



January 2014

(www.k7id.org)

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

## REGULAR CLUB MEETINGS:

Monday, Jan. 13, 7:00 p.m.

Search & Rescue Bldg.,

10865 N. Ramsey Road

Hayden, Idaho

Topic:

Presenter:

Refreshments:

Monday, Jan. 13, 5:30 p.m.

ARRL VE Test Session

Search & Rescue Bldg.,

10865 N. Ramsey Rd.

Hayden, Idaho

Monday, Feb. 10, 7:00 p.m.

Search & Rescue Bldg.,

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Hayden, Idaho

Topic:

Presenter:

Refreshments:

Monday, Feb. 10, 5:30 p.m.

ARRL VE Test Session

Search & Rescue Bldg.,

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### Upcoming Events

Idaho QSO Party

March 8-9, 2014

Mike And Key Hamfest

March 8, 2014

Puyallup, Washington

## Letter from the President

Dave KF7YWR

January 2014

Just a little more than a year ago, I was struggling to get through all the study questions for the General license. I had spent way too much time on the Tech questions and getting my mind wrapped back around electronics again after many years of not needing or using those skills. The test date, October 10, was rapidly approaching and I was only 20% into the General material. By the testing date, I was only up to 40%, but confident with my progress. At this point it was either take the test or wait for another month; I decided to just get it over with. With both tests completed and having only missed a couple questions, getting on the air should be easy and, or so I thought. *Note to self:* work on time management.

After the obligatory week's wait for the official piece of paper from the FCC, I was ready to go buy a radio. But the budget hadn't quite caught up with my enthusiasm, so it was time for some more study and research on radios. After pouring through the myriad of web sites offering many splendid wares and much equipment I was sure I couldn't afford or even operate, and finally hitting on the "Granddaddy" of all sites, "Amazon", I had decided on the "venerable" Baofeng UV5R. It arrived in a timely manner and left me with a whole new set of challenges, namely understanding the included manual (term used loosely), programming and all of it's other idiosyncrasies.

As 2013 wore on, my wife Joyce, KG7FAK, received her Tech license, and I suspect not quite as much enthusiasm from her recent question of, "Why do you need so many radios"? Her question had caught me quite off guard: "why" I thought..." well, well you just *need* them". I had thought of using an analogy of all the pairs of shoes in her closet or of the many purses, but stopped just short of replying as I was still shocked by her question. Probably a good thing! As I relayed this story to several Elmers, most just shook their head, as though they had heard this just one too many times.

This short history has been included for the members who may not have had a chance to meet and get to know me. I try not to take myself too seriously; however with the hobby we are involved with, I do. I see it as a valuable tool for emergency use, and a great hobby that transcends the age gap like no other. Ham radio allows those with handicaps to participate at par with the strongest and most fit. Young and old (that would be most of

us) have the same advantages. It transcends geopolitical boundaries, as it does not seem to matter what country Hams are in, they all seek the same goals: good propagation and - did I mention - more gear.

As the KARS Club starts 2014, I would like for the club to think about what goals we would like to achieve. This last year, as a club, we made great strides with the new repeater system. That task required a good deal of planning, effort and cooperation with the club, the agencies that hold the repeater locations, and club volunteers that made the entire system work. As a club, I believe that we have provided a great service to the community at large with this project and we should give ourselves a humble pat on the back for this accomplishment. I see this as a good start and I look forward to the next project that we can move forward with. Whether that is Phase 2 of the linked repeater system, or whatever we deem may be the most beneficial to us, and our local community, I look forward to working with the club to meet those goals, whatever they may be. This is **your** club and the direction we go is in your hands. I am greatly impressed with the skills, resources and knowledge we have in this club, and believe there is very little that cannot be accomplished when we place a task in our sights.

Thank you!

### Down to Business

**Secretary needed:** One immediate item that must be addressed is the Board position of Secretary. This position was vacated before it was even filled due to health issues with the Secretary elect. This must be filled immediately as minutes of our meetings and the business carried out during those meetings must be documented per our By-Laws. Filling this position is of the utmost importance; we need someone to step up to the challenge for the sake of the club.

**Hamfest:** It was a big success this year and the funds provided us the ability to put up a topnotch repeater for our use. We will need to approach this next Hamfest with the same zeal as the last. Please consider chairing or working on the committee. Not much time left (in astrological terms), as we just passed the Winter Solstice and the Hamfest is before the Summer Solstice.

**Missing KARS Equipment:** I have been given an inventory log of equipment that belongs to the club. A few items have been collected and a determination will eventually be made as to the usefulness to the club. Bonnie

has been ever so kind as to pass some that she has been storing over to me when the *Gavel* was handed over. Please look around your shack and see if there is anything that was loaned out in the past that has since decided to take root with the cobwebs. Additionally there might be tax write-offs lurking in there that could be donated to a local 501(c)(3) we know of. I will have a list of the equipment for viewing at the next KARS meeting. Any of “*our stuff*” you may find can be brought to the next meeting.

### Upcoming Events- think warmer weather!

Idaho QSO Party - 2<sup>nd</sup> weekend in March

Field Day - 2<sup>nd</sup> week of June

Canfield Weedfest - June (our rent for the site)

Summer Picnic - August

All of these activities will need bodies to make them happen. Be the first on your block to volunteer!

God Bless  
Dave Boss  
KF7YWR

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## 100 Years of the ARRL and Counting!

Part one: Tradition

*By Larry Telles, K6SPP*

This is the first of a series of articles about the origin of the American Radio Relay League. Our look back will be 100 plus years at the events leading up to formation of the league. Like most historical events it didn't happen all at once nor was it accomplished by a single person.

The world has changed during this period and so has the amateur radio equipment. There are more modes of communicating also. However there are still a few things that haven't changed. They are part of the amateur radio tradition. We use them on a daily basis without thinking of where they came from or when they were first used.

### CQ

It was brought into being on the English telegraph over 100 years ago. This signal meant “All stations”. The telegraph call CQ was born on the English telegraph over a century ago as a signal meaning: “All stations”. A statement to all postal telegraph offices to receive the following message. This term originated on the landlines, and was later used by the Marconi Company on radio as a

general call to its ships. At the same time other companies were using KA as a general call. The London Convention of 1912 adopted CQ as the international general call signal. To most radiomen CQ meant an “attention” signal.

Where did the letter combination come from? The French, *sécurité*, (safety or, as intended here, “pay attention”). Sometime later, the amateur origin of the abbreviation was changed to the phrase “seek you.”

### 73

This is a one numeral expression spoken as a singular item. I grind my teeth when I hear other amateurs use it as a plural number. It started out as a numerical code used in the beginning of the landline telegraph. This number had a specific time it was to be used. It simply designated the close of a transmission or end signature. There were other combinations of numbers during this time, which faded over time. Even the meaning of 73 isn't the same as it started out to be. The term 73 was first published in the April 1857 issue of *The National Telegraph Review and Operators' Guide*. At that time 73 meant “My love to you!” Over a short period of time the use of 73 began to change.

Between that April 1857 issue and 1859, the number 73 was changed to a vague sign of fraternalism. During this short period it was used as a friendly greeting, not a closing comment.

The Western Union Company in 1859 set up the standard “92”. Each number from one to ninety-two represented an organized set of phrases used by the operators. Again 73 changed meaning. It became a very flowery “accept my compliments”, which was in keeping with the language of that period.

During the years from 1859 to 1900 the meaning of 73 changed many times. It appeared during this time to be getting closer to the term we know today. The term “compliments” was displayed in *The Telegraph Instructor*. It was defined two ways in *The Twentieth Century Manual of Railway and Commercial Telegraphy*. One listing was “my compliments to you;” and just “compliments.”

The words were slightly rearranged in Edison's *Telegraphy Self-Taught* to “accept my compliments”. Dodge's *The Telegraph Instructor* 1908 manual gave us

the first appearance of the current definition “best regards”. This (singular) term has been with us ever since.

### Q CODE

In order to overcome a language problem between different countries, the Q Code was designed. This affected both ships and shore stations. In 1912 the original list of 50 signals was adopted by international agreement in London. Many of those codes are still familiar to amateur operators today -QRN, QRM, QSO, etc.

### SOS

The International distress call went through a lot of changes in the last century. QRRR, was the first amateur distress call. There was a need for its use in the very first organized amateur emergency nets. This emergency signal was set up because of the frequent failure of the railroad telegraph landlines. The ARRL adopted QRR for a calling station to use when passing railroad traffic related to some emergency. Sometime later the call was changed back to QRRR because of a conflict in definitions with the international Q signal QRR.

In 1904 the Marconi Company coined one of the first distress calls as CQD. It was a combination “general call” (CQ) and the letter D for “distress”. Many competing companies didn't want to follow the Marconi Companies system. In 1906 the problem was so bad that a brand new distress call was proposed.

The United States, Germany and the British all had different ideas concerning the distress signal. The Americans suggested NC which was already recognized in the International Signal Code for Visual Signaling. The Germans wanted SOE, which was already being used on their ships as a signal similar to CQ. The British wanted to stick to the Marconi signal CQD.

All of the delegates at the convention found SOE acceptable, except that the final E could easily be lost in the noise. That's when the letter S was substituted, making it SOS. The convention delegates all agreed that SOS should be sent as a single code character with a sound unlike any other character. Even though it was unanimously adopted, CQD remained in use for some years particularly aboard British ships.

In 1912, after the Titanic disaster, SOS became universal. The CQD signal gradually disappeared. Jack Phillips, the Titanic radio operator, sent both CQD and SOS as the ship was sinking. He was sure that there couldn't possibly be any misunderstanding.

## **MAYDAY**

This is another distress call that has nothing to do with the first day of May. Rumor has it that the American aviators in World War I picked this term up from the French. In doing so they mispronounced the word. The original French word, "m'aidez" means "help me". It is easy to see the mistake that has been around since the First World War.

Source Notes: Jim Maxwell W6CF, "Amateur Radio: 100 Years of Discovery," *QST Magazine*, January 2000, n.p.

Part 2 – Those who came before the 1914 ARRL.

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## **Family saved by ham radio and Good Samaritan after car accident**

On a cold, bitter night earlier this month, the actions of a Good Samaritan and a ham radio probably saved the lives of a family.

"Amateur Radio (ham radio) is a popular hobby and service in which licensed Amateur Radio operators (hams) operate communications equipment," ham operator Amanda Alden said. "There are about 750,000 licensed operators in the U.S."

It began at about 7 p.m. Dec. 6 when Cody Fowler and his wife, Tina, and their two sons, Jacob and Timmy, were on their way home from Pueblo.

"They were on their last leg of their journey, about four to six miles south of (U.S.) 50 on Copper Gulch Road, when Cody noticed the vehicle behind them was no longer (in sight)," said Alden in a press release.

Because of the bitter cold temperatures and the icy roads, Cody turned around and drove back down the road, where he discovered that a red SUV had slid off into a ditch. The five people in the car had climbed back onto the road.

"Cody could tell there were possibly serious injuries," Alden said.

But no one in the car had a cell phone because the Fowler family had just purchased new ones in Pueblo. None of them were charged or activated and they could not call 911. At that point, Cody grabbed his son's ham radio and got through to others on the line, telling them he had ran across an accident and needed someone to call 911.

That's when Alden stepped in. Known with the sign call K1DDN, she notified dispatch. With her cell phone in one hand and the ham radio in the other, she kept in touch with both sides to alert them of what was going on.

"Cody said when he got there, it was about 1 below. When he left, it was 10 below (zero)," Alden said. "He was in his shrubs from work in Pueblo. He put on the blizzard suit to stay warm, but he didn't have any gloves so he was kind of suffering to stay warm."

In the Fowler vehicle, there was only one spot available for the family in the wrecked vehicle, so they took turns sitting in the Fowler vehicle to get warm. The family consisted of three teenagers, an adult male and an adult female.

During the course of the evening, two vehicles stopped to help, then 40 minutes later, Colorado State Patrol arrived on scene, followed by Deer Mountain Fire & Rescue and Fremont County Sheriff, Alden said.

It could have been another 30 minutes before someone might have arrived on scene.

"The victims would have had to endure extreme temperatures waiting for emergency services to arrive," Cody said in the release.

Two of the family members were taken to the hospital and the Fowlers took one of them home.

With all the modern technology available in the world today, things might have turned out differently if the Fowlers had not owned a ham radio.

Although people try to compare to CBs, it's more technical than that, she said. The operators have to take tests and are issued a call sign by the Federal Communications Commission to operate on radio frequencies known as "Amateur Bands."



The bands are reserved by FCC for use by ham radio operations, said Alden, who has helped with other emergencies, including the Waldo Canyon fire and Royal Gorge fire.

“But (I’ve) never (been involved) in a critical time frame such as a car accident,” she said. (ARRL)

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### **Amateur Radio Population Expands in Kosovo**

The number of Amateur Radio licensees in Kosovo more than doubled December 14 when 50 university students aged 18 to 21 passed the first-ever Amateur Radio exam administered under the republic’s new licensing regime. The new license is the equivalent of the US General class ticket; procedures are not yet in place to administer higher-class license exams, but the developing licensing framework in Kosovo will follow the US structure. Several ARRL manuals have been donated to the Amateur Radio Society of Kosovo (SHRAK), Kosovo’s national association for Amateur Radio as well as to telecommunication administrators.

IARU Region 1 and European DX Foundation President Hans Blondeel Timmerman, PB2T, and noted DXpeditioner Martti Laine, OH2BH, of Project Goodwill Kosovo, were among those overseeing the exam session at Pristina University.

The exam and license cost approximately \$70 per person, and organizations including the Yasme Foundation, *The Daily DX*, DX University, the European DX Foundation, and ClubLog are among those contributing to defray the expense. (ARRL)

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### **NASA’s Juno Spacecraft Hears Hams Say “HI”**

In a first-of-a kind for an interplanetary spacecraft, NASA’s Juno spacecraft in October was able to detect Amateur Radio signals transmitting “HI” in coordinated, very slow-speed CW. More than a thousand radio amateurs around the globe greeted Juno October 9 as it looped past Earth for a gravity-assisted boost on its way to Jupiter. Participants were invited to spread out across 10 meters to transmit “HI” in very slow speed CW (1/25 WPM), sending 30 second dits punctuated by 30 second spaces and 90 seconds between the two characters.

“The second ‘HI’ was detected clearly,” University of Iowa researcher and Waves Principal Engineer Don Kirchner, KD0L, told ARRL, noting that the distance to the spacecraft was about 37,500 kilometers (23,250 miles).

“The signals were usually just at or above the noise level, although at closest approach the first three dits of the ‘H’ had significantly higher signal levels,” Kirchner continued. “A possible explanation is that for a short time we were inside the ionospheric waveguide and, as we increased in altitude, went back above it for the last dit.”

Shortly after that, Kirchner said, the spacecraft went into safe mode, so outbound data were lost.

The experiment involved 16 identical rounds or cycles and ran a bit longer than 2-1/2 hours all told (1800 to 2040 UTC). The object of the experiment was to see if Juno’s onboard “Waves” experiment would be able to detect the collaborative RF. Spreading out participants on a wide range of 10 meter frequencies was intended to improve the chance of the Waves instrument’s hearing the ham signals. The detector has a bandwidth of 1 MHz.

According to the University of Iowa, after the flyby the Juno team evaluated the Waves instrument data containing the messages. Kirchner noted that while previous space missions — Galileo on its way to Jupiter, and Cassini headed for Saturn — were able to detect shortwave radio transmissions during their Earth encounters, it was not possible to decode intelligent information using the data from those spacecraft.

“We believe this was the first intelligent information to be transmitted to a passing interplanetary space instrument, as simple as the message may seem,” said Bill Kurth, a University of Iowa Researcher and Lead Investigator for the Waves instrument. “This was a way to involve a large number of people — those not usually associated with Juno — in a small portion of the mission.”

Among stations participating were operators at the Virginia Tech Amateur Radio Club’s K4KDJ, who posted a video of their activity on YouTube.

Kurth said the activity raised awareness of the mission, adding that the University of Iowa already has heard from some who plan to follow Juno through its science mission at Jupiter.

On December 10 during the fall meeting of the American Geophysical Union in San Francisco, Kurth and Juno Principal Investigator Scott Bolton of the Southwest Research Institute of San Antonio took part in a news conference to discuss the science gathered during the Juno flyby as well as the success of the “Say HI to Juno” project.

Kirchner said the project originated when public outreach staff at NASA’s Jet Propulsion Laboratory in Pasadena, California, wanted to know if the UI receiver was able to pick up a voice message. Kurth and Kirchner came up with the idea that a slow Morse code message might work, and Kirchner enlisted the University of Iowa Amateur Radio Club to get involved, spreading the word via ham radio to raise awareness of the project.

Plans call for Juno to orbit Jupiter 33 times. Among a variety of investigations, Juno will explore Jupiter's northern and southern lights by flying directly through the electrical current systems that generate them. NASA's Jet Propulsion Laboratory, which manages the Juno mission for the principal investigator, posted a mini-documentary about the "Say HI to Juno" event on YouTube.

"We would again like to thank all amateurs who participated," Kirchner told ARRL. "At last report about 1400 had sent in a request for a Juno QSL." Anyone who took part can request a QSL card that acknowledges their help. — *Thanks to Don Kirchner, KD0L, and the University of Iowa*

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### **Storm Takes Down Amateur Radio Contest Club Towers in Northern Europe**

Stormy weather over the weekend took down two major ham radio antenna towers in Finland and in Denmark. On December 6, Radio Arcala (OH8X) reported that its 330 foot tall tower near the village of Arkala that supported 160 meter and 80 meter Yagis literally fell victim to high winds that also took out power to some 200,000 homes in Finland.

"The mammoth structure collapsed peacefully, not hitting any of the other six towers, not hurting people or damaging buildings," a report from Jarmo J. Jaakola, OH2BN, described. "As professional engineering efforts had up to now ensured the survival of this 5 year old structure, inspectors are busy trying to evaluate the cause of the failure. It is suspected that automation designed to enable the array to find its most comfortable position in high winds somehow locked up and caused the structure to corkscrew."

In Denmark, the same storm bent over the top of the OZ5E tower supporting a 20 meter OptiBeam and 3 element 40 meter Yagi — "a total loss," the Danish Contest Academy reports on its website. (ARRL)

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### **New Technician Class Question Pool Released**

The ARRL VEC has announced that the NCVEC Question Pool Committee has released the new 2014-2018 Technician Class, Element 2, question pool to the public. This pool will take effect on July 1, 2014, and will remain valid until June 30, 2018. The current Technician

question pool, released in 2010, is valid until June 30, 2014. — *Maria Somma, AB1FM, ARRL/VEC Manager*

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### **WG2XRS SIGNALS HEARD IN EASTERN USA AND GERMANY**

Signals from WG2XRS, one of the United States based special experimental transmitting licensed stations for the 75kHz band, crossed the Atlantic in early December. This by using the new Oh-P-65 mode.

Seventeen monitor stations spread across the United States and Western Europe listened for the transmissions. The first transmit period produced a substantial number of automated signal reports from monitoring points in the eastern United States.

Across the Atlantic, only one station in Germany managed to capture the signal. He heard and decoded it at a distance of 3,881 miles. As we go to air, these tests are continuing. (RSGB)

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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.

# 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

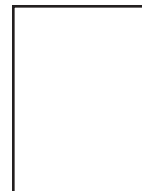
Email address \_\_\_\_\_

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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KG6QQM

## **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.