



The BAARCer



November 2009

For Anyone Interested in Amateur Radio

Page 1 of 8

Club Call: WØUJ

BAARC REPEATERS
 53.110 MHz- 123.0 Hz
 147.225 MHz +
 145.130 MHz- Echo Link
 Node number 233515
 443.925 MHz + 110.9 Hz
 Packet: 145.670 MHz
 BBS MNBRD, WØUJ
 144.390 WØUJ-5 APRS
 Crosslake 147.030 MHz+
<http://brainerdham.org>

OFFICERS

President:
 Al Doree **WØRC**

Vice President + WWW

Editor:
 Steven Mott **KCØYTE**

Secretary:
 Darrell Schneider **ABØVP**

Treasurer:
 John Myers **W3MQD**

Director-At-Large:
 Roger Williams **WØWUG**

Trustee + BAARCer
Editor:
 Fritz Bertelt **WØKO**

Index

Pat Goff, Manager of Power Quality at Crow Power, presented a very informative program for us on the importance of obtaining a good ground. In animated fashion he showed one type of ground rod commonly used—an eight footer. However, the only way to know the quality of your ground is to test it. How? With a quality instrument commonly called a “megger.” Roger Williams, WØWUG, who presided at the meeting, is shown holding the Fluke 1630, a \$1500 accurate tool of the trade. It clamps around the exposed ground wire in question, as demonstrated by Pat (on the left). Many good questions were expertly answered by Pat. Look for new technologies coming into vogue in this field of electric power. See pages 5 + 6.



Meeting Minutes-	2
Goblin Patrol Pix by KØLFV + WØWY Rpt	3
DX Report-WØZPE UPDATE -WØRC	4
Grounding Notes by Fritz WØKO	5
Grounding Pix — WØKO	6
Ballot for 2010 Officers	7
Sunday Night Net- etc.	8

— Events Calendar —

- Sat., Nov. 7, Club Brkfst. @ 9** at Northwind Grille in Brainerd.
- Thurs., Nov. 19, Board Mtg. @ 4** in Library Small Conference Room
- Thurs., Nov. 19, Mmbrshp. + Voting Mtg. @ 7** in CLC Room E 313 (Use E. Entrance Door—go right and look for room on right)
- Sat., Nov. 21, Club Brkfst. @ 9** at Northwind Grille in Brainerd
- Thurs., Dec. 17, Board Mtg. @ 4** in Library Large Conference Room
- Thurs., Dec. 17, Membership Christmas Mtg. @ 7** in Lib. Large Conf. Rm.

Election: Ballot in this BAARCer

ACTIVITY UPDATES ON THE SUNDAY EVENING NETS

HAPPY THANKSGIVING—MUCH TO BE GRATEFUL FOR!

October 29, 2009 - 4:00 PM - BAARC Board Meeting Minutes – Brainerd Fire Station



Director-at-Large Roger, WØWUG, opened the meeting with Lyle KØLFV, Treasurer John W3MQD, Charles W5CCL, Ron KDØGOP, Alan AAØAS, and Secretary Darrell ABØVP in attendance. Previous Membership and Board meeting minutes as published in the BAARCer were approved by all following a motion by John W3MQD and second by Lyle KØLFV. The Treasurer's Report dated 9/30/09 was approved by all following a motion by Darrell ABØVP and second by Roger WØWUG. Treasurer John W3MQD presented a renewed Certificate of General Liability Insurance for the coming year that he recently received in the mail.

Lyle KØLFV led a discussion of nominations for the coming club election that will be detailed in the membership minutes that follow. There was consensus that a new Board position of Emergency Services Director be established following procedures detailed in the BAARC By-Laws.

The completion of the antenna work on the Gull Lake Tower by Dietz Bros. Tower Co. including side mounts, connectors, and other parts at a cost of up to \$2000 was discussed and approved by all after a motion by Lyle KØLFV and second by John W3MQD. It was agreed to pursue July 23 and 24, 2010, for the Hamfest.

The remaining 4:00 PM. BAARC Board Meetings for 2009 will be as follows:

- November 19th – Brainerd Library Small Conference Room.
- * December 17th – Brainerd Library Large Conference Room.

The meeting was adjourned at 4:46 PM – motion: Lyle KØLFV – second: John W3MQD.

October 29, 2009 - 7:00 PM - BAARC Membership Minutes – Brainerd Fire Station

Director-at-Large Roger WØWUG opened the meeting at 7:00 PM with sixteen Hams and guests in attendance. Previous meeting minutes as published in the BAARCer were approved by all following a motion by Fritz WØKO that was seconded by Lyle KØLFV. Treasurer John W3MQD presented a Year-to-Date Financial Report dated 9/30/09 that was approved by all – motion: Lyle KØLFV – second: Fritz WØKO.

The membership discussed completion of the Gull Lake Tower Antenna Project by Dietz Bros. Tower Co., including side mounts, connectors, and other parts concluding with a motion authorizing the expenditure of up to \$2,000: by Fritz WØKO, second by Curt NØCRM that was approved by all.

Club Officer Election – Lyle KØLFV – led a process of nominating candidates for the coming election:

- President – Charles W5CCL – motion Fritz WØKO, second Wynn KA3DQN
- Vice President – Steve KCØYTE – motion Charles W5CCL, second John W3MQD
- Secretary – Ron KDØGOP – motion John W3MQD, second Alan AAØAS
- Treasurer – Doug KDØEDE – motion Steve WØTNT, second Curt NØCRM
- Director-at-Large – Roger WØWUG – motion Lyle KØLFV, second Jim WØYA
- Emergency Services Director – John WØWY – motion Lyle KØLFV, second John W3MQD

These nominations were approved by all. There was no response when asked for further nominations.



The remaining 7:00 PM. BAARC Membership Meetings for 2009 will be as follows:

- November 19th – Central Lakes College-Room E313 – Program: BAARC Year 2009 in Review.
- Please submit photos of any and all 2009 BAARC events to Lyle KØLFV by e-mail as soon as possible.
- * December 17th – Brainerd Library Large Conference Room – Christmas Party

The meeting was adjourned at 7:40 PM. – motion Fritz WØKO – second Alan AAØAS

Respectfully submitted, *Darrell ABØVP*, Secretary



Mission Statement: The Brainerd Area Amateur Radio Club is comprised of about 85 licensed Amateur Radio Operators who meet monthly to exchange ideas, improve radio skills, organize activities that are of service to the area, promote development of Amateur Radio, and join together in the mutual interest of Ham Radio. **In addition, the Club endorses and honors the Radio Amateur's Code : The radio amateur is considerate, loyal, progressive, friendly, balanced, and patriotic.** The BAARCer newsletter is provided to club members for information and entertainment as a non-profit service. The material is supplied "as is" and without warranty. Permission is granted to copy and distribute any information published here provided the source is credited. Because space is limited in the BAARCer newsletter, you will often find more photos and more details for club news stories on the BAARC website at: <http://brainerdham.org>

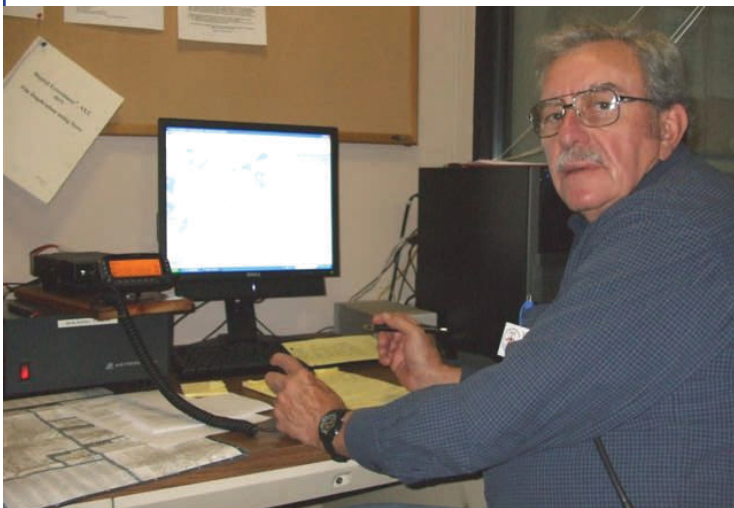
ECHOLINK: JIM KØTXT, now of Hot Springs Village, Arkansas, wanted us to communicate this link information for those who would like to keep in touch with both him and **Sharon KBØSQX**. The Node Number is **474900**. Bobby K5UBM provided this info for those who want use the EchoLink to connect with Hot Springs Village:

"Hello. My name is Bobby Walker and the call is K5UBM. How to use EchoLink :Usually all you have to do is key the repeater , identify yourself and put in the node number you want to connect to i.e. 474900 and wait for the system to tell you what it is doing. Responses include "K5UBM Repeater not found" or " Connecting to K5UBM Repeater" or nothing which means EchoLink did not hear your command. A # sign takes the link down after you finish. The node 9999 will connect to the EchoLink test server that will allow you to hear yourself when you connect there. Always a good thing to do when you are trying for the first time. Some system operators put a digit in front of the node number to control access to the EchoLink system if that is the case you will have to ask someone there what the access code is. You also can go on line to www.echolink.org and see what stations are on line at any one time. You don't have to sign up or download the program to do that. You can also download the program there for free and register your call sign with them and with your computer a microphone and speaker connect to stations all over the world. It is not really ham radio but it is close, kinda like a remote long-distance connection to a repeater somewhere else. I hope this helps."

BAARC Hams Work With Local Police on Halloween—Report by John WØWY and Photos by Lyle KØLFV

Eight members participated in the annual Halloween Ghosts-and-Goblin Watch, Friday night and served public safety agencies in Brainerd/Baxter, Crosby/Ironton, and Pequot Lakes/Nisswa. Net Control, as usual, was located at the Crow Wing County Law Enforcement Center with an enhancement this year : APRS. Five of the eight mobile units ran APRS and the Internet site, aprs.fi, was used by Net Control. "This really worked great," said **Lyle KØLFV**, one of the two NCS operators. "You always knew where the units were and could follow their patrol pattern." Lyle was also able to demonstrate the value of APRS to the dispatchers and some of the deputies who came by. **John WØWY** was the other NCS splitting the time with Lyle. Operators participating were **Charles W5CCL**, **Dave KCØTGT**, **Ron KDØGOP**, **Doug KDØERE**, **Terry KIØFW**, and **Alan AAØAS**.

In brief, it was not a busy evening with only a potential vandalism call to police who responded to Evergreen Cemetery and nabbed the youngsters before they could do any harm. Also, one call was directed from the police to the ham operators to be "on the lookout" for a stolen car (which was not found). **Scott Heide, Crow Wing County Communications Supervisor**, wholeheartedly thanked the Club and its members who participated in this event making our cities a little safer. **PHOTOS: On the left is John WØWY and on the right is Meg, a dispatcher .**



+ Did You Know? The Wouff Hong



Every amateur should know and tremble at the history and origins of this fearsome instrument for the punishment of amateurs who cultivate bad operating habits and who nourish and culture their meaner instincts on the air. The [Wouff Hong](#) was invented -- or at any rate, discovered -- by "The Old Man" himself, just as amateurs were getting back on the air after World War I. The Old Man (who later turned out to be Hiram Percy Maxim, W1AW, co-founder and first President of ARRL) first heard the Wouff Hong described amid the howls and garble of interference as he tuned across a band filled with signals that exemplified all the rotten operating practices then available to amateurs (considering the state of the art as they knew it). As The Old Man heard it, the Wouff Hong was being used on some hapless offender so effectively that he investigated. After further effort, "T.O.M." was able to locate and identify a Wouff Hong. The Old Man never prescribed the exact manner in which the Wouff Hong was to be used, but amateurs need only a little imagination to surmise how painful punishments were inflicted on those who stoop to liddish behavior on the air. The Original Wouff Hong can be seen at

DX and the Paper Chase

A very wise man once (obviously not me) said: "DX is the essence of Amateur Radio." I more than share his opinion for without DX, at least to me, this hobby would be very boring. On the other hand, there's something for everyone that is not married to his or her Blackberry. Before I took my novice exam, I knew what I wanted from the git-go from a hobby and I set forth a plan to obtain it. The last week of September and most of October there was enough good DX to put a smile on everyone's face. The sun did (for a couple of days) produced some Cycle 24 sunspots and rising solar flux indices, but...just a couple of days. That didn't slow down the available DX one bit. My computer log is bristling with DX call signs from around the world for the month of October. For me it was a banner month with 4 new DXCC entities booked. I worked the Astral's (TX5), Glorioso (FT5), Conway Reef (3D2Ø) and Midway (K4M) and, I might add, some of the largest pileups I've ever worked. Patience, patience and more patience, also, some aluminum helps too in working the rare ones with huge pileups. I don't want to slight the low bands during this month of good DX. I worked some pretty good stations on 40-meters into ZK and ZL lands, also into Europe and the far-away state of Hawaii. This is something I found on the Internet that I would like to share with you:

CARE...about ham radio,
CARE...how you operate,
CARE...about what others think,
CARE...to do the right thing,
CARE...to learn something new about the hobby, and finally—
CARE...about the future of "our" hobby.

In closing, (as usual) sit down at your HF station and call CQ because someone somewhere in this huge world is listening for your call. So long from Huntersville, 73 and good DX from **Bob/WØZPE**.

A NOTE FROM OUR PRESIDENT: Re: **HIGH RISE I GATE**

Hi Everyone. Today (9-21-09) I changed the computer APRS I-Gate at the High Rise. I checked it tonight and everything seems to be working good. It is staying connected to the Internet and also the APRS Server. This is the computer that Lyle bought for the Club when he was in the Cities and was paid for it at the last board meeting. The remote software the Club bought is also working great. I can get into it from home and check it. I also have an I-Gate running at home with call sign WØRC-1, and I see WØUJ on the RF side as well. I didn't see the RF beacon in the car when we were in town, but I made some changes remotely from home and think it is putting out an RF beacon now. Check your radios when you have a chance and see if you see the RF beacon from time to time.

Thanks, 73, Al WØRC

Thanks, Al, for all your hard work for the Club!!!



More on the Grounding Program Conducted by Pat Goff (see page 1)

As a Master Electrician and his 25 plus years of experience in employment, mostly at Crow Wing Power, Pat brought his expertise to us giving us a taste of how a power company solves many of the “power quality” problems. For instance, one home in Baxter had a recurring heating system failure that knocked out control boards. After investigation it was found that it was an inadequate ground.

What is a “good” ground? Well—ideally it would be zero ohms. Many of the cell phone sites establish that. For us, the general public, if we could get 25 ohms or less—that would be great. Yet be aware, that we in the Brainerd Lakes Area have a natural terrain/soil that is not very conductive—meaning it has a naturally high resistance. Pat said that if we lived in some good farming areas of Minnesota—perhaps in the Red River Valley—we could achieve a good ground of a few ohms by just “putting a butter knife” into the earth. However, for us it means in part that we have to create a better ground—generally by driving rods deeper. Once a good ground is established, it can change over time. This is due to the normal oxidation that occurs in soil and is also dependent on moisture. Obviously, if you have rocky/gravelly soil, it takes more effort to pound down the rods.

As a test conducted by Pat at WØKO’s QTH, an initial reading of some 427+ ohms was found. Then after inserting additional rods—some to a depth of 32 feet, lower readings appeared. Then in a final effort to get the resistance down, a rod was pounded some 15 feet away from the house (spot not under the wide protective overhang). This, when connected to the original ground rod with heavy copper wire buried a few inches, got a reading of some 100 ohms. At that point, to reduce the resistance further would be more costly and probably not be any more effective. However, Fritz learned that he might be able to reduce the ohms some more by making sure all of his external grounds are bonded (connected together)—three at the base of the tower, one in the basement (a rod going through the concrete floor), and one outside right under the feed line entrance to the radio room. That is his next project. Cleaning/maintaining connections will also help. On a non-grounding subject, Goff mentioned other interesting topics brought up in the question-and-answer session that could have lasted long into the night—that is how interesting the whole presentation was. For example, did you know the Class A power quality that Crow Wing Power is committed to is a voltage (pressure) of 125 and 250 volts. Formerly it was 110 and 220. This means that in the future it might be good to get light bulbs that have a 130-volt rating but with a little higher wattage since they will last longer in the newer electrical environments. Are you surge protected? Consider a whole-house surge protection installation at about about \$150 and/or point-of-use surge protectors work well—perhaps UPS units (Uninterruptible Power Sources) might also be good investments. —de WØKO

Testing for and Creating a Better Ground—Photo Evidence provided by WØKO of Pat Goff's Expertise on 7-22-09.



High reading on the left:
427.3 ohms

Then with more sections of rod inserted.



Then after more effort the lowest appeared:
160.2 ohms



Not pictured was a final reading of nearly **100ohms**. Top right Pat using an electric rod driver—also shown on left. It is a heavy beast!

ANNOUNCEMENTS

Can You Help a Prospective Ham in Longville? John Weber @ 218.363.2162 needs a mentor, according to John W3MQD. Weber can be reached via <dragnfly@arvig.net> or by mail @ Rising Rock Orchard, 1413 Wabedo Pass Rd. NE., Longville, MN 56655.

Ham Radio Licensing Class? Do you know of someone who wants to take a class or upgrade? AL WØRC is willing to teach if an interest is expressed. Contact him <w0rc "at" arrl.net>.

DUES FOR 2010 ARE PAYABLE ANYTIME: The actual revised dues form will appear with the December **BAARCer**. Yet you may renew early—still \$20/year—a bargain. Just let John W3MQD know if any changes are needed—address, phone, e-mail. By the way, check if your license still current? **John Myers, BAARC Treasurer, 34570 Beaver Trail, Pequot Lakes, MN ZIP 56472.** New Form Coming. A new treasurer and other officers take over January 1, 2010.

NOVEMBER MTG.—A Pictorial Review of 2009 Club Activities.

DECEMBER MTG.—Our Annual Christmas GET-TOGETHER—with cheer.



Brainerd Area Amateur Radio Club

Official Ballot for the Election of Officers for the Year 2010

President: Charles Lane, W5CCL

Write-In: _____

Vice-President: Steve Mott, KCØYTE

Write-In: _____

Treasurer: Doug Bergsnev, KDØERE

Write-In: _____

Secretary: Ron Finger, KDØGOP

Write-In: _____

Director-At-Large: Roger Williams, WØWUG

Write-In: _____

Please print and bring the check-marked ballot to the November 19, 2009, 7 P.M. Membership Meeting, which will be held at the Central Lakes College, Room E313, (East Classroom Bldg). Come in from the East Parking Lot and turn right once inside—follow the room numbers around the corner to E313. We have met there before.

If you are unable to attend, you can mail the completed ballot to:

**Darrell Schneider, ABØVP
(Secretary) BAARC
12481 Arrowhead Lane
Crosslake, MN 56422**

Ballots received by mail at or before 1 PM or in person by the Secretary on November 19, 2009, will be counted at the 7 PM Membership Meeting.

SUNDAY NIGHT NET OPERATORS

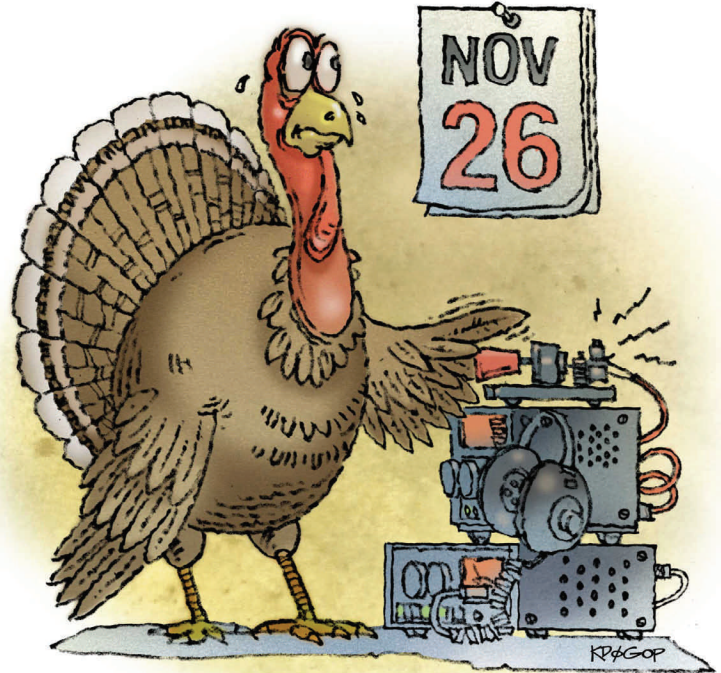
11/01/09	Doug	KDØERE
11/08/09	Bob	WØZPE
11/15/09	Becky	KDØHBH
11/22/09	Jeff	KDØHBI
11/29/09	Darrell	ABØVP
12/06/09	John	WØWY
12/13/09	Fritz	WØKO
12/20/09	Joe	KBØVYJ
12/27/09	John	KCØWCG

Can't make the schedule? Find a substitute operator. BAARC Sunday Night Net Control Coordinator is Fritz WØKO. To volunteer: w0ko "at" arrl.net



BAARC, Inc.
Ham Radio at its best in the Lakes Area
Affiliated with the ARRL

Find us on the Web:
<http://www.brainerdham.org>



DI-DI-DI-DAH-DAH-DAH-DI-DI-DIT!

United We Stand



Ballot Inside

First Class Mail
Address Correction Requested

Brainerd Area Amateur Radio Club
c/o M. Fritz Bertel WØKO
16167 Ahrens Hill Road
Brainerd, MN 56401