



The BAARCer



May 2008

For Anyone Interested in Amateur Radio

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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 MNRD, 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 WØWY

Repeater Trustee:

Fritz Bertelt WØKO

BAARCer & WWW Editor

Mark Persons WØMH

The **April 25th membership meeting** evening speakers were Steve Warren and Jason Schilling from the Batteries Plus store in Brainerd. The



talk turned out to be a 45-minute question-and-answer session that was very well received by the group.

All rechargeable batteries should be recycled along with lithium and watch batteries. Batteries Plus at 923 East Washington Street in Brainerd will

handle disposal at no charge and will pay up to \$7 for a car battery. We thank them for the free batteries and literature that they gave to those in attendance.

AGM (Absorption Glass Mat) batteries are getting popular and last twice as long as traditional lead-acid batteries. Learn more at <http://www.batteriesplus.com>

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— Events Calendar —

- Saturday, May 3** 9:00 AM to 10:00 AM Informal breakfast meeting at the Northwind Grille.
- Saturday, May 3** 9:00 AM to 2:00 PM **Duluth/Superior Swapfest Hamfest.**
- Saturday, May 3** MN Repeater Council meeting in Duluth/Superior.
- Sunday, May 4** 8:00 PM to 8:30 PM Sunday Night Net on 147.225+ MHz.
- Wednesday, May 7** 1:00 PM to 2:00 PM Monthly siren test in Crow Wing County.
- Sunday, May 11** 8:00 PM to 8:30 PM Sunday Night Net on 147.225+ MHz.
- Friday, May 16 to Sunday, May 18** **Dayton Hamvention**
- Saturday, May 17** 9:00 AM to 10:00 AM Informal breakfast meeting at the Northwind Grille.
- Sunday, May 18** 8:00 PM to 8:30 PM Sunday Night Net on 147.225+ MHz.
- Sunday, May 25** 8:00 PM to 8:30 PM Sunday Night Net on 147.225+ MHz.
- Thursday, May 29** 4:00 PM to 5:00 PM BAARC Executive Board at Brainerd Public Library
- Thursday, May 29** 7:00 PM **Club Membership Meeting at the Brainerd Public Library**
- Saturday, June 7** **Tour of the Lakes Bike Ride aided by BAARC.**

April 24, 2008, 4:00 PM - BAARC Board Meeting Minutes –Brainerd Public Library

The meeting was opened by President Lyle KØLFV while in attendance were Vice-President Steve KCØYTE, Coordinator of Public, Digital and Emergency Services Al WØRC, Advisor-at-Large Shirley KØDCW, Director-at-Large John WØWY, Website Producer Mark WØMH, Special Projects Coordinator Jim WØJDS, Special Projects Leader Terry KIØFW, Technical Advisor Roger WØWUG, and Secretary Darrell ABØVP.

The Report of the March Meeting as published in the BAARCer was accepted as written. Treasurer John W3MQD sent an account balance summary of March 31, 2008, as he was unable to attend the meeting due to some personal health issues. The financial report was unanimously accepted following a motion by Al WØRC that was seconded by Terry KIØFW.

Al WØRC, with comments by John WØWY, reported on the month's extensive activities in public service coordination and Digital & Emergency Communications. Al WØRC discussed Crow Wing County RDN (Regional Distribution Node) activities and staffing of the Emergency Operations Center by BAARC.

John WØWY and President Lyle KØLFV met with Todd Lyscio of the School District who understood BAARC's financial situation with our level of public emergency service. BAARC, in turn, must understand the financial situation of the school district, which is facing severe cuts in their level of service. Future membership meetings at the south campus location won't be possible due to the cost of staffing that a public meeting in the building requires. John WØWY was reasonably certain that we would be able to maintain our club station location on the south campus. The parties are working on a newly updated agreement recognizing present realities.

The meeting was adjourned at 5:12 PM following a motion by Mark WØMH.

Respectfully submitted, **Darrell ABØVP**, Secretary

April 24, 2008, 7:00 PM - BAARC Membership Meeting Minutes – Forestview Middle School

President Lyle KØLFV opened the meeting with fifteen hams and two guest presenters in attendance.

The March Membership Meeting Minutes, as published in the BAARCer, were accepted as written. As previously reported, John W3MQD was unable to attend the meeting for health reasons. The account balances summary of March 31, 2008, sent to the club by John W3MQD, was approved following a motion by Jim WØYA and a second by Charles W5CCL.

Al WØRC, with comments by John WØJGY, reported on the month's extensive activities in public service coordination and Digital & Emergency Communications. Al WØRC discussed Crow Wing County RDN (Regional Distribution Node) activities and staffing of the Emergency Operation Center by BAARC.

President Lyle KØLFV again came up with a couple of great prizes for the drawing from the estate of Tom WØQF. Skee WØDCY won the APRS Digital Book from ARRL, Shirley KØDCW won the Electronics Data Book and Jim WØYA won an ARRL Antenna Book from a previous year.

Vice-President Steve KCØYTE has asked all of us to take digital photos of our radio shacks and e-mail the them with comments of interest to him so that he can prepare a program for our May BAARC membership meeting program.

The business meeting was adjourned at 7:40 PM following a motion by Fritz WØKO and a second by Al WØRC.

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>

At Breakfast on April 5th: Lyle KØLFV, Jim WØIRE, Skee WØDCY, Greg NØLJY, Greg's wife Brenda, Roger WØWUG, Charles W5CCL, Tom KØHFF, and Mark WØMH. The group discussed tower installations. Charles is looking for a local tower climber to help with his temporary antenna installation in Ironton, MN, and with his permanent installation when his new home is completed a year and a half from now.

At breakfast on Saturday, April 19th: Lyle KØLFV, Charles W5CCL, Fritz WØKO, Skee WØDCY, Greg NØLJY, Greg's wife Brenda, Mike WAØLVG, Paula WØHA, and Mark WØMH. The group discussed linear amplifiers and antennas.

Congratulations to Darrell ABØVP for becoming the most recent BAARC Life Member.

From the Mailbag: Have had a very eventful winter, health wise, and am still trying to get back partially to where I was last year. My dialysis took several turns for the worse to where, after six hospitalizations, I am back to 2006! On top of all that, I fell in February and fractured a vertebrae. We are desperately trying to get all the healing done so we can take up residence at the cabin by the end of May. Please give my regards to all my friends at BAARC. de George KCØBH

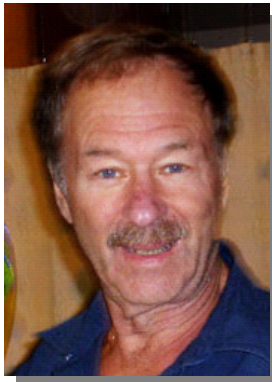
Comments on the April 26th Marathon: We had 6 inches of "Global Warming," 27-degree temperatures, and wind 20-30 MPH! I was stationed at the 13.1 mile point (half way), Semmler Road where it crosses the Paul Bunyan Trail, doing radio communications with the club. This was the same site where other volunteers with medical specialties and others handed water and juice to runners as they came by. Our site was lucky. One of the race volunteers brought his fish house, complete with propane heater. Everything seemed to go surprisingly well despite the horrible weather. de **Roger WØWUG** (more details on BAARCer Page 5)



When in the Twin-Cities, you can visit the **Pavek Museum of Broadcasting**. It is a great place to learn about the history of radio. They even have a fully-functional HF Ham station that visitors, like you, can use. The Pavek is in St. Louis Park, not far from Highway 7. Visit them on the Web by going to <http://www.pavekmuseum.org>

The deadline for submission of articles and other information to the BAARCer is 8 AM on the Saturday following the last Thursday of the month. Send articles to [teki](mailto:teki@mwpersons.com) "at" mwpersons.com





Tom WØQF: Tom Jones—SK. Early on Tuesday morning, 8 April 2008, WØQF passed away peacefully after battling a courageous fight against an aggressive cancer: acute myelogenous leukemia (AML). Tom, with his loving wife Claudia and family members at his side, died in a hospice setting in Rochester, MN, where he had been treated much of the time. From his family we learned that he loved nature and the many outdoor activities it provided. Tom was a valuable employee of Hunt Technology in Pequot Lakes. Most of us in the Brainerd Area Amateur Radio Club knew him a friendly member, a superb electronic engineer who loved to design and build electronic equipment, a volunteer license examiner (VE) for the American Radio Relay League, and a high-speed code (CW) operator. Needless to say, we in the BAARC (Brainerd Area Amateur Radio Club) will miss his friendship. Of course, our sincerest condolences go out to all members of his loving family, his many fellow employees, and associates. de **Fritz WØKO** Funeral services were on Saturday, April 12th, in Hackensak, MN. The funeral was a "Celebration for the Life of Thomas Anton Jones."

Eulogy for Tom Jones presented at his funeral on 4-12-08 in Hackensack, MN.—de Fritz WØKO

First, we offer our sincerest condolences to all the family members. You can all be proud of the quality person Tom was in your large family. In addition, I know you will have many good memories to sustain you. I am going to address only part of the dash between 1939 and 2008.

Yes, we are celebrating a life here—the life of Tom Jones. To us hams—hams is the term we use to refer to Amateur Radio operators—Tom was a special person—he was WØQF, holding the top amateur license the FCC issues.

Also—and equally important, we recognize his electronic abilities: You know that he was an engineer—a valued and quality employee at Hunt Technologies. In later years he developed a special love for using low-power to make radio contacts. At camping or Field Day events he would make many more contacts using only code to rack up a high score.

For the BAARC Tom participated in test sessions where he was a volunteer examiner.

On a personal note I want to say how bravely Tom fought this cancer. In doing so many of us commented how he never complained, how he kept his spirits up and managed to find humor in spite of trying circumstances. Of course, a strong faith in his Savior is the key.

Also by now Tom surely has found the ham radio room among the many mansions the Lord talks about in the Scripture. After all, we hams know that the key to communications is location, location, location!!!! Thanks to Rene', Tanya, and other family members, we were able to share in those special moments, those family experiences, those times—whether hopeful or not—all due to the many messages sent by means of the CaringBridge Web site.

Through his health ordeal, Tom taught all of us how to die. I trust and pray that some of his positive spirit will rub off on us all as we gather to remember him. When he was at our house in January, I found out that he had spent some time in Germany, so I told him when he left that day that I am not going to say good-bye—instead, Auf Wiedersehen! This is the approximate equivalent of good-bye, but it carries with it an extra, more important meaning: that of a reunion, of seeing one another again. Thus, it is not final. He liked that thought when I explained it. Upon leaving that day he said Auf Wiedersehen to me. Truly, we all want to see each other again—in Heaven.

On that note of signing off, we hams use the letters SK at the very end of the CW sending, when the conversation is done. These letters have special meaning. It is also the symbolic designation of a ham radio operator who has died—referred to as a SILENT KEY. So sending the letters SK together at the end means that the key is now silent, no more transmissions will be sent or heard. Consequently, with Tom's death the station of WØQF here on Earth is permanently silent. So—Tom— we will all be warmly thinking of you whenever we send SK—didididahdidah.

First Annual Run for the Lakes Marathon, Saturday, April 26th



Shirley and I left home at 0532 Saturday morning amid heavy blowing snow and 27-degree temperatures. The roads from home to Pillager had not been plowed yet, but Highway 210 had been plowed. We were headed for Nisswa and the first Brainerd Jaycee's Marathon where they had over 450 people registered to run the marathon and half-marathon. We arrived at the Nisswa Fire Station and had a pre-marathon meeting with the Marathon Coordinator Chris Nelson. After the meeting we set up the club radio station in the main medical tent in front of the Nisswa Community Center.

Our mission was to provide Ham Radio communications between four other medical tents around the 26.2 mile course and the main medical tent. There were doctors, nurses, and first responders in the main medical tent and the other four tents to tend to the runners. At race time there were 250 runners for the half marathon and 105 for the full marathon.

Darrell ABØVP and John WØWY were in the first medical tent, Roger WØWUG in the second tent, Steve WØTNT in the third tent, and Jim WØJDS in tent number four. Shirley KØDCW and Terry KIØFW performed the net control duties. There were very few medical problems with the runners even though the weather continued to deteriorate throughout the morning.

After all the runners had passed a medical tent, it was shut down so medical people and our operators could be reassigned. Darrell ABØVP came to the main medical tent and assisted Terry KIØFW with net control duties until the race was over, about 1430 hours.

Thanks to all of our club members and operators who assisted with this first marathon. They plan on running this marathon again, so it may be an event that we can provide communications for on a yearly basis. de Al WØRC



Report from Roger WØWUG's on work on the BAARC 147.030 MHZ+ Crosslake Repeater

In early December, I contacted Lloyd Bottin, sales engineer for Melby Communications, Inc, based in Lakefield, MN , near the Iowa border, about the possibility of borrowing a communications service monitor with RF tracking generator/spectrum analyzer capability. It was necessary to have precise frequency accuracy to be able to tune the duplexer cavities to the exact frequency of the receiver and transmitter in the repeater.

Some background information on Melby Communications: I have been purchasing communications test equipment from Melby Comm since the 1970's for my own business and the Willmar Technical College, when the company was owned by Chuck Melby. Lloyd Bottin now owns the business, but it retains the original name. They are factory representatives for the IFR brand communications test sets, and a few years ago IFR merged with another company named Aeroflex. Lloyd generously agreed to let me use a demo model IFR2975 digital service monitor for dialing-in the duplexer. On one of his sales trips across the state he dropped the machine off at my house. With his help we set up a test routine menu for our duplexer, to save time in using the instrument.

I have only been away from my communications lab at Ridgewater College in Willmar for seven years, but wow, has test equipment ever changed since then! Gone are the microprocessor-assisted analog "boxes." The 2975 is essentially a computer that acts like a service monitor. Everything is menu driven, and learning where-to-find-what-function in the menu directory would have taken a lot of time. That's why we set up and stored a test routine for "sweeping" our duplexer. I knew what I needed the "box" to do, and Lloyd located the functions in the various menus, we set parameters, and then they were stored to memory to recall later.

Most everything you do with the instrument is controlled by computer "mouse clicks." Front panel push buttons are actually "soft-keys" that bring up various menus. Compounding the learning curve is that this instrument is capable of generating, decoding, and analyzing most modes of digital two-way radio, such as the so-called APCO-P25 trunking radio system protocol as used by most "metro" law enforcement and public safety organizations currently--plus many other modes of narrow-band digital radio modulation. The price? Roughly \$18,000.00 and up, depending on options.

The duplexer for the Crosslake repeater was originally designed for use in the 154MHz public safety two-way radio spectrum. Moving it down to 147Mhz is more involved than just making "tweaking" (tuning) adjustments. Although it did tune down to 147MHz, its operation was very "lossy" and performed poorly. I recalled that many years ago I rebuilt a similar duplexer for a ham radio repeater in Willmar. I tracked down the location of the coax wiring harness and the correct coupling loops to my former lab at Ridgewater College. The instructor (former student of mine!) agreed to let us have the harness, to be replaced with the one that came with our Club's duplexer. It probably took less than an hour to transplant coax harnesses and retune using the 2975. I found that the duplexer has better rejection with 3 cavities on each side, as a bonus, instead of four. That leaves two cavity filters that could be used for some other club project.

I had Al WØRC's help in first removing the duplexer from the Crosslake site and re-installing it, on-air. QSO's indicate the 147.030 repeater is working as well as it can.

At Lloyd Bottin's request, I dropped the 2975 off at the Hennepin County Sheriff's Radio Dispatch Center near Hwy 169 and Rockford Road, Plymouth, on my way to Minneapolis for Christmas. Several of my former students work as technicians there, and it was fun talking with them again.

Roger WØWUG.



The "Third Annual Cleanup of the Pennington Access" will be held May 7th from 5 PM to 7 PM. This is the area near Crosby-Ironton where the club holds Field Day. Best to bring gloves and wear boots. There will be a Bar-B-Q dinner at the park following the cleanup. Contact Steve WØTNT for details. [mrsteveweber at gmail.com](mailto:mrsteveweber@gmail.com) 218-828-1129.

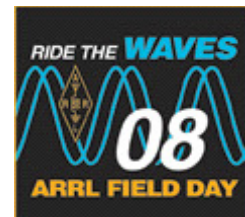
The Army, Air Force, Navy, Marine Corps and Coast Guard are co-sponsoring the annual **Military/Amateur Radio Cross-band Communications Test** on May 17th. Get more details on how you can participate in the event at <http://www.netcom.army.mil/MARS>

Memorial Day is May 31st. Honor and remember those who died in the line of duty in our nation's military. Learn history by attending a Memorial Day ceremony in a community near you. In Brainerd, taps are played at a gathering on the Laurel Street Bridge over the Mississippi River at about 8:30 AM. That is followed by a tribute to those involved in the Bataan Death March at the Brainerd National Guard Armory. There will be a parade starting at Franklin School at 10 AM. The procession will go east and then north to Evergreen Cemetery in Brainerd, where annual flag ceremonies and speeches are given.

The 19th Annual Tour of the Lakes Bicycle Ride will be on Saturday, June 7th. It begins and ends in Crosslake, MN. The BAARC has provided communications for this event many times in the past and it is always fun to be there. Plan on participating as a radio operator this year.

An emergency exercise will be held on June 24th. It involves providing communications for a distribution of needed supplies in time of emergency. Ham Radio is to be the communications medium. Contact Al WØRC or John WØWY to participate in this practice.

The Annual ARRL Field Day will be Saturday and Sunday, June 28th and 29th this year. The BAARC plans to participate by setting up at the Cuyuna Country State Recreation Area near Crosby-Ironton, MN. This is the same location as last year where club members and friends had a great time making 310 contacts in wonderful summer weather. Here is your chance to invite non-hams to learn about the hobby. See you there.



This year's **Brainerd Area Hamfest will be Saturday, July 12th**, at the Brainerd National Guard Armory in Brainerd. The hours will be 9 AM to 1 PM. New this year will be VE testing at 10 AM followed by a seminar on VSWR by Mark WØMH. Be sure to mark your calendar and tell your friends to attend this fun event. Attending is a good way to support the BAARC.

August 8 - 10, 2008, there will be a Rochester Amateur Radio Expo. It will be a "R.A.R.E. Experience" in Rochester, MN. The Rochester Amateur Radio Club will host the first annual R.A.R.Expo. They welcome Hams and guests visiting from around the country. It is a special honor for the Expo to be designated as the 2008 ARRL Dakota Division Convention. They have a wide range of offerings for the Ham Radio community. For more and complete details, go to: <http://www.rarexpo.org>

Membership Renewal: Please pay your 2008 dues if you have not already done so. Support the BAARC and stay informed with the BAARCer by paying your dues right away. We also urge you to take the BAARCer by the Internet rather than by mail. It will save the club money. Thanks. The Management.

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

5/04/08	Darrell	ABØVP
5/11/08	Mike	WAØLVG
5/18/08	Jim	KØLIO
5/25/08	John	KCØWCG
6/01/08	Marcia	WØZMC
6/08/08	Charles	W5CCL
6/15/08	Jim	WØJDS
6/22/08	Alan	AAØAS
6/29/08	John	WØWY

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 next BAARC Membership Meeting will be Thursday, May 29th, at 7 PM in the large meeting room at the Brainerd Public Library. Steve KCØYTE will be showing photos of ham shacks and antennas. Send your digital photos to be shown at that time too. Steve's e-mail is [steve.mott](mailto:steve.mott@hunttechnologies.com) at hunttechnologies.com

The Brainerd Area Hamfest will be Saturday, July 12th, at the Brainerd National Guard Armory 9 AM to 1 PM. Be sure to mark your calendar and tell your friends.

The Brainerd Area Amateur Radio Club **Fox Hunt and Picnic** has been moved from August to July 26th this year. Get your equipment in shape and mark your calendar for this fun event.

From the ARRL: DX is out there—Hams around the world are standing by.

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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