PROPAGATION

KARS - KOOTENAI AMATEUR RADIO SOCIETY - K7ID

February 2017 (www.k7id.org) P.O. Box 1765 Hayden, ID 83835-1765

REGULAR CLUB MEETINGS:

Monday, Feb 13, 7:00 p.m.
Search & Rescue Bldg.
10865 N. Ramsey Rd
Hayden, Idaho
Topic: ???
Presenter: ???
Refreshments: ???

VE Testing
Monday, Feb 13, 5:30 p.m.
10865 N. Ramsey Rd.
Hayden, Idaho

Monday, Mar 13, 7:00 p.m.
Search & Rescue Bldg.
10865 N. Ramsey Rd
Hayden, Idaho
Topic: ???
Presenter: ???
Refreshments: ???

VE Testing
Monday, Mar 13, 5:30 p.m.
10865 N. Ramsey Rd.
Hayden, Idaho

Upcoming Events

Mike & Key Hamfest
March 11, 2017
Puyallup, WA

Idaho QSO Party
March

Letter from the President

Dave Boss, KF7YWR

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Official Rant of the President

It has come to my attention that our country has turned into a bunch of disgusting whiners. I have been around for a while and voted for my share of losing candidates; actually most of those I have voted for have lost. Apparently I am out of touch with the majority views. While I have been disappointed with results and sometimes downright disgusted, I do not recall any time that I felt a need to march the streets, cause protests and generally be a poor loser. Most of the time a week of grumbling to my wife or co-workers was adequate to get it out of my system. I suspect that a generation or two of children and young adults receiving trophies for merely showing up and playing could have something to with the spoiled brat like behavior in the news of late. Actually, I think that the lack of razor straps or belts being put to good use is the major contributor to the pathetic state we are in at present. So while we have a new President that has taken on the task of running this great nation, let's get back to the time honored tradition of Honoring the man in the White House, and if you are upset because you did not get you participation award and your person lost, put on your big girl panties and grow up, you will get another chance in four years. Now there, my rant is over with and I feel much better. P.S. For the chance to have this space for your own personal rant I only have 10 months left!

STEM

Our Club has been invited to partake in the Second Annual North Idaho College Science, Technology, Engineering and Math Symposium on Tuesday April 18th. We will have a booth with a station set up to demonstrate some portion of our hobby. It is only four hours long but expected to be well attended. More details to come as they arrive.

Swap meet

To help relieve us of or winter doldrums and give us a chance to free up some space in the Shack, We thought this would be fun and allow us to fellowship at a meeting a little more than normal. We'll talk more about it at the next meeting.

Dave Boss, 73

AMATEURS TEAM UP TO ENCOURAGE DISABLED HAMS IN SWITZERLAND

STEPHEN/ANCHOR: Hams in some parts of the world set aside December 3 to showcase what radio can do for the disabled. Here's Amateur Radio Newsline's Ed Durrant DD5LP.

ED'S REPORT:

When members of the Union of Swiss Shortwave Amateurs, the USKA, operated a special event station recently at the Swiss Paraplegic Centre, an emergency and rehabilitation facility in Nottwil, they were grateful for the possibilities. Operators weren't just looking to score some good contacts while working with the patients there; they were eager to show those patients, most of whom have spinal cord injuries, the possibilities radio holds for quadriplegics and paraplegics.

On Saturday the 3rd of December, the Swiss radio amateurs were among a handful of radio groups, including those in Egypt and the UK, who were marking the International Day of Persons with Disabilities. Using the special call sign HB9IPHA, the Swiss amateurs worked on 20 meters at 100 watts with a FlexRadio3000 but were also on VHF and UHF with a Yaesu FT-857D.

Thomas Huber HB9FXU, the Switzerland coordinator for the IARU's Information Programme for Handicapped Radio Amateurs, said in an email that the feedback from patients, visitors and hospital employees was extremely positive. He told Amateur Radio Newsline that the response was especially encouraging as some participants got on the air for the first time. Thomas said the opportunity for outreach was also gratifying - and next year the hams plan to do more outreach to disabled men and women throughout Switzerland and get them involved and on the air — and not just on one day every year. (Amateur Radio Newsline)

ARRL Asks FCC to Allocate New 5 MHz Band, Retain Channels and Current Power Limit

ARRL has asked the FCC to allocate a new, secondary contiguous band at 5 MHz to the Amateur Service, while also retaining four of the current five 60-meter channels and current operating rules, including the 100 W PEP effective radiated power (ERP) limit. The federal government is the primary user of the 5 MHz spectrum. The proposed action would implement a portion of the *Final Acts* of World Radiocommunication Conference 2015 (WRC-15) that provided for a secondary international allocation of 5,351.5 to 5,366.5 kHz to the Amateur Service; that band includes 5,358.5 KHz, one of the existing 5 MHz channels in the US.

"Such implementation will allow radio amateurs engaged in emergency and disaster relief communications, and especially those between the United States and the Caribbean basin, to more reliably, more flexibly and more capably conduct those communications [and preparedness exercises], before the next hurricane season in the summer of 2017," ARRL said in a January 12 *Petition for Rule Making*. The FCC has not yet acted to implement other portions of the WRC-15 *Final Acts*.

The League said that 14 years of Amateur Radio experience using the five discrete 5-MHz channels have shown that hams can get along well with primary users at 5 MHz, while complying with the regulations established for their use. "Neither ARRL, nor, apparently, NTIA is aware of a single reported instance of interference to a federal user by a radio amateur operating at 5 MHz to date," ARRL said in its petition. NTIA — the National Telecommunications and Information Administration, which regulates federal spectrum — initially proposed the five channels for Amateur Radio use. In recent years, Amateur Radio has cooperated with federal users such as FEMA in conducting communication interoperability exercises.

"While the Amateur Radio community is grateful to the Commission and to NTIA for the accommodation over the past 14 years of *some* access to the 5-MHz band, the five channels are, simply stated, completely inadequate to accommodate the emergency preparedness needs of the Amateur Service in this HF frequency range," ARRL said, adding that the five 2.8-kHz wide channels "have not provided sufficient capacity to enable competent emergency preparedness and disaster relief capability."

Access even to the tiny 15-kHz wide band adopted at WRC-15 would "radically improve the current, very limited capacity of the Amateur Service in the United States to address emergencies and disaster relief," ARRL said. "This is most notably true in the Caribbean Basin, but the same effect will be realized elsewhere as well, at all times of the day and night, and at all times of the sunspot cycle."

In its *Petition*, ARRL also called upon the FCC to retain the same service rules now governing the five channels for the new band. The WRC-15 *Final Acts* stipulated a power limit of 15 W effective isotropic radiated power (EIRP), which the League said "completely defeats the entire premise for the allocation in the first place."

"For precisely the same reasons that the Commission consented to a power increase on the five channels as recently as 2011 [from 50 W PEP ERP to 100 W PEP ERP], the Commission should permit a power level of 100 W PEP ERP, assuming use of a 0 dBd gain antenna, in the contiguous 60-meter band," ARRL said. "To impose the power limit adopted at WRC-15 for the contiguous band would render the band unsuitable for emergency and public service communications."

ARRL pointed out that the ITU *Radio Regulations* permit assignments that are at variance with the *International Table of Allocations*, provided a non-interference condition is attached, limiting the use of such an assignment relative to stations operating in accordance with the *Table*.

The League asked that General class or higher licensees be permitted to use the band. The FCC will not invite comments on the League's *Petition* until it puts it on public notice and assigns a Rule Making (RM) number.

CIA Declassified Documents about Amateur Radio Available in Searchable Online Database

Central Intelligence Agency (CIA) reports about Amateur Radio in the former Soviet Union (including the Baltic States) and Warsaw Pact member countries have been declassified to a new searchable online database, the CIA Freedom of Information Act (FOIA) Electronic Reading Room.

Documents include translations and assessments of Amateur Radio clubs, including Soviet DOSAAF (Volunteer Society for Cooperation with the Army, Aviation, and Fleet) groups; training; monitoring Sputniks; technology and equipment, and even QSL cards.

All documents have been declassified and occasionally "sanitized" and made available to the public for the first time in this archive. Some of these documents were only available previously in a closed system at the US National Archives. - *Thanks to Southgate Amateur Radio News via Andy Thomas, G0SFJ*

FEMA Region X Reports Another Successful HF Interoperability Exercise

Participation appears to be growing in the monthly Federal Emergency Management Agency (FEMA) Region X HF interoperability exercises, which take place on 60 meters (center channels 5,332 and 5,348 kHz) on the third Wednesday of each month. Check-ins include state, tribal, federal, and Amateur Radio stations, to test HF interoperability in an emergency or disaster response. FEMA Region X is made up of Alaska, Idaho, Oregon, and Washington, but all stations are welcome.

Laura Goudreau, KG7BQR, Regional Emergency Communications Coordinator for FEMA Region X, said the January 18 exercise attracted 56 check-ins, 47 of them Amateur Radio stations. Also checking in were six Army and two Air Force MARS stations, three SHARES stations, and one FEMA station.

"The propagation that day allowed stations to participate from as far north as Houston, British Columbia, as far east as Billings, Montana, and as far south as Cupertino, California," Goudreau said. "During the exercise, voice and data (both BPSK31 and MT63-2KL) were successfully tested." The January numbers are up from 48 total check-ins, including 42 radio amateurs, in December.

The interoperability net between federal stations and Amateur Radio licensees has been coordinated and authorized by the NTIA and the FCC.

The next FEMA Region X HF Interoperability Exercise will take place on Wednesday, February 15, 1730-1845 UTC.(ARRL News)

Oldest, Longest-Licensed US Ham, Educator Charles Hellman, W2RP, SK

Charles "Charlie" Hellman, W2RP, of Hastings on Hudson, New York, died on January 25. He was 106 and may have not only been the oldest surviving radio amateur

in the US but, at 92 years, also may have been the longest licensed. By 8 days, Hellman outlived Harry Wolf, W6NKT, of Morro Bay, California, who had been considered the oldest US ham when he died on January 17, just a couple of weeks shy of his 108th birthday.

In 2015, the Quarter Century Wireless Association (QCWA) honored Hellman with a "90 Year Continuous Licensed Certificate Award" (No 1). At the time, the QCWA had thought Hellman was the oldest living radio amateur, but announcement of his QCWA honor served to flush out Wolf, who, while not licensed as long as Hellman, was 1 year older. No formal records are kept regarding the oldest or youngest US hams. Hellman joined QCWA in 1975 and was a member of QCWA Chapter 181 in New York's Hudson Valley. He had been regularly active on the air until a few years before his death, when his backyard tower fell victim to Hurricane Sandy.

First licensed as W2AMK in 1925 when he was 15, Hellman, who had been an ARRL member, went on to become an educator. After working his way through the City College of New York, he taught physics on the secondary level. During World War II, Hellman was tapped by the Department of War to write a textbook for training radio operators, *Elements of Radio*. Two of Hellman's siblings also held ham tickets. His brother Robert, now deceased, was W2JAN. His brother Benjamin, 96, is W2VB.

QCWA came upon the information regarding Hellman's age and Amateur Radio tenure when QCWA Webmaster Bob Roske, N0UF, was updating member files. Roske discovered that Hellman was still living in New York and appeared to be the oldest living QCWA member. - *Thanks to Pete Varounis, NL7XM, and Charles Tropp, N2SO*

New Digital Modes Gain Traction for Moonbounce, but Occasionally Show Up on HF

In December, Joe Taylor, K1JT, released the latest version (1.7) of his *WSJT-X* software suite, designed to facilitate basic Amateur Radio communication using very weak signals (*WSJT* stands for "Weak Signal communication by K1JT"). Version 1.7 included the new modes *MSK144* and *QRA64*, as well as *ISCAT* (ionospheric scatter). *MSK144* and *QRA64* (and *QRA64A*) are finding a home within the VHF Earth-Moon-Earth (EME, or moonbounce) and meteor-scatter communities, but *QRA64A* signals also have turned up on 160 meters, which poses its own challenges to weak signals.

"*QRA64A* QSOs are being made nightly on 160 meters, of all places, and *QRA64* activity on 2-meter EME is becoming significant, especially on weekends," Taylor remarked in a January 9 update posted to the Moon-Net reflector, pointing out that *QRA64* is decoding signals down to about –28 dB signal-to-noise.

But Taylor does not advise a wholesale shift to the use of *QRA64* on the HF bands - at least just yet. "It's okay to play with and test *QRA64* at HF, if you wish," he commented recently on the WSJT Development discussion group. "Some of our earliest tests of the mode were done on the 20-meter and 30-meter bands." He suggested, though, that HF operators stick with *JT65*, "not least because, at present, we have included no 'multi-decode' capability for the *QRA64* decoder. It's made to decode just one signal in the passband."

In the *WSJT-X* Version 1.7 User Guide, Taylor pointed out *QRA64*'s several advantages over *JT65*, including better performance on the very weakest signals. "We imagine that, over time, it may replace *JT65* for EME use," he wrote. "*JT9* was originally designed for the LF, MF, and lower HF bands. Its submode *JT9A* is 2 dB more sensitive than *JT65*, while using less than 10% of the bandwidth."

Taylor told ARRL that he expects *JT65* and *JT9* to remain the preferred modes for making "minimal QSOs" at HF for some years to come. "*QRA64* is 1-3 dB more sensitive than *JT65* or *JT9*; this is important for EME, but much less so at HF, because one can usually run 20 W instead of 10 W, when the going gets rough."

These modes use 1-minute timed sequences of alternating transmission and reception, so a basic contact can take up to 6 minutes - two or three transmissions by

each station, one transmitting on odd UTC minutes and the other on even.

Taylor said that *MSK144* "is quickly becoming *the* mode for meteor scatter," at least in North America and Europe. "Unlike *FSK441* - the older standard mode for meteor scatter - *MSK144* uses strong error correction and *JT65*-like messages. Messages are displayed in complete form or not at all, and false decodes are rare. Last week, we introduced an 'SWL' feature that allows decoding of *MSK144* 'Sh' (short) messages directed to someone other than yourself." (ARRL News)

NOT-SO-POETIC LICENSE

ANCHOR/PAUL: We end this newscast with a story about how the FCC is bringing Novice call signs back. Well.....yes and no. Amateur Radio Newsline's Don Wilbanks AE5DW tells us what's really going on.

DON: When is a Novice call sign not a Novice call sign? The answer is simple: When it's not! There are no more Novice licenses being granted but don't think for a moment that this doesn't mean the old call signs have gone away — because they haven't. In fact, they're starting to turn up again. Just ask Brandi Frame, KN4AFW, who was among those to get one of them last month. According to callsign historian Pete Varounis NL7XM, this freshly minted Technician doesn't exactly have a freshly minted callsign: it was first assigned 62 years ago to a 15-year-old boy named Chase P. Hearn in Raleigh, North Carolina.

So what's going on here? The FCC hasn't gone retro or nostalgic, it's just issuing callsigns sequentially, as it always has. District 4, where Brandi lives, simply exhausted its supply of "KMs" and by the time she and the others took their test, the FCC had moved on to the sequence of "KN" callsigns. Sure, this has caused some oldtimers to do a doubletake — one of them was Brandi's husband Andrew Frame WD4RCC, who remembers the old Novice Class — but as Pete points out, "KN" assignments are going to become increasingly commonplace as other districts exhaust their "KM" licenses too.

By the way said Pete, the original Novice license-holder, Chase, is still on the air - operating now from Virginia - and his callsign of K4AFW is simply an upgrade of the 1954 callsign now assigned to Brandi. Everything old is new again! (Amateur Radio Newsline)

TRY DRINKING IN THESE RADIO FREQUENCIES!

STEPHEN: Our final story is about something other than radio that is making waves — big waves. We hear again from Amateur Radio Newsline's John Williams, VK4JJW.

JOHN: Weird and Wonderful! A new health food fad here on the shelves in Australia is water infused with the frequency of the moon! What a marketing spiel to attract consumers! Seems that spring water from an aquifer in remote VK4 is put through a two-stage kinetic energy process and infused at 210.42 Hertz, the frequency of The Moon! The result is that individual molecules in the water are enlivened to produce a remarkable soft and ultra-hydrating taste, feel and effect. The product claims to be an outstanding value and offers the most dynamic beverage in the universe.

However, health and dietician experts disagree, describing the marketing hype as "fanciful in the extreme," but would attract high marks as a first-year marketing assignment. But wait - there's more!!! Love in a bottle! After sourcing this precious water from the protected aquifer in remote northern Queensland, it is put through a two-stage kinetic energy process and infused at a new frequency: 528 Hertz, the frequency of love! Truly a weird and wonderful story worth bottling. I'm John VK4JJW. (WIRELESS INSTITUTE OF AUSTRALIA)

USING CODE IN A FLASH

NEIL/ANCHOR: It wasn't a straight key, or even a bug, but a flashlight - also known as a torch - that helped rescue an injured Army reservist recently when he was visiting Seatown in Dorset in the UK. Amateur Radio Newsline's Jeremy Boot G4NJH has that story.

JEREMY: Sgt. Tim Robinson broke his leg after slipping on some seaweed during a walk on the Jurassic Coast, east of Lyme Regis. Without a mobile phone, he could not telephone for help. According to some media accounts, he crawled and staggered in the direction of his hotel for about two hours. As darkness crept in, however, the injured reservist realized he still had one reliable means of communication - his pocket flashlight. He signaled "SOS" in Morse Code in the direction of the hotel where the Derbyshire couple were staying more than a mile away. He had hoped that's where his wife Paula would be looking for him.

He repeated the Code message three more times. His wife, who was at a car park, followed the signals and responded. The couple exchanged signals five more times until she located him. After she summoned help, a lifeboat

transported him to Lyme Regis and he was transferred there to a hospital. He later told his rescuers “I’ve had two tours of Afghanistan and one in Iraq and there were a few incidents over there, but nothing quite as dramatic as what happened on this beach”. (Amateur Radio Newsline)

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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.

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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 contributers 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.