



"THE REPEATER"

Thursday May 1st
2025

vol.3

EVENTS and DATES

May P.O.T.A Fest
Saturday-May 24th
After last month's successful event, Kirk and Nick are up to it again. Come see and be seen!

QTH-Maud Williamson Park
22900 Wallace Rd NW, Salem,
OR 97304
8am-12pm
[45°05'43.0"N 123°04'01.8"W](#)

SEA-PAC HAM CONVENTION

MAY 30th-JUNE 1st

QTH-Seaside, Oregon
Notheast's largest Ham
Convention with exhibits,
swapmeet, and workshops
[Sea-Pac website link](#)

AREDN IN THE PARK

JUNE 21st 11am-3pm

QTH-Maud Williamson Park
22900 Wallace Rd NW,
Salem, OR 97304

This is the first of its kind and Brett KG7GDB will be present to demonstrate the use of AREDN and answer questions related to the AREDN Mesh!



[Groups.io Link](#)

<https://wa7abu.groups.io/g/WA7ABU>

I think we can all agree that this newsletter has been a great addition to our amateur radio community. Our hope is that this monthly newsletter will continue to educate its readers on topics and events taking place here in the Central Valley of Oregon.

There has been a lot of positive feedback in support of our efforts and we are very grateful for that! However, I believe there is a vacuum created with publications like this newsletter. That vacuum exist because you the reader lack the ability to share your voice about

whats covered. Well many of you are already familiar with our Groups.io page and have joined as members—after all, it's likely how you're receiving this newsletter each month. But for those of you getting the newsletter through other channels, consider this your call to action: **WE WANT YOU!** We welcome your questions, knowledge, stories, and opinions—every contribution matters. Your voice adds value to our community, and we want you to feel confident sharing it. Groups.io has proven to be an outstanding resource for the amateur radio community, offering a platform that connects, informs, and supports us all. Chances are, it's already helped you at some point—now's the time to be part of it

NEW SUBGROUP ADDED TO WA7ABU Groups.io PAGE

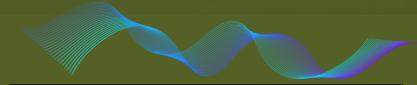
We have also recently added a Subgroup called "SwapMeet" that can be used to buy, sell, or trade amateur radio related items to others in the Central Valley. We do ask that these transactions be kept local to the Valley. I would also like to impress that the "SwapMeet" subgroup is not affiliated with any individual or group. This subgroup is lightly moderated by the administrators for conduct and maintenance, but not responsible or accountable for any sales or trades. We do ask that you read the disclaimer and rules that have been posted on the home page! Come check us out and 73

AREDN is not just for **EMERGENCIES**



AREDN networks can support numerous applications, including:

- **Text-Based Communication:** Tools like MeshChat allow for keyboard-to-keyboard messaging and file sharing, optimized for mesh environments.
- **Email Services:** Setting up internal email servers enables message exchange within the mesh network, often using addresses like user@host.local.mesh.
- **File Sharing:** Protocols such as FTP or SMB facilitate the distribution of documents and resources across the network.
- **Voice and Video Communication:** Implementing VoIP and video conferencing tools (e.g., Asterisk, Jitsi) allows for real-time communication among users.
- **Live Video Streaming:** Deploying IP cameras for surveillance or situational awareness, with streams accessible to authorized mesh participants.
- **GPS and Mapping Services:** Integrating GPS tracking for assets or personnel, and utilizing mapping tools to visualize locations and movements.
- **Weather Monitoring:** Incorporating weather stations using software like weeWx to provide real-time environmental data.
- **Time Synchronization:** Operating Network Time Protocol (NTP) servers within the mesh ensures synchronized timekeeping for all devices, crucial for logging and coordination.
- **Computer-Aided Dispatch (CAD):** Implementing CAD systems to manage and coordinate emergency response efforts effectively.



LOCAL SERVICES FOUND ON THE WVMN

Air Quality Map
Situational Awareness Map
Fileservers
MeshChat
OpenWebRX SDR
Weather Cams
WinLink
IP Phone Service PBX
Seismic Activity
Lightning Tracker Map
APRS Map
Allstar Monitor
Email Server

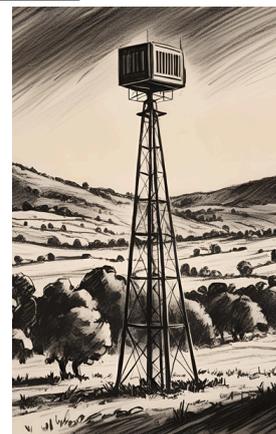
The above services are just a few examples of services you will have access to if you choose to operate on AREDN Mesh. On June 21st there will be a great opportunity to learn more about AREDN if you are curious. KG7GDB Brett Popovich will be giving a lecture at 1p.m. that will be valuable to anyone interested in AREDN.

FREE MESH PHONES

Did you know you can use your Aredn mesh network to make and receive telephone calls. You can also setup voicemail so you never miss a contact. If your interested in knowing more and would like a free phone, contact Brett <KG7GDB> and start taking advantage of this service, free of charge.



Repeater Net Schedule



Monday

Technical Discussion Net: 1000-1100, Dan WA7ABU
 Lunch Bunch: 1200-1230, Kirk K1RKS
 Technical Discussion Net: 1900-2000, Nick NT3S
 Learning Linux : 20:30 NOTIF Mike & K9CAN Kris

Tuesday

Technical Discussion Net: 1000-1100, Scott KF7GGN
 Lunch Bunch: 1200-1230, Phil KK7NZG
 Project Net: 1900-2000, Brett KG7GDB
 Homesteading Net : 19:00-20:00 KK7NZG Phil & K9CAN Kris

Wednesday

Technical Discussion Net: 1000-1100, Brett KG7GDB
 Lunch Bunch: 1200-1230, Russell KE7QXR
 Slow Scan TV Net: 1900-2000, Dan WA7ABU (picture swapping using SSTV mode).

Thursday

Technical Discussion Net: 1000-1100, Gary K7VBY
 Lunch Bunch: 1200-1230, Tim K17KPF
 Mesh Network Discussion Net: 1900-2000, Brett KG7GDB

Friday

Technical Discussion Net: 1000-1100, Joe KC7ZZX / Daniel K7CGO
 Lunch Bunch: 1200-1230, Kris K9CAN
 Space Net/Above Ground Net: 1900-2000, Kris K9CAN

Saturday

Ham Shopping Club Swap Net: 1900-2000, Dan WA7ABU

Sunday

LDS Emergency Net, Lebanon: 1800-1830, Rotating Net Control

K7ATV REPEATERS

- 145.290 MHz FM ~ 930 feet -AllStar & Echolink 54326 - Silverton Hills
- 145.190 w/100 Hz tone - WA7ABU Repeater Site ~4000' near Gates
- 444.950 MHz Yaesu Fusion , Wires-X, & FM w/ 100 Hz tone - Newburg
- 444.600 MHz Yaesu Fusion & FM w/ 100 Hz tone - McCully Mtn, Lyons (no I-5 or Portland coverage) (Active & Under Development)
- 147.060 MHz FM -1720 Feet - Mc Cully Mtn, Lyons (Active & Under Development)

Other Repeaters in our area worth mentioning

- 441.100 FM w/100MHz tone - Yaesu Fusion c4FM -480 feet - Shaw K7GIB
- 440.725 MHz FM no tone Yaesu Fusion FM -700 Feet- Salem KB7PPM

DID YOU KNOW?

TECHNICIAN HF PRIVLAGES

Band	Frequency Range	Mode	Power Limit
80 meters	3.525 – 3.600 MHz	CW only	200 watts
40 meters	7.025 – 7.125 MHz	CW only	200 watts
15 meters	21.025 – 21.200 MHz	CW only	200 watts
10 meters	28.000 – 28.300 MHz	CW, digital (RTTY, FT8, etc.)	200 watts
10 meters	28.300 – 28.500 MHz	CW, phone (SSB, FM, AM)	200 watts

Elmer's Insider

CHOOSING A HF ANTENNA



Please note: The information below has been compiled for reference purposes and should not be considered final. We encourage you to do your own research.

Dipole

- Description: Two equal-length wires fed in the center.
- Pros: Simple, cheap, efficient; works well when cut for specific bands.
- Cons: Needs space; typically single-band unless used with tuner or traps.
- Best For: Beginners, base stations with some yard space.

Off-Center Fed Dipole (OCFD)

- Description: Dipole with feedpoint offset (not centered).
- Pros: Multiband performance; easy coax feed.
- Cons: Can have high SWR on some bands; often needs a tuner.
- Best For: All-band base stations, general-purpose HF.

End-Fed Half-Wave (EFHW)

- Description: One long wire fed at the end with an impedance transformer.
- Pros: Easy to install; multiband with proper matching.
- Cons: Needs a good counterpoise or ground; more RFI risk.
- Best For: Stealthy or portable installs, field use.



Vertical

- Description: Single element with ground/radial system.
- Pros: Great for DX (low angle radiation); small footprint.
- Cons: Needs radials or ground plane; can be noisy.
- Best For: Limited yard space, DX-focused stations.

Multiband Trap Dipole

- Description: Dipole with inductive traps to work multiple bands.
- Pros: No tuner needed; works on several bands.
- Cons: Slightly lower efficiency due to trap loss.
- Best For: Fixed installations, simple multiband setups.

Fan Dipole

- Description: Multiple dipoles fed from one point, fanned out.
- Pros: Resonant on multiple bands, no tuner needed.
- Cons: Can be tricky to install/tune; requires space.
- Best For: Home stations with space and a multiband goal.

Loop Antenna (Full-Wave Horizontal or Magnetic Loop)

- Description: Closed-loop of wire or tubing.
- Pros: Quiet RX, directional, good efficiency in full-size.
- Cons: Full-wave loops need space; mag loops are small but expensive.
- Best For: Low-noise reception, stealth/urban installs.



Yagi Beam

- Description: Directional antenna with driven + reflector + director elements.
- Pros: High gain and selectivity; excellent for DX.
- Cons: Expensive, large, needs rotor/tower.
- Best For: Serious DXers, contest stations.

Vertical Multiband (Trap or Loaded)

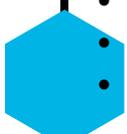
- Description: Verticals with traps or coils for band switching
- Pros: Compact multiband use; no tuner needed.
- Cons: Narrow bandwidth, tricky to tune.
- Best For: Small lot base stations.

HF Antennas for Mobile Use

Type	Pros	Cons
Hamstick	Cheap, easy	One band per stick
Screwdriver	Multiband, motorized	Heavy, costly
Loaded Whip	Multiband, simple	Large, needs tuning
Short/Compact	Small, easy mount	Low efficiency
Hybrid Systems	Versatile, modular	More expensive

HF Antennas for Base Stations

Type	Pros	Cons
Dipole	Simple, cheap	Needs space
OCF Dipole	Multiband, coax feed	Needs tuner sometimes
Vertical	Great for DX	Needs radials, noisy
EFHW	Easy install, multiband	Needs transformer
Loop	Quiet, stealthy	Expensive, heavy
Yagi	High gain, directional	Big, costly setup



1Random Wire

- Description: Long wire + tuner + good ground system.
- Pros: Very flexible; easy to deploy.
- Cons: Needs good tuner and RF ground; less efficient than resonant antennas.
- Best For: Quick field setups, portable/emergency use.

Choosing a good HF antenna is one of the most important decisions for successful amateur radio operation. An antenna greatly affects how far and clearly you can communicate, whether you're operating from a permanent base station or a mobile setup. Before selecting an antenna, it's important to consider what bands you want to operate on, how much physical space you have, and whether you prefer working locally or chasing distant DX contacts. Matching the antenna to your goals, environment, and radio capabilities will ensure you get the best performance without unnecessary frustration.

For a base station, wire antennas like dipoles and end-fed half-waves (EFHWs) are very popular because they are affordable, simple to install, and offer good efficiency. A basic dipole cut for a specific band can often outperform more expensive "all-band" antennas, especially if mounted at a good height. Verticals are also a strong choice for base stations when space is limited and DX (long-distance) communication is the goal, but they often require a network of ground radials to perform well. If you have a larger budget and the right space, directional antennas like Yagis offer top performance but come with increased complexity, cost, and installation effort.

For mobile HF setups, antennas must be much smaller and sturdier. Simple options like hamsticks offer affordable, single-band performance and are easy to install, though they require swapping sticks when changing bands. More sophisticated mobile antennas like screwdriver antennas can cover multiple bands automatically and offer better efficiency, but they are heavier, cost significantly more, and require a more complex mounting and wiring setup. Regardless of antenna type, a strong, well-grounded mount (like a bumper or roof rack installation) is critical for good HF mobile operation.

Ease of setup varies greatly between antenna types. Wire antennas can often be erected with just a few trees, poles, or masts, and can be tuned without much special equipment. Verticals and mobile antennas may require careful attention to ground systems or matching devices to perform well, while beam antennas often need towers, rotators, and professional-grade mounting solutions. When ease of setup is a priority – especially for new operators – dipoles and hamsticks represent some of the simplest and most forgiving choices.

Cost and efficiency are always trade-offs in antenna selection. Generally, bigger and higher antennas perform better, but they also cost more and are harder to install. A well-tuned dipole costing under \$100 can outperform an expensive multiband vertical used improperly. Similarly, while short mobile antennas are convenient, they sacrifice efficiency, especially on lower bands like 40m and 80m. Understanding these trade-offs helps operators invest smartly, ensuring they balance affordability, simplicity, and performance for their particular radio goals.

First, ask yourself:

- What bands do you want to work? (80m, 40m, 20m, 10m, etc.)
- How much space do you have? (Base: backyard size? Mobile: size of your vehicle?)
- Do you care more about local (NVIS) or long-distance (DX)?
- Are you okay using a tuner?
- Do you want multiband coverage or single-band performance?
- Budget and stealth concerns? (especially for HOA areas)

Event News

The April P.O.T.A event went off without a hitch. KF7KAT Kat, brought biscuits and gravy that stole the show, and K9CAN Kris brought the best doughnuts in the whole wide world! Food and radio brings us all together

KW8U Dean stunned the crowd with an antenna made from a child's metal shopping cart! Yup, you read that right, a shopping cart! Dean hopes to inspire others by proving with a bit of ingenuity you can make a resonant antenna out of any random item.

KG7GDB Brett set up an AREDN station in preparation for the upcoming AREDN in the Park event, planned for June 21st.

The weather was great and this gave many the opportunity to set up and show off their favorite HF antennas. Come join us next month!



Above-Dean KW8U explains how to tune the omni-directional "Cartenna"

QTH →

MAY P.O.T.Afest

Maud Williamson Park
45°05'43.0"N 123°04'01.8"W
22900 Wallace Rd NW, Salem, OR
97304
8am-12pm
May 24

AREDN in the Park

Maud Williamson Park
45°05'43.0"N 123°04'01.8"W
22900 Wallace Rd NW, Salem, OR
97304
11am-3pm
June 21st

IMPORTANT LINKS

- WA7ABU - <https://www.wa7abu.com/>
- ARCOM - <https://www.arcomcontrollers.com/>
- ARRL - <http://www.arrl.org/frequency-allocations>
- SEA-PAC - <https://seapac.org/>
- HAM RADIO OUTLET - <https://www.hamradio.com/>
- AREDN MESH - <https://www.arednmesh.org/>
- WILLAMETTE VALLEY MESH - <https://willamettevalleymesh.net/news/>

SEA-PAC

Seaside Convention Center
415 First Ave
Seaside, Oregon 97138
May 30th- June 1st



PRODUCT REVIEW CORNER

RTL-SDR Dongle



Please watch out for counterfits. There is a guide to help in identifying fakes, web address below <https://www.rtl-sdr.com/rtl-sdr-quick-start-guide/>

The RTL-SDR dongle is an incredibly versatile and affordable tool for anyone interested in software-defined radio. Originally designed as a TV tuner, the RTL-SDR found new life among hobbyists when it was discovered that, with the right drivers and software, it could receive a wide range of radio signals across the VHF and UHF bands. Its ability to cover frequencies from roughly 500 kHz up to 1.7 GHz (depending on model and setup) makes it an excellent entry point for monitoring everything from local FM broadcasts to aircraft ADS-B signals, amateur radio transmissions, weather satellites, and more. Its small size, USB-powered convenience, and compatibility with powerful programs like SDR# (SDRSharp) and GQRX make it perfect for beginners and advanced users alike.

While the RTL-SDR shines in accessibility and flexibility, it's important to remember that it has limitations compared to higher-end SDR receivers. It has a relatively narrow instantaneous bandwidth, limited dynamic range, and can be prone to overload if strong signals are nearby. However, when paired with good antennas, filters, and careful software setup, it delivers outstanding performance for its price point. Whether you're exploring the radio spectrum for fun, learning about signal processing, or building custom receiving stations, the RTL-SDR dongle is a must-have piece of gear that opens up a fascinating world of wireless communication at a fraction of the cost of traditional radio equipment.

Thoughts from the "Back Deck"

With Phil Webb QTH-Back Deck

Ladies and Gentlemen, Boys and Girls, licensed amateur radio operators everywhere, welcome to the inaugural edition of "Thoughts From The Back Deck." Given that I am rarely at a loss for words, and Kris – K9CAN is always in need of content for the newsletter, my contributing seems to be a match. Where that match is from, or where it ends, remains to be seen.

I would like to take a brief moment to share some thoughts on a recent development in amateur radio for me, that being a "Net Control," and specifically, what was the first time out of the gate like?

Well, in short, it was great. Upon hearing that there was a need for a Net Control to take the Tuesday morning edition of the "529 Lunch Bunch," I contacted Dan – WA7ABU and asked about the opportunity. Dan graciously replied, and after a brief phone call, I was provided with some scripts and tips for running a smooth net.

Of course, I had some hesitation, after all, I would either get through the first net relatively unscathed, or I would fail in spectacular fashion, in the plain sight of everyone. Thankfully, it went well, and, upon reflection, I have some thoughts.

Firstly, if you have never served as a net control, I highly encourage you to do so. Serving as a "Backup" can be a good way to get your feet wet and ease in. Serving as a net control is actually a great confidence booster for an amateur radio operator.

Secondly, if you are afraid that you won't be able to handle things like doubles, weak transmissions, or garbled call-signs, do what I did. Listen to a few nets, see what others do to resolve those issues, and then copy them. It really is that easy. After a couple of weeks of tuning in, and checking in, to the Lunch Bunch daily and a couple of evening nets a week, you will have been given an excellent course in "Net Control".

Thirdly, folks checking in on nets are patient and helpful, not at all cranky or upset when you ask for help with a name or call sign. Everyone wants to see (and hear) a new Net Control succeed, and in my experience, they will all help.

So, the long and short of it is, serving as net control has been an excellent, positive experience for me, and I believe it would be for you, too. If you are interested in learning more about being a net control for the WA7ABU or the K7ATV repeaters, get in touch with Dan, WA7ABU, and ask about it.

It is now time to close this edition of "Thoughts From The Back Deck." This is Phil, KK7NZG, from pleasantly surprised back deck, in Salem, signing off and returning the reader to their usual, undirected reading.

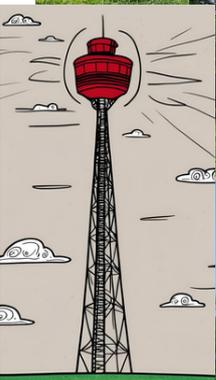
73's God Bless, and God speed!

=====

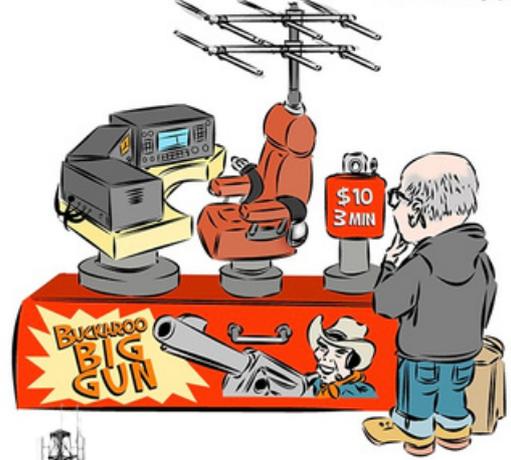
Curious what Rig is being used from the "Back Deck" ----->



KK7NZG



Hamfest of a Thousand Sorrows by *Red Kline*
©2017 K9YA Telegraph



CONTRIBUTORS

- DAN BATHURST-WA7ABU
- MARY BATHURST-W7FIF
- KRIS GOLDEN-K9CAN
- PHIL WEBB-KK7NZG
- UNCLE SAM-GOUSA

"529" Hall of the Greats

- Richard Thomas WOEDF
- Bruce Currier W7CCM