

September 2016

(www.k7id.org)

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

## REGULAR CLUB MEETINGS:

**Monday, Sep 12, 7:00 p.m.**  
Search & Rescue Bldg.  
10865 N Ramsey Rd.  
Hayden, Idaho  
**Topic: Yaesu System Fusion**  
**Presenter: Adam, N7ISP**  
**Refreshments: ???**

**VE Testing**  
**Monday, Sep 12, 5:30 p.m.**  
10865 N. Ramsey Rd.  
Hayden, Idaho

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

**VE Testing**  
**Monday, Oct. 10, 5:30 p.m.**  
10865 N. Ramsey Rd.  
Hayden, Idaho

### Upcoming Events

**Spokane Hamfest**  
**Sep. 24, 2016**  
University H.S.  
12420 E 32d Ave  
Spokane Valley, WA

Letter from the President

September 2016

Dave Boss KF7YWR

boss@infinityusers.com

208.290.8590

### Mica Repeater Fusion Style

Most of the parts needed for the installation have been gathered together and will soon be assembled into one working system. I look forward to the new technology for the club. While I am not a fan of new technology of a proprietary nature, Yaesu has bridged the gap to a degree, allowing for backwards compatibility with the analog radios. Although the new digital radios are pretty impressive, our secretary, Adam, N7ISP, just received his new hand-held and is looking forward to the repeater being on the air to utilize his new toy. Adam has identified a new sound card of sorts to allow multiple digital protocols to be used with the Fusion Repeater, and as I understand the process this would allow several other digital modes, D-Star and others to work through the same repeater. Perhaps an add-on for next spring once we have the first bits up and running smoothly.

### Election Process Starts In September

This month kicks off the election process with the appointing the Election Committee, whose responsibility it is to identify candidates for the vacant Board positions. This year all positions will be vacated as the term limits have been fulfilled by three members (two years) and the special dispensation for the remaining two to serve a third term will have expired.

The Election Committee consists of three members: one appointed by the President, one chosen by the Board, and the last chosen by the club at large. Their duty is to contact each member and take nominations for the open positions and deliver the finished list to the Club at the October Meeting, that list will then be published in the newsletter and voted on during the November Meeting and in December will be instated to assume their new duties for the coming year.

The club cannot legally operate without a governing Board and lacking able bodied souls to step up and serve, there would be the need to disband the club as laid out in the Bylaws and Constitution. This may sound harsh, but could be a reality considering for the last two years there has not been a willingness for members to step up for Board positions and it has been three years for the president's position. If you are willing to serve please step up and help out the

club, it is not that difficult and if you make a mistake it won't kill you, I've made many and am still alive. The present Board is here to help with the transition to new officers and most of them are pretty nice.

Please consider taking a position on the Board or help to convince someone else to run.

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Kootenai Amateur Radio Society  
July 2016 Meeting Minutes

The meeting was called to order at 7:07pm by Club Vice-President Allen Campbell (KE7DFT). The Pledge of Allegiance was led by Lenny Gemar (N7MOT).

License Testing: Ryan Lapagnol, Samuel DePaula, Shawa Eller, Ethan Gardner, Ryan Stephenson passed their Technician License; Liam O'Connor (KI7FGO) passes the General Class Exam; Matt McLullin (KI7DPC) passed both the General Class and Extra Class Examination.

Club Treasurer's Report:

May - Checking \$2,753.11, Savings \$1,900.93, Petty Cash \$96.78, Total \$4,750.82. Monthly expenses consisted of: DX Engineering – Hamfest Prizes \$500.00. Motion was made by Lenny Gemar (N7MOT) to approve the Treasurer's Report as read; the motion was seconded and passed by member vote.

June - Checking \$4,437.82, Savings \$1,925.97, Petty Cash \$96.78, Total \$6,460.57. Monthly expenses consisted of: Hamfest Food \$235.92, Hamfest Raffle Prizes \$235.57, Hamfest Shriners Rental \$250.00, Office Max Cash box \$17.27, Fuel for Jet Boat Recon Trips \$30.13, Incident Command Vests \$186.30, Donation to Shriners Club \$250.00, Field Day Food \$69.10, Total Expenses \$1,274.29. Motion was made by Frank TenThy (KG7CUI) to approve the Treasurer's Report as read; the motion was seconded and passed by member vote.

Hamfest 2016 Report:

Admissions – Receipts \$865.00, Shriner's Rental \$250.00, **Net \$615.00**

Grand and Door Prizes – Receipts \$657.00, Grand Prize Costs \$500.00, Door Prize Costs \$235.57, Prize Expense \$735.57, **Net -\$78.57**

Kitchen – Breakfast Talley 39, Lunch Talley 36, Receipts \$441.00, Breakfast Expenses \$108.18, Lunch Expenses \$127.74, Food Expense \$235.92, **Net \$205.08**

KARS Table – Receipts \$925.00

**Hamfest Net \$1,666.51**

Motion was made by Lenny Gemar (N7MOT) to approve the Treasurer's Report as read; the motion was seconded and passed by member vote.

Meeting Minutes: June meeting was held in an informal capacity due to the Hamfest Potluck dinner and therefore minutes were not taken.

Club Business:

Mica Repeater Site – Fusion Repeater is in the building process. The club will likely need to purchase a UHF antenna and other miscellaneous pieces of equipment.

Hamfest – Location feedback: Most stated that they liked the new location compared to the Post Falls Legion.

For Sale – Dave Hopkins (KI7HOP) has a 1 month old Kenwood TM-V71A mobile radio. Contact Dave Hopkins for more information.

Weed Patrol – Canfield weed clean-up is needed as part of our agreement with the county for the Canfield Site. Lenny volunteered to lead the cause this year and a crew of volunteers on July 16<sup>th</sup>.

Highway Clean-up – working to establish a liaison with the ITD.

Meeting Presentation: Packet Radio/APRS by Allan Campbell

Raffle Results:

50/50	\$12	AD7VB, Todd Silk
Member	\$97	KA7RNX, Jerry Ellison – Not Present

Lenny Gemar (N7MOT) made the motion to adjourn the meeting at 8:45pm, the motion was seconded and passed by member vote and meeting was adjourned.

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Kootenai Amateur Radio Society  
August 2016 Meeting Minutes

The meeting was called to order at 7:08pm by Club President Dave Boss (KF7YWR). The Pledge of Allegiance was led by Lenny Gemar (N7MOT).

Club Treasurer's Report:

July - Checking \$4,442.82, Savings \$1,951.02, Petty Cash \$96.19, Total \$6,490.03. Monthly expenses consisted of: nothing! Motion was made by Allan Campbell (KF7DFT) to approve the Treasurer's Report as read; the motion was seconded and passed by member vote.

Meeting Minutes: The July meeting minutes were not available to be published in the newsletter due to technical difficulties.

#### Club Business:

Canfield Weed Patrol – The Saturday following the July meeting a crew of five bored hams struck out on a mission to decimate the weeds at the Canfield Repeater site. The Club’s UHF 443.975 Repeater is being hosted in the Kootenai County Building on Canfield Butte (This is the mountain directly behind Costco). The weeds lost the battle, following the victory on Canfield some decided the need to strike out on conducting a recon of the Mica Site in preparation of the Yaesu Fusion Repeater and the needed overhaul of the buildings electrical wiring. Various notes and pictures were taken in preparation of the two projects; More information to follow.

Meeting Presentation: WinLink presented by Rick Van Landingham (KI7I) and Dan Croskrey (NV2Z).

#### Raffle Results:

50/50 \$8.50 KF7FPA Bonnie Kesson (Yes both the Kessons were in attendance!)

Member \$112 N7ESU Jim Monroe – Not Present

Jim Peterson (AD0AZ) made the motion to adjourn the meeting at 9:15pm, the motion was seconded and passed by member vote and meeting was adjourned.

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#### HAARP Facility to Reopen in 2017 under New Ownership

Let the conspiracy theories resume! Alaska’s High-Frequency Active Auroral Research Program (HAARP) facility will reopen in 2017. The sprawling facility now is under the ownership of the University of Alaska Fairbanks (UAF), and the UAF Geophysical Institute is preparing HAARP for a new sponsored research campaign that’s set to begin early next year, UAF Researcher Chris Fallen, KL3WX, told ARRL.

“This involves, for example, reinstalling the vacuum tubes in each of the 10 kW amplifiers - eventually 360 in total - that were removed by the US Air Force [the facility’s former owner] for warm storage in the main facility,” Fallen said. He noted that the transmitter shelters have been unheated since the previous campaign in the summer of 2014. “The five generators - approximately 3 MW each - have recently been tested individually and are verified operational.”

Fallen said the HAARP ionosonde (DPS4D “Digisonde”) will be brought back online. “Some instruments on site need to be repaired or replaced,” he said. Those would include riometers and a UHF radar. “Optical instruments will be brought back. The flux-gate magnetometer is operational again.”

Fallen said other researchers are planning to install instruments at the science pads. “We are still investigating models for increasing Amateur Radio involvement with HAARP, which, in addition to announcing operating schedules, can potentially include hosting one or more ham stations on or near the science pads,” he said.

UAF describes HAARP as “the world’s most capable high-power, high-frequency transmitter for study of the ionosphere.” Constructed in 1990 at a cost of some \$300 million, HAARP over the years has inspired a wide range of conspiracy theories that became grist for late-night radio talk shows. Some have claimed that HAARP’s 3 GW transmitter and 30-acre antenna farm have been used to control the weather, while others have argued that HAARP has caused earthquakes.

The FCC recently granted two Part 5 Experimental Service licenses for HAARP ionospheric research “across multiple bands.” WI2XFX will cover experiments in discrete parts of the HF spectrum, including 2650-2850; 3155-3400; 4438-4650; 4750-4995; 5005-5450; 5730-5950, and 7300-8100 kHz. A second Experimental license, WI2XDV, covers ionospheric research between 1 and 40 MHz.

UAF is hosting an open house at HAARP, located near Gakona, Alaska, on August 27. The event will feature facility tours, a mobile planetarium, a permafrost exhibit, science demonstrations and talks, and barbecue.

Fallen will deliver a free science lecture on Friday, August 26, at the Wrangell-St Elias National Park Visitor Center Auditorium, “Radio Modification of the Ionosphere, and Who Uses This HAARP Thing Anyway?” in partnership with the Wrangell Institute for Science and the Environment (WISE).

HAARP is aimed at studying the properties and behavior of the ionosphere. Operation of the research facility was transferred from the US Air Force to the University of Alaska Fairbanks last August, allowing HAARP to continue exploring ionospheric phenomena via a land-use cooperative research and development agreement. (ARRL News)

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Comments in FCC “Symbol Rate” Rule Making Proposal Due by October 11

The FCC will accept public comments in response to a July FCC *Notice of Proposed Rule Making (NPRM)* in WT Docket 16-239 - the “Symbol Rate” proceeding - until October 11. Reply comments - i.e., comments on comments already filed - are due by November 10. The *NPRM* now has been published in *The Federal Register*, thus opening the respective 60-day and 30-day comment/reply comment windows.

In response to a 2013 ARRL *Petition for Rule Making (RM-11708)*, the FCC proposed to revise the Amateur Service Part 97 rules to eliminate current baud rate limitations for data emissions, consistent with ARRL’s *Petition*, but it declined to propose a bandwidth limitation for data emissions in the MF and HF bands to replace the baud rate limitations. ARRL had asked the FCC to change the Part 97 rules to delete the symbol rate limits in §97.307(f) and replace them with a maximum bandwidth for data emissions of 2.8 kHz on amateur frequencies below 29.7 MHz.

Interested parties may comment on the *NPRM* in WT Docket 16-239 via the FCC’s Electronic Comment Filing Service (*EFCS*), as well as by mail. (ARRL News)

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#### Amateur Radio Volunteers Assisting in Italian Earthquake Response

Radio amateurs are taking part in the response to the 6.2 magnitude earthquake on August 24 in central Italy, International Amateur Radio Union Region 1 (*IARU-R1*) President Don Beattie, G3BJ, reports. IARU Region 1 Emergency Communications Coordinator Greg Mossop, GODUB, has requested that 7060 kHz (LSB  $\pm$ 10 kHz) be kept clear of non-emergency traffic, as well as any other center-of-activity (*COA*) frequencies that may be in use for emergency communication within Italy. (On 80 meters, the *COA* frequency is 3760 kHz). Other frequencies reported to be active include 7045, 3643, and 3580 kHz (PSK).

The earthquake claimed some 240 lives, although rescue operations are still under way. According to the

IARU Region 1 website, Italian radio amateurs are active in the emergency response, and no outside assistance has been requested at this time.

According to Beattie, the Italian Amateur Radio volunteers are “following their planned response with their government” and that any requests for information on missing persons should be made via the Red Cross or other recognized relief organizations.

The worst loss of life was in the town of Amatrice, where more than 180 people died. Tremors in the aftermath of the initial quake were felt as far away as Rome. Survivors are staying in tents or otherwise out of doors. A reported 4300 people were said to be active in rescue operations in the region. (ARRL News)

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#### USAF wants to improve HF communications

*New Scientist* magazine reports the US Air Force is working on plans to improve HF radio propagation by releasing ionized gas in the upper atmosphere using a fleet of micro satellites

As well as increasing the range of radio signals, the USAF says it wants to smooth out the effects of solar winds, which can knock out GPS, and also investigate the possibility of blocking communication from enemy satellites.

The story says there are at least two major challenges. One is building a plasma generator small enough to fit on a CubeSat - roughly 10 centimeters (3.94 inches) cubed. Then there’s the problem of controlling exactly how the plasma will disperse once it is released.

Read the story at

<https://www.newscientist.com/articl...to-plasma-bomb-the-sky-using-tiny-satellites/>

(QRZ News)

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Hurricane Watch Net Activating for Hermine, Hawaii  
Dodges Madeline, SKYWARN Eyeing Lester

The Hurricane Watch Net has (*HWN*) has announced plans to activate for Tropical Storm Hermine at 1400

UTC. The storm is expected to develop into a hurricane before making landfall on Florida's Gulf Coast. The net typically operates on 14.325 MHz until nightfall, then moves 7.268 MHz for the remainder of the evening. Given current band conditions, however, the HWN will be active on *both* frequencies simultaneously. The net will remain in operation until further notice, HWN Manager Bobby Graves, KB5HAV, said.

"It seems we've been tracking this system, which began as a tropical disturbance, for nearly 2 weeks," Graves said. "Yesterday, this system finally became Tropical Storm Hermine. It is expected to make landfall late Thursday evening or early Friday morning as a Category 1 Hurricane somewhere between Panama City Beach and Cedar Key, Florida...of course, this could change."

As of 1200 UTC, Hermine was reported strengthening. It's located about 235 miles west-southwest of Tampa with maximum sustained winds of 65 MPH, moving north-northeast at 12 MPH. A Hurricane Warning is in effect from the Suwannee River to Mexico Beach. The NWS said interests along the US East Coast should monitor the progress of this system.

Graves said the HWN would be available to provide back-up communication to entities such as emergency operations centers and Red Cross offices in the affected area. "We will also be interested to collect and report significant damage assessment data to FEMA officials stationed in the National Hurricane Center," he added.

Florida's Emergency Operations Center is at full activation, and evacuation shelters are on standby.

#### *SKYWARN Tracking Pacific Hurricane Lester*

ARRL Pacific Section Emergency Coordinator Clement Jung, KH7HO, said the National Weather Service (NWS) will activate SKYWARN for Hurricane Lester at 1800 UTC on Saturday, September 3, continuing until midnight on Sunday, September 4. All four Amateur Radio Emergency Service (ARES) districts on the Big Island of Hawaii remain in active status for Hurricane Lester, to support each other and served

agencies. KH6SW remains on the air from the NWS Honolulu Forecast Office on HF, VHF, and UHF.

The NWS reports that a weakening Madeline, now a tropical storm, was passing "well south of the Big Island," with maximum sustained winds of 50 MPH, but the storm was dumping a lot of rain on the Big Island, and a flood advisory was in effect for some areas. Predictions call for up to 10 inches of rain, and possibly more. A SKYWARN activation for Madeline has been discontinued.

Hurricane Lester, now a category 2 storm, continues its westward movement toward the Hawaiian Islands. As of 0900 UTC, Lester was some 800 miles east of Hilo and 1030 miles east of Honolulu, boasting maximum sustained winds of 110 MPH. The storm is moving at 14 MPH. Some weakening was forecast through late Friday. No watches or warnings are in effect.

ARES teams remain ready to initiate local repeater nets, holding 146.52 MHz simplex in reserve in case repeaters go down. Plans call for using HF (7.180 and 3.975 MHz) to relay traffic via Auxiliary Communications Service (ACS) nets to the Hawaii County Civil Defense Agency Emergency Operations Center (EOC). SKYWARN traffic will use *Fldigi* MT63 1KL or voice on 7.080 MHz (USB), with 3.888 MHz (LSB) as an alternate frequency, and 7.095 MHz available to support informal and tactical traffic.

Public schools in Hawaii remained closed on September 1, and Hawaii Gov David Inge has urged residents of the Big Island to take steps to protect people and property. Some government offices and businesses also have closed. A dozen schools have been designated to serve as emergency evacuation shelters. (ARRL News)

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#### NEW FREQUENCIES FOR LATVIAN AMATEURS

Two new bands opened up for amateurs in Latvia on August the 9th: the 60 meter, 5 MHz allocation with 15w EIRP and the 630 meter band, between 472 and 479 KHz, with 1 watt EIRP.

The 60 meter band in particular opens up new operating space on the spectrum in an area that has already been available to amateurs in the United States, the United Kingdom and Scandinavia. As with most new allocations of this band this is a continuous range of frequency and not channelized as many earlier allocations were.

Both bands are open for use by Latvia's top-level Category A licensees but unlike other countries the 60 meter band is restricted to modes with a maximum bandwidth of 800 Hz.

Sixty meters is also gaining traction in Australia, where the Wireless Institute of Australia's request for the allocation, made last April to the Australian Communications and Media Authority, has been graded as Priority 1 by the authority. The ACMA acknowledges amateurs' interest in gaining 60-meter access. The WIA's magazine, "Amateur Radio," is preparing to publish a situation paper on the subject when space becomes available. (Amateur Radio Newslines)

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### MADE FOR EACH OTHER

Last year, the Chatham Marconi Maritime Center in Massachusetts placed a notice in the ARRL's QST magazine saying it was looking for something called a Creed keyer to add to its collection. The keyer generates one-way Morse Code messages to ships at sea at speeds as fast as 100 words per minute, using tapes with holes punched ahead of time - player-piano style - by another machine.

The museum had been searching for the perfect match for its collection for 10 years - and Gene Greneker, K4MOG, of Powder Springs, Georgia, proved to be the ultimate match-maker. The ham radio operator had the machine, which he and a friend had found and bought from a small RCA wireless station in Lantana, Fla.

After some fundraising on behalf of the museum, the Creed machine was sold, shipped and enroute to its new home in Massachusetts.

The Maritime Center's president, Dick Kraycir said the next step is to pair the machine with another mate: a translator that converts the Creed machine's output into dots and dashes that museum visitors will be able to hear. A vintage translator is currently undergoing restoration and once that's done, the two are expected to live happily ever after. (Amateur Radio Newslines)

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### SPOKANE HAMFEST

ARRL WASHINGTON STATE CONVENTION

September 24, 2016

University High School, 12420 E 32nd Ave, Spokane Valley, WA 99216

East entrance on 32<sup>nd</sup> Ave

Doors open from 9 a.m. to 4 p.m.

**RAFFLE PRIZES:** Three Prizes to be Ruffled ! 1st prize - Yaesu FT-991 (HF-70cm C4FM Digital All Mode); 2nd prize - Yaesu FTM-100DR (2M/70CM Dual

Band C4FM/FM Mobile); 3rd prize - Kenwood TM-281 (144 MHz 65 Watt FM Mobile).

**DOOR PRIZES, SEMINARS, DEMOS & DISPLAYS:** "Tower & Antenna Installs" with Jeremiah, KD7DMP ~ "ARRL Forum" with Jim, K7CEX & Bonnie, AB7ZQ ~ "Using Raspberry Pi Computers for Ham Radio" with Randy, W4LKS ~ "I Have Just Received My License or Upgrade..." with Jack, AD7FO ~ "ARES Database & Web Site" with Ed AI7H ~ "Junque" Auction" with John, W7OE ~ "Radio Test Gear" table with Jack, AD7FO ~ ARRL Radio License Exam ~ ARRL Card Checking ~ Lunch by Tacos Tijuana & non-stop snacks & refreshments.

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

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



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

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

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

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

# Kootenai Amateur Radio Society (KARS) MEMBERSHIP APPLICATION

**One year membership Rates:**

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

**Two year membership Rates:**

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

**Lifetime membership:**

Member: \$150.00

**Information Update Only**

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

Callsign: \_\_\_\_\_ Class: \_\_\_\_\_ Expiration: \_\_\_\_\_

First Name: \_\_\_\_\_ M.I. \_\_\_\_\_ Last Name: \_\_\_\_\_

Nickname: \_\_\_\_\_

Address1: \_\_\_\_\_

Address2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP: \_\_\_\_\_ - \_\_\_\_\_

PHONE NUMBER: (\_\_\_\_) \_\_\_\_\_

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

EMAIL ADDRESS: \_\_\_\_\_

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

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

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

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

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

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

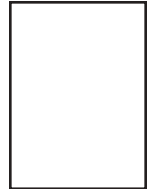
Name: \_\_\_\_\_ Call: \_\_\_\_\_ Class: \_\_\_\_\_

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

(Office use only.)

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

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



## **DIRECTIONS TO KARS MEETING:**

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

## **2016 CLUB OFFICERS**

President: Dave Boss, KF7YWR  
president@k7id.org

Vice-President: Alan Campbell, KE7DFT  
vicepresident@k7id.org

Exec. Director: Lenny Gemar, N7MOT  
N7MOT@gemar.org

Secretary: Adam Crippen, N7ISP  
secretary@k7id.org

Treasurer: Rod Anderson, K7ZBE  
treasurer@k7id.org

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509 993-8468 ke7iat@comcast.net

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ki7i@arrl.net

Repeater Tech: Dale DuRee, KE7VMN

Webmaster: Lenny Gemar, N7MOT  
208 691-4735 N7MOT@gemar.org

Past President: Dave Boss, KF7YWR

## **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.