

January 2013

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

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

## REGULAR CLUB MEETINGS:

**Monday, Jan. 14, 7:00 p.m.**  
**Kootenai Search & Rescue**  
**Bldg., Hayden, Idaho**  
**Topic: Winter Driving**  
**Presenter: Idaho State Patrol**  
**Refreshments: Pat and Bonnie**  
**Patterson, W7SGS &**  
**KG6QQM**

**ARRL VE Testing Session 1/**  
**14/13 5:30 PM Walk-ins welcome**  
All exams administered.

**Monday, February 11, 7:00**  
**p.m.**  
**Kootenai Search & Rescue**  
**Bldg., Hayden, Idaho**  
**Topic: All Transmission**  
**Modes**  
**Presenter: Larry Telles,**  
**K6SPP**  
**Refreshments: Jim and Cheryl**  
**Banks, KF7TFJ & KF7SQL**

### Upcoming Events

**Idaho QSO Party**  
**March 9-10**

**Mike & Key Hamfest**  
**March 9**  
**Puyallup, Washington**

**Idaho State Convention**  
**April 26-28**  
**Boise, Idaho**

## President's Column

Hope you all had a Merry Christmas. Was Santa generous and supplied you with some new ham equipment for your shack? We can all dream.

The KARS Christmas Party was a very nice gathering. We were quite pleased to see that our two charter members: Walt, K7ETH, and Marj, WB7WUB, Hogeweide were in attendance. As usual there were numerous delicious offerings available for us to taste. The American Legion provided us with just one small table to hold our array of dishes, but with a little ingenuity we were able to provide room to hold everything. I don't think anyone left hungry.

Now that the Mayan predicted doomsday has failed to materialize, we are ready to begin a new year of club activities. Suggestions for program topics to be discussed at future KARS club meetings would be appreciated. We are starting this year off with a winter driving program presented by the Idaho State Patrol. I know they have been here before, but as we get older, reminders on how to drive on ice and in snow are always helpful. We have been fortunate that the last couple of winters have been relatively mild. The snow dump just before Christmas, however, reminded us all of how our winters can be.

If you are looking for something to do, a group is forming to refine a course outline and lesson plans for future KARS supported technician license classes. If you are at all interested in participating in this effort please notify me. The group could use teachers, members willing to set up hands-on displays, as well as Elmers to assist class members that experience difficulty with the technical topics.

There is also the Idaho QSO party to look forward to in March. Our once a year chance to be a "DX" station. A fun activity is to be mobile on that March weekend and provide QSOs from multiple Idaho Counties. With the weather keeping us inside for a few months, there will be time to strategize how to access as many counties as possible. We know there are accessible places where you can transmit from two different counties just by crossing the road.

While you are whiling away the winter hours in your ham shack, you might consider the idea of participating in the Winter Field Day. I know the Voice of Idaho club participates in Winter Field Day activities, but have we ever considering participating from the frozen lands of North Idaho? The Winter Field Day is held the last weekend in January each year. This year that would be Jan. 26 and Jan. 27. The object of the event is familiar to most ham operators: set up emergency-style communications and make as many contacts as possible during the 24 hour period. The rules encourage as many contacts on as many bands and modes as possible, because during a real emergency, the most important factor is the ability to communicate, regardless of band, mode or distance. We don't have much time to get it together this year, but perhaps next year. Just a thought!

Looking forward to working with you throughout 2013.  
Bonnie KG6QQM

## KARS CHRISTMAS PARTY

The annual KARS Christmas Party was held on December 10, 2012, at the American Legion Hall in Post Falls. It was a great holiday event with over 70 KARS members and guests attending.

The ARRL VE testing session was conducted prior to the start of the festivities. Doug Duncan, KD7HQW, passed his General license. (His wife and son plan to take their Technician license exams in January). David Barger, KG7AGM, passed his Technician test.

President Bonnie Patterson, KG6QQM, welcomed everyone and read a short Christmas story titled the Gold Wrapping Paper. This was followed by the partaking of delicious potluck dishes.

When the feasting was complete, a magic silver tube was carried through the facility with cash donations being accepted for the Union Gospel Mission's Women and Children Center in Coeur d'Alene.

Several KARS members were presented with certificates of appreciation. These included the KARS board members: Allan Campbell, KE7DFT; Tom Richmond, NI7W; Pat Patterson, W7SGS; Jacob Cord, K7AJC; and Jerry Hooper, KA7RNX. Also acknowledged were Larry Telles, K6SPP; Bob Hallock, K7TM; and John Hollar, N7JU.

John Hollar, N7JU, ARRL VE Team Leader, then presented his VE team members in attendance with lanyards, buttons and patches acknowledging their session accomplishments for the past year. Active members of the KARS VE team are: Jacob Cord, K7AJC; Mark Avakian, N7MA; Larry Telles, K6SPP; Bob Rosie, W7GVS; Cheryl Banks, KF7SQL; Allan Campbell, KE7DFT; Bob Hallock, K7TM; Jerry Hooper, KA7RNX; Mitch Killebrew, KB7BYR; Gary Holland, N7DHL; and Todd Silk, AD7VB.

Two KARS members were selected for special recognition. They were Allan Campbell, KE7DFT, and Dale DuRee, KE7VMN. Both were instrumental in getting the new repeater sites at Mica Peak and Canfield Mountain up and on the air.

Numerous members and guests won door prizes. This year's prizes were donated by Lani and Lee Hopkins, Rosanna and Gary Holland, Bonnie and Pat Patterson, Renee and Ed Stuckey, Neadda Baird and Tom Macy and KARS.

The grand prize for the evening, a hardbound copy of the 2013 ARRL Handbook, donated by our ARRL Section Manager, Ed Stuckey AI7H, was won by Quint Webb W7CQW.

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## REMINDER

For those of you that haven't paid your KARS 2013 dues, they are now due and payable. Dues

for one year is \$12 or \$18 for a family. Dues for two years is \$22 or \$33 for a family. Your membership will lapse if your dues are not paid by March 31, 2013.

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## Highlight MARCH 9 in Your Calendar



### The Idaho QSO Party

Yes, it's almost Idaho QSO Party time again. The actual event will take place for a 24-hour period, beginning at 11AM local time on Saturday, 03/09/13. If you want to talk with a lot of ham stations, this is the place for you, as less than 1% of American hams live in Idaho! For complete details, go to this web page: <http://www.idahoarrl.info/qsoparty/index.html>

You may recall that KARS is the sponsoring Club for the Idaho QSO party. This means that we receive the logs, evaluate them, create a participation recap, and eventually e-mail certificates of appreciation to all participants. This year we need volunteers to assist with these activities. Please contact me ([ai7h@arrl.net](mailto:ai7h@arrl.net)) if you can help out!

73,  
Ed Stuckey, AI7H  
Idaho ARRL Section Manager

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As previously reported, the FCC has proposed to amend its rules to implement the allocation decisions of the 2007 World Radiocommunication Conference (WRC-07) and to make certain other changes. Notice appeared in the December 27, 2012 issue of the Federal Register, which started the clock on a 60-day window for the submission of comments. Thus, comments are due no later than February 25, 2013, with reply comments due no later than March 27, 2013.

While most of the 130-page Notice of Proposed Rulemaking and Order does not directly affect the Amateur and Amateur-Satellite Services, two sections of the document are of particular interest to amateurs.

Specifically, the FCC proposes to upgrade the Amateur Service allocation in the upper half of the 160 meter band (1900-2000 kHz) from secondary to primary, while deleting the existing allocation to the Radiolocation Service. This is possible, because the reaccommodation of radiolocation stations displaced by the expansion of the AM broadcasting band to 1705 kHz has been completed and there are no non-federal radiolocation stations licensed to operate in the 1900-2000 kHz band.

The FCC also seeks comments on whether, and how, an amateur low frequency (LF) allocation might be able to co-exist with Power Line Carrier (PLC) systems that are used by electric utilities to monitor and control the power grid. The Commission notes that while PLC systems do not have the status of an allocation, they carry "communications important to the reliability and security of electric service to the public." WRC-07 created a new secondary allocation to the amateur service at 135.7-137.8 kHz that already has been implemented in a number of other countries.

The ARRL will be preparing comments supporting both of these allocations. Individuals wishing to comment directly to the FCC should carefully read paragraphs 13-24 of the NPRM and follow the instructions contained in paragraph 175. (ARRL News line)

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#### EMERGING TECHNOLOGY: ANOTHER NEW SOURCE OF LIGHT ANNOUNCED

A new and more efficient way to light your way is on the horizon. Amateur Radio Newsline's Skeeter Nash, N5ASH, reports:

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Scientists at the Wake Forest University have created a new type of light bulb that promises to be just as efficient as LED equivalents, but without any of the drawbacks.

The new field-induced polymer electroluminescent bulbs or FIPEL for short, produce light when an electric current is passed through its nano-engineered plastic layers. The team says that the new type of bulbs are malleable, allowing them to take any shape like compact fluorescent lamps. They also won't shatter like traditional bulbs, nor will they generate the same hum or flicker.

The inventor of FIPEL is Dr. David Carroll. He believes that his new solution is superior to LED bulbs because there is a limit to how much brightness you can get out of them. If you run too much current through an LED they can short out and melt. Not only that, the light generated by FIPEL bulbs is closer to natural sunlight, unlike the bluish tint generated by LEDs.

Any worries about longevity are also put to rest by Dr. Carroll. He claims to have had a field-induced polymer electroluminescent prototype lamp working in his laboratory for almost a decade.

For the Amateur Radio Newsline, I'm Skeeter Nash, N5ASH.

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As for when the technology will make the jump to a commercial product? The research team says that a corporate partner is interested in producing the new bulbs at scale, with the first run expected in 2013. (CGC, earthsignals.com, TheVerge.com)

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#### RESTRUCTURING: FCC PROPOSES 3.5 GHZ CITIZENS BROADBAND SERVICE

First, there was the old Class A and Class B Citizens radio of the 1940's. Then came 11 Meter Class D Citizens Radio Service in 1958. Next was the Family Radio Service authorized in the United States since 1996. That was followed in 2000 by MURS or the Multi Use Radio Service. Now in 2013, the FCC is proposing to create a new Citizens Broadband Service and it's like nothing else the regulatory agency has ever attempted before. Amateur Radio Newsline's Norm Seeley, KI7UP, has the details:

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Just before years end on Wednesday December 26th the FCC announced a proposal to make available 100 MHz of shared spectrum in the 3.5 GHz band using small cell and database technologies. The FCC calls the new service in the 3550 to 3650 MHz band the "Citizens Broadband Service" or C-B-S and proposes three tiers of service. These will be known as Incumbent Access; Priority Access and General Authorized Access.

Incumbent Access would consist solely of authorized federal and grandfathered licensed Fixed Satellite Service

3.5 GHz band users. They would be protected from the other tiers by regulation and technical means. This would include the use of exclusion zones where other C-B-S uses would not be permitted.

Priority Access level would be given to small cell use by certain critical quality-of-service dependent users at specific target locations. This might include hospitals, utilities, state and local governments. It might also include users with a distinct need for reliable, prioritized access to broadband spectrum at specific, localized facilities.

Lastly, the General Authorized Access or G-A-A level would allow opportunistic use of the spectrum for a variety of residential, business and enterprise purposes. These users would have to protect Level 1 Incumbent Access and Level 2 Priority Access users through technologies including geolocation. Also as the lowest level users they would not have any expectation of protection from harmful interference to this user base.

The Notice of Proposed Rulemaking is known as FCC 12-148. It also seeks comment on including spectrum at 3650 to 3700 MHz, immediately adjacent to C-band downlink spectrum. If the FCC does include the 3650 to 3700 MHz band in the proposed new service, wireless Internet service providers using this band for links would have to be licensed under the tier 3 General Authorized Access rules.

The NPRM proposes a "Spectrum Access System" which would govern interactions between all devices in the 3.5 GHz band. It would be modeled after the TV White Space database concept and all devices would be limited to 1 watt Effective Radiated Power as compared to an Isotropic radiator.

For the Amateur Radio Newslines, I'm Norm Seeley, KI7UP, in Scottsdale, Arizona.

If the proposed services name of the Citizens Broadband Service has a 1960's or 1970's ring to it, its not by mere coincidence. The FCC is proposing to license users under Section 95 of the Personal Radio Service rules. That's the same section that includes 11 meter Citizen's Band radio. (FCC, RW)

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## A BELATED HAPPY 65 TO THE TRANSISTOR

A belated happy birthday to an electronic device whose invention revolutionized telecommunications and made possible the technology that we have today. Of course we are talking about the transistor as we hear from Amateur Radio Newslines's Bruce Tennant, K6PZW:

Shockley, John Bardeen and Walter Brattain created an amplifier from a germanium crystal that boosted the level of an input signal by 100 times. Various researchers had tried to develop a solid-state alternative to the vacuum tubes during World War II but none had succeeded. The Bell Labs Trio demonstrated it for lab officials a week later on December 23 where Shockley deemed it a magnificent Christmas present.

Bell Labs announced the invention of the transistor six months later. The device went on to become one of the signature scientific achievements of the 20th century, ranking up with splitting the atom, manned flight, and the discovery of DNA. One could argue, in fact, that the transistor was the most important breakthrough of the 20th century because subsequent advances in those other fields relied on the computing power made possible through integrated circuits and semiconductors. In essence, information has become a science itself.

For the Amateur Radio Newslines, I'm Bruce Tennant, K6PZW, in Los Angeles.

As a result of their achievement Electronics Magazine put a photo the three men on its cover. The three went on to share the Nobel Prize for physics in 1956. John Bardeen became a laureate a second time in 1972 for his work on superconductivity. And very apropos the entire story is on-line at [tinyurl.com/transistor-comes-alive](http://tinyurl.com/transistor-comes-alive) (Readwrite, others)

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**COFFEE & DONUTS  
EVERY THURSDAY MORNING**

**8:00 A.M.  
To  
10:00 A.M.**

**The Golden Spike  
Community Center  
Rathdrum**

**TALK-IN: 146.98  
100 PL**

Bring a writing instrument. The Golden Spike 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.

On December 16, 1947, Bell Labs researchers William



# Kootenai Amateur Radio Society

PO Box 17□5, Hayden, Idaho 83835-17□5



Please complete the entire form and return with your payment.

## Single Year Membership

New Member \$12.00     Renewing \$12.00     Family Membership \$18.00     Information Update Only

## Two Year Membership

New Member \$22.00     Renewing \$22.00     Family Membership \$33.00

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

First Name & Middle Initial \_\_\_\_\_ Last Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

Phone Number \_\_\_\_\_ E-Mail Address \_\_\_\_\_

ARRL Member \_\_\_\_\_ May we publish limited information \_\_\_\_\_

Internal Use Only

Cash	<input type="checkbox"/>	Check	<input type="checkbox"/>	Money order	<input type="checkbox"/>
Roster	<input type="checkbox"/>	Membership Card	<input type="checkbox"/>		

For Family Membership, Please complete an application and staple together.

Signature \_\_\_\_\_

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## K7ID.org Request Form

First and Last Name \_\_\_\_\_ Callsign \_\_\_\_\_

Would you like your (callsign)@k7id.org email to be forwarded to an existing email account or would you like to access it through a web or post office protocol (POP) system?

Please Forward to My existing Email (Please Complete the Bottom and Sign.)     Webmail Access     POP Access  
 I wish to opt-out of K7ID.org

Please Select a username \_\_\_\_\_ @K7ID.ORG

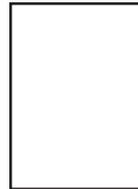
Please Select a Password \_\_\_\_\_

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Email Address \_\_\_\_\_

Signature \_\_\_\_\_

**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.

## **2013 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 repeater on 146.98 and a packet repeater on 145.510 Mhz.

Anyone interested in Amateur Radio is welcome to join. Dues are \$12.00 (individual) and \$18.00 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.