



The BAARCer



February 2008

For Anyone Interested in Amateur Radio

Page 1 of 8

Club Call: WØUJ

Brainerd 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
 Club DX Cluster:
 147.525 MHz BRDDX
 144.390 WØUJ-5 APRS
 Crosslake 147.030 MHz+
<http://brainerdham.org>

President:

Lyle Amundson KØLFV

Vice President:

Steven Mott KCØYTE

Secretary:

Darrell Schneider ABØVP

Treasurer:

John Myers W3MQD

Director At Large:

John Luce WØJGY

Repeater Trustee:

Fritz Bertelt WØKO

BAARCer & WWW Editor

Mark Persons WØMH

January 31st Meeting on 700 MHz Wireless



(l-r) Bill Stroot, Lance Bragstad, and Luke Schramm of CTC (Consolidated Telephone Company) told the group about a new 700 MHz Wireless system on towers at Brainerd and Gull Lake. Two 6 MHz-wide channels carry Internet and telephone to customers as far as 10 miles from the towers.

See: <http://www.brainerd.net> (continued on BAARCer Page 4)

Inside This

Meeting Minutes	2
Club News KØIMN-SK	3
700 MHz Wireless Moon Eclipse	4
Fishing Contest Amateur TV	5
HAARP Test 500 KHz Record	6
MN QSO Party Member Application	7
Coming Meetings Sunday Night Net	8

• Events Calendar —

- Sunday, Feb. 3** 8:00 AM Minnesota QSO Party.
- Sunday, Feb. 3** 8:00 PM to 8:30 PM Sunday Night Net on 147.225+ MHz.
- Wednesday, Feb. 6** 1:00 PM to 2:00 PM Monthly siren and civil emergency test.
- Saturday, Feb. 9** **Mid-Minnesota Sled Dog Race aided by BAARC.**
- Sunday, Feb. 10** 8:00 PM to 8:30 PM Sunday Night Net on 147.225+ MHz.
- Saturday, Feb. 16** 9:00 AM to 10:00 AM Informal breakfast meeting at the Northwind Grille.
- Saturday, Feb. 16** 9:00 AM to 1:00 PM **Cabin Fever Reliever Hamfest in St. Cloud, MN.**
- Sunday, Feb. 17** 8:00 PM to 8:30 PM Sunday Night Net on 147.225+ MHz.
- Sunday, Feb. 24** 8:00 PM to 8:30 PM Sunday Night Net on 147.225+ MHz.
- Thursday, Feb. 28** 4:00 PM to 5:00 PM BAARC Executive Board meets.
- Thursday, Feb. 28** 7:00 PM - 9:00 PM **Club Membership Meeting.**

January 31, 2008 - 4:00 PM - BAARC Board Meeting Minutes – Small Meeting Room Brainerd Library

The meeting was opened by President Lyle KØLFV while in attendance were Vice-President Steve KCØYTE, Treasurer John W3MQD with Vi, Coordinator of Public, Digital and Emergency Services Al WØRC, Shirley KØDCW, Director-at-Large John WØJGY, Mark WØMH, and Secretary Darrell ABØVP.

The Report of the December Meeting as published in the BAARCer was accepted as written. Treasurer John W3MQD presented the 2007 Annual Financial Report to the Board. John WØJGY moved approval of the 2007 Annual Financial Report that, after a second by Al WØRC, was unanimously approved.

Al WØRC, with comments by John WØJGY, reported on the month's activities in Public Service Coordination and Digital & Emergency Communications. Al WØRC reported on beginning initial considerations for the BAARC Hamfest scheduled for July 12th at the Brainerd Armory. Mark WØMH offered to present a seminar and there was discussion of conducting VE exams to help draw more attendees for the event.

A discussion of the possibilities of member expense reimbursement for BAARC projects concluded with the offer by Al WØRC to check on the impact of such policies on BAARC's 501(C3) status and other IRS issues.

The meeting was adjourned at 5:00 PM following a motion by Mark WØMH.

Respectfully submitted, **Darrell ABØVP**, Secretary

January 31, 2008 - 7:00 PM - BAARC Membership Meeting Minutes – Room 800, South Campus.

President Lyle KØLFV opened the meeting held in Room 800 of the South Campus of the Brainerd High School with twenty-one Hams and guests in attendance.

The Minutes of the December Meeting, as published in the BAARCer, were accepted as written following a motion by Fritz WØKO, that was seconded by Al WØRC. The 2007 Annual Financial Report, presented by John W3MQD, was unanimously approved following a motion by Jim WØYA, seconded by Jim WØJDS.

John WØJGY reported on the Mid-MN 150 Sled Dog Race on Saturday, February 9th. The race will be shortened to a 60-mile pro-event that will begin in Remer at 9:00 AM with the first stage ending in Outing and later concluding with a return to Remer. There will also be a shorter amateur race. A sign-up sheet was passed around. John WØJGY will contact participants with more detailed schedules.

Al WØRC, with comments by John WØJGY, reported on the month's activities in Public Service Coordination and Digital & Emergency Communications.

John WØJGY announced a very special guest for presenting the program for the Membership Meeting on February 28th. SkyWarn in Crow Wing County is the topic. The "cone of radar silence" below the 8000 ft. altitude over Brainerd makes communication from our area of very special interest to NOAA.

The business meeting was adjourned at 7:40 PM following a motion by John W3MQD, followed by Shirley KØDCW's second.

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 in Ham Radio. 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>

Tom WØQF donated a quantity of Ham Radio gear and miscellaneous parts to the BAARC. More details will be published soon. Thank you, Tom!

Al WØRC just turned on a new APRS Digipeater at Sebeka, MN. As with other such units, it operates on 144.39 MHz.

At breakfast on January 5th: Lyle KØLFV, Jim WØIRE, Skee WØDCY, Mark WØMH, and Paula WØHA. Skee stated that HF bands are not dead even during this sunspot cycle minimum. As evidence, he reported making a contact with a station in Japan on 20 meters using 300 watts of USB peak transmit power. Skee had armchair copy and got a good signal report in return. He also made contact with a maritime mobile station in the Atlantic Ocean somewhere east of South America.

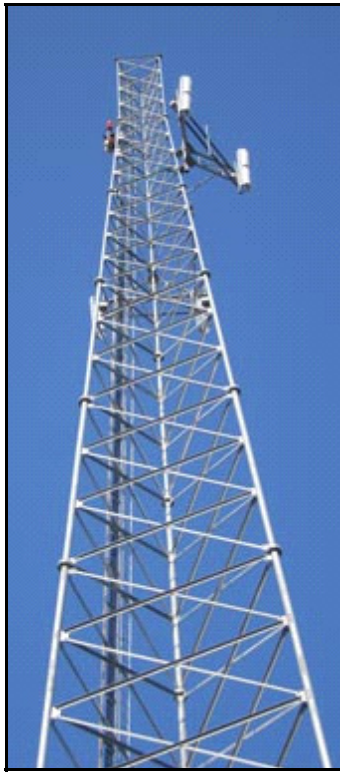
KØIMN-SK: It is with regret we announce the death of Bernie Deml of Cushing, MN. KØIMN died on January 1st. He was 73 and held a General Class license. Some of us saw him at a recent breakfast where he said that he was having health problems. Soft-spoken and friendly, he would easily mix with the crowd at the BAARC Hamfests. From conversations with him, it was apparent he liked a simple lifestyle. Our condolences to his family have been expressed with a card. de **Fritz WØKO**

At Breakfast on Saturday, January 19th: Lyle KØLFV, Lyle's wife Marilyn, Jim WØIRE, Fritz WØKO, Paula WØHA, Mark WØMH, and Skee WØDCY. With an overnight temperature of 22 degrees below zero, the group discussed how antennas work best when installed during cold weather. Skee recently talked to a 13-year-old girl stateside, who had just gotten her General license and was having a "great time" talking on the radio with much enthusiasm for the hobby.

Five years ago in the BAARCer: Kenton Spading gave a fascinating talk to the club on his book entitled, Amelia Earhart's Shoe: Is the Mystery Solved?

Sunday Night Net Control Stations: Thanks to all of you who have volunteered to do this. Also I appreciate those of you who fill in when you do not hear the net being started. Check the full-year's listing on the BAARC website. Every BAARCer has the NCS listings for the current month and for the next one. If you cannot make it on your assigned night, please find a substitute (perhaps trade a Sunday with another Club member). Questions? Call me at 829 1329 or e-mail me at finn.kraut "at" charter.net—thanks. de **Fritz WØKO**

The deadline for submission of articles and other information to the BAARCer is 8 AM on the Saturday following the last Thursday in the month. Send articles to teki "at" mwpersons.com



A Consolidated Telecommunications Company tower is shown on the left. Two 700 MHz antennas are seen near the top. This tower is 180 feet tall and is located in the Brainerd Industrial Park, just west of the Crow Wing County Fairgrounds. It is just 0.87 miles (1.4 KM) west of the KLIZ-AM 3-tower night-directional antenna system. KLIZ-AM operates on 1380 KHz, which makes the Consolidated tower almost exactly one-quarter wavelength in height. Needless to say, the new tower became a significant re-radiator of the KLIZ-AM signal.

The tower was successfully detuned using a unipole system and the expertise of Radio Broadcast Technical Consultant Mark WØMH. Mark said, "We tried something different on this one. The three near-vertical 145-foot unipole wires are on the inside of the tower, rather than the outside. This was made possible because the tower is a self-supporting structure that is 22 feet across at the base. The wires are connected to the tower at the 145-foot level.

A unipole detuning box sits at the center of the inside of the tower. The vertical unipole wires turn horizontal at 8 feet

above the ground and meet just above the box. The box has a vacuum variable capacitor, which is adjusted to resonate the tower, via the unipole. The project went very smoothly and it worked as predicted to make the tower RF invisible at 1380 KHz. The management at Consolidated was easy to work with and approved the added expense even though they could have fought it in court." Mark continued, "I give them high marks for being a top-quality local company."



In similar projects, Mark detuned a water tower in Bemidji, MN, and a wind generator tower at Pipestone, MN. There are a few Hams who use unipole wires to feed towers. Mark uses a single-wire unipole for 80 meters on his 68-foot tower.

There will be an eclipse of the moon on February 20th starting at 7:43 PM and ending at 9:52 PM according to Jim WØYA. Watch the eastern sky if there are no clouds.

John KØJO has some HF antennas for sale. Contact him at 218-472-3288.

If you are going to "ker-chunk" a repeater, you should give your call sign at the same time. It is an FCC rule.

More photos and stories on the Web at <http://brainerdham.org>

The Brainerd Jaycees \$150,000 Fishing Extravaganza at Gull Lake was aided by the BAARC on Saturday, January 26th.

(Photo at right) Shirley KØDCW and Paula WØHA did Net Control duties in the BAARC Emergency Communications Trailer.

Other Hams participating to make this a successful event included Al WØRC, Lyle KØLFV, Curt NØCRM, Darrell ABØVP, Jim WØYA, Wynn KA3DQN, John W3MQD, Terry KIØFW, Mark WØMH, and Dave KCØTGT. de **Mark WØMH**

Amateur TV at the event by Al WØRC:

This year I decided to try something different by adding ATV (Amateur TV) or



59 with a 19-inch television receiver in the Emergency Communications Trailer. I used a portable battery operated TV receiver to adjust the camera lens settings from time to time as light conditions varied. Net Control operators monitored the TV receiver and reported good reception most of the time. The setup lasted for about 5 hours until the battery went dead. All in all, it was a very experimental and I encourage others to try this mode. **Al WØRC**

Overheard on HF: "I have one foot in the grave and the other on a banana peel."

FSTV (Fast-Scan Television) to the ice fishing contest. John KØJO loaned me his ATV transmitter, model FSTV-430A. It has an output of 1 watt on UHF. The setup consisted of the ATV transmitter, one of my security cameras, a UHF antenna that John also gave me from a military aircraft, and a portable gel-cell battery pack. I mounted the equipment on my 4x4 ATV, which I used to transport our operators back and forth to center ice and a bus stop. The transmitter was set up to transmit in the Amateur fast-scan TV portion of the UHF band and was received on cable channel

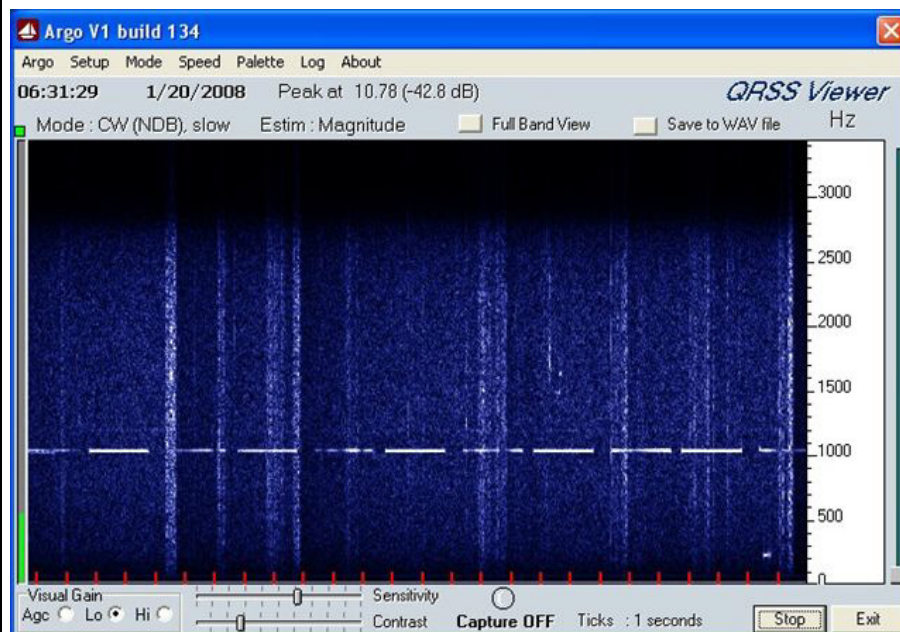




Lunar Echo Experiment: The U. S. Government HAARP (HF Active Auroral Research Program) near Gakona, Alaska, conducted testing and solicited comments from listeners everywhere. HAARP transmitted carriers on 6.7925 MHz and 7.4075 MHz, which were directed at the moon. This was done around midnight on two nights in late January. They transmitted for two seconds and then paused for three seconds.

Each experiment lasted one hour. I was one of the listeners and was amazed to hear the original transmission followed by a short pause and then two more seconds of signal. That last two seconds was the HAARP echo coming back from the moon. Yes, that's right. It took about three seconds for the signal to make a round trip. The signals were weak, but easily distinguishable between static crashes from thunderstorms elsewhere in the country.

In preparation for the event, I used an MFJ-259 Antenna Analyzer to set an antenna tuner on my G5RV antenna. This gave the best possible match to recover the most signal from the antenna. My Icom IC-751 Transceiver has a button to select between "Ham" and "general coverage receiver" modes enabling me to use the rig outside the 40-meter Ham band for this experiment.



The static crashes were running S8 and the noise was at S6. The HAARP signal and noise were running about the same level. Then I switched to a 40-meter wire-loop antenna. The noise and signal were about 2 dB less. Signals varied from moment to moment, but the original and moon-bounced signals were clearly audible. Additional information is available at:

<http://www.haarp.alaska.edu>

John KØJO used a software program called ARGO to display the received signal. Of particular

interest is the broken white line, just below center, going from left to right. That is the received signal. **Mark WOMH**

From the ARRL Letter January 25, 2008—500 kHz Distance Record Set: On January 17th, Neil Schwanitz, V73NS/WD8CRT, on Roi-Namur in the Marshall Islands, received a signal from experimental station WD2XSH/20. This experimental station, operated by Rudy Severns N6LF, is located in Cottage Grove, Oregon--4737 miles away from the island in the Kwajalein Atoll. The 13 words-per-minute CW transmission was copyable by ear and also appeared in a Spectran capture. BAARC Member, John KØJO, is a member of this experimental group.

Radio Milestone: February 7, 1915, the first train-to-station radio message was successfully sent near Binghamton, NY.

1/25/2008-Wanted: UHF mobile. Will be in area Feb. 27, 2008. (940)782-1488. Charles W5CCL

Minnesota QSO Party -- CW/Phone, sponsored by the Minnesota Wireless Association from 1400-2359Z February 3rd. Frequencies (MHz): CW 1.810, 3.550, 7.050, 14.050, 21.050, 28.050, SSB 1.870, 3.890, 7.230, 14.290, 21.390, 28.420. Categories: QRP, SOLP, SOHP, VHF, MS, MN, Mobile-Single Xmtr, and MN Mobile-Unlimited. Exchange: Name and MN county or S/P/C. QSO points: SSB -- 1 point, CW -- 2 points. Score: QSO points × MN counties (MN stations use States + Provinces), each counted only once. For more information and Minnesota QSO Party software: <http://www.w0aa.org>. Logs due March 15th to mnqp@isd.net or MNQP, 4745-170th Lane NE, Ham Lake, MN 55304-5233.

You can help the BAARC save money by getting your **BAARCer** via the Internet. It now costs us \$.04/side of paper, so when we send out an 8-page (printed on both sides of four pieces of paper) bulletin each month, that comes to \$.32 plus \$.41 postage. The complete cost is \$.73. For one year, that is \$8.76. Let Jim WØIRE know so he does not needlessly generate a label for the bulletins. His e-mail address is jim@bay-tech.com

Brainerd Area Amateur Radio Club

MEMBERSHIP APPLICATION FORM

Dues Year January 1, 2008, to December 31, 2008

Name (First, MI, Last) _____ Call Sign: _____

Street Address: _____ License Class: _____

City: _____ State: _____ ZIP: _____

Phone: (____) _____ - _____ Additional/Cell Phone: (____) _____ - _____

Date of application: _____ Check one: New application: ____ Renewal: ____

E-mail address: _____ Member ARRL? _____

I would like to receive the **BAARC'er** newsletter via the Internet _____ via the US mail _____

Check one: \$20 Full Membership ____ \$10 Additional Family Member ____ \$10 Student Member ____

Are you interested in being called to do emergency communications? Yes ____ No ____

Membership Dues: \$ _____

Voluntary Contribution: \$ _____

Total Enclosed: \$ _____

Mail to:

Brainerd Area Amateur Radio Club
Treasurer - John Myers W3MQD
34570 Beaver Trail
Pequot Lakes, MN 56472

Make checks payable to BAARC Contributions are tax deductible. The club is a 501C3 non-profit organization.

**Sunday Night Net Control Operators
on the 147.225 MHz+ Repeater at 8 PM:**

2/03/08	Al	WØRC
2/10/08	Jim	WØIRE
2/17/08	Bob	WØZPE
2/24/08	Marcia	WØZMC
3/02/08	Steve	KCØYTE
3/09/08	Lyle	KØLFV
3/16/08	Dave	KCØTGT
3/23/08	Skee	WØDCY

Can't make the schedule? Find a substitute operator. BAARC Sunday Night Net Control Coordinator is Fritz WØKO. Contact him to volunteer.



BAARC, Inc.

Ham Radio at its best in the Lakes Area
Affiliated with the ARRL

Find us on the Web:

<http://www.brainerdham.org>

- - Upcoming Meetings & Activities - -

The annual Minnesota QSO Party is February 3rd. Details on [BAARCer Page 7](#).

The Brainerd Area Amateur Radio Club will provide communications at the annual Mid-Minnesota 150 Sled Dog Race on Saturday, February 9th. The race will be between Aitkin and Remer going through Outing, MN. Contact John WØJGY to be a radio operator at this fun event.

The BAARC February Membership Meeting will be Thursday February 28th, starting at 7 PM in Room 800 of the Brainerd High School South Campus building. The 8 PM speaker will be Carol Christenson, KCØMAK, from the Duluth office of the National Weather Service. Carol will tell the group how Ham Radio is used as a part of the Weather Spotters' Network. It is especially critical to note that weather service radars in Minneapolis, Duluth, and Fargo do not do a good job seeing weather in the Brainerd area. Those radars cannot see below 8000 feet in this area. The talk should be an interesting one. Everyone is invited and encouraged to attend.

More information on club activities is available on the BAARC Web site at: <http://brainerdham.org>

United We Stand



FIRST CLASS MAIL

Address Correction Requested

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