





Autumn, 2009 The Quarterly Journal of the Kamiak Butte Amateur Repeater Association KBARA, PO Box 30801, Spokane WA 99223-3013

Note from the Interim Editors, N7WRR & N7WRQ

We wish to pass along our sympathies to our president Bob, W7HFI, whose wife Caryl recently passed away.

Since the last newsletter, a lot of work has been done on the system. A big thank you to all the owners who have done so much work improving the system. We're sure excited about all the work Dan, K7MM has been doing in upgrading the Kamiak Butte site. We now have 6m added to the system, along with substantial upgrading of the equipment there (see article below). This will help extend the coverage throughout the Palouse. Also, a big thanks to Mark, K7HPT, new co-owner of the Pikes Peak repeater, for all the work and new antenna, which has really helped with coverage in the southern part of KBARA Land.

Also, the campout/annual meeting was a great success this year. Many thanks to Mark, K7HPT for making all arrangements; to Roy & Jan, VE7IS & VEQE, Jim & Betsy, N7WRR & N7WRQ for hosting the pancake breakfast; to Guy, VA7GV, for hosting his very interesting antenna demo; & to all those pancake flippers, & table movers & shakers for another great event. And then the Spokane Hamfest/Washington State Convention.....the best ever, thanks to the 8 participating clubs.

Kamiak Butte System Refurbished, 6-M Repeater, Battery Backup

Local KBARA members refurbished the Kamiak Butte voice system Saturday, October 10. Jim of K7LL, the Whitman County Emergency Coordinator, and Dan of K7MM and VU3MMW, Assistant EC made the plans to repackage the 33 year-old system into a new rack and add a 6-m repeater for better emergency coverage, especially in the Snake River breaks.

Jay of N7ZUF, Ray of KE7WOE, and Tom of AD7ZZ arrived with Jim and Dan on the cold, below-freezing Saturday morning. Dan was up the tower with Jay and Ray as ground crew. Jay and Ray were thankful for their hardhats because Dan's fingers were so cold that he kept dropping his tower knife! Dan removed some unused county antennas and installed an interim 6-m antenna as well as a new 440.975 MHz digital packet station antenna. (Previously the UHF packet node was diplexed on the 2-m antenna.) Dan also repaired the link antenna mount, changed from lossy RG-8 coax to Andrew ½-in. hardline, and added a Dacron-rope guy pulling up.

Jim and Tom gutted the old repeater cabinet. They installed the one-year old 146.740 MHz 2-m repeater, the new 223-MHz

link radio with true-FM modulator and audio output processing, and the new 53.750 MHz 6-m repeater. They rearranged the 2-m duplexer and circulator/cavity, and the 223-MHz circulator/cavity into the new rack. The 6-m duplexer and 7-foot tall bandpass cavity stand next to the new cabinet.

Near sundown Dan came down the tower. Jim and Tom had to leave and turned over the project to Dan, Jay, and Ray. Jay and Ray worked on perfecting the new battery backup charging and dc power distribution rack-mount panel, dc fusing and cabling, and testing. Dan made cables to finish connecting all the new cable routes. Working through most of the night the KBARA hams got the system running just before the 7 a.m. Sunday Road Runner net.



Dan, K7MM, working at Kamiak.....look, no hands!

New Equipment at Kamiak Butte

Six meter repeater on 53.750 MHz, -1.7 MHz offset, 100-Hz access tone 223 MHz link radio with true FM modulator Audio processor for the link radio SCOM 7330 repeater controller Optima deep-cycle yellow-top battery Iota DLS-75 power supply/charger Power distribution panel 6-m coaxial dipole antenna UHF dipole antenna in radome (for 440.975 MHz 9600 bps PULL96, K7MM-8 node) Feedlines and grounding kits Improved grounding Surge protection Rack cabinet

Kamiak Butte Amateur Repeater Association Annual Meeting Minutes July 18, 2009 3:00PM Fort Spokane, WA

President, Bob Lemon, W7HFI, called the meeting to order at 3:05PM by thanking all who helped out with the breakfast.

He then called for a silent moment to honor several Silent Keys: N7YRN-Warren Westerman, KJ7YX-Scott Lasater, VE7ALV-Phyl Wilkinson, VE7ODI-Walter Charles.

Bob introduced the current KBARA officers who all volunteered to continue in their positions. He called on the members and they agreed to leave all the officers in place.

President	W7HFI	Bob Lemon
Vice President	VE7IS	Roy McNeil
Secretary	K7HPT	Mark Van Winkle
Treasure	N7WRQ	Betsy Ashleman

Betsy-N7WRQ, asked for a Volunteer to take over the newsletter as Wes, KE7HGG, was no longer able to do it. She also thanked Wes for his past service.

Bob-W7HFI, called for introductions of the members who stood and gave names and call signs. There were 50 members and guests who signed the roster during the meeting.

Mark-K7HPT, read the minutes from the 2008 Annual Meeting and they were approved as read.

Betsy-N7WRQ, gave the Treasure's report. We started the year (7/01/2008) with \$1773.57 in the bank and ended the year (6-30-2009) with \$3,598.83. The increase was due largely from a donation from Neal-N7LVO \$900.00 when he sold his share of the Lookout Repeater, and the Sale of equipment \$700.00 donated by the family of SK Bill-W7CHI.

Charles-KG8ZK talked about field day and thanked the club for its participation.

John-W7OE, talked about the condition of the repeaters,

- 147.02 Working great.
- 147.38 Link antenna will be changed
- 147.36 Moved to new DNR site, replaced the 223.9 hub amp
- 146.74 Dan-K7MM is replacing the Controller and Antenna. He is also working on a 6 meter repeater

147.28 Has an antenna or feed line problem. Dan-K7MM loaned us a temporary antenna. Further work to come.

We voted to provide the Spokane Ham Fest with \$400 seed money. We voted to give the Evergreen Intertie \$300

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Bob adjourned the meeting at 3:50PM. Respectfully submitted, Mark Van Winkle-K7HPT Secretary Kamiak Butte Armature Repeater Association

Treasury Report KBARA Income and Expenses 7/01/2008 to 6/30/2009

	100 10 0/30/20		Total
	Checking	Savings	Funds
Beginning Bank	*•••••••••••••	****	* 4 == 2 = =
Balances	\$876.47	\$897.10	\$1,773.57
Income			
Memberships/Donations	\$3,773.50		
Hamfest Profit	\$524.34		
Hamfest Seed Money	\$400.00		
Interest Earned	\$0.00	\$6.05	
Total Income	\$4,697.84	\$6.05	\$4,703.89
Expenses			
Lookout Pass Site			
Rental	(\$367.68)		
Pikes Peak Site Rental	(\$360.00)		
Stensgar Site Rentals	(\$200.00)		
Hamfest Seed Money	(\$400.00)		
Check Supplies	(\$36.00)		
Newsletter & Postage	(\$174.11)		
Repeater Parts	(\$710.59)		
Gasoline	(\$192.25)		
Hamfest Swap Table	(\$5.00)		
Evergreen Intertie	(\$200.00)		
CampOut Reservation	(\$106.00)		
K7MM Gift	(\$75.00)		
Post Office Box	(\$42.00)		
Washington State Filing	(\$10.00)		
Total Expenses	(\$2,878.63)	\$0.00	(\$2,878.63)
Transfer	(\$1,850.00)	\$1,850.00	\$0.00
Ending Bank Balance	\$845.68	\$2,753.15	\$3,598.83

Respectfully submitted, Betsy Ashleman, N7WRQ Treasurer Kamiak Butte Amateur Repeater Association

Bob, W7HFI, Charles, KG8ZK, & Mike KE7PG critiquing the pancake flipping at the camp out



Spokane Hamfest 2009

The Spokane Hamfest was very successful again this year. It was put on by KBARA, Inland Empire VHF Radio Amateurs, NW Tri State ARO, Palouse Hills ARC, Spokane DX Assn., Lilac City ARC, Panoramaland ARC and University High School ARC. The Chairman was Betsy, N7WRQ of KBARA and the Treasurer was Dave, K7DWB of Inland Empire VHF Club. A big thank you to all of the people from each club who volunteered to make it a great success.

Spokane Hamfest		
Pre-event Swap Tables	45	
Event Swap Tables	7	
Total Swap Tables	52	
Commercial Tables Paid for	19	
Volunteers under Age 18	8	
Pre event Admission	65	
Event Admission	459	
Total Paid Admission	524	
Hamfest Income		
Seed Money	\$2,200.00	
Commercial Tables	\$272.50	
Pre-event Swap Tables	\$250.00	
Event Swap Tables	\$52.50	
Pre event Admission	\$325.00	
Event Admission	\$2,295.00	
Pre-event Raffle	\$1,732.00	
Event Raffle	\$1,023.00	
Auction	\$445.00	
Coffee Shop	\$119.64	
Donations	\$410.00	
Advertising	\$110.00	
Total Income	\$9,234.64	
Hamfest Expenses		
Raffle Prizes	\$2,205.47	
Raffle Ticket printing	\$325.01	
Rent Tables	\$332.62	
Door Prizes	\$304.49	
U High Rent	\$600.00	
Print Programs	\$133.70	
Print Fliers	\$152.18	
Administrative Supplies	\$117.87	
Total Expenses	\$4,171.34	
Profit	\$5,063.30	

Club Reimbursements from Hamfest

Spokane DX	\$920.60
KABARA	\$920.60
N W Tri States	\$920.60
VHF	\$920.60
Lilac City	\$460.30
Palouse Hills	\$460.30
Panoramaland	\$460.30
Total	\$5,063.30

KBARA gave \$400 in seed money and received \$920.60 back. In addition, Spokane Radio Amateurs was disbanded, and their treasury was divided among the Hamfest clubs. KBARA received \$529.50



Wilse, WX7P hosting the auction at the Spokane Hamfest.

Thank you to Roy and Jan for getting the great new sign. Many of you saw this above our table at the Spokane Hamfest.



Smokin' Antenna

This is an update of the Summer, 2009 newsletter article. The dual-band (80/160 Meter) antenna works great! I began using the antenna seriously in late September, 2009 when the low bands became lively again & the summer QRN noise lowered. I have been using it almost exclusively on 160 meters since I found that band most challenging. In less than a month of use on 160 meters, I have worked Japan, Australia, Chatam Island, Conway Reef, Fiji, New Zealand, Hawaii, Alaska, USA, Canada, Mexico, Argentina, Finland, Market Reef, Sweden, Asiatic Russia, European Russia, Slovokia, Latvia, Lithuania, Hungary, England, & Estonia.

Due to the antenna linear loading element, there is 60 feet of wire that is fed before being attached to the base of the 70 foot tower. Therefore, the voltage is high at the base of the antenna (unlike a 1/4 wavelength antenna fed directly at the base). I noticed that when I watered the area underneath the antenna, the SWR would go down. I discovered that this was due to the signal arcing to the ground from the base of the antenna. I keyed down the transmitter, went outside, & discovered smoke & steam coming from underneath the antenna. The piece of plastic separating the base of the tower & the ground was too thin & the RF would arc through to the ground. Got rid of a lot of gofers I would guess! The problem was corrected by putting a one inch thick piece of plastic between the antenna & the ground. Thank You Mark, K7HPT, for the plastic. So you now understand why this is called a Smoking Smokin' Antenna!

John, W7OE



KBARA Officers

- President W7HFI Bob Lemon, 509 288-0270 lemon@colfax.com
- Vice President VE7IS, Roy McNeil, 250-497-6136 janroy@shaw.ca
- Secretary K7HPT Mark Van Winkle, 509-993-1399 markvanwinkle@comcast.net
- Treasurer N7WRQ Betsy Ashleman, 509-448-5821 n7wrq@aol.com

KBARA Owners

W7OE John Dempster
AK2O Karl Shoemaker
W7HFI Bob Lemon
KD7DDQ Ken Crosswhite,
N1NG Mike Maxson
K7HPT Mark Van Winkle
K7MM Dan Ransom

Appointed Officials

Technical Director W7OE John Dempster

Control Operators

N7WRQ Betsy Ashleman, 509-448-5821, n7wrq@aol.com W7ZVD George Copeland, 509-526-4150, dgrums@charter.net

Elizabeth, KK7VO, Pam, KE7SBW, & Cathie, KD7QZS, at the camp



Regional Representatives

North Country: VE7IS & VE7QE Roy & Jan McNeil 250-497-6136 janroy@shaw.ca Southern: W7ZVD George Copeland 509-526-4150 dgrums@charter.net Spokane: N1NG Mike Maxson mmaxson@maxsonlab.com Silver Valley: KD7TSN Brian Schrage 208-890-4617 kd7tsn@arrl.net

Registered Agent, State of Washington

KA7SUZ JoAnn Gemmrig, 509-444-0228 ka7suz@concentric.net

KBARA NETS

Every week day	7:00AM	7AM NW Regional/International Net
Wednesday	7:00PM	KBARA Wednesday Evening Net
Thursday	6:30PM	Whitman/Latah County ARES/RACES Net
Saturday	7:00AM	Stanley Steamer Net
Sunday	7:30AM	Roadrunners' Net
Sunday	7:30PM	Spokane Region Storehouse ERC Net

Call Sign Trustee W7KLL Ken Lindahl 509-487-7831

Net Manager

WA7BFN Duff Johnson, 509-838-8486 thejohnsons8486@msn.com

Newsletter Editor N7WRR & N7WRQ Website Manager & Domain Host N1NG Mike Maxson mmaxson@maxsonlab.com http://www.kbara.org



EVERGREEN INTERTIE NETS [The following nets originate from Seattle except as noted]

Weekdays	5:45AM	Weather Net
	4:45PM	Weather Net
Monday	8:00PM	YL Net
Sunday	10:00PM	Astronomy Net (Portland)

Please remember to renew your membership for 2010		2010
Name		
Call Sign		
Address		
City/State	Zip	
Telephone	Amount Paid	
E-Mail	ARRL Member?	
Would you rather receive the r	newsletter via computer, instead of receiving it in the mail? $_$	YESNO

Dues are a minimum of \$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. And any additional amount will be gratefully accepted to the Repeater Fund. To support KBARA, please send your contributions to: **KBARA, PO Box 30801, Spokane WA 99223-3013** Please visit our KBARA website for more information: http://www.kbara.org

KBARA Membership / Support Information

The KBARA repeater system consists of several 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. The repeaters' frequencies, call signs, locations and owners are as follows:

KB7ARA REPEATERS

146.74 W7HFI	Kamiak Butte, near Pullman, WA, owned by Bob, W7HFI, Dan, K7MM, & John, W7OE
147.02 K7HPT	Lookout Pass on I-90 on the Idaho-Montana border, owned by Mark, K7HPT, & John, W7OE
147.28 KD7DDQ	Pikes Peak in the Blue Mountains, SE of Walla Walla, WA, owned by Ken, KD7DDQ & Mark N7HTP
147.36 N1NG	Stensgar (Stranger) Mountain, near Chewelah, WA, owned by Mike, N1NG, & John, W7OE
147.38 W7OE	Mica Peak, east of Spokane, WA, owned by John, W7OE
223.90 AK2O	Stensgar (Stranger) Mountain, near Chewelah, WA, owned by Karl, AK2O
444.35 N1NG	Mica Peak, east of Spokane, WA, with a 192.8 Hz tone, owned by Mike, N1NG
53.750 K7MM	Kamiak Butte, near Pullman, WA, owned by Dan, K7MM, Bob, W7HFI
IRLP Node #3957 N1NO	G South Hill of Spokane, WA, owned by Mike, N1NG

All licensed Amateur Radio operators are welcome to use this open repeater system. Your support would also be greatly appreciated. Please visit these websites for more information: http://www.kbara.org and visit http://groups.yahoo.com/group/evergreenintertie

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.

KBARA

KAMIAK BUTTE AMATEUR REPEATER ASSOCIATION

PO Box 30801 Spokane WA 99223-3013