



THE OHM TOWN NEWS

Voice of the Bridgerland Amateur Radio Club

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

September 2015

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ARRL Affiliated



PRESIDENT'S MESSAGE

On September 10th, we have our end of summer BARC Pot Luck Fall Social @ 6:00 PM. The location is 360 East 450 North, Millville (Providence South State Center Pavilion). Everyone is invited to this social. You don't have to be a member of BARC to attend this social. This is a way to get to meet those voices you have talked to on the radios in person and have an eye-ball QSO. Just bring a food item to share with the group. Please bring your own plate, eating utensils, and cup. Hope to see you all there. After the social at about 7 PM, there will be a short LOTOJA meeting for last minute updates and to hand out the LOTOJA packets to those who are supporting LOTOJA on September 12th.

The Amateur Radio Parity Act of 2015 continues to gain steam, now with equivalent bills introduced and referred to committees in both the US House as well as the US Senate. More than ever, ARRL members and all hams are needed to throw their support behind these bills by contacting their Representatives and Senators and requesting that they co-sponsor this legislation.

The Amateur Radio Parity Act of 2015 (H.R.1301) presently has 93 co-sponsors in the House, due in no small part to ARRL members across the nation writing and emailing their Representatives to request their support.

With the Senate companion bill (S. 1685) now introduced, it is now time to contact our Senators and request that they too co-sponsor the Act.

For background, Amateur Radio Parity Act of 2015 (H.R.1301 and S. 1685), both bi-partisan bills, would require the FCC to amend its Part 97 Amateur Service rules to apply the three-part test of the PRB-1 federal pre-emption policy to include homeowners' association regulations and deed restrictions, often referred to as "covenants, conditions, and restrictions" (CC&Rs). At present, PRB-1 only applies to state and local zoning laws and ordinances. The FCC has been reluctant to extend the same legal protections to include such private land-use agreements without direction from Congress. These bills would accomplish that.

This is a critical issue to the future health of Amateur Radio. While you personally may not be subject to CC&Rs, many amateur radio operators are, and the number of those affected is increasing significantly. In 1970, there were approximately 2.1 million residents affected by CC&Rs. By 2011, a mere four years ago, 62.3 million were affected. Whether or not you are currently affected by CC&R's, please support this effort on behalf of all amateur radio operators in the United States.

For more information and how to send in your letter supporting the Amateur Radio Parity Act of 2015, please visit the American Radio Relay League (ARRL) web site <http://www.arrl.org/amateur-radio-parity-act>.

73,
Cordell
KE7IK

December Club Meeting

The regular December BARC club meeting will be the Christmas Dinner and has been scheduled for December 3rd at the Bluebird. It now has an elevator so we can accommodate all. It will be a prime rib buffet. Cost and other information to come.

UPCOMING 2015 ACTIVITIES

- 09** Sept, 7:30 PM — ARRL Rocky Mountain Division Net IRLP Node: 9871
- 10** September — Fall Social Potluck Dinner (In place of regular club meeting)
After Dinner there will be a short LOTOJA meeting & distribution of materials
- 12** September — LOTOJA Bicycle Race ([more info](#))
- 16** September, 7:00 PM — Cache County ARES meeting at the Sheriff's Office
- 19** September — Top of Utah Marathon ([more info](#)) (Laurie)
- 19** September, 8:00 AM — RACES HF Net 3920 KHz
- 25-26** September — The Bear 100 ([more info](#)) (Ted, Tyler, Cordell)
- 26** September — Bike the Bear Bicycle Race ([more info](#)) (Kelly Hadfield)
- 08** October—BARC License Exam Session 7pm—9 pm RM 302 USU Eng Bldg
- 10** October — Swaptoberfest (more info see [P. 4](#)) (Bill Neville)
- 14** October, 7:30 PM — ARRL Rocky Mountain Division Net IRLP Node: 9871
- 15** Oct, 8:00 PM — RACES VHF Net 147.18 Snowbird 147.20 IRLP 146.72 Mt. Logan
- 16-18** October—JOTA-Scouting Jamboree On The Air (more info [here](#) & [here](#))
- 21** October, 7:00 PM — Cache County ARES meeting at the Sheriff's Office
- 24** October, 8:00 AM - 6:00 PM One Day Ham Class (Technician) ([more info](#))
- 11** Nov, 7:30 PM — ARRL Rocky Mountain Division Net IRLP Node: 9871
- 14** Nov, 7:30 PM — BARC Club Meeting and Elections for Next years Officers

For more 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.



BRIDGERLAND AMATEUR RADIO CLUB

Online

SwaptoberFest

October 10, 2015

Cache County Fairgrounds Pavilion



Barc Club Store

Lots of prizes

146.72 - .600 103.5 * DSTAR NU7TS B 449.575/N7RDS B 447.925 *
927.5125 -25 103.5 * DMR 447.000/447.125

450 West 500 South Logan, UT

7:00 Set-up Doors Open 8:00 AM - 5:00 PM

Great Prizes

Refreshments

Admission & Tables Free



The ARRL Letter for July 23, 2015

ARRL Board Approves HF Band Plan, National Parks Centennial Event, Award Winners

Meeting July 17-18 in Windsor, Connecticut, the ARRL Board of Directors adopted amendments to the ARRL HF Band Plan -- with some tweaks; approved a National Parks On The Air (NPOTA) operating event in 2016 to celebrate the National Park Service centennial; authorized the filing of a rule making petition with the FCC seeking changes on 80 and 75 meters; initiated the search for a successor to ARRL CEO David Sumner, K1ZZ, who will retire next May, and named several ARRL award recipients.

ARRL HF Band Plan

The Board adopted amendments to the ARRL HF Band Plan that were recommended by the HF Band Planning Committee, with one major change from the proposals as outlined in the April 2015 issue of *QST* and [summarized](#) on the ARRL website. That change was to set the upper RTTY/data limit for 20 meters at 14.125 MHz, consistent with the IARU Region 1 band plan.

Rule Making Petition to FCC

The Board authorized the preparation of a rule making petition to the FCC, seeking changes in the 80 and 75 meter bands that are consistent with majority opinion among more than 1000 responses to an online membership survey. The petition would seek to shift the boundary between the 80 meter RTTY/data subband and the 75 meter phone/image subband from 3600 to 3650 kHz. It also would restore privileges in the 3600-3650 kHz segment to Advanced, General, Technician, and Novice licensees.

In addition, the League will ask the FCC to shift the automatically controlled digital station (ACDS) band segment from 3585-3600 kHz to 3600-3615 kHz, consistent with the IARU Region 1 and Region 2 band plans, and authorize Technician and Novice licensees to use RTTY/data emissions in their 15 and 80 meter band segments, the latter change contingent on expansion of the 80 meter band.

In Brief...

Radio Amateurs Join ISS Crew: Two radio amateurs were among the three new International Space Station (ISS) crew members, who arrived on station on July 23 (UTC). Kjell Lindgren, KO5MOS; Oleg Kononenko, RN3DX, and Kimiya Yui traveled into space aboard a Russian *Soyuz* spacecraft that has docked with the ISS. Expedition 44 Commander Gennady Padalka, RN3DT, and Flight Engineers Scott Kelly and Mikhail Kornienko, RN3BF, were on hand to greet the trio. Lindgren, Kononenko, and Yui will stay on the ISS until late December. Kelly and Kornienko are a few months into a 1-year mission that ends next March. Padalka, who also has been aboard since March, returns to Earth in September.

The ARRL Letter for July 30, 2015

FCC Proposes Fining Georgia Ham \$1000 for Failing to Identify

The FCC has proposed fining a Georgia ham \$1000 for alleged failure to properly identify. David J. Tolassi, W4BHV, had been warned last August about not following the Commission's Part 97 ID rules. The FCC said his "deliberate disregard" of that warning warranted the proposed penalty.

"Mr Tolassi...has a history of failing to comply with the rules governing the Amateur Radio Service," the FCC said in a July 22 *Notice of Apparent Liability for Forfeiture (NAL)*. As the *NAL* recounted, agents from the FCC's Atlanta Office used direction-finding techniques to track the source of a signal on 14.313 MHz to Tolassi's residence in Ringgold, Georgia.

"The agents monitored and recorded transmissions during which Mr Tolassi failed to transmit his assigned call sign," the FCC said. "The agents interviewed Mr Tolassi later that evening, and, while he admitted operating that evening, he denied making the unidentified transmissions."

Nonetheless, the FCC determined that Tolassi "apparently repeatedly violated Section 97.119(a)" of the rules. The Commission pointed out that it could have assessed a forfeiture of \$16,000 a day for a continuing violation, but it settled on a \$1000 fine. Read [more](#).



Amateur Radio Vanity Call Sign Fee to Disappear in September

The Amateur Radio vanity call sign regulatory fee is set to disappear in the next few weeks. According to the best-available information from FCC sources, the first day that applicants will be able to file a vanity application without having to pay a fee is Thursday, September 3. In [deciding](#) earlier this year to drop the regulatory fee for Amateur Radio vanity call signs and General Mobile Radio Service (GMRS) applications, the FCC said it was doing so to save money and personnel resources. The Commission asserted that it costs more of both to process the regulatory fees and issue refunds than the amount of the regulatory fee payment.

"Our costs have increased over time, and now that the costs exceed the amount of the regulatory fee, the increased relative administrative cost supports eliminating this regulatory fee category," the FCC said in its [Report and Order](#), which appeared on July 21 in *The Federal Register*. "Once [it's] eliminated, these licensees will no longer be financially burdened with such payments, and the Commission will no longer incur these administrative costs that exceed the fee payments."

In 2014 the FCC raised the Amateur Service vanity call sign regulatory fee from \$16.10 to its current \$21.40 for the 10-year license term. The \$5.30 increase was the largest such fee hike in many years. In a typical fiscal year, the FCC collected on the order of \$250,000 in vanity call sign regulatory fees.

The FCC said the revenue it would otherwise have collected from such regulatory fees "will be proportionally assessed on other wireless fee categories." Congress has mandated that the FCC collect nearly \$340 million in regulatory fees from all services in fiscal year 2015.

The ARRL Letter for August 27, 2015

Amateur Radio Volunteers Face Fire Threat While Supporting Emergency Communication

The North-Central Washington town of Republic touts "air you can't see" on its website. That's not the case this week. Wildfires in the US Northwest have not only hampered the air quality and visibility, but led to a Level 2 evacuation order in the Ferry County community of about 1000 residents.

That could rise to Level 3. Amateur Radio volunteers in Ferry County have been on the front lines of the wildfire emergency there. In Republic, a combination of Ferry County Search and Rescue (SAR), Community Emergency Response Team (CERT), and ARES/RACES volunteers have been supporting communication for a shelter housing some 4 dozen evacuees -- with more to come, according to Ferry County ARES Emergency Coordinator and RACES Radio Officer Sam Jenkins, WA7EC.

"We are now close to our maximum support level for local volunteers," Jenkins told State RACES Officer Monte Simpson, AF7PQ, who also is ARRL Western Washington Section Manager. "We are now expecting to operate for several weeks at the Republic High School. The firefighters say they are going to attempt to defend our emergency operations center/emergency shelter at all costs," Jenkins added. "We are standing our ground."



The Kettle Complex Fire comes over a ridge on August 13. [Photo courtesy of Inci-Web.gov]



A view of Republic, Washington, via the town's webcam on August 26, shows how smoke from the wildfires has reduced visibility and air quality.

In addition to being the Ferry County ARES EC and RACES RO, Jenkins explained, he also heads the SAR component of the dual Ferry County SAR-CERT contingent. "I have networked these three units together over time to increase the effectiveness of our small, poor, but valiant teams," he told ARRL. At present, he's working under the RACES banner.

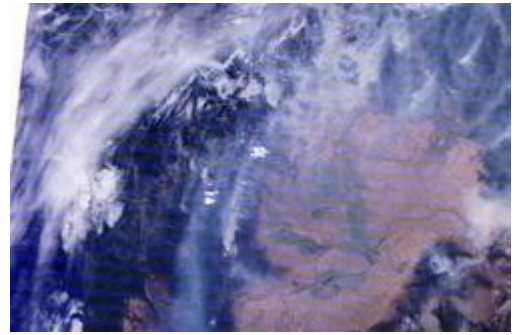
Firefighters from several states and British Columbia, Canada, have been working the Kettle Complex of three fires in Ferry County, which covered nearly 60,000 acres as of August 26. No injuries have occurred and no homes have been lost. Support teams from the Washington National Guard are assisting fire managers to ensure safety. West of Republic near Omak, the Okanogan Complex at more than 280,000 acres is now the largest fire complex in the state's history.

According to the National Interagency Fire Center ([NIFC](#)), wildfires continue to burn actively across the West. The NIFC reports that 66 large fires -- or complexes -- have burned nearly 1.6 million acres in 11 states. Twelve fires are burning in Washington alone.

Jenkins said his team of volunteers would like to have additional support, but, he told Simpson, "I would expect that it is asking a lot for anyone to leave the comfort of their home to travel to a place where the smoke is so thick you can cut it with a knife, and not know if they would escape."

Radio amateurs responding to the wildfire emergencies have been using VHF repeaters as well as HF on 75 and 40 meters, including SSB and digital modes, and IRLP.

"We are doing our best at doing our thing," Jenkins said. "I am concerned about what is happening in our sister counties."



An August 26 MODIS satellite image indicates the extent of the wildfire situation in Washington. [Image courtesy of the USDA Forest Service]

IARU Reiterates Commitment to Coordinate Satellites Only Within International Band Plans

In apparent reference to efforts by China's Amateur Satellite Group (CAMSAT) to coordinate operating frequencies for nine satellites set to launch in early September, the International Amateur Radio Union ([IARU](#)) has made it clear that it will not coordinate frequencies that do not conform with accepted band plans for all three IARU regions. The IARU has informed CAMSAT CEO Alan Kung, BA1DU, that it was only able to coordinate uplink and downlink frequencies for two of the nine spacecraft (CAS-3/XW-2D and E), but it has not made that letter public. CAMSAT has said it plans to launch the nine satellites, all carrying Amateur Radio payloads, on September 7 or 8.

"The IARU Satellite Adviser, Hans van de Groenendaal, ZS6AKV, and his advisory panel are mandated to coordinate frequencies within the IARU band plans for amateur satellites," said a public statement released on August 20 by IARU Secretary Rod Stafford, W6ROD. "Coordinated frequencies must comply with band plans that are common to all three IARU regions. Satellites coordinated outside these plans could cause interference to terrestrial amateur operations in other regions."

The IARU statement suggested that the popularity and high occupancy of 2 meters "led to a request by satellite builders for coordination outside the spectrum reserved for satellites in the IARU band plans (145.800-146.000 MHz), as not enough channels are available to satisfy their requirements."

The IARU said that, in theory, satellites could be programmed only to operate while orbiting above their countries of origin, but "because satellite orbits make it difficult to pinpoint operations, spillover to other regions may occur during parts of the orbit. Accordingly, IARU will not coordinate frequencies for satellites which are planned to operate outside the internationally aligned IARU band plans for amateur satellites."

The IARU statement noted that its frequency coordination service aims to "maximize spectrum utilization and avoid possible interference to other satellites and ground stations." The IARU recommended that satellite groups "work on a sharing plan or use other parts of the Amateur Service spectrum designated for satellite operation," and it suggested resurrecting 10 meters -- once popular as a satellite band, but largely unused today -- as one possibility for uplink channels.

"The band segment 29,300-29,510 MHz has been used for Amateur-Satellite downlinks for more than 40 years, beginning with *Australis-OSCAR 5* in 1970 and *AMSAT-OSCAR 6*, AMSAT's first communication satellite, in 1972," the IARU statement noted. Just one amateur satellite actively uses a 29 MHz downlink -- *AMSAT-OSCAR 7*, launched in 1974. Conceding that 29 MHz downlink frequencies "would not be practical for today's very small satellites" due to antenna size considerations, the IARU

said the band could be used for uplinks, even with small receiving antennas, because Earth stations can run sufficient transmit power to overcome the disadvantage. "The IARU Satellite Adviser and his panel believe that the 10 meter band offers a good alternative to 2 meter uplinks," the IARU said.



AMSAT President Barry Baines, WD4ASW.

AMSAT President Barry Baines, WD4ASW, said his organization's Advanced Satellite Communications and Exploration of New Technology ([ASCENT](#)) initiative is exploring alternatives to address the proliferation of CubeSats and the resulting pressure on 2 meters and 70 centimeters. He pointed out that the 200 kHz IARU allocation on 2 meters "is not very wide" given the number of satellites being launched, but the use of 10 meters is impractical in this era of CubeSats.

"It is incumbent upon the Amateur-Satellite community to develop new ways of 'keeping Amateur Radio in space' that take advantage of other bands and provide enhanced services through appropriate technologies, given the need to find suitable bandwidth for an increasing number of satellites," Baines told ARRL. He said using digital technology could provide multi-channel capability, and design work is already under way. Transitioning to "underutilized amateur spectrum on higher bands such as 5 GHz and 10 GHz is also a possibility," Baines added, although he was quick to point out that AMSAT does not intend to abandon use of 2 meters and 70 centimeters for its own satellite projects. Read [more](#).

In Brief...



JARL Sets 90th Anniversary QSO Party: The Japan Amateur Radio League (JARL) will commemorate its 90th anniversary with the [JARL 90th Anniversary QSO Party](#) during the entire month of September (UTC). The event is open to all radio amateurs and shortwave listeners and activity will take place on all amateur bands. Certificates are available to JA and DX stations for working a certain number (either 9 or 90, depending upon category) of participating stations. Stations exchange call signs and signal reports. Only one contact may be counted in the event of multiple contacts with the same station operating from different locations. All stations submitting a log and summary will receive a Participation Certificate from JARL via the QSL Bureau. [E-mail](#) submissions are welcome. Submit a [summary](#) sheet and [logs](#) of one or more categories. The deadline for submissions is October 30, 2015. Results will be announced in the spring 2016 issue of JARL News and [posted](#) on JARL's website.

Launch Date Set for AMSAT Fox-1A Set: AMSAT Vice President of Engineering Jerry Buxton, N0JY, has announced that the Fox-1A CubeSat will launch on October 8 from California. It initially had been set to launch in August. Fox-1A will include an FM transponder with an uplink frequency of 435.180 MHz, and a downlink frequency of 145.980 MHz. The first phase of the Fox series 1-Unit CubeSats will allow simple ground stations using handheld transceivers and simple dual-band antennas to make contacts. The [Fox-1](#) CubeSats will also be able to transmit continuous telemetry during normal transponder operation. The satellites will feature 200 bps telemetry in the audio spectrum below 300 Hz. -- *Thanks to AMSAT News Service*



Questions for Technician Class License

1. (T1A05) Which of the following is a purpose of the Amateur Radio Service rules and regulations as defined by the FCC?
 - A. Enhancing international goodwill
 - B. Providing inexpensive communication for local emergency organizations
 - C. Training of operators in military radio operating procedures
 - D. All of these choices are correct
2. (T2A08) What is the meaning of the procedural signal "CQ"?
 - A. Call on the quarter hour
 - B. A new antenna is being tested (no station should answer)
 - C. Only the called station should transmit
 - D. Calling any station
3. (T3A08) Which of the following is a likely cause of irregular fading of signals received by ionospheric reflection?
 - A. Frequency shift due to Faraday rotation
 - B. Interference from thunderstorms
 - C. Random combining of signals arriving via different paths
 - D. Intermodulation distortion
4. (T4A09) Which of the following could you use to cure distorted audio caused by RF current flowing on the shield of a microphone cable?
 - A. Band-pass filter
 - B. Low-pass filter
 - C. Preamplifier
 - D. Ferrite choke
5. (T5B05) Which of the following is equivalent to 500 milliwatts?
 - A. 0.02 watts
 - B. 0.5 watts
 - C. 5 watts
 - D. 50 watts
6. (T6A05) What type of electrical component consists of two or more conductive surfaces separated by an insulator?
 - A. Resistor
 - B. Potentiometer
 - C. Oscillator
 - D. Capacitor
7. (T7A02) What is a transceiver?
 - A. A type of antenna switch
 - B. A unit combining the functions of a transmitter and a receiver
 - C. A component in a repeater which filters out unwanted interference
 - D. A type of antenna matching network
8. (T8A11) What is the approximate maximum bandwidth required to transmit a CW signal?
 - A. 2.4 kHz
 - B. 150 Hz
 - C. 1000 Hz
 - D. 15 kHz
9. (T9A13) Why are VHF or UHF mobile antennas often mounted in the center of the vehicle roof?
 - A. Roof mounts have the lowest possible SWR of any mounting configuration
 - B. Only roof mounting can guarantee a vertically polarized signal
 - C. A roof mounted antenna normally provides the most uniform radiation pattern
 - D. Roof mounted antennas are always the easiest to install
10. (T0A03) What is connected to the green wire in a three-wire electrical AC plug?
 - A. Neutral
 - B. Hot
 - C. Safety ground
 - D. The white wire

(For answers to test questions see [page 11](#))

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

