



# The BAARCer



October 2012

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-5 APRS  
 Crosslake 147.030 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:**

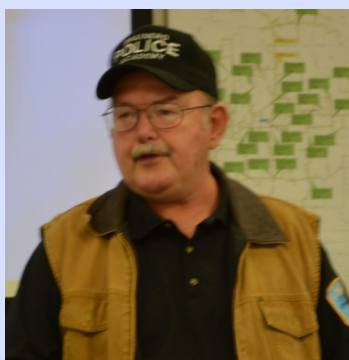
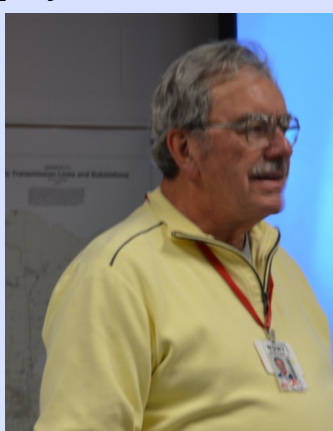
Lyle Amundson **KØLFV**

**Trustee + BAARCer**

**Editor:**

Fritz Bertelt      **WØKO**

**Five Presenters on 9-27-12:** First, John WØWY gave the latest on ARMER and Emergency Preparedness; Al WØRC talked about the Gull Lake Repeater (440) status & on the **Operation Gone with the Wind** at Camp Ripley; Ron KØGOP also added to that report, as did John. Herman Bradley (a visitor) introduced us to Lakes Area Law Encfcm. Ass'n. Finally, Steve NØCRM gave the major presentation on LandisGyr's sophisticated projects on Power Line Data Transfer. More on that on page 7.



Pictured top (l to r): John, Al, Ron; Bottom: Herman and Steve. A lot was packed into one evening, but all was very informative. See more on the LandisGyr work p. 7.

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— **Events Calendar** —

**Sat., Oct. 6, Club Brkfst.** @ 9 @ Northwind Grille in Brd.  
**Sat., Oct. 6, Special Yaesu Day** at Radio City in Moundsview.

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

**Thurs., Oct. 25, Club Meeting: Board @ 4 and Membership @ 7 @ Fire Hall.**  
 Program on Grounding & other Power Line Topics, etc. by Pat Goff of Crow Wing Power.

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](mailto:djbdesk@gmail.com)

## Thursday—September 27, 2012 – 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

**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 Bertelt, WØKO

**Attendees:** Steve NØCRM, John WØWY, Doug KDØERE, Ron KØGOP, Lyle KØLFV, Al WØRC, Shirley KØDCW, Roger WØWUG and Brooks K4RXXR.

**Secretary's Report:** August meeting minutes approved as published in the September BAARCer and accepted in lieu of reading. **Motion to accept:** Lyle KØLFV, **Second** John WØWY, **Passed.**

**Treasurer's Report:** Report given showing all month's account transactions and balances to date. Bills and proceeds checks presented by Lyle KØLFV, and Al WØRC. **Motion to accept:** John WØWY, **Second** Al WØRC, **Passed.**

**Membership Meeting Program:** The program calendar was reviewed through January 2013, with speaker replacement needed for November.

**Digital & Emergency Communications:** Al WØRC reported on the new 100W VHF repeater atop the Sebeka water tower operating at 147.330 MHz. John WØWY showed several 800 MHz HT and mobile transceivers received by the Club for use in communication with civil and law enforcement authorities during events or emergency operations. Terry KIØFW made wood-base mounts for the mobile units. The Club will consider adding an ARMER audio feed link to the BAARC website to provide public online monitoring of the 800 MHz Crow Wing County radio traffic.

#### Old Business:

**Randy Haglin / UHF repeater donation:** Due to an abundance of existing repeater equipment, the Club has no interest in further acquisitions at this time.

**Crosby Tower Project:** Update: equipment building is in place. Transmission line replacement will take place after old tower comes down. Both the VHF and UHF repeaters donated by Roger WRØG have been acquired and are ready for linking programming and installation. Receive frequencies are 147.100 MHz and 444.175 MHz.

**Gull Lake UHF Repeater Repair:** Repeater has been repaired and is back online.

#### New Business:

**Membership Meeting Committee:** The Board will seek interested members to create a membership drive or open house, inviting local residents and non-member Amateur Radio operators to join the BAARC. To be announced at 7 PM Membership Meeting.

**Coax Prep and Crimping Tools:** Ron KØGOP presented information on crimping vs. soldering of coax cabling. Advantages and benefits of a Club owned kit available for member use were discussed. **Motion to purchase a cable prep tool, crimpers and starting supply of connectors for the Club:** John WØWY, **Second** Steve NØCRM, **Passed.**

**Motion to adjourn:** John WØWY, **Second** Doug KDØERE, **Passed.** The board meeting was adjourned at 5:00 PM.

## Thursday—September 27, 2012 - 7:00 PM - BAARC Membership Meeting Minutes

### Brainerd Fire Station

The President opened the Club membership business meeting at 7:00 PM with 24 members and guests present.

**Membership Meeting Additions to Business above:** **FMS Balloon Project** will start again October 24<sup>th</sup> with Al WØRC assisting. Al confirmed the Armory location for the April 20, 2013, **Brainerd Hamfest**. John WØWY was thanked for his many efforts in securing repeater sites, and equipment for the Club. Al and John presented details from June's **Operation Gone With The Wind** disaster exercise. **Goblin Watch** will be held on Wednesday, October 31. Herman Bradley from **Lakes Area Law Enforcement Association** was visiting, and spoke briefly about his organization.

The business meeting was adjourned at 8:02 PM.

## DX and the Paper Chase

First the paper chase...Somalia (6OØ) was in the mailbox a couple of weeks ago. This is what makes pileups worthwhile. Band conditions over the past 3-4 weeks have been challenging, meaning that the available DX is tough to get. Right now I'm trying to work a brand new country, Kosovo (Z6) with poor results. The pileups are humongous and the band conditions are not cooperating. I'm not going to give up. Meanwhile I'd like to talk CW. Who would have ever thought that this operator would be a cheerleader for CW? I've been working stations with my Bencher straight key with pretty good results considering my many mistakes along the way. One thing about the CW signal, once its sent you cannot take it back, so you make the best of the situation. A couple of weeks ago after chatting with Fritz (WØKO) and Art (NØTNJ), both CW operators, I took the big plunge and purchased a Vibrokeyer paddle for my CW efforts, and the paddle uses the built-in keyer in my FT 950 rig. What fun I'm having. I'm not sure that the CW operators I'm working feel the same way. I'm getting better every time I key up for a QSO, of which most have been DX. CW is not for everybody in the hobby, but it's been challenging me since passing the test for my General ticket. Somehow I knew some day I would use the mode, and I've kept studying using my MFJ code tutor (just for the fun of it). But now, I'm taking it seriously. I'm looking forward to the day that I have the guts to call CQ with my newly found love of CW. At the present I'm answering CQ's rather than generating them. Meanwhile I'm working phone and chasing DX and in-between, I'm chasing DX with CW. This month of September has gone by at warp speed as we all prepare for the winter months and lots of HF radio ahead. Don't forget to sit in front of your station and call CQ, for someone somewhere is listening for your signal. So long from Huntersville for now, 73 and good DX from Bob/WØZPE.

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## + ***Silent Key***: Sean Smith, KG4WSS, Killed in Consulate Attack —from ARRL Letter (9-22-12)

Sean P. Smith, KG4WSS, of Falls Church, Virginia, was killed when the US Consulate in Benghazi, Libya, was attacked on September 11. He was 34. Smith was one of four Americans, including Chris Stevens -- the US Ambassador to Libya -- who was killed in the attack. Smith, a native of San Diego, enlisted in the Air Force in 1995 at age 17. He served six years as a ground radio maintenance specialist, including a deployment to Oman, before leaving the service in 2002 as a staff sergeant. He was awarded the Air Force Commendation Medal. Smith, who had worked at the State Department for 10 years, was in Libya on a temporary assignment when he was killed. Prior to his temporary assignment to Benghazi, Smith served for the State Department in Brussels, Baghdad, Pretoria, Montreal and The Hague.



Sean Smith, KG4WSS -- shown here in his Facebook photo -- was killed on September 11 in an attack on the US Consulate in Benghazi, Libya.

## **HISTORY OF THE CAR RADIO**—from various Internet Sources, i.e. Wikipedia and others.

Seems like cars have always had radios, but they didn't. Here's the true story:

One evening, in 1929, two young men named William Lear and Elmer Wavering drove their girlfriends to a lookout point high above the Mississippi River town of Quincy, Illinois, to watch the sunset. It was a romantic night to be sure, but one of the women observed that it would be even nicer if they could listen to music in the car. Lear and Wavering liked the idea. Both men had tinkered with radios (Lear had served as a radio operator in the U.S. Navy during World War I) and it wasn't long before they were taking apart a home radio and trying to get it to work in a car. But it wasn't as easy as it sounds: automobiles have ignition switches, generators, spark plugs, and other electrical equipment that generate noisy static interference, making it nearly impossible to listen to the radio when the engine was running. One by one, Lear and Wavering identified and eliminated each source of electrical interference. When they finally got their radio to work, they took it to a radio convention in Chicago. There they met Paul Galvin, owner of Galvin Manufacturing Corporation. He made a product called a "battery eliminator," a device that allowed battery-powered radios to run on household AC current. But as more homes were wired for electricity more radio manufacturers made AC-powered radios. Galvin needed a new product to manufacture. When he met Lear and Wavering at the radio convention, he found it. He believed that mass-produced, affordable car radios had the potential to become a huge business. Lear and Wavering set up shop in Galvin's factory, and when they perfected their first radio, they installed it in his Studebaker. Then Galvin went to a local banker to apply for a loan. Thinking it might sweeten the deal, he had his men install a radio in the banker's Packard. Good idea, but it didn't work -- Half an hour after the installation, the banker's Packard caught on fire. (They didn't get the loan.) Galvin didn't give up. He drove his Studebaker nearly 800 miles to Atlantic City to show off the radio at the 1930 Radio Manufacturers Association Convention. Too broke to afford a booth, he parked the car outside the convention hall and cranked up the radio so that passing conventioners could hear it. That idea worked -- He got enough orders to put the radio into production.

### **WHAT'S IN A NAME**

That first production model was called the 5T71. Galvin decided he needed to come up with something a little catchier. In those days many companies in the phonograph and radio businesses used the suffix "ola" for their names - Radiola, Columbiola, and Victrola were three of the biggest. Galvin decided to do the same thing, and since his radio was intended for use in a motor vehicle, he decided to call it the Motorola. But even with the name change, the radio still had problems: When Motorola went on sale in 1930, it cost about \$110 uninstalled, at a time when you could buy a brand-new car for \$650, and the country was sliding into the Great Depression. (By that measure, a radio for a new car would cost about \$3,000 today.) In 1930 it took two men several days to put in a car radio --The dashboard had to be taken apart so that the receiver and a single speaker could be installed, and the ceiling had to be cut open to install the antenna. These early radios ran on their own batteries, not on the car battery, so holes had to be cut into the floorboard to accommodate them. The installation manual had eight complete diagrams and 28 pages of instructions. Selling complicated car radios that cost 20 percent of the price of a brand-new car wouldn't have been easy in the best of times, let alone during the Great Depression -- Galvin lost money in 1930 and struggled for a couple of years after that. But things picked up in 1933, when he struck a deal with B.F. Goodrich Tire Company to sell and install them in its chain of tire stores. By then the price of the radio, installation included, had dropped to \$55. The Motorola car radio was off and running. (The name of the company would be officially changed from Galvin Manufacturing to "Motorola" in 1947) In the meantime, Galvin continued to develop new uses for car radios. In 1936, the same year that it introduced push-button tuning, it also introduced the Motorola Police Cruiser, a standard car radio that was factory preset to a single frequency to pick up police broadcasts. In 1940 he developed with the first handheld two-way radio -- The Handie-Talkie -- for the U. S. Army. A lot of the communications technologies that we take for granted today were born in Motorola labs in the years that followed World War II. In 1947 they came out with the first television to sell under \$200. In 1956 the company introduced the world's first pager; in 1969 it supplied the radio and television equipment that was used to televise Neil Armstrong's first steps on the Moon. In 1973 it invented the world's first handheld cellular phone. Today Motorola is one of the largest cell phone manufacturer in the world --And it all started with the car radio.

### **WHATEVER HAPPENED TO THEM?**

The two men who installed the first radio in Paul Galvin's car, Elmer Wavering and William Lear, ended up taking very different paths in life. Wavering stayed with Motorola. In the 1950's he helped change the automobile experience again when he developed the first automotive alternator, replacing inefficient and unreliable generators. The invention led to such luxuries as power windows, power seats, and, eventually, air-conditioning. Lear also continued inventing. He holds more than 150 patents. But what he's really the field of aviation. He invented radio direction finders for planes, aided in the invention of the autopilot, designed the first fully automatic aircraft landing system, and in 1963 introduced his most famous invention of all, the Lear Jet, the world's first mass produced, affordable business jet. (Not bad for a guy who dropped out of school after the eighth grade.)

*Sometimes it is fun to find out how some of the many things that we take for granted actually came into being! Interestingly, it all started with a woman's suggestion!*

## **9th Annual Cuyuna Bicycle Tour A Success** —*Report by Doug KDØERE*

The BAARC was again involved in providing needed communication for this event. It was held on Saturday, September 8. It even got some publicity in the Crosby Courier with a picture showing Doug KDØERE and Charles W5CCL. The event came off well with no adverse reports, according to Doug, the Co-chairman. There were 2 routes. The short route was 39 miles long and the long route was 70 miles. There were 97 bicyclists on the route. The net control operators were Doug Bergsnev, KDØERE, and Charles Lane, W5CCL. At Rest Stop 1 at Helen Hanson's was Terry May, KIØFW. Rest Stop 2 at the West Side Church in Aitkin was managed by Jim Shubert WØJDS and friend. At Rest Stop 3 at the Glen Store was Alan Sherburne, AAØAS, and Rest Stop 4 at the Farm Island Store was manned by Chris Anderson, KDØLFA, and Dave Schuldheisz, KBØSCT. In addition, we had 2 SAG wagons: they were John Luc, WØWY (Chairman) and Ron Finger, KØGOP.

The Brainerd Area Amateur Radio Club would like to thank Randy NØBZZ for the use of his Aitkin repeater 147.360 for this event.

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## **Superior/Duluth Flooding** —from the *ARRL Letter* of 9-19-12

In June, Superior, Wisconsin and Duluth, Minnesota roads and bridges were washed out, and five feet of standing water was left in low-lying areas. Water rescues were effected, entire neighborhoods were evacuated, highways were cut off, and Internet and cell service was gone on the North Shore of Minnesota. Members of the [Douglas County ARES/RACES](#) team went to work. Douglas Nelson, AAØAW, and Garry Hooghkirk, KDØDHB, organized an effort to staff the Douglas County EOC, provided mutual aid across the border to the St. Louis County EOC and the National Weather Service's Duluth office. It took many hours to get the Lake County, Minnesota EOC open, due to road closures. This team worked with many local radio amateurs to collect information on road closures and damage reports from throughout the area. They also provided the only link to the outside world for Lake and Cook counties in Minnesota, established contacts with Life Flight services for the Grand Marais Hospital, handled traffic for doctor exchanges on the North Shore and provided support for Emergency Management in the region. Upon receiving the news of service restoration for the North Shore, the crews at the EOCs stood down. Many of the members of the Douglas County, Wisconsin ARES/RACES team live right across the border in and around Duluth. The cooperation across state lines is tremendous on both sides of the border.

[Here](#) is a link that shows the infrastructure damage to the Duluth/Superior area including a major fiber optic cable conduit break affecting communications. Many thanks for the fine efforts of these dedicated Wisconsin ARES/RACES teams from two opposite corners of the state. - Skip Sharpe, W9REL, Chief Radio Officer, RACES, State of Wisconsin; Paul Gruettner, WB9ODQ, Emergency Coordinator, Milwaukee County ARES/RACES; Dave Miller, WØNWO, Emergency Coordinator, Douglas County ARES/RACES; Gary Sorensen, W9ULK, Section Emergency Coordinator, [Wisconsin ARES/RACES](#)

(BAARC Editor's Note: Congratulations to our ham friends for public service well done)

**KCØBH—SK: We were deeply saddened to hear of George's passing. The following information is in part from the obituary published in the Star Tribune:**

Swanson, George Weston of Minnetonka, born 10-26-1920, passed away peacefully on 9-7-2012, surrounded by his family, at the age of 91. Preceded in death by his parents, George W. and Anna Swanson and brother, C. Howard Swanson. Survived by his loving wife, Alice Swanson; children, Alan (Linda) Swanson, Karen (Karl) Bickler and Rolf (Linda) Swanson; grandchildren, Karin (Jeff), Maija (Jon), Mark, Kurt, Erik and Heidi; great-grandchildren, Weston and Elin; brother, Ralph (Anne) Swanson and nieces and nephews. George is a graduate of Mound High School, [University of Minnesota](#), served in the US Air Force in the South Pacific during [WWII](#) and retired with the rank of Colonel USAF RES. He was an active member of Grace Lutheran Church in Deephaven, Mount Calvary Lutheran Church in Excelsior, the Brainerd Area Amateur Radio Club, and the Minnetonka Radio Club. He retired from the Personnel Department with General Mills. A memorial service was held on 9/13/12.

We BAARC members will remember George fondly for all the effort he put into this organization. Always he promoted ham radio and its public service roles. Often he would go "mobile" and operate from anywhere in the area where disasters struck to help others at his own expense. Recently we were reminded of some of the many public service emergency drills he took an active part in. He had organizational skills due a strong work ethic from family, his education, his military service, and his role at General Mills. Within the BAARC he was a life member, and a generous one at that. He was the oldest member at the time of his death. We always enjoyed having him up north, having breakfast with Club members in downtown Brainerd. In friendly discussions many problems of world importance were solved. It was unfortunate that his health did not permit his continuing in the hobby in the last few years. This did not stop George's generosity: He donated all of his radio gear, some antennas, etc to the BAARC. The Club then sold it to fund its activities—all used for public service work. Our sincerest condolences go out to his great family. Needless to say, a card of condolences was sent on behalf of the BAARC.

**We thank Lyle KØLFV for providing and relaying this information. Below on the left is from when Lyle KØLFV, on behalf of the Club, made the presentation to George, honoring him for his many years of public service. On the right is from a Breakfast Saturday at the Northwind Grille: Seated (l-r) Skee WØDCY, George KCØBH, Fritz WØKO, Doug KDØERE, Dylan KDØLFE. Standing (l-r) Ron KØGOP, Charles W5CCL, and Alan AAØAS. In this photo we had the oldest and youngest BAARC members at the same table. (Photos from KØLFV & WØKO)**



**We will miss George and cherish the memories we have of him in the BAARC.**

## Steve Mott's Report on LandisGyr. It has moved beyond the "Turtle."



Some of these are the new power meters which send info back to the power companies.



The internal circuitry is crucial to their business—helps manage power usage/rates. These components are marketed all over the world and, importantly, employ teams of people right here in our beautiful lakes area. It all started with Paul Hunt, WBØDAA, the founder of Hunt Technologies, the forerunner. Congrats to Steve and his teams for such talented work. Steve, thanks for the well presented technical program.

**SUNDAY NIGHT NET OPERATORS**

|          |       |        |
|----------|-------|--------|
| 10/07/12 | Joe   | KBØVYJ |
| 10/14/12 | Steve | WØTNT  |
| 10/21/12 | Dave  | KBØSCT |
| 10/28/12 | Lyle  | KØLFV  |
|          |       |        |
| 11/04/12 | Doug  | KDØERE |
| 11/11/12 | Rick  | KBØWWJ |
| 11/18/12 | Dave  | KBØSCT |
| 11/25/12 | John  | WØWY   |

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

PLEASE????????

SIMPLEX NET IS OPTIONAL.

Our thanks to all NCS Volunteers.

**BAARC HAMFEST 2013 INFO:** It is official—the coming year's hamfest will again be in **April and on Saturday, the 20th**. Of course, it will be at the same place, the Amory, which we have reserved. In addition, we will be needing many more volunteers for a variety of functions. Lyle KØLFV has already been spreading the word. In September, he delivered flyers and information for the many attendees at the Fargo Hamfest on Sept. 29th. You can spread the word also, for it helps generate future attendance to mention it early in your QSOs..

**Our Club's Echolink is Functioning.** Al WØRC said he had checked it out and it is back in operation. It is a lot of work keeping our Club gear going. Al is very capable and helpful. THANKS again, Al, for all you do for the BAARC.

**NASA makes CYCLE 24 Prediction** —from the ARRL  
NASA has a revised forecast for the peak of Cycle 24, and it looks very interesting. Instead of a peak in Spring 2013 with a smoothed international sunspot number of 60, the peak is now predicted for Fall 2013, with the smoothed sunspot number prediction revised to 76, about 27% higher. Perhaps Cycle 24 will have a **double peak**, the first being in **Fall 2011** and the second in **Fall 2013**—certainly a crazy Cycle 24 for those of us who care about DX.

**Did You Know?** —info from the *Stanford Magazine*  
Given such a robust combination of fraternal fervor and techy culture, it's not surprising that Stanford [University, Stanford, CA] has a thriving amateur radio club (W6YX). What the uninitiated might not surmise is how deep the club's University roots go, and how influential its station has been. Consider just one sentence from **Hewlett-Packard's co-founder David Packard**, '34, Engr. '39, in his book *The HP Way*: "Back at Stanford, it was ham radio that helped set my future course."

United We Stand



**First Class Mail**  
Address Correction Requested

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