



The BAARCer



April 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 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 March 27th BAARC Membership Meeting evening presenters were (l-r) John WØWY, who showed the recently completed operating protocol sheets for use during bad weather and other emergencies (see BAARCer Pages 5 and 6). John KDØCIZ is the Crow Wing County Emergency Management Director. He spoke of how Amateur Radio works into the county emergency plan. Steve KCØYTE showed a 15-minute Skywarn video from the ARRL. Finally, Darrel ABØVP told about the Club's involvement at the February Mid-Minnesota 150 Sled-Dog Race. He also gave an overview of the John Beargrease Race and the Beargrease Amateur Radio Coalition that helps support it.

Many thanks to Fritz for arranging a room for the meeting at Central Lakes College.

Inside This

Meeting Minutes	2
Club News	3
The Grey Line	4
Skywarn Protocol	5
Skywarn Protocol	6
Cable Loss	7
Coming Meetings	8
Sunday Night Net	

Skywarn training will be held in Brainerd on April 15th at 6:30 PM.

— Events Calendar —

- Wednesday, April 2** 1:00 PM to 2:00 PM Monthly siren test in Crow Wing County.
- Saturday, April 5** 9 AM to 10 AM Informal breakfast meeting at the Northwind Grille.
- Sunday, April 6** 8:00 PM to 8:30 PM Sunday Night Net on 147.225+ MHz.
- Sunday, April 13** 8:00 PM to 8:30 PM Sunday Night Net on 147.225+ MHz.
- Tuesday, April 15** 6:30 PM - 8:30 PM Skywarn Training in the Land Services Building.
- Saturday, April 19** 9 AM to 10 AM Informal breakfast meeting at the Northwind Grille.
- Sunday, April 20** 8:00 PM to 8:30 PM Sunday Night Net on 147.225+ MHz.
- Thursday, April 24** 12:45 PM and 6:55 PM Severe Weather Awareness Week in MN. Siren tests at 1:45 PM and 6:55 PM in Crow Wing County.
- Thursday, April 24** 4:00 PM to 5:00 PM BAARC Executive Board meets.
- Thursday, April 24** 7:00 PM - 9:00 PM **Club Membership Meeting.**
- Saturday, April 26** 8:00 AM to 3:00 PM **Hamfest in Fargo, ND.**
- Sunday, April 27** 8:00 PM to 8:30 PM Sunday Night Net on 147.225+ MHz.

March 27, 2008 - 4:00 PM - BAARC Board Meeting Minutes – Gander Mountain Sports

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, Advisor-at-Large Shirley KØDCW, Director-at-Large John WØWY, Web site Producer Mark WØMH, Special Projects Coordinator Jim WØJDS, and Secretary Darrell ABØVP, who joined the meeting @ 4:45 PM.

The Report of the February Meeting as published in the BAARCer was accepted as written. Treasurer John W3MQD presented the February 29th Financial Report. Al WØRC moved approval of the Financial Report, that after a second by John WØWY, was unanimously approved.

The BAARC Club Inventory for 2008 had been completed and was distributed to the meeting attendees. Al WØRC, with comments by John WØWY, reported on the month's extensive activities in Public Service Coordination and Digital & Emergency Communications.

John WØWY presented a copy of a MEMORANDUM OF UNDERSTANDING dated October 28, 1998, between BAARC and the Brainerd School District that has provided the foundation for our relationship over the years including the Club WØUJ station and the use of a membership meeting room for most of our membership meetings. President Lyle KØLFV and other club leaders will be meeting with the School District in the next weeks to determine the status of our relationship in the future.

Vice-President Steve KCØYTE presented a 2008 BAARC Program Calendar showing proposed programs and ideas for the remaining months of the year with Steve KCØYTE serving in a leadership position. The meeting was adjourned at 5:10 PM following a motion by John WØWY and a second by Steve KCØYTE.

Respectfully submitted, **Darrell ABØVP**, Secretary

March 27, 2008 - 7:00 PM - BAARC Membership Meeting Minutes – Central Lakes College

President Lyle KØLFV opened the meeting with more than twenty Hams and guests in attendance. The February Membership Meeting Minutes, as published in the BAARCer, were approved following a motion by John WØWY and a second by Jim WØYA. The February 29th Financial Report, as prepared by John W3MQD, was approved following a motion by Mark WØMH and a second by Steve WØTNT.

There was discussion, led by John WØWY, relative to the more formal system of protocols being developed by BAARC for SKYWARN and other areas of BAARC service and of his trip to the NOAA Headquarters in Duluth to review plans for this year and of the various alternative methods of maintaining communications with NOAA during weather events.

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

President Lyle KØLFV again came up with a couple of great prizes for the drawing. Charles W5CCL won Yagi-Antenna Design by Dr. James L. Larson W2PY. Steve WØTNT won H F Antennas by L. A. Moxon G6XN.

Vice-President Steve KCØYTE asked all of us to take digital photos of our radio shacks and e-mail the photos with comments of interest to him so that he can prepare a program for our next BAARC membership meeting. The business meeting was adjourned at 7:35 PM.

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>

Congratulations to John WØWY for the new call. John was WØJGY for 41 years. He has been licensed since 1956 with a few other call signs along the way. Good going, John WØWY!

At Breakfast on March 1st: Lyle KØLFV, Jim WØIRE, Skee WØDCY, Fritz WØKO, Paula, WØHA, and Mark WØMH. The group discussed how you can put your photo and QSL card on <http://qsl.com> by embedding one in the text.

At breakfast on Saturday, March 15th: Charles W5CCL, Jim WØIRE, Fritz WØKO, Skee WØDCY, Lyle KØLR, Cathy KØTHY, Paula WØHA, and Mark WØMH. The group discussed QSK when using a linear amplifier and keyer. They also welcomed Charles back to Crosby where he and his wife Kathy KD5EGN just moved with no plans to return to Texas.

Marilyn Amundson, wife of Lyle KØLFV, slipped on ice and broke two bones in her right ankle. The incident happened on Easter Sunday and she had surgery at the Crosby hospital. She went home on Monday and we wish her a speedy recovery.

According to John KØJO, the best time to listen for 500 KHz experimental stations is on Friday and Saturday evenings starting the hour before and going through the hour after sunset. Sunrise is also a good time to listen and you may hear a couple of beacons on as well. You might also, listen for John on 507.5 KHz.

Spotted at the Mid-Winter Hamfest in Buffalo, MN, on Saturday, March 29th: Lyle KØLFV, Jim WØIRE, John KØJO, and Mark WØMH.

In the BAARCer from five years ago: The club held its 9th Special Event saluting the Antique Snowmobile Rendezvous. In eight hours, there were 169 contacts including nine to stations in foreign countries. Also in the April 2003 BAARCer, Past-President Brian KØEOU gave a talk on antennas for HF work, comparing many antennas to the traditional dipole wire antenna. Noted that month was Kathy KØTHY passing her Technician test with a 100 percent score.

Spring Weather: After the March 11th snow and sleet weather, my G5RV Antenna tuning changed dramatically to the point where 1:1 VSWR on 80 meters was now 1.6:1. All that after just an hour of spring weather! As predicted, it changed back to normal when the sun melted the ice. **Mark WØMH.**

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 "at" mwpersons.com

From the Mailbag on Saturday, March 29th: "Hi everybody, just a note to let you know we're still alive and that tornados, flooding, and 14 inches of snow have not done us in yet. We still enjoy reading the BAARC'er and checking the Web site every so often. Hearing of all the adventures at the public service events (especially the sled-dog race). It makes us homesick, but we are not sorry enough to move back to Minnesota. 73's to all." **Jim KØTXT and Sharon KBØSQX** in Hot Springs Village, Arkansas.

The grey line: A year or so ago I installed a new solid-state transmitter at KWAD, 920 KHz AM Radio, in Wadena, MN. I was quite proud of the job and was enjoying listening to the station while returning to Brainerd that evening. I tuned around the dial and then back to 920 KHz. The station had disappeared under heavy interference. I quickly called the studio and was told everything was fine there. I called the automated remote control at the transmitter site and all of the meter readings, including output power, were just where they should be. Then it dawned on me. The sun was just setting and interfering stations were coming in on the grey line. Yes, signals tend to follow sunrise and sunset for short periods of time. That line between light and dark can be a "conduit" for signals along the line. You have probably noticed that when using your HF rig. I used it to my advantage when contacting the 3YØX Peter I Island DX-pedition a few years ago. To see a greyline map, go to <http://dx.qsl.net/propagation/greyline.html>

April 14, 1912, the RMS Titanic struck an iceberg about 400 miles off Newfoundland, Canada. Less than three hours later, the Titanic sank in 12,000 feet of water. Only 705 people were rescued. 1523 drowned or froze to death in the icy water. First Wireless Operator Jack Phillips began transmitting CQD until Second Wireless Operator Harold Bride suggested, half-jokingly, "Send SOS; it's the new call, and this may be your last chance to send it." Phillips, who died in the disaster, then interspersed SOS with the traditional CQD call.

Get the latest copy of the **BAARC membership list** by going to the <http://brainerdham.org> website. Click on "Members Only." Enter the username and password. If you do not have those, and you are a current member, contact the webmaster by e-mailing teki@mwpersons.com. Use "Ham Radio" in the subject line. You will be e-mailed the username and password in return. The membership list is available as a .pdf document arranged four different ways for your convenience.

Tip From Lyle KØLFV: Because the BAARCer is available as a .pdf document online and takes several minutes to download via a dial-up modem, you can make life easier by following these simple instructions: Opposite click on the BAARCer link. You can then elect to "Save Target As" the BAARCer on your "Desktop." Click "Save" and then go about doing other things for a few minutes. After downloading is complete, click on the desktop icon to read the BAARCer.

Tom WØQF: Friday evening, March 30th, doctors gave him approximately one week to live. Tom has been waging a battle with Leukemia since late last summer. For current information, go to: <http://www.caringbridge.org/visit/thomasjones>

There is a Skywarn Operating Protocol on Pages 5 and 6 of this BAARCer. We recommend that you print those pages if you are taking the BAARCer by Internet or pull those pages out of your printed newsletter and post those pages in your ham shack for easy reference.

Brainerd Area Amateur Radio Club



Operating Protocol for: **SKYWARN**

Purpose: The SKYWARN program is used to provide amateur radio communications support to the National Weather Service (NWS) prior to and during severe weather that will affect Crow Wing County and the surrounding area(s), an announcement will be made on the Club's 147.225 Repeater.

Training: To be current, all SKYWARN spotters should attend a training session, at least, once every two years. Training sessions will be conducted by the NWS and spotters' identification number will be assigned for reporting purposes.

Activation: When a severe weather warning has been posted for Crow County and the surrounding area(s) an announcement will be made on the club's main VHF repeater (147.225 MHz +). During activation of the SKYWARN net all normal radio traffic on the repeater shall cease. Only necessary information and/or emergency traffic shall be passed during the weather net.

Net Control Station (NCS): A SKYWARN net control station (NCS) will establish the weather net and take check-ins from those amateurs able to participate in the activity. The NCS will inform those who have check in what is known about the storm, what instructions may have been received from NWS, then will recall all spotters to assess their reportable information.

Weather Spotter Locations: SKYWARN spotters can report their weather information to the NCS from any location. NO spotters are required to place themselves or their equipment in danger. SKYWARN spotters are only volunteers. **SAFETY FIRST.**

(continued on Page 6)

SKYWARN (continued from Page 5)

Weather Spotter Reports: There are certain criteria for making spotter reports. Recall that a thunderstorm is defined as severe if it produces a tornado, hail $\frac{3}{4}$ -inch diameter or larger, and/or wind gusts 58 miles an hour or higher; it is highly desirable to report events associated with a thunderstorm BEFORE they reach these severe levels. Use the following guidelines for reporting thunderstorm-associated weather events:

1. **Hail** (any size) ie., size estimates diameter in inches - pea, 0.25; marble, 0.50; dime, 0.75; quarter, 1.00; half-dollar, 1.25; golf ball, 1.75; hen egg, 2.00; tennis ball, 2.50; baseball, 2.75; and grapefruit, 4.00.

2. **Wind Gusts** (of 39 to 54 mph or greater) ie.,
Speed (mph) Effects

39 – 54 Twigs and small limbs break off trees;
wind impedes walking

55 – 72 Damage to chimneys and TV antennas;
pushes over shallow-rooted trees (jack pines)

73 – 112 Peels surface off roads; windows broken;
mobile homes overturned

113 – Higher roofs torn off houses; weak buildings and
mobile homes destroyed; large trees uprooted.

3. **Wall Cloud(s)** look for rotation

4. **Funnel Cloud(s)** look for debris

5. **Tornado(s)** look for touching ground and/or debris

6. **Flash Flooding** or **Rain** of more than 1-inch per hour

7. **Injuries/Fatalities**

In Making a Report What to Report—

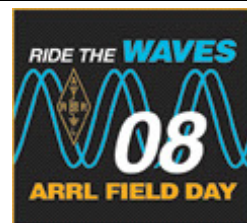
1. **Who you are.** ie., Skywarn Spotter # _____
2. **Where the event is/was.** ie., reference and area or location
3. **What you have seen.** ie., $\frac{1}{2}$ -inch hail, wall cloud, etc.
4. **Movement of the event.** ie., storm as a whole

To report weather directly to the Duluth Weather Service, call **1-800-685-8612**

BE SAFE !

3-15-08

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.



The Annual Duluth-Superior Swapfest Hamfest will be Saturday, May 3rd. The Minnesota Repeater Council will meet that same afternoon in Superior.



This year's **Brainerd Area Hamfest has been set for Saturday, July 12th**, at the Brainerd National Guard Armory on the south side of 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.

There are now **10 years of history** on the <http://brainerdham.org> Web site for you to look at. Just click on "History Files" on the index page to go to the year and story you might want to see. Heck, you might even see your own picture there.

Gleanings from the Northland Sky Watcher, the Spring 2008 bulletin from the National Weather Service, Duluth. Crazy WX? We have had a winter of extremes: temperatures were on a roller coaster, with mild stretches punctuated by Arctic outbreaks that persisted for a few days to a week, according to Tom Lonka, Climate Specialist. Did you know that flooding is the number-one storm-related killer? It is not always tornadoes, severe thunderstorms, or winter storms, stated Greg Frosig, Hydrology Program Leader. Check out their Web site at <http://www.weather.gov/dlh>. Remember: Tornado Drill Day is April 24th. We will be having a Skywarn Training Presentation in Brainerd on April 15th at 6:30 PM in the Land and Service Building, 322 Laurel Street. de **Fritz WØKO**

April is the birth month of Samuel Morse. He lived April 27, 1791, to April 2, 1872.

From the History File: Guglielmo Marconi was born April 25, 1874. He is often called the "Father of Radio." Marconi did not invent radio, but took it out of the laboratory and into the lives of the public.

Cable Loss: There is a little-known fact that coaxial cables, such as RG-8, RG-213, RG-214, and RG-58, have more RF loss in one direction than the other. This is due to the twist direction of the inner conductor and the braid twist on the outside of the cable. The inner conductor controls forward power and the braid is the return path for receive signals. This phenomenon was discovered and documented by Professor Loof Lirpa (SMØAFD) at the University of Stockholm, Sweden, in 1956. Quality cable manufacturers print a tiny arrow on the outer jacket of their cables indicating which way the transmitted RF should go. If the coaxial cable in your shack does not have an arrow, you can experimentally determine it. Connect your transmitter to one end of a cable and a wattmeter, with dummy load, to the other end. Check the power and then reverse the cable to see which way it works best. Then, mark the cable with an arrow so you will always know the "sending end" of the cable for minimum loss to your antenna. Install it accordingly. This can be a significant competitive advantage when trying to make a DX contact.

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

4/06/08	Lyle	KØLR
4/13/08	Mark	WØMH
4/20/08	Paula	WØHA
4/27/08	John	KØJO
5/04/08	Darrell	ABØVP
5/11/08	Mike	WAØLVG
5/18/08	Jim	KØLIO
5/25/08	John	KCØWCG

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 - -

Skywarn training will be held in Brainerd on April 15th starting at 6:30 PM at the Land Services Building, formerly the Crow Wing County Social Services Center. The address is 322 Laurel Street.



Warning Sirens will be tested in Crow Wing County at 1:45 PM and 6:55 PM on Thursday, April 24th, as a part of Severe Weather Awareness Week in Minnesota.

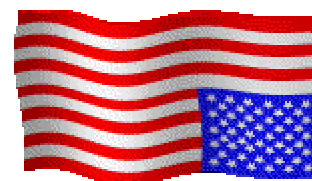
The next BAARC Membership Meeting will be Thursday, April 24th, at 7 PM. The speaker will be Steve Warren from Batteries Plus in Brainerd. Steve will tell about new battery technologies and answer your questions about batteries.

There will be a **Hamfest in Fargo** on Saturday, April 26th.

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

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

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