



THE OHM TOWN NEWS

Voice of the Bridgerland Amateur Radio Club

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

January 2013

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PRESIDENT'S MESSAGE

Hope everyone had a safe and happy holiday season.

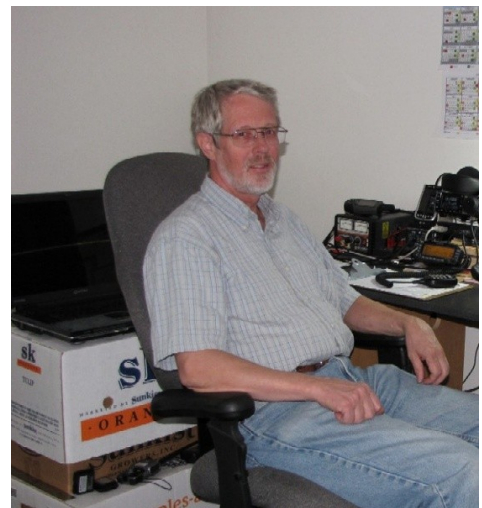
January is also that time of year for a reminder for club dues. Your membership helps support club activities and the BARC repeater system. BARC has some of the best repeater systems around. The purpose of BARC is to advance general interest and welfare of amateur radio, to promote radio knowledge, cooperation and exchange of information between members, and to provide public service support for community activities. Hams from around Cache Valley attend the monthly club meetings to discuss activities, have aspects of the hobby presented, and to generally enjoy the fellowship of one another. This club is for you! So help make it as good as it can be!

Ham radio provides the broadest and most powerful wireless communication capability available to any private citizen anywhere in the world. And for me, it is fascinating to explore the different aspects of amateur radio and I enjoy my time with the hobby.

In the next month or so, we will open up on our club web page for the activity sign-up page for this year's 2013 public service activities. The activities are part of our club's ham radio public service participation for community events, races, etc. Public Service provides opportunities for Amateur Radio Operators to contribute their skills and equipment in support of different organizations in our area. I would like to ask of you to get involved in at least one club public service event this year. Just pick one that you think you would like to get involved in and sign up. Then you will be contacted to help with that event.

For those of you who received a new handheld or mobile for Christmas and need some help on operating and programming it, or if you need help on anything else, we will be having a couple of Elmer Nights this year. There will be one in January and March, the dates and times will be sent out on the BARC mailing list. You can bring in your equipment with its instruction manual and we can help you with your radio.

73,
Cordell
KE7IK



UPCOMING 2013 ACTIVITIES

BARC Club Meeting - 12 January 10:00 AM
Presentations by Ted McArthur AC7II on antennas including Repeater Antennas and Tyler Griffiths N7UWX on his new inverted V antennas

RACES HF Net — 21 January 8:00 AM 3920 KHz

BARC Club Meeting—9 February, 10:00 AM

ARRL Rocky Mountain Division Net — 13 February, 7:30 PM IRLP Node:9871

RACES VHF Net — 21 Feb, 8:00 PM 447.00 IRLP 145.49 Promontory 147.18 Snowbird

ARRL VEC-listed Local Radio test — 2 March, 8:00 AM ([Info on web site](#))
USU's ASTE building (Room 108 @ 1498 North 800 East, Logan, UT 84321)

BARC Club Meeting - 9 March 10:00 AM

ARRL Rocky Mountain Division Net — 13 March, 7:30 PM IRLP Node:9871

RACES HF Net — 16 March 8:00 AM 3920 KHz

ARRL Rocky Mountain Division Net — 10 April, 7:30 PM IRLP Node:9871

BARC Club Meeting - 13 April 10:00 AM

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.

Local Radio Nets:

The **Weekly BARC net** is for BARC members and anyone else that would like to check in, held **every Tuesday night at 9:00 p.m.** local time on the Mt Logan BARC Repeater and Linked Systems (146.720)

The **BARC Ladies Net** is every **2nd and 4th Tuesday at 8:00 p.m.** on the BARC Repeater and Linked Systems (146.720). All licensed lady amateur radio operators are welcome to check in. Thanks, Shirley Larsen AD7HL

December BARC Club Meeting / Club Christmas Party

The Club Christmas Party was held on December 5 at the Coppermill Restaurant. There were quite a few that came, most of the comments were that the food was great and everyone had a good time. The Grand Prize Winner of the ICOM 7000 radio was drawn from a large pool of tickets, and the winning ticket drawn was Rick Blair, KE7WHX!!! Congratulations to him and we hope he enjoys his great new radio!!!!

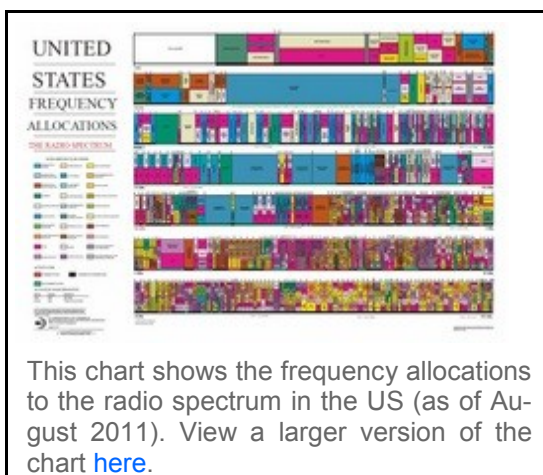
This year the President's Leadership Award was awarded to Roger Ellis, the Presidents Service Award went to Dale Cox, and the Spirit of Amateur Radio Award was given to Cordell Smart. Everyone that attended was able to fill out a ticket that went into a hat and there were several small door prizes drawn out.

Ted McArthur AC7II put together a slide show of some of the activities that people had participated in during the year and it was shown throughout the evening, and several asked if the slides could be posted to the web site or made available so everyone could see it later. The web site had been suggested as a place to put the slides, but soon after the Christmas Party it was found out that someone had hacked into it, and it was taken down for a while to get cleaned up. The slides will be posted soon.

The ARRL Letter for December 13, 2012

FCC News: ARRL Files Petition for Rulemaking with FCC to Create New MF Band at 472-479 kHz

At the 2012 World Radiocommunication Conference (WRC-12), delegates approved a means of satisfying Agenda Item 1.23: a 7-kilohertz-wide secondary allocation between 472-479 kHz for the Amateur Radio Service, with a power limit of 5 W EIRP (or 1 W EIRP, depending on location). Before this portion of spectrum is made available to radio amateurs in the US, the FCC must first approve its use and amend its rules to reflect the change. As such, the ARRL filed a *Petition for Rulemaking* on November 29, asking the FCC to amend Parts 2 and 97 of its rules and create a domestic Amateur Radio allocation at 472-479 kHz, conforming to the allocation status and limitations set forth in the international Radio Regulations. Read more [here](#).



The ARES E-Letter for December 19, 2012

Santa Barbara ARES Saves the Day for Agencies in Earthquake Drill

The four Santa Barbara (California) County ARES units were activated on November 15 to assist the county's public health department in a state-wide emergency response exercise. As it turned out, the amateurs saved the day when the participating agencies were unable to deliver messages through the new [WebEOC](#) computer system.

The scenario was a major earthquake and each county health department was to respond as though the disaster were local. In Santa Barbara County, players included all hospitals, skilled nursing facilities, the American Red Cross, [Direct Relief International](#), and retirement communities, law enforcement, public works, etc.

The County Office of Emergency Management staff had been training local agencies on the Web EOC computer program for several months. This exercise was to be a real-time test of the system, recently installed in the new Emergency Operations Center (EOC).

ARES members reported to five local hospitals to establish backup communications with the Public Health Department's Operations Center (DOC) and the County EOC. They were also asked to respond to a medical field treatment center in Santa Barbara, about 15 miles from the DOC.

Because three of the hospitals are separated from Santa Barbara and the DOC by a 4,000'-high mountain range, a 2-meter repeater on the ridgeline was used for county-wide voice communications. Each of the four areas established nets on their local repeaters and on 2-meter simplex frequencies to communicate between field units, EOCs, hospitals, and the DOC.

Within an hour of the exercise start, it was apparent traffic flow on the WebEOC system was in trouble. ARES communicators at hospitals and city EOCs were sending queries to the County EOC about messages that had not been answered and information expected to arrive had not been received via WebEOC. Fortunately, flow of traffic to, from, and between the hospitals, EOC, and DOC on the ARES networks was seamless and important information, such as conference call phone numbers and codes, allowed the exercise to continue as planned. A Battalion Chief who is the Communications Coordinator of the Lompoc Fire Department said, "ARES was about the only communications that worked."

The ARES operator at the EOC also checked in to the state and region nets on 40 meters. In addition to voice communications backup, the Public Health Department requested the Santa Barbara ARES unit to provide Slow Scan TV from a field treatment site they had set up in Santa Barbara, about 15 miles away, to the DOC. A 224 MHz repeater on the mountain was used to send the images, which were received in both the radio room at the DOC and in the operations center so staff managing the emergency could see "victims" arriving, doctors providing triage and care, and transportation. The Emergency Preparedness Program Administrator was extremely pleased with the abilities of Amateur Radio to be flexible and respond to the needs of the operations center staff as they occurred. The staff specifically requests SSTV whenever they feel it will be useful to them.

Nineteen ARES members participated, led by Lou Dartanner, N6ZKJ, District Emergency Coordinator; Bruce Gordon, N6OLT, Santa Barbara EC; Ray Lischka, W9EC, Lompoc EC; Jim Gilbert, AK6JG, Santa Ynez EC; and Dennis Daniel, KM6DF, Santa Maria EC.

The new County EOC opened in 2011. During the construction, the Office of Emergency Management staff solicited input from ARES officials, not only for communications but for ideas and comments in general. When it came to installing amateur antennas on the 40' tower, the OEM manager told ARES there was a problem. He said the sides of the tower were pretty full, would we mind a spot on the top? We said we would manage! The top of the tower sports a tri-band antenna (2 meter, 220 MHz, 450 MHz bands), and a "Carolina Windom" HF antenna on a cross arm to cover all HF Amateur frequencies from 3.5 to 30 MHz. At the 30' level is a 3-element 2-meter beam antenna aimed at an amateur repeater across the mountain. On top of the building are two discones, 120-1200 MHz, with one also able to work 6 meters and the other 27 MHz.

-- Lou Dartanner, N6ZKJ, District Emergency Coordinator, Santa Barbara, California, ARES



The tower at the Santa Barbara County EOC, with tri-band antenna on the left and HF antenna on the cross arm on the right. The third rod is the lightning rod. (photo courtesy N6ZKJ)

Utah ARES/SKYWARN Spotters Prompt Insightful NWS Letter

The Uintah County (Utah) ARES group was called by the National Weather Service's Grand Junction (Colorado) forecast office on Saturday, August 11, to work in a SKYWARN capacity for expected severe weather. Lamond Harrison, WX7L, Uintah County EC, sent alerting texts and e-mails, and put out a call on the radio to ARES/SKYWARN members to be prepared. Harrison reports: "At about 1:30 PM we were activated. The NWS requested that we have people stationed at multiple points on the mountain north of Vernal to report the received weather. The computer models were predicting heavy rain with hail up to 1.25 inches in diameter and high winds. So we grabbed our equipment and off we went."

Uintah County is located in the northeastern corner of Utah. It's larger than Delaware and has a population of about 33,000. Dagget County is north of the county next to Wyoming, and Moffat County, Colorado, is to the east. The NWS office in Grand Junction is located 140 miles southeast of Vernal, Utah. Because of the mountains in the area, we are in a Doppler radar "black hole," said Harrison. "The bottom of the radar image over Uintah County is about 20,000 feet high. Vernal's elevation is 5230 feet. So, the radar does not come close to seeing what is happening on the ground. The southern part of Uintah County is high mountain desert. Only Sage brush, cactus, and a few clumps of grass grow there. Flash flooding is a constant danger. So having the radar working properly is critical for the highway over the mountains and the many roads and energy workers in the desert. Because the Doppler radar image is only looking at the tops of the storm clouds the NWS has written computer models to let them know what is actually happening on the ground. They want them perfect. That is why they called us, Harrison said.

The storm produced heavy rain as expected, with the largest hail measuring 0.5 inches. Jim Pringle of the NWS office sent this post-event e-mail to Harrison:

Hello Lamond:

Our staff and I are very grateful for the assistance of you and your SKYWARN folks to mobilize and monitor the weather for us today. Although there were no "big" events from this afternoon's thunderstorms in northern Uintah County, your information helped us in several ways: Based on your reports, we learned that our radar was running "too hot" as it was indicating hail stones up to 1.25 inches in

diameter, not only in Uintah County but also in Moffat County. Your information also indicated that the strong winds (i.e., greater than 50 mph) did not materialize. This information resulted in our forecast staff making the apparently correct decision to NOT issue any Severe Thunderstorm Warnings for northern Uintah County or Moffat County, even though our radar algorithms were telling us otherwise.

Also, your reports confirmed that heavy rain was occurring from those storms over northern Uintah County, which essentially confirmed the radar rainfall precipitation estimates of a third to half an inch over any one spot from any individual storm cell.

This morning, our forecast staff did discuss the possibility of drier air moving into northern Uintah County sooner than any thunderstorms could develop. Depending on the atmospheric computer model, thunderstorms could have been totally suppressed over northern Uintah County or they could develop and persist into the evening hours. That is why we were on the fence this morning when I spoke with you and Julie during the "standby" notification at 0900 MDT. Then after the thunderstorms initially developed before noon today, and when they persisted through the time that I requested the SKYWARN activation, it was decided in our office to err on the conservative side and assume the possibility that the storms could persist into the early evening hours in northern to central Uintah County. Well, hindsight is always 20-20, and the drier air moved into northwest Uintah County by 1600 MDT. As of 1700 MDT, that drier air already moved southward with the cool front into central Uintah County.

It was a sincere pleasure working with you and your SKYWARN spotters today. :-) -- Jim

Harrison said his group was grateful to have been of help: Erik Larsen, AD70V; Heather Larsen, AD7OW; Christopher Larsen, KF7JRE; Jonathan Larsen, KF7JRK; Dirk Checketts, KD7ZLG; Susan Checketts, KF7MWS; and Lamond Harrison, WX7L, who concluded "It was fun, wet, and deliciously cool on the mountain. The temperature dropped to 51 degrees while we were there. It felt good to provide a service that afternoon, and have a heck of a lot of fun also."

The ARRL Bulletin 3 January 3, 2013

SB QST ARL ARLB003

ARLB003 Comment Deadline Set in WRC-07 Implementation Proceeding

As previously reported, the FCC has proposed to amend its rules to implement the allocation decisions of the 2007 World Radiocommunication Conference (WRC-07) and to make certain other changes. Notice appeared in the December 27, 2012 issue of the Federal Register, which started the clock on a 60-day window for the submission of comments. Thus, comments are due no later than February 25, 2013, with reply comments due no later than March 27, 2013.

While most of the 130-page Notice of Proposed Rulemaking and Order does not directly affect the Amateur and Amateur-Satellite Services, two sections of the document are of particular interest to amateurs.

Specifically, the FCC proposes to upgrade the Amateur Service allocation in the upper half of the 160 meter band (1900-2000 kHz) from secondary to primary, while deleting the existing allocation to the Radiolocation Service. This is possible, because the reaccommodation of radiolocation stations displaced by the expansion of the AM broadcasting band to 1705 kHz has been completed and there are no non-federal radiolocation stations licensed to operate in the 1900-2000 kHz band.

The FCC also seeks comments on whether, and how, an amateur low frequency (LF) allocation might be able to co-exist with Power Line Carrier (PLC) systems that are used by electric utilities to monitor and control the power grid. The Commission notes that while PLC systems do not have the status of an allocation, they carry "communications important to the reliability and security of electric service to the public." WRC-07 created a

new secondary allocation to the amateur service at 135.7-137.8 kHz that already has been implemented in a number of other countries.

The ARRL will be preparing comments supporting both of these allocations. Individuals wishing to comment directly to the FCC should carefully read paragraphs 13-24 of the NPRM and follow the instructions contained in paragraph 175. The NPRM can be found in PDF format at, http://transition.fcc.gov/Daily_Releases/Daily_Business/2012/db1119/FCC-12-140A1.pdf.

The ARRL Rocky Mountain Division update for January 2013

ARRL Rocky Mountain Division update – January 2013
Division website: www.RockyMountainDivision.org

===== Welcome to a New Year of Ham Radio fun! =====

Happy New Year! Here's to another great year of ham radio. 2013 presents many opportunities for Hams across our great Division to discover new enjoyment within ham radio. A few ideas:

- Attending the 2013 Rocky Mountain Division Convention in Estes Park, Colorado (June)
- Setting an individual or club goal for Field Day this June
- Engaging in a new homebrew project of some kind
- Passing your skills and knowledge to that new ham in your area or club
- Organizing an ARRL Kids Day or Jamboree on the Air (JOTA) event to bring more youth into the fold
- Burning some midnight oil during a DXpedition to snag an elusive "new one"
- Giving a helping hand with public service communications (ARES, Skywarn, etc)
- Organizing a special event station for your area to commemorating something interesting
- Upgrading your license to enjoy new spectrum and learn new skills
- Etc. Etc.

Please consider a friendly challenge: Commit to trying something 100% brand-new in ham radio this year. On top of discovering some new fun, you'll probably learn new things and meet new hams involved in that new subject area along the way.

A note from Jared B. Luther:

A local lady, Beatrice Jensen, is selling this Kenwood TS-530S radio, MFJ tuner, and watt meter (maybe SWR). She's asking \$300 for all three items (see picture). I told her I'd share this with the club. If you're interested or have questions, please email Beatrice at bea.jensen001@gmail.com.



Membership in **The Bridgerland Amateur Radio Club, Inc. (BARC)** is open to anyone interested in Amateur Radio. You do not need an amateur license to join. Learn more online at <http://www.barconline.org/> or by emailing membership@barconline.org.

The Bridgerland Amateur Radio Club provides the following to its members:

- A repeater system that covers northern Utah from Bear Lake to Salt Lake Valley.
- Events where you can practice your radio skills in a fun learning environment.
- Club meetings are held the second Saturday each month from October to May. An opportunity to meet and learn from other amateur operators.
- Social activities where members can make friends and interact with other members.



Your tax deductible membership supports club activities and the BARC repeater system.



The Bridgerland Amateur Radio Club, Inc.

Membership application for the year 2013

*Dues are in effect January 1, 2013 through December 31, 2013
New Members Only, individual membership dues prorated quarterly
Please indicate if you or family member is an American Radio Relay League (ARRL) member*

Name _____ Call Sign _____ Date Paid _____

ARRL member

P.O. Box _____ Street Address _____

City _____ State _____ Zip Code _____

Home Phone () _____ Work Phone () _____

E-mail _____

(The club's newsletter, THE OHM TOWN NEWS, is sent to the E-mail Address)

Individual Membership - \$25 \$ _____

Addition Family members in same household - \$3 ea \$ _____

Donation for Repeater upgrades / equipment purchases \$ _____

Total \$ _____

Names and Call Signs of additional family members

Name _____ Call Sign _____

ARRL member E-mail _____

Name _____ Call Sign _____

ARRL member E-mail _____

Name _____ Call Sign _____

ARRL member E-mail _____



Bridgerland Amateur Radio Club is an ARRL affiliated club

Mail your completed form and a check to: B.A.R.C., P.O. Box 111, Providence UT 84332-0111 or pay online at <http://www.barconline.org/?q=node/242>

B.A.R.C. is a non-profit organization

Questions for Technician Class License

1. (T1A08) Which of the following entities recommends transmit/receive channels and other parameters for auxiliary and repeater stations?
 - A. Frequency Spectrum Manager
 - B. Frequency Coordinator
 - C. FCC Regional Field Office
 - D. International Telecommunications Union
2. (T2A01) What is the most common repeater frequency offset in the 2 meter band?
 - A. plus 500 kHz
 - B. plus or minus 600 kHz
 - C. minus 500 kHz
 - D. Only plus 600 kHz
3. (T3A05) When using a directional antenna, how might your station be able to access a distant repeater if buildings or obstructions are blocking the direct line of sight path?
 - A. Change from vertical to horizontal polarization
 - B. Try to find a path that reflects signals to the repeater
 - C. Try the long path
 - D. Increase the antenna SWR
4. (T4A02) What could be used in place of a regular speaker to help you copy signals in a noisy area?
 - A. A video display
 - B. A low pass filter
 - C. A set of headphones
 - D. A boom microphone
5. (T5B11) What is the approximate amount of change, measured in decibels (dB), of a power increase from 20 watts to 200 watts?
 - A. 10 dB
 - B. 12 dB
 - C. 18 dB
 - D. 28 dB
6. (T6C01) What is the name for standardized representations of components in an electrical wiring diagram?
 - A. Electrical depictions
 - B. Grey sketch
 - C. Schematic symbols
 - D. Component callouts
7. (T7B10) What might be the problem if you receive a report that your audio signal through the repeater is distorted or unintelligible?
 - A. Your transmitter may be slightly off frequency
 - B. Your batteries may be running low
 - C. You could be in a bad location
 - D. All of these choices are correct
8. (T8C02) Which of these items would be useful for a hidden transmitter hunt?
 - A. Calibrated SWR meter
 - B. A directional antenna
 - C. A calibrated noise bridge
 - D. All of these choices are correct
9. (T9A07) What is a good reason not to use a "rubber duck" antenna inside your car?
 - A. Signals can be significantly weaker than when it is outside of the vehicle
 - B. It might cause your radio to overheat
 - C. The SWR might decrease, decreasing the signal strength
 - D. All of these choices are correct
10. (T0B09) Why should you avoid attaching an antenna to a utility pole?
 - A. The antenna will not work properly because of induced voltages
 - B. The utility company will charge you an extra monthly fee
 - C. The antenna could contact high-voltage power wires
 - D. All of these choices are correct

(For answers to test questions see page 11)

BARC Club Officers

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

