Winter 2024

KBARA Gazette

Quarterly Journal of the Kamiak Butte Amateur Repeater Association

Christmas Gathering at the Longhorn BBQ

The 22nd annual Ham Radio holiday luncheon, held at the Longhorn Barbecue Restaurant in the Spokane Valley, was well attended this last December. Some 53 in attendance from various local clubs, “rag chewed”, enjoyed the camaraderie and the fine cuisine. Thanks to our photographer Valaire KG7OWX, we have pictures of several new faces at this fun event.

Bruce & Regan, KJ7RHU

Craig, KK7LYB

James, W7JJR

Keira, KE7GUB

Markus, AI7NM

Technical Update

by Jim, N7WRR

This summarizes the main technical issues which I cover weekly on the KBARA Wednesday evening nets. Tune in to the weekly Wednesday 7 PM nets for more detailed information and discussion. We have finally restored the RF (Radio Frequency) link at the Pikes Peak 147.28 repeater. Now all the KBARA system repeaters have RF links reestablished except West Twin 147.32, which is on an IRLP link. Scott KA7FVV and I have been discussing making a trip to West Twin when the snow is gone in the spring and looking into doing a RF link, but at least updating the IRLP and doing some audio adjustments for the 147.32.

Pikes Peak 147.28 repeater. We finally have the RF link established again for the Pikes Peak 147.28 repeater. I repaired the old 4 element Yagi antennas and made up new coax and harnesses for them. Path analysis for the link from Pikes Peak to the hub at Stensgar indicated that 2 of the 4 element Yagi antennas should work fine rather than the 4 that came down. On December 29th Dave K7DSR and I went down to Pikes Peak; it was over a 14 hour day. Dave did the tower work and I did the ground work. We installed 2 of the 4 element Yagi's at 50-60 feet up on the tower at a bearing of 003°. The SWR is <1.05:1!

When we first arrived in the area we noticed a very bad hum on the system. However upon shutting down the IRLP it was eliminated. The 2 yagis are working well and the audio is better quality then over the IRLP link. There was a decrease in quality when the ice storm passed through, but it is working well again now that the ice has melted off. We ran out of time to stop by to see Logan KK7HUI and to pick up the radio and IRLP equipment, but will do it next time. A big thank you to Logan for hosting the IRLP link all this time.

The first picture is Dave working on the tower, and the second photo shows the two Yagi's installed.

Hub linking repeater 223.90 MHz. We received the Temwell cavity band pass filter that was purchased to replace Karl AK20's filter. On December 6th I took it to Karl's shop for testing. It tested out very well with <4 db of loss to our signal, but over 70 db attenuation of Avista's signals. Karl took his snowmobile to site on January 16th and retrieved his filter and replaced it with KBARA's new filter.

Technical Update continued...

by Jim, N7WRR

Mica Peak 147.38 repeater. We are having some occasional problems with the Mica link to the Stensgar hub. I believe this is from ice falling off and hitting the antenna, bending it toward the ground. I installed a more robust antenna a couple years back, but we still are having some winter issues. We will try to come up with a better location or make a snow/ice standoff next summer for it. Karl AK2O will accompany me to the site over next few days to check out the link antenna and try to determine the interference source on the Lookout link.

Lookout Pass 147.02 repeater. The UHF link from Lookout repeater to Mica continues to work well since the work Scott KA7FVV and I did on it last September. There is only occasional interference that shows up and the repeater is getting more use as people find it linked in full time again. We will keep our fingers crossed; in the past we used to lose the link during the winter months, but so far it is doing great. I think the better radio, new site and antenna location have helped a lot.

Emergency Traffic. On January 6th some emergency traffic was handled on the KBARA system. Two pickup trucks were stuck in the snow in a remote area of National Forest north of Coeur d'Alene. They were able to get help over the KBARA system and multiple phone calls were placed on their behalf to get the help they needed for a rescue. People forget that there are a lot of areas cell phone service doesn't extend to. Remember to carry a radio with you in the back country.

THE RADIO AMATEUR CODE

The Radio Amateur is:

CONSIDERATE....never knowingly operates in such away as to lessen the pleasure of others.

LOYAL.... offers loyalty, encouragement, and support to other amateurs, local clubs, and the American Radio Relay League, through which Amateur Radio in the United States is represented nationally and internationally.

PROGRESSIVE... with knowledge abreast of science, a well-built and efficient station and operation above reproach.

FRIENDLY... slow and patient operating when requested; friendly advice and counsel to the beginner; kindly assistance, cooperation and consideration for the interest of others. These are the hallmarks of the amateur service.

BALANCED... radio is an avocation, never interfering with duties owed to family, job, school or community.

PATRIOTIC... station and skill always ready for service to country and community.

--The original Amateur's Code was written by

Paul M. Segal, W9EEA, in 1928.

A Trip Back in Radio History

The first wireless transmission

It's well-established that Guglielmo Marconi was the first to make a local wireless transmission to his mother in 1894, and then the much-publicized transatlantic transmission in 1901. Later, the distinction of the very first radio patent was actually awarded by the US Supreme Court to Nikola Tesla, who in 1893 wirelessly powered the Chicago World's Fair, then in 1898 demonstrated the first wirelessly controlled craft. Yet way back in 1866, before Marconi was even born, an obscure dentist named Mahlon Loomis had actually demonstrated a successful wireless transmission and reception between stations located 18 miles apart.

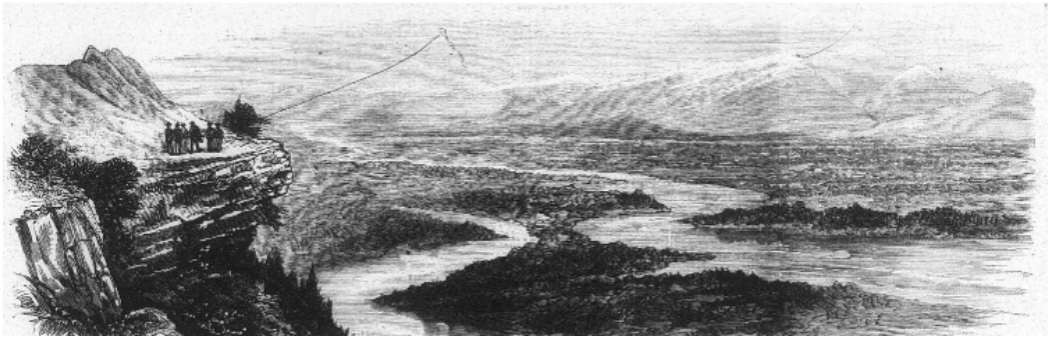
Who?

On two separate mountain peaks of the Blue Ridge Mountains, nearly identical setups using thin wires, kites covered in conductive mesh, and no power source except the Earth's atmosphere, Loomis set out to prove his theory. He surmised that the Earth's atmosphere contained enough electrified energy to power his stations, allowing one to send communication pulses to the other.

Each kite and conducting "kite string" was flown to nearly 600 feet in the air, with the end of the conducting string tied to earth ground. The wire of one of the kites was interrupted near the ground by a make-shift key (unwitting fore-runner of the later spark gap), while the wire of the other was interrupted by a galvanometer, to measure the reception response.

At a precise predetermined time, one station keyed a sequence of pulses, while the other station recorded the galvanic response. They repeated this several times, to ensure they had recorded accurately, and remove random noise from the result. The results were as Loomis had predicted, and had become the first known wireless communication.

Due to lack of funding (in part because of the Chicago Fire), and in spite of an 1873 patent, Loomis was never able to produce his invention. Some also believed Loomis might have been a bit ahead of his time with this new wire-free communication marvel. His name fell to anonymity, and his discovery never found its way into radio textbooks, allowing bigger names to draw the limelight.



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 N1NG (192.8 tone) on Mica Peak near Spokane, WA, owned by Mike N1NG
IRLP Node #3638 in Spokane WA owned by Glen, K1RR

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**. See us on Facebook.

Upcoming Hamfests and Events

Courtesy of N7CFO.com

~~~~~~~~~~2024~~~~~~~~~~

February 17. Salem Hamfair. Rickreall, OR. http://www.w7sra.com/ . Flyer in PDF. (712K)

March 9. Mike & Key Swapmeet. Puyallup, WA. ***This is an ARRL Sanctioned Event.***
https://www.mikeandkey.org/index.php

April 20. Kamiah Hamfest. American Legion Hall 618 Main St. Kamiah, ID. ***This is an ARRL Sanctioned Event.*** **https://www.3riversarc.club**

May 11. Stanwood Camano ARC 31st Annual Electronic Flea Market and Hamfest. Stanwood, WA.
https://scarcwa.org/ham_fest.shtm

May. N7YRC Tailgate Party, Union Gap, WA.

May 31, June 1-2, 2024. SEA-PAC Hamfest and ARRL Northwestern Division Convention. Seaside Convention Center, Seaside, Oregon. info@seapac.org . www.seapac.org/ .

June. Wenatchee ACARC Hamfest, Dryden, WA. https://www.applecityarc.com/

June. Grays Harbor Electronics and Hamfest/Flea Market. Hoquiam, WA.

June. Port Ludlow ARC Tail Gate Swapmeet. https://www.n7pl.org/

July. Glacier Waterton International Peace Park Hamfest. Glacier Meadows Campground, 13 miles west of East Glacier on MT Hwy 2. http://www.gwhamfest.org/

July. Coos County Radio Club Hamfest and Swapmeet. Bandon, Oregon.

July. Chehalis Valley ARC Ham Radio Tailgate Swapmeet. http://www.cvars.org/

August. Puget Sound Antique Radio Association Swapmeet. https://www.pugetsoundantiqueradio.com/

August. Pacific NW DX Convention. https://pacificnwdxconvention.com/

August 12. Kootenai Amateur Radio Society Hamfest. Post Falls, ID.

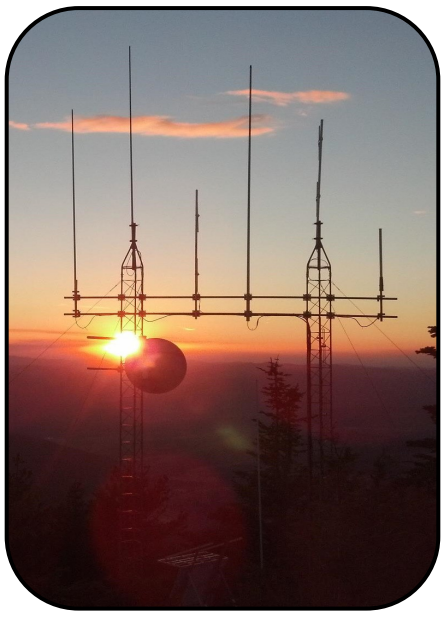
September 30. High Desert Amateur Radio Group 3rd Annual High Desert Ham Fest, Redmond, Oregon. Deschutes County Fairgrounds. www.hidarg.org contact kf7max@arrl.net

October 3-4-5. Microwave Update/Western Canada Weak Signal Association/Pacific Northwest VHF Society Conference. http://www.pnwvhfs.org/ https://wcwsa.ca/ Vancouver, BC.

October. Kitsap County ARC Hamfest. Bremerton, WA. https://kcarc.org/hamfest/

KBARA Repeaters and Echolink/IRLP Nodes

Frequency	CTCSS Tone	Location	Call sign	RF Link
Repeaters				
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
Links				
Echolink KB7ARA-R	N/A	Spokane, WA	KB7ARA-R	KB7ARA - 223.90
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: Tim, N6JXN
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 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.

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