



THE OHM TOWN NEWS

Voice of the Bridgerland Amateur Radio Club

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

December 2012

Merry Christmas

Happy New Year

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ARRL Affiliated



UPCOMING ACTIVITIES

BARC Club Meeting - Christmas Party — 5 December
Meet at 6:00 PM, Eat at 6:30 at the Coppermill Restaurant

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

ARRL Rocky Mountain Division Net — 12 December, 7:30 PM IRLP Node:9871

RACES VHF Net — 20 Dec, 8:00 PM 447.00 IRLP 145.49 Promontory 147.18 Snowbird



Starting in 2013

Club Meeting - 12 January 10:00 AM

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

BARC Club Meeting—9 February, 10:00 AM

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

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.

Christmas Party

For those who have registered for the Club Christmas Party, it will be held at the Copper Mill Restaurant. The room will be available beginning at 6:00 PM, eating will begin at 6:30. The menu this year will be: Roast Beef, Medium Deep Fried Shrimp, Au Gratin Potatoes, choice of 3 Salads, Dinner Roll, Beverage, Chocolate Cake. A Grand prize drawing will be from tickets gathered from participation in events throughout the year as announced last year. This year the drawing will be for an ICOM 7000 HF radio. You do not need to be present to win. There will be a drawing for other smaller prizes for those that do attend. Come and enjoy!!!



Notes from BARC Club Meeting November 10, 2012

By Guy Hatch N7WAT

ELECTIONS FOR 2013 CLUB OFFICERS:

President:	Cordell Smart
Vice President:	Ted McArthur
Secretary:	Tammy Stevens
Treasurer:	Kevin Reeve
Board:	Tyler Griffiths Theo Thomson Jared Smith



ANNOUNCEMENTS

- ARRL Sweepstakes BARC activity will be held at the club station on USU campus on November 17 from 2 p.m. to 12 midnight. All are invited to come, participate, and learn about HF contesting.
- An ARES VHF repeater is to be deployed and activated soon.
- ARES training for ARRL members will be available for \$50 online.
- The Bridgerland Radio Rocket Recovery group, working with the Bridgerland RC Club, is starting work on an unmanned aerial vehicle (UAV) for deployment to assist in searching for rockets at the 2013 ESRA competition at Green River. Radio technologies planned for the project include first person view RC piloting (live video to the pilot on the ground), GPS and avionics data telemetry, and 70 cm beacon radio direction-finding.
- BARC Christmas party
Date: December 5, 2012
Place: Copper Mill Restaurant, Logan
Time: 6:00 PM Banquet room is open, dinner is served at 6:30 PM and the program is after the dinner. Cost: \$22 per person. Please prepay by November 28th.
Our annual Christmas dinner menu is Roast Beef, Medium Deep Fried Shrimp, Au Gratin Potatoes, choice of 3 Salads, Dinner Roll, Beverage, and Chocolate Cake.
A Grand prize drawing will be from tickets gathered from participation in events throughout the year as announced last year. This year the drawing will be for an ICOM IC-7000 HF/VHF/UHF All-Mode Radio. You do not need to be present to win.
There will be drawings for other smaller prizes for those who attend the party, \$50 ARRL gift certificate, and many other surprise gifts.
You can pay by giving your payment to any BARC officer/board member; by mailing in your payment to BARC, PO Box 111, Providence UT 84332-0111; or pay on-line via PayPal on our club web site, <http://www.barconline.org/node/494> . Please RSVP to Tammy, tmmstevens4@gmail.com, and prepay by November 28th so we can have a final count for the dinner setup.
Come and join the fun.



Notes from BARC Club Meeting November 10, 2012

(Notes By Guy Hatch N7WAT - Continued)



TRAINING TOPIC: 10 METER ACTIVITY

Presented by Cordell Smart, Ted McArthur, and Kevin Reeve

- Review of HF propagation characteristics relative to the sunspot cycle;
- During periods of high sunspot activity, 10 meter signals reflect very well from the upper F2 ionosphere region, requiring only minimal transmission power for DX contacts all over the world;
- Sporadic E (Es) activity on 10 meters typically occurs May-July and December-January;
- When 10 meters is active, there is minimal background noise during the daytime;
- A simple dipole, about 18' long, will function very well on 10 meters;
- Technician privileges include CW, data and SSB on the low end of 10 meters;
- Must be careful of band edges relative to the modulation bandwidth of the mode used;
- Important to ask if a frequency is being used before calling CQ;
- Function and location of propagation beacons to help estimate propagation; and
- Many older and all newer HF transceivers offer 10 meter operation.

New Portable Repeaters

Kevin Reeve N7RXE

BARC unveiled a new UHF portable repeater at the Cache County ARES meeting in November. Ted McArthur AC7II, Repeater Committee Chairman gave a demonstration to help ARES members learn how to deploy it. The repeater features a Vertex 50 Watt base station repeater, a Arcom controller, and a Motorola CDM 750 link radio. The repeater fits into a 10 Rack Unit case made by Gator, and is very easy to deploy. The repeater committee has also built a portable VHF repeater using the same equipment, and case size. The VHF repeater has an odd wide split so that the duplexers could be much smaller. The repeaters were made possible thanks to generous donations from club members and from donations received from events.

Ted says these repeaters were built to be used by BARC and ARES for any events and activities as needed. So far they have been used at field day, LOTOJA, and the Top of Utah Marathon. ARES members will get the chance to practice deploying the repeaters in the spring during a practice exercise.



ARRL Sweepstakes
On November 17



Upcoming Technician License Class

Utah 4-H, USU, and BARC are sponsoring a ham radio class to prepare for the Technician Class License. Class is \$10.00 per person 18 and older. Youth are free.

The class will be held in February, it will be the 4 Wednesdays of the month, held at the ASTE building on the USU campus from 7 to 9:30 PM. This time we will be using the Gordon West Technician Class book.

Additional details and class sign up is available at www.barconline.org/class.

We expect the class to sell out again, so if you have friends, neighbors, or family that want in, have them sign up early to reserve a spot. You are welcome to accompany any friends and family members at no charge to you. In fact we need mentors to help with the class. Because of the expected size we will have plenty of mentors on hand to provide a nice warm welcome and a friend within the amateur radio community. If you are interested in being a mentor let us know.

Contact Kevin Reeve N7RXE or Kevin Kesler KE7AAF if you have any questions.

Please pass the word in your circle of friends, neighbors, social, and religious organizations.

Schedule for Upcoming VE Test Sessions

Here are the dates and times for EXAMS for the next 13 months...

ALL are at the USU ASTE building (room 108) unless some huge problem develops.

I have December locked-in and the others tentatively scheduled.

December 8, 2012 (Saturday) at 8:00 am

March 2, 2013 (Saturday) at 8:00 am

June 6, 2013 (Thursday evening) at 7:00 pm

October 10, 2013 (Thursday evening) at 7:00 pm

December 7, 2013 (Saturday morning) at 8:00 am



V. Philip Rasmussen, Ph.D.

N7JFG

- *FREE GIFT* -

For All BARC Members

- *FREE GIFT* -

You are now the proud owner of a

HUMDINGER WEATHER FORCASTER

Cut along the dotted lines and hang it outside on a nail

If it's wet, it's raining
If it's white, it's snowing
If it's stiff, it's freezing
If it's moving, it's windy
If it's gone, it's been ripped off!



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

The ARRL Letter for November 15, 2012 Dayton Hamvention Announces DX Theme for 2013



Throughout its 62 years, the Dayton Hamvention® has showcased the best that Amateur Radio has to offer. Each year, a specific theme -- such as Amateur Radio clubs, global friendship or the advent of digital modes -- spotlights one of the many facets of the Amateur Radio Service. And when Hamvention opens on May 17, 2013, at Hara Arena, the 2013 theme *DX Hamvention* will reflect an important part of ham radio: the distant contact. "Hamvention is often an important DX destination for amateurs from all over the globe," Hamvention General Chairman Charles Kaiser, KD8JZR, explained. "Working DX is often a mix of magic, conditions and the diligent application of radio theory."

ARRL's large exhibit area at Hamvention, ARRL EXPO, has always included significant attention for on-air DX activities and the participation of many international visitors. "In addition to our many activities at ARRL EXPO -- such as hands-on kit building, forums and membership services -- we are proud to support DXers from all over the world," said ARRL Marketing Manager Bob Inderbitzen, NQ1R. "We know hams appreciate our on-site QSL card checking services and enjoy being able to drop off their cards for the ARRL Outgoing QSL Bureau. In recent years, the ARRL exhibit area has included representatives from the International Amateur Radio Union and from our partner radio societies in the UK, Germany, Japan and Qatar." Read more [here](#).

The ARRL Letter for November 21, 2012 FCC Seeks to Assign Entire Amateur Portion of 160 Meter Band to Primary Status to Amateur Radio Service, Proposes New LF Amateur Band at 135.7-137.8 kHz



On Tuesday, November 20, the FCC released a *Notice of Proposed Rulemaking* (ET Docket No. 12-338) that proposes to amend Parts 1, 2, 74, 78, 87, 90 and 97 of the Commission's rules. Part 97 governs the Amateur Radio Service. These changes will implement allocation decisions from the 2007 World Radiocommunication Conference (WRC-07) that concern those portions of the radio frequency spectrum between 108 MHz and 20.2 GHz and make certain updates to the rules in this frequency range. Most of the *NPRM* does not concern the Amateur Radio Service, but the FCC is requesting comments on the three parts that do: changing the allocation to the amateur portion of the 160 meter band, allocating a new Amateur Service band at 135.7-137.8 kHz and cleaning up the rules for the 10.0-10.5 GHz band. Read more [here](#).



Amateur Radio in Space: Three Hams Return to Earth from ISS

Shortly before 9 PM EST on Sunday, November 18 (0200 UTC Monday, November 19), a Soyuz spacecraft carrying Expedition 33 Commander Sunita Williams, KD5PLB, and Flight Engineers Yuri Malenchenko, RK3DUP, and Aki Hoshide, KE5DNI, landed in the steppes of Kazakhstan, returning them safely to Earth from the International Space Station (ISS) after 127 days in space.

While aboard the ISS, Williams, Malenchenko and Hashide completed 39 contacts with schools via the Amateur Radio on the International Space Station (ARISS) project. According to NASA ISS Ham Radio Project Engineer Kenneth Ransom, N5VHO, this ties with Expedition 15 for the fourth highest number of contacts. In 2011, Expedition 26 -- led by Scott Kelly -- set the record for having the most ARISS contacts at 73. Read more [here](#).



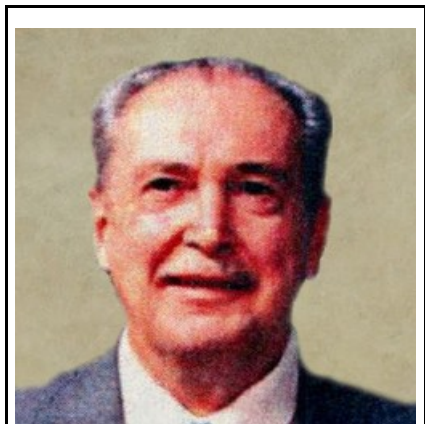
NASA astronaut Sunita Williams, KD5PLB (back left), along with Russian cosmonaut Yuri Malenchenko, RK3DUP (front left) and Japan Aerospace Exploration Agency astronaut Akihiko Hoshide, KE5DNI (back, second from left), returned to Earth from the ISS on Sunday, November 18. NASA astronaut Kevin Ford, KF5GPP (back right), and Russian cosmonauts Evgeny Tarelkin (back, second from right) and Oleg Novitskiy (front right) are part of Expedition 33/34; they launched to the ISS in late October and are scheduled to return to Earth in March 2013.



Silent Key: Former "How's DX?" Conductor Rod Newkirk, W9BRD (SK)

Rod Newkirk, W9BRD/VA3ZBB, of Ottawa, Ontario, Canada -- who penned the QST column "How's DX?" from 1947-1978 -- passed away on Monday, November 19 after a long illness. Newkirk was credited with coining the term "Elmer," as well as for his humorous take on DX in his column, especially with limericks in his DX Hoggery and Poetry Depreciation Society and the accompanying cartoons of Jeeves by Phil "Gil" Gildersleeve, W1CJD (SK).

The term "Elmer" -- meaning someone who provides personal guidance and assistance to would-be hams -- first appeared in QST in Newkirk's March 1971 "How's DX?" column, where he wrote that "[t]oo frequently one hears a sad story in this little nutshell: 'Oh, I almost got a ticket, too, but Elmer, W9XYZ, moved away and I kind of lost interest.' Sure, the guy could have burned through on his own, maybe, but he, like others, wound up an almost-ham. No more Elmer. We need those Elmers. All the Elmers, including the ham who took the most time and trouble to give *you* a push toward your license, are the birds who keep this great game young and fresh." Newkirk was probably not trying to coin a term at the time, but the name stuck, becoming a general term for the mentors Newkirk called "the unsung fathers of ham radio." Read more [here](#).



Rod Newkirk, W9BRD, coined the term "Elmer" in 1971 as the conductor of the popular QST column "How's DX?". He passed away on November 19,

The ARRL Letter for November 29, 2012

Amateur Radio in Space: Mikhail Kornienko, RN3BF, and Scott Kelly to Spend One Year on International Space Station

Russian Cosmonaut Mikhail Kornienko, RN3BF, of the Russian Federal Space Agency and NASA Astronaut Scott Kelly have been selected for a one-year mission aboard the International Space Station in 2015. According to NASA, the mission will include collecting scientific data important to future human exploration of our solar system and to understand better how the human body reacts and adapts to the harsh environment of space as NASA plans for missions around the Moon, an asteroid and ultimately Mars. Read more [here](#).

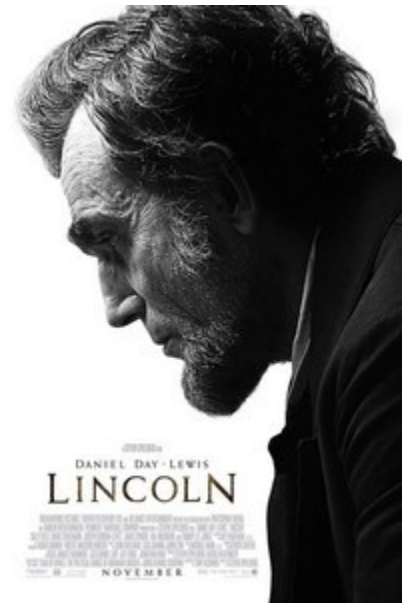


NASA Astronaut Scott Kelly (left) and Russian Cosmonaut Mikhail Kornienko, RN3BF, will spend one year aboard the International Space Station beginning in the spring of 2015.

Ham Radio in Hollywood: Morse Code Plays Role in New Spielberg Movie

Producer Steven Spielberg has used Amateur Radio or Morse code in three of his last four movies: *Super 8* (2011), *The Adventures of Tin Tin* (2011) and *Lincoln* (2012). Members of the Morse Telegraph Club -- an association of retired railroad and commercial telegraphers, historians, radio amateurs and others with an interest in the history and traditions of telegraphy and the telegraph industry -- played an integral part in the production of *Lincoln*.

"Nine of the 16 telegraph stations depicted in the War Department were fully operational," explained Morse Telegraph Club International President James Wade, WB8SIW. "These instruments could be operated in any combination through the use of a specialized computer program and custom-built terminal units for the process. When necessary, a hand key could be inserted in the individual telegraph loops so messages could be improvised." Read more [here](#).



Questions for Extra Class License

- 1.(E1D04) What is an Earth station in the amateur satellite service?
- A. An amateur station within 50 km of the Earth's surface intended for communications with amateur stations by means of objects in space
 - B. An amateur station that is not able to communicate using amateur satellites
 - C. An amateur station that transmits telemetry consisting of measurement of upper atmosphere data from space
 - D. Any amateur station on the surface of the Earth
2. (E2C01) Which of the following is true about contest operating?
- A. Operators are permitted to make contacts even if they do not submit a log
 - B. Interference to other amateurs is unavoidable and therefore acceptable
 - C. It is mandatory to transmit the call sign of the station being worked as part of every transmission to that station
 - D. Every contest requires a signal report in the exchange
3. (E3B08) What type of HF propagation is probably occurring if radio signals travel along the terminator between daylight and darkness?
- A. Transequatorial
 - B. Sporadic-E
 - C. Long-path
 - D. Gray-line
4. (E4C07) What does the MDS of a receiver represent?
- A. The meter display sensitivity
 - B. The minimum discernible signal
 - C. The multiplex distortion stability
 - D. The maximum detectable spectrum
5. (E5C12) If you plot the impedance of a circuit using the rectangular coordinate system and find the impedance point falls on the right side of the graph on the horizontal axis, what do you know about the circuit?
- A. It has to be a direct current circuit
 - B. It contains resistance and capacitive reactance
 - C. It contains resistance and inductive reactance
 - D. It is equivalent to a pure resistance
6. (E6C12) What is BiCMOS logic?
- A. A logic device with two CMOS circuits per package
 - B. An FET logic family based on bimetallic semiconductors
 - C. A logic family based on bismuth CMOS devices
 - D. An integrated circuit logic family using both bipolar and CMOS transistors
7. (E7D04) Which of the following types of linear voltage regulator usually make the most efficient use of the primary power source?
- A. A series current source
 - B. A series regulator
 - C. A shunt regulator
 - D. A shunt current source
8. (E8B10) Which of these methods can be used to combine several separate analog information streams into a single analog radio frequency signal?
- A. Frequency shift keying
 - B. A diversity combiner
 - C. Frequency division multiplexing
 - D. Pulse compression
9. (E9E03) What is the name of the matching system that uses a section of transmission line connected in parallel with the feed line at or near the feed point?
- A. The gamma match
 - B. The delta match
 - C. The omega match
 - D. The stub match
10. (E0A10) What material found in some electronic components such as high-voltage capacitors and transformers is considered toxic?
- A. Polychlorinated biphenyls
 - B. Polyethylene
 - C. Polytetrafluoroethylene
 - D. Polymorphic silicon

(For answers to test questions see page 12)



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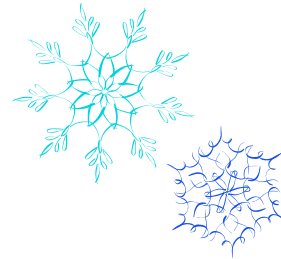
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Merry Christmas and Happy New Year



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