



THE OHM TOWN NEWS

Voice of the Bridgerland Amateur Radio Club

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

October 2014

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ARRL Affiliated



PRESIDENT'S MESSAGE

Public service events are an opportunity for amateur radio operators to give back to their community. Amateur Radio Operators volunteer their time and equipment to help support a wide variety of events. These events include, but are not limited to, parades, walks, runs, and bike tours. While Amateur Radio operators are primarily communicators, in many cases they get heavily involved in the actual operation of the event. Whether it is helping to plan logistical support or responding to event emergencies, Amateur Radio Operators play a vital role in the health and safety of event participants and overall event success.

It is also a way for HAMS to serve their community using the skills and training they have for emergency service while providing HAM members a chance to operate their equipment, such as handheld/portable and mobile radios. It allows HAMS the opportunity to practice various interactive roles within network traffic message handling during emergency activities. In addition, it gets the HAM to think about preparedness and the use of "Go Bags"; whether carrying extra radios, batteries, antennas, or to think about operating uniquely in various environments or locations. Event participation is a way to continuously check and use your deployable radio gear, and determine if there is anything else that should be added to your "Go Bags" to be better prepared for various situations, environments, or locations.

In most events, local repeaters are used for the main frequency, a back-up repeater frequency, and simplex frequencies are used where simplex became the main frequency due to location and terrain. We also have portable repeaters and other means to test our knowledge and create more opportunities for learning, training and becoming better radio operators and organizers in the public service aspect of HAM radio.



When at public service events, it is an opportunity for the local HAM members to explain and show the organizers, public, and government agencies of these events the value added approach HAMS can bring.

Our club has recently acquired some additional equipment for supporting public service events, Kenwood mobile radios and Baofeng handheld radios. The Kenwood TM-D701G radios with cables and mag mount antenna can be signed out to individuals participating in public service events. These portable mobile radio kits are setup for many uses. They are a dual band radio for communication and Automatic Packet Reporting System (APRS) capable where APRS is needed for position reporting during an event, and have a built-in Terminal Node Controller (TNC) for use with a computer for sending data over packet radio networks when needed. The handheld Baofeng radios are used in a Support and Gear (SAG) vehicle where usually there is a race official and a radio operator in the vehicle for communication to the event net control. Having this equipment that can be checked out allows radio opera-

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tors who lack the needed equipment to help with events and gain experience in using different radio equipment.

If you haven't tried Public Service, I would encourage you to come out and volunteer for some of these events, or at least ONE. We will give you on the job training for **free**. If you don't have much training, we will couple you up with one of our seasoned veterans to work with.

Lastly, the ARRL publishes a comprehensive book/manual on all the aspects and purposes of Public Service. [Visit the ARRL Public Service store here.](#)

73,
Cordell
KE7IK

The worlds largest yo-yo is 1,625 pounds.



UPCOMING 2014 ACTIVITIES

- 8** October, 7:30 PM - ARRL Rocky Mountain Division Net IRLP Node: 9871
- 9** Oct, 7:03 PM -VE Test Session (Utah State University Campus Engineering Building room 302)
- 11** Oct, 8:00 AM-12:00 - Swaptoberfest - Club Meeting/Swap Meet (Bill Neville)
Cache County Fair Grounds Pavilion 450 W. 500 S. Logan
- 15** October, 7:00 PM – Cache County ARES meeting at the Sheriff’s Office
- 16** Oct, 8:00 PM - RACES VHF Net 147.18 Snowbird 147.20 IRLP 146.72 Mt. Logan
- 18-19** October — JOTA - BSA Jamboree-on-the-Air ([more info](#))
- 25** October — One Day Ham Class and Test for Technician License ([more info](#))
Class: 8 AM to 3 PM, Testing: 3 PM to 6 PM at Utah State University Campus Engineering Building room 302
- 1** Nov, 9:00 AM — Davis Conference Center at 1651 N 700 W. in Layton, UT
For more info go to: www.utah.train.org/ and search for the ARES/RACES Conference
- 8** November — BARC Club Meeting including Elections for 2015 Club Officers
- 12** November, 7:30 PM - ARRL Rocky Mountain Division Net IRLP Node: 9871
- 15** November, 8:00 AM — RACES HF Net 3920 KHz
- 19** November, 7:00 PM – Cache County ARES meeting at the Sheriff’s Office
- 3** December - Club Christmas Party/Club Meeting at The Coppermill Restaurant
Arrive at 6 PM, dinner served at 6:30. More information coming soon.

For updated calendar information see the barconline.org/calendar

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.

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.

Less than 2 percent of the water on Earth is fresh.

LOTOJA







The ARRL Letter for September 18, 2014

New \$21.40 Vanity Call Sign Fee Now in Effect

The new Amateur Service vanity call sign regulatory fee of \$21.40 became effective on September 11. The FCC released a *Report and Order and Further Notice of Proposed Rulemaking (R&O)* on August 29, in which it recalculated the fee to \$21.40 for the 10-year license term. The \$5.30 increase represents the largest vanity fee hike in many years. In the past, new vanity fees did not become effective until 30 days after their publication in *The Federal Register*, which occurred on September 11.

The FCC reported there were 11,500 "payment units" in FY 2014, and that the vanity program generated an estimated \$230,230 in FY 2013 revenue. The Commission estimated that it would collect nearly \$246,100 in FY 2014 vanity call sign fees.

The vanity call sign regulatory fee is payable when applying for a new vanity call sign or when renewing any vanity call sign designated as "HV" in the FCC's ULS database.

As of October 1, 2013, the Commission no longer accepts checks -- including cashier's checks -- for the payment of regulatory fees. All payments must now be made by online ACH payment, online credit card, or via wire transfer. Any other form of payment will be rejected and returned to the applicant.



The ARRL Letter for September 25, 2014

List of "Amateur Radio Parity Act of 2014" Co-Sponsors Swells Before Congressional Recess

An intense effort during the few days in September that Congress was in session has resulted in 47 co-sponsors for the Amateur Radio Parity Act of 2014 ([H.R. 4969](#)). Another half-dozen or so US House Members have indicated that they will sign on when Congress returns, something they can do only while Congress is in session. Congress went into recess on September 19. ARRL President Kay Craigie, N3KN, ARRL Hudson Division Director Mike Lisenco, N2YBB, Central Division Director Dick Isely, W9GIG, and ARRL General Counsel Chris Imlay, W3KD, visited dozens of congressional offices this month. Elsewhere, other ARRL elected and appointed officials and members from across the US met with members of Congress and with their staffers, wrote letters, and made phone calls to urge co-sponsorship.



On Capitol Hill: Wind-tousled ARRL Hudson Division Director Mike Lisenco, N2YBB. [Courtesy of Kay Craigie, N3KN]

"This all-member effort is how we went from 17 co-sponsors on August 1 to 47 co-sponsors on September 18," President Craigie said this week. When Congress reconvenes in November, League representatives plan to follow up with US House members who did not have time to make their co-sponsorship official before Congress left town.

The Amateur Radio Parity Act of 2014, introduced in the US House of Representatives with bipartisan support in late June, calls on the FCC to apply the "reasonable accommodation" three-part test of the [PRB-1](#) federal pre-emption policy to private land-use restrictions regarding antennas. The limited PRB-1 pre-emption currently applies only to state and municipal land-use ordinances. The FCC has indicated its reluctance to provide the same legal protections from private land-use agreements -- often called covenants, conditions, and restrictions or CC&Rs -- without direction from Congress.

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President Craigie stressed this week that H.R. 4969 is still very much alive, and she urged League members to keep working to convince their representatives to co-sponsor the bill. "These efforts will not be in vain, whether or not the legislator eventually decides to sign onto the bill," she said. "Realistically, we won't get support for H.R. 4969 from every member of Congress who is contacted by amateurs," she said. At the same time, members of Congress who were contacted now know that Amateur Radio exists in their districts and that hams have interests that deserve notice.



ARRL President Kay Craigie, N3KN, with Rep Ed Perlmutter (CO-7), an H.R. 4969 co-sponsor. [Courtesy of Kay Craigie, N3KN]



ARRL Central Division Director Dick Isely, W9GIG (right), with US Rep Danny Davis (IL-7), an H.R. 4969 co-sponsor.

"A lot of politics is based on relationships. Contacts made with members of Congress about H.R. 4969 contribute to establishing relationships that can be maintained and enhanced in the future," President Craigie said. "Does your Congressman know how Amateur Radio makes your district a safer place to live if disasters occur? Does your Congressman know how radio amateurs in your district introduce young people to hands-on wireless communication, laying the foundation for careers? What we certainly can do is to build relationships that will serve our interests -- and the public interest -- if not right now, then in the future."

President Craigie encouraged League members whose representatives have become co-sponsors to thank their lawmakers, on the phone or in writing. "It's good manners and a good relationship-building strategy," she pointed out. "Members can also seek out opportunities during the current congressional recess to make a case for the bill at their representatives' district offices and at events. In short: Keep on!"

A Century of Amateur Radio and the ARRL

In February 1973, the FCC proposed a new Amateur Radio license class that would not require Morse code testing, and invited comments. At the time, the ARRL opposed the proposal.

From 1965 to 1985, the FCC, ARRL, and US hams took note of what was called the "JA Phenomenon." The number of Japanese hams grew from 70,000 in 1965 to 499,000 in 1975, and then to more than 1 *million* by 1985! A new Japanese codeless license class helped spur that growth.

On June 16, 1983, the second attempt to launch a Phase III Amateur Radio satellite (AMSAT-OSCAR 10) was successful. Articles in *QST* kept hams up to date on its progress. OSCAR 10 was, by far, the most capable amateur satellite to date.

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Then-future ARRL President Vic Clark, W4KFC, at the 1950 PVRC Field Day site in Fort Meade, Maryland. [Photo courtesy of PVRC]

Also in 1983, Amateur Radio in the US reached a new level of formal governmental recognition of Amateur Radio's emergency communication capabilities, when ARRL President Vic Clark, W4KFC, signed a *Memorandum of Understanding* with National Communication System Deputy Manager John Grimes.

Articles began appearing in *QST* during 1983 explaining what personal computers could do and how they might be put to use in the ham shack.

In October 1983, the US military invaded Grenada. Mark Baretella, KA2ORK (now N2MD), then a medical student at St George's University School of Medicine on Grenada, became the only non-military source of information from the island, as he relayed messages between other Americans on Grenada and their families in the US.

This resulted in excellent media coverage for Amateur Radio.

Amateurs throughout the world were saddened to learn of the unexpected death of ARRL President Vic Clark, W4KFC, in November 1983. A well-known ham as early as his teenage years, Clark won the first Hiram Percy Maxim Award in 1936. He also served the ARRL in various roles and offices and was considered a first-rate operator. He was truly one of the giants of Amateur Radio.

In November 1983, Owen Garriott, W5LFL, became the first ham to make contacts from aboard the Shuttle *Columbia*. His first contact was with WA1JXN. W5LFL operated his 2 meter FM transceiver during his non-duty hours during the mission's 10 days in orbit.

In September 1984, phone privileges on 75, 15, and 10 meters were expanded. In addition, US stations in Alaska and in the Pacific had their 40 meter phone privileges expanded, so they could avoid the high-power international broadcast stations. -- *Al Brogdon, W1AB*



Astronaut Owen Garriott, W5LFL, was the first to use Amateur Radio from the space shuttle. [NASA photo]

The ARRL Letter for October 2, 2014

Actor Tim Allen Gets His Ham Ticket For Real

Actor and comedian Tim Allen now not only plays an Amateur Radio operator on television, he *is* one! Allen got his Technician ticket on September 4, but did not release the news until this week. In his weekly ABC comedy TV show "Last Man Standing," Allen plays Mike Baxter, KA0XTT, and the show, which starts its new season October 3, has [featured](#) ham radio in some episodes (Allen's TV wife Mandy Baxter is KF0XIE). "Last Man Standing" producer John Amodeo, NN6JA, told ARRL that the agreement with Allen was that "we would not publicize his license until he approved it."

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Allen subsequently revealed to Tom Medlin, W5KUB, for one of Medlin's webcasts that he had passed his Technician license test but, per Allen's request, did not mention his call sign, Amodeo said. The call sign has since been disclosed elsewhere.

"The Amateur Radio operators on the crew of 'Last Man Standing' are delighted that Tim has taken and passed his Technician exam and received his own, real call sign," Amodeo said. "It took more than 3 years to make it happen, and it started with Tim's personal interest in radio technology and his request to make the Mike Baxter character an Amateur Radio operator." The ham shack on the show is a working station.



Newly licensed Tim Allen in his role as Mike Baxter, KA0XTT, on the TV comedy "Last Man Standing." With him is Flynn Morrison, who plays his grandson on the show. The station on the set actually works. [Photo courtesy of John Amodeo, NN6JA]

More than 2 dozen members of the "Last Man Standing" crew -



Producer John Amodeo, NN6JA (left), is interviewed on the "Last Man Standing" set by Tom Medlin, W5KUB. [Photo courtesy of John Amodeo, NN6JA]

- and now Allen, its star -- have been inspired by the show's Amateur Radio component to get licensed. On September 28, the K6H "Hollywood Hamnado" special event station was on the air, with "Last Man Standing" crew members at the helm from the show's set.

Amodeo said K6H went very well. "We had about 35 operators and guests on Stage 9 here at CBS Studio Center" he told ARRL. "All enjoyed being on the set of 'Last Man Standing.' The feeling was like a Field Day and a mini Hamvention." Amodeo said that all six K6H stations had "continuous contacts from start to finish."

Most of the K6H event and several interview segments, including one with the VEs who administered Allen's test, have been posted on [Medlin's website](#).

Amodeo expressed gratitude to the ARRL for its "continued support," starting with the assistance of former ARRL Media and Public Relations Manager Allen Pitts, W1AGP, in the creation of the KA0XTT call sign and the more recent assistance of ARRL VEC staffers Maria Somma, AB1FM, and Amanda Grimaldi, KB1VUV.

"We hope Tim will find Amateur Radio to be an enjoyable and useful hobby for many years to come," he added.

Ham Radio Saves the Day in the Yukon

According to a Radio Amateurs of Canada (RAC) [report](#), Amateur Radio bridged the gap recently for members of a search-and-rescue team attempting to locate a missing teenager in Canada's Yukon Territory. SAR team member Terry Hauff, VY1MAP, was unable to contact the team's headquarters in Whitehorse during the September 21 activation. He was out of cell phone range, and the satellite phone the team had was not working. VY1MAP was, however, able to reach a 2 meter repeater from his mobile station.

Hauff reached out to Ray Fugard, VY1RF, and Ron McFadyen, VY1RM, on the 146.88 MHz repeater in Whitehorse, and they were able to relay a report on the search status from the SAR command center some 35 km north of Whitehorse at Lake Laberge. The missing teen was eventually located unharmed. According to the RAC report, this marked the second time in as many months that Amateur Radio and Yukon Amateur Radio Association members and repeater infrastructure had proved invaluable in an emergency.

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About one-tenth of the world's surface is permanently covered in ice.

Vincent Charron, VE3XU, RAC's Director of Communications, commented, "Whether it's a natural disaster, major weather event, planned community event, or a missing person search, we at RAC receive numerous reports of Amateur Radio interventions when traditional communication systems fail. Ham radio is most certainly still relevant and provides a crucial communications back-up option, often in challenging/dire situations." -- *Thanks to Radio Amateurs of Canada via Mark Bowers, VY1MAB*

A Century of Amateur Radio and the ARRL

At the 1983 Dayton Hamvention, volunteers administered Amateur Radio examinations for the first time, under FCC supervision, demonstrating the feasibility of a volunteer examiner system. The following year, the FCC began designating Volunteer Examiner Coordinators (the first was the Anchorage, Alaska, Amateur Radio Club VEC), including the ARRL VEC, now the largest and most successful.

In June 1985, ARRL co-founder Clarence D. Tuska died. He was the last surviving pioneer of early organized Amateur Radio. Tuska was still a teenager and Hiram Percy Maxim was a well-known inventor in his 40s when they first met and eventually formed the League a century ago. Tuska, who went to a career in radio manufacturing and patent law, served as the ARRL's first secretary as well as the first editor of *QST*. The fascinating story of their early association and how it came about was told in the April 1989 issue of *QST* and [recounted and updated](#) in the January 2014 *QST* "It Seems to Us" editorial, "Present at the Creation."

On August 15, 1985, the FCC opened the 902 to 928 MHz band for amateur use. Also in 1985, the 10 MHz band (30 meters), one of the so-called "WARC bands," was opened for US amateur use. The band was one of those gained at the World Administrative Radio Conference 1979.

Also in August 1985, astronaut Tony England, W0ORE, took along ham radio, including slow-scan TV, on a shuttle *Challenger* mission. His aim was to get youngsters involved in the space program and ham radio.

On March 21, 1987, "Novice enhancement" came to pass, 12 years after the ARRL had first asked the FCC to implement it. Novice privileges were expanded to allow operation on 28 MHz SSB, 220 MHz, and 1270 MHz, as well as operation using RTTY, AMTOR, and packet. This was a giant step toward getting Novices more into the mainstream of Amateur Radio.

During Field Day 1987, those new privileges allowed Novices to make contact with the Goodyear blimp *Enterprise*, thanks to KA4KVI, WB4RFC, and N4ORN, who had put a ham station on board.

The results of a new ARRL contest were reported photographically in the April 1987 *QST* -- "The Messy Shack Photo Contest." Winners in each of the nine categories truly outdid themselves, making our hearts swell with admiration and pride at our fellow amateurs' efforts.



ARRL Co-Founder Clarence D. Tuska.

The August 1987 *QST* reported an interesting solo hike by VE3HBF, 89 days on foot from the southwestern tip of England to extreme northeastern Scotland. A solo hiker, David was never alone. He had a 2 meter handheld with him, so that other hams could keep him company along the way, and so he could call for help, if needed. As he walked, he visited historic radio sites along the way, and was visited by other hams on several occasions.

In 1987, Amateur Radio in the US celebrated the bicentennial of the US Constitution with "200" call signs for club stations, a "We the People" WAS, and other radio events.

On January 1, 1988, the Canadian Radio Relay League became fully autonomous, ending its long-held status as a division of the ARRL. -- *Al Brogdon, W1AB*

Questions for Extra Class License

1. (E1A08) If a station in a message forwarding system inadvertently forwards a message that is in violation of FCC rules, who is primarily accountable for the rules violation?
 - A. The control operator of the packet bulletin board station
 - B. The control operator of the originating station
 - C. The control operators of all the stations in the system
 - D. The control operators of all the stations in the system not authenticating the source from which they accept communications
2. (E2B17) What is the approximate bandwidth of a slow-scan TV signal?
 - A. 600 Hz
 - B. 3 kHz
 - C. 2 MHz
 - D. 6 MHz
3. (E3C09) Which of the following is usually responsible for causing VHF signals to propagate for hundreds of miles?
 - A. D-region absorption
 - B. Faraday rotation
 - C. Tropospheric ducting
 - D. Ground wave
4. (E4D06) What is the term for unwanted signals generated by the mixing of two or more signals?
 - A. Amplifier desensitization
 - B. Neutralization
 - C. Adjacent channel interference
 - D. Intermodulation interference
5. (E5A15) What is the resonant frequency of a series RLC circuit if R is 56 ohms, L is 40 microhenrys and C is 200 picofarads?
 - A. 3.76 MHz
 - B. 1.78 MHz
 - C. 11.18 MHz
 - D. 22.36 MHz
6. (E6E03) What is one aspect of the piezoelectric effect?
 - A. Physical deformation of a crystal by the application of a voltage
 - B. Mechanical deformation of a crystal by the application of a magnetic field
 - C. The generation of electrical energy by the application of light
 - D. Reversed conduction states when a P-N junction is exposed to light
7. (E7H02) What condition must exist for a circuit to oscillate?
 - A. It must have at least two stages
 - B. It must be neutralized
 - C. It must have positive feedback with a gain greater than 1
 - D. It must have negative feedback sufficient to cancel the input signal
8. (E8D01) Which of the following is the easiest voltage amplitude parameter to measure when viewing a pure sine wave signal on an analog oscilloscope?
 - A. Peak-to-peak voltage
 - B. RMS voltage
 - C. Average voltage
 - D. DC voltage
9. (E9H03) What is the effective isotropic radiated power of a repeater station with 200 watts transmitter power output, 2-dB feed line loss, 2.8-dB duplexer loss, 1.2-dB circulator loss and 7-dBi antenna gain?
 - A. 159 watts
 - B. 252 watts
 - C. 632 watts
 - D. 63.2 watts
10. (E0A09) Which insulating material commonly used as a thermal conductor for some types of electronic devices is extremely toxic if broken or crushed and the particles are accidentally inhaled?
 - A. Mica
 - B. Zinc oxide
 - C. Beryllium Oxide
 - D. Uranium Hexafluoride

(For answers to test questions see [page 14](#))

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Answers to questions on [page 13](#): 1-B, 2-B, 3-C, 4-D, 5-B, 6-A, 7-C, 8-A 9-B, 10-C

