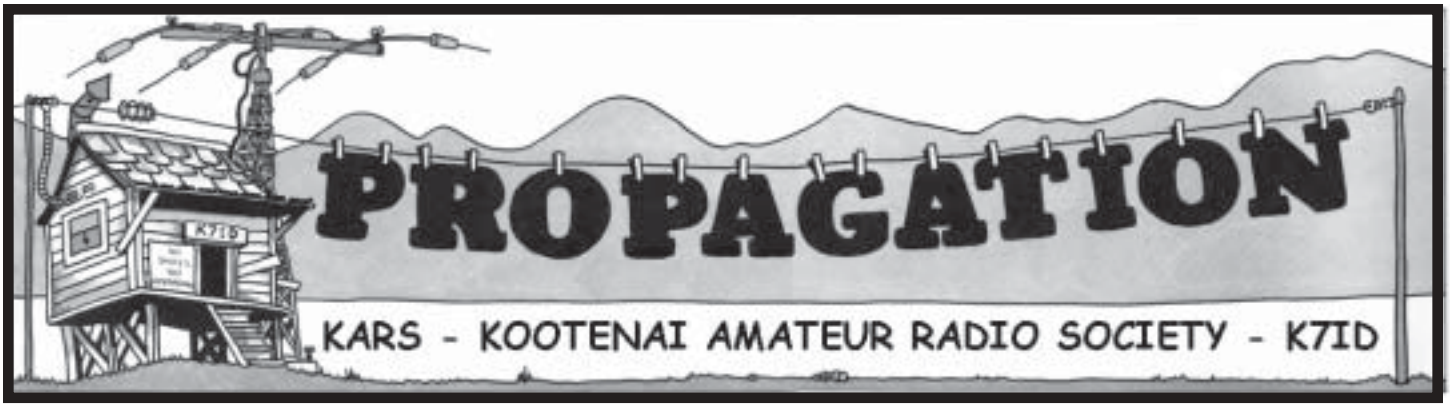

December 2016 (www.k7id.org) P.O. Box 1765 Hayden, ID 83835-1765

REGULAR CLUB MEETINGS:

Monday, Dec 12, 6:30 p.m.
Shriner's Event Center
1250 W Lancaster Ave.
Hayden, Idaho
Topic: Christmas Potluck
Presenter: Everyone
Refreshments: Everyone

VE Testing
Monday, Dec 12, 5:30 p.m.
1250 W. Lancaster Ave.
Hayden, Idaho

Monday, Jan 9, 6:30 p.m.
Search & Rescue Bldg.
10865 N. Ramsey Rd
Hayden, Idaho
Topic: Off-Grid Hamming
Presenter: Dave Boss, KF7YWR
Refreshments: ???

VE Testing
Monday, Jan. 9, 5:30 p.m.
10865 N. Ramsey Rd.
Hayden, Idaho

Upcoming Events

Winter Field Day
Jan 28-29 1100Pac-1100Pac

Mike & Key Hamfest
March 7, 2017
Puyallup, WA

Letter From the President
Dave Boss KF7YWR
December 2016
boss@infinityusers.com
208.290.8590

Well, here we are at the end of another year. Snow on its way and cold weather here and the list of projects wished for at the Boss QTH still pretty much intact. I have managed to acquire some new-to- me equipment and supplies for said projects but it looks like next spring will be the earliest possible date to put in foundations for towers as the frost has already set in. Digging at the Boss acreage is a challenge even for a post hole, let alone large holes for concrete foundations. We grow boulders and rocks here, most any time I have put in foundations for decks, the barn or any outbuilding the task requires a post hole digger, a pick, a rock bar and probably a chain and come along to get the large obstructions (rocks) out of the potential hole. Adding frost to the mix is a guaranteed deal breaker. Besides spring can't be too far off, can it?

As a club we have had a few accomplishments this year, first communications for the World Jet Boat Races was a real success. A challenging race course to start with and radio silence along much of the course on our initial recon made us put on our thinking caps and with the help of several repeaters and the Club's Mica site repeater we ended up with total coverage over the 31 mile course. We had a great turnout of volunteers for the midweek race and thoroughly impressed the race promoters with our professional service and abilities.

A second repeater went up on Mica giving the club digital capabilities. The Yaesu repeater that was graciously donated by Dan Croskrey, NV2Z, last December and installed this November. This was not what I would call a tight schedule, but when it comes to donated time, equipment and trying to arrange several bodies to be in the same place, at the same time, with all the right bits gathered together not to mention the fact that the mountain is inaccessible for apportion of the year. A repeater install in under a year on KARS time is not too bad! Is it?

The most difficult part of the year came in stages as we lost our friends and loved ones along the year. We lost our friend Jack McElroy,K7JMC, who retired his key earlier this year, Marguerite Telles long time wife of Larry, K6SPP, became a silent XYL, and last in the list was our friend Ted Graff, K7TED. The most difficult part of having friends is losing them.

Chistmas Party at the Shriners - Dec 12 with Elections
Starts 6:30 ish Potluck, $10 gift for exchange and don't forget your ugly sweater

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Kootenai Amateur Radio Society
November 2016 Meeting Minutes

The meeting was called to order at 7:05pm by Club President Dave Boss (KF7YWR). The Pledge of Allegiance was led by Quint Webb (W7CQW).

Volunteer Examination Testing: 4 individuals tested with 4 achieving passing scores.

Curtis Hammond	Passed the Technician, KI7ISQ
Jeff Cuneo	Passed the Technician, KI7ISS
Vince Sportato	Passed the Technician, KI7ISR
Shawn Goughnour	Passed the Technician, KI7ISP

Club Treasurer's Report:

October - Checking $4,624.67, Savings $2,026.17, Petty Cash $95.69, Total $6,746.43.

Monthly Income: Savings $0.05, 50/50 Raffle $8.50, Membership $114.00 (Total $122.55).

Monthly Expenses: Raffle Ticket – Office Max $9.00, Canopy – Boat Races – Walmart $49.70 (Total $58.70).

Motion was made by Mike Slothower (KG7KSJ) to approve the Treasurer's Report as read; the motion was seconded and passed by member vote.

Honor mentioned to all Military Veterans.

January 2017 Meeting Presentation Topic will be: "Off-Grid Hamming" Presented by Club President, Dave Boss.

Meeting Minutes: Motion was made by Lenny Gemar, N7MOT, to approve the October meeting minutes, seconded and passed by member vote.

Club Business:

Yaesu System Fusion Repeater – The Fusion repeater for Idaho Mica Peak has been installed and operational on the mountain. The repeater is functioning in Automatic Mode so it will pass both analog and digital fusion traffic. The repeater can be access on 443.275 (+) 136.5 Hz.

Christmas Party:

The KARS Christmas Party will be held at the Coeur d'Alene Shriner's Club. The party will be December 12th at 6pm. As usual the event will bring a pot-luck event, so please bring a main dish, side dish or dessert to pass. Lindy Bryant (KE0AZD) is working to organize a $10 White Elephant Gift Exchange.

2017 KARS Board Nominations:

Quint Webb (W7CQW) contacted the Nomination Committee and requested to be considered for the Secretary position following the September meeting. Jim Peterson made a motion at the November meeting to nominate Quint for the Secretary position, the motion was seconded and passed by member vote.

Our 2017 Board Member Nominations:

President	Dave Boss, KF7YWR
Vice-President	Lindy Bryant, KE0AZD
Executive Director	Lenny Gemar, N7MOT
Treasurer	Rod Anderson, K7ZBE
Secretary	Adam Crippen, N7ISP
	Quint Webb, W7CQW

Voting will occur at the December Christmas Party for the Secretary position. Please plan to attend to cast your vote.

Raffle Results:

50/50	$8.00	KE7DFT Allan Campbell (claimed)
Member	$16.00	N7MOT Lenny Gemar (claimed)

Allan Campbell (KE7DFT), Lenny Gemar (N7MOT), Adam Crippen (N7ISP), and some others made the motion to adjourn the meeting at 8:47pm, the motion was seconded and passed by member vote and meeting was adjourned.

Essay Contest for Young Hams

JIM: There's another event geared toward enthusiastic youngsters - an essay contest! - as we hear from Amateur Radio Newsline's Heather Embee, KB3TZD:

HEATHER: In 500 words or less, can you sum up your feelings about amateur radio - what it means to you and what your hopes are for your future on the air? If you are between 12 and 18 years of age, a resident of one of the 48 contiguous United States and are licensed as a Technician or at a higher level, it might just pay to put some of your thoughts on paper. The Dave Kalter Youth DX Adventure is running an essay contest for a complete ham station and the youngster whose words capture the judges' attention most will end up with a nicely equipped shack. The prize includes an Alinco SR8T HF, a 12 V, 30 A power supply (Jetstream or equivalent), vertical antenna (Jetstream JTV680 or equivalent), and 100 feet of coax feed line fitted with PL-259 connectors. The cofounders of the DX Youth Adventure and this year's raffle winner Paul Ewing N6PSE are the generous donors behind this competition. There's bound to be a pile-up, so act fast: Postal mail entries or email entries should either be postmarked or electronically dated by midnight of December 23.

For rules and an entry form visit qsl.net/n6jrl. Winners will be announced by January 31. (DAVE KALTER MEMORIAL YOUTH DX ADVENTURE) (Amateur Radio Newsline).

Amateur Radio "Uniquely Situated" to be at Leading Edge Again, Conferees Told

The dawn of so-called "smart" - or cognitive - radio has presented Amateur Radio with an opportunity to regain the leading edge in radio technology in the near future. It will also alter our view of spectrum as a limited resource. Those points and others were part of a forward-looking, tag-team Sunday Seminar presentation, "Spectrum (It's the frequency crunch for real)," by Michelle Thompson, W5NYV, and Bob McGwier, N4HY, at the 2016 ARRL and TAPR Digital Communications Conference (DCC), September 16-18 in St. Petersburg, Florida. Thompson heads the AMSAT Ground Terminal Team, a component of the Phase 4B geosynchronous satellite project. McGwier is chief scientist at the Hume Center for National Security and Technology at Virginia Tech. This week, *HamRadioNow* made the entire 3-hour presentation available as part of its conference coverage: HamRadioNow Episode 276 Parts 1, 2, and 3.

"If you put the smarts in the radio, what can possibly go wrong?" quipped Thompson, pointing to an example that demonstrated how sufficiently complicated technology is also more likely to fail.

Thompson said cognitive radio technology will alter the paradigm of treating spectrum as if it were land. "Spectrum is immediately reusable," she said, "and land is not." Regulation and spectrum allocation have been necessary to manage interference among services, but smart radios can avoid collisions among users, she said.

"[I]t hasn't been until fairly recently that we've been able to inexpensively and quickly reconfigure a radio," she said. Thompson's Phase 4B project will take maximum advantage of cognitive radio technology, which can - among other things - determine an optimal clear frequency, mode, and path on the fly, transparently, and without human intervention.

McGwier called the computer "the tidal wave that has swept over Amateur Radio." And, he predicted, "It is going to bring us back to becoming technical innovators." He said radio amateurs "are uniquely situated to be the leading edge in radio again."

McGwier said the innovation needed in Amateur Radio will come about through what he called "Amateur Radio freedom," that encourages experimentation and thinking outside the box. "It's the ultimate democratic assignment of frequencies in the world," he said.

He painted a picture of intelligent radio technology that will operate like the human brain. "It's going to design the

radio on the fly, from scratch, without a subject-matter expert involved," he said. "The radio will be done by artificial intelligence, from beginning to end. The object becomes not the radio, but the activity it allows."

Responding to a question, McGwier conceded that today's hams may balk at this sort of paradigm shift, since it's far removed from how most Amateur Radio communication takes place today. But he said embracing smart radio technology is what will attract a younger generation of new hams.

"We need to not limit what these kids can do with Amateur Radio," he maintained. "They are going to outdo us, if we only allow them. We can't limit them, because this is a fundamental paradigm shift."

Predicted McGwier: "You will not recognize your world in 10 years." The *HamRadioNow* presentation also is available in audio format, and a highly condensed 11-minute synopsis is available on YouTube. - *Thanks to Gary Pearce, KN4AQ*/HamRadioNow

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ARRL Issues Urgent Last Call to Press for Senate Passage of Amateur Radio Parity Act

It's now down to the wire: ARRL has issued a last call for members to urge their US Senators to support the Amateur Radio Parity Act (H.R. 1301) when it comes up during the "lame duck" session of Congress that adjourns in a couple of weeks. The House of Representatives approved the bill in September, and the Senate must follow suit if the bill is to succeed. If it fails in the Senate, the entire process will have to be repeated in the new Congress. The legislation is now in the Senate in two forms - as H.R. 1301 and alternately in the packaged bill S. 253

"We are on our final push for the Amateur Radio Parity Act before Congress adjourns," said ARRL President Rick Roderick, K5UR. "The grassroots effort by the Amateur Radio community has been outstanding. Since September, over 110,000 emails have been sent to legislators in Congress. Thanks to everyone who has helped, but we can't stop now. Please, keep the e-mails coming and also work the phones down the stretch. Call your Senators! We are almost there. Let's get it done!"

ARRL Hudson Division Director Mike Lisenco, N2YBB, who chairs the ARRL Board's Legislative Advocacy Committee and has been heavily involved in efforts to move H.R. 1301 forward, echoed President Roderick's sentiments. He said the bill was just starting to build momentum in the Senate following its unanimous passage in the House, when Congress shut down for the 4 weeks prior to Election Day. He pointed out that H.R. 1301 has received broad support from both parties.

Lisenco had a special request of Florida radio amateurs. "Please write and call Sen. Bill Nelson and demand that he remove his hold on H.R. 1301 and support passage of this critical legislation."

Urging your US Senators' support is simple: Go to our Rally Congress page at, https://arrl.rallycongress.net/ctas/urge-us-senate-to-pass-amateur-radio-parity-act, enter your ZIP code, fill in your name and address, press enter, and e-mails will go directly to your Senators. Members may do this even if they have already contacted their US Senators for support.

There are no guarantees, Lisenco has pointed out. "In order to have a chance at overcoming political obstacles that have little or nothing to do with the legislation, we need our voices to be heard," he said. "And we need that input today!"

President Roderick urged members to "reach out one more time to your Senators today! Right away Right now!"

September's victory in the US House culminated many years of effort on ARRL's part to gain legislation that would enable radio amateurs living in deed-restricted communities to erect efficient outdoor antennas that support Amateur Radio communication. The measure calls on the FCC to amend its Part 97 rules "to prohibit the application to amateur stations of certain private land-use restrictions, and for other purposes."

While similar bills in past years gained some traction on Capitol Hill, it was not until the overwhelming grassroots support from the Amateur Radio community for H.R. 1301, and ARRL's relentless and strident efforts on Capitol Hill that this bill made it this far. (ARRL News)

IARU Region 1 Monitoring Service Reports an Apparent Success

The International Amateur Radio Union Region 1 (IARU-R1) Monitoring System (IARUMS) reports that the Russian military apparently responded positively to a complaint from German telecommunications authorities to eliminate an intruding signal on 20 meters. The Russian Navy "RDL" signal from Crimea had been transmitting on 14.180 MHz, using F1B at 50 baud and 200 Hz shift for several days. IARUMS said the transmissions were heard for the last time on October 31. IARU Region 1 includes Europe and Africa.

German telecommunication authorities have, so far, had less success in quelling the intrusion of Radio Eritrea (Voice of the Broad Masses) on 7.185 MHz, which Ethiopia is said to be jamming with broadband white noise. So far, Germany has filed two official complaints. IARUMS reports that 7.146.5 MHz and 7.175 MHz are still in use by Radio Eritrea. The jamming signal reported by the IARUMS is 20 kHz wide on each channel. The on-air conflict has been going on for years, and the interfering signals can be heard in North America after dark.

IARUMS Coordinator Wolf Hadel, DK2OM, said the Russian Over-the-Horizon radar (OTH) "Konteyner RLS" remains a problem on 40 and 20 meters, with lengthy transmissions, often with many spurious emissions. Hadel said the radar's transmissions interfered with participants in the Worked All Germany Contest in mid-October.

One apparently frustrated radio amateur in Germany "tried again to chase away Russian MIL FSK traffic on 80 and 40 meters by transmitting dashes on the mark or space frequency," the latest IARUMS newsletter reported. Hadel cautioned that such actions, even when aimed at intruding signals, are illegal. German telecommunications authorities were alerted. IARUMS also reported someone was transmitting empty *Stanag 4285* mode signals on 7 MHz, hunting and QRMing German contesters on October 29. That signal was also believed to be originating in Germany. The *Stanag 4285* modem is used for HF radio links between the NATO military bases.

IARUMS also reported an OTH radio on 10 meters, transmitting daily on 28.960 MHz covering about 50 kHz "with many spurious emissions." Strong F2 propagation has also made Brazilian CBers audible on 10 meters, running AM between 28.000 and 28.325 MHz. (ARRL News)

New Russian Arctic Over-the-Horizon Radars Set for 2017 Startup

According to media accounts, more long-range, new over-the-horizon (OTH) radars that can identify aerial and sea targets hundreds of miles away are scheduled to begin operation next year in the Russian Arctic. It's doubtful, however, that the news heralds the return of interference on the level of that generated by the so-called "Russian Woodpecker" OTH radar, which plagued Amateur Radio HF bands in the 1970s and 1980s.

Over the past couple of years, OTH radars, *sans* woodpecker, have become increasingly commonplace intruders on Amateur Radio bands, according to the International Amateur Radio Union Region 1 (IARU R1) Monitoring System (IARUMS), which has noted OTH radars in Russia, China, Cyprus, Iran, and Turkey. The frequency-hopping nature of the technology accounts for the annoying interference that covers wide swaths of spectrum. The Russian systems-intelligence "Konteyner RLS" OTH radar, transmitting from in the Nizhny Novgorod region, is frequently spotted on 20 meters. While no woodpecker, it transmits a broad, frequency-modulated CW signal at 50 sweeps per second with a bandwidth of 80 kHz or greater, accompanied by signal splatter, IARUMS Coordinator Wolfgang Hadel, DK2OM, reported recently.

Sputnik, a Russian government-controlled radio service, cited a *Rossiiskaya Gazeta* newspaper report that six OTH radar installations will operate in the region. Deputy Defense Minister Dmitry Buklgakov, who visited the construction site, said a runway capable of handling all types of combat aircraft was simultaneously being reconstructed nearby, the report continued. Other reports have indicated that similar systems will be deployed in the

Far East in 2018. Russia has sold its OTH radar technology to China.

OTH radars employ widely separated (250 kilometers) transmitting and receiving sites and can "see" beyond the horizon, the typical limit for ordinary radar. The transmitting array is 440 meters wide, and it incorporates 36 elements of varying configuration. The three-section receiving array is 1300 meters wide and 35 meters tall. - *Thanks for news tip to Frank Smith, WS1MH* (ARRL News)

Rare Polar Openings Reported on 630 Meters

John Langridge, KB5NJD/WG2XIQ, reports that "extremely rare polar openings" have been occurring the past three nights on 630 meters between a number of North American stations and Rolf Torvik, LA2XPA, in Norway.

"This path is straight through the auroral oval, and quiet geomagnetic conditions have allowed signals to traverse the polar regions," Langridge told ARRL. He said LA2XPA has "an amazing station on an isolated island and is using 500- to 700-meter long Beverages. It's quite remarkable."

He said these openings also appear to be happening on 160 meters to a lesser extent, "based on a number of reports."

While Amateur Radio does not yet have access to 630 meters in the US, several enthusiasts of the nether regions, such as Langridge, have FCC Part 5 Experimental licenses or are part of the ARRL 600 Meter Experiment (WD2XSH). Langridge has been chronicling the activity on his blog. (ARRL News)

Transatlantic Reception Anniversary Special Event Set for December 11

An Amateur Radio special event on December 11 will commemorate the 95th anniversary of the first transatlantic shortwave reception between Greenwich, Connecticut, and Scotland. A school near the original site is hosting the event. ARRL, the Radio Society of Great Britain (RSGB), and the Radio Club of America (RCA), are partnering in sponsoring the activity. The Greenwich Historical Society will also participate.

On December 11, 1921, reception in Ardrossan, Scotland, of a radio signal transmitted from an RCA test station - located in a small shack on the property of Minton Cronkhite, 1BCG, on the corner of Clapboard Ridge Road and North Street in Greenwich - helped to usher in the age of global communication. The special event will use N1BCG, the call sign of Clark Burgard of Greenwich, who obtained that call sign to commemorate this bit of radio history. Burgard was instrumental in making arrangements for the event.

The N1BCG special event will begin on Sunday, December 11, at 1200 and conclude at 0300 UTC on December 12. It will include an attempt at a two-way contact between N1BCG and GB2ZE, operated by Jason O'Neill, GM7VSB, in Ardrossan.

On the morning of December 10, CW signals of 1BCG, which had been designed and constructed by Radio Club of America members - were solidly copied on 230 to 235 meters (about 1.3 MHz). They were the only signals heard that morning in Ardrossan. By the end of the test, eight spark and 18 CW stations had been heard as well. N1BCG operation will be on AM on 75 and 40 meters; CW and SSB on 40 meters, CW on 30 meters, and CW and SSB on 20 and 17 meters.

Approximate frequencies are 3.880 (AM), 7.290 (AM), 7.235 (SSB), 7040 (CW), 10.112 (CW), 14.280 (SSB), 14.040 (CW), 18.125 (SSB), and 18.088 MHz CW. (ARRL News)

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.