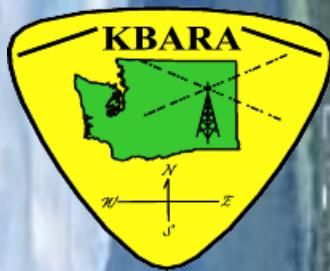


Summer 2023



Quarterly Journal of the Kamiak Butte Amateur Repeater Association

# KBARA Gazette

## Sea-Pac Hamfest Seaside, Oregon

After 9 years I attended the SEA-PAC Hamfest again in Seaside, OR. Back after the pandemic and in a newly remodeled convention center there was a lot more room. I remember from years past when everything was crammed together. It was very well attended. The big three radio manufacturers were there including Icom and Ray Novak, N9JA.





# KBARA Technical Update

by Jim, N7WRR

I try to summarize the main technical issues that I cover weekly on the KBARA Wednesday evening nets for the quarterly newsletter. Tune in to the weekly Wednesday 7 PM nets for more detailed information and discussion. The big news for the last few months is that the KBARA club now owns the 223.90 hub linking repeater located at Stensgar. Stensgar 147.36, Mica 147.38 and West Twin 147.32 are all working fairly well. Pikes Peak 147.28 is still on a temporary IRLP link until we can repair the link antenna system. Lookout 147.02 remains stand-alone with the link radio issue still to be resolved.

**Hub linking repeater 223.90 MHz** was sold to KBARA for \$200 by Karl AK20. The Hub links Mica, Pikes Peak, IRLP and Echo link to Stensgar and each other; it is the core linking system for KBARA. On May 11<sup>th</sup> Karl and I moved the Hub equipment to our rack, and on a second trip on the 18<sup>th</sup> finished the move. On May 25<sup>th</sup> KBARA bought a used Wacom WP-652 4 cavity duplexer for \$695 including shipping to replace the duplexer that Karl had built which has worked well for many years. The commercial duplexer will give us better isolation and lower loss which is needed at the Stensgar site. A new duplexer would have been about \$2400. Karl tuned it for our frequencies and I took it to site and installed it on June 24<sup>th</sup> which required moving all the equipment down on the rack to make room for the duplexer at the top (photo). The link has been working very well. We have filed and updated paperwork with the Frequency Coordinator. Karl AK20 has owned and serviced the hub repeater for many decades and helped KBARA a lot over the years. A big thank you to Karl for all he has done, and continues to do for KBARA!



**Stensgar 147.36 repeater.** Karl AK20 tuned up an old band pass filter for the 147.36 output. I felt this could help reduce some of the repeater cutouts that occur. I installed it on June 24<sup>th</sup> and checked the system before leaving site and it seemed to be working. However on returning home found I could not receive the 147.36 which had a very weak output. I returned to site the following day and did power checks at multiple points and found the filter was bad. It checks out with milliwatts but fails with higher wattage signals. It was removed and Stensgar is working as before.

**Lookout 147.02 repeater** on ID/MT border is working well as a stand alone repeater but is still not linked to the rest of the system due to a problem with the link radio or antenna. The site owner Ted Ryan became a silent key and the site has been sold. The new owners have not contacted us directly, but the former site manager has told me that they will be honoring our lease which has quite a few years left on it.

Also the old site that KBARA occupied for many years finally collapsed under last winter's snow. We moved out of that old site over 3 years ago to our new location. The only remaining tenant in that building is the Montana State Patrol.



Scott, KA7FVV: **West Twin 147.32 repeater.** The 32 repeater continues to work well. We have had a couple issues of IRLP dropping off and they have been caught by Jim, WA7VFQ or local control operator. Between Jim, myself and Glen we have been able to restore the connection quickly.



# A Trip Back in Radio History

## The father of radio

While radio has had many “fathers” and inventors and other pioneers, perhaps the title *Father of Radio* is more appropriately associated with [Guglielmo Marconi](#) than with any other person. On 12 December 1901, Marconi received the first wireless radio signal in [St. John's, Newfoundland](#), transmitted by a close colleague from a station he set up in [Poldhu, Cornwall](#), England. He was 27.

At the young age of 18, having only been home-schooled and tutored (so having never attended high school or college), Guglielmo became fascinated by the works and findings of [Heinrich Hertz](#), the first to demonstrate the radio waves predicted by James Maxwell. He was especially drawn to the possibility of communicating by telegraph over radio waves, dismissed by many as a scientific phenomenon rather than something for communication value.

By age 20, Marconi was conducting experiments in his attic, and demonstrated to his mother a transmitter that, when he pushed a button, rang a bell attached to a receiver on the other side of the room. Once he saw this, Guglielmo's father began encouraging the young man to pursue his experimentation more vigorously.

The thought at the time was that radio waves were limited to a maximum travel of a half-mile, but when Marconi raised his antenna, he began to exceed that distance by two miles. Furthermore, he found that when he grounded his station and antenna, the distance increased even more. After failing to receive funding in his home country of Italy, Marconi traveled to England, where he met officials who encouraged him to patent his apparatus. On 02 June 1886, Guglielmo Marconi received the first patent for a radio wave-based communication system.

In England, Marconi took his system outside, where he was able to reach distances of 6 km, 16 km, and even farther. In December 1898, the British government approved the establishment of a wireless communication system aboard the *East Goodwin* and at the Dover lighthouse. In

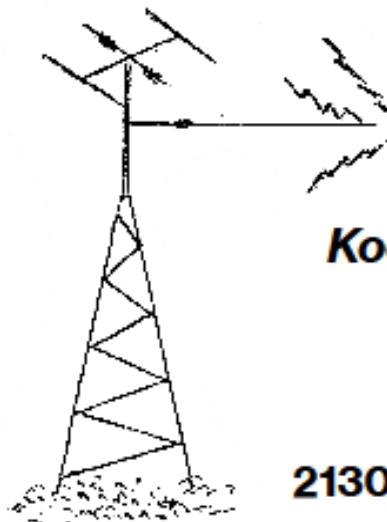
March 1899, the *East Goodwin* sent the first-ever wireless distress call in behalf of a merchant vessel, which had run aground.

Further encouraged by his successes, Marconi first attempted to span the Bristol Channel, then the English Channel, and eventually the Atlantic Ocean. Although his first transatlantic transmission was a little controversial, his subsequent experiments validated his claims.

Marconi never revealed the frequency he first used, but based on his equipment and antenna, we estimate his transmission frequency was between 820 kHz to 850 kHz.



# **QST...QST**



Talk-in Frequency: 146.980 (-) PL: 127.3



## **Kootenai Amateur Radio Society HAMFEST**

**Saturday, August 12, 2023**

**2130 North Meyer Road – Post Falls, ID**

**8:00 AM to 1:00 PM**

**(No sales before 9:00 AM)**

**ADMISSION: \$5/person (Kids under 18 – FREE!)**

**(Tailgate Vendors - \$10)**

**Raffle Tickets - \$1 or 6 for \$5**

**Grand Prize Tickets - \$5**

**GRAND PRIZE: Yaesu FT-891 HF Radio**

### ***Additional Prizes:***

Yaesu FT-65R VHF/UHF Handheld

Antennas, Power Supply, Anderson Power Pole Accessories,  
...and much – **MUCH** more!

**Food by: Iverson's Smokin' Pig BBQ**

Contact: Jim Sibley (WA7NSJ) – 509-750-9200

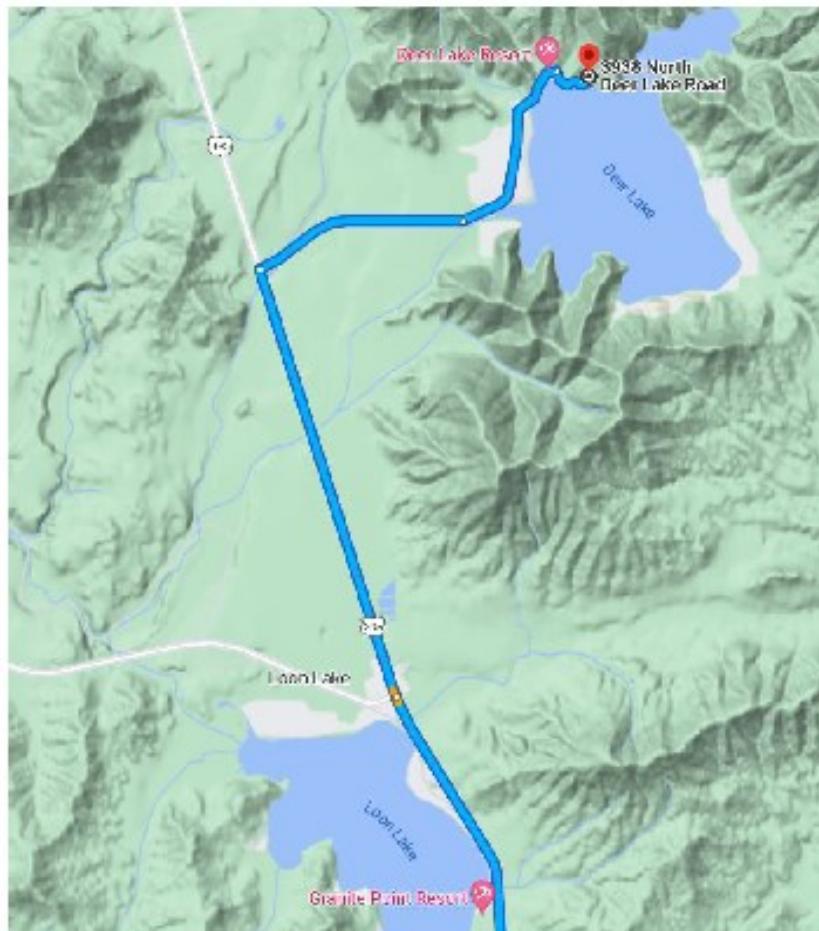
## KBARA 45<sup>TH</sup> Annual Membership Meeting

Held Sunday, August 20, 2023 at 1:00 PM, followed by a potluck lunch. The location is Deer Lake, WA this year at 3938 N. Deer Lake Rd, 3 miles north of Loon Lake.



Please bring your favorite beverage & potluck goodie to go with bbq'd ribs, hosted by Jim & Betsy N7WRR & N7WRQ.

Too, any KBARA member willing to offer their time in serving as a club officer, please contact the current officers.



# SPOKANE HAMFEST



September 23, 2023 from  
9 a.m. to 4 p.m. at  
University High School

12420 East 32nd Avenue, Spokane Valley, 99216  
Use east entrance on 32nd Avenue  
Talk in frequency 147.38 MHz



Admission \$5 (18 & under - FREE)

• Our 46<sup>th</sup> Hamfest  
• Host of the ARRL  
Washington State  
Convention

- Sat Seminars
- Sat Exhibitors  
Swap Tables  
Commercial Tables
- Sat Door Prizes
- Sat Fox Hunt for Youth  
and Adults
- Sat License Exam
- Fri Vendor Setup 6-7:30 p.m.
- Sat Vendor Setup 7-9 a.m.

Registration Form (Clip & send; add sheet if needed)

Name \_\_\_\_\_ Call Sign \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_ Phone number \_\_\_\_\_

E-mail address \_\_\_\_\_

\_\_\_\_ Registrations @ \$5.00 each \$\_\_\_\_\_

Age 18 & under free

\_\_\_\_ Commercial-size tables

@ \$25.00 each \$\_\_\_\_\_

Admission is not included

in the price of table space.

Reserve before 9/09/23.

\_\_\_\_ Swap tables @ \$15.00 each \$\_\_\_\_\_

Admission is not included.

in the price of table space

Total \$\_\_\_\_\_

Make checks payable  
to: Spokane Hamfest

09/22/23; they will not

be mailed out.

Mail your registration to:

Spokane Hamfest

2910 E. 57th Ave., Ste. 5

PMB 255

Spokane WA 99223

For more information:

David Carleton, K7DSR

Spokane Hamfest

Coordinator

davcarleton@gmail.com

(702) 862-0329

Pick up prepaid registrations  
at the ticket table at  
the door, starting Friday,

The SPOKANE HAMFEST is hosted by five Amateur Radio clubs: The Inland Empire VHF Radio Amateurs, Kamiak Butte  
Amateur Repeater Association, Northwest Tri-State ARO, Spokane DX Association, Palouse Hills ARC.

06/07/23



**Kamiak Butte Amateur Repeater Association  
KB7ARA  
PO Box 30801  
Spokane WA 99223-3013**



KBARA is a support group for several club and privately owned linked Amateur Radio repeaters. The system covers an area from NE Washington to NE Oregon, and from western Montana to central Washington. The KBARA system is also part of the Evergreen Intertie, an interconnected group of repeaters located in western Washington and Oregon. The primary purpose of the KBARA repeaters is to provide a means for emergency communications within the above areas, and secondarily for routine radio traffic. It makes possible a single system of mobile communications coverage, extending the limited range provided by any single repeater operation. The KBARA FM repeaters operate in the VHF bands and are linked by UHF radios, IRLP, EchoLink KB7ARA-R, and AllStar node 53587. The repeaters' frequencies, call signs and locations are as follows:

147.380 MHz N7WRQ on Mica Peak near Spokane, WA, owned by Betsy N7WRQ & Jim N7WRR  
147.360 MHz N7WRR on Stensgar (Stranger) Mt. near Chewelah, WA, owned by Jim N7WRR & Betsy N7WRQ  
147.320 MHz (103.5 Hz tone) KA7FVV on West Twin near Moscow ID, owned by Scott KA7FVV & KBARA  
147.280 MHz KB7ARA on Pikes Peak in the Blue Mountains near Walla Walla, WA, owned by KBARA  
147.020 MHz KB7ARA on Lookout Pass on the Idaho-Montana border, owned by KBARA  
223.900 MHz KB7ARA hub repeater on Stensgar (Stranger) Mt. near Chewelah, WA, owned by KBARA  
444.350 MHz NING (192.8 tone) on Mica Peak near Spokane, WA, owned by Mike NING  
IRLP Node #3638 in Spokane WA owned by Glen, K1RR  
IRLP Node #3636 on East Tiger Mt, near Issaquah, WA owned by KBARA

All licensed Amateur Radio operators are welcome to use this open repeater system.

To support KBARA, please send your contributions to: **KBARA, P.O. Box 30801, Spokane, WA 99223-3013**

Name \_\_\_\_\_ Call Sign \_\_\_\_\_

Address \_\_\_\_\_

City/State \_\_\_\_\_ Zip \_\_\_\_\_

Telephone \_\_\_\_\_ Amount Paid \_\_\_\_\_

Email Address \_\_\_\_\_ ARRL Member? \_\_\_\_\_

Dues are \$15.00 per year for individuals and \$20.00 for a family (all must be living at the same address), but any amount will be greatly appreciated. Dues are due January of each year. If they are paid between September 1 - December 31, they will be applied through the entire following year. Also, any contribution to the Repeater Fund will be gladly accepted. For more info, please visit our website at [www.kbara.org](http://www.kbara.org). See us on Facebook.



# Upcoming Hamfests and Events

Courtesy of N7CFO.com

**July, 15. Richmond ARC Swap Meet & Emergency Comm Equipment Display.** Richmond, BC. <http://www.richmondarc.ca/swapmeet2023.html>

**July 22nd. Chehalis Valley ARC Ham Radio Tailgate Swapmeet.** Lewis County Mall, Chehalis, WA. <http://www.cvars.org/> *This is an ARRL Sanctioned Event.* Flyer in PDF. [https://www.cvars.org/Swapmeet\\_2023.pdf](https://www.cvars.org/Swapmeet_2023.pdf)

**July 28-30. Third annual DMR Gathering.** Valley Camp near North Bend WA. <https://www.valleycamp.org/> <https://pnwdigital.net/gathering-2023/>

**July 29. Puget Sound Antique Radio Association and Northwest Vintage Radio Society Annual Antique/Vintage Radio Swap Meet.** Chehalis, WA. [Flyer in PDF.](#) (510K)

**August 11-13. Pacific NW DX Convention.** New Westminster, BC. *This is an ARRL Sanctioned Event.* <https://pacificnwdxconvention.com/>

**August 12. Kootenai Amateur Radio Society Hamfest.** Post Falls, ID. <https://k7id.org/article/Home>

**August 19. 14th Annual Mini-Cassia Amateur Radio Club Tailgate Swap Meet.** Rupert, ID. Minidoka County Fair-grounds. Contact: Kevan Vogt, [vogtak6057@gmail.com](mailto:vogtak6057@gmail.com) . [Flyer in PDF.](#) (44K) [Map in PDF.](#) (80K)

**August 20. Puget Sound Antique Radio Association Swapmeet.** <https://www.pugetsoundantiqueradio.com/> [Flyer in PDF.](#) (415 K)

**September 23. Spokane Hamfair.** University High School in Spokane Valley. *This is an ARRL Sanctioned Event.* [Flyer in PDF.](#) (290K)

**September 30. High Desert Amateur Radio Group 2nd Annual High Desert Ham Fest,** Redmond, Oregon. Deschutes County Fairgrounds. [www.hidarg.org](http://www.hidarg.org) [Flyer in PDF.](#) (3 MB) contact [kf7max@arrl.net](mailto:kf7max@arrl.net)

**October. Pacific Northwest VHF Society Conference.** <http://pnwvhfs.org/>

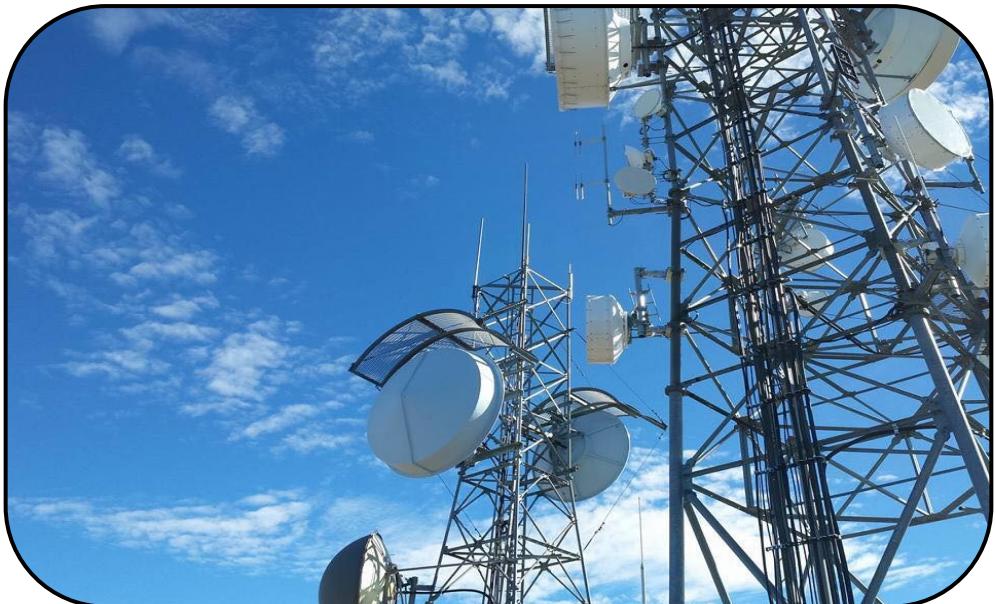
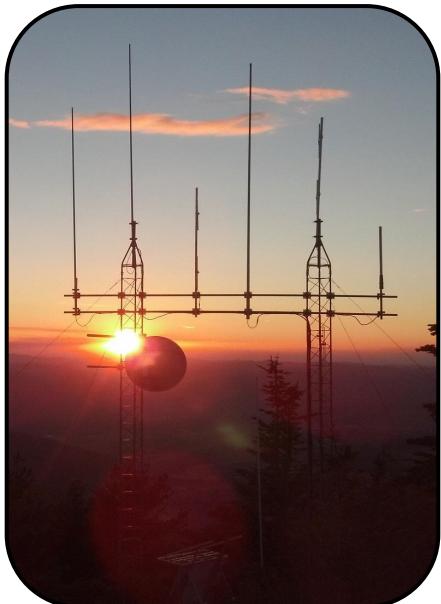
**October. Swaptoberfest.** Rickreall, OR. [Flyer in PDF](#) (2 pages, 104 K) Contact: [info@swaptoberfest.org](mailto:info@swaptoberfest.org)

**October 14. Kitsap County ARC Hamfest.** Bremerton, WA. *This is an ARRL Sanctioned Event.* <https://kcarc.org/hamfest/>



# KBARA Repeaters and Echolink/IRLP Nodes

Frequency	CTCSS Tone	Location	Call sign	RF Link
<b>Repeaters</b>				
223.90 MHz	None	Stensgar Mtn	KB7ARA	Hub
147.38 MHz	100.00	Mica Peak	N7WRQ	KB7ARA—223.90
147.36 MHz	None	Stensgar Mtn	N7WRR	Hard wired Hub
147.02 MHz	None	Lookout Pass	KB7ARA	N7WRQ—147.38
147.28 MHz	None	Pikes Peak	KB7ARA	KB7ARA—223.90
147.32 MHz	103.5	West Twin, Moscow	KA7FVV	IRLP
444.350 MHz	192.8	Mica Peak	N1NG	Stand Alone
<b>Links</b>				
Echolink KB7ARA-R	N/A	Spokane, WA	KB7ARA-R	KB7ARA - 223.90
IRLP Node 3636	None	East Tiger Mt	KB7ARA	145.33 &
IRLP Node 3638	None	Spokane, WA	K1RR	KB7ARA—223.90 & Ref 9075



**KBARA Membership / Support Information:** The KBARA repeater system consists of several club & privately owned linked Amateur Radio repeaters. It covers an area from northeastern Washington to northeastern Oregon, and from western Montana to central Washington. The KBARA system is also part of the Evergreen Intertie, an interconnected group of repeaters located in western Washington and Oregon. The primary purpose of the KBARA repeaters is to provide a means for emergency communications within the above areas, and secondarily for routine radio traffic. It makes possible a single system of mobile communications coverage, extending the limited range provided by any single repeater operation. The KBARA FM repeaters operate in the VHF bands and are linked by UHF radios. All licensed Amateur Radio operators are welcome to use this open repeater system. Your support would also be greatly appreciated. Please visit this site for more information:

<http://www.kbara.org> for more information about the club and repeaters.

## KBARA Officials

### Directors

Jim Ashleman, N7WRR  
Scott Harvey, KA7FVV  
Glen Ahlborn K1RR

### Officers

President: Dave Carleton, K7DSR  
Vice President: Jim Johnson, KM7H  
Secretary:  
Treasurer: Betsy Ashleman, N7WRQ

Testing is held the 3rd Wednesday of every month. Brought to you by Glen, K1RR. If you have any questions please contact Glen at [glen@k1rr.com](mailto:glen@k1rr.com) or 509.216.0666.

**Contact Glen for updates on testing.**



To support KBARA, please send your contributions to:



**KBARA**  
PO Box 30801  
Spokane WA 99223-3013

Annual support is \$15 per calendar year for a single membership and \$20 for a family membership. Dues are due in January of each year and if paid between September 1 and December 31, they will be applied through the entire following year. Also, any contribution will be gladly accepted to the Repeater Fund. This can also be done via PayPal on our webpage at [www.kbara.org](http://www.kbara.org).

## KAMIAK BUTTE AMATEUR REPEATER ASSOCIATION

**PO Box 30801**

**Spokane WA 99223-3013**