BARC
BRIDGERLAND AMATEUR RADIO CLUB

THE OHM TOWN NEWS

Voice of the Bridgerland Amateur Radio Club

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

May 2012

Some Contents…

ARRL Affiliated

PRESIDENT'S MESSAGE

BARC has been fortunate to have a cadre of members who really care for the Club and spend some of their time and effort to ensure that things run smoothly, be it public service events, activities, Field Day or the regular meetings. They do it so that the rest of the members can enjoy being part of the Club.

The satisfaction of helping others and being part of a great organization is part of the reward. However, this dedicated group needs help. Sure, there are Club members who come through when we need 'grunt' work done, say for Field Day or an activity setup and operation. This is good, but there is a need for all to have the opportunity to help with keeping the Club going. It is surprising how little time is actually needed to do many of the Club tasks. Also most of them are very easy.

There is work enough for everyone to be involved. Anyone who is hesitant about taking a Club responsibility should try one of the 'smaller' jobs to test the waters, such as being a co-ordinator during Field Day or a Net Control Station for the Tuesday night net. Don't worry about messing up. A mistake just means that something is being accomplished. Everyone experiences 'a first time' when doing any new job and may need a hand getting started. This Club works as a team and there will always be support and mentoring available. No one is alone when doing a Club task.

Involvement is also a great way to meet and know other Club members. It is especially good for the newer members who want to learn the ropes of amateur radio. Technical prowess is not required for most of the jobs, so any class license holder can do them.

Above all, Club involvement is fun! Meeting new people and accomplishing a team goal is very rewarding, and every member should give it a try.

73,
Cordell
KE7IK

UPCOMING ACTIVITIES

ARRL Rocky Mountain Division Net — 9 May 7:30 PM IRLP Node: 9871

BARC Club Meeting — 12 May 10:00 AM

Dayton Hamvention, Dayton, Ohio — 18-20 May

RACES HF Net — 19 May, 8:00 AM 3920 KHz

Mountain Man Rendezvous — 21, 22 May

Club Transmitter (Fox) Hunt — 26 May

Little Red Riding Hood — 2 June

Mobile Amateur Radio Club Tailgate Party (Delta, CO) — 2 June

Tour De Cure (Box Elder Co.) — 9 June

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

Wasatch Back Relay — 15 June

RACES VHF Net — 21 June 8:00 PM

Radio Rocket Recovery — 21-23 June

Field Day — 23-24 June

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

Pike Peak Radio Amateurs Assoc. Megafest (Monument, CO)—14 July

RACES HF Net — 21 July, 8:00 AM 3920 KHz

ARRL Rocky Mountain Division Convention (Bryce Canyon City, UT)—27-29 July

Items for Sale or Trade, Items Wanted, Items Available

This section is to be a regular part of The Ohm Town News newsletter. If you have something you would like to advertise as available or are looking for please contact the newsletter editor at newsletter@barconline.org with the details.
I have not been given information on any items to advertise this time, if you have anything that you would be interested in advertising here please let me know.

BARC MEETING APRIL 14, 2012

Announcements:

- May 5, 7 Area QSO Party (7QP), Club Ham Shack, start with breakfast at Angies at 5:45 am
- Great Utah Shake Out, April 17-18, 2012

Scout-a-Rama May 11- Friday 7 p.m. to 10:30 p.m. Saturday 9 a.m. to 2 p.m.

"Radio/Transmitter Direction Finding"

Gary Roberts, AG1T, ag1t@arrl.net
Brian Ulrich, N7QAR

- History of RDF – military applications became vital during wartime.
- Amateur radio activities and competitions have become increasingly popular.
- Equipment review: Loops, Yagi antennas, Offset attenuator, resistance attenuator, "Sniffer" (Australia) –expensive, kits and plans on Internet to build – currently being used on aeronautical frequencies for search and rescue.
- Doppler units: very good for mobile use to find transmitters quickly.

Software: iPhone ap, "Foxhunt" – uses GPS draws line on Google Map, see: www.foxhuntrail.com
www.ui-view.org/ software for APRS tracking.
http://aprisisce.wikidot.com supports and describes use of APRS for tracking.
http://www.aprs.org
www.silcom.com/pelican2/PicoDopp/GH.MORE.htm "Google Hunt"
http://www.gigatest.net/doppler
www.thunter.org
www.homingin.com originates in California where T-hunting is very popular.

- Fox transmitters: several options, low power, PIC controller version uses HT
- Very inventive "fox" designs. Variety of switching antennas, directional deployment, elevation (top of cliff), stretching rules of hunt is part of the fun.
- Body shield method using HT only was demonstrated.
- BARC will be having fox hunts every 4th Saturday.

Government Docs area at USU Library basement floor is an excellent local place to purchase printed out maps.

A two-step Fox Hunt was conducted following BARC meeting. The first frequency was given. The second frequency is posted on the first fox. Some road travel will be needed to find the second fox. Calling frequency is the 146.640 repeater.

UPCOMING BARC MEETING FOR MAY
D-STAR

Date: May 12, 2012
Time: 10:00 AM
Location: Cache County Sheriff's Complex 3rd Floor, 1225 W 200 N, Logan

D-STAR (Digital Smart Technologies for Amateur Radio) is a digital voice and data protocol specification developed as the result of research by the Japan Amateur Radio League to investigate digital technologies for amateur radio. D-STAR systems are available and also can be built using both commercial and homebrew equipment and software.

The D-STAR system supports two types of digital data streams. The Digital Voice (DV) stream used on 144 and 440 MHz contains both digitized voice (3600 bps including error correction) and digital data (1200 bps). Using a DV radio is like having both a packet link and FM voice operating simultaneously. The Digital Data (DD) stream, used only on 1.2 GHz, is entirely data with a bit rate of 128k bps. The data connection to a radio that used DV is via an RS-232 interface or USB 1.0. An Ethernet connection is used for high-speed DD D-STAR data. Ordinary terminal emulation software (DV) or a Web browser (DD) is used for exchanging data.

If you want to know more about D-STAR and its capabilities, please attend our club meeting to find out what D-STAR is all about.

See you there. As always, visiting with friends and refreshments after the meeting.

The ARRL Letter for April 12, 2012

Public Service: North Texas Hams Respond When Tornados Strike

A confirmed EF2 tornado swept through Arlington, Texas on April 3. This twister had a path of 4.6 miles and a width of approximately 150 yards. [Photo courtesy of the National Weather Service office in Fort Worth, Texas]

On April 3, 2012, perfect conditions conducive to tornado activity converged on North Texas. A slow moving front, combined with abnormally warm temperatures and moist air coming in from the south, produced large hail, numerous funnel clouds and tornados. As the weather worsened, hams in North Texas activated ARES® and RACES nets. Spotters reported their observations to their local Emergency Operations Center, which acted on that information in a timely manner to inform the public of the approaching storms, giving them time to get to safety. A total of 21 confirmed tornados -- including one EF3 and two EF2 twisters -- swept through the Dallas-Fort Worth metroplex during the seven hour storm.

According to ARRL North Texas Section Public Information Coordinator Jim Pope, N5JCP, the region suffered extensive damage, but thanks to the assistance of radio amateurs and trained weather spotters who tracked the storm's path and passed the information on to local officials who in turn passed the information to the public, there were no fatalities and very few injuries.

"In Rowlett -- a city of about 56,000 people in the northwest corner of Dallas County -- hams at the Rowlett Fire and Police dispatch unit received information on an approaching tornado from weather spotters," Pope told the ARRL. "Because of this advance warning, Rowlett officials activated the sirens, warning its citizens of the imminent storm nine minutes before the National Weather Service issued a tornado warning for the area." Read more here.

On the Air: 2012 Continues to Show Growth in Amateur Radio Licensing

The first quarter of 2012 (January-March) saw a high level of Amateur Radio license exam sessions, producing an elevated influx of applications for new licensees. According to ARRL VEC Manager Maria Somma, AB1FM, these numbers outpaced the 2011 first quarter results by 30 percent. This uptick does not only apply to new applications; there was a 6 percent increase in the number of upgrades, too. "Statistics over the last 13 years reveal that these are some of the highest numbers that we've seen since the early 1990s for the total number of US amateurs," Somma said. "Now there are more than 704,000 radio amateurs in the US." Read more here.

NEW FCC LICENSES
ISSUED 2006 THROUGH MARCH 2012

Year	2006	2007	2008	2009	2010	2011	2012
Jan	1,274	1,647	1,755	1,960	1,726	1,200	1,502
Feb	1,605	2,435	2,998	2,263	2,749	1,803	2,752
Mar	2,531	3,478	2,816	3,463	3,734	2,806	3,278
subtotal	*5,410*	*7,560*	*7,569*	*7,686*	*8,209*	*5,809*	*7,532*
Apr	1,728	2,673	3,090	3,430	3,508	2,677	0
May	2,283	2,607	2,662	2,717	3,136	2,147	0
Jun	1,967	2,281	2,402	3,011	3,417	2,378	0
Jul	1,401	1,786	2,077	2,220	1,643	1,556	0
Aug	1,623	2,183	2,084	2,102	1,358	1,698	0
Sep	1,357	1,462	1,763	2,116	1,330	1,787	0
Oct	1,781	2,109	2,303	2,404	1,642	1,967	0
Nov	1,993	2,132	2,197	2,344	1,823	2,363	0
Dec	1,569	1,935	2,019	2,114	1,462	1,690	0
Totals	21,112	26,728	28,066	30,144	27,528	24,072	7,532

Compared to the first quarter of 2011, the first quarter of 2012 shows a 30 percent increase in the number of new license applications. Click here to view a larger image.

The ARRL ARES E-Letter for April 18, 2012
ARRL EPM Mike Corey, KI1U: Put Your Emergency Operations Center on the Air

How often is the Amateur Radio station at your local emergency operations center on the air? Only during emergencies? For nets? For training? In many cases the EOC Amateur Radio station may only see activity when it's needed, but this really shouldn't be the case. This Amateur Radio station plays two critical roles. First it is the station you will rely on during an emergency. Not just for the operator at the EOC, but all those communicating with your EOC via Amateur Radio. Second, it is your Amateur Radio showcase to your served agencies.

Putting this station on the air, not just regularly but as often as possible, accomplishes several things. Each time you are on the air you are training. You are learning about propagation, band conditions, and improving your operating skills. In doing this you also learn more about your station. You learn its strengths and weaknesses, its capabilities, and you become more familiar with the equipment. Finally, you learn to identify problems in the station. Through regular activity you develop a baseline of how the station should perform. When something goes wrong you will know it quickly and be better prepared to fix the problem.

This on the air activity also has other potential benefits. As you and your group spend more time exercising the station your served agency will take notice. They will see that this station has value. They may even take interest in how well it is performing. And don't forget that through activity you are given the chance to promote the Amateur Radio Service. Remember there's more to it than emergencies and public service, don't miss an opportunity to show off the other facets of our great service.

The opportunities to get on the air are diverse. Your group could make it a goal to add an operating achievement to the wall such as DXCC or Worked All States. Participating in a contest is a great way to hone your operating and traffic handling skills (a contest exchange is traffic!). It also provides a great way to test your station's capabilities. You can also design a friendly in-house competition between operators, and see who can make the most QSO's each month or log check ins to HF nets.

Never forget what truly makes Amateur Radio a great asset, the spectrum to provide communications. We have this spectrum because we use it, not because we talk about using it. As an Amateur Radio operator you should get on the air as much as possible and so should your EOC station. -- Mike Corey, KI1U, ARRL HQ

The ARRL Letter for April 19, 2012
Digital *QST*: Coming Soon to a Computer Near You!

The new digital edition of *QST* will debut toward the end of May. If you are an ARRL member and you haven't yet signed up to be notified automatically when the digital edition becomes available, you can do so easily. Just click on the "Edit your profile" link on the ARRL website. Once you are in your profile, click "Edit e-mail subscriptions" and then check the box next to "Notification of monthly digital edition of QST." That's all there is to it. A new FAQ about the digital edition has the answers to the questions ARRL members have been asking (it can also be accessed from the *QST page on the ARRL website*). We hope you enjoy the new digital edition of *QST*.

The ARRL Letter for May 3, 2012

On the Air: Annual Armed Forces Day Crossband Test Scheduled for May 12

The Army, Air Force, Navy, Marine Corps and Coast Guard are co-sponsoring the annual Military/Amateur Radio Crossband Communications Test in celebration of the 62nd anniversary of Armed Forces Day. Although the actual Armed Forces Day is celebrated on the third Saturday in May -- May 19 in 2012 -- the AFD Military/Amateur Crossband Communications Test will be conducted on May 12 to prevent a conflict with the Dayton Hamvention®, scheduled for May 18-20. Read more here.

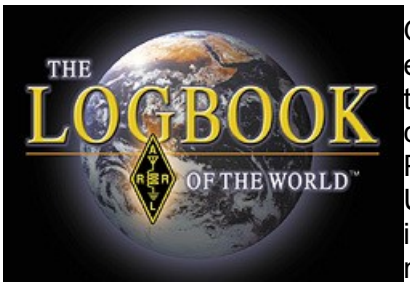
On the Air: 7O6T Yemen DXpedition Now Underway

The Daily DX is reporting that the 7O6T Yemen DXpedition began at 2100 UTC Monday, April 30 and will continue through 2100 UTC May 15. Yemen currently sits at #5 on *DX Magazine*'s most wanted list, behind North Korea, Navassa, Bouvet and Heard Island. The ARRL DXCC Desk will review the 7O6T DXpedition's documentation before granting approval for the operation to count for DXCC credit.

The DXpedition will be on Socotra Island -- the largest island in the four-island Socotra archipelago located in the Indian Ocean -- about 353 kilometers south of the Yemen mainland. Socotra Island (AF-028) is also ranked #1 on the RSGB's Islands on the Air (IOTA) list, with only .3 percent of IOTA participants claiming it. Socotra also counts for one of the three Diamond DXCC Entities that make up today's Yemen (including Aden City and Yemen itself) from the 1937 DXCC List. Read more here.

A team of radio amateurs has activated the island of Socotra, located about 353 kilometers south of Yemen. This is only the second time that hams have operated from the island; the first time was in 1964-1965 when Socotra was part of Brit-

On the Air: Logbook of The World Marks 50,000 Users



On May 1, Dragan Pavlovic, YT3PDT, completed his registration process for Logbook of The World (LoTW), becoming the 50,000th person to take advantage of the ARRL's online QSL confirmation system. According to ARRL Membership and Volunteer Programs Manager Dave Patton, NN1N, there are more than 3500 individuals from outside the US in the process of obtaining a digital certificate, and more than 1800 individuals inside the US who have started the certificate process, but not yet finished.

Earlier this year, the ARRL and CQ Communications announced that the ARRL will provide support for CQ-sponsored operating awards by LoTW, beginning with the WPX Award. This project has entered the beta testing phase with a select group of hams and, barring any unforeseen circumstances, is on track to be launched to the Amateur Radio community this month.

"Radio amateurs around the world consider LoTW to be the 'must have' awards and electronic confirmation system," Patton said. "We look forward to planned improvements and upgrades, and we are gratified that so many people have helped the system grow and become more and more useful."

The ARRL Bulletin May 7, 2012
ARLB009 FCC Seeks Higher Vanity Call Sign Fee

The FCC released a Notice of Proposed Rulemaking (NPRM) on May 4, seeking to raise the fee for Amateur Radio vanity call signs. The NPRM can be found in PDF format on the web at, http://transition.fcc.gov/Daily_Releases/Daily_Business/2012/db0504/FCC-12-48A1.pdf.

Currently, a vanity call sign costs $14.20 and is good for 10 years; the new fee, if the FCC plan goes through, will go up to $15 for 10 years, an increase of 80 cents. The FCC is authorized by the Communications Act of 1934 (as amended) to collect vanity call sign fees to recover the costs associated with that program.

The vanity call sign fee has fluctuated over the 14 years of the current program -- from a low of $11.70 in 2007 to a high of $70 (as first proposed in the FCC's 1994 Report and Order). The FCC said it anticipates some 14,300 Amateur Radio vanity call sign "payment units," or applications, during the next fiscal year, collecting 214,500 dollars in fees from the program.

The vanity call sign regulatory fee is payable not only when applying for a new vanity call sign, but also upon renewing a vanity call sign for a new term. The first vanity call sign licenses issued under the current Amateur Radio vanity call sign program that began in 1996 came up for renewal six years ago.

Those holding vanity call signs issued prior to 1993 are exempt from having to pay the vanity call sign regulatory fee at renewal, as Congress did not authorize the FCC to collect regulatory fees until 1996. Such "heritage" vanity call sign holders do not appear as vanity licensees in the FCC Amateur Radio database.

Amateur Radio licensees may file for renewal only within 90 days of their license expiration date. All radio amateurs must have an FCC Registration Number (FRN) before filing any application with the Commission. Applicants can obtain an FRN by going to the ULS web site at, http://wireless.fcc.gov/uls/index.htm?job=home and clicking on the "New Users Register" link. You must supply your Social Security Number to obtain an FRN.

Questions for Technician Class License

1. (T1D07) When is an amateur station authorized to automatically retransmit the radio signals of other amateur stations?
A. When the signals are from an auxiliary, beacon, or Earth station
B. When the signals are from an auxiliary, repeater, or space station
C. When the signals are from a beacon, repeater, or space station
D. When the signals are from an Earth, repeater, or space station

2. (T2B03) Which of the following describes the muting of receiver audio controlled solely by the presence or absence of an RF signal?
A. Tone squelch
B. Carrier squelch
C. CTCSS
D. Modulated carrier

3. (T3B07) What property of radio waves is often used to identify the different frequency bands?
A. The approximate wavelength
B. The magnetic intensity of waves
C. The time it takes for waves to travel one mile
D. The voltage standing wave ratio of waves

4. (T4B09) Which of the following is an appropriate receive filter to select in order to minimize noise and interference for SSB reception?
A. 500 Hz
B. 1000 Hz
C. 2400 Hz
D. 5000 Hz

5. (T5C04) What is the basic unit of inductance?
A. The coulomb
B. The farad
C. The henry
D. The ohm

6. (T6B11) Which semiconductor component has a gate electrode?
A. Bipolar transistor
B. Field effect transistor
C. Silicon diode
D. Bridge rectifier

7. (T7C03) What, in general terms, is standing wave ratio (SWR)?
A. A measure of how well a load is matched to a transmission line
B. The ratio of high to low impedance in a feedline
C. The transmitter efficiency ratio
D. An indication of the quality of your station's ground connection

8. (T8C01) Which of the following methods is used to locate sources of noise interference or jamming?
A. Echolocation
B. Doppler radar
C. Radio direction finding
D. Phase locking

9. (T9B03) Why is coaxial cable used more often than any other feedline for amateur radio antenna systems?
A. It is easy to use and requires few special installation considerations
B. It has less loss than any other type of feedline
C. It can handle more power than any other type of feedline
D. It is less expensive than any other types of feedline

10. (T0B11) Which of the following establishes grounding requirements for an amateur radio tower or antenna?
A. FCC Part 97 Rules
B. Local electrical codes
C. FAA tower lighting regulations
D. Underwriters Laboratories' recommended practices

(For answers to test questions see page 11)

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