

THE OHM TOWN NEWS

Voice of the Bridgerland Amateur Radio Club

January 2009

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

President's Message

Hope everybody had a safe and happy holiday season.

So this is my first newsletter article as President. I previously was Vice President for part of the year after Eric Larson, AD7OV, moved to Vernal. Jacob, KD7YKO carried us through the year of 2008. Thank you Jacob. I hope I can serve the Club presidency half as well as you. But also important is each of our club members that support our club and the activities that are planned. Thank you for all your participation and help. We are always looking for good ideas for meeting topics and activities. We have a very good group of people here and I would also like to invite anyone that would like to get involved more or have suggestions to get in touch with me, Tyler, Kevin, or any of the board members. We have many activities coming up this year that could use your help.

Amateur radio has a lot of different operating modes, frequency and usage allocations from 1.8 MHz to above 275 GHz. CW, AM, SSB, FM, Slow Scan TV, RTTY, Packet, Satellite, and more. There is no other entity except for the government that has such an allocation for frequency usage.

Here is a link to the America Radio Relay League (ARRL) Band Plan:

<http://www.arrl.org/FandES/field/regulations/bandplan.html> .

Here is a link to the U.S. Frequency Allocation Chart:

www.ntia.doc.gov/osmhome/allochrt.pdf .

Thanks, and I hope to see you at our club meetings.

73,
Cordell KE7IK

HAM PROFILE

by Brent Carruth KE7QHP

Cordell Smart, KE7IK

Oftentimes first impressions are also lasting impressions. This author remembers his first club meeting on 12 January 2008 where he met and immediately made several new friends within the local amateur radio community. One



such friend was Cordell Smart, KE7IK, who is soft-spoken and dedicated to serving the interests of amateur radio in our community. He is the newly elected, as of the 15 November 2008 club meeting, 2009 president of the Bridgerland Amateur Radio Club succeeding Jacob Anawalt, KD7YKO, whose efforts are truly

appreciated.

A Wellsville resident, Cordell grew up in Smithfield. In junior high school he listened to his shortwave radio. He could receive stations from Russia and Cuba. This was at the height of the cold war. Russia had many English language broadcast stations. Russian and Cuban radio stations carried much propaganda and presented a very different slant on news from the US newscasters -- in particular, they would make a big deal out of US government policy which they deemed to have failed. Exciting it was to listen to radio news broadcasts from around the world and this left a lasting impression on him at a young age.

Cordell attended Skyview High School. An influential teacher there, Arol Maughan, taught an electronics course with an enthusiasm for

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Happy New Year

UPCOMING ACTIVITIES 2009

January Club Meeting - January 10
Presentation on Antennas, and using your new radio

February Club Meeting - February 14

March Club Meeting - March 14

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.

If you are able to help with the activities this year please sign up so that we can coordinate the work. The way to sign up is on the Internet, you can go to the club web site at: <http://www.barconline.org>. On the left side of the page in the Navigation area click on Topics and then Activities. If you have questions contact one of the Club Officers. Also, there will be computers at the club meetings for anyone to use to see the web site and to sign up for the activities.

If you have thought about upgrading your license now is the time to make a New Year's resolution to do so. To help you we are offering a General Class license course. This is the first time such a course has been offered in Cache Valley in a very long time. Brent Carruth, AD7VF, Ted McArthur, AC7II, Bob Wood, WA7MXZ, Ernie Vandewijngaert, KB7ZNH, Cordell Smart, KE7IK and Kevin Reeve, N7RXE, will each share their expertise in a lesson on an aspect of amateur radio relating to the General Class license operator. Classes will begin on Thursday, 29 January 2009 at 7:00pm-9:00pm and continue on Thursday evenings at Ellis Elementary School 348 West 300 North, Logan, Utah until 12 March 2009. The regularly scheduled quarterly BARC VE exam session will be Saturday, 14 March 2009, at which time you may upgrade your license by successfully passing the General Class license exam.

For questions, comments, or to express interest in attending the course, please contact Brent Carruth at carruth@ee.utah.edu.

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

New Club Officers

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(Ham Profile Continued from page 1)

amateur radio. With his own equipment he installed an amateur radio station in the classroom and taught these students the principles of amateur radio and taught them the Morse Code, too. Half of the class passed the Novice class license exam and the seven words per minute code test. Cordell's Novice class license call sign was WN7MFP. Cordell explained that the FCC intended the Novice class license to be a learner's license, effective for two years and nonrenewable. In order to continue operating a radio station the Novice class licensee had to pass the Technician class exam with the same code speed or the General class exam (identical to the Technician class exam) with a code speed of sending and receiving of fifteen words per minute. The frequency privileges and operating modes of the Novice class license were 3700-3750KHz, 7130-7200KHz, 21100-21250KHz, 145-147MHz, telegraphy and 145-147MHz phone. Antennas for the 80, 40 and 15 meter bands were not a simple matter to put up and equipment was expensive and not readily available, friends were not interested in amateur radio plus after high school Cordell joined the National Guard and served eight years with them, so interest waned during those first years of involvement.

Years later a friend from West Haven, Kim Owen KO7U, encouraged Cordell to get back into amateur radio -- and he did. In 2003 he passed the Technician class license exam receiving the call sign KD7WRB. His son, Russell, also earned a Technician class license and received the call sign KD7WRA. The FCC dropped the code requirement for this license class in 1991 and reduced the code speed to 5 wpm for other classes of license in April 2000. One year later Cordell passed the written General exam and worked hard on the code especially with the prosigns but lost credit for it after a year had passed. Then, in February 2007, the FCC dropped the code requirement for all license classes and Cordell passed both the General and Amateur Extra class license exams on 10 March 2007. We all know him by his current call sign of KE7IK.

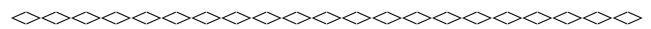
An active, strong proponent of amateur radio today Cordell is very busy with serving the community as president of the Bridgerland Amateur Radio Club for 2009, as a net control operator for the weekly BARC net, as a participating member of ARES and RACES, as a volunteer examiner for FCC amateur radio license exams, as a volunteer for many public service events (Cache Valley Biathlon, Wasatch Back Relay, LOTOJA, Top of Utah, and Bear 100), and helps with community EOC efforts and the area repeaters. He is an advocate for the wide spectrum and modes available

to the amateur radio service.

Cordell is an excellent writer and applied that skill to present a captivating training topic on emergency battery power for the weekly BARC net training topic on 4 November 2008 by prefacing the topic with a vivid description of the cold winter storm the previous Sunday morning when many Wellsville residents were without power for most of the day.

For his radio equipment, he has an ICOM IC7000 HF transceiver with a 30 amp switching power supply and an ICOM AH-4 antenna tuner for a 122 foot wire antenna stretched from the house to the back fence. He also has a Kenwood TM-D700 mobile dual-band transceiver and a Yaesu VX-7 handheld. A small generator for portable power is kept on hand for emergencies.

Cordell is a BSEE graduate from Utah State University. While at USU he had a part-time job at Wurlitzer, testing and repairing circuit boards. He was going to study for a Master's degree but the plant closed and he took a job at Hill Air Force Base in 1981 where he has been ever since. He moved to Farmington for awhile then remarried and moved to Wellsville. He has five children and his wife, Nancy, has three. Cordell's oldest son Russell is majoring in electrical engineering at USU but took time to go on an LDS mission to Guatemala and passed his one year mark in October, Stephanie is a music major at USU, Andrew is majoring in computer science at USU, Christopher graduated from Mountain Crest last June and is home for the holidays from his basic training for the Army National Guard, and Neal is a sophomore at Mountain Crest.



For the January club meeting

Brent Carruth, AD7VF, will be giving a presentation on antennas, input impedance, designing impedance matching networks. Some of the types of antennas Brent will talk about are dipoles, Yagis, loops, quads, helicals, and arrays and the far-field radiation patterns of some of these types. Brent will begin with transmission lines and explain how antennas radiate. Then he will discuss input impedance and some techniques for impedance matching for a center-fed full wave dipole and an end-fed half wave dipole such as the popular J-pole antenna.

Also, part of the meeting will be to help others learn how to use the radio they received for Christmas. If you have a new radio you would like help programming or learning how to use, please bring your radio and manual if you have one.

As always, refreshments and visiting with friends.

Just a reminder that those of you who paid dues or made donations to the BARC repeater system in 2008 (and 2009 etc) , your donations are tax deductible. BARC is recognized and registered by the IRS as a 501 c (3) charitable organization. This means we are tax exempt and your donations are tax deductible.

You may wish to visit with your tax accountant about it, but if you itemize your deductions you may also be eligible to claim charitable mileage and other out of pocket expenses when you participate in BARC training events/public service events, field day, ARES/RACES training events, repeater trips etc. Realize these are all part of BARC's mission education and to provide a pool of trained radio operators.

To make it easier, you can now send in dues and donations to BARC using a credit card or paypal. Visit <http://www.barconline.org/?q=node/242> to pay online. You can also download and fill out the BARC membership form and mail it with a check. You can find the download form at:

<http://www.barconline.org/join-barc>

Be sure to check out our new website, complete with BARC calendar.

Your donations to BARC make it possible to:

- Advance the art and science of amateur radio
- Attract new members to the hobby
- Run club meetings
- Pay for activities like field day and swap meet
- Pay for handouts
- Provide an organization to further the work of amateur radio
- Provide support to the BARC repeater system
- Pay for our post office box, corporation fees, etc
- Provide for a newsletter

ARRL Rocky Mountain Division update --
December 2008 Division website:
www.RockyMountainDivision.org

===== Upcoming hamfests, tailgates & conventions =====

January 17	NCARC Winter Superfest (Fort Collins, CO)
January 31	Albuquerque Winter Tailgate Swapfest (Albuquerque, NM)
February 8	Aurora Repeater Association Swapfest (Brighton, CO)
April 25	Utah ARRL State Convention (South Ogden, UT)
May 22-24	Wyoming ARRL State Convention (Casper, WY)
May 29-31	2009 Rocky Mountain Division Convention (Estes Park, CO)

Links to websites belonging to the above events are found on the Rocky Mountain Division site:

www.RockyMountainDivision.org

If you're organizing a Hamfest, convention or tailgate, please consider having your event ARRL-sanctioned. Sanctioning details can be found at :

<http://www.arrl.org/FandES/field/hamfests/>

===== Upcoming on-air activities =====

In addition to chewing the rag with fellow hams, here are some additional on-air activities which await you on the airwaves.

Upcoming special event stations:

<http://www.arrl.org/contests/spev.html>

Upcoming contests:

<http://www.arrl.org/contests/calendar.html>

Operating awards:

<http://www.arrl.org/awards/>

Utah Section Manager — Mel Parkes NM7P:

<http://www.arrl.org/sections/?sect=UT>

The ARRL Letter Vol. 27, No. 48 December 5, 2008

**GET READY FOR THE ARRL TRIPLE
PLAY WAS AWARD**

As of January 1, 2009, the ARRL will offer another award: The Triple Play Worked All States Award <<http://www.arrl.org/awards/#tripleplay>>. This new, exciting award is available to all amateurs who confirm contacts with each of the 50 states using three modes for each state: CW, phone and RTTY/digital. All 150 contacts must be made on or after the starting date and must be confirmed via Logbook of the World (LoTW) <<http://www.arrl.org/lotw/>>. All bands -- with the exception of 60 meters -- may be used in pursuit of the Triple Play Award.

In their July 2008 meeting, the ARRL Board of Directors decided to implement this new award. Based on a suggestion by former ARRL Dakota Division Vice Director Hans Brakob, K0HB, the League's Programs and Services Committee referred the award's parameters to the Board where it received enthusiastic approval.

According to ARRL Chief Executive Officer David Sumner, K1ZZ, the Triple Play Award is a one-time award -- once you have made the required 150 confirmed contacts via LoTW, you're done. "Even so," Sumner writes in "It Seems to Us" in the January issue of QST, "there are many possible variations on the theme. You can try to be the first (or at least the first on your block) or you can set your own pace. Think it's too easy? Limit yourself to QRP while operating your favorite mode (or all three). Maybe you prefer to be the quarry; it will quickly emerge which states are the most difficult to find, offering opportunities to earn the gratitude of your mates by activating the ones you can get to with your portable or mobile rig."

The Triple Play Award is not a contest, but Sumner points out that the ARRL RTTY Roundup <<http://www.arrl.org/contests/rules/2009/rtty.html>> takes place the first weekend in 2009, with the North American QSO Party (CW and Phone) <<http://www.ncjweb.com/naqprules.php>> following soon after. "Contesters are among the most loyal devotees of LoTW," Sumner writes, "so participating in these three events should



largely moot over time due to improvements" in BPL technology. "It is distressing, but unfortunately not surprising," said ARRL Chief Executive Officer David Sumner, K1ZZ, "to read that the FCC's mishandling of the BPL issue was simply a part of a broad pattern of dysfunction at the Commission. This is a relatively recent development and is unprecedented in the ARRL's long experience with the FCC -- an association that dates back to the very creation of the agency, 20 years after the founding of the ARRL. While the marketplace failure of BPL and the steps taken voluntarily by the few companies that have deployed BPL systems have combined to minimize interference, the regulatory issue is by no means moot. The rules remain inadequate."

Sumner continued: "More than seven months after the Court remand, the FCC has done nothing to correct its errors, nor has it complied with the very specific instructions from the United States Court of Appeals. These instructions included the disclosure of the studies that it intentionally withheld from the public, but upon which it relied in adopting its rules. Indeed, the only step the Commission has taken since the Court's remand order is to mount an unsuccessful effort to oppose our claim for reimbursement of the printing costs for the briefs in the case -- a small fraction of the expenses incurred by the ARRL in our appeal -- expenses that would not have been necessary had the Commission followed the law in the first place" <<http://www.arrl.org/?artid=8338>>.

*** Other Findings by the Committee**

The report also showed instances of where Chairman Martin "manipulated, withheld or suppressed data, reports and information," and said Martin's "manipulation [of another report] may have damaged the credibility of the Commission, and certainly undermined the integrity of the staff. Moreover, it was done with the purpose of affecting the congressional decision-making, in that it was issued as a report to Congress."

Saying that FCC matters have not been handled in an "open or transparent manner," the report said the FCC "rais[ed] suspicions both inside and outside the Commission that some parties and issues are not being treated fairly." The report stated that the Committee's impressions were "confirmed" when it discovered that Chairman Martin made a "preemptory reversal" of [a report's] conclusions and that Martin did not seek "further public comment or conduct further studies" thus giving the impression "that the issue was not handled fairly or openly."

The report also found that Chairman Martin's "heavy-handed, opaque and non-collegial management style has created distrust, suspicion and turmoil among the five current Commissioners." The report states that Martin does not afford his fellow Commissioners "direct and unfettered access to the Commission staff and their expert advice, thereby hindering the ability of other Commissioners to carry out the duties of their offices and the work of the Commission."

The report also found that Commission staff have not been "effectively managed." When Martin first became Chairman, he "imposed a major reshuffling of FCC staff throughout the agency." While the report said that a "certain amount of reorganization is not unprecedented" when a new Chairman begins his term, the reorganization "was highly unusual in both

its breadth (nearly every senior position at the agency changed hands) and its depth (even a number on non-management line staffers found themselves inexplicably reassigned)." Calling it a "waste of resources, the report pointed out that senior employees with "extensive experience and expertise" were reassigned to junior-level positions; as a result, "it appears that some important Commission proceedings were delayed."

*** Committee Methodology**

Over the course of its investigation, the Committee staff reviewed "several hundred thousand documents, including 95 boxes of paper documents; conducted 73 interviews of current and former FCC employees and individuals associated with the telecommunications industry; solicited and received e-mails from FCC employees and contractors at a secure e-mail address established for this purpose, and reviewed dozens of allegations." The report pointed out that since the investigation, Chairman Martin has taken "some small steps" to address some of the problems outlined in the report.

The Committee also emphasized that not everything they found is included in its report: "A few allegations were received so recently that they have not been investigated and are not included [in the report]. We have also excluded matters that seemed trivial per se. Still, other allegations have not been adequately investigated because the FCC has not yet produced all of the records requested by the Committee."

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==> FREQUENCY CHANGE FOR CANADIAN TIME TRANSMISSION STATION CHU

After 70 years of broadcasting NRC's official time, the National Research Council's shortwave station CHU <http://inms-ienm.nrc-cnrc.gc.ca/time_services/shortwave_broadcasts_e.html> will move the transmission frequency for the 7335 kHz transmitter to 7850 kHz. The change goes into effect at 0000 UTC on January 1, 2009.

Broadcasting 24 hours a day, CHU is a part of NRC's system for disseminating official time throughout Canada. Listeners hear tones to mark the seconds, a voice to announce the time in French and English and digital data to set computers. The atomic clocks at CHU are part of the ensemble of clocks in the time and frequency research laboratories at the National Research Council Canada in Ottawa. The NRC clocks are used in conjunction with clocks in the time laboratories of other countries to construct the internationally accepted scale of time, UTC (Coordinated Universal Time). Time transmissions on 3330 and 14670 kHz are not affected and will continue as before.

In April 2007, the ITU reallocated the 7300-7350 kHz band from the fixed service to the broadcasting service. Since then, the NRC said there has been a lot of interference on the 7335 kHz frequency from many information broadcasters around the world. "CHU listeners in Canada and around the world who have for so long considered the 7335 kHz frequency exclusively for time signals, are very vocal about this interference," said Raymond Pelletier, Technical Officer at the NRC-Institute for National Measurement Standards, who oversees the CHU facility. "We have heard from Amateur Radio operators, watchmakers, astronomers and navigators who use the tones and voice signals. We also received comments from those who use the carrier as a calibration source at a distance for their equipment."

Pelletier noted that a leap second <http://inms-ienm.nrc-cnrc.gc.ca/faq_time_e.html> will be added at the end of December 2008; this will be indicated in the digital code until the time of the leap second. DUT1 will go from -0.6 to +0.4 seconds and will be indicated by double tones near the start of the minute and in the broadcast code <http://inms-ienm.nrc-cnrc.gc.ca/time_services/chu_e.html>.

Membership in The Bridgerland Amateur Radio Club, Inc. is open to anyone interested in Amateur Radio. You do not need an amateur license to join. Learn more online at <http://www.baronline.org/> or by emailing membership@baronline.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.
- An opportunity to meet and learn from other amateur operators. (Club meetings are held the second Saturday each month from October to May.)
- Events where you can practice your radio skills in a fun learning environment.
- Social activities where members can make friends and interact with other members.



Your tax deductible membership fees maintain the repeaters and support club activities.

The Bridgerland Amateur Radio Club, Inc.

Application for the Year 2009 Membership

Dues are in effect January 1, 2009 through December 31, 2009

Name _____ Call Sign _____ Date Paid _____

P.O. Box _____ Street Address _____

City _____ State _____ Zip Code _____

Home Phone () _____ Work Phone () _____

E-mail _____

Individual Membership - \$25 \$ _____

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

Equipment Donation \$ _____

(One Newsletter per household)

Names and call signs of additional family members Total \$ _____

Name _____ Call Sign _____

Name _____ Call Sign _____

Name _____ Call Sign _____



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.baronline.org/?q=node/242>

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

Questions for Extra Class License

1. (E1A01) When using a transceiver that displays the carrier frequency of phone signals, which of the following displayed frequencies will result in a normal USB emission being within the band?
 - A. The exact upper band edge
 - B. 300 Hz below the upper band edge
 - C. 1 kHz below the upper band edge
 - D. 3 kHz below the upper band edge
2. (E2A03) What is the orbital period of a satellite?
 - A. The point of maximum height of a satellite's orbit
 - B. The point of minimum height of a satellite's orbit
 - C. The time it takes for a satellite to complete one revolution around the Earth
 - D. The time it takes for a satellite to travel from perigee to apogee
3. (E3A07) What frequency range would you normally tune to find EME stations in the 2 meter band?
 - A. 144.000 - 144.001 MHz
 - B. 144.000 - 144.100 MHz
 - C. 144.100 - 144.300 MHz
 - D. 145.000 - 145.100 MHz
4. (E4E06) What is a major cause of atmospheric static?
 - A. Solar radio frequency emissions
 - B. Thunderstorms
 - C. Geomagnetic storms
 - D. Meteor showers
5. (E6A13) What do the initials CMOS stand for?
 - A. Common mode oscillating system
 - B. Complementary mica-oxide silicon
 - C. Complementary metal-oxide semiconductor
 - D. Complementary metal-oxide substrate
6. (E7A13) What is the name for logic which represents a logic "0" as a high voltage?
 - A. Reverse Logic
 - B. Assertive Logic
 - C. Negative logic
 - D. Positive Logic
7. (E8D12) At approximately what speed do electromagnetic waves travel in free space?
 - A. 300 million meters per second
 - B. 186,300 meters per second
 - C. 186,300 feet per second
 - D. 300 million miles per second

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PROVIDENCE, UT 84332



January, 2009

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