



# The BAARCer



February 2015

For Anyone Interested in Amateur Radio

Page 1 of 8

**Club Call Sign: WØUJ**

**BAARC REPEATERS**

53.110 MHz- 123.0 Hz  
**147.225 MHz+** (main rpt)  
 145.130 MHz- Echo Link  
 Node number 233515  
 443.925 MHz + 110.9 Hz  
**Packet:** 145.670 MHz  
 MNBRD, BRDBBS  
 144.390 WØUJ APRS  
**Crosslake** 147.030  
 MHz+  
**Crosby** 146.700 MHz-  
 Tone 141.3  
**Crosby** 444.925 MHz +  
<http://brainerdham.org>

**OFFICERS**

**Pres. + Web Editor:**

Steve Mott **NØCRM**

**Vice President:**

Lyle Amundson **KØLFV**

**Secretary:**

Ron Finger **KØGOP**

**Treasurer:**

Doug Bergsnev **KDØERE**

**Director-at-Large:**

Al Doree **WØRC**

**Trustee + BAARCer  
 Editor:**

Fritz Bertelt **WØKO**

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Mitch Ahrenstorff, ADØHJ, put on an informative presentation of the popular digital mode JT65 at our January meeting. With very low power (about 30 watts) into a vertical antenna outside the door at the Fire Hall, he made a demo contact with another station in Michigan.

Mitch had an explanatory handout with much information for the interested members to peruse and apply later at their own stations. We thank him for this presentation. Pictured is the gear he used—plus laptop. By the way, Mitch is a valued employee at LandysGyr.

**— Events Calendar —**

- Sat., Feb. 7, @ 9—Club Brkfst. @ Northwind Grille in Brainerd**
- Sat., Feb. 14, Annual Dogsled Race—More details later & operators needed.**
- Sat., Feb. 14, St. Cloud Hamfest at their Amory on Veterans Drive.**
- Thurs., Feb. 19, Free Ham Radio Licensing Classes Start at 6:30—Fire Hall**
- Sat., Feb. 21 @ 9—Club Brkfst. @ Northwind Grille in Brainerd—CLUB TECH GROUP meets afterwards @ 10:30 in Brd. Library Large Mtg. Rm.**
- Thurs., Feb. 26 @ 4—Monthly BAARC Board and Membership Mtg. @ 7 — @Brainerd Fire Hall.**

**Listen for Activity Updates on our Sunday Night Nets**

**Encourage New Membership: Dues are still only \$20/year—a bargain for all you get. E-mail Doug for info: [djbdesk@gmail.com](mailto:djbdesk@gmail.com)  
 See page 7 for new 2015 Membership/Dues Form**

## Thursday-January 29, 2015 - 4:00 PM - BAARC Board Meeting Minutes

### Brainerd Fire Station

**President:** Steve Mott, NØCRM

**Vice President:** Lyle Amundson, KØLFV

**Treasurer:** Doug Bergsnev, KDØERE

**Secretary:** Ron Finger, KØGOP

**Attendees:** Steve NØCRM, John WØWY, Al WØRC, Shirley KØDCW, Lyle KØLFV, Roger WØWUG, and Dave KBØSCT.

**Past Presidents:** Charles Lane, W5CCL, Al Doree WØRC

**Director-At-Large:** John Luce, WØWY

**Repeater Trustee:** Fritz Bertelt, WØKO

**Emergency Communications Director:** John Luce, WØWY

**Secretary's Report:** Secretary not present. Report for minutes: There were no Meeting Minutes for the December 2014 Holiday meeting. The website and Google Calendar were updated for January. Membership roster shows 62 members with 41 members paid and in good standing for 2015.

**Treasurer's Report:** Treasurer not present. A report of current Club Accounts was forwarded to the Board.

**Membership Meeting Program:** Steve NØCRM reviewed recent and future Club programs and events. Future Club programs planned include **February 26**, Stan K3JKW: Ham license plates, and **March 26**, Steve WØTNT: Cuyuna Country State Recreational Area.

**Upcoming Events:** The next Club event will be the **27th Annual Sled Dog Race** in Emily, Outing, and Remer on February 14. Event organizers will advise if event will be moved or cancelled due to current lack of snow. Also discussed was the possibility of using the CWC Sheriff's Department Communication trailer, and possible Crossband usage to alleviate comms difficulties at the South Windy Lake location. John and Steve tested the new repeater on the dog sled route and found the homes area of South Windy unworkable. Moving further up the hill into the trail area, they were able to re-acquire the repeater.

**Digital & Emergency Communications:** Following the recent sale of the South Brainerd 145.130 Club repeater tower site, John WØWY made a motion to vacate that facility on the south tower. Target date is the end of March 2015. Items to be moved include Cavities, Motorola Radio, and miscellaneous equipment.

**Motion to accept:** John WØWY, **Second** Al WØRC, **Passed**.

John WØWY reported a 90% approval to **raise the antenna height** for the Club 147.030 Crosslake repeater. Plans are to move the Club antenna to 300 feet at the top of the tower, with a future target of also adding a commercial antenna there.

**New Business:** Recent testing shows the **146.700 MHz Crosby repeater** has a big footprint, and can be heard as far south as St. Joseph and north to Carlton. Plans are being discussed to move the 146.700 MHz off the Crosby site and replace with the **147.225 MHz currently at Gull Lake**. Minnesota coordinating council review indicates no other 225 repeaters operating in the state; this would be the biggest footprint. Incorporating the use of PL/CTCSS Tones will be discussed further.

Regarding the new **Digital Fusion repeaters**, Al WØRC reported that connecting controllers to the new radios is one of the bigger issues. Software upgrades: current version 1.00W; 1.00Z is the new release. Other comments: Negative chatter about the Wires-X only links them together. Need some other software, may be ready in Mid Feb. RCOM interface to the CL100 may be a better solution for full 3-way controllers.

The **BAARC Technology Group** held it's first meeting following the Club Breakfast Meeting on Saturday January 17 at 10:30 AM at the Brainerd Public Library, Lyle KØLFV Chairman, with 12 attendees. Both existing and new Club Remote Station rigs were discussed. Software Defined Radio (SDR) will also be considered because of the software-native control design. Attendees were encouraged to explore several software options for remote rig control for the next meeting. An integrated VOIP component for audio seems preferable following past remote operation experience with Skype. The **Brainerd HRA** (High Rise) location has many advantages as a remote station site including antenna height and installation area, fiber optic control lines already in place, 24/7 building access and familiarity / current location of other Club equipment. Next meeting is scheduled for the 3<sup>rd</sup> Saturday of the month, February 21, 2015, at 10:30 AM in the Brainerd Library large meeting room.

The board meeting was adjourned at 5:10 PM.

## Thursday-January 29, 2015 - 7:00 PM - BAARC Membership Meeting Minutes

### Brainerd Fire Station

**Attendees:** The President opened the Club membership business meeting at 7:00 PM.

An informative program on the **JT65 digital mode** was given by Mitch ADØHJ.

--Respectfully submitted by **Ron KØGOP**, Secretary

## DX and the Paper Chase

The holidays are behind us and the January thaw has replaced the bitter cold for now. The HF bands have been interesting for the past 30 days and productive depending how you feel about the glass being half full or half empty. Once again the 12-meter band has been king with an abundance of DX and pretty good signals. The afternoons have been best for 17 meters as the noise is somewhat reduced. Now comes the big news Iran is QRV as I type with the call EPT6, and you can imagine the huge pileups. They'll be on the air for at least 10 days. A DXpedition crew is on the way to activate Navasa Island and has been assigned the call K1N. This will be the first signals heard from Navassa Island in 22 years. The group is headed up by Glenn Johnson, WØGJ, whom many of you know. Glenn has been a speaker at BAARC several times in the past. In addition, Ralph Fedor, KØIR, is also heavily involved in this venture. Ralph has also spoken to the Club several times before. This is one you DXers do not want to miss as it'll be many years before the Island is activated again. Monaco (3A) will also have a group of operators QRV. There's lots of "good stuff" for DXers in the pipeline in 2015, so keep your ears glued to your receivers. In the meantime, sit down at your station and call CQ because someone somewhere is listening for your call, don't disappoint the caller. So long for now from Huntersville from my station to your station, 73 es gud DX from Bob/WØZPE.

## Colorado ARES Member, 5, Passes Tech Exam —Too Young?

Centennial, Colorado resident Colton Ragsdale, KEØCRD, has passed his Amateur Radio Technician examination at five years of age. Colton certainly took an interest in radio at a young age! There is no age limit to taking the federal test, but it is extremely rare for anyone this young to pass it. Applicants must demonstrate an understanding of FCC regulations, radio station operation, electrical principles, and safety considerations by passing a 35 question, multiple choice, written examination. Although Colton was unable to meet the 74% threshold to pass the test the first two times he tried in December, persistence paid off as he passed the exam with a 91% on January 3 in Centennial. His parents Zeke and Debra are also both Amateur Radio operators. Colton plans to use his license for community service, particularly by providing communications for emergencies and disasters. -- *Jack Ciaccia, WMØG, ARRL Colorado Section Manager*—**BAARC Editor's Note: No, this is not too young, especially with supportive parents. Plus Colton's licensure provides an encouraging example for others—even those older than he is.—WØKO**

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**Interested in getting a ham radio license? Classes start this month. Check the local publications. For instance, the Brainerd Daily Dispatch had the announcement in their weekend edition on 1-31-15 (Sat.-Sun.) —or refer to our BAARCer —the January 2015 edition— and go to p. 3 for all the details. The classes are free—just buy the text.**

## **The Brainerd Area Amateur Radio Club's Technology Group —Met 1-17-15 at the Public Library**

The group is set up to help design and implement a number of upcoming Digital and Analog Communications projects. This was the first of a series of meetings for the Group.

A couple of our projects would include the implementation of a Remote HF Amateur Radio Station and the Networking of our new VHF/UHF Digital Repeaters. We need help in putting together the hardware, software and networking to make these projects a reality. Future meetings of this group will be scheduled the first Saturday of each month and will be held at the Brainerd Fire Station.—73's Lyle KØLFV. Pictured below is the Tech Group.

Some of Attendees—clockwise on left: Rob KDØVJM, Rick WUØS, Al WØRC, Pat WØOPW, Lyle KØLFV (chairing meeting at far head of table), Tom KTØMMY, John WØWY, and Ron KØGOP, Secretary. Photo by WØKO.



### **BAARC Technology Group Meeting**

**Saturday, January 17, 2015**

**10:30 AM Brainerd Library Meeting Room**

**Lyle KØLFV, Chairman**

12 attendees

First meeting of this group to help design and implement a number of upcoming Digital and Analog Communications projects including the implementation of a Remote HF Amateur Radio Station and the Networking of our new VHF/UHF Digital Repeaters.

#### **Discussed:**

Current HF station equipment; TS-480 SAT, IC-746 :

Prior remote station setup and issues

Available remote operation software applications (integrated VOIP preferred)

Antenna and other station hardware and control

Station location possibilities

#### **Summary:**

Both existing and new Club rigs were discussed. Software Defined Radio (SDR) should also be considered because of the software-native control design. Attendees were encouraged to explore several software options for remote rig control for the next meeting. An integrated VOIP component for audio seems preferable following past remote operation experience with Skype. The Brainerd HRA (High Rise) location has many advantages as a remote station site including antenna height and installation area, fiber optic control lines already in place, 24/7 building access and familiarity / current location of other Club equipment. All attendees will be invited to share the BAARC DropBox folder. **Next meeting is scheduled for the 3<sup>rd</sup> Saturday of the month, February 21, 2015, at 10:30 AM in the Brainerd Library large meeting room.**

-- Ron KØGOP, BAARC Secretary

## **Fishing Extravaganza 2015—BAARC Participation:** Text and Photos supplied by Steve NØCRM

First, a big thank you from Al, Shirley and John, for volunteering to help out at this year's (25th Anniversary) ice fishing contest. As a bonus, this year the weather provided a spectacular day with much warmer (30's F) than it has been in years past. Al WØRC, Shirley KØDCW, and John WØWY were Event Co-chairs.

Our Club volunteers this year were as follows: Al WØRC, Shirley KØDCW, John WØWY, Steve NØCRM, Alan AAØAS, Michael KEØAFZ, Mordicai/Dave KDØVJL, Terry KIØFW. Not pictured are Doug KDØERE and Tim KDØYLO.

John, Al, Shirley, and Steve had a meeting with Clint Meyer of the Jaycees, whom we've worked for the past couple of years. The previous Director of Security, John Shanoff, has "aged out" of the organization. The main discussion was in regards to staffing and duties. Generally in past years, we've had operators at nearly the same locations around the contest area observing the activity going on and reporting anything unusual or relaying requests for information to our Net Control at our communications trailer. From there Net Control would usually ask the appropriate Jaycee representative for the response (answer) and relay that information back to the operator. Reaching the appropriate Jaycee person was sometimes difficult because of the type of communications tool they preferred to use: ham operator shadow, GRS/FRS radio, or cell phones. As for duties, our number-one is to watch for and/or report any public safety issues, in particular medical emergencies. First Responders are on the ice at the First Aid Tent. They are the only EMS people who respond to a medical emergency. And if a patient needs medical help beyond the resources of the First Aid Tent and needs to be transported to an off-ice medical facility, they (EMS) will do that transport function to the shore and meet up with an ambulance there. The second one is to help assure the Jaycees that the contest is run in an efficient and safe manner for all the participants. Over the last 25 years (24 years for BAARC's participation) they have learned a lot and continue to have a great event and support many community activities.

For us it is also an opportunity to give back to the community and to give our members meaningful public service communication activity. In addition, it is a training opportunity for our members, new and old, in the use of equipment under harsh conditions and varying operator requirements. This year, as last, we used the Sheriff's Emergency Communications Trailer instead of the Club's. It had been brought out to lake and set up for us. John Bowen and the County provided a VHF radio permanently installed in the trailer, channelized like our other Club radios. Also available to us in the trailer was access to the ARMER radio system as a direct link to the public safety personnel working the event. This inter-agency interoperability feature has been needed for a longtime to make necessary communications paths quick and efficient.

**Some of the BAARC team pictured here in front of County Trailer.**

**Al and his machine on the ice.**



**This was the BAARC's 24th Year helping with this yearly Event.**

**(continued from p. 5)**

The Club has been given VHF portable radios taken out of service by the Sheriff's department which were available to be used on ham radio frequencies by our members at all Club events.

Early in the morning we met with Lt. Scott Goddard from the Sheriff's office. We discussed the day's events and the protocol that we would follow for the day. Our team was to operate in the trailer and help support the on-ice activity. In the Sheriff's trailer our Net Control (Shirley and Alan), monitored 3 systems: Command was the 800 Mhz Public safety radio, the Jaycees provided a GMRS portable radio that all Jaycees were communicating on, and our Amateur Radio Station was monitoring the simplex 146.580 "on-ice" frequency. As in the past, Al provided transportation to center ice for the event operators. He also provided coffee, hot chocolate, and goodies in the AM to the communications trailer, and also served as a shuttle for lunch provided by the Jaycees back to the trailer as well.

This year's event was very quiet; there were no major issues that we had to address, which is a really good thing. Again, we appreciate the support our members provide each year at this event and would like to thank you all for taking time on the weekend to support these events.



**Wondering about the Frost and your Septic System? Well, Terry May, KIØFW, has monitored this over the years and sends this information to share on his latest findings when asked about it: " Yes, I'm still keeping track of the ground temps. Right now, at 6 feet the temp is 39 degrees, and 4 feet is 25 degrees, and at 2 feet is 21 degrees. The "mass" of the ground underneath generates some heat, but the ground temp below constantly stays about 50 degrees (I would guess at 8 feet or deeper). It takes about 18 inches of snow to optimize the insulation of snow (non-compacted, snow has an R factor of 1). With the lack of snow cover, freezing temps tend to continue to push down into the soil until we get protracted warming and our average temps (day/night average) get above 32. The frost doesn't go out of the ground until late April. The ground gradually warms from below, and from above, and the "frost line" seems to meet at about 2 feet down . . . and then the frost suddenly disappears. The ground temps this year are similar to those in 2003, in which year about 90% of the septic systems froze. This year, however, it appears we've now gone into a mild "El Nino," so our weather pattern now may be warmer than is typical for awhile. "**

*Interesting information. Thanks, Terry, for providing it to those of us who have inquiring minds!*



# Brainerd Area Amateur Radio Club

## MEMBERSHIP APPLICATION FORM

Dues Year January 1, 2015, to December 31, 2015

(One Application for Each Person)



Name: (First, MI, Last-print) \_\_\_\_\_ Call Sign: \_\_\_\_\_

Address: \_\_\_\_\_ License Class: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone: (\_\_\_\_\_) \_\_\_\_\_ Additional Phone (\_\_\_\_\_) \_\_\_\_\_

Date of Application : \_\_\_\_\_ Circle One: New / Renewal

E-mail Address: \_\_\_\_\_ Member ARRL ? Circle One: Y / N

The Official Club Newsletter, The BAARCer is available each month online at [www.brainerdham.org/baarcercer](http://www.brainerdham.org/baarcercer)

Circle One: \$20 Full Member / \$ 10 Additional Family Member / Student Member \$10

**Note:** For first-time members, pay \$5 per quarter for the time remaining in the year you join. For information on a life membership, contact Doug, Club Treasurer: [djbdesk@gmail.com](mailto:djbdesk@gmail.com)

**Membership Dues** \$ \_\_\_\_\_ Make checks payable to BAARC. The Club is a 501c3 non-profit organization. Thus contributions are tax deductible.

**Voluntary Contribution** \$ \_\_\_\_\_ **Mail to:**  
(Tax Deductible)

**Total Enclosed** \$ \_\_\_\_\_ **Brainerd Area Amateur Radio Club**  
**Treasurer—Doug Bergsnev, KDØERE**  
**15912 Olsen Lane**  
**Brainerd, MN 56401**

I hereby make this application and agree to abide by the Club By-Laws.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Disclosure:** Information provided here will not be sold/given to any other organization without the permission of the members.

Please mail one form, along with dues (check/money order) for each person.

**Check our club's Website for other Information and Newsletters.**  
**Regular Updates on the Sunday Night Nets on 147.225 @ 8 P.M.**

**SUNDAY NIGHT NCS OPS**

02-01-15	Rick	NØBJN
02-08-15	Dave	KCØTGT
02-15-15	Tim	KDØYLO
02-22-15	Tim	KDØYLO
03-01-15	Rick	NØBJN
03-08-15	Dave	KCØTGT
03-15-15	Fritz	WØKO
03-22-15	Tim	KDØYLO
03-29-15	Tim	KDØYLO

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

**Would you like to  
take a turn at  
NCS?**

**Upcoming Hamfests in Area:** Buffalo on March 28th. Also see p. 1 for other events.

**FCC NEWS from ARRL :** Starting February 17, the FCC no longer will routinely issue paper license documents to Amateur Radio applicants and licensees. The Commission has maintained for some time now that the official Amateur Radio license authorization is the electronic record that exists in its Universal Licensing System (ULS), although the FCC has continued to print and mail hard copy licenses. In mid-December the FCC adopted final procedures to provide access to official electronic authorizations, as it had proposed in WT Docket 14-161 as part of its "process reform" initiatives.

**Navassa Island (KP1)—** will be QRV approximately February 2-16th using the K1N call sign. They will be active on nearly all bands/modes. In addition, they will feature Ralph Fedor, KØIR, and Glenn Johnson, WØGJ, along with their usual troop of ardent DXers. We hope to get Ralph to present a program at the May 28th Annual BAARC Dinner-Meeting in Nisswa. Stay tuned.

**For Sale:** Kenwood TS-2000 with mike, manual, and mini-manual for \$800. Contact Dave KBØSCT at ([flash911@q.com](mailto:flash911@q.com)) or by phone — 218-829-6293.

United We Stand



**FIRST CLASS MAIL**  
Address Correction Requested

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