

April 2019

([www.k7id.org](http://www.k7id.org))

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

April 2019 QRM from the President

## REGULAR CLUB MEETINGS:

**Monday, Apr 8, 7:00 p.m.**  
Search & Rescue Bldg  
10865 N Ramsey Rd.  
Hayden, Idaho  
**Topic: Member Show & Tell**  
**Presenter:**  
**Refreshments: ???**

**VE Testing**  
**Monday, Apr 8, 5:30 p.m.**  
10865 N Ramsey Rd.  
Hayden, Idaho

**Monday, May 13, 7:00 p.m.**  
Search & Rescue Bldg  
10865 N Ramsey Rd.  
Hayden, Idaho  
**Topic:**  
**Presenters:**  
**Refreshments:**

**VE Testing**  
**Monday, May 13, 5:30 a.m.**  
Search & Rescue Bldg  
10865 N Ramsey Rd.  
Hayden, Idaho

**Upcoming Events**

I heard a funny story on the radio this morning. It involved a homeowner's reaction to his neighbor's incessant dog barking. It reminded me of my dad in a similar situation years ago. Struggling with cancer, my dad needed his rest. The neighbor directly behind was raising dachshunds (doxunds...wiener dogs) and had a large litter about 6 weeks old in his backyard. They were yapping and barking 24/7. My mom went back to talk to the owner and received a less-than-friendly comment on his inability to stop the noise. It didn't bother him and he invited her to just put up with it until the pups were sold.

My dad, an avid ham, thought about it and put his audio oscillator and amplifier with speaker in the open window facing the neighbor. He dialed in a 25KHz tone, above human hearing, to that little piezo speaker, cranked it up and they left for the 3-day weekend to Lake Tahoe for some rest.

When they returned ... the dogs were gone. All quiet in the neighborhood. Mom went back to the neighbor commenting that it was so quiet now ... what happened to the dogs, did he sell them all? He said, "It was the strangest thing! They all went crazy ... howling and shrieking and running for cover into his garage. We could not sleep a wink all weekend for the racket!" He took them to his kids or somewhere else and the dogs all calmed down.

The moral is, don't mess with hams...they know stuff about radios and dogs!!!

Please come to our next KARS meeting Monday, April 8. We have a great time and even talk about radio once in a while! We will have a KARS HamFest Update and... Little Blacktail Repeater update...all good news! I look forward to meeting you.

Lenny and Claire Gemar will be in attendance at this April 8

meeting. This will be the last meeting before they move to the Philippines just a few days later. Please come and give them a North Idaho farewell as they begin a new chapter in both of their lives! We miss them already!

Frank Krug, KD7FK  
president@K7ID.org

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Delayed, but not forgotten! (ed.)

#### January 2019 Meeting Minutes

The January 14, 2019 KARS meeting was held at the Search & Rescue Building located at 10865 N Ramsey Rd. Hayden, Idaho.

The meeting was called to order at 7:01 pm by Club President Frank Krug (KD7FK). The Pledge of Allegiance was led by Dan Latuseck(KD2AN). Attendance: Forty-eight people were in attendance. Minutes: The minutes for the December 10, 2018 were read by Lenny Gemar (N7MOT). Lenny Gemar moved to accept the minutes as written; Lindy Bryant (KE0AZD) seconded; the motion passed by member vote. The Treasurer's Report was given by Rod Anderson (K7ZBE):

#### November 2018

Checking \$ 464.65  
Savings \$1,152.48  
Petty Cash \$ 83.56  
TOTAL \$1,700.69

Income: Savings interest (\$0.03), 50/50 Raffle (\$7.00), Memberships (\$180.00), Donation (\$25.00).

Expenses: Cash Advance-Christmas Party (\$125.00), Mica Peak Lease (\$300.00)

#### December 2018

Checking \$ 334.18  
Savings \$ 1,177.51  
Petty Cash \$ 83.56  
TOTAL \$1,595.25

Income: Savings interest (\$0.03), Memberships (\$15.00)

Expenses: Rathdrum Senior Center-Christmas Party (\$100.00), Rathdrum Super 1 - Christmas party drinks (\$20.47)

Frank Krug (KD7FK) introduced the new board members:

President: Frank Krug, KD7FK  
Vice President: Jerry Hart, W7KR

Executive Director: Tom Macy, W7UAT

Treasurer: Rod Anderson, K7ZBE

Secretary: Chad Taylor, K0KAD

K7ID Canned Ham Video: The video featured Mike Slothower (KG7KSJ) and his radio shack.

#### Old Business

Repeater Report: Lenny Gemar (N7MOT) discussed the interference issue with the Little Blacktail repeater and stated that the repeater has been disabled until the issue is resolved.

#### New Business

Hamfest: Frank Krug (KD7FK) stated that there have been issues with locating a place to have Hamfest this year and to be on the lookout for a location.

Field Day: Rod Anderson (K7ZBE ) reported that there have been discussions with Rathdrum Parks & Recreation about having Field Day at Majestic Park this year. Lenny Gemar (N7MOT) moved to accept the new business; Bob Kesson (K7CGA) seconded; the motion passed by member vote.

Evening Presentation: Mike Slothower (KG7KSJ) and Mike Glauser (AI7MG) gave a presentation on digital modes.

Raffle Results: 50/50, \$6.00, Mike Slothower, KG7KSJ (claimed) Membership, (not claimed)

Tom Macy (W7UAT) moved to adjourn; Adam Crippen (N7ISP) seconded. The motion passed by member vote and the meeting was adjourned at 8:43 pm.

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#### March 2019 Meeting Minutes

The March 11, 2019 KARS meeting was held at the Search & Rescue Building located at 10865 N Ramsey Rd. Hayden, Idaho. The meeting was called to order at 7:00 pm by Club President Frank Krug (KD7FK). The Pledge of Allegiance was led by Frank Krug (KD7FK). Guests and first time visitors were given an opportunity to introduce themselves. Attendance: Twenty-six (26) members and thirteen (13) visitors were in attendance. VE Testing: Two people tested and the results were as follows: Passed Technician 2

Membership: Frank Krug (KD7FK) encouraged membership in the KARS club and meeting attendance.

January 2019 Meeting Minutes: The minutes for the January 14, 2019 meeting were not available for the February 11, 2019 meeting but are now available. Frank Krug (KD7FK) asked whether the meeting attendees would like to have the January 2019 minutes read or publish them in the monthly newsletter. The general feeling

at the meeting was to publish the January 2019 minutes in the newsletter.

The Treasurer's Report was given by Rod Anderson (K7ZBE):

February 2019

Checking \$ 847.27

Savings \$ 1,227.57

Petty Cash \$ 83.56

TOTAL \$2,158.40

Income: Savings interest (\$0.03), 50/50 Raffle (\$5.00), Donation (\$5.00), Memberships (\$103.00). Total \$113.03.

Expenses: North Idaho Trophy – Life Member name tags (\$24.91) Jim Petersen (AD0AZ) moved to accept the Treasurer's report; Lenny Gemar (N7MOT) seconded; the motion passed by member vote. Rod Anderson (K7ZBE) announced there are three expenses coming up: 1) KARS Club PO Box: \$118.00/yr. Bob Kesson (K7CGA) moved to authorize the Treasurer to pay the bill for the PO Box; Gary Roth (KE7IAT) seconded; the motion passed by member vote. 2) KARS Club Insurance: Lindy Bryant moved to pay the KARS Club insurance; Jerry Hart (W7KR) seconded; the motion passed by member vote. 3) North Idaho Fair: The cost for a booth at the North Idaho Fair is \$350.00 and the KARS Club usually buys extra tickets at \$100 for those who will be working in the booth. Roy Hope (KG7AAR) moved that the KARS Club participate in the North Idaho Fair this year; Christopher Nordstrom (W7CFN) seconded; the motion passed by member vote. Silent Key: Frank Krug (KD7FK) announced the passing of Rick Van Landingham (KI7I). Bob Kesson (K7CGA) gave details on the viewing and funeral.

## OLD BUSINESS

Repeater Report: Frank Krug (KD7FK) reported that a frequency and tone have been identified for the Little Blacktail repeater but the paperwork has not been finalized yet. The repeater will be re-installed as soon as the paperwork has been finalized and weather permits.

Hamfest: A location for Hamfest has not yet been identified. Frank Krug (KD7FK) asked that if anyone has an idea for a location to let him know.

Field Day: Frank Krug (KD7FK) announced that field day will be held June 22-23 at Majestic Park in Rathdrum.

## SPECIAL EVENT

Lenny Gemar (N7MOT) was honored for his many years of service to the KARS Club.

## NEW BUSINESS

Frank Krug (KD7FK) announced that Chad Taylor (K0KAD) is unable to fulfill the duties of KARS Club secretary. The KARS Club executive board met and unanimously agreed to replace Chad with Sheila Waller (KG7SAA) to finish the remainder of Chad's term.

February 2019 Meeting Minutes: The February 2019 meeting minutes were published in the monthly newsletter. Bob Kesson (K7CGA) moved to accept the February minutes; Martin Waller (KG7LRV) seconded; the motion passed by member vote.

Jerry Hart (W7KR) announced that the evening presentation for the April 2019 meeting would be a show-and-tell format with member participation. Equipment, experiences, and contacts were suggested topics to share. Several hams volunteered to participate.

Evening Presentation: Lenny Gemar (N7MOT) presented on the KARS Club linked repeater system.

Raffle Results: The raffle was not held this evening.

Gary Roth (KE7IAT) moved to adjourn; Bob Kesson (K7CGA) seconded. The motion passed by member vote and the meeting was adjourned at 9:05 pm.

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## Some Stormy Seas for Competitive Sailors Using HF Amateur Radio

The sorts of rules regulating the degree of outside assistance allowed in ham radio contesting also apply in other endeavors. An Estonian skipper was recently penalized in the Golden Globe Race (GGR) after seeking "weather routing" - the best route according to wind and weather conditions - via ham radio. The apparent third-place skipper Uku Randmaa, ES1UKU, [escaped disqualification](#) from the round-the-world race, however, getting a 72-hour penalty instead. As of March 4, he had 630 miles to go. He'll serve most of his time penalty after he finishes the race.

A recording of the conversation was provided to race headquarters on February 19. In it, Randmaa asks, "I'm heading 90°. Can I be sure that I can take the wind, if I'm sailing east?" The other station, VP8LP, advises him to move northwest and later tells Randmaa, "The more north you go, the quicker you get out of the wind hole."

Race rules say, "Entrants are free to speak to media, family, friends, and sponsors by radio at any time during

the event, but must not be given any form of weather routing. Competitors may communicate freely (by radio or by hailing) with other competitors, or other mariners on vessels at sea, requesting or giving any verbal information/advice whatsoever, even if this is considered weather routing.”

The approximately 30,000-mile GGR solo circumnavigation starts and ends in Les Sables-d’Olonne, France. It has four rendezvous gates along the way.

“This is a retro race with skippers restricted to using a sextant, paper charts, and wind-up chronometers, just as Sir Robin Knox-Johnston used in the first *Sunday Times* Golden Globe Race 50 years ago,” Race Chairman Don McIntyre explained to *My Sailing* magazine. Skippers can only communicate by marine and/or amateur SSB HF radios and on an Amateur Radio net.

Meanwhile, according to a January [report](#), some GGR sailors have been operating on Amateur Radio frequencies using phony call signs and have been asked to stop operating. One of them, second-place skipper Mark Slats - who was reported to have been using PI3MS - said on January 15 he was considering getting out of competitive sailing, citing safety concerns, after being banned from the ham radio net for being unlicensed. The GGR 2018 - 2019 winner, Jean Luc Van Den Heede, who finished on January 29, had been using J6LJV, and that call sign appears under his name on [QRZ.com](#), although authorities in St. Lucia are reported to have said they have no record of his license.

A January 15 announcement on the Golden Globe Race Facebook page said, “GGR requires all entrants to have a licensed marine HF SSB radio... and the entrant to have a Marine Radio Operator’s license only. GGR does monitor all strong weather with winds over 40 knots, and, if appropriate, provides both forecasting and routing information to assist the entrant to sail safely.” (ARRL News)

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## More Mentors Needed for New ARRL Emergency Communications Course Sessions

High interest in the recently announced updated ARRL Introduction to Emergency Communications (EC-001) course is prompting a call for additional class mentors to help meet the demand, which ARRL Lifelong Learning Manager Kris Bickell, K1BIC, says “exceeded our projections.” As Bickell explains, the course is designed to be interactive, with volunteer mentors guiding each session.

“We appreciate the work of the mentors to make EC-001 an interactive experience for the participants. The real-world emergency communications experience they bring to the course is very important to the learning process,” Bickell said. “We look forward to bringing in more mentors to help ARRL expand the reach of this valuable emergency communications training.” Bickell has developed a waiting list for prospective EC-001 students, who will be notified as additional sessions are scheduled.

The EC-001 course covers the broad range of radio communication technologies, communication techniques, and emergency management skills necessary in helping served agencies respond to and recover from disasters.

EC-001 mentors should be ARRL members and active, experienced General class or higher Amateur Radio licensees, and at least 18 years old. Mentors should have experience in public service communication and in Amateur Radio Emergency Service (ARES) activities and come with the recommendation of their Section Managers.

In addition to the EC-001 course, prospective mentors should have completed [ICS 100, 200, 700, and 800](#); the [FEMA Professional Development Series](#), and National Weather Service [SKYWARN®](#) training. Professional experience in emergency response or communication and as a trainer or educator is desirable, with interest or experience in distance learning. Candidates should possess sufficient computer skills, be able to interact with online-course students and with other mentors, and be able to maintain adequate computer equipment.

Appointment as an ARRL Field Instructor or as a mentor for the ARRL Public Service Communications training program is for 3 years, renewable based on satisfactory performance as an active instructor/mentor and the successful fulfillment of all current qualifications and requirements.

Field Instructors and mentors are expected to maintain their qualifications and adhere to all guidelines and standards of conduct for volunteers representing ARRL.

[Apply online](#) to become an ARRL mentor. For more information, contact ARRL Emergency Preparedness Assistant [Ken Bailey, K1FUG](#), (860) 594-0227.

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## ITU Strengthening Emergency Telecommunications in the Americas

In the aftermath of disasters, alternative telecommunication systems are often needed to fill in for systems that have been damaged or destroyed. The International Telecommunication Union (ITU) says its members consider emergency communication as a priority in the Americas and are working to upgrade capabilities in the region.

Last year, the ITU teamed up with the International Amateur Radio Union (IARU) and with regional telecommunications entities in the Americas to establish Winlink as an alternative emergency telecommunication system that relies on Amateur Radio. Operated and administered entirely by volunteer licensees, the worldwide email service - already popular with mariners - works over radio pathways and can operate completely without the internet.

Winlink already is well-known for its role in emergency and disaster relief communication, providing email with attachments, position reporting, weather reports, and information bulletins. The system was extensively used in the aftermath of the high-impact 2017 hurricane season in the Caribbean.

In early 2018, ITU started implementing the project using Winlink, with the cooperation of the IARU and the Federación Mexicana de Radio Experimentadores (FMRE), the IARU member-society in Mexico. ITU and FMRE worked in collaboration with [COMTELCA](#), the regional telecommunications technical commission for parts of Latin America, to define equipment specifications.

Governments have played an important role in project implementation. This was necessary for effective coordination among telecommunications authorities,

organizations responsible to respond to emergencies and radio-amateur associations.

In Costa Rica, the minister of Science, Technology, and Telecommunications, the Benemérito Firefighters Corps, and the Radio Club of Costa Rica established a project known as the Regional Emergency Alternate Telecommunications Network for the Americas to permit communication in the event of emergencies when traditional telecommunications fail.

“It is very important for the country to maintain systems and operational protocols 24 hours a day, 7 days a week, since you never know when an emergency is going to occur or when we are going to need this type of communication,” said Radio Club of Costa Rica President Hugo Soto, TI2HAS. “This equipment to be installed under Winlink allows permanent and unattended operation.”

Governments have also provided some equipment and carried out preliminary work to start operations. National partnerships were built among relevant entities, to procure the needed equipment, deliver training, and increase awareness of Winlink.

“The project has built and strengthened synergies among different entities at the national, regional, and international levels and helped highlight the role of Amateur Radio systems in disaster management,” the ITU said. - *Miguel Alcaine, Representative of the ITU Area Office in Tegucigalpa, Honduras; COMTELCA (ARRL News)*

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## Slow-Scan TV Transmissions from International Space Station Set for April 1 - 2

Cosmonauts on the International Space Station will transmit slow-scan television (SSTV) images on April 1 - 2 as part of its International [MAI-75](#) experiment, aimed at combining the efforts of universities and radio amateurs in Russia and the US to develop technology and technical tools that enable students to communicate and collaborate with cosmonauts and astronauts.

SSTV images will be transmitted on 145.800 MHz using a Kenwood TM-D710 transceiver. It's expected that images will be transmitted using the PD-120 SSTV

format. Transmissions are scheduled on both days from about 1400 to about 1900 UTC. Listen to the ISS when it is over Russia using the [R4UAB WebSDR](#) - *Thanks to R4UAB* (ARRL News)

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#### Radio Amateurs Aid Isolated Settler in Chile

Radio Club de Chile [reports](#) “a short story with a happy ending.” Don Martin, a settler living in an isolated location south of Cochrane - a town in Chile’s Capitán Prat Province - has a small government-issued radio that allows him to communicate locally. The set failed, however, and when an acquaintance learned of the problem, he contacted the Radio Club de Chile.

After some long-distance exchanges, club members were able to determine what was wrong and offered instructions on how to fix it. Their solution proved to be successful, and Martin was able to reestablish communication with Cochrane. He is reported happy and thankful to all who participated. - *Thanks to Radio Club de Chile* (ARRL News)

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#### ARES Helps Iowa Water Utility to Resolve RFI Issue

Des Moines (Iowa) Water Works (DMWW) uses secure radiotelemetry to monitor various remote-site parameters to alert staff to problems. Earlier this year, DMWW experienced periodic and sometimes total failure of the radio system. After no solution could be found, staff reached out to various resources, including the FCC. [Polk County ARES](#) also was brought in, and eight operators assembled to track down the interference, working the late shift.

After a process of elimination, the ARES volunteers pinpointed the interfering signal to defunct equipment atop a downtown Des Moines building. The team contacted the owner of the license associated with the equipment and got permission to disable it, and DMWW confirmed that the signal interference was gone. Collectively, the Polk County ARES volunteer team spent approximately 70 hours to assist DMWW. Following the experience, DMWW installed a more robust radio system with encryption and established stronger relationships with several entities that can assist if similar problems arise. - *Thanks to H2Oline and The ARES E-Letter*

#### Earth’s Magnetic North Pole Shifts toward Siberia

National Centers for Environmental Information (NCEI) scientists have updated the world magnetic model (WMM) mid-cycle, as Earth’s northern magnetic pole has begun shifting quickly away from the Canadian Arctic and toward Siberia, an [NCEI report](#) said this week. The new WMM more accurately represents the change of the magnetic field since 2015. The alteration could have an impact on government, industry, and consumer electronics.

“Due to unplanned variations in the Arctic region, scientists have released a new model to more accurately represent the change of the magnetic field,” the report said, noting that updated versions of the WMM are typically released every 5 years. This update comes about 1 year early.

“This out-of-cycle update before next year’s official release of WMM 2020 will ensure safe navigation for military applications, commercial airlines, search and rescue operations, and others operating around the North Pole,” said NCEI, which is part of the National Oceanographic and Atmospheric Administration (NOAA). “Organizations such as NASA, the Federal Aviation Administration, US Forest Service, and many more use this technology. The military uses the WMM for undersea and aircraft navigation, parachute deployment, and more.”

Other governmental entities use the technology for surveying and mapping, satellite/antenna tracking, and air traffic management. Smartphone and consumer electronics companies also rely on the WMM to provide consumers with accurate compass apps, maps, and GPS services.

Airport runways may be the most visible example of a navigation aid updated to match shifts in Earth’s magnetic field. Airports around the country use the data to give runways numerical names, which pilots refer to on the ground. The declination has changed slightly more than 2.5° over the past 2 decades or so. Compasses use declination - the difference between true north and where a compass points - to help correct navigation systems for a wide variety of uses.

As Earth's magnetic field evolves between the 5-year release schedule of the WMM, these predicted values can become off as the rate of change in Earth's magnetic field evolves due to unpredictable flows in Earth's core. The NCEI report said Earth's north polar region is experiencing one of these erratic changes.

DXer and Contester Frank Donovan, W3LPL, said the slowly drifting *geomagnetic* north pole has much greater significance to DXers and contesters because the northern auroral oval - which greatly affects HF propagation over the north Atlantic and north Pacific Oceans - is closely centered on the geomagnetic north pole and *not* on the magnetic - or dip - north pole discussed in the NCEI report.

"The geomagnetic north pole has been drifting generally northward at only about 3 miles per year," Donovan pointed out. "The location of the magnetic north pole is important to navigation but of relatively little importance to space-based phenomena such as HF ionospheric propagation." - *Thanks to NOAA-NCEI*

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Es'hail-2/P4A Satellite is Designated as Qatar-OSCAR 100 (QO-100)

AMSAT has now granted OSCAR status to 100 Amateur Radio satellites. The latest, Es'hail-2/P4A - now Qatar-OSCAR 100 (QO-100) - launched from Cape Canaveral, Florida, in November. It carries the first geosynchronous Amateur Radio payload. Es'hail-2/P4A was developed jointly by the Qatar Amateur Radio Society (QARS) and Es'hailSat (the Qatar Satellite Company), with AMSAT-DL as the technical lead. Now at its final position of 25.9° E and with the narrow and wideband transponders having been successfully tested in December, the transponders are expected to be opened for general use this month. "May the 100th OSCAR satellite be the guide star to future Amateur Radio satellites and payloads to geostationary orbit and beyond," invoked Drew Glasbrenner, KO4MA, AMSAT Director of VP Operations and OSCAR Number Administrator. - *Thanks to AMSAT News Service*

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FCC Invites Comments on ARRL Technician Enhancement Proposal

The FCC has invited public comments on ARRL's 2018 [Petition for Rule Making](#), now designated as RM-

11828, which asks the FCC to expand HF privileges for Technician licensees to include limited phone privileges on 75, 40, and 15 meters, plus RTTY and digital mode privileges on 80, 40, 15, and 10 meters. Interested parties have 30 days to comment. The Technician enhancement proposals stemmed from the recommendations of the ARRL Board of Directors' Entry-Level License Committee, which explored various initiatives and gauged member opinions in 2016 and 2017.

"This action will enhance the available license operating privileges in what has become the principal entry-level license class in the Amateur Service," ARRL said in its *Petition*. "It will attract more newcomers to Amateur Radio, it will result in increased retention of licensees who hold Technician Class licenses, and it will provide an improved incentive for entry-level licensees to increase technical self-training and pursue higher license class achievement and development of communications skills."

▪ Filing Comments

Those interested posting brief comments on the ARRL Technician Enhancement proposal (RM-11828) using the Electronic Comment Filing System (ECFS) should access [FCC Electronic Comment Filing System Express](#). In the "Proceeding(s)" field, enter the number of the PRM, i.e., RM-11828 (using this format), complete all required fields, and enter comments in the box provided. You may review your post before filing. All information you provide, including name and address, will be publicly available once you post your comment(s). For more information, visit "[How to Comment on FCC Proceedings](#)."

▪ Specifically, ARRL proposes to provide present and future Technicians with:

phone privileges at 3.900 to 4.000 MHz, 7.225 to 7.300 MHz, and 21.350 to 21.450 MHz.  
RTTY and digital privileges in current Technician allocations on 80, 40, 15, and 10 meters.

The ARRL petition points out the explosion in popularity of various digital modes over the past 2 decades. Under the ARRL plan, the maximum HF power level for Technician operators would remain at 200 W PEP. The few remaining Novice licensees would gain no new privileges under ARRL's proposal.

ARRL's petition points to the need for compelling incentives not only to become a radio amateur in the first place, but then to upgrade and further develop skills. Demographic and technological changes call for a "periodic rebalancing" between those two objectives, ARRL maintained in his proposal. The FCC has not assessed entry-level operating privileges since 2005.

The Entry-Level License Committee offered very specific data- and survey-supported findings about growth in Amateur Radio and its place in the advanced technological demographic, which includes individuals younger than 30. It received significant input from ARRL members via more than 8,000 survey responses. "The Committee's analysis noted that today, Amateur Radio exists among many more modes of communication than it did half a century ago, or even 20 years ago," ARRL said in its petition.

Now numbering some 384,500, Technician licensees comprise more than half of the US Amateur Radio population. ARRL stressed in its petition the urgency of making the license more attractive to newcomers, in part to improve upon science, technology, engineering, and mathematics (STEM) education, "that inescapably accompanies a healthy, growing Amateur Radio Service."

ARRL said its proposal is critical to develop improved operating skills, increasing emergency preparedness participation, improving technical self-training, and boosting overall growth in the Amateur Service, which has remained nearly inert at about 1% per year.

The Entry-Level License Committee determined that the current Technician class question pool already covers far more material than necessary for an entry-level exam to validate expanded privileges. ARRL told the FCC that it would continue to refine examination preparation and training materials aimed at STEM topics, increase outreach and recruitment, work with Amateur Radio clubs, and encourage educational institutions to utilize Amateur Radio in STEM and other experiential learning programs. (ARRL News)

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### HAARP Gearing Up for its Spring Research Campaign

Alaska's High-Frequency Active Auroral Research Program ([HAARP](#)) is prepping for its spring research program. The activity will run March 25 - 29. The high-power HF transmitter and huge antenna array located near Gakona, Alaska, now is operated by the University of Alaska Fairbanks (UAF). HAARP Chief Scientist Chris

Fallen, KL3WX, said investigations will range from practical to fundamental physical theory.

"Listen on shortwave between 2.7 and 10 MHz (most experiments will be less than 4 or 5 MHz given low daytime max foF2)," Fallen tweeted on March 13. "Tweet your reception [[@ctfallen](#)] and mention me or [@uafhaarp](#), so others can follow along!"

A "special broadcast" featuring Concordia University Assistant Professor of Intermedia Amanda Dawn Christie will be among the transmissions. Fallen said Christie "has a special one-hour piece to perform each evening of the campaign at different times." Currently those are scheduled to be 0030 - 0130 UTC on March 26; 0200 - 0300 UTC on March 27; 0800 - 0900 UTC on March 28, and 0600 - 0700 on March 29, subject to change.

Christie's [GHOSTS IN THE AIR GLOW](#) - ionospheric audio and image mixing with HAARP website offers more information.

Fallen said HAARP operations will generally occur at times within the windows between 2230 and 0300 UTC, and again between 0500 and 0900 UTC each day.

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**COFFEE & DONUTS**  
**EVERY THURSDAY MORNING**

8:00 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: \_\_\_\_\_

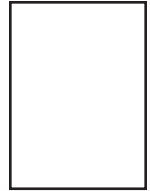
Name: \_\_\_\_\_ Call: \_\_\_\_\_ Class: \_\_\_\_\_

*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.

## **2019 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.