"THE REPEATER"

Saturday
March 1st 2025

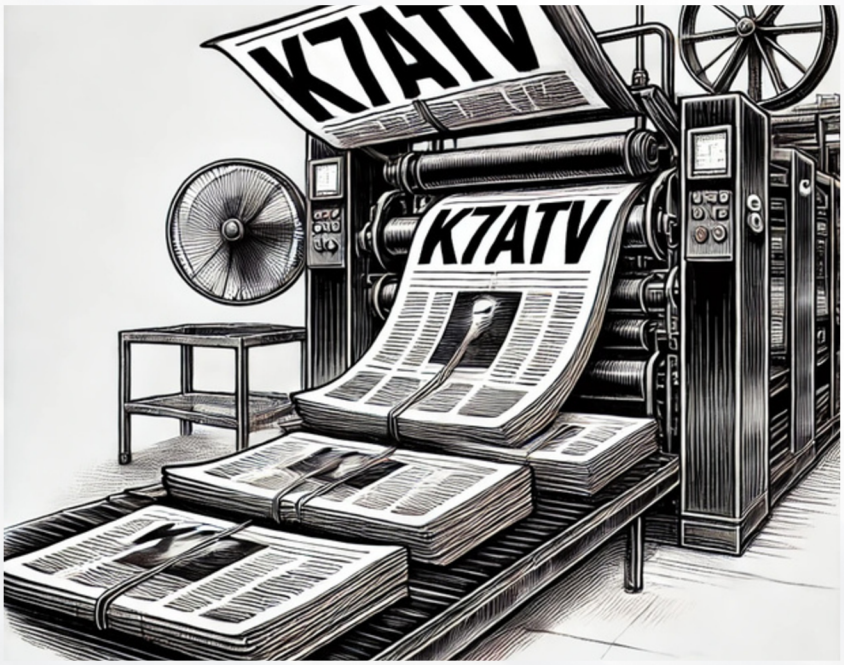
vol.1

EVENTS and DATES

.O.T.A.fest
March 15th
Maud Williamson Park
Doughnuts,Coffee,Friends & Contacts
7a.m.-12p.m.
45°05'43.0"N 123°04'01.8"W
https://stateparks.oregon.gov/index.cfm?do=park.profile&parkId=97

SEA-PAC HAM CONVENTION
MAY 30-JUNE 1st
Seaside, Oregon
Notheasts largest Ham Convention with exhibits, swapmeet, and workshops
Sea-Pac website link

ARRL INTERNATIONAL DX CONTEST
March 1-2nd
00:00 UTC on Saturday - 2359 UTC Sunday
This is a great chance to add contacts to your logbook and open up other countries you have yet to connect with.



INTRODUCING THE 1ST EDITION OF "THE REPEATER" A MONTHLY K7ATV NEWSLETTER

"The Repeater" newsletter is created with you, the community, in mind. Its goal is to keep you informed about the latest updates, events, and important information related to the K7ATV repeaters. The K7ATV repeater network is dedicated to promoting amateur radio activity, encouraging communication, and serving as a reliable resource during emergencies.

Keep in mind repeater coverage varies depending on your location and equipment. Each month, this newsletter will be curated with information gathered from online sources, local events, and contributions from you, the reader. To keep it engaging, informative, and relevant, I encourage you to share your suggestions for future content. Your input helps make this publication a valuable resource for everyone!

Dan Bathurst WA7ABU

SPECIAL THANKS TO DAN, WA7ABU FOR YOUR SERVICE

Dan, WA7ABU, is a well-known figure in Oregon's amateur radio community, needing no introduction. With 61 years of experience, his dedication to the hobby is unmatched. In 1994, he purchased his first repeater, and over the years, he has expanded and maintained a network of five repeaters, all with an outstanding record of uptime.

Maintaining and upgrading these repeaters is no small task—it requires countless hours of dedication, technical expertise, and hands-on work. Despite the demands, Dan continues to offer guidance and support to fellow hams, sharing his knowledge and experience with those looking to build or improve their own systems.

Where would this community be without his contributions? Thankfully, we don't have to ask! His impact on Oregon's amateur radio scene speaks for itself, and we're all fortunate to benefit from his hard work and passion.

Willamette Valley Mesh New

The Willamette Valley Mesh Network (WVMN) is an affiliation of individual amateur radio operators who have established a high-speed modern long range WiFi and wired network operating in Oregon and Southern Washington. We operate under Part 97 rules using open source firmware developed by Amateur Radio Emergency Data Network (AREDN) organization.

February 11, 2025 marked the release of the latest AREDN production firmware called 3.25.2.0 with a new modern user interface.

This network is built to offer both emergency data use and an opportunity to experiment with development of services interesting to amateur users including home weather stations, remote radio and SDR operation and collaborative document sharing. AREDN firmware is actively developed on GitHub with "nightly builds" for those interested in mesh development.

Visit the WVMN Mesh Map to get an overview of our active stations. Use the WVMN Situational Awareness Map (SAM) developed by K9RCP to see current PGE power outages, weather radar, and emergency traffic data.

There are currently 132 unique call signs in use on 354 router devices in the WVMN. Our mesh network covers the largest number of RF connected miles (900+ miles) of any mesh network, and we host a Supernode which gives us internet connectivity to the worldwide network of 2953 AREDN stations. We have programmed a MeshPhone PBX VoIP telephone system to allow WVMN mesh users to contact over 700 AREDN mesh users worldwide.

There are 295 members of our WVMN groups page, which acts as a forum for Mesh Users, and members of the AREDN development team. Join us!

Want to learn more? We offer a Mesh Discussion Net on Thursdays at 7:00 PM local time on the WA7ABU 145.29 repeater. Listen live to the net over the Echolink and AllStar. Try checking in for the net by sending a Winlink Check-In Message to KG7GDB. Speaking of linking repeaters, we use AllStarLink over WVMN mesh to link together Yamhill (AH6LE) and Lane County (AI7NC and KC7RJK) during the net.

Submitted by Brett, KG7GDB

AREDN™

AMATEUR RADIO EMERGENCY DATA NETWORK

AREDN AT A GLANCE

- Decentralized Network – No reliance on centralized servers or internet infrastructure, making it resilient to outages.
- Self-Healing Mesh – Nodes automatically connect and reroute traffic if a link fails, ensuring continuous communication.
- High-Speed Data Transmission – Supports digital communications, including VoIP, video streaming, and file sharing.
- Licensed Frequency Operation – Uses amateur radio bands (2.4 GHz, 3.4 GHz, and 5.8 GHz) for increased power and reliability compared to standard Wi-Fi.
- Long-Range Connectivity – Capable of extending coverage over miles with high-gain antennas and proper positioning.
- Scalable & Expandable – Easily add more nodes to extend coverage as needed during an emergency.
- Interoperability – Can connect with other emergency communication systems such as Winlink, APRS, and traditional ham radio.
- Supports Multiple Applications – Enables text messaging, email, streaming video, real-time mapping, and resource tracking.
- Rapid Deployment – Can be quickly set up with portable nodes and battery/solar power for off-grid operation.
- Community & Volunteer Support – Built and maintained by the ham radio community, ensuring continuous improvements and local expertise.

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.

K7ATV Board of Directors

Exciting news for the WA7ABU repeater network! A new club, K7ATV, has been officially formed to represent and manage the various repeaters owned and operated by Dan, WA7ABU. Until now, the responsibility for maintaining the network—comprising antennas, towers, controllers, and other equipment—has largely rested on Dan and a handful of dedicated volunteers. With the formation of K7ATV, the club will now take on the operation, maintenance, and administrative duties, ensuring the long-term sustainability of the repeater system. Below you will find the current members of the Board and their respective duties.

2025 K7ATV Board of Directors

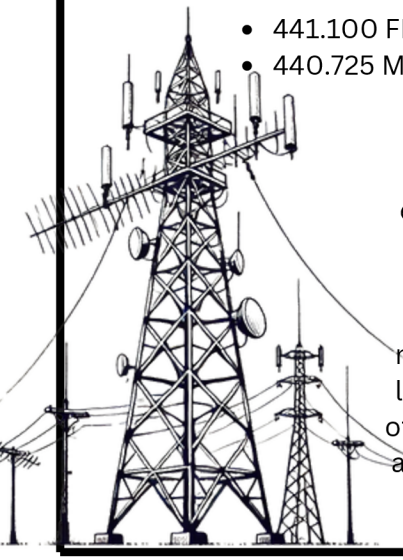
President – Dan Bathurst WA7ABU
Vice President – Kirk Smith K1RKS
Treasurer – Mary Bathurst W7FIF
Secretary – Kris Golden K9CAN
Officer – Nick Smith NT3S
Officer – Daniel Mussatti K7CGO
Officer - Richard Thomas W0EDF

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?

Arcom

Whether your a veteran amateur radio enthusiast or new to the community, repeaters are accessible for everyone to use, and OWN! Thats right, you are obviously familiar with repeaters but did you know that with a reasonable investment you can have your own repeater which can be utilized to extend your communications! Its not as difficult to assemble and maintain as you may believe. We are lucky to have Ken Arck (AH6LE) owner of ***Arcom***,a local business that offers all things repeaters. Ken offers individual repeater components and complete systems as well. And unlike most other companies, the prices are extremely affordable. For more info please visit the link below and feel free to call them for more information.

https://www.arcomcontrollers.com/

Elmer's Insider

ITS BEEN A WET AND WINDY WINTER HERE IN THE WILLAMETTE VALLEY

Keeping your amateur radio coaxial cable and connectors free from water intrusion is crucial to maintaining signal quality and preventing corrosion, signal loss, and potential equipment damage. Here are several effective methods to protect your coax and connectors from water ingress:

1. **Use High-Quality Weatherproof Connectors**

• Compression-Sealed Connectors – Use connectors with built-in rubber gaskets or O-rings that create a weather-resistant seal.

• Waterproof Coaxial Connectors – Some manufacturers, like Times Microwave, offer waterproof PL-259, N-type, or SMA connectors.

2. **Apply Coaxial Sealant (Self-Amalgamating Tape)**

• Coax Seal (Mastic Tape) – A moldable rubber-like tape that sticks to itself, creating a weatherproof seal.

• Self-Amalgamating Silicone Tape – Stretches and bonds to itself without adhesive, forming a water-tight barrier.

• Application Tip: Wrap the connector and the first few inches of the coax to ensure full coverage.

3. **Use Heat Shrink Tubing**

• Waterproof Heat Shrink Tubing with an adhesive lining can be applied over connectors to provide extra insulation and sealing.

• Application Tip: After sealing with tape, slide heat shrink over the connector and use a heat gun to shrink it for added durability.

4. **Use Coaxial Boot Covers**

• Rubber or silicone coaxial boots can slip over connectors, offering additional protection from moisture and UV exposure.

5. **Apply Dielectric Grease**

• Prevents moisture buildup and corrosion inside connectors while maintaining good electrical contact.

• Application Tip: Apply a small amount inside PL-259, N, or SMA connectors before mating them.

6. **Elevate and Properly Route Coax**

• Avoid Low Spots – Ensure coax does not form loops or dips where water can collect and seep in.

• Run Coax at a Downward Angle – When entering enclosures or shack walls, have the coax run downward before entry to prevent water from following the cable inside.

7. **Use Proper Drip Loops**

• Before the coax enters your radio shack, create a drip loop (a downward bend) so that water drips off the loop instead of following the cable into the connectors.

8. **Enclose Outdoor Connections in a Junction Box**

• For long-term installations, place connectors inside a weatherproof electrical box or PVC enclosure.

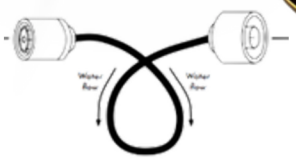
• Use waterproof cable glands to pass coax into the box, ensuring a tight seal.

9. **Periodically Inspect and Reapply Protection**

• Over time, sealants and tape degrade due to UV exposure and weathering.

• Check all outdoor connections at least once a year and reapply tape or sealant if necessary.

Drip loops



I trust there are some of our readers that would like to contribute to the newsletter. We are always open to suggestions and/or ideas about future content.

k7atvrf@gmail.com

"73"

K9CAN

P.O.T.A Event News

Kick off the year with us at Maud Williamson Park for an exciting Parks on the Air (P.O.T.A.) activation!
There will be hot coffee and fresh doughnuts, but feel free to bring your favorite snacks and beverages to share. Rain or shine, we've got you covered—literally! There will be a covered area available in case of rain, and we'll also have power on-site for your gear. Whether you're setting up your own station or just want to stop by and make some contacts, everyone is welcome. Grab your radio, bring a friend, or simply come enjoy the great outdoors with fellow radio enthusiasts. Hope to see you there!

QTH

Maud Williamson Park
45°05'43.0"N 123°04'01.8"W
22900 Wallace Rd NW, Salem, OR 97304
7am-12pm
March 15th

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/
MAUD WILLIAMSON PARK
AREDN MESH - https://www.arednmesh.org/
WILLIAMETTE VALLEY MESH - https://willamettevalleymesh.net/news/

PRODUCT REVIEW CORNER

MikroTik Hap AC Lite Router "AREDN COMPATIBLE"

Your paragrThe MikroTik hAP ac Lite is a compact and budget-friendly dual-band router designed for home and small office networks. It features 2.4 GHz and 5 GHz Wi-Fi, four Fast Ethernet (10/100 Mbps) LAN ports, and a PoE-powered WAN port, making it a versatile choice for users looking for an affordable, highly configurable router. Running RouterOS, the hAP ac Lite offers extensive customization options, including firewall rules, VPN support, QoS management, and advanced routing features. While its hardware specifications (650 MHz CPU, 64MB RAM) may not match high-end routers, it performs well for standard networking tasks, wireless access points, and learning RouterOS.

However, the router does come with some trade-offs. Its 100 Mbps Ethernet ports can be a bottleneck for users with high-speed internet connections, and its Wi-Fi performance is limited compared to more powerful MikroTik models. The RouterOS interface has a steep learning curve, making it more suited for advanced users rather than plug-and-play home setups. Additionally, the internal antennas provide decent coverage but may struggle in larger homes or obstructed environments. Overall, the hAP ac Lite is a solid choice for tech-savvy users who want a low-cost, highly configurable router with robust networking capabilities, but it may not be ideal for users needing gigabit speeds or seamless Wi-Fi performance across large spaces.

CONTRIBUTORS

DAN BATHURST-WA7ABU
MARY BATHURST-W7FIF
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KEN ARCK-AH6LE
DEREK B-VE5SD
KRIS GOLDEN-K9CAN

Meet That Voice Beyond the Drip

VE5SD

Derek's Journey: A Passion for Innovation in Amateur Radio

Derek B, based in Saskatoon, transitioned into a full-time caregiver in January 2020 when his wife's multiple sclerosis (MS) progressed significantly. Closing his business at the end of 2019, he embraced his new role with dedication, navigating the challenges of 24/7 care. Understanding the need for a personal escape and mental sanctuary, Derek sought a positive focus to balance his responsibilities.

As the pandemic unfolded, he turned to amateur radio, re-engaging with the hobby after years of inactivity. Inspired by the question, "If Leonardo da Vinci were a ham today, what would he create?", Derek embarked on a journey of design, experimentation, and system-building. Diving into the evolving world of radio technology, he explored new modes, digital networks, and remote-access systems, collaborating with others to expand capabilities within amateur radio.

This led to the creation of SASKWARN, a website serving as a resource hub for fellow hams interested in building and refining their own communication systems. By documenting his experiments, successes, and challenges, Derek helps others learn from his experiences and improve their setups. His station includes an IC-9700, connected to both the provincial VHF system and UHF networks like ALLSTAR, allowing him to stay connected with groups around the world.

Derek's philosophy revolves around "collapsing time frames"—making systems as simple yet complex as necessary for efficiency and functionality. His work has evolved from a personal project into a collaborative effort, designing systems that provide access to HF remote bases, nodes, and digital networks for those in care homes, apartments, and HOA-restricted areas. His dedication to innovation and inclusivity in amateur radio continues to enhance connectivity and accessibility for operators in diverse living situations.

As I spoke with Derek and listened to his story, and he explained what he is working on, my head was in spin mode! There is so much to understand and learn from Derek and what he is involved with. Do you feel stagnant in amateur radio? Do you feel like you need inspiration? Throw the call sign VE5SD out on the 529 and buckle up! Beware, you will be amazed and the sky will seem like an obstacle not the limit! Thanks Derek for spending time with me, I will never forget that feeling of AWE as we spoke. His QRZ page https://www.qrz.com/db/VE5SD