

Letter from the President
March 2017
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We are just a week or so away from our beloved daylight savings time. You know, that date with which we all get to “Spring ahead”, totally disrupt our sleep patterns for a while, be late or early for appointments, church services and any other time sensitive function, all the while attempting to sheepishly sneak in without causing every head to turn and notice. When I was traveling it was always fun to try and remember what time it was in those few states that chose to refuse the pleasantries of the time change. Now that I am retired, the change is not quite as abrupt as it used to be, but it is disruptive none the less. With progressing age, I tend to sleep a lot less than I used to, at least in bed, (chair sleep in front of the television doesn’t really count, does it?) so missing or gaining an hour on the clock doesn’t really make a lot of difference. The dogs or the bladder generally determine wake up time. Turn in time varies on how boring the 11:00 news is and/or how long it takes to stoke the fire for the night, and then whether the dogs doddle for the last walk or decide it’s too blasted cold to stand around in the frigid night air. At any rate enjoy the change and remember to turn your clocks on the 12th of March. P.S. The calendar says to change them at 2:00AM, I think this is just to get you started on a bad note. Thank you, Congress, for this event!

Idaho QSO Party coming soon to a Band near you!

Just around the corner, on March 11-12th, this annual event is sponsored by KARS. Check out the details at the web site: www.idahoarrrl.info/qsoparty/

North Idaho State Fair (fancy new name for the fair) August 23 - 27, 2017

Last Thursday morning at coffee and donuts (Thursday mornings 8:00 am to 10:00am at the Silver Lake Mall), the paperwork for our booth was finalized and will be turned in to find out where our location will be. The booth will need volunteers for the entire duration of the event and will need to have a couple of Hams there at all times. (Our aging membership requires an above average numbers of potty breaks.) Jim Petersen AD0AZ, has been appointed the official North Idaho State Fair Liaison Information Person (NISFLIP) for short. Contact Jim for more details.

Memberships Due

Pay money now or get a Nasty-Gram from our fearless Treasurer Rod K7ZBE.

North Idaho College STEM Expo

We will have a booth here as well.

The goal of the event is to highlight opportunities in the STEM fields and showcase related exhibitions and demonstrations.

Date: Tuesday, 4/12/2016

Time: 10:00 AM - 2:00 PM

Location: North Idaho College, 1000 W Garden Ave, Coeur d'Alene, ID 83814



March 2017

(www.k7id.org)

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

REGULAR CLUB MEETINGS:

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

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

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

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

Upcoming Events

Mike & Key Hamfest
March 11, 2017
Puyallup, WA

Idaho QSO Party
March 11-12
1100 Sat-1200 Sun

No President's Column received as of press time.

January's minutes have not been received.

Kootenai Amateur Radio Society
February 2017 Meeting Minutes

The meeting was called to order at 7:05pm by Club Vice-President Lindy Bryant (KE0AZD). The Pledge of Allegiance was led by Lenny Gemar (N7MOT).

January meeting minutes were not published in time for the publication of February's Propagation, Vice-President Bryant will send the minutes to the Secretary for publication to the club.

Club Treasurer's Report:

January - Checking \$3,568.73, Savings \$2,101.27, Petty Cash \$95.69, Total \$5,765.69. Monthly expenses consisted of: Postage Stamps – USPS \$47.00; Signal Link – DX Engineering \$139.90. Monthly income consisted of: Saving Account \$0.05; Membership \$103.00.

2017 Membership renewals are due. If you have not paid your dues please contact the Club Treasurer.

Volunteer Examination Testing: 5 individuals tested with 4 achieving passing scores.

Zach Varner	Passed Technician
Adrienne Morrill, KG7HYD	Passed General
Steve Bertone	Passed T/G and Extra
Randall Porter, KG7RHV	Passed Extra
Eric Smith, KD9EQQ	Attempted Extra

Meeting Minutes: Due to technical difficulties the October Newsletter was delayed, Editor Gary Roth presented a digital copy at the meeting for review of the September minutes. Motion was made by Michael Harrel, KJ6HTK, to approve the September meeting minutes, seconded and passed by member vote.

Club Business:

County Fair Booth: Fair is Wednesday, Aug 23rd to Sunday, Aug 27th. Discussion was made to if the Club should have an outdoor booth at the fair. The fee for the booth would be \$500 and the booth must be manned during the entire duration of the fair. Jim Peterson (AD0AZ) made a motion to approve the \$500 for the booth at the fair for the club. Motion was seconded and approved by member vote.

KARS Hamfest: Hamfest will be held June 10th at the CDA Shriner's Building again.

Idaho QSO Party: Idaho QSO Party will be March 11th and 12th.

Kootenai ARES/RACES Meeting: 3rd Monday of every month at the Search and Rescue Building. Contact Rick Van Landingham (KI7I) with questions/interest.

Upcoming Club Meetings Ideas: Base Station Antenna building event. There are several new hams in the club and there has been an interested some "general hamming" classes to help the new techs. Stay tuned for further updates.

Raffle Results:

50/50 (claimed)	\$7.00	Randall Porter, KG7RHV
Membership		No Raffle Held

Rick Van Landingham (KI7I) made the motion to adjourn the meeting at 8:47pm, the motion was seconded and passed by member vote and meeting was adjourned.

Reminder:
Daylight Savings Time Starts
12 March 2017
0200 becomes 0300

First amateur radio in geosynchronous orbit will aid disaster communications

<https://phys.org/news/2015-12-amateur-radio-geosynchronous-orbit-aid.html>

Researchers at the Ted and Karyn Hume Center for National Security and Technology are preparing to send an amateur radio transponder into a geosynchronous orbit in 2017.

"Seven days a week, 24 hours a day, 365 days a year, a new ham band will be available for the Americas," said Robert McGwier, a research professor in the Bradley Department of Electrical and Computer Engineering and the Hume Center's director of research. "It will allow rapid deployment to disaster areas and support long-haul communications for first responders."

This would be the first amateur or “ham” radio payload in a geosynchronous orbit, and would significantly enhance communications capabilities for amateur radio operators, in particular following natural disasters or other emergency situations. The Hume Center team met with Federal Emergency Management Agency Administrator Craig Fugate in September to discuss the project. (Information provided by Virginia Tech)

“Mysterious Foghorn” is Chinese Over-the-Horizon Burst Radar

The International Amateur Radio Union Region 1 (IARU-R1) Monitoring System (IARUMS) newsletter reports a mysterious “foghorn” - a Chinese over-the-horizon (OTH) burst radar - is operating in Amateur Radio bands.

“We observed the mysterious foghorn on 7, 10, and 14 MHz,” the newsletter recounted. “This is a Chinese OTH radar, which is often jumping, and sounding like a foghorn.” The signal is frequency modulation on pulse (FMOP) with 66.66 sweeps-per-second bursts.

Other intruders reported by the IARUMS include a Russian frequency-shift-keying (FSK) signal from Kaliningrad on 7,193 kHz, and a Russian FSK signal on 7,193 kHz (50 baud, 200 Hz shift). German telecommunications authorities have filed another complaint.

The latest IARUMS newsletter also reports strong splatter from Radio France International (RFI) on 7,205 kHz down to 7,186 kHz. The French REF has informed RFI and French telecommunications authorities.

Intruders still reported and the subjects of further complaints from German authorities include Radio Hargeysa in Somaliland on 7,120.0 kHz; Radio Eritrea with Ethiopian interference on 7,175.0 kHz; Radio Taiwan and a Chinese jammer on 7,200.0 kHz, and a Radio Tajik harmonic (from 4765 kHz) on 14,295.0 kHz. (ARRL News)

HAM RADIO ADDED TO POLICE RESOURCES IN INDIA

NEIL/ANCHOR: Our top story this week takes a look at how one police organization in India has been busy integrating amateur radio into its well-established strategy of radio response. That’s going to mean more ham radios - and more licensed hams! Here’s Amateur Radio Newsline’s Jeremy Boot G4NJH.

JEREMY: The Assam Police Radio Organization, which uses wireless communication for law enforcement and crises, is working to integrate amateur radio use more deeply into its operations, particularly for disaster preparedness. According to a recent article in the Assam Tribune, the strategy gained traction during a February APRO seminar on disaster response and planners said priority needed to be given to communication methods that did not rely on the existing communications grid.

The director general of Assam’s police, Mukesh Sahay, said during the seminar that the need for more trained and licensed amateur radio operators is paramount.

The police will be working with S. Ram Mohan VU2MYH, director of the National Institute of Amateur Radio in Hyderabad, to develop a system. Police in Assam have used various forms of wireless communications since 1946 and an independent communications network was expanded following India’s independence the following year. Disaster response was taken to a new level in 2005 when the Amateur Radio Center VU2VKP was opened at the APRO Training School.

For Amateur Radio Newsline, I’m Jeremy Boot G4NJH.

(ASSAM TRIBUNE, ASSAM POLICE, NATIONAL INSTITUTE OF AMATEUR RADIO)

ARRL Seeks Opinions Concerning Possible New Entry Level License

An Entry Level License Committee was established by the ARRL Board of Directors and appointed in September 2016. As part of its ongoing work, the committee is gathering member input and will make recommendations to the Board for possible rules changes to submit to the FCC.

The result could mean changes to the Technician license, but it could also be an additional, but simpler, license with privileges that would give a newcomer a taste of most facets of ham radio from HF to VHF and UHF.

The committee has created an [online member survey](http://www.arrl.org/license-1) (www.arrl.org/license-1). Please complete and submit the survey no later than April 7, 2017. Survey results will be published. (ARRL News)

ARES Volunteers Support Evacuation, Shelters, in Wake of Oroville Dam Crisis

[UPDATE: 2017-02-14 @ 2312: Authorities have now lifted a mandatory evacuation order issued over the weekend to residents who could have been affected by catastrophic flooding from failure of the Oroville Dam emergency spillway. Residents may now return to their homes but have been advised to remain vigilant, should the situation again become critical. The Red Cross shelter in Chico will remain open through a predicted storm.]

[Sacramento Valley ARES](#) Section Emergency Coordinator Greg Kruckewitt, KG6SJT, reports that Amateur Radio Emergency Service (ARES®) volunteers are now actively involved in supporting communication for the evacuation and sheltering of nearly 200,000 people living below the damaged Oroville Dam in rural California. The dam, on the Feather River east of Oroville, is the tallest in the US. Following a period of heavy rain, a section of the earthfill-embankment dam's spillway eroded, and authorities issued an evacuation order for residents living below the dam, in case it should fail. Crews have been attempting to fill the eroded area with rock transported by helicopter.

Butte County ARES EC Dale Anderson, KK6EVX, was called out by the emergency operations center (EOC) on the evening of February 12. Six members of the Butte County ARES team now were deployed a Red Cross evacuation shelter at the Chico fairgrounds. Anderson said shelter managers were discussing the need to establish a radio link with the National Guard. Two VHF radios, one HF radio, and several handhelds were available at the shelter.

On February 12, Yuba/Sutter ARES EC Steve Sweetman, K6TAZ, opened and managed a net to provide information and gather reports of road closures or problems during the evacuation. The net received reports from radio amateurs who were evacuating. Traffic was reported to be very heavy, with a trip that would normally

take 20 minutes extending into "3-hour stop-and-go ordeal," Sweetman said. The net also gathered information on where evacuees could get fuel for their vehicles. "This became a critical need, as the thousands of people evacuated their houses with 1-hour notice," Kruckewitt said, adding that the net has continued in operation. Sweetman is operating from his house on a high hill outside Yuba City," Kruckewitt said. "He is safe from flooding and currently has 17 evacuees staying on his property."

The Sacramento County EC Vince Cracchiolo, KI6NHP, was called into the Sacramento County Emergency Operations Center (EOC) on February 13 as the Red Cross opened a shelter at Cal Expo in Sacramento. Kruckewitt said the Sacramento Valley Section has received offers from hams outside of California offering to help if needed. FEMA reports that 20 shelters are open with 3,680 occupants.

"At this time, we are doing fine," Kruckewitt told ARRL, although power outages have been reported in Yuba and Sutter counties. "They are identifying the problem," he said, "so power outages at the Chico shelter are possible."

"All ARES groups in the Section are on standby, if help is needed. So far, the dam is holding, and repair work is under way at last report."

According to the California Department of Water Resources (DWR), evacuation orders were issued to residents surrounding Lake Oroville late Sunday afternoon. "DWR has been monitoring conditions at Lake Oroville's main and auxiliary spillways around the clock for signs of erosion that could threaten the integrity of the emergency spillway and allow large, uncontrolled flows to the Feather River," the agency says on its website.

"To lower the lake level and thus reduce flows and the potential for erosion at the top of the emergency spillway, DWR increased flows down the main spillway's damaged, concrete chute to 100,000 cubic feet per second. Current releases remain within the capacity of downstream channels. Oroville Dam is a separate structure from the emergency spillway and remains sound." (ARRL News)

More Countries Authorize 5 MHz Bands; Comments Due on ARRL 5 MHz Petition by March 20

Uruguay and Hong Kong are among the latest countries to establish new bands in the vicinity of 5 MHz. The *Final Acts* of World Radiocommunication Conference 2015 (WRC-15) provided for a secondary international allocation of 5,351.5 to 5,366.5 kHz to the Amateur Service.

In Uruguay, new Amateur Radio regulations that came into force on February 24 provide for a 5,351.5-5,366.5 kHz 60-meter band as well as for allocations on 472-479 kHz, 47-47.2 GHz, and 77.5-78 GHz. In addition, radio amateurs in Uruguay now have extended allocations on 80 meters, 3,500-4,000 kHz, and on 160 meters, 1,800-2,000 kHz. The new bands and sub-bands were adopted according to the recently updated International Amateur Radio Union Region 2 (IARU-R2) band plan.

Holders of the General license in Uruguay may operate with 15 W EIRP, while *Superior* licensees may operate with 25 W EIRP.

Uruguay also has established a Beginner (*Inicial*) class license and a training program for new radio amateurs with mandatory operating practice on 80, 40, 10, and 2 meters. Uruguay has established procedures for non-citizens to apply for and renew Amateur Radio licenses, and reciprocal permits for non-residents will be available.

In Hong Kong, the local telecommunication authority OFCA has allocated 5,351.5-5,366.5 kHz to the Amateur Radio Service on a secondary basis. The maximum power permitted is 15 W EIRP. All 60 meter allocations are on a secondary basis.

While US radio amateurs have access to five discrete 60-meter channels, they do not yet have access to a contiguous band in that part of the spectrum. Comments are due on March 20 on the ARRL's January 12 *Petition for Rule Making* to allocate a new, secondary amateur band at 5 MHz, while keeping four of the current five 60-meter channels - one would be within the new band - as well as the current operating rules, including the 100 W PEP effective radiated power (ERP) limit. The federal government is the primary user of the 5 MHz spectrum in the US.

The FCC has designated the League's *Petition* as RM-11785 and has put it on public notice. Interested parties may comment on the League's petition via the FCC Electronic Comment Filing System ([ECFS](#)). (ARRL News)

MARS Refocuses Its Mission, Encrypts Data Nets

Today's Military Auxiliary Radio System (MARS) program has changed markedly from what it was just a few years ago. So says US Army MARS Program Manager Paul English, WD8DBY, who contends that MARS must adapt in order to remain relevant and useful to its sponsor, the US Department of Defense (DOD).

"Probably the most significant changes were the Navy's decision to 'sunset' the Navy Marine Corps MARS program and our move to refocus Army and Air Force MARS on providing contingency HF Radio communications support to the DOD and the services," English said. "In order to focus our support on the Department of Defense, MARS leadership had to rethink, essentially from the ground up, what it means to be a MARS member." MARS relies on volunteers from within the Amateur Radio ranks. Among other things, recruits receive specialized training in military messaging formats and digital messaging protocols.

While the priority MARS mission is to provide contingency HF communication to support the DOD and the military, MARS also supports communication for combat commands providing humanitarian assistance and disaster relief, provides contingency communication for Defense Support to Civil Authorities (DSCA), and provides "morale and welfare communications" in support of the DOD.

MARS still provides support for civil authorities, but it must follow DOD procedures for how that support is provided, English explained. "MARS leadership used to actively encourage our members to support civil authorities," he said, "and that put us in direct competition with the Amateur Radio community as well as with other federal agencies."

English said that in today's MARS program, the primary digital protocol is software that emulates Military Standard (MilStd) 188-110A (M110A) serial phase-shift keying, which is compatible with what is used by the military. MARS members may still use Amateur Radio digital modes on working channels, but M110A is the principal mode. There are no plans to transition to digital voice modes.

This year, MARS introduced an online encryption program that allows all digital radio traffic to be encrypted as it is being transmitted. MARS has also expanded its use of automatic link establishment (ALE), although members are not required to use it.

“Our bread and butter remains single-channel HF communication,” English said. “The majority of our members who do use ALE are using the MARS ALE software program. Some of our members who support our national nets are moving to hardware ALE radios.”

The MARS program supports quarterly contingency communication exercises supporting the DOD. These are based on “very bad day” scenarios, where traditional forms of communication are no longer available. “Through these exercises, the DOD - via the MARS community - reaches out to the Amateur Radio community to provide situational awareness information at the county/local level,” English said.

That makes sense to MARS member Bill Sexton, N1IN, who was Army MARS public affairs officer from 2001 until 2014. “At least in theory, the blanketing omnipresence of hams across all 50 states offers a backup for blacked-out regions in the event of a catastrophic attack or natural disaster,” Sexton allowed. “The challenge is mobilizing back-up operations in the total absence of internet, telephone, cell phone, or texting resources.” (ARRL News)

HAARP Goes Classical During New Experimental Campaign

The just-concluded run of ionospheric investigations conducted from Alaska’s High Frequency Active Auroral Research Program (HAARP) observatory — quite likely the most powerful HF transmission facility in the world — revived the latent short-wave listener (SWL) lurking within most radio amateurs. Operating under Part 5 Experimental license W12XFX, HAARP this month even aired some classical music as it conducted its first scientific research campaign since being taken over 18 months ago from the military by the University of Alaska Fairbanks (UAF) Geophysical Institute.

UAF Space Physics Group Assistant Research Professor Chris Fallen, KL3WX, focused on two experiments — one called “airglow” that literally aimed to light up the ionosphere, and another to demonstrate the so-called “Luxembourg Effect,” first noticed on a 1930s

Radio Luxembourg broadcast. Public engagement was part of his plan, and Fallen this week said the [Twitter](#) and e-mail feedback from his transmissions had been “fantastic,” and that his science campaign had become “quite an event.”

“Thank you for making a difference and advancing Amateur Radio as well,” Doug Howard, VE6CID, tweeted. Another Twitter follower enthused, “You’re running the coolest DX station in the world.” Fallen said he also received “a lot of great waterfalls,” as well as video and audio recordings from hams and SWLs.

Fallen started and stopped each experiment block with DTMF tones, transmitted in AM on or about 2.8 and 3.3 MHz, each channel fed with audio tones of different frequencies or, in the case of music, as a separate stereo channel. If the “Luxembourg Effect” is present, skywave-signal listeners would hear both channels combined on a single frequency; Fallen said the effect is easier to detect with tones. In addition to tones, he transmitted “a ‘dance track,’ a Pachelbel Canon arrangement, and a variation of ‘Row, Row, Row Your Boat.’” Jeff Dumps, KL4IU, composed some of the music, and he arranged and performed all of it.

“HAARP again...perhaps sometime this summer!” Fallen tweeted on February 23. He has posted additional information on his “Gakona HAARPoon 2017” [blog](#).

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: _____

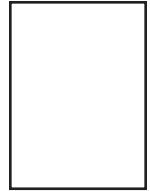
Name: _____ Call: _____ Class: _____

*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.

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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.