



April 2014

(www.k7id.org)

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

## REGULAR CLUB MEETINGS:

**Monday, Apr. 14, 7:00 p.m.**  
Search & Rescue Bldg.,  
10865 N. Ramsey Road  
Hayden, Idaho  
**Topic: The Easter Bunny  
Cometh**  
**Presenter: Santa Claus**  
**Refreshments: Cheryl,  
KF7SQL, and Jim Banks,  
KF7TFJ**

**Monday, Apr. 14, 5:30 p.m.**  
ARRL VE Test Session  
Search & Rescue Bldg.,  
10865 N. Ramsey Rd.  
Hayden, Idaho

**Monday, May 12, 7:00 p.m.**  
Search & Rescue Bldg.,  
10865 N. Ramsey Road  
Hayden, Idaho  
**Topic: ???**  
**Presenter: ???**  
**Refreshments: ???**

**Monday, May 12, 5:30 p.m.**  
ARRL VE Test Session  
Search & Rescue Bldg,  
Hayden, Idaho

**Upcoming Events**  
**Desert 100, Odessa, WA**  
**April 4-6, 2014**

**Idaho State Convention**  
**April 25-27, 2014**  
**Boise, Idaho**

Letter from the President  
Dave Boss KF7YWR

### April 2014

It seems as if it was just yesterday that I was sitting down to write the last letter, but alas that was a whole month ago. Since then, we have successfully navigated through and survived yet another North Idaho winter. Most of the snow is gone and spring is officially here, although it was just a few days ago. There are the tell-tale signs that spring *really* has arrived, with seeing the daffodils poking through the dead stuff and the dozens of rhubarb crowns starting to push up through the soil. As I have been wandering about the yard looking at all the tasks (read—"yard work") that lies ahead, I also have been trying to determine where to put up the antennas and eventually a tower.

Having received my license a year ago last October, there was just enough time to build and put up 20 odd feet of tower with a ten foot mast topped with a Copper Cactus J-pole before the weather broke. Last summer was used up building the Ham Shack and trying a number of temporary antenna combinations. I was, and am still looking for an HF solution that would be able to reach those both close to me and across the country as well. I live near Silverwood and wanted to contact those in Garwood, Cocolalla, and Rathdrum— you know, close-by. The quest went largely unfulfilled. Trying cloud burners at multiple elevations, several varieties of NVIS (Near Vertical Incidence Skywave) configurations, multi-band trapped dipoles, and finally an 80/20 Off Center Fed Windom, I was able to contact Alaska, Nebraska, New Hampshire, Florida, Montreal, and numerous points in between. The nearby stations were generally overlooked. The testing continued until I could no longer drive steel stakes in the ground due to frost. My wife Joyce, KG7FAK, was thrilled, as she had been my faithful rope holder and mast stabilizer.

Having done extensive research, on scores of different articles, all *claiming* to be able to talk not only across town, but across the state or country as well, I had hoped I would be having at least a glimmer of success. I was able to contact stations close-by, *occasionally, sometimes*, but with mostly dismal results. Pretty bad when the electrons could almost drip off the end of the antenna and land on the other station but you can't talk to them. One would think that a station 5-6 miles away could be contacted rather easily, but alas that was not the case. Working 11 years in a R&D company, taught me one thing, success comes only after a lot of failures, or as we liked to say "we were just eliminating all the wrong data first". So far I have a pretty good list of wrongs. Still looking for a solution and will be willing to entertain any suggestions. The good news is I am pretty patient and really enjoy the challenge, and most of all, fabricating the various antenna systems. My overall consensus is that there is more black magic involved than science, and I hope that I will not be as Don Quixote, "dreaming the impossible dream".

Dave Boss, KF7YWR

### **Who'd of thunk it?**

While I was installing my new bench in the Ham Shack, I was listening in on 15 meters. A CQ call came across, I answered and chatted with Chris WD1W from Manchester, Vermont; a few minutes later answered another call from W1AW/7 in Arizona! First glance at the logbook looks like I was really confused.

Past Events:

### **March Testing**

**Our testing crew added three new Hams to the list at the last meeting. They are as follows: Daniel O'Conner, KG7ITW, and Michael Hamilton, KG7ITV, both upgraded to General and Nathan Conick became a Technician. Great job guys!**

### **Ed Stuckey, AI7H, reports on Idaho QSO and W1AW/7:**

#### **Idaho QSO Party**

Preliminary results are in from the Idaho QSO Party that took place 3/8-3/9. 75 logs received so far, from 28 US states and Canadian provinces, 13 from European countries and one from Venezuela. The large number of foreign contacts may have been influenced by having W1AW/7 operating from Idaho during that period. (The W1AW/7 operation involved a total of 17 operators who made a whopping 3,648 QSOs during the 24hour period). One log evaluation session took place on 3/20, and another is planned for 4/03. (Thanks W7GSV, AD7VB, KG6QQM, and W7SGS for helping with the log evaluation). We expect to have all Idaho QSO stuff finished early in April.

#### **W1AW/7 Results**

**The W1AW/7 operation from Idaho (week of 3/5 thru 3/11) involved a total of 39 operators, in 27 different locations. (Several operators were KARS members). A total of 41,398 QSOs were achieved during the week (whew!). This was a significant coordination effort, but it paid off nicely, with Idaho coming in as the #3 state among all who have hosted W1AW/ (Portable) so far. There will be a second W1AW/7(Idaho) week in September.**

Upcoming Events:

KARS Hamfest — June 14<sup>th</sup>

**Jim Monroe, N7ESU, has secured the American Legion Building for this year's event. Allen Campbell, KE7DFT, and Jim Banks, KF7TFJ, are also working out the details for the food, volunteers, prizes and all. I am sure they would love to hear from all of you willing to help. Donations of old Ham gear are always appreciated, (no old Hams please, we are already well stocked) and, if you are a real tightwad and want to keep it all to yourself, you might consider renting a table to display your wares and make some money in the process. Regardless of your choice, put the date on your calendar and save up your pennies to come and pick up that special treasure that is waiting to part you from your money. Last year had lots of good stuff and I think I bought most of it!**

### **Field Day — June**

**Looks like this year we will be invading the Rathdrum City Park on Highway 53 for Field Day. This has great exposure and should be a great venue for this event. Last year's event was graciously hosted by Rick Van Landingham KI7I at his home, and although it was just a little out of the way for many visitors, we did have some. Hopefully being on a major thoroughfare should increase the clubs exposure and generate some interest in our hobby. I believe a signup sheet for volunteers to set-up and man the event will circulate at the next meeting. Last year's event was my first Field Day and I really enjoyed myself. I was seriously overwhelmed sitting at Rick's station, lots of serious bells and whistles, and really disappointed as the propagation really sucked. Hopefully this year the propagation will be better. Ed Stuckey, AI7H, and Jim Monroe, N7ESU, can fill you in on more details.**

Refreshments:

**Cheryl, KF7SQL, and Jim Banks, KF7TFJ, volunteered for the April meeting. Thank you in advance.**

## Amateur Radio, Federal Government Engaged in Joint 5 MHz Communication Exercise

Amateur Radio operators and federal government stations are engaged in a 12-day nationwide test of their capability to communicate with each other on HF in the event of an emergency or disaster. The High Frequency Interoperability Exercise 2014 (HFIE-2014) is running concurrently with the federal National Exercise Program (NEP) 2014. Activity is taking place on two of the five 60 meter channels. The primary center-frequency channel is 5358.5 kHz, and the secondary center-frequency channel is 5373.0 kHz. Amateur Radio is secondary to government users on the band. The joint readiness exercise that began March 27 will continue through April 7 and include all areas of the US. Participants will use Automatic Link Establishment (ALE), a standardized digital selective calling protocol, to establish communication between stations.

“The HFIE has been a semi-annual exercise for some years,” explained HFIE-2014 Coordinator Bonnie Crystal, KQ6XA. “Previously, HFIE has been a ham-only exercise. This year, we scheduled HFIE so it coincides with the NEP.”

Participation in the interoperability exercise is open to all ALE-capable federal government radio stations and to all ALE-capable US Amateur Radio stations. A Special Temporary Authorization (STA) has been granted, giving permission for radio amateurs to communicate with federal government stations for the duration of the exercise.

Crystal said ALE signaling “sounds like turkey gobble,” adding that ALE calls last about 15 seconds. Stations listening “may also hear the operators then start talking on USB voice,” she said. “The signals can be up to about 40 seconds long, if there’s texting riding on it, using a very rapid type of ARQ [automatic repeat request] handshaking.”

“Once someone links with another station, they have the choice of using SSB voice or sending/receiving up to about 80 characters of text,” Crystal said. “Or they can switch to some other mode, such as CW or PSK or PACTOR.”

ARRL Regulatory Information Manager Dan Henderson, N1ND, said the exercise offers an excellent opportunity for those amateurs with ALE capability. “It is a good exercise that highlights one of the key elements under which US amateurs were granted secondary status on the 60 meter band,” he said. “The amateur community’s ability to participate in an interoperability exercise with

governmental communications is a great way to assess where things stand in this area — and to explore the next steps to take. We encourage those amateurs familiar with the ALE protocols and have the station equipment to participate in a meaningful way to do so.”

Crystal said that in past years some hams who work for federal government radio systems have participated in HFIE during their off-hours as Amateur Radio operators. “We got together with some of them and worked out a way to enable federal stations to do some ALE interoperability testing on the 5 MHz channels with hams, since they already are authorized on the exact same channels as hams.” Crystal said it was just a matter of getting the National Telecommunications and Information Administration (NTIA) and the FCC to allow hams and government stations to communicate. The STA was approved on March 24.

Federal government station HF radios stations have the ALE capability built into the hardware. Amateur Radio operators implement ALE protocols using computer software with their ham gear. “The STA allows for on-the-air testing of interoperability between the hardware and software-generated ALE implementations,” Crystal said.

The HFIE is a semi-annual ham radio readiness exercise coordinated by the HFLINK organization and the Global ALE High Frequency Network. It is open to all ALE-capable ham radio stations. Technical and operational guidelines for ham and federal government stations are available on the HFIE-2014 website.

The National Exercise Program is a complex emergency preparedness exercise with activities sponsored by government departments and agencies, designed to educate and prepare the whole community for complex, large-scale disasters and emergencies. As part of the National Preparedness Goal, it enables a collaborative, whole community approach to national preparedness that engages individuals, families, communities, the private and nonprofit sectors, faith-based organizations, and all levels of government.

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## UNDERWATER WI-FI MAY HELP PREDICT TSUNAMIS

Researchers are in the process of testing a new underwater wi-fi – like network in an attempt to create what amounts to a deep-sea internet. One that researchers claim could help detect tsunamis and thereby offer a more reliable warning system.



Unlike traditional wi-fi which uses radio waves, the submerged technology utilizes sound waves. This is because radio is able to penetrate water to some degree, but with severely limited range and stability. But the research team from the University of Buffalo notes that sound waves provide a better option as demonstrated by many aquatic species such as whales and dolphins.

Wireless communication underwater has been possible for some time, but the problem lies in getting separate systems used by different organizations to communicate with each other. The United States National Oceanic and Atmospheric Administration does use acoustic waves to send data from tsunami sensors on the sea floor to buoys on the surface. However due to infrastructure differences, this data cannot be shared quickly with other information gathered by other agencies such as the US Navy. For that reason the University of Buffalo researchers are attempting to create a shared standard to make interaction and data-sharing and public warning more reliable.

More can be found at <http://www.bbc.co.uk/news/technology-24550015> (BBC, Southgate)

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#### FEMA CREATES WIRELESS EMERGENCY ALERTS FAQ WEB PAGE

The Federal Emergency Management Agency has developed a new Frequently Asked Questions or F-A-Q web page dealing with alerts sent directly to wireless and mobile devices. The page answers such questions as what are Wireless Emergency Alerts and why they are important to the recipient; what types of alerts will be received; what such messages look like and more. The page appears to be a truly valuable asset to anyone involved in rescue radio or first response operations. It's on the web at [www.fema.gov/wireless-emergency-alerts](http://www.fema.gov/wireless-emergency-alerts) (FEMA)

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#### TWO GEOSTATIONARY HAM TRANSPONDERS TO BE ON ORBIT BY END OF 2016

The dreams of many hams around the world will become reality within the next two years. This with the announcement that there will soon be a geostationary satellite carrying amateur radio as a part of its payload. Amateur Radio Newsline's Heather Embee, KB3TZD, has the rest of the story:

Ham radio will have its own geostationary transponders on-orbit by the end of 2016. This thanks to approval of a concept from by the Qatar Amateur Radio Society to include a pair Phase 4 amateur transponders

part of the Qatar Satellite Company's new Es'HailSat-2 communications satellite.

Peter Guelzow, DB2OS, is the President of AMSAT Germany. He says that Qatar's Es'HailSat-2 will carry a 250 kHz wide linear transponder intended for conventional analogue operations such as CW and SSB. Also on board will be an 8 MHz wide transponder to be used for experimental digital modulation schemes and digital amateur television.

Precise operating frequencies remain to be finalized but the uplinks will be in the 2.400 to 2.450 GHz and the downlinks in the 10.450 to 10.500 GHz amateur satellite service allocations. Both of the transponders will be feeding broad beam antennas to provide coverage over about 1/3rd of the Earth's surface. This equates to Europe, Africa, along with parts of South America and Asia. Because of its orbital position and antenna beam width, it will not provide service into Central and North America.

Precise operational plans will be finalized over the coming months but it is anticipated that only quite simple ground station equipment will be required to hold QSO's via the transponders on board the soon to be orbited geostationary satellite. (Amateur Radio Newsline)

**COFFEE & DONUTS**  
**EVERY THURSDAY MORNING**  
8:00 A.M.  
To  
10:00 A.M.  
The Golden Spike  
Community Center  
Rathdrum  
**TALK-IN: 146.980, PL127.3**  
**443.975, PL136.5**

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.

# Kootenai Amateur Radio Society



PO Box 1765, Hayden, Idaho 83835-1765

Please complete the entire form and return with your payment

## Single Year membership

New member \$15.00     Renewing \$15.00     Family \$23.00     Info Update Only

## Two Year Membership

New member \$28.00     Renewing \$28.00     Family \$42.00

Call Sign \_\_\_\_\_ Class \_\_\_\_\_ Expires \_\_\_\_\_

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

If renewing, only fill in information below that has changed since last application, otherwise complete.

Address \_\_\_\_\_

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

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

ARRL Member \_\_\_\_\_ May we publish Limited information \_\_\_\_\_ (Y/N)

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

Signature \_\_\_\_\_

## K7ID.org Request Form

First and Last Name \_\_\_\_\_ Call Sign \_\_\_\_\_

Would you like your (call sign )@k7id.org email 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     Webmail access     POP Access  
(Please complete the bottom & Sign)     I wish to opt-out of K7ID.org

Please select a user name \_\_\_\_\_@K7ID.org

Please select a Password \_\_\_\_\_

For forward request only

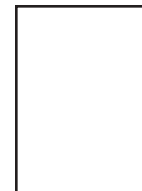
Email address \_\_\_\_\_

Signature \_\_\_\_\_

### Internal Use Only

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

**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.

## **2014 CLUB OFFICERS**

President: Dave Boss, KF7YWR  
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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 \$20.00 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.