

November 2019

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

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

## REGULAR CLUB MEETINGS:

**Monday, Nov 11, 7:00 p.m.**  
**Search & Rescue Bldg**  
**10865 N Ramsey Rd.**  
**Hayden, Idaho**  
**Topic: North Idaho Repeater Group**  
**Presenter: Brandon Vetter, KB6UMY**

**VE Testing**  
**Monday, Nov 11, 5:30 p.m.**  
**10865 N Ramsey Rd.**  
**Hayden, Idaho**

**Monday, Dec 9, 6:00 p.m.**  
**Rathdrum Senior Center**  
**8037 W Montana Street**  
**Rathdrum, Idaho**  
**Topic: Election and Potluck**  
**Presenters: Everyone**  
**Refreshments: Everyone**

**VE Testing**  
**Monday, Dec 9, 5:30 p.m.**  
**Rathdrum Senior Center**  
**8037 W Montana Street**  
**Rathdrum, Idaho**

### Upcoming Events

**Club Officer Elections**  
**Nominations open October 1.**  
**Nominations close Nov. 11.**

November 2019 KARS President Column for Newsletter  
“DON’T go it alone!!!”

What do you get when 4 KARS members get together on an October Saturday morning, rent a 50’ cherry picker lift in order to lower a stuck antenna tower? SNOW, of course! Are you kidding me? “They” said we might have sprinkles! Who are “they” anyway?

Well, the flakes were falling, sticking and causing a potential problem. It finally quit and we went to work. Dave Boss (aka “McGuyver”) just has a way with almost any challenge, coming up with creative solutions to complex and dangerous situations. He has 2 of every tool ever invented and knows exactly what to do. The tower finally retracted completely with Dave’s skills and we avoided a threatening occurrence which could have ruined the antennas, tower, the roof and US!!!

I learned a lot this snowy day in North Idaho. Safety is first, coffee tastes better when snowflakes are falling and ham buddies who join together to help another ham become true friends. Facing challenges together is much more enjoyable than alone...AND you learn stuff, have fun and get a great story to tell again and again!

Can we “do radio” alone? In my opinion...No. Either we are seeking someone to have a QSO with, get on the paper as a check-in, or reach that distant DX...but we are seldom alone for long. That’s the idea of a communications hobby. If you are “going it alone”...something is missing and YOU are the only one who can do anything about that! I’d enjoy your thoughts on my thoughts. Write me!

73 friends,  
Frank, KD7FK  
[president@K7ID.org](mailto:president@K7ID.org)

P.S. Yes...our November meeting falls on Veteran’s Day and we WILL be meeting. If you are a veteran, would you please attend? I’d like to look you in the eye, firmly shake your hand and sincerely thank you for serving our great nation. We need to honor our veterans and I intend to do so. Thank you.



Kootenai Amateur Radio Society (KARS)  
October 2019 Meeting Minutes

The October 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 7:05 PM by Club President Frank Krug (KD7FK). The Pledge of Allegiance was led by Frank Krug (KD7FK).

Attendance: Thirty (31) members and five (5) visitors were in attendance.

First time visitors introduced themselves.

VE Testing: Jerry Hart (W7KR) reported that four people tested this evening. The results were as follows:

Passed Technician	1
Attempted Technician	1
Passed General	1
Passed Extra	1

Surprise!: First time visitors and those able to answer a trivia question were rewarded with a package of Kars trail mix.

Frank Krug (KD7FK) reminded everyone about the Coffee & Donuts meeting from 8 to 10 AM each Thursday morning at the Silver Lake Mall. All are welcome.

Minutes: Mike Slothower (KG7KSJ) moved to accept the September 2019 minutes as printed in the newsletter; Steve Murphy (KG7UWB) seconded; the motion passed by member vote.

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

September 2019

Checking	\$ 2582.50
Repeater Fund	\$ 55.00
Savings	\$ 902.77
Petty Cash	\$ 76.15
TOTAL	\$3,616.42

Income: Savings interest (\$0.02), Memberships (\$15.00), Transfer from Drawing Account (\$20.00), Close down of the chip raffle (\$67.00). Total \$102.02.

Expenses: Club Flyers for FAIR (\$50.88). Total \$50.88.

Larry Telles (K6SPP) moved to accept the July Treasurer's report; Jerry Hart (W7KR) seconded; the motion passed by member vote.

OLD BUSINESS

\*Frank Krug (KD7FK) commented on several activities that the KARS Club has participated in over the past few weeks.

—A T-shirt fundraiser is helping to make some extra money for the Club;

—Check out the K7ID.org web page and the Club's Facebook page;

—Repeater site maintenance needs to be done at the Canfield Butte and Mica Peak repeater sites.

NEW BUSINESS

\*Adam Crippen (N7ISP) moved to donate the KARS Club's VHF Station Master antenna to the Washington Digital Radio Enthusiasts; Todd Silk (AD7VB) seconded; the motion passed by member vote.

\*Frank Krug (KD7FK) discussed the nominations for 2020 Club officers. Contact Kathy Kent (KI7OVA) before the November meeting if you want to run for a Board position.

\*KARS Christmas Party will be on Monday, December 9<sup>th</sup> at the Rathdrum Senior Center. A sign-up sheet to volunteer was passed around.

\*Evening Presentation: The evening presentation was given by ARRL Northwest Division Director Mike Ritz (W7VO). Mike showed slides of his ham shack as well as a presentation: "Behind the Scenes at ARRL".

Mike Slothower (KG7KSJ) moved to adjourn; Lindy Bryant (KE0AZD) seconded. The motion passed by member vote and the meeting was adjourned at 8:56 pm.

In Pursuit of a New Geostationary Satellite

STEPHEN/ANCHOR: Satellite enthusiasts are being encouraged to share ideas for a new geostationary earth orbit satellite for hams - and a forum has begun just for them, as we hear from Neil Rapp WB9VPG.

NEIL: A new online discussion group has formed to explore progress in getting a geostationary earth orbit amateur radio satellite for the Americas. Participants track the progress of acquiring a transponder that would serve IARU Region 2, which is North and South America. This would give the region the kind of coverage that Europe and Africa presently have with QO-100, the Qatari (KAT-TARRY) satellite launched last November.

Bernard KC9SGV posted on the QRZ Forum that hams are encouraged to share images and links about their satellite ground station hardware as well as software and to share ideas about having a similar satellite for Region 2 hams to access.

The discussion group is G E O at groups dot io (GEO@groups.io) (AR Newsline)

## Report Causes Concern and Confusion in California's Amateur Radio Ranks

By all credible and reliable accounts, the State of California has *not* turned its back on Amateur Radio as an emergency communication resource nor have established repeater owners been asked to remove their equipment from state-owned sites unless they pay sizeable fees. The California controversy, inflamed by a viral YouTube video, stemmed from a California Department of Forestry and Fire Protection (CAL FIRE) communication telling a repeater owner or group that Amateur Radio equipment would have to be removed from a state-owned site or "vault" if the owner(s) determined the cost was too great to proceed with a formal application to keep it there.

"I do understand and appreciate all of the service you have provided in the past," CAL FIRE's Lorina Pisi, told the unknown repeater owner(s) or group(s) last month. "However, with constantly changing technological advances, there is no longer the same benefit to State as previously provided. Therefore, the Department no longer financially supports HAM operators [sic] radios or tenancy. If you desire to enter into a formal agreement to operate and maintain said equipment, you must complete and submit attached collocation application along with fee as outlined on page one of application. There is cost associated with getting an agreement in place."

It's not clear to whom Pisi's memo was addressed, since any name or names were redacted from the version of the memo that is being circulated. ARRL reached out to Pisi this week but has not heard back.

After receiving a [lengthy communication](#) from attorney Nathan Zeliff, K6DPS, of Shingletown, California, citing Pisi's letter, Shasta County Sheriff Tom Bosenko did some asking around of his own. He reported that Jim Price, the Communications Center Operation Officer for the State Office of Emergency Services, explained to him that the matter is not a new one, and the issue of repeater equipment in state radio vaults has been going on for 5 years or longer.

"He said this gets down to a local level, if the local officials feel there is a need to have the ham radio repeaters in vaults in their area," Bosenko told Zeliff. "As such, this gets down to authorization for vault space, clearances and authorization to access equipment in the

vaults and contract agreements for the equipment to be in the vaults. The matter of cost and who will bear the cost for contracts and vault space has also been an issue for years."

ARRL officials who have also looked into the situation agree that it's been blown out of proportion by parties with their own agendas.

"The State of California has not made any determination we can find 'that Ham Radio [is] no longer a benefit,'" Pacific Division Director Jim Tiemstra, K6JAT, is quoted on the [Sacramento Valley Section website](#). "What happened is that CAL FIRE has transferred responsibility for its communications sites to its property management department. That department has the task of evaluating each site, its condition, use, and tenants. If a repeater not known to be associated with the emergency management function of a local jurisdiction is found in a CAL FIRE vault, the default action is to move it out or subject it to commercial rental rates."

"Our contact in the California Office of Emergency Services suggests that, if any affected repeater is in any way involved with local emergency or government support activity, they should ask that agency to engage with CAL FIRE concerning the repeater. If the agency makes the case, there is a good chance that the repeater will be unaffected," Tiemstra added.

ARRL Southwestern Division Director Dick Norton, N6AA, has been responding to inquiries with the same message. (ARRL News)

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## HAMS CAN 'ATTEND' SEA-PAC EVENT WORKSHOP ON THE WEB

STEPHEN/ANCHOR: Being absent is not an excuse anymore. If you wanted to be part of this summer's SEA-PAC workshop in Oregon, you still can - just do it online, as Andy Morrison K9AWM tells us.

ANDY: Hams who were unable to attend this year's SEA-PAC, the Northwestern Division Convention of the ARRL, can still benefit from the discussions they missed during the three-day gathering this summer in Oregon. Visit the website [seapac.org](http://seapac.org) (seapac.org) to view "Power and Communication When Everything Goes Dark," a workshop which was recently uploaded for

viewing. The workshop was led by Mark Breakey, KB7RHI, Delvin Bunton, NS7U, and Karen Trumbull, KE7NYH

Meanwhile, the committee is already organizing next year's event which will be held from June 5th through 7th at the Seaside Convention Center, which has been newly renovated. The guest speaker will be cardiologist Scott Wright K Zero M D (K0MD) of Rochester, Minnesota, editor of the ARRL National Contest Journal.

Meanwhile, catch up on the proceedings from this past summer and make your plans to attend next year.

For Amateur Radio Newline, I'm Andy Morrison, K9AWM. (SEA-PAC WEBSITE)

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#### New 630-Meter Distance Record Claimed

Eric Tichansky, NO3M, and Roger Crofts, VK4YB, are claiming a new world distance record on 630 meters. They worked each other on October 14 at 1032 UTC using JT9 mode. Tichansky said the contact represented the culmination of 2 years of effort around every equinox since September 2017.

"Hopes were wearing thin as we were moving away from the recent equinox on September 23," he said. "Even when the path may have been open over the past 3 weeks, either end would be plagued with QRN." He said that while the opening that facilitated the record-breaking contact was not comparably as strong as past openings, "something special was obviously at play."

The contact covered 9,307.5 miles (14,979 kilometers), topping the previous record of 8,351.9 miles set by Roger Crofts, VK4YB, and Kenneth Roberson, K5DNL, by nearly 1,000 miles. Tichansky said his transmit antenna is a 67-foot top-loaded vertical, and the receive antenna is a full-sized eight-circle array comprised of short verticals. The transmit/receive at VK4YB is a linear-loaded vertical. - *Thanks to Eric Tichansky, NO3M (ARRL News)*

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#### Arizona Club Takes Advantage of Low Bands to Support 100-Mile Endurance Run

The Coconino Amateur Radio Club (CARC) provided safety and coordination communications for the 100-mile Stagecoach Line Run over the September 21 - 22 weekend. This endurance run from Flagstaff to the Grand Canyon takes place every September. The 31-hour event pushes runners to the limit. The Stagecoach Line Run also tests Amateur Radio's capabilities and requires planning and commitment. Because of the geographical coverage required, the club's Amateur Radio support even took

advantage of 160 meters, not a band typically associated with public service communication.

"Because we are in a solar minimum, a combination of bands and communication methods were required in order to track and maintain contact with the numerous stations," said Dan Shearer, N7YIQ, the club's Public Information Officer. "What worked well at 3 o'clock in the afternoon was not going to work at 2 in the morning." The club's communication infrastructure required a combination of HF and VHF/UHF equipment that included setting up portable repeaters and stations powered by generators and other power sources.

"When you add in the cold weather of the high desert in September and the possibility of rain and snow, this becomes a test of what Amateur Radio may be called upon to do to support a disaster somewhere in the nation," Shearer said.

CARC members invested more than 300 hours of their time in planning and supporting the race, helped by a few additional volunteers from Glendale and Prescott. Nineteen club members staffed eight sites, where volunteers set up camps and kept vigil through the night to track and make sure runners were accounted for throughout the race.

In addition to tracking runners into and out of each aid station, net control entered these times into an online spreadsheet as they progressed through the race, allowing runners to be located easily in case they did not make it to the next checkpoint.

During the event, CARC members helped locate two missing runners and helped save the life of another who developed severe asthma. Medical care and treatment during these types of extreme events poses a significant challenge, as EMS responses are delayed. "Much of the area between Flagstaff and the Grand Canyon is US Forest Service land, and travel through these areas by vehicles is slow," Shearer explained. Severe emergencies can only be handled by aircraft, if conditions permit."

During the race, 75 meters worked well during the day, but 160 meters was put into play after dark. Cross-band

repeaters were placed at remote sites to allow access to existing repeaters. Although VHF and UHF were used, these links at times became unusable, and alternate forms and bands were required to maintain contact.

The Coconino Amateur Radio Club is an ARRL-affiliated club with about 50 members. It has a large ARES component that trains regularly and conducts SKYWARN and ARES® nets weekly. (ARRL News)



Anna Brummer, N2FER, Feted on her 105th Birthday

When she turned 80, Anna Brummer, N2FER, of Fort Edward, New York, predicted she would live to be 100. On September 27, she topped her own forecast by 5 years, as she celebrated her birthday at the Fort Hudson Nursing Center, surrounded by family and friends. The only thing she wanted was a drink of Scotch whiskey, and the nursing home obliged, along with a slice of cake. Unit Manager Donna Hopkins told *Post Star* newspaper reporter Gretta Hochsprung that she didn't attempt to put 105 candles on Brummer's cake because it would have been a fire hazard. Brummer told Hochsprung that the secret to longevity is being nice to people.

"Keeps you young when everything's going smooth," she told the reporter.

Anna Brummer was a latecomer to Amateur Radio. In 1984, her son Richard, K2JQ (ex-K2REB), got his mom and his dad, Edwin, interested in Amateur Radio, and Anna obtained her Technician license when she was 69 years old. Edwin Brummer, who died in 1996, was

N2FEQ, and held a Tech Plus ticket. They were married for 56 years.

Anna Brummer was born in the Bronx and went on to work as a sales clerk at Kresge's, making \$12 a week. When Kresge's folded, she became a school cafeteria worker in Massapequa on Long Island.

Richard Brummer, who described his mother as "very loving," said she definitely has a will to live.

No official records are kept, but Anna Brummer is among a small circle of centenarian radio amateurs in the US and may be the oldest woman now holding a license. Cliff Kayhart, W4KKP, of South Carolina, appears to be the oldest active US radio amateur at 107. Arlene "Buddy" Clay, KL7OT, lived to be 103. (ARRL News)

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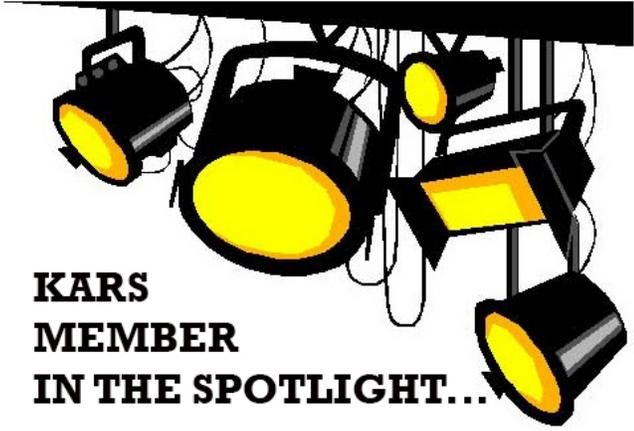
MARS Members to Work with Radio Amateurs during SET and DOD COMEX 19-4

During October and corresponding with the ARRL Simulated Emergency Test (SET), Military Auxiliary Radio System (MARS) members will be reaching out to the amateur radio community to continue building working relationships and improving interoperability. As part of this effort, MARS will be promoting the use of a serial phase-shift keying protocol, Military Standard 188-110 (M110), on the 60-meter interoperability channels. Radio amateurs are authorized to use this digital mode on the five 60-meter interop channels, although M110 exceeds the allowable symbol rate that radio amateurs may use on all other HF bands.

Starting on November 2 and continuing until November 17, the MARS community will be executing Department of Defense (DOD) Communications Exercise (COMEX) 19-4. MARS members will use the exercise to continue training and refining their operator skills to provide situational awareness information, such as county status reports and weather observations.

To announce the kickoff of the exercise, WWV and WWVH will broadcast voice announcements starting on or about October 31. WWV will transmit the announcements at 10 minutes past the hour, while WWVH will transmit them at 10 minutes before the hour.

The communication exercise will culminate on the evening of November 16 with military stations sending M110 messages to the amateur community on 60-meter channel 1 (5330.5 kHz USB). All DOD communication exercises simulate scenarios and do not affect any public or private communications. (ARRL News)



**KARS  
MEMBER  
IN THE SPOTLIGHT...**



Spotlight this Month is on:  
Ed Stuckey, AI7H  
by Larry Telles, K6SPP

In Kansas, in 1955, Ed happened on activities at City Park, what he would learn later was an Amateur Radio Field Day. He saw a couple of the men place a large piece

of equipment (a Johnson Viking II) on a picnic table. The other end of the table started going skyward. "Hey kid, go around and sit on the other end of the picnic table." Ed said, "I did, and that was my official initiation into Ham Radio.

But Ed feels that being attracted to radio might have started years earlier. When he was four or five years, old Ed remembers his mother listen to the noon weather report on a certain radio station. Then she would listen to a soap opera on a different station. However, Ed's mother had difficulty tuning the radio. So, Ed's father taught him how to tune in the proper station at the proper time for his mother. In his household Ed became the radio expert.

One day, Ed's Father brought home a Wards Airline All-America Five tube transformer less radio. But, it was broken. But he sat at the kitchen table and fiddled with it until it started to work. When it became operational, they found that it was not on the broadcast band. It was a shortwave receiver that picked up the AT& T Marine Operator in Galveston, Mobile, and several other places Ed can't remember. They stayed up many nights past Ed's bedtime listening. This is when he and his family lived in Missouri.

Ed got the bug, and passed his Novice test. With his new call, KN0INT he planned to contact his friend KN0INF who took the Novice test at the same time. With only a basic transmitter and receiver, Ed go on the air one evening. Much to his surprise, he didn't contact his friend on 40 meters, but got KN0INA in Storm Lake, Iowa instead.

With Ed's interest in the National Traffic System he stays mostly on 80 meters. When not on that band, he is turning across the 160 meter band. He got interested in it during the 1990s and didn't make a contact for a year.

Ed is quite clear about our hobby. "I like Ham Radio because as a hobby, there is something for everybody. I like the engineering challenges. I'm just a homebrew guy and like solving problems to make things work. I like meeting hams locally and those on the air."

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PACTOR Developer SCS Announces Monitoring Software

SCS, the company that created PACTOR, has [unveiled software](#) that offers the ability to monitor the content of PACTOR 1, 2, and 3 transmissions over the air. The free *PMON* software runs under the Linux operating system. A software version to monitor PACTOR 4 is scheduled to become available next year. *PMON* will

offer “thorough observation and documentation of all presently available PACTOR 1, 2, and 3 transmissions,” SCS said.

“*PMON* covers all PACTOR levels with the appropriate speed levels and packet variations,” SCS said. “*PMON* will read in parallel PACTOR 2 and PACTOR 1. The very wide receiving range (frequency offset  $\pm 200$  Hz), as well as automatic sideband recognition, ease routine operation of *PMON* with PACTOR 2 and PACTOR 3 considerably.”

According to SCS, only minimal hardware is required to use *PMON*. The equipment complement includes a Raspberry Pi 3 Model B+ (minimum) computer and a USB sound device. SCS noted in an October 11 news release that all SCS PACTOR hardware modems include a command to allow PACTOR monitoring on the fly. The German company says *PMON* now makes this possible *without* a modem and adds the ability to decode B2F/LZHUF-compressed messages — Winlink email and others.

“This exciting new software development for Raspberry Pi complements and surpasses previously released SCS software that leveraged PACTOR modems’ ability to monitor PACTOR to read Winlink for meaning,” SCS said. The company also said the new software permits modem-less monitoring of all kinds, something that would be useful for monitoring Winlink email traffic.

The Winlink Development Team called the new software a “welcome contribution to the Amateur Radio community.”

The issue of message transparency arose in recent months with respect to renewed attention to ARRL’s so-called “symbol rate” petition for rulemaking (RM-11708) and the accommodation of automatically controlled digital stations (ACDS) - many of which employ Winlink. Some commenters on ARRL’s petition have asserted incorrectly that PACTOR facilitates de facto message encryption, which would violate FCC Amateur Service rules. (ARRL News)

## New Antenna Concept Uses Saltwater and Plastic Instead of Metal Conductor

A new antenna that uses saltwater and plastic instead of metal could make it easier to build VHF and UHF networks, an *IEEE Spectrum* article asserts.

Michelle Hamson says, “Being able to focus the energy of a radio signal toward a given receiver means you can increase the range and efficiency of transmissions,” in her article, “New Antenna Uses Saltwater and Plastic to Steer Radio Beams.” According to the article, beam-steering or [beamforming](#) on a large scale is one of the key underlying mechanisms behind the rollout of 5G networks. The configuration of the saltwater antenna allows 360° beam-steering and works for frequencies between 334 and 488 MHz.



In a recent publication in *IEEE Antennas and Wireless Propagation Letters*, Lei Xing and her colleagues at the College of Electronic and Information Engineering at Nanjing University of Aeronautics and Astronautics in China have proposed a new saltwater-based antenna that achieves 12 directional beam-steering states, and one omnidirectional state.

“The proposed design consists of a circular ground plane, with 13 transparent acrylic tubes that can be filled with (or emptied of) salt water on demand. One tube is located in the center to act as a driven monopole. Surrounding it are 12 parasitic monopoles,” the article

explains. “The 12 remaining monopoles, when filled with water, work together to act as reflectors and give the broadcasted signal direction.”

“The attractive feature of using water monopoles is that both the water height and activating status can be dynamically tuned through microfluidic techniques, which has a higher degree of design flexibility than metal antennas,” explains Xing.

One limitation of salt water-based antennas, she notes, is that the **permittivity** of salt water - i.e, how it interacts with electrical fields — is sensitive to temperature variations. (ARRL News)

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#### ARRL to Launch New On the Air Magazine in January

ARRL is launching a new magazine, *On the Air*, in January 2020. To be published on a bimonthly basis, *On the Air* will offer new and beginner-to-intermediate-level radio amateurs a fresh approach to exploring radio communication. Each issue will include advice and insights on topics from the variety of Amateur Radio interests and activities: radio technology, operating, equipment, project building, and emergency communication. The goal of this new magazine is to be a vital resource in helping new and newer radio amateurs get active and involved in radio communications.

“*On the Air* responds to the brand new and not-so-brand-new radio amateur seeking ideas and answers,” said *QST* Managing Editor Becky Schoenfeld, W1BXY. Schoenfeld is part of the ARRL staff team that developed the new magazine. The planning included an extensive national-level study of new Amateur Radio licensees, identifying their motivations for getting licensed and their experiences of getting started. A focus group responded positively to a trial sample edition of the magazine.

“Too many new licensees never take the next step,” says Schoenfeld. “We’re excited to introduce a new Amateur Radio magazine for this audience, aimed at getting them active, getting them involved, and getting them on the air.”

The first issue of *On the Air* will be published in January 2020 (January/February issue) and will be introduced as a new ARRL membership benefit. Effective November 1, when eligible US radio amateurs join ARRL or renew their memberships, they will be prompted to select the print magazine of their choice - *On the Air* or *QST*. Current members receiving the print edition of *QST*, upon renewal, may choose to continue receiving the

monthly print edition of *QST* or the print edition of the bimonthly *On the Air*.

All ARRL members, including international members, will be able to access digital editions of both *QST* and *On the Air*. Members who already access *QST* on the web or from the mobile app will be able to access *QST* and *On the Air* starting in January. (ARRL News)

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

9:00 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: \_\_\_\_\_

*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:	

