

KBARA Gazette

Quarterly Journal of the Kamiak Butte Amateur Repeater Association

Summer 2020

Lookout Pass / K1RR Testing

Many of you know that KBARA has been working on getting some new equipment for sites. One of them is the Lookout Pass repeater. The club has purchased a newer Kenwood transceiver, link radio, and controller. While it seems like this is a simple enough task, there is a lot of work that needs to be done to get all the equipment working together correctly. I thought that it would be neat to go over some of the things that need to be done to get the equipment working.

On the back of the repeater there is usually a big 25 pin input/output cable. You have the manual, with wiring diagrams, but still must figure out what they all do, and how to make them communicate with the controller. These are all your normal repeater functions, like the "PTT switch" which gets activated by the controller when the repeater needs to be keyed up. You also have your COS/COR, or carrier operated squelch or relay. This must get activated when the receiver needs to be listening, rather than transmitting. Of course your audio in & out wires. From there they need to be wired to the controller in the same fashion. The tricky part of some of this is that some wires or leads can be a pull up or pull down type signal. What this means is that to activate your a certain function, like PTT for example, on the transmitter the voltage goes from 0v to >3v. Or it could be backwards and goes from +3v to ground (0v) when activated. So you must be careful in how the equipment sends & receives signals between each other.

From there you must do the same thing with the link radio system, which could be the same or could be different. What is amazing to me is

that some of these pins can actually be computer programmed inside the radios to do anything you want. You can actually make a certain pin become ground just by programming it in the software. You can actually take that exact same pin and program the software to make it become audio in, data in, audio out, or just about any other thing you want. While this is fascinating sometimes it can become frustrating, as not only are you referring to the manual on wiring diagrams, but also need to consult your own programming to make sure each pin is designated for your intended use.

Program all the timing in the controller, add some CW IDing, and we're on the air for "testing". I always feel bad for making people endure the series of "testing" you may hear. I try to keep the link off, and do most of the testing and programming on just the repeater without it being linked to KBARA so everyone doesn't have to endure hours of audio testing and a bunch of DTMF tones. But in the final stages, you need to know that it's linked, and everything is working! "K1RR ... test" "testing... K1RR". Sorry about it all, but it's actually great news when you hear that. It means I'm ALMOST done!

There are a lot of little things that can be challenging to figure out, and make sure they are correct. I truly enjoy this part of the hobby because of the challenges. This time around it was a little frustrating because I have been in a hurry to try to get this going before the end of June so that the club has the time to get everything else rounded up for the site so we can install this before the end of summer. I am happy to

report that as of the writing of this article, I will be checking into the 7 am Northwest Regional & International net on KBARA with the Lookout Pass



Lookout Pass / K1RR Testing continued

repeater on 147.020 sitting in my garage! Now it's just time to tear this all apart, and get it back to the club and get it ready for installation!

Glen, K1RR

Wednesday Night Net Control Operators Needed

We would like to expand our roster of net control operators for our Wednesday night net. We have a short list who rotate net control duties. It is a short net, usually about 15-20 minutes depending on comments and the number of check ins. The preamble and a software program to assist in identifying call signs and names is available on the On Air Nets page on the KBARA website. Come join the fun and get a little practice running the show for KBARA on Wednesday Nights.

KBARA's 42nd annual meeting

will be held Sunday, August 9, 2020, at 1:00 PM. The location will again be Valleyford County Park on the Palouse Highway near Spokane (11418 E Palouse Hwy, Valleyford, WA 99036). All are welcome to join us.

This year, no potluck is planned due to the Coronavirus. Please bring a chair and a favorite beverage. Too, any KBARA member willing to offer their time in serving as a club officer, please contact the current officers.



The Radio Amateur's Code

The Radio Amateur is

CONSIDERATE...He/[She] never knowingly operates in such a way as to lessen the pleasure of others.

LOYAL...He/[She] offers loyalty, encouragement and support to other amateurs, local clubs, the IARU Radio Society in his/[her] country, through which Amateur Radio in his/[her] country is represented nationally and internationally.

PROGRESSIVE...He/[She] keeps his/[her] station up to date. It is well-built and efficient. His/[Her] operating practice is above reproach.

FRIENDLY...He/[She] operates slowly and patiently when requested; offers friendly advice and counsel to beginners; kind assistance, cooperation and consideration for the interests of others. These are the marks of the amateur spirit.

BALANCED...Radio is a hobby, never interfering with duties owed to family, job, school or community.

PATRIOTIC...His/[Her] station and skills are always ready for service to country and community.

DX Code of Conduct

1. I will listen, and listen and then listen again before calling.
2. I will only call if I can copy the DX station properly.
3. I will not trust the Cluster and will be sure of the DX station's callsign before calling.
4. I will not interfere with the DX station or anyone calling and will never tune up on the DX frequency or in the QSX slot.
5. I will wait for the DX station to end a contact before calling.
6. I will always send my full call sign.
7. I will call and then listen for a reasonable interval. I will not call continuously.
8. I will not transmit when the DX operator calls another callsign, not mine.
9. I will not transmit when the DX Operator queries a call sign, not like mine.
10. I will not transmit when the DX operator requests geographic areas other than mine.
11. When the DX operator calls me, I will not repeat my callsign unless I think he has copied it incorrectly.
12. I will be thankful if and when I do make a contact.



From the Ham Shack of our President

Kbara Members,

Well, greetings again everyone. I hope all have or are making a good recovery/comeback from that Covid-19 pandemic which hit us back in March. You know, with all that not having to go to church on Sundays, staying home, businesses shut down, etc. I myself actually found the whole thing kind of a “restful and relaxing” interlude. I got some things done around my house (cleaning, vacuuming, organizing, etc.) in places I hadn't touched in years. More over, I had time to just stop and just think about a few things which, in normal times, neither myself nor anyone else ever take the time to think about enough.

We should never forget that our so-called “society” (jobs, businesses, culture, entertainments, activities, etc.) is all built upon a pathetically fragile structure, which can utterly collapse or give way suddenly any time. The entire bottom of things can fall out virtually any time with no warning what so ever. Moreover just the one part of the bottom you happen to be standing on also can give way at the time you might least expect it to. Poverty, homelessness, illness, hunger, these are all things which neither you, me nor anyone else is any more than the barest heartbeat away from. We should neither forget nor ever lose sight of these things when times are good.

As I sit here writing (late April), all of those many ham activities, ie., hamfests, conventions, meetings, assemblies, etc., and which I referred to in the last issue, all of them, virtually all of them anyway, have been either cancelled altogether or postponed indefinitely, on account of the Covid-19 virus. With the closure of schools, we do not even know at this time whether the University High School (or any others) will even be available to us for the annual September Hamfest. At the moment, we are not even sure about the ARRL Field Day scheduled for June 27-28, particularly as we have now all but decided to have the KBARA annual election meeting at a place/time separate from the annual Field Day meeting. This has usually been at Valleyford Park just a few miles south of Spokane. Also, the attendance at last year's Field Day was as meager as I've ever seen it. There is convincing talk going around right now about making this year's Field Day an individual venture by each Ham participant, i.e., maybe each just participate individually at home, in your back yard, rather than all just coalescing down at Valleyford Park which could have disappointing results, as I've already cited.

Well, over-all, KBARA still manages to hang on through it all, things still more or less functioning, morning and evening nets still being performed regularly and on schedule, thanks to the perseverance and dedication of sometimes a nucleus or relatively small number of persevering and dedicated people.

The Spring 2020 issue of the KBARA Gazette was one of the best I've seen in a while. There was another fine article with photos by Jim, N7WRR, showing/explaining details of repeater site visits, repairs, both actual and contemplated. I've suggested to Jim that he try to make this a regular feature for all or most newsletter editions, and am glad to see him attempting to do so. There were also some fine short pieces by Scott, KA7FVV and others.

Carpel tunnel syndrome (cumulative trauma disorder): I had an attack of this in late April-early May. Put into plain words, it is a painful collection of symptoms, i.e., tingling, numbness, burning and pain from the wrist to the fingers of one or, sometimes, both hands. It is common with people who work extensively and repeatedly with hand/finger, i.e., typists, keyboard and cash register operators, jackhammer operators, etc. It is a common affliction, by the way, with ham radio operators. It hit me in my left hand, the very one I use when talking on the radio, my thumb depressing and releasing constantly the PTT switch. I'd had mild touches of it many time previously, but a more severe attach can be and often is anything but fun. There are, of course, specially made gloves you can put on which are designed to ease arthritis pain plus a host of other things. I encourage all to have on hand a pair of such gloves, they can be obtained at any store selling medical aid/supplies.

As for additional treatment and relief, I find myself at variance with established medical expertise. They almost universally say a cold pack applied to the wrist/hand/fingers is the fastest way to at least get some immediate relief., and to avoid heat. I have found the exact opposite to be true. A cold pack did nothing for me but make things worse. A hot pack



From the Ham Shack of our President continued...

however, brought me almost instant and lasting relief, (maybe I should say warm pack, for heaven sakes, don't burn yourself).

One more thing, when pressing the PTT switches or working at a keyboard, keep your hand, wrist and fingers just as relaxed as you possibly can. Avoid tensing up if you possibly can. When doing the Thursday morning net at 7 am, I have sometimes found my left hand/fingers gripping the mike so hard it almost took a screwdriver to pry them loose. Be conscious and aware, always, of this happening and avoid it, relax, relax, relax.

I heard there is now a quick, simple, in-and-out surgical operation that prevents/removes the CTS risk altogether. There are also hand, finger and wrist exercises that can minimize your risk of the CTS attack.

73, Dennis, KF7UTH President KBARA



Another Field Day is in the books. This year a very odd one for sure amid the coronavirus pandemic. The classes were all changed around this year. It seemed like they were more focused on the home station operators. There were still field operations being done on emergency power. Part of our group from last year assembled in the mountains of north Idaho again. Among the three of us I think we make 20 contacts total. I used the time to test two new HF antenna setups. Of course we all know that HF propagation has not

been the best. No different for Field Day. We worked mostly 20 and 40 meters. 40 seemed to be our best band around late afternoon and evening on Saturday. It was nice to get out in our small group and get out with the trailer and try the rebuilt go box and new antennas. Of course there is always lots of good food on Field Day, brauts, hamburgers and pulled pork. Scott, KA7FVV

Ham Radio Events Cancelled amid Pandemic Scott, KA7FVV

As Dennis touched on in his Presidents letter, many of our usual annual events were cancelled due to the pandemic. I attended the Puyallup Hamfest on the first weekend in March. I was selling items from the collection of a silent key who I had known for about 40 years. Usually Puyallup is jam packed with not only sellers but attendee's as well. Only about half or less of the tables were occupied and even though I sold most of what I had on the table, the attendee's were probably half of normal. Before I published the spring issue I kept watching the N7CFO.com web site where I always include upcoming events in the newsletter. I kept having to mark events cancelled up until I sent the issue off to Betsy. We had reservations at a condo in Seaside, OR on the first weekend of June to attend the Seaside Hamfest. We were going to make a family outing out of it with my son, daughter-in-law and grandson were going to join us. That was cancelled of course. I have included the rest of the years events from the N7CFO.com web site in this issue. Check that web site for updates for cancelations. Hopefully our hamfest won't be one of them.



Treasurers Report

KBARA INCOME & EXPENSES

6/22/2019 to 6/30/20

DATE	DESCRIPTION	DONATIONS	MICA PEAK	STENSGAR	STENSGAR	LOOKOUT	PIKES PEAK	WEST TWIN	PAYPAL	OTHER	ENDING
			147.38	147.36	223.90	147.02	147.28	145.32	FEEES		BALANCE
06/24/19	Donations	\$20.00									
07/05/19	Donations	\$25.00							(\$1.33)		
07/29/19	Fuel for W7OE					(\$15.00)					
08/05/19	USPS Box Rent									(\$92.00)	
08/05/20	Pikes Peak Purchase						(\$1,500.00)				
08/05/19	Donations	\$15.00									
08/13/19	Donations	\$45.00							(\$1.91)		
08/21/19	Repeater						(\$600.00)				
08/24/19	Lookout Purchase					(\$500.00)					
09/09/19	WA State Filing									(\$10.00)	
09/16/19	Donations	\$20.00									
09/24/19	Donations	\$85.00							(\$3.67)		
10/01/19	Donations	\$270.00									
10/08/19	Site Rent				(\$100.00)						
10/09/19	Spokane Hamfest									\$936.38	
10/09/19	Donations	\$20.00									
10/21/19	Donations	\$25.00									
10/30/19	Donations	\$80.00							(\$3.54)		
11/12/19	Donations	\$25.00									
11/27/19	Donations	\$180.00							(\$7.95)		
12/07/19	Repeater repair							(\$507.75)			
12/16/19	Donations	\$530.00									
12/30/19	Donations	\$55.00									
01/02/20	Donations	\$155.00							(\$6.32)		
01/06/20	Rent						(360.00)				
01/06/20	Donations	\$85.00									
01/14/20	Donations	\$355.00									
01/21/20	Donations	\$35.00									
01/25/20	Fuel			(\$15.00)							
01/27/20	Donations	\$15.00									
01/28/20	Lease Notary			(\$160.00)							
01/28/20	Lease Transfer			(\$25.00)							
01/28/20	Site Rent			(\$100.00)							
02/03/20	ARRL Insurance									(\$300.00)	
02/03/20	Snowcat			(\$300.00)							
02/03/20	Postage									(\$8.25)	
02/05/20	Donations	\$70.00							(\$2.94)		
02/10/20	Donations	\$200.00									
03/04/20	Donations	\$30.00							(\$1.48)		
03/09/20	Donations	\$15.00									
03/14/20	Repeater Repair							(\$535.79)			
04/01/20	Donations	\$90.00							(\$3.52)		
04/07/20	Donations	\$50.00									
04/21/20	Donations	\$135.00									
04/24/20	controller_cabinet					(\$924.42)					
	link radio										
04/27/20	Donations	\$50.00									
04/27/20	Donations	\$105.00							(\$4.26)		
05/05/20	Donations	\$20.00									
05/12/20	Postage									(\$52.75)	
06/08/20	Donations	\$45.00							(\$2.22)		
06/24/20	Donations	\$15.00							(\$0.74)		
06/27/20	First Step Internet							(\$130.00)			
	BEGINNING	DONATIONS	MICA PEAK	STENSGAR	STENSGAR	LOOKOUT	PIKES PEAK	WEST TWIN	PAYPAL	OTHER	ENDING
	BALANCE		147.38	147.36	223.90	147.02	147.28	145.32	FEEES		BALANCE
	\$10,681.63	\$2,865.00	\$0.00	(\$600.00)	(\$100.00)	(\$1,439.42)	(\$2,460.00)	(\$1,173.54)	(\$39.88)	\$473.38	\$8,207.17

Memberships \$1,155.00
Extra Donations \$1,710.00

Total Income \$3,801.38
Total Expenses (\$6,275.84)



West Twin Repeater Site Rebuild

Scott, KA7FVV

As everyone knows West Twin has been problematic since our original Motorola radio decided to die last summer after two years of working perfectly. A replacement duplicate radio decided to stop working after it was replaced in November. Over the winter Glen and I found a Icom FR5000 repeater and had it refurbished and serviced by Icom. This is the same model of repeater that is at Stensgar and Pikes Peak sites. I was able to make a trip to West Twin early in June to do the repeater rebuild. It has been working flawlessly ever since. Thanks to Glen, K1RR and Jim, WA7VFQ for their assistance with testing. Here is what West Twin repeater looks like. The IRLP computer is on the floor to the right.





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



KBARA is a support group for several privately and club 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 and IRLP. The repeaters' frequencies, call signs and locations are as follows:

- 147.380 MHz W7OE on Mica Peak near Spokane, WA, owned by John, W7OE & Jim, N7WRR
- 147.360 MHz N7WRR on Stensgar (Stranger) Mt. near Chewelah, WA, owned by Jim, N7WRR
- 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 AK2O hub repeater on Stensgar (Stranger) Mt. near Chewelah, WA, owned by Karl, AK2O
- IRLP Node #3638 in Spokane WA owned by Glen, K1RR
- IRLP Node #3636 on East Tiger Mt, near Issaquah, WA owned by KBARA
- EchoLink KB7ARA-R (947272) in Spokane Valley, WA owned 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. See us on Facebook.



Upcoming Hamfests and Events

Courtesy of N7CFO.com

Check the above page for other cancellation

July 17-19. Glacier Waterton International Peace Park 85th annual Hamfest. (Always the third weekend in July) Glacier Meadows Campground, 13 miles west of East Glacier on MT Hwy 2. <http://www.gwhamfest.org/>

~~**July 25. Chehalis Valley ARC 22nd Annual Ham Radio Tailgate Swapmeet**~~ **CANCELED.** Southwest Washington Fairgrounds, Chehalis, WA. Contact John Ellingson, K7OSK. k7osk@boatanchor.com. ~~<http://www.cvars.org/>~~ ~~Flyer in PDF.~~ (188K)

~~**August 7-9. Pacific Northwest DX Convention.**~~ **CANCELED** Portland, OR. *This is an ARRL sanctioned event.* ~~<http://pacificnwdxconvention.com/>~~

~~**August 16. Antique Radio Swap Meet. Puget Sound Antique Radio Association.**~~ **CANCELED** Shoreline Community College, 16101 Greenwood Avenue North, Shoreline, WA 98155. ~~<http://www.pugetsoundantiqueradio.com/index>~~ (Always the 3rd Sunday in August)

September 11-13. Digital Radio Summer Gathering - 2020. Valley Camp, North Bend, WA. Contact: Thom, K7FZO@WA7VC.org

September 12. Matanuska Amateur Radio Association Hamfest. Wasilla, Alaska. *This is an ARRL sanctioned event.* <http://k17jfu.com/>

September 26. Washington State Convention (Spokane Hamfest), Spokane Valley, WA. (Always the 4th Saturday in September)

October 9 & 10. Pacific Northwest VHF Society Conference. Salem, Oregon. *This is an ARRL sanctioned event.* <http://www.pnwvhfs.org/conference/2020/announcement.html>

October. Kitsap County ARC Hamfest. Bremerton, WA. hamfest@kcarc.org <http://www.kcarc.org/>

~~**October 17. Swap Tober Fest.**~~ **CANCELED** Mid Valley ARES. Polk County Fairgrounds, Rickreall, OR. ~~www.swaptoberfest.net~~

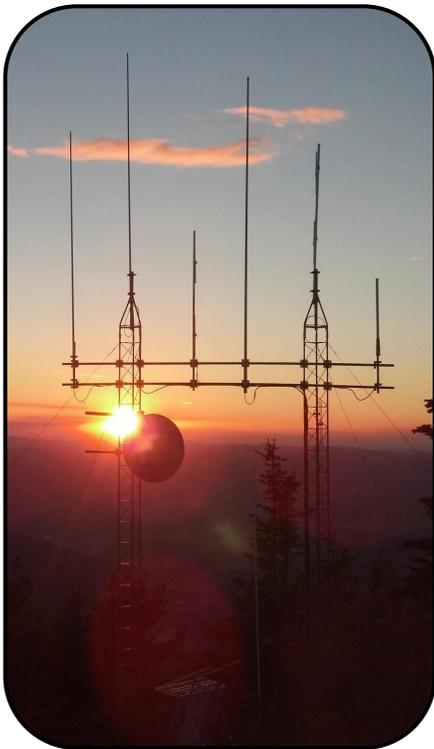
This is the end of the lists for 2020 Events. Lets hope that 2021 will be a better year.





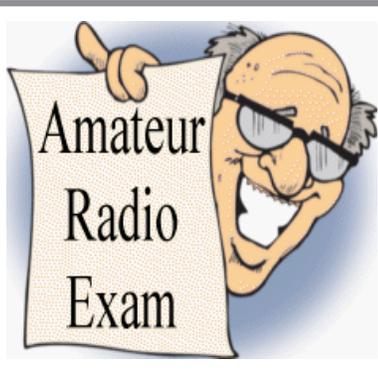
KBARA Repeaters and Echolink/IRLP Nodes

Frequency	CTCSS Tone	Location	Call sign	RF Link
Repeaters				
223.90 MHz	None	Stensgar Mtn	AK2O	Hub
147.38 MHz	None	Mica Peak	W7OE	AK2O—223.90
147.36 MHz	None	Stensgar Mtn	N7WRR	Hard wired Hub
147.02 MHz	None	Lookout Pass	KB7ARA	W7OE—147.38
147.28 MHz	None	Pikes Peak	KB7ARA	AK2O—223.90
147.32 MHz	103.5	West Twin, Moscow	KA7FVV	IRLP
Links				
Echolink KB7ARA-R	N/A	Spokane, WA	KB7ARA-R	AK2O - 223.90
IRLP Node 3636	None	East Tiger Mt	KB7ARA	145.33 & Ref 9075
IRLP Node 3638	None	Spokane, WA	K1RR	AK2O—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.

	<p>Testing is held the 3rd Wednesday of every month at Spokane Fire Station No. 4 at 1515 W 1st Avenue, Spokane. Brought to you by Glen, K1RR. If you have any questions please contact Glen at glen@k1rr.com or 509.216.0666.</p> <p>Contact Glen for updates on testing during the pandemic</p>
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<p>To support KBARA, please send your contributions to:</p>  <p>KBARA PO Box 30801 Spokane WA 99223-3013</p>	<p>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.</p>
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