



The BAARCer



April 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+
<http://brainerdham.org>

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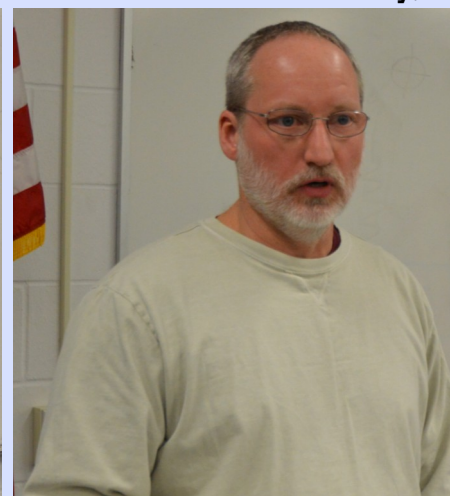
Lyle Amundson **KØLFV**

Trustee + BAARCer

Editor:

Fritz Bertelt **WØKO**

March Program: SKYWARN, LSAC, Ham Radio in WWII History,



John Luce, **WØWY**, BAARC VP and Club Emergency Coordinator (top left), reviewed the meeting he attended with NWS in Duluth and our drill plans here. Steve Mott, **NØCRM**, BAARC President, (r) showed the group an interesting historical video from the Hallicrafter Company (Chicago) and its role in using hams in the manufacture and operation of WWII era mobile and fixed communications equipment. Many old timers will remember having used or seen Hallicrafter ham gear. Steve elaborated on the massive size reduction when comparing today's methods to those of the 1940's manufacturing era. Miniaturization takes on a new perspective. Go to <http://www.youtube.com/watch?v=Jps0_2adUvo> to see it.

We thank both John and Steve for the presentations. More on WX-related drills and training on page 4.

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— Events Calendar —

- Sat., Apr. 6, Club Brkfst. @ 9 @ Northwind Grille in Brd.**
- Fri., April 19, SET-UP for next Day's HAMFEST @ Armory @ 12 noon**
- Sat. April 20, BAARC Annual Hamfest at the Brainerd Amory—same as before.**
 We need Members' Help both days for the Set-up and Operation & Take-down.
- Tues., April 23, Skywarn Training @ 6 PM @ Land Services Bldg—Brd.**
- Thurs., Apr. 25, Club Meeting: Board @ 4 and Membership @ 7 @ Fire Hall.**
- Sat., April 27, Run-for-the-Lakes Marathon: Help needed. Contact Al/Shirley**

Check the Club's Website and Activity Calendar

Listen for Activity Updates on our Sunday Night Nets—8PM

For Membership Info—E-mail Doug: djbdesk@gmail.com

Thursday-March 28, 2013 - 4:00 PM - BAARC Board Meeting Minutes @Fire Hall

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

Director At Large: Lyle Amundson, KØLFV

Attendees: Steve NØCRM, John WØWY, Doug KDØERE, Ron KØGOP, Al WØRC, Shirley KØDCW, Terry KIØFW, Roger WØWUG, and Dave KBØSCT.

Secretary's Report: Reported Website current with coming events. Membership is over 70 with renewals still coming in.

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

Treasurer's Report: Report given showing all month's account transactions and balances to date. Doug presented a report showing the vital impact of Lyle KØLFV's efforts in donated equipment sales.

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

Membership Meeting Program: Program Calendar topics were discussed. Shirley KØDCW suggested a hands-on workshop night with skills especially of interest to our new hams, e.g. soldering, etc. A guest speaker and program is still being sought for the **Spring Banquet** in May.

Upcoming Events: FMS High Altitude Balloon Class: Al WØRC reported that due to the performance and achievements of this group and other science and technology education, **Forestview Middle School** was recently awarded a \$110,000 Samsung grant. No further balloon launches are planned for this school year. **Winter Ham Classes** for Technician and General licenses by Al WØRC and John WØWY have been meeting through February with good attendance. All class members will have an opportunity to complete license testing at the April 20th **Brainerd Hamfest**. Volunteers are encouraged to help with Friday setup and Saturday takedown. The **Brainerd Jaycees Marathon** on April 27th is the next Club event. The Club Comms Trailer will be transported to the Nisswa Community Center site following the April Club Meeting close.

Digital & Emergency Communications: Crosby Tower: The AT&T work is almost complete. Dietz Bros. will return on or after April 17th to dismantle the old tower, and can, at that time, add a coupler to extend the short feedline to our antenna and terminate for our repeater. This would include a sweep-test for resonance and verify performance of the patched line. Another option would be to secure the connectors and install ourselves, but this would release them from any performance testing or guarantees on the completed feedline. The IP Switch for new Repeater site coming first week in April. Roger WØWUG has received the Motorola control software. **SKYWARN Meeting:** March 23 meeting highlights include the new operating protocol that will use our 145.130 repeater to bring up the Echolink system to communicate directly with the NWS-Duluth via the LSAC System. SKYWARN Drill on April 18 starting at 1PM. SKYWARN Training Class at 6PM Tuesday April 23, Land Services Bldg, Brainerd. **ARES:** The Club has received 21 obsolete county-owned Motorola VHF HT's, chargers, and mics to reprogram and use. Ownership will remain with the county per policy. We will investigate the cost for reprogramming to amateur frequencies. Crow Wing County has suggested the possibility of event specific HT-radio loans and talkgroup assignments within their ARMER system. This would enable direct contact with their communications system users.

Old Business:

John WØWY will pursue an MOU regarding Club duties for site maintenance (mowing, weed spraying) when larger issues are completed.

New Business:

Club Communications Trailer Planning Committee: Interested members include Dave KBØSCT, John WØWY, Ron KØGOP, Al WØRC, Lyle KØLFV, and Steve NØCRM. Two similar trailers were recently viewed in the Duluth area during the SKYWARN meeting day.

Repeater Planning Group: Interested members include Roger WØWUG, Terry KIØFW, Al WØRC, Steve NØCRM, Doug KDØERE, Ron KØGOP and John WØWY.

Installation of the recently donated Remote Base HF Station from KØLR

On Tuesday, 3/26, John received a phone call from ISD181 Buildings & Grounds Director Earl Wolleat asking that BAARC remove all station equipment from the BHS South Campus site within 30 days. Space needs were cited for the reason. John asked that this request be documented in writing and sent to us by mail. As of the 3/28 meeting time, no written request or follow up has been received. Work on the Club Station Remote Base will be suspended until further notice.

The business meeting was adjourned at 5:15 PM.

Thursday-March 28, 2013 - 7:00 PM - BAARC Membership Meeting Minutes

The President opened the Club membership business meeting at 7:05 PM with 20 members and guests present. An Echolink demonstration was given for SKWARN net reporting. The business meeting was adjourned at 7:35 PM.

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

DX and the Paper Chase

As we close in on the end of March, hope rings eternal that spring is around the corner and we'll begin to see some of this snow melt. I have tower work to get underway that includes replacing the inoperative rotator that (used to) turn my 17-meter antenna. There has been DX on 15 and 20 meters, and I've been able to work most of what was out there. Clipperton Island (TX) was the scene of another DXpedition, and it gave me an opportunity to work them on several bands. I had not worked them during the last DXpedition. I can announce that I was able to work them early (5:00AM) one morning on 40-meter SSB on my ground-mounted vertical antenna. What a thrill that was! My only disappointment was being unable to work them on CW---I simply was unable to break the pileup. Last weekend I decided to load my 15-meter monoband antenna to operate on 17 meters through my tuner. I'm not going to tell you that it was an exercise in futility, but you have to remember that a mismatch that great is going to take a lot of RF input to the tuner which digested it quite nicely leaving me with very little RF output to the antenna. I was able to control the VSWR's (within reason), but I was unable to get a 17-meter signal through the band noise level. I worked a station in Virginia Beach who asked me if I was operating QRP. That's what I didn't need to hear!!! It was a noble experiment and it was one of futility. I received my QSL card from Auckland-Campbell Isl. (ZK9) and one from Mauritania (5TØSP) with 4 confirmed contacts, 2 of which were CW. This CW "thing" is a lot of fun and there are a lot of operators out there using the mode. That's about it from the beautiful Huntersville Forest for now. Be sure to sit down at your station and call CQ. Someone somewhere is listening for your signal, don't disappoint him/her. So long from Huntersville, 73 and good DX from **Bob/WØZPE**.-----**(Editor's Note: Bob has worked hard to contact 300 countries/entities and now has 294 confirmed with cards. Congratulations! That is quite an accomplishment in his ham radio career. Even sending "green stamps" to some rare places is not always going to get a return card, so Bob warns to beware of that system)**

Free Downloads available for various manufactured radios/handhelds—from ARRL
<http://CHIRP.danaplanet.com> will give you all you need.

Silent Key W1NJM Founder of National Traffic System: George Hart died at age 99.

"George Hart exemplified the finest of the 'old school' radio amateurs for whom operating skill and public service were paramount," said ARRL Chief Executive Officer David Sumner, K1ZZ. "For many years -- as a private endeavor from his own station -- he offered high-speed Morse code practice at up to 65 words per minute. George set and met high standards in everything he did, inspiring generations of radio amateurs to do the same." First licensed in 1929 as W3AMR in Pennsylvania, Hart began his ARRL career in August 1938 as a second operator at the W1AW Maxim Memorial Station, which was new at the time. He took over as Acting Communications Manager in 1942 when then-Acting Communications Manager John Huntoon, W1LVQ, left the ARRL for active duty in the US Coast Guard during World War II. Beginning with the December 1942 issue, Hart contributed almost 1000 articles to QST, with topics ranging from public service to simulated emergency tests to traffic handling pointers; he also penned the monthly columns "Operating News" and "Amateur Radio Public Service." He served in the Army Air Force from 1944-1946, returning to his job as a Communications Assistant at ARRL Headquarters under Ed Handy, W1BDI, after the war. During his tenure at the League, Hart served as Communications Assistant, National Emergency Coordinator, and ultimately as Communications Manager from 1967 until his retirement in 1978.

Bad WX Season is Here: Information from Al WØRC & John WØWY—from p. 1

Those attending the meeting in Duluth were John WØWY, Steve NØCRM, Al WØRC, and Terry KIØFW. After that session, Ron KØGOP and the others were talking about connecting our Echo Link with the LSAC Echo Link for WX Watches. Well, Jeff KCØMKS calls a WX net every Sunday night at 7:30 PM (this is a half hour before our net on .225). This is on local 145.130 (-), enter in Node 239444. Check in. Then we will all be connected here with the entire system right up the North Shore. Yes, it ties us in to the WX Service in Duluth. Please try to check in on the 145.13 repeater for nets. Afterwards, the code to bring down connected stations is ##—not 99. It was demonstrated by WØRC at the meeting as to how easy it is to connect with just a handheld in the Brainerd area. He easily chatted with friend Jerry in Two Harbors via the links—right from the Fire Hall in Brainerd.

So—when there is threatening WX, monitor/check in to the local main repeater—.225. Anyone can be a net control. Take reports of anything severe. And if something reportable happens/is observed, go to the .130 repeater and connect to the LSAC using the Node Access 239444. And/or send a representative back and forth from our .225 to the other one to relay any pertinent information to the Duluth NWS.

Also remember that the response times (keying/unkeying) are slower because of all the repeaters that are linked —that means wait/pause for responses. Additionally, there may be some WX net experiments using 28.450 MHz USB by some in the Northland. We tried it here—works as an alternative.

April 15-19—Severe Weather Awareness Week

April 18 (Thurs.) Statewide Tornado Drill @ 1:45 and 6:55 PM Crow Wing County.

@ 1:15 Our local Spotter Network will be activated as the SKYWARN Net on 147.225 (+) by Crow Wing Co. EOC **John KDØCIZ** or by anyone else.

Expect a Mock Tornado Warning from Authorities.

Watches and Warnings Expire at 2 PM.

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IMPORTANT: APRIL 23 (Tues) SKYWARN SPOTTER TRAINING, NEW AND REFRESHER @ 6pm @ Crow Wing County Land Services Bldg.

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More Hams in Space---from the ARRL.

On Thursday, March 28 (1930 UTC). NASA astronaut Chris Cassidy, KF5KDR, and Russian cosmonauts Pavel Vinogradov, RV3BS, and Alexander Misurkin were launched from the Baikonur Cosmodrome in Kazakhstan at 4:43 PM EDT (2043 UTC). They joined Canadian Space Agency astronaut Chris Hadfield, VA3OOG/KC5RNJ, NASA astronaut Tom Marshburn, KE5HOC, and Russian cosmonaut Roman Romanenko -- already aboard the ISS -- for Expedition 35. (*Editor's Note: According to NPR, they made the ascent in record time*)

Ham Radio Classes in Progress: Shown are the eager & intelligent students of our two instructors on the far right—John Luce, WØWY, and Al Doree, WØRC. Photo by WØKO



They will be testing for their licenses on April 20 at our annual Hamfest at the Brainerd Armory. Then look/listen for their new call signs.

Welcome New Members: Hailing from Parsons, TN, Jim

(K4UKE) and Margo (KK4DXE) Uecker joined the BAARC and attended the meeting in March. Both are Extras and are now looking for a home/property in our lakes area. Welcome to the best ham radio club in MN, Jim and Margo. Listen for their call signs on our repeaters soon.



Gleaned from the ARRL and K7RA: Propagation

Solar activity was down this week, with the average daily sunspot number less than half last week's figure, at 49.6. Average daily solar flux dropped 22 points to 97. Geomagnetic activity was quiet also.

The predicted solar flux on April 1-3, should be 115, on April 4--120 on April 5-7--125 on April 8-10--120 on April 11-13--115 on April 14--110 on April 15, then it drops below 100 on April 20-24.

The predicted planetary A index is 22, 18 and 8 on March 28-30, 5 on March 31 through April 22, then 8, 18, 15 and 8 on April 23-26, and 5 through the end of April and into the first week in May.

(So what do all these numbers mean for Cycle 24? It is gradually improving—though it may have two peaks, according to the experts. Definitely it is an unusual cycle. Also, the predictions are not accurate science.

Try the bands anyway—if they are bad, wait a few hours and try them again)—de **WØKO**

High Altitude Balloon Launch #4: March 2, 2013—Forestview Middle School (Text by Al WØRC)

The weather was clear and sunny and about 14 degrees at 8 AM in Backus, MN, site of the 4th launch.

Shirley KØDCW and I arrived a little earlier, and it wasn't long before Jim Reed, Cory Olson, and all 20 students arrived with several parents to help drive the 20 students.

Cory Olson supervised the filling of the balloon with the help of several students. This balloon was bigger than the last three. It was a 1200-gram balloon and required a lot more helium. Jim Reed supervised the assembly of the payloads. There were four payloads this time containing radio trackers, cameras, and weather instruments in two of them and science projects in the other two. While that was going on, I installed one of our club's D-700 radios in Jim's truck which allowed radio communications with all participants. Shirley KØDCW was the radio operator.

Alan KØCJL readied his airplane in Brainerd along with Ron KØGOP as co-pilot, radio and APRS operator.

It wasn't long before the balloon and payloads were ready to launch. About 9:30 the balloon and payloads were freed and climbed up into a beautiful clear-blue sky. At that time it was hoped that Alan and Ron would be on site to video the launch from the air, but like all complex arrangements, the timing was a little off and Alan and Ron were not able to video the launch. But they both had a good time trying.

The launch site was cleaned up as soon as possible and everything was packed and ready for the tracking event. Jim Reed and Shirley were in the lead vehicle, and Cory Olson and I (WØRC) were in Shirley's car with the APRS call sign of KØDCW-9.

Our net control and master balloon tracker was John WØWY operating from his home. John had two computers running with APRS.fi, one tracking WØRC-2 in the balloon and the second alternating between KØDCW-9 in the car and KØGOP-7 in Alan's plane. John was also monitoring both the 147.225 and 145.130 BAARC repeaters. He was watching the path of the balloon and calling us with its path, altitude, direction, and speed-- which guided the chase team in the right direction. John did a fabulous job keeping the chase team up to date on the balloon's progress. John also told us exactly where the balloon would land. He was right on and several of us got to see it land. Steve NØCRM was also monitoring the balloon's path and giving us updates. BAARC Club members Terry KIØFW and Jim KBØLYP and other were also on frequency to help where they could.

The balloon path followed pretty much the predicted path and went south by southeast and landed in a plowed field about 5 miles east of the town of Pierz, MN. Jim and Shirley were in the lead vehicle at that time and were able to see it in the air just before it landed.

All the pay loads and balloon were recovered in good shape and the event was a huge success AGAIN.



The sequence of the event is pretty much self-explanatory: Upper left shows the activity of students and adults from the school getting everything laid out. Upper right is the balloon taking on the helium. Bottom left shows the nearly released balloon. Then it is up and away into the upper atmosphere. Bottom right is the landing spot, all intact. Even worms and plants made it, we think. Congratulations, students, teachers, parents, school officials, and our team of BAARC members mentioned in Al's narrative. (Photos by Al and Shirley KØDCW)

Photos supplied by Ron KOGOP of Alan's (KDØCJL) airplane: AeroCanard



Balloon Launch #4:

Thanks to Ron KOGOP (on right) for the pix and write-up about the this airplane and its pilot/owner, Alan KDØCJD—above on right.. It was truly an exciting time for all the participants—even for those who were only listening and keeping track. At the same time many other MN hams were using APRS also in tracking.



The AeroCanard Model N341AC : It was built by Jeff Russell and first flown in July '96 and was the very first model—kit-built , American—out of Florissant, MO. Alan has mounted 4 different spectral imaging cameras in the fuselage with real-time viewing inside as well as ample hard drive video storage. It is small, fast, nimble, and fun to fly. Alan is 6'6" and as he says, he "wears" this AC like a pair of pants! He slips off his size 15 shoes and runs the pedals in slipper socks! As will happen with busy events like this, there was a little hiccup in coordinating the balloon release time with our arrival on site. As we arrived over Backus, the balloon had soared over our altitude to some 5000' and was climbing fast. We tried to acquire it, but straight up was a difficult viewing angle. We were glad, however, that hitting it was not an issue! Alan is an excellent pilot, calm, and with keen attention to detail. About the time we started back from the "chase," he asked over the intercom: "Did you hear that bang?" I had been fiddling with my radio, and viewing aprs.fi on his iPad, and hadn't heard a thing. Nothing was amiss out the windows, but you better believe my ears were pricked for the trip home! Back at his hangar, we watched the rest of the flight on aprs.fi, and monitored the radio traffic from the ground teams. We were ready to go back up for an air search if necessary, but as it turned out, they quickly located it after touchdown. What great fun!!

