



The BAARCer



December 2016

For Anyone Interested in Amateur Radio

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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>
2015 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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Pat Goff of Crow Wing Power : Grounding Importance for Ham Stations—and more!

Being a long-term employee and in charge of Power Quality, Pat, also a Master Electrician with broad-level experience in this field, brought us up to date on some critically important issues for us hams/non-hams using AC. What is a good ground? By using an expensive instrument called a Megger, we should have an effective ground with a reading of 25 ohms or less. However, in our sandy soils, this is difficult to achieve because the soils act like insulators instead of



conductors. Some customers get initial readings of 180-1500 ohms. This may not on the surface be a problem, but as Mr. Goff pointed out, increasingly complex and sensitive electronic gadgets on home appliances can create troubleshooting nightmares for him and electricians. For instance, one storage heating system was particularly often affected until Pat discovered the problem was an ineffective ground. It meant going over one hundred plus feet deeper with ground rods and bonding the entire electrical system to one common ground tied to the AC supplied circuit. Of course, we hams are also worried about lightning strikes. Our equipment is expensive. Sometimes the best precautions don't work. Advice: disconnect/switch to ground the external antennas. If you are home where a pump might be on, switch it and other compressor motors off during the storm. Don't forget to switch them back on later.

— Events Calendar —

- Sat. Dec. 5, Club Breakfast @ 9 @ Northwind Grille—Brd.**
- Thurs., Dec. 17, Christmas Party/Meeting : —Bring Some goodies to Share—Early Monthly Board & BAARC membership Mtgs. @ 4 and 7 P.M. @ Brd. Fire Hall.**
- Sat., Dec. 19, Club Breakfast @ 9 @ Northwind Grille —Brd.**
- Note: Technology Group Mtg after the BRKFST—to be held at Brd. Lib.**
- Sat., Jan. 23, Annual Fishing Derby—Ops needed. More Info on upcoming Nets.**

**Please Pay Your 2016 Dues
Join/Rejoin—Still only \$20 Dues/ Year—Please mail your
check to Doug KDØERE.**

Thursday-November 19, 2015 - 4:00 PM - BAARC Board Meeting Minutes

Brainerd Public Library

President: Steve Mott, NØCRM

Vice President: Lyle Amundson, KØLFV

Treasurer: Doug Bergsnev, KDØERE

Secretary: Ron Finger, KØGOP

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

Director-At-Large: Al Doree, WØRC

Repeater Trustee: Fritz Bertelt, WØKO

Emergency Communications Director: John Luce, WØWY

Attendees: Lyle KØLFV, Doug KDØERE, Ron KØGOP, Al WØRC, John WØWY, Shirley KØDCW, TJ KØTEG, and Mitch ADØHJ.

Secretary's Report: Membership roster shows 63 paid members adjusted for those with lapsed dues for 2015. Several members have paid for 2016. The Club website was updated with the November BAARcer. **Motion to accept:** Al WØRC, **Second** Lyle KØLFV, **Passed**.

Treasurer's Report: Treasurer's report submitted showing all month's account transactions and balances to date. **Motion to accept:** John WØWY, **Second** Al WØRC, **Passed**.

Membership Meeting Program: Vice President Lyle KØLFV reviewed recent and future Club programs and events. Future Club programs possibilities include: **ARRL Division Update**, and a **Short Subject Night** covering several technical areas. The **Christmas Party** meeting date will be December 17 at the Brainerd Fire Station.

Upcoming Events: Dates were announced for the **Brainerd Jaycees Ice Fishing Extravaganza:** January 23, 2016, **Mid-MN 150 Sled Dog Race:** February 13th, 2016, **Brainerd Hamfest:** April 16, 2016, and **Brainerd Jaycees Run-for-the-Lakes Marathon:** April 30, 2016. Ron KØGOP will contact the Arboretum for more information regarding their needs for the **Sour Grapes Half & Half Trail Run:** June 11, 2016, and will present to the Board and Membership for a show of interest. Doug KDØERE will coordinate **Ham Radio Classes** to begin in February. If the class size is small, as typical, we will try to meet in the Public Library small meeting room.

Digital & Emergency Communications: Al WØRC reported on the Club repeater installation at the **Crow Wing Power** site. John stated that we should meet to finish the antenna installation at the new EOC soon; no definite date was determined. John brought one of the 3 Motorola VHF base stations recently reprogrammed with Club repeater frequencies. **Breezy Point Fire Station** has requested having one of the desktop units for **SKYWARN** use. We will wait on reprogramming one of the older Motorola Radius repeaters in the lot until we have a use for it.

New Business: Lyle KØLFV commented on the October Board Meeting motion to purchase 3 additional **Yaesu Fusion Repeaters** at the discounted price of \$500 each. He will pursue this, but has been told previously by Yaesu, that only 1 or 2 more are eligible for purchase at that price. Ron KØGOP purchased a 150' Yaesu rotor cable for the EOC Club station and turned it over to Lyle KØLFV.

Mitch asked for approval to make another purchase of 2 items to further the work he is doing with the **Club Repeater-Linking** project. **Proposed:** Purchase of a 2nd All Star Link Node to include 1 Raspberry Pi, and 1 V1RX board for a total of \$150. **Motion to accept:** Lyle KØLFV, **Second** John WØWY, **Passed**.

Doug KDØERE forwarded a couple technical questions from the Crosby Bus Service regarding their radio/GPS/video system. Because of the specific hardware involved, John WØWY suggested they follow up with their vendor instead. TJ KØTEG presented an online-fillable form for **Club Repeater Coverage Reports** that he has made to collect data to incorporate into a Google based coverage map. He will work with Ron KØGOP to place this as a link on the Club website with the database residing in the new Club Google Drive area.

The board meeting was adjourned at 5:03 PM.

Thursday-November 19, 2015 - 7:00 PM - BAARC Membership Meeting Minutes

Brainerd Fire Station

Attendees: The Vice President opened the Club membership business meeting at 7:00 PM with 22 members and guests present.

Information supplemental to Board Meeting Minutes: Several ballots for 2016 Club officers were received by the Secretary with all endorsing the listed candidates. In the absence of any write-ins or additional candidates noted, Fritz WØKO made a motion that the Secretary file a unanimous ballot for the Club. **Motion to accept:** Fritz WØKO, **Second** Shirley KØDCW, **Passed**. The 2016 BAARC Officers are: President: **Steve Mott, NØCRM**, Vice President: **Lyle Amundson, KØLFV**, Treasurer: **Doug Bergsnev, KDØERE**, Secretary: **Ron Finger, KØGOP**, and Director-At-Large: **Al Doree WØRC**

Discussion was held as to the best dates for the upcoming winter **Ham Classes**. It was decided to begin the weekly classes on **Tuesday February 23**, ending 8 weeks later on Tuesday April 12, with **VE testing at the Brainerd Hamfest on Saturday April 16**.

Another interesting program on "**Grounding**" was given by **Pat Goff** of **Crow Wing Power**.

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

DX and the Paper Chase

A very happy and blessed Thanksgiving to all. This was another 30 days of very challenging band conditions. I doubt if it would be much fun and as fulfilling if working DX was too easy. There were some good band openings to deal with and some dedicated DXers willing to man several DXpeditions. I worked S79, T32, 5W and VK9. T32 (East Kiribati) had a Minnesota connection. A father and two sons put on a fun holiday DXpedition that connected with the world. During the early part of their adventure there was a good 12-meter opening allowing me to work them both on phone and a day later on CW. Those of you who are WWII history buffs will remember the battle for the Island of Tarawa, which is now Kiribati. It never ceases to be a thrill when my call gets through the pileup and is recognized, especially when you really want to get your signal out there and be counted. My CW contact was a bit challenging, but the operator was patient and we finally got my call sign sorted out. The Willis Island (VK9) DXpedition was not a holiday for the operators: the pileups were huge but well behaved. In addition, the operating split was 5 to 20 up, so it was a matter of being very patient and finding where the operator was receiving. All DX is good DX, so getting a good contact and touching someone several continents away is where the thrill is. All in all, it was good month of DX with very challenging band conditions. So long from Huntersville for now and don't forget: sit down at your station and call CQ because someone somewhere is listening for your call. Try dusting off your CW paddle and get it on the bands. 73 es gud DX from Bob/WØZPE

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ARRL is now 100 Years Old.

As you may have heard, the League is printing a re-issue volume 1 of QST. It would certainly be a collectors' item in addition to the original. John WØWY provided your editor with a photocopy of p. 5, wherein the readers can see how the early League fathers were already into the public service mode. They were ready to assist in disaster communication and serve the War Department also. Now the ARRL's role in public service has expanded greatly.

Meet K9CDM—Jack Schaller.

Jack has been a member of our Club for many years, but he has not been able to attend the regular meetings, first because of work (now he's retired from Federal service), and secondly, he lives in the Twin Cities area. He is also a busy guy with a grown family—nevertheless, he often gets to our hamfests and is a supporter of the BAARC. Fritz WØKO worked Jack when they got into ham radio—when both were young—Jack in Illinois and Fritz in Brainerd as KØMAH. Their first QSO was in 1961. He holds the General Class License. It was good to see him at the November meeting where he met some of our regulars.



Continued from P1—Grounding Program—Pat Goff

Pat answered many questions from the large interested group. Should you still buy 120-volt lightbulbs? No—look for Rough Service and 130-volt types instead. They will last longer, but consumers don't check the labels on the packaging. The problem is that the voltage from power companies has been steadily but slowly increasing, but the manufacturers have not kept up—local retailers are still unloading the old bulbs. Formerly we talked about 110/220 volt systems. Now it is nearly 125/250. This increased pressure/voltage is generally not problematic. We just need to be aware. If you are not a do-it-yourself power consumer, it is best to have your favorite licensed electrician check over your system top keep you and your investment protected according to the latest electrical code.



The photo at the right was taken at WØKO's QTH where a reading of 160.2 ohms was found on the megger. By pounding in more ground rods and connecting them with heavy solid grounding wire, the reading was improved. As was explained, it is difficult to get it into that 25 or lower ohms range. However, it's possible.

A big **Thank You** to **Pat** for the informative and professionally presented program. We are indeed fortunate to have high caliber people like him working for us.

Recent ARRL News

The Plenary Meeting of the 2015 World Radiocommunication Conference (WRC-15) in Geneva has approved an allocation of 5351.5-5366.5 kHz to the Amateur Service on a secondary basis with a power limit of 15 W effective isotropic radiated power (EIRP). The November 18 decision on Agenda Item 1.4 was adopted on two back-to-back readings. Some Region 2 countries, but not the US, will be permitted up to 25 W EIRP. With this action, and despite conditions that are more restrictive than had been hoped at the start of the Conference, the Amateur Service has obtained its first new global HF allocation since 1979. The new band will not become available until and unless the FCC adopts the Acts of the Conference and establishes operating rules. Until then, the five discrete channels will remain in place.

The Amateur Radio Parity Act S. 1685 has been endorsed by the US Senate Committee on Commerce, Science, and Transportation. In the voice vote on November 18, two Senators - Bill Nelson (D-FL) and Brian Schatz (D-HI) - asked to be recorded as voting "no." The Committee held an executive session to consider the various

On November 5, US Sen Al Franken (D-MN) signed on as the second cosponsor of S. 1685. That legislation and its US House twin, H.R. 1301, call on the FCC to extend the limited federal pre-emption of PRB-1 to cover private land-use restrictions such as deed covenants, conditions, and restrictions (CC&Rs). If the legislation becomes law, radio amateurs living in antenna-restricted communities would have the opportunity to negotiate with homeowners associations to install an antenna that reasonably accommodates Amateur Radio communication.

Beware of Fake Diamond antennas on-line!

There are seemingly many bargain price **Diamond** antennas on various online stores and auction sites. As the UK's only official importer and distributor, we know how much these antennas cost and when they appear online cheaper than the cost price, you have to ask questions.

Waters & Stanton (W&S) purchased several models from suppliers online (that do not purchase Diamond products from us) and one such example is shown in our blog posts. Not only does the packaging not look the same, the element section lengths are completely wrong and therefore, performance will NOT be as it should be.

BEWARE of these grey imports, some of the biggest names in Ham Radio retailing in the UK do not source their Diamond products from us and therefore, what you purchase may be suspect. If the UK distributor was Waters & Stanton, you know you have a genuine product, if not, it could be the case your cheap purchase may not deliver the goods.

<http://blog.wsplc.com/>

The W&S Team—Reprinted here from *Southgate Amateur Radio News*

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An ARRL and FCC Issue—taken from the Internet—11-28-15

Extra class hams please take note. The ARRL has launched an assault on your phone privileges on 75/80 meters. According to the September "It Seems to US" article by David Sumner, K1ZZ, ARRL CEO, the prized extra class segment of 75/80 meters from 3600 to 3700 is about to be opened to data modes, AND advanced and general class operators. This proposal is already on its way to the ARRL Executive Committee and then on to the FCC. (see attached article)

I have been a ham since 1966 and an ARRL life member since 1977. I remember when incentive licensing came into being sometime in the mid 1970s. This was an extraordinary program. It promised some small segments of our bands for the exclusive use who applied themselves; those who worked hard to learn that 20 WPM code and study those license manuals. In the years prior to incentive licensing, few hams worked to get advanced or extra class licenses because even general class licensees had access to all ham frequencies. Needless to say there was a dramatic increase in advanced and extra class licenses awarded over the next several years.

So now why would the ARRL--the organization that generally supports our best interests--decide to propose to the FCC that amateur extra class licensees lose their exclusive phone band privileges on 80 meters? The ARRL seems to have been pressured by digital mode operators who needed more spectrum. To be fair, the ARRL published one article back in April soliciting input. However, I missed that and I guess that many others except those who were promoting the extra data band segments did too.

I suspect that this elimination of all 75/80 exclusive amateur extra class phone privileges is not popular to the ham community at large. Certainly some compromise can be reached which preserves at least 50 kHz of exclusive extra class phone privileges for those of us who have worked hard to earn them.

I urge everyone to phone the ARRL and/or write ASAP. It is bad enough that those of us in our 50s, 60s, 70s and older constantly hear about threats to our Social Security and Medicare! But please leave our extra class ham band segments alone! **Ed/K8EA**

Thanks, newly re-elected Officers of the BAARC

At the November meeting, the membership voted for the slate that also served the previous year. Officers, your service to the BAARC is truly appreciated. Your volunteerism is to be commended. It is also a reminder to others in the Club that they may find an activity, future office, or even a niche where they can play a part.

More News from Around the World—from ARRL website

Martti Laine, OH2BH, Article on Working DX Pileups Now Available —11-25-15

An article by legendary DXer and DXpeditioner Martti Laine, OH2BH, on how to work DXpedition pileups now is available. The Northern California DX Foundation ([NCDXF](#)) has published the article, “The DX Chase: It Takes Two to Tango,” in a [special edition](#) of the *NCDXF Newsletter*. The article was written in cooperation with the [DX University](#) founded by Wayne Mills, N7NG, and the “original” edition [appears](#) on the DX University website.

The article reflects Laine’s lifetime of DXpedition experience, including the activation of 12 all-time new entities, and describes how DXpedition operators can more effectively work Europeans in a rare-DX environment. In an introduction to the article, Mills said, “In any DXpedition pileup, effective communication between the DXpeditioner and the DXers is critical.” When communication breaks down, he continued, “The result is often a complete lack of control by the DXpedition operator — and that’s not fun.”

Laine’s “original” article mentions the recent VK9WA Willis Island DXpedition, which he has called a “very pleasing experience” and “the most balanced and fair” geographically speaking.

K7RA Propagation Report/Prediction—11-30-15—from ARRL

Predicted solar flux is 95 on November 30, 100 on December 1, 105 on December 2-3, 110 on December 4-11, 105 on December 12, 100 on December 13-17, 105 on December 18-19 and 110 on December 20-26. Solar flux then peaks at 115 on December 27-31.

Predicted planetary A index is 12 on November 30, 25 on December 1, 15 on December 2, 8 on December 3-5, then 12, 20 and 18 on December 6-8, then 8, 12, 10 and 8 on December 9-12, 5 on December 13-15, 8 on December 16, 5 on December 17-21, then 15, 10 and 8 on December 22-24 and 5 on December 25-31.

SUNDAY NIGHT NCS OPS

12-06-15	Rick	NØBJN
12-13-15	Doug	KDØERE
12-20-15	Dave	KCØTGT
12-27-15	TJ	KØTEG
01-03-16	Rick	NØBJN
01-19-16	Doug	KDØERE
01-17-16	Dave	KCØTGT
01-24-16	TJ	KØTEG
01-31-16	Fritz	WØKO

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?

Interested in a Ham Radio Licensing Class?

Doug KDØERE is ready to organize the free class if there is sufficient interest. The tentative start is **Feb. 23rd** and runs on every **Thursday** evening at the Brd. Fire Hall/ Brd. Library. The class ends with the Licensing Test conducted at our April Hamfest at the Armory--**April 16th (Sat). Study materials are \$25. Test fee is \$15 at the end.** So if you know of anyone, you can let Doug know. Planning for a class is important: texts have to be ordered and assistant instructors have to be involved. You may contact him via e-mail: djbdesk@gmail.com

For Sale: Icom 756 Pro II 160-6 m. Transceiver. It covers 60 m. as well, in addition it receives from way below the BC band through 6 m. All modes. Excellent condition—recently completely checked over & updated by KØGX. Local hams, try it before purchase. Also available: never-used (new) matching Icom power supply. Contact Fritz w0ko@arrl.net.

A Merry and Blessed Christmas to our Members and Families—Have a safe Journey!

United We Stand



First Class Mail
Address Correction Requested

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Brainerd, MN 56401