around 10-30 QSOs, most or all confirmed, per contest. I also check in to the WSEN and EOC2EOC nets on that wire on Saturday mornings. (continued next page)

Carole

KC7CW

¹ An AH4 is a 12v DC powered outdoor remote antenna tuner, not to be confused with a fixed matching unit. The AH4 takes the tuner out of the shack and places it right at the antenna feed point. The feedline back to the shack has very little loss due to SWR as it is tuned out by the AH4.

The Care and Feeding of an End Fed Antenna

OK, so we are hearing more and more about AI. Lots of us have used it for a variety of projects. Matthew Lawson, KC7EQO, posed this question to GROK 2 AI engine at X. "Write an article on the care and feeding of an end fed antenna." Below is the GROK response. Editor....

End fed antennas are beloved for their simplicity and versatility, particularly in scenarios where space or support structures are limited. However, to ensure optimal performance, there are several aspects to consider regarding their construction, installation, and maintenance. Here's a comprehensive guide on how to manage end fed antennas effectively.

Antenna Length Considerations

Optimal Lengths:

The length of an end fed antenna should ideally be non-resonant across the desired frequency bands to avoid high SWR (Standing Wave Ratio). For a multi-band operation, lengths like 29 feet, 41 feet, or 58 feet are often recommended as they tend to provide a better match across several amateur radio bands without being a quarter or half wavelength on any one band. For instance, 29 feet might work well for 40m to 10m bands.

Lengths to Avoid:

Avoid lengths that are resonant or close to being a quarter wave or half wave at your primary operating frequencies. For example, 33 feet (quarter-wave for 40m) or 66 feet (half-wave for 40m) can lead to high impedance mismatches and inefficiencies. These lengths can

make it difficult to achieve a good match with your transceiver's output impedance.

Balun and Unun Size

The balun (or unun for unbalanced to unbalanced transformation) commonly used in end fed antennas is crucial for matching the high impedance at the antenna's feed point to the 50 ohm coaxial cable. A 9:1 unun is popular for these applications, reducing the high impedance to a more manageable level for your equipment. The size and type of the core used (like FT240-64) should be chosen based on the power levels you plan to use, with larger cores being better for higher power to prevent saturation and overheating.

Feedline Length and Considerations

Length: While there's no strict requirement for feedline length, in practice, it's beneficial to use lengths that are not resonant. This avoids turning the feedline into part of the antenna system, which could lead to radiation from the coax. A common practice is to use lengths that are not even multiples of quarter wavelengths at your operating frequencies.

Why: The feedline can serve as a counterpoise if no separate counterpoise is used, but this can introduce RF into the shack, hence the importance of using a choke to manage this.

Chokes for RFI Management

Common Mode Chokes: To prevent common mode current from flowing back into your equipment, which can cause RF interference (RFI), you should install a choke at the feed point or where the feedline enters the shack. A simple choke can be made by coiling the coaxial cable around a ferrite core or using a commercial choke balun. (cont next page)

(continued from previous page) The choke helps to block unwanted currents on the outside of the coax that could lead to RFI issues.

RFI and Noise Reduction

Noise: End fed antennas can be prone to picking up noise from the surroundings, especially if the feedline or the antenna itself is close to sources of interference. Using a counterpoise or ensuring good grounding can help, but the most effective method is often the strategic placement of chokes to isolate the antenna from noise sources.

RF in the Shack: If you experience RF feedback in your operating environment, consider using additional chokes or adjusting your counterpoise length. Sometimes, even a small counterpoise (like 0.05 wavelengths) can significantly reduce shack RFI by offering a path for the RF other than through your equipment.

Maintenance and Care

Regular Check-ups: Inspect your antenna periodically for signs of wear, particularly at connections and where it's suspended.

Weather Protection: Ensure that all connections are weatherproofed, especially if you're using a balun or unun which might be exposed to the elements.

Tuning: If you're using an antenna tuner, recalibrate it as needed when you change bands or if you notice performance degradation.

End fed antennas, when properly installed and maintained, can be an excellent choice for both portable and fixed station operations. By understanding the nuances of length, feedline management, and RFI control, you can maximize their effectiveness and enjoy a wide range of frequencies with minimal hassle.

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End Fed Long Wire Observations by Dale Fiorillo

PAST: For 60 yrs I had 50 ohm beams and dipoles antennas only. Had to tune transmitter for every frequency change.

PRESENT: Moved to Sequim. No room for any HF antenna. After much research I put 200 feet of wire on the roof in a very big U-shape. It was suspended on 10" pipe nipples screwed into a pipe flange, and then screwed into the roof. At the feed point there is a 9:1 UNUN, then 75' of coax into the shack, where an LDG auto-tuner reduced the remaining mismatch and fed a Yaesu transceiver. This worked for a few years, then I read the fine print in the tuner manual, it said to limit digital power to 30Watts ☹️ Not acceptable. So I did a lot more research to justify a bigger tuner. First thing I learned was that a 'tuner' is in the shack and its job is to present the radio with a 50 ohm load. Whereas a 'coupler' resides at the feed point, meaning that all the tuning components are remote controlled. The end fed wire is tuned **before** the feedline is introduced. You still must decide if your EFLW is going to be resonant on one band, or if you want multi-band resonance. For either tuner or coupler to work multi-band the wire must not be resonant on any band. (re-read that) There are scores of formulas to determine this length, and there is great disagreement on which works best. You really need an antenna analyzer to determine what your antenna specifics are. Seventy two feet seems to be a popular number lately, subject to your specific installation configurations.

Here is a good article by SGC: Google: [Smartuners for stealth antennas](#)

After comparing the problems of auto-tuners to manual, I picked a manual, a Palstar AT2KD. Handles 2KW, and covers 6M to 160, and only two tuning knobs instead of the usual three, and many useful features. Fast, simple, and very solid. All my finals are happy, and "a happy final is a happy life."

FUTURE: Knowing I would be switching to a flagpole vertical in a few years I learned it requires a coupler, so I had a good one ready. Then the company went out of business.

Dale Fiorillo

K7MPZ