



The BAARCeR



June 2013

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-5 APRS
 Crosslake 147.030 MHz+
 Crosby 146.700 MHz+
 Tone 127.3
 Crosby 444.925 MHz +
<http://brainerdham.org>

OFFICERS

President + WWW

Editor:

Steve Mott **NØCRM**

Vice President:

John Luce **WØWY**

Secretary:

Ron Finger **KØGOP**

Treasurer:

Doug Bergsnev **KDØERE**

Director-at-Large:

Lyle Amundson **KØLFV**

Trustee + BAARCeR

Editor: Fritz Bertelt
WØKO

Brainerd's Fire Chief Kevin Stunek addressed BAARC Dinner Guests at the American Legion Nisswa on 5-23-13.



Chief Stunek appreciates the BAARC's local emergency efforts and its cooperation with public authorities. Photo: NØCRM. Text by John WØWY is on page 6.

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— **Events Calendar** —

Sat., June 1, Bike Tour Event—Volunteers Needed—contact Al WØRC/Shirley KØDCW

Sat., June 1, Club Brkfst. @ 9 @ Northwind Grille in Brd.

Sat. June 15, Club Brkfst. @ 9 @ Northwind Grille in Brd.

Thurs., June 27, Club Mtg.: Board @ 4 and Membership @ 7 @ Fire Hall-Brd.

Sat., July 6, Club Brkfst. @ 9 @ Northwind Grille in Brd.

Sat., July 20, Club Brkfst. @ 9 @ Northwind Grille in Brd.

Check the Club's Website and Activity Calendar

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

Thursday-May 23, 2013 - 4:00 PM - BAARC Board Meeting Minutes

Brainerd Fire Station

President: Steve Mott, NØCRM
Vice President: John Luce, WØWY
Treasurer: Doug Bergsnev, KDØERE
Secretary: Ron Finger, KØGOP
Director-at-Large: Lyle Amundson, KØLFV

Past Presidents: Charles Lane, W5CCL, Al Doree, WØRC
Community & Special Events Director: TBD
Director-at-Large: Lyle Amundson, KØLFV
Emergency Communications Director: John Luce, WØWY
Repeater Trustee: Fritz Bertel, WØKO

No meeting held due to Spring Banquet.

Thursday-May 23, 2013 - 7:00 PM - BAARC Membership Meeting Minutes

American Legion Post 627, Nisswa, MN

Attendees: 22 Members and guests were present for this abbreviated meeting before the Annual Spring Banquet presentation.

Introduction: The president called the meeting to order at 7 PM and asked all members and guests to introduce themselves to the group. Steve also announced the news of an upcoming donation of radio equipment to the Club from the estate of Jack Gibson ABØCC. Fritz WØKO has been the Club representative on this, and will oversee the donation process. Steve NØCRM expressed his gratitude on behalf of the Club for this generous donation.

Upcoming Events: The Saturday, June 1 **Tour of The Lakes Bicycle Ride** was briefly discussed with signup sheets available. Operators are still needed and may contact Al WØRC or Shirley KØDCW to sign up. Tour information can be found at <http://www.paulbunyancyclists.com/tour-of-lakes.html>

Digital & Emergency Communications: Crosby Tower: John WØWY and Al WØRC reported that the new Crosby repeater site is now active, with final connections made by Dietz Brothers this past week. The 2-meter repeater is at 146.700 MHz (-), with a tone of 127.3Hz. The tone may be changed to prevent interference with another repeater in the Twin Cities metro area. The 440 repeater is operating on 444.925 (+) MHz with no tone. Club members and area users appreciate all the hard work by John and Al during this long process.

Recent Events:

John WØWY and Dave KDØNRI shared their experiences traveling to Dayton, OH, for the 2013 Dayton Hamvention last week. They had a great time and John even got to drive Dave's new rig. Several shopping lists from other members were also filled.

The business meeting was adjourned at 7:15 PM with a presentation by Brainerd Lakes Area Fire Chief Kevin Stunek to follow.

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

Reward Offered (Forwarded by Ron)

A reward of 500 microfarads has been offered for information leading to the arrest of Hopalong Capacity. This unrectified criminal escaped from a Weston standard cell where he had been clamped in ions awaiting the Gauss Chamber.

He is charged with the murder of his Aunt Enna and his Uncle Con Denser, as well as the induction of an 18-turn coil named Millie Henry, who was found choked and robbed of valuable joules. He is armed with a carbon rod and is a potential killer. Capacity is also charged with driving a DC motor over a Wheatstone bridge and refusing to let the band pass.

If encountered, he may offer series resistance. The Electromotive Force spent the entire night searching for him in a magnetic field where he had gone to ground. They had no success and now believe he has returned ohm via a short circuit.

He was last seen riding a megacycle with his friend Eddy Current who was playing a harmonic. Charges against Hopalong Capacity are being considered under those pertaining to Ohm's Law.

DX and the Paper Chase

It's good to be back at the keyboard after a 2-month hiatus. Since we last met, my rotator is back in operation on the tower that supports my 17-meter antenna—thanks to Art (NØTNJ) and Al (WØRC) for their expert help. In the meantime I worked DX on both 15 and 20 meters whose monoband antennas are mounted on power poles. DX slowed down somewhat, both due to band conditions and a lack of DXpeditions. The last week of April had some interesting openings on the 20-meter band into VK and ZL land very late in the evening CST. I worked both New Zealand and Australia with nice clear signals both ways. This sort of opening is what makes working DX so much fun and...it does not happen very often. Another late evening contact on 17 meters with the beam stuck pointing north, I worked an operator in Azerbaijan (4J6) using CW for a new country I need for my DXCC. Stamps were ordered from Bill Plum and my QSL card is on the way. I have my fingers crossed on this one because of the poor mail system in places like Azerbaijan. I try working DX every day and for the most part, it's been successful, even though the A index has been high (all the way to 20) for the past week or so. Giving up is not in my psyche. If there's little or no DX, I turn to CW or a good SSB rag chew. The magic band returned for a couple of days and it was fun to listen to. I do not have a 6-meter antenna, but I used my 15-meter beam to do some eavesdropping. The 6-meter band is fascinating when it's open. This morning while calling CQ to what appeared to be a dead 17-meter band, there was an answer from Luxemburg (LX) for one of the nicest QSO's I've enjoyed for quite some time. Remember to sit at your station and call CQ because no one can hear you listening. So long from Huntersville, 73, and good DX from Bob/WØZPE.

+++++

ARRL Propagation Report from K7RA

Overall, solar activity is still pretty quiet, but one positive sign was on May 16, when the daily sunspot number was 212. I eyeballed the records, and had to keep searching further and further back to find a higher sunspot number.

One year, six months and one week earlier, on November 9, 2011 the sunspot number was nearly that high, at 208. We look clear back seven years, 10 months and 12 days to July 4, 2005, another near miss at 192. To find activity beating the May 16 number we have to go back nearly a decade, to November 1, 2003 when the daily sunspot number was 277. This was way back on the downward slide of Cycle 23, nine years, six months and 15 days earlier than our recent high number. Let's hope for many more days like this. **That seems likely, as the peak of this solar cycle is predicted for this fall, which begins about four months from now, on Sunday, September 22.**

Compared to the previous period (May 9-15) average daily sunspot numbers this week were down over 12 points to 144. Average daily solar flux sank nearly 6 points to 134.2.

Geomagnetic activity was higher, with average daily planetary A index up 3.7 points to 9.7, and average daily mid-latitude A index up 4.4 points to 10.3. It should be noted that five of the eight daily geomagnetic readings which make up the A index were not recorded for May 16 at the mid-latitude observatory, so the mid-latitude A index of 12 for that day is an estimate.

Camp Ripley Refresher Course and VE Test Session 4-26-13—A Success

According to John Luce, WØWY, and Al Doree, WØRC, the Army National Guard appreciated the effort to put on the refresher course for the ham exams. John and Al again went beyond the call of duty—and they are not even in the military anymore.!!! Their instruction followed the military’s class work. Then on Friday a team of the BAARC’s Volunteer ARRL Affiliated Examiners worked the better part of the morning administering the Technician and General Class FCC exams. Some 26 tested with 19 passing the Technician’s test and 4 earning the General Class, which means the latter took two exams back to back. Five examiners are pictured here: (l-r): Al WØRC, Roger WØWUG, Terry KIØFW, Shirley KØDCW, John WØWY. Not pictured here is Fritz WØKO, also an examiner and taking these photos.



2013 Nisswa Run-for-the-Lakes Marathon Event—also successful with the BAARC’s Help

The Event was held on Saturday, April 27, 2013. We had approximately 585 runners in three divisions: Full Marathon, Half Marathon, and Relay Teams. Eleven BAARC members worked communications. Terry KIØFW and Shirley KØDCW were co-net control: Steve NØCRM, Doug KDØERE and Alan AAØAS all worked Medical Stations; Steve WØTNT, Dave KBØSCT, Jim WØJDS and his friend Bill, and Roger WØWUG--all monitored water stops; John WØWY was the Shadow for the race security director, and Al WØRC was our Rover. Thank you to all BAARC members for participating in communications for this Marathon. By the way, the BAARC was thanked for an excellent job, again well done! (Thanks to Shirley KØDCW for this text)

Welcome these Hams who Joined Recently

Bill Kell, KØFWW, of Baxter, holds the Technician Class License. Also joining recently is Tom Kilian , KDØMOM, of Uppsala. He holds the General Class License. Welcome to the BAARC, fellow hams. Bill is on the left and Tom is on the right. Tom is a regular on the Sunday night nets.



FIELD DAY 2013 ---BAARC MEMBER INFORMATION

Field Day is always the fourth full weekend of June, beginning at 1800 UTC Saturday and running through 2059 UTC Sunday. Field Day 2013 will be held June 22-23.

Overview - ARRL Field Day is the single most popular on-the-air event held annually in the US and Canada. Each year over 35,000 amateurs gather with their clubs, friends or simply by themselves to operate.

ARRL Field Day is not a fully adjudicated contest, which explains much of its popularity. It is a time where many aspects of Amateur Radio come together to highlight our many roles. While some will treat it as a contest, most groups use the opportunity to practice their emergency response capabilities. It is an excellent opportunity to demonstrate Amateur Radio to local elected community leaders, key individuals with the organizations that Amateur Radio might serve in an emergency, as well as the general public. For many clubs, ARRL Field Day is one of the highlights of their annual calendar.

Objective - To work as many stations as possible on any and all amateur bands (excluding the 60, 30, 17, and 12-meter bands) and to learn to operate in abnormal situations in less than optimal conditions. Field Day is open to all amateurs in the areas covered by the ARRL/RAC Field Organizations and countries within IARU Region 2. DX stations residing in other regions may be contacted for credit, but are not eligible to submit entries.

F/D Station Locator - <http://www.arrl.org/field-day-locator> Just type in our Club Call Sign **WØUJ** and a Google map of our F/D location will come up. Also click on the red pin that appears on the map for additional information.

BAARC FD Activity

A reminder that Field Day is coming and all local Amateur Radio Operators are invited to come and join in on the activities that will take place starting **Friday afternoon June 21st (set -up), around 3 p.m. and ending Sunday noon June 23rd**. **Again this year we will be operating from the Crow Wing County Fairgrounds.** You can operate the Club Station from the ECOM Trailer or bring your own antenna and equipment and see how well your portable station will work. If you like, you can camp overnight—or just come for the day. Watch your email for additional details. coming from Lyle KØLFV via e-mail and on the Nets.

Visitors have been invited via the media to come Saturday afternoon. Consequently, Volunteers are needed to greet them on Saturday afternoon. For more information, contact Lyle Amundson, KØLFV: cell 218.330.5110 or home 218.765.3100 or e-mail k0lfv@arrl.net

Fire Chief is Speaker at BAARC's Spring Dinner

The Club's annual spring dinner was held at the Nisswa Legion Club, Thursday evening, May 23rd, with program speaker Brainerd Fire Chief Kevin Stunek setting an inspiring tone.

After a social hour, a wonderful buffet supper, and a short business meeting, Chief Stunek talked to members and their guests about the varied responsibilities of his position and his ideas for future volunteerism.

After finishing college and being prepared to teach, Chief Stunek entered the fire service some 39-years ago. He's held positions as a volunteer, paid on-call fire fighter, Captain, and Battalion Chief, Assistant (department) Chief, and Chief. "I presently supervise," he said, "40 fire fighters, of which 8 are full-time, and 32 are paid/on-call."

Chief Stunek talked about how the department is organized and the many emergency services his people provide to the city of Brainerd and by contract to Baxter, and 9 townships, covering some 300-square miles. He said he's helping to organize volunteers under the CERT program. This stands for Community Emergency Response Team, and he said, he's looking to the BAARC's members to become a part of the training, and providing needed communications during an event using CERT members.

The Club thanked Chief Stunek for allowing us the use of his great training facility for our classes and monthly meetings. He said he was happy that the BAARC could make use of the room and thanked us for installing and operating the ham radios that are there. He said he'd like to see more ham radio activity and having us test (demonstrate) the equipment on a regular basis.

Chief Stunek is married to his wife Susan, who is an RN working in the emergency room at St. Joseph's (Essentia) Medical Center in Brainerd. They have 2 adult daughters.

Many thanks to Fire Chief Kevin Stunek for taking the time to share with Club members and their guests at our annual spring dinner. (Text provided by John Luce, WØWY, BAARC—VP)

Surfin': Combining Software Defined Radios and Smart Phones

TAGS: [ARRL/TAPR Digital Communications](#), [Dayton Hamvention®](#), [Editor](#), [greater dayton area](#), [hamvention](#), [handheld radio](#), [radio](#), [smart phones](#), [Stan Horzepa](#), [surfin](#), [WAILOU blog](#)

05/24/2013 By Stan Horzepa, WAILOU
Contributing Editor

This week, Surfin' checks out a ham who is developing a handheld radio that's a cross between a smart phone and an SDR.

The [Dayton Hamvention®](#) was last weekend and I drove 735 miles to attend the event for the 25th time. Kudos go out to my smart phone and its map apps for getting me to Hamvention and back without error, as well as getting me around those parts of the Greater Dayton area that I had never traversed before.

Speaking of smart phones, that technology inspired the most interesting radio I saw at Hamvention. Chris Testa, KD2BMH, is making a new handheld ham radio that is a cross between a smartphone and a software-defined radio (SDR). The "[Whitebox Software Radio Project](#)" -- a [TAPR Open Hardware License \(OHL\)](#) and Open Software License ([OSL](#)) project -- had reached the stage where Chris could proudly display populated "bravo" version printed circuit boards at TAPR's Hamvention booth. The boards were still warm during their Hamvention debut, as Chris had received them from the board builder only 35 hours earlier!

ARRL Youth Editor n0ssc@arrl.net

Eight New Hams on "Mars"

Eight Missouri S&T students took their Amateur Radio license exams last week -- and passed! Most of the examinees wanted to get a license so they could legally operate high power wireless equipment for the Mars Rover Design Team, or MRDT.

The goal of the MRDT is to build a robust, remotely controlled vehicle that can perform tasks that would take place on Mars -- such as trekking over a one kilometer radius, performing experiments on soil, moving objects with a robot arm and assisting in the rescue of downed astronauts. But without communications, the rover wouldn't budge an inch and you couldn't see what it sees, making the project pointless.

The MRDT asked the Missouri S&T Amateur Radio Club for assistance. They said they needed to find a way to command and control the robot from up to one kilometer away, guided only by its onboard cameras. This would need much more power than what's available to the public -- most Wi-Fi hotspots max out at only 20-30 μ W, which gives them a short range of around 100 meters. Other devices, such as Bluetooth or ZigBee, couldn't provide either the power or the bandwidth required to carry the high-definition video feeds from the rover's cameras. Compounding the problem even more is the rocky, undulating terrain of Mars (which is actually a research station in the desert of Utah), so a lot more power, antenna gain and height is required.

We told the MRDT of the limitations of commercial Wi-Fi equipment and that they had the opportunity to use much higher power with an Amateur Radio license. I supplied them with some quick propagation analysis and showed them the many "dead zones" and limitations they would face if they used Part 15 devices. They had no hesitation to go for their licenses.

So congratulations to these new Technicians: Greg Jones, KD0VNW; Hailey Tipton, KD0VNX; Charles Gardner, KD0VNY; Markus Baur, KD0VNZ; Joshua Jetter, KK6EJF; Ian Lee, KD0VOA, and Michael Bouchard, KD0VOB. A special shout-out goes to Doug Lippert, AD0EC, who passed all three exams -- Technician, General and Amateur Extra -- in one go!

Another group of licensees a little closer to my new home of New Mexico also passed their exams.

