

July 2017

(www.k7id.org)

P.O. Box 1765 Hayden, ID 83835-1765

**REGULAR
CLUB MEETINGS:**

Monday, July 10, 7:00 p.m.
Search & Rescue Bldg.
10865 N Ramsey Rd.
Hayden, Idaho
Topic: Linux
Presenter: ???
Refreshments: ???

VE Testing
Monday, July 10, 5:30 p.m.
1250 W Lancaster
Hayden, Idaho

Monday, Aug 14, 7:00 p.m.
Search & Rescue Bldg.
10865 N. Ramsey Rd
Hayden, Idaho
Topic: ???
Presenter: ???
Refreshments: ???

VE Testing
Monday, Aug 14, 5:30 p.m.
10865 N. Ramsey Rd
Hayden, Idaho

Upcoming Events
North Idaho Fair
August 23-26
Amateur Radio Info Booth

Spokane Hamfest
Sept 23
University HS
12420 E 32d Ave
Spokane Valley, WA

No column received from the KARS President.

No club business was conducted at the June meeting. As a result, there are no minutes.

Greeting KARS Members,

We need to get volunteers now for the KARS booth at the North Idaho Fair. The dates are Wednesday, 23 August thru Sunday, 26 August. This is our chance to recruit new members and stimulate public interest in our Club, and our beloved Hobby!

The fair hours are 10am until 10pm Wednesday thru Saturday, and 10am until 6pm on Sunday.

I've heard many of you say: "That is a great idea - count me in!" Well, now is the time to step up and support this tremendous opportunity!

Please, contact myself or any Board Member and pledge your support. If we do not get enough volunteers, we are withdrawing from the event.

Please, attend the Monday meeting for a show of hands and a team building experience around planning for this event.

Preliminary thoughts on staffing are a minimum of two people per shift and hopefully a third person during busy hours.

73,
Jim Petersen ADOAZ

208-627-6526

jbpidus@yahoo.com

Kootenai Amateur Radio Society

<http://www.k7id.org/>



Bear is Unwanted Volunteer, as ARES Team Supports Colorado Road Race

Lots of things can go awry when Amateur Radio volunteers are supporting public service events, from technical and weather problems to lost or injured participants. The 2017 Garden of the Gods 10-mile and 10-kilometer races in Colorado was no exception. On Sunday, June 11, the Pikes Peak Amateur Radio Emergency Service (PPARES) deployed a dozen operators to support more than 1,400 runners in scenic Garden of the Gods Park just west of Colorado Springs. John Bloodgood, KD0SFY, Region 2, District 2 Emergency Coordinator and Public Information Officer said all was going well, with cooperative weather and only a slight delay due to traffic - nothing out of the ordinary.

"The real excitement came when a couple of the reporting positions called in to report that a bear was on the course," Bloodgood said. "Bears are not uncommon in this area, and most of the locals aren't too fazed by them; we know they will be out foraging this time of year." But for runners unfamiliar with the lay of the land there, the sudden appearance of a bear can be alarming, he added.

"This bear was apparently trying to get across the road and wasn't quite sure why all these people were running through its home so early on a Sunday morning," Bloodgood said. "It finally saw a gap between groups of runners and dashed across the road, but not before local runner Donald Sanborn managed to get a few pictures of it. In the end the problem resolved itself before any intervention was necessary."

Bloodgood said Dan Huber, KN0MAP, actually saw the bear and was the first operator to call it in. Matthew Bowker, KD0THF, reported it based on reports from runners.

Bloodgood said the ARES volunteers tracked the first three male and female runners from both the 10-mile and the 10-kilometer races, reported on any medical issues, supported aid station logistics, helped to ensure the course was clear, tracked the last runners, and provided an operator on a bicycle for the sweep function.

Bears notwithstanding, Bloodgood said the event has been a fairly easy one to support and offers a good training ground for less-experienced operators. “Our most intense and demanding events, the Pikes Peak International Hill Climb (vehicle race) and Pikes Peak Ascent and Marathon (half and full marathons) are coming up,” he added.

After the race, three PPARES members also supported the Colorado Springs Community Emergency Preparedness Day that afternoon at a local minor league baseball game. “This was a display event where we talked to people about making communications plans for disasters, about Amateur Radio, and what ARES does. “There was also a scavenger hunt for the kids where they had to do tasks at multiple stations to get their card signed off and receive a prize,” he recounted. “For our station we had the kids either talk on the radio or - for the shy ones - we had an anemometer they could blow into and get a wind speed measurement.” (ARRL News)

Amateur Radio Poised to Retain Full 76-81 GHz Band, Sharing with Vehicular Radars

In a draft *Report and Order* (ET Docket No. 15-26) to be considered at its July 13 open meeting, the FCC is proposing to lift a nearly 2-decade-old suspension of Amateur Radio access to 76-77 GHz, giving the Amateur and Amateur-Satellite services access to the full 76-81 GHz band on a secondary basis. The FCC also reduced Amateur Radio’s status from primary to secondary in the 77-77.5 GHz segment, to match the rest of the 76-81 GHz band, and it imposed a uniform power-level limit for users of the band. The draft *Report and Order (R&O)* concludes that Amateur Radio and vehicular radars will be able to successfully share the millimeter-wave band with minor adjustments in the Amateur Service rules. A goal of the proceeding has been to expand and consolidate the spectrum available worldwide for 76-81 GHz radar operations. It brings the US *Table of Allocations* into line with decisions at the 2015 World Radiocommunication Conference (WRC-15) and makes the entire band available internationally for vehicular radars operating in the Radiolocation Service (RLS). The FCC said its proposal “received significant support” and no opposition from commenters regarding the proposed allocation.

“The rule changes we adopt modifying the regulatory status of amateur stations and capping their power levels

will ensure the continued operation of amateur stations in this band, and are a reasonable alternative to expanding the suspension of amateur operations from the 76-77 GHz band to the remainder of the 76-81 GHz band or removing the amateur allocations altogether from the 76-81 GHz band,” the draft *R&O* said. “In addition, these changes, coupled with the nature of amateur operations in the band (e.g., largely experimental, occurring temporarily on mountaintops and locations where motor vehicle operation is not typical, and using antennas mounted on masts as high as practical), will ensure that the potential for harmful interference from amateur operations to vehicular radar operations in the 76-81 GHz band is negligible and satisfy our efforts to ensure protection for the important safety functions that vehicular radars will provide.”

The FCC R&O would impose a 55 dBm peak effective isotropic radiated power (EIRP) limit (316 W EIRP) on Amateur operations in the band. This is the same as that allowed to vehicular radars. The *R&O* reasons that the risk for potential interference between Amateur Radio operation and RLS operations “is mitigated by the directionality of vehicular radars’ antennas - downward in orientation and mounted on a low position on the vehicles.” The *R&O* also cites the periodic and transient nature of amateur operations in the band coupled with high path losses in a band that is conducive to frequency re-use.

In reaching its tentative conclusions in the proceeding relative to the Amateur allocation, the FCC considered the comments of several individual radio amateurs as well as ARRL, Bosch, Delphi, the Automotive Safety Council, the Consumer Technology Association (CTA), and automakers and their representatives, among others. Several automotive manufacturers had asked that Amateur Radio be ousted from the band. (ARRL News)

Federal Register Publishes New MF/LF Rules, But Operation is Not Yet Legal

The FCC *Report and Order (R&O)* spelling out operational rules to allow secondary Amateur Radio access to 630 meters and 2,200 meters [now has appeared](#) in the *Federal Register*, but radio amateurs still may *not* access the new bands. That’s because specific procedures now under development to detail how radio amateurs will notify the Utilities Technology Council (UTC) of their proposed station location, prior to commencing operation, still must undergo approval. The

FCC said the notification requirement is necessary to confirm that a station is not located within 1 kilometer of an active power line communication (PLC) system.

“While the *R&O* has been published in the *Federal Register*, amateurs may not begin using the new bands until after the FCC’s Wireless Telecommunications Bureau issues a *Public Notice* outlining necessary procedures to notify UTC of pending operation, as the new rules require,” ARRL Regulatory Information Manager Dan Henderson, N1ND, said. “There is no timetable for that *Public Notice* to be released. Amateurs need to practice patience.”

The FCC said the notification requirements it adopted “seek to strike a balance between amateur operations used for experimental purposes and PLC operation used by electric utilities for the reliability and security of electric service to the public.” Once notification procedures are in place, radio amateurs intending to operate on either band will notify UTC of their geographical location. If UTC does not object within 30 days, amateur operation may commence. The FCC turned away an ARRL request for direct access to the PLC database that UTC maintains.

Once UTC has developed the new information collection procedures, the FCC must submit them for review to the Office of Management and Budget (OMB). “The Commission will publish a separate notice in the *Federal Register*, inviting comment on the new information collection requirements adopted herein,” the FCC said in the *R&O*. “The requirements will not go into effect until OMB has approved [the notification procedures] and the Commission has published a notice announcing the effective date of the information collection requirements.”

In an unrelated action, the FCC allocated 1,900-2,000 kHz to the maritime mobile service (MMS) on a primary basis for non-Federal use in ITU Regions 2 and 3, and limited the use of this allocation to radio buoys on the open sea and the Great Lakes. Amateur Radio was upgraded from secondary to primary in the 1900-2000 kHz segment in 2015. (ARRL News)

Band Plan Proposed for Eventual 472-479 kHz Use

ARRL 630 Meter Experiment Coordinator Fritz Raab, W1FR, has proposed an informal band plan for the pending 472-479 kHz band. Raab said that once US radio amateurs are granted access to 630 meters, he would move stations operating under the blanket WD2XSH FCC Experimental (Part 5) license to 461-472 kHz.

“This will clear the amateur frequencies, while allowing the experimenters to run unattended propagation beacons without using the limited bandwidth that will be available to amateurs,” Raab explained in his spring 630-Meter Experiment Project Status quarterly report. “The new 630-meter band will have a very limited amount of spectrum (7 kHz).”

On March 28, the FCC adopted rules that will allow secondary Amateur Radio access to 472-479 kHz and to 135.7-137.8 kHz (2,200 meters), with minor conditions. One of these involves a requirement to notify the Utilities Telecoms Council (UTC) of proposed Amateur Radio operation on either new band. The FCC says the Office of Management and Budget (under the Paperwork Reduction Act) must first approve the information-collection requirements in §97.303(g)(2). Procedures to meet the requirements are said to be still under development by UTC, which says it wants to avoid Amateur Radio interference to power line communication (PLC) systems used to manage the electrical power grid. No such interference has been reported during the extensive Experimental operation on 630 meters as well as on 2,200 meters.

Raab and LF/VLF enthusiast John Langridge, KB5NJD, prepared the 630-meter band plan “based upon established patterns, separates different modes of operation, and harmonizes US amateur operations with those in Europe.” The plan, which has not been endorsed or adopted by ARRL, calls for using only narrowband modes - with bandwidths of 150 Hz or less - during nighttime operation. Modes such as AM, SSB, and MCW would not be used at night except during special events, under the plan, but in the event a “wideband” mode were necessary, the signal should be confined to between 476 and 479 kHz.

The plan also suggests operating frequencies for *WSPR* and *JT9*, as well as for QRSS (very slow-speed CW).

“Those desiring to operate continuously transmitting CW propagation beacons or to use wideband modes are encouraged to obtain experimental licenses and to operate either below 472 kHz or above 479 kHz,” Raab said in

his quarterly report. “This will ensure they are easily monitored but will not use up the limited 7 kHz of the amateur band.”

Raab’s report notes that the Japan Amateur Radio League (JARL) has issued its first 472-10 award to JH3XCU. Brazilian radio amateurs now have access to 630 and 2,200 meters, while some other South American countries allow access by special permit, the report noted. Amateurs in these countries now have access to 630 meters: Germany, Greece, Malta, Monaco, Norway, Philippines, Czech Republic, Ireland, Switzerland, New Zealand, Finland, Spain, France, Poland, Bulgaria, Canada, Vietnam, Japan, Cayman Islands, La Reunion Island, Hungary, and Brazil.

“It appears that there are now over 100 DXCC entities that have permission to operate on 630 meters,” Raab pointed out in his report. (ARRL News)

Belize, Cyprus, and Philippines Open 60-Meter Bands

Radio amateurs in Belize, Cyprus, and the Philippines now have access to contiguous 60-meter bands.

In Belize, the secondary allocation of 5,351.5 to 5,366.5 kHz has become available with a maximum EIRP of 25 W.

The Cyprus telecoms regulator, the Department of Electronic Communications, on June 30 issued a gazette notice updating the national frequency table to include the new WRC-15 secondary allocation of 5,351.5 to 5,366.5 kHz with a maximum EIRP of 15 W, as well as the secondary MW allocation of 472 to 479 kHz, with a maximum EIRP of 1 W.

The Philippines Telecom Regulator, the National Telecommunications Commission, has granted amateur access to 5,351.5 to 5,366.5 kHz under ITU footnote 5.133B, with a maximum EIRP of 15 W. — *Thanks to Paul Gaskell, G4MWO/The 5 MHz Newsletter*

Ham Radio Aviator WB6RQN Reaches Approximate Half-Way Point of Round-the-World Flight

Texas radio amateur and pilot Brian Lloyd, WB6RQN, is right on schedule on his commemorative Amelia Earhart [round-the-world flight](#). He reached Darwin, Australia, on July 1, in time to enjoy the local hospitality as well as some Territory Day celebration events, including a fireworks display. Greeting Lloyd upon his arrival in Australia was Stuie Birkin, VK8NSB, who had been in contact with Lloyd on 20 meters while he was still aloft.

“With Brian now part of the family, we headed to the Territory Day fireworks at East Point Darwin,” Birkin reported. For his part, Lloyd expressed gratitude for the hospitality following his 10-hour flight leg from Indonesia.

Lloyd will make a few more stops in Australia before departing Sydney on July 6 for New Zealand. He plans to drop a wreath of flowers when he passes above Howland Island, in memory of Amelia Earhart. Howland was where the famed aviator and author and her navigator Fred Noonan vanished on July 2, 1937.

After leaving Darwin on July 2, Mike Alsop, VK8MA, was among those working Lloyd on 20 meters as he made the 5-hour flight to Central Australia’s Uluru (Ayers Rock). Upon reaching his destination, Lloyd reported getting some good photos of Ayers Rock before departing for Birdsville for lunch and a hop to Bundaberg.

After Sydney, Lloyd will head out across the Tasman Sea to Auckland, New Zealand, and then the Pacific for Suva, a fly-over of Howland Island - which has no runway - and to Hawaii. Before he took off from Miami on June 1, Lloyd had estimated that the circumnavigation would take 2 months to complete.

To give his 1979 Mooney 231 aircraft additional range, he modified it to carry 150 gallons more fuel. He also equipped it with modern navigation equipment, long-range radio, and satellite communication gear. Since the flight involves some risk, special safety gear is part of his equipment ensemble.

He has been operating SSB on 17, 20, and 40 meters (18.117, 14.210, 14.346, and 7.130 MHz). - *Thanks to Jim Linton, VK3PC*

INSPIRE-2 Ground Controllers Turn to Amateur Radio, Rescue Stalled Satellite

Amateur Radio came to the rescue of the [INSPIRE-2 CubeSat](#), built by the University of Sydney in collaboration with the Australian National University, and the University of New South Wales. According to Wireless Institute of Australia (WIA), the CubeSat is designed to “explore the lower thermosphere, for re-entry research and in-orbit

demonstration of technologies and miniaturized sensors” and is part of the QB-50 constellation of research CubeSats. Its operational frequency was coordinated by IARU to be in the satellite segment of the 70-centimeter Amateur Radio band.

After its deployment from the International Space Station (ISS) in late May, INSPIRE-2 showed no signs of life. The engineering group on the ground tested various scenarios on the INSPIRE-2 engineering model, concluding that the spacecraft’s battery had depleted due to the CubeSat’s extended stay on board the ISS prior to orbit. The ground controllers theorized that the satellite was trapped in an endless loop, but still listening while trying to deploy its antenna, making reception of signals from Earth difficult.

The ground team devised a set of commands that, if received, would instruct the satellite to wait until its battery was charged before attempting to deploy its antenna. UNSW and ANU ground stations transmitted the recovery command without success, however, eventually deciding that more power was needed to overcome the lack of receiver sensitivity caused by the still-stowed antenna.

PI9CAM at the CAMRAS Foundation Dwingeloo Astronomic Observatory in Leiden, the Netherlands, responded to a call to the moonbounce community and offered to transmit a high power signal using a 25-meter dish that’s normally used for radio astronomy but also for EME.

Success of the approach was confirmed on June 11, and Dimitrios Tsifakis, VK1SV, who is part of the ANU team, subsequently was able to send commands to the satellite from the ANU Earth station for the first time. The satellite had come back to life!

WIA called it, “a wonderful example of successful collaboration between radio amateurs and the academic community.”


The QB50 program involves a coordinated launch of 50 CubeSats from the ISS to undertake three integrated

space research studies, supplemented by additional research investigations by individual CubeSat teams; some QB50 participating spacecraft carry Amateur Radio payloads. — *Thanks to WIA News*

Intentionally Blank.

**COFFEE & DONUTS
EVERY THURSDAY MORNING**

**0:00 A.M.
To
10:00 A.M.**



**Community Mtg Rm
Silver Lake Mall
Coeur d'Alene**

**TALK-IN: 146.980, PL127.3
443.975, PL136.5**

**Bring a Writing Instrument Community Mtg Rm
has the napkins for our breakfast table engineering!**

Deadline for submitting articles, stories, reports, etc., is the 25th of each month for the following month’s newsletter.

Kootenai Amateur Radio Society (KARS) MEMBERSHIP APPLICATION

One year membership Rates:

New Member: \$15.00 Renewal: \$15.00 Family Membership: \$23.00

Two year membership Rates:

New Member: \$28.00 Renewal: \$28.00 Family Membership: \$42.00

Lifetime membership:

Member: \$150.00

Information Update Only

Are You An ARRL Member? Yes / No (Please Circle One)

Callsign: _____ Class: _____ Expiration: _____

First Name: _____ M.I. _____ Last Name: _____

Nickname: _____

Address1: _____

Address2: _____

City: _____ State: _____ ZIP: _____ - _____

PHONE NUMBER: (____) _____

OK to publish phone number? Yes / No (Please Circle One)

EMAIL ADDRESS: _____

OK to publish Email address? Yes / No (Please Circle One)

Do you want to receive the emailed Newsletter? Yes / No (Please Circle One)

Note: If this is a family membership, (all members with the same address), please complete the following section for your family.

Name: _____ Call: _____ Class: _____

Name: _____ Call: _____ Class: _____

Name: _____ Call: _____ Class: _____

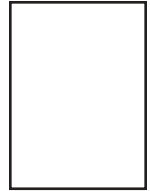
Name: _____ Call: _____ Class: _____

*RETURN THIS FORM WITH YOUR DUES, (CASH OR CHECK), TO THE KARS TREASURER,
OR, MAIL TO: KARS MEMBERSHIP, P.O. BOX 1765, Hayden, ID. 83835-1765.*

(Office use only.)

Cash:		Check #:		Money Order:	
Membership Card:		Roster:		Newsletter:	

KOOTENAI AMATEUR RADIO SOCIETY
P.O. Box 1765
Hayden, ID 83835-1765



DIRECTIONS TO KARS MEETING:

Take U.S. Highway 95 to Miles Avenue (Miles is about 1 mile North of Hayden Avenue). Instead of proceeding west from the corner of Miles and Ramsey, go north about ¼ mile, to the first building on the left (West) side of the road.

2017 CLUB OFFICERS

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Notice

Propagation is published monthly by the Kootenai Amateur Radio Society (KARS). The club is located in Coeur d' Alene, Idaho and serves the North Idaho and the Spokane, Washington areas.

All opinions expressed in this newsletter are those of the individual contributors and not the radio club as a whole.

KARS operates a voice repeaters on 146.980 and 443.975, and a packet repeater on 145.510 Mhz.

Anyone interested in Amateur Radio is welcome to join. Dues are \$15.00 (individual) and \$23.00 for a family membership. Contact the Treasurer if you wish to join.

If you know of anyone interested in joining KARS, you can notify the newsletter editor as to that parties' email address. A copy of this newsletter will be sent with no obligation to join.

Material can be submitted for publication in Propagation. The deadline for articles, etc., is the 25th of each month for the following month's issue.