



THE OHM TOWN NEWS

Voice of the Bridgerland Amateur Radio Club

>>>>>>> <http://www.barconline.org> <<<<<<<<

September 2010

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ARRL Affiliated



PRESIDENT'S MESSAGE

Wow, it has been a busy summer. Lots of things have been happening.

An application for club affiliation was sent to the American Radio Relay League (ARRL) which is the national association for amateur radio. On June 8th, we received notification that our club was accepted to be affiliated with the ARRL. Our club is here to promote amateur radio. We love to have fun with our radios and get involved in all kinds of activities to explore the various aspects of the hobby. Our club is open to everyone who is interested in amateur radio. We support and enjoy all aspects of the hobby. Now when someone is looking for an amateur radio club in the area, our club is listed on the ARRL web site (<http://www.arrl.org/clubs>).

Our annual Field Day event on June 26-27 was a lot of fun. Field Day was held at the alternate site up Logan Canyon near the State Road sheds on the Swan Flats road. The Cheney Creek site was not available due to the Sinks road being closed. Ted McArthur and I went up early to secure the camp site, put up a few antennas, and enjoyed making contacts in the evenings. There were several other people who came up later in the week to camp. It was busy on Saturday morning, getting the remaining equipment setup before the noon contest start time. The radios were busy and everyone had a chance to get on the air or help with the logging. The pot luck dinner was great. The club provided Dutch oven barbecue ribs and potatoes, and drinks. Thanks to Roger AE7HB, Rosario KE7MDV, Kent AD7HK, and Shirley AD7HL for the taking care of the Dutch oven cooking. And thanks to all the others that brought food to share. Since the Sinks road was closed, the Trapper Trails Council Varsity Scout Rendezvous Camp had to relocate their camp and it was next to our Field Day camp area. There were about 100 scouts there. Many of them came over to check out our Field Day site, watched the activity and listened to the different contacts.

In July, we had a bunny hunt (also known as radio direction finding - RFD). It was a fun event and an eye opener for some in trying to find the bunny. We are used to having a good transmission path over a large distance from a repeater mounted high up on a tower or on a mountain top to our mobile or handheld radio. But what happens when you have a low power transmitter (the bunny was transmitting with power of 0.05 watt) on the valley floor? The reception of the low power signal can vary greatly depending where you are from the transmitter. Transmission paths can be degraded or blocked by trees, buildings, terrain, and other obstacles. And these obstacles can also reflect the signal to a different direction.

There were several people that started in Mendon and their initial bunny direction bearing pointed towards Millville. The bunny signal was good in Mendon since they were up above the valley floor with a good view of the valley. Once they were on the valley floor, the signal was very spotty and weak. Traveling to Millville to get another direction bearing, the signal bearing was to the west. Then they went to Nibley and got two bearings, one to the west and one to the east. The signal from the east was the bunny signal being reflected by the mountains. There, they got turned around but eventually headed west again until the signal got stronger.



There were some that started in Logan but could not hear any signal at their starting point. They had to go to another location before they could hear the signal. Another person started in Logan and the signal direction was to the east towards Cliffside. Once at Cliffside, the signal was very strong in an area. But traveling around Cliffside, the signal

could not be pinpointed. Was there a ventriloquist bunny hiding there? The various contours of the mountain were reflecting the signal which focused it into a small area for a strong signal.

Well, the transmitter was located near the intersection of 2200 S 2400 W in Youngward. After some hints on the bunny's location, those that were hunting for the bunny found it and enjoyed the prize of watermelon and ice cream. Radio direction finding is fun and also challenging since the bunny's signal can be blocked, degraded, and reflected by objects close by and far away. We will have more of these bunny hunts next year.

In August, we had the special privilege of having Bob Bruninga WB4APR give the local amateur radio community a presentation on Automatic Packet Reporting System (APRS) and solar power. Bob was attending the Small Satellite Conference at Utah State University and graciously took time out of his busy schedule. APRS was developed by Bob and he is a senior research engineer at the US Naval Academy. Bob gave examples of what APRS is all about; messaging/ contact communications, local information update, voice alert, the New-N paradigm, using ARPS for RFID, and the latest developments in APRS. He told us his experiences with solar power, grid-tied systems, and the cost and benefits of getting into solar power. It was a very informative and interesting meeting with Bob. The meeting was well attended and many came from the Salt Lake area.

In September, we have our Fall Pot Luck Social on the 9th at 360 East 450 North in Millville at the Providence South Stake Center pavilion starting at 6 PM. Everyone is invited to this social and you don't have to be a member of BARC to attend. This is a way to meet those voices you have talked to on the radios in person and have an eye-ball QSO. Please bring a food item to share with the group. The club will provide the drinks, lemonade and homemade Root Beet. Also bring your own plate, eating utensils, and cup. Hope to see you there.

In October, we have our SwaptoberFest swap meet on the 9th at the Cache County Fairgrounds Pavilion (same place as last year). The swap meet is sanctioned by the ARRL and they will provide some prizes to be given away at the swap meet. We will have a new radio to raffle off. Everyone is welcome. Swap tables are available for \$8 prepaid or \$10 at the door for your excess equipment to sell. If you have any radios or equipment that you are not using, load them up and bring them along, because there is always someone else who would love to have it and put it to good use. Start saving up some cash, you might find that particular piece that you've been wanting for so long when you get there. Those that have items to sell, the doors open at 7 AM for setup. The swap meet starts at 8 AM for those buying.

73,
Cordell
KE7IK

UPCOMING ACTIVITIES

Pot Luck Fall Social - 9 September, 6:00 PM
It will be at 360 East 450 North, Millville (same as last year)

LOTOJA Bicycle Race - 11 September

Top Of Utah Marathon - 18 September

RACES HF Net - 18 September, 8:00 AM 3920 KHz

Bear 100 - 24-25 September

Boulder ARC BARCfest (Longmont, CO) - 26 September

Swaptoberfest - 9 October, 8:00 AM
Cache County Fairgrounds

Jamboree on the Air - 16-17 October

RACES VHF Net - 21 October, 8:00 PM

Club Meeting - 13 November

RACES HF Net - 20 November, 8:00 AM 3920 KHz

Club Christmas Party - 2 December, 6:00 PM
At the Bluebird Restaurant

RACES VHF Net - 16 December, 8:00 PM

BARC Club Meetings are normally on the 2nd Saturday of the month at 10:00 A.M. on the 3rd floor of the Cache County Sheriffs Complex on 200 North and 1225 West, Logan, Utah.

ARES Meetings are usually held on the Third Wednesday of each month at 7 P.M. at the Cache County Sheriffs Complex. Contact Tyler Griffiths for more information.

HAM PROFILE

Megan and Kylie Elwood
By Jared Luther

Megan Elwood, KE7LZQ, was the third member of her family to get her Ham Radio license and helped convince the rest of her family to get theirs also. She first found out about ham radio through her Dad, Richard, KE7GYD. It sounded pretty interesting, so she signed up for a class to learn about it, and then passed the test and got her license in March of 2007 at the age of 10. Since then, Megan has helped with the radio support for the Cache Valley Biathlon and the Top of Utah Marathon. One thing she enjoyed doing was making a portable J-pole antenna with other youth ham radio operators.

Megan is 14 years old, and a freshman at Logan High School this year. When she is not talking on a radio, she likes to play basketball and watch other sports (especially Utah State University athletics). Megan loves music, too, and plays the piano and trombone. She is looking forward to more ham radio adventures in the future.

Kylie Elwood, KE7NTS, was the fifth member of the Elwood Clan to receive her Ham Radio License. She took the class with her younger sister, Megan, and later passed the test in June of 2007 along with her older sisters Kim, KE7NTR, and Heather, KE7NTT. Since then, she has helped with the Cache Valley Biathlon and the Top of Utah Marathon twice. Last year she and her little sister were at mile 14 while dad was at mile 17. She also participated in the Ham Radio 4-H club making J-pole antennas.

Kylie is 16 years old and is a junior at Logan High School. Other than playing with her father's radios Kylie especially enjoys watching Aggie Basketball. She is a two year member of the Logan High Lady Grizz basketball team. Kylie also participates in Logan High's Philharmonic Orchestra; she is a cellist.



The Fox Hunt Finale





A few pictures that Bob Bruninga brought showing his solar assisted car and solar panels and setup that he is working on.



The ARRL Letter for August 11, 2010

FCC Modifies Rules to Allow Limited Employee Participation in Disaster and Emergency Drills

In a Report and Order released Wednesday, July 14, the FCC amended Part 97.113 to allow amateurs to participate without an FCC waiver in government-sponsored disaster preparedness drills on behalf of their employers participating in the exercise. The FCC also has amended the rules to allow employees to participate in non-government drills and exercises up to one hour per week and up to two 72 hour periods during the year.

"Experience has shown that amateur operations can and have played an essential role in protecting the safety of life and property during emergency situations and disaster situations," the FCC noted in the R&O. "Moreover, the current Amateur Radio Service rules, which permit participation in such drills and tests by volunteers (*ie*, non-employees of participating entities), reflect the critical role Amateur Radio serves in such situations. However, as evidenced by recent waiver requests, state and local government public safety agencies, hospitals and other entities concerned with the health and safety of citizens appear to be limited in their ability to conduct disaster and emergency preparedness drills, because of the employee status of Amateur Radio licensees involved in the training exercises. We therefore amend our rules to permit amateur radio operators to participate in government-sponsored emergency and disaster preparedness drills and tests, regardless of whether the operators are employees of the entities participating in the drill or test. We find that extending authority to operate amateur stations during such drills will enhance emergency preparedness and response and thus serve the public interest."

In order to allow participation in non-governmental disaster drills -- such as those sponsored by ARES® or private hospitals -- the FCC will now allow amateurs employed by an agency participating in such a drill to participate up to one hour per week. In addition, they may also participate in up to two exercises in any calendar year, each for a time period not to exceed 72 hours. "This time limitation, which is consistent with the timeframes contained in the waiver requests filed with the Commission, should serve to further ensure the use of Amateur Radio for bona fide emergency testing," the R&O stated. "We emphasize that the purpose for any drills we authorize herein must be related to emergency and disaster preparedness. By limiting the purpose in this manner, we further ensure that such drills will be appropriately limited."

In amending the Amateur Radio rules, the FCC reiterated that it does not intend to disturb the core principle of the Amateur Radio Service "as a voluntary, non-commercial communication service carried out by duly authorized persons interested in radio technique with a personal aim and without pecuniary interest. Rather, we believe that the public interest will be served by establishing a narrow exception to the prohibition on transmitting amateur communications in which the station control operator has a pecuniary interest or employment relationship, and that such an exception is consistent with the intent of the Amateur Radio Service rules."

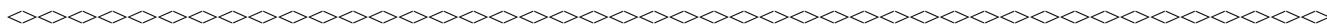
The effective date of the R&O is September 3 - ARRL Letter

ARES®: 75 Years!

The ARRL Public Relations Committee has noted that the 75th anniversary of the creation of ARES® will be next month (September). Over the past months the committee has discussed this milestone and opportunity, and is developing a publicity and recruitment campaign. The goal is to increase awareness of radio amateurs' spirit of volunteerism. While there will be acknowledgement of past events, the focus will be on the present and future. The PRC noted that "despite all of the investment made by government agencies, the volunteer assets of ARES® are still called on for communications and other support, especially during the first 48 hours of a crisis. Operators provide communications, information and technical skills when other systems are down or overloaded."



The ARES® community will be celebrating its 75th anniversary from September through December 2010. The first mention of an organized Amateur Radio emergency response organization appears in the September 1935 issue of QST Magazine. A September launch has the benefit of other related national campaigns such as National Preparedness Month and also is the height of hurricane season. The length of the campaign would be expected to be four months, but if successful can continue. The ARRL Marketing Department is planning for the sale of commemorative items including T-shirts, hats, and challenge coins. Packets with ideas and promotional materials will be mailed to every PIC (or SM if there is no PIC) for distribution to local PIOs in the area. [Logo and more info](#). -- Allen G. Pitts, W1AGP, ARRL Media and Public Relations Manager



The ARRL Letter for August 19, 2010

Amateur Radio and Scouting: K2BSA -- Amateur Radio Fun in the Warm Virginia Sun



Thousands of Scouts and Scouters got to experience the thrill of Amateur Radio first-hand at the BSA National Jamboree -- including a QSO with the International Space Station. Click [here](#) for a video tour of K2BSA, taken by Sam Gray, KG4WRM.

The 2010 National Scout Jamboree -- celebrating the 100th anniversary of the Boy Scouts of America -- was held July 26-August 4 at Fort AP Hill in Virginia. According to ARRL Rocky Mountain Division Director and K2BSA Station Coordinator/Manager Brian Mileschosky, N5ZGT, ham radio was a big part of the event that attracted more than 43,000 participants from across the nation and around the world. K2BSA has been a fixture at the BSA National Jamboree since the 1970s. This year, it had three elements: a demonstration station, licensing classes and VE exams, and radio merit badge instruction. The station was on the air on both VHF and HF -- 70 cm, 2, 6, 10, 15, 20, 40 and 80 meters -- utilizing at least 10 transceivers and as many monoband Yagis or dipoles atop 60 foot tall telephone poles, to make contacts using modes and methods such as phone, CW, PSK31, meteor scatter, IRLP, D-STAR, APRS and satellite. "K2BSA made thousands of QSOs," Mileschosky told the ARRL. "We put a dual-band repeater on the air held a nightly net for Jamboree participants who brought their handheld transceivers to the Jamboree."

Mileschosky said that nearly 6000 youth scouts -- 13 percent of the total Jamboree attendance -- received thorough exposure to ham radio, touring the K2BSA station and getting on the airwaves. Six lucky scouts conducted a memorable contact with astronaut Doug Wheelock, KF5BOC, aboard the International Space Station (ISS) before a crowd of Jamboree participants.

"We held Technician license classes and two VE exam sessions daily, resulting in 147 new Technicians, 33 Generals and 8 Amateur Extras," Mileschosky said. "210 scouts earned their Radio merit badges, too."

One of those 147 new hams is Lt Col John Haefner, KJ4WRN, Commander of Fort AP Hill. "He learned of K2BSA's presence and visited the station to inform us of his longtime desire to become a ham radio operator," Mileschosky explained. "Making time in his busy schedule, he self-studied, and ultimately became a General class ham. Thank you for your and Fort AP Hill's support, Lt Col Haefner!"

Mileschosky said that support from the ham community and manufacturers was also abundant: "Manufacturers such as including Icom America, Yaesu USA, Ten-Tec, Heil Sound, MFJ, Cushcraft, HyGain, Buckmaster, HRO, XGCOMM, Quicksilver Radio Products and Array Solutions loaned the K2BSA operation a lot of equipment. Icom America's Ray Novak, N9JA, and Yaesu's Dennis Motschenbacher, K7BV, both traveled to the Jamboree to observe and assist with K2BSA's operations. The ARRL also provided significant support, including VE exam materials, license study manuals for loan to Jamboree participants, other publications, as well as the enthusiasm of longtime K2BSA staff member and QEX Editor Larry Wolfgang, WR1B, who served as ARRL's staff liaison."

Calling K2BSA's operation at the 2010 National Scout Jamboree "a resounding success," Mileschosky thanked everyone who worked K2BSA while it was on the air, with special thanks to all scouts and Scouters who attended the Jamboree. "All eyes are on 2013 when the next National Jamboree will be held at its new permanent location: the Summit Bechtel Family National Scouting Reserve, located adjacent to the New River Gorge National River Park in West Virginia," he said. "We look forward to K2BSA to once again carry on its tradition of introducing thousands of youth to the extraordinary hobby and service of Amateur Radio."

ARRL Bulletin 23 ARLB023

August 27, 2010

To all radio amateurs

ARLB023 ARRL Director, Vice Director Election Update

Five incumbents have been declared elected without opposition, while there will be balloting for the Director position in the Southeastern, Southwestern and West Gulf Divisions, and for the Vice Director position in the Southeastern and West Gulf Divisions. Ballots will be counted on Friday, November 19, 2010, and those elected will serve three-year terms beginning at noon on January 1, 2011.

Pacific Division

As the only nominee for Director in the Pacific Division, Bob Vallio, W6RGG, of Castro Valley, California, was declared re-elected. Vallio has been Pacific Division Director since February 2003 when, as Vice Director, he assumed the position upon the death of Jim Maxwell, W6CF. Vice Director Jim Tiemstra, K6JAT, of Oakland, California, was also running unopposed and has been declared elected. Tiemstra was appointed Vice Director in June 2009 to fill a vacancy created by a resignation.

Rocky Mountain Division

Current Rocky Mountain Director Division Brian Mileschosky, N5ZGT, of Albuquerque, New Mexico, was unopposed for the position. This will be Mileschosky's second term as Director; he previously served as Rocky Mountain Division Vice Director for one full term, from 2005-2007. Vice Director Dwayne Allen, WY7FD, of Devils Tower, Wyoming, was also re-elected. This will also be Allen's second term.

Southeastern Division

Incumbent Southeastern Division Director Greg Sarratt, W4OZK, of Harvest, Alabama, faces two challengers for his position: Sherri Brower, W4STB, of Vero Beach, Florida, and Doug Rehman, K4AC, of Mount Dora, Florida. Sarratt has served one term as Director; in 2007 he was elected to replace Frank Butler, W4RH, of Fort Walton Beach, Florida, who retired after 50 years of elected service to the ARRL.

Two candidates are running for Vice Director in the Southeastern Division: Incumbent Jeff Beals, WA4AW, of Loxahatchee, Florida, and Andrea Hartlage, KG4IUM, of Grayson, Georgia. Beals was appointed as Vice Director in June 2009 upon the death of Sandy Donahue, W4RU.

Southwestern Division

Current ARRL Southwestern Division Director Dick Norton, N6AA, of Topanga, California, will face challenger Carl Gardenias, WU6D, of Perris, California. Norton has served two terms as Director. Having no opponent, incumbent Vice Director Marty Woll, N6VI, of Chatsworth, California was re-elected. This will be Woll's second term as Vice Director.

West Gulf Division

Current ARRL West Gulf Division Director Dr David Woolweaver, K5RAV, of Harlingen, Texas, will face Larry Essary, K5XG, of Lucas, Texas, for that position. Dr Woolweaver served as Vice Director from 2000 to 2009 and became Director upon the resignation of Coy Day, N5OK. Incumbent Vice Director for the West Gulf Division, John Robert Stratton, N5AUS, of Austin, Texas, will face challenger Michael Reynolds, W0KIE, of Tulsa, Oklahoma. Stratton was appointed Vice Director in August 2010 after the resignation of John Thomason, WB5SYT.

NNNN

/EX

Questions for Technician Class License

1. (T1A03) Which part of the FCC rules contains the rules and regulations governing the Amateur Radio Service?
 - A. Part 73
 - B. Part 95
 - C. Part 90
 - D. Part 97

2. (T2A06) What must an amateur operator do when making on-air transmissions to test equipment or antennas?
 - A. Properly identify the transmitting station
 - B. Make test transmissions only after 10:00 p.m. local time
 - C. Notify the FCC of the test transmission
 - D. State the purpose of the test during the test procedure

3. (T3B04) How fast does a radio wave travel through free space?
 - A. At the speed of light
 - B. At the speed of sound
 - C. Its speed is inversely proportional to its wavelength
 - D. Its speed increases as the frequency increases

4. (T4B06) Which of the following controls could be used if the voice pitch of a single-sideband signal seems too high or low?
 - A. The AGC or limiter
 - B. The bandwidth selection
 - C. The tone squelch
 - D. The receiver RIT or clarifier

5. (T5C03) What is the ability to store energy in a magnetic field called?
 - A. Admittance
 - B. Capacitance
 - C. Resistance
 - D. Inductance

6. (T6B02) What electronic component allows current to flow in only one direction?
 - A. Resistor
 - B. Fuse
 - C. Diode
 - D. Driven Element

7. (T7A09) Which of the following devices is most useful for VHF weak-signal communication?
 - A. A quarter-wave vertical antenna
 - B. A multi-mode VHF transceiver
 - C. An omni-directional antenna
 - D. A mobile VHF FM transceiver

8. (T8A05) Which of the following types of emission has the narrowest bandwidth?
 - A. FM voice
 - B. SSB voice
 - C. CW
 - D. Slow-scan TV

9. (T9B02) What is the impedance of the most commonly used coaxial cable in typical amateur radio installations?
 - A. 8 ohms
 - B. 50 ohms
 - C. 600 ohms
 - D. 12 ohms

10. (T0A13) What safety equipment should always be included in home-built equipment that is powered from 120V AC power circuits?
 - A. A fuse or circuit breaker in series with the AC "hot" conductor
 - B. An AC voltmeter across the incoming power source
 - C. An inductor in series with the AC power source
 - D. A capacitor across the AC power source

(For answers to test questions see page 12)

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Answers to questions on page 11: 1-D, 2-A, 3-A, 4-D, 5-D, 6-C, 7-B, 8-C, 9-B, 10-A