



June 2014

(www.k7id.org)

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

REGULAR CLUB MEETINGS:

Friday, June 13, 6:30 p.m.
American Legion Hall
1138 E. Poleline Avenue
Post Falls, Idaho
Topic: Potluck
Presenter: None
Refreshments: Everyone

Saturday, June 14, 9:00 a.m.
ARRL VE Test Session
American Legion Hall
1138 E Poleline Avenue
Post Falls, Idaho

Monday, July 14, 7:00 p.m.
Search & Rescue Bldg.,
10865 N. Ramsey Road
Hayden, Idaho
Topic: ???
Presenter: ???
Refreshments: ???

Monday, July 14, 5:30 p.m.
ARRL VE Test Session
Search & Rescue Bldg.

Upcoming Events
June 14
KARS Hamfest
1138 E Poleline Avenue
Post Falls, Idaho

June 27-28
Field Day
Rathdrum City Park

Letter From the President
Dave Boss, KF7YWR

Well, here we are again, another month down the drain and looking at a very busy month for the club. Many folks that I have talked to lately are excited for the upcoming Hamfest. A number of our new Hams will be looking for new (to them) equipment to outfit their Hamshack. I hope they will not be disappointed. I remember my excitement from last year; going home and trying out everything I had purchased and the challenge of tuning, installing, and most of all, using the new toys. I am still going through the process of optimizing the radios with tuners and antennas. A large part of the fun seems to be mostly messing about with all the stuff!

Some friends of mine recently gave me a spare "Gator" box they had acquired. This has become my latest project, to have a "Go box" with everything needed for communications in one place. So far the collection of equipment consists of a Yaesu FT757GX with MFJ Econo tuner; an MFJ 1275 Sound card interface and an old Swan SWR meter for HF; a Maxon SM4150m for VHF; and a Maxon SM4450m for UHF. The Gator box is large enough to store coax and wire antennas as well as a collapsible j-pole for the higher frequency radios. A small Dell Netbook runs the digital side and all runs on deep cycle marine battery; I just hope I can move it once finished. (The battery is not in the Gator box.)

Working on this "Go Box" has been very rewarding to me, since it reminds me of the many years I spent in R&D assembling many of the devices we had just developed. A big challenge was putting together a product that had not existed, while making a professional looking "one off" device that had a clean and functional appearance. That process takes time for proper placement, layout, and access to the controls, while at the same time keeping the number of re-drilled holes to a minimum. And with no instructions for assembly, we were on our own to build it as we saw fit.

Hope to give it a go come Field Day!

Hamfest 2014 - June 14
American Legion Hall Post Falls

Hamfest is just right around the corner—June 14th as a matter of fact. By the time you see this, the date will be upon us. We still need bodies to help set-up, take tickets, kitchen help and all other positions. There is never too much help, so please pitch in so the same few do not have to carry the entire load. Remember the potluck Friday evening. Jim Monroe, N7ESU, Jim Banks, KF7TFJ and Allan Campbell, KE7DFT are the guys to talk to or you may send me an e-mail and I

will make sure they get it. Donations for the club table should be forwarded to Ed Stuckey AI7H.

Field Day – June 28-29th
Rathdrum City Park on Hiway 53

Located just west of Rathdrum on your way to Spokane is a really nice little park, that should be a great place for our Field Day. Bring your gear, comfy chair, log book, and toothpicks (for your eyes, as it is a 24 hours event). Ed Stuckey, AI7H, or Jim Monroe, N7ESU, for more info.

Radio Direction Finding Info

Tom Macy, W7UAT, was good enough to make some cd's of the material he collected for his Radio Direction Finding presentation with some additional printed material that will be available at Coffee and Donuts if you join us on Thursday mornings or at the Hamfest. If you want it sooner, shoot me an e-mail and we can arrange to meet somewhere for the handoff.

And now for your Funny Bone

Code Question

Answer or Statement

QAS Are you speaking out of you're a\$\$? I

am speaking out of my a\$\$

QBA How big is your antenna?

My antenna is BIG!

QBO Buddy, can you spare some soap?

Don't sit next to that guy in the meeting.

QBS Did I tell you about the one that got away?

It's getting deep in here.

QBS Should I clean the bird sh*t off my antenna so I can hear you

Clean the bird sh*t off your antenna so you can hear me

QCW Why are you whistling Morse? I

am going to whistle Morse Code on FM (or SSB)

QDR Do you have a Receiver? (In response to QRL)

Damn Right the frequency is busy! (In response to QRL)

QET Has anyone called me from another planet?

Phone home.

QEW Is copy difficult due to Ear Wax?

Copy is difficult due to Ear Wax.

QFF How high are the front feet on your radio?

My front feet are "n" high

QFH Is this frequency hogged?

This frequency is MIN! Go elsewhere.

QFU Self-explanatory

QHI Are you leaving after only one transmission? I

am jumping in quick to say hi, then going QRT.

QKB How many knobs does your radio have?

My radio has "n" knobs

QKN How many of them do you know how to use? I

think I know how to use "n" of them.

QLF Are you sending with your left foot? I
am sending with my left foot.

QLK Are you sending with your left foot and keyboard?
I am sending with my left foot and keyboard.

QNO Are you sending through a non-standard orifice? I
am sending through a non-standard orifice.

QOF Are you an old fart?

Yes, I am an Old Fart.

QOK Was my last transmission OK?

Your last transmission was Okie Dokie.

QPM Is my signal purr modulated?

Your signal is purr modulated.

QRC Are you a rag chewer?

Warning, rag chewer on frequency.

QRG Am I transmitting in or near an amateur band, and if
so which one?

You are transmitting in or near the ... (wave length or
frequency) amateur band.

QRW QRP, you are Really Weak?

Yes, I am running QRP really weak.

QWC Who cares? I
don't care.

QWC Do you have to go to the bathroom? I
have to go to the bathroom.

QYL Is that your wife in the background?

Yes, my wife is yelling at me in the background.

QZZ Is that a 50/60 Hz hum, or are you snoring? I
fell asleep at the mike.

Kootenai Amateur Radio Society

May 2014 Meeting Minutes

Date: 12 May 2014

The meeting was called to order at 7:01pm by Club President Dave Boss (KF7YWR). Randy Carlson (KB6YAV) led the club in the Pledge of Allegiance. Prior to the club meeting the Volunteer Examiners administered tests to 11 individuals, 7 taking the Technician exam, 3 for the General, and 1 for the Extra exam, all of whom received passing scores. Ed Stuckey (AI7H) made a motion that the club minutes from both the March and April meetings be accepted as published in the Club Newsletter. The motion was seconded and passed by club vote. Pat Paterson (W7SGS) presented the May Treasurer's Report: Checking \$1,796.42, Savings \$3,199.50, Petty Cash \$80.82, Monthly Expenses \$450.00, for a total balance of \$5,076.74. The treasurer's report was accepted as read by club members. The KARS Hamfest is rapidly approaching and volunteers are still needed from working the concession stand, setup and clean-up crews and everything in between. If you are at all interested contact the Hamfest

Committee or simply speak-up on the evening net and you can be paired up with the correct folks. The prices have been nailed down from Ham Radio Outlet out of Portland. The price package includes a Yeasu FT-857D, FT-60, MFJ-1724b, mag-mount antenna, and a wireless weather station. The cost of the price package from HRO comes with a price tag of \$884 and Gary Roth (KE7IAT) made the motion to approve the price package price tag, the motion was seconded and passed by club vote. Ed Stuckey (AI7H) will pick-up the prizes from HRO on his trip to Portland later this month. Ed also made the motion to approve up to \$400 for the purchase of food and other food related items to be sold at the Hamfest; the motion was seconded and passed. Field Day this year will be at the Rathdrum City Park and volunteers are still needed for this as well. We have been approved to stay the night (for those of us who would like to, of course) so anyone wishing to lend a hand please contact Ed. There has been the question of the need for a battery backup for the Idaho Mica repeater due to the recent near lightning strike that knocked out power to the mountain top. Dale DuRee (KE7VMN) will get back to the club with a quote for a battery backup install so the members have financial figures to look at before bringing it to a vote.

The May Program was a group assault presentation on various test equipment from simple multi-meters to spectrum analyzers. The program was less structured than a classroom lecture but the relaxed forum allowed everyone the opportunity to ask their individual questions. The program was led by Rick VanLandingham (KI7I), Tom Macy (W7UAT), Larry Telles (K6SPP), and Allen Campbell (KE7DFT).

The Club 50/50 Drawing contained a total pot of \$20 (\$10 to the winner) which was won by Larry Telles (K6SPP). The Member Drawing has grown to \$52; however the winner Jean Carlson (KD7RVY) was not present.

A reminder that there are still many who have not renewed their membership dues for 2014, please check with Club Treasurer Pat Patterson (W7SGS) if you are unsure or if you need to make a payment. Email reminders will be going out shortly for those who are still delinquent.

Radio and the Birds

Biologists at Germany's University of Oldenburg studied migratory robins and found that the birds could not orient themselves when on the schools city campus but could while they were kept in the countryside. Further

experimentation showed that when the huts in which the birds were housed were screened with grounded aluminum reducing electromagnetic interference, the birds could easily orient themselves. When the grounding was disconnected, the birds again lost their sense of direction.

According to the report, the frequency range that was found to disorient the birds is from about 50 kHz to about 5 MHz. This implies that it is not mobile phones nor power lines that are disrupting the birds' ability to fly in the proper direction but rather radio waves in that spectrum.

The team did seven years' worth of double-blind tests. The conclusion is that Migratory birds can sense the Earth's magnetic field and use it as an in-built compass to help them fly in the right direction. (Telegraph, The Register, All Access News)

Celebrating 100th Anniversary of the Panama Canal

On the air, listen out for HP2AT to be on the air from Panama with the special callsign 3E100PC between June 1st and August 31st. This operation is to celebrate the 100th anniversary of the opening of the Panama Canal. Operations will be on the HF bands. All QSOs will be confirmed via Logbook of the World. (Press release)

Spin Waves Increase Solid State Efficiency

As computers become more advanced, the silicon chips that house the infinitely small switches that make up logic gates used to perform computing functions get smaller and smaller. As the chips and switches get smaller and more are squeezed closer together however, it gets harder to keep the electrons flowing where they need to without jumping to other components.

Now researchers at UCLA found that by introducing multiferroic magnetic materials they created a switch that could be turned on or off simply by applying alternating voltage. This creates an oscillating electric field within a piezoelectric material which generates spin waves that induced along a nickel film. These steps cause power to move through the material in a wave that matches the oscillation frequency of the electromagnetic field called a spin wave bus.

The difference between using spin waves to carry electrons and letting them flow naturally is similar to the difference between a river and wave. By powering future devices by varying the amount of voltage used, less power is used over-all by virtue of the low voltage part of the wave. At the same time the leaking transistor problem is

solved, eliminating wasted power and allowing for the potential that spin waves could make electronics one thousand times more efficient in the future.

You can find a link to the complete and in-depth report on this subject is at <http://tinyurl.com/spin-waves-2014>.
Background information on Spin Waves http://en.wikipedia.org/wiki/Spin_wave (Guardian, Wikipedia)

‘CW On The Air’ - Morse code training course

With the aim of attracting new hams for CW operation, Carlos Mourato, CT4RK, will broadcast the first lesson of the ‘CW ON THE AIR’ Morse code training course next Tuesday, June 3rd.

This course will be broadcast during regular transmissions, every Tuesday, Wednesday and Thursday, on the 80m band at 3743 kHz +/- 10 kHz, at around 20:26 UTC.

Each transmission, from a total of 54, will focus on a particular set of characters that will be sent with progressively diminishing character spacings, at a constant speed of 10 WPM

The course transcripts are available at the following address:

<http://www.arla.org.pt/ficheiros/M%C...0THE%20AIR.rar>

The “CW ON THE AIR” course is supported and promoted by 4 amateur radio associations:

ARLA - Associação de Radioamadores do Litoral Alentejano;

NRA - Núcleo de Radioamadores da Armada;

ARVM - Associação de Radioamadores da Vila de Moscavide; and

REP - Rede dos Emissores Portugueses.

Best Regards from Portugal,

António Vilela CT1JHQ

http://www.southgatearc.org/news/201...ing_course.htm

D-Day Special Event Stations to be Active

Several special event stations will be on the air to commemorate the 70th anniversary of D-Day — the Allied invasion of the Normandy Coast of France in World War II.

In France, TM70JUN will be on the air from June 6 — the actual anniversary date — until June 20. Modes will be SSB, CW, PSK, RTTY, and JT65 on HF and 6 meters. Special event station TM70BMC will operate from Mont Canisy June 5-8.

W9D will be active on SSB, CW, and AM on HF through 6 meters June 6-8 from the First Division War Museum in Winfield, Illinois.

VC3JUNO from Canada will be on the air from June 6 until July 31 to commemorate the 70th anniversary of D-Day; “Juno” was the code name for the beach where Canadian forces landed.

The Riverway Amateur Radio Society will sponsor special event station, GB70DDL, from June 1 until June 28 from the Sea Cadet headquarters in Stafford, England.

On June 6, 1944, 160,000 Allied troops landed along a 50-mile stretch of heavily-fortified French coastline to fight Nazi Germany on the Normandy beaches. The attack was a major turning point in the war. More than 5000 ships and 13,000 aircraft supported the invasion, in which more than 9000 Allied soldiers were killed or wounded. (ARNewsline)

ITAR Restrictions on US Radio Amateurs to be Eased

The International Traffic in Arms Regulations or ITAR inexplicably applies to amateur radio satellites. It threatens US radio hams with jail terms or six figure fines if they cooperate with amateurs outside the USA on satellite projects. Cooperation includes talking about or publishing on the web certain information regarding amateur radio satellite systems.

Among the projects affected by ITAR has been the New Zealand Amateur Radio satellite Kiwi SAT. A 2009 IARU Region 3 report highlights that ITAR requirements made AMSAT-NA direct its members to cease operation with AMSAT-ZL in the development of Kiwi SAT.

Satellite Today reports that after 15 years of restrictions and intense scrutiny, the United States Department of State is reclassifying satellites and several related components so they will no longer be treated as weapons.

ITAR regulations were also partially responsible for AMSAT North America's cancellation several years ago of its Eagle ham-sat project because those same restrictions made it almost impossible to work with its international partners on this ambitious project.

The new and less restrictive ITAR rule on satellites and related technology become effective this coming November 10th except for Selection 121.1, Category XV(d), which is effective June 27th. (Southgate)

New UltraCapacitor Developed

Scientists at George Washington University have found that ultracapacitors built with carbon nanotubes and graphene deliver high-performance at low cost.

The research team made the new ultracapacitor out of graphene flakes and single-walled carbon nanotubes by using an electric arc to vaporize a hollow graphite rod filled with a catalyzing metallic powder. They then combined graphene flakes and carbon nanotubes, spread them on paper, and rolled them into a new light-weight, high-performance, low cost ultracapacitor.

Jian Li is one of the authors on the report on the research done to create these devices. He explained that the nanotubes offer connectivity while the graphene flakes provide high surface area and good in plane conductivity. By adding graphene, the mixture's specific capacitance tripled compared with using the carbon nanotubes alone. Li says that the result is like combining the high energy density of batteries with the high power-density of capacitors.

Ultracapacitors sometimes call Supercapacitors are generic terms for a family of new electrochemical capacitors. These devices don't have a conventional solid dielectric. Rather the capacitance value is determined by two storage principles, which both contribute to the devices total capacitance.

The significance of this new ultracapacitor is its light weight and low cost making it useful in a variety of tasks from acting as a source of voltage to maintain static memory to larger jobs such as being part of the power system in electric cars.

An in depth abstract on this research report is available from the Journal of Applied Physics at tinyurl.com/low-cost-ultracapacitor (Sciencerecorder.com)

Solar Wind May Contribute to Lightning on Earth

According to meteorologists, lightning strikes the Earth about 4 million times a day. One theory on how it forms suggests that the gas in our atmosphere is electrified by cosmic rays. When our sun is in the most active part of its 11 year cycle, in theory its magnetic field is at its strongest and should account for fewer cosmic rays from entering our atmosphere. Based on this one would expect to see fewer lightning strikes at the peak of the solar cycle than at its low point.

While previous studies have shown a negative or inverse correlation between solar activity and lightning over the long term, this latest research found just the opposite. As scientists looked at the relationship between solar activity and lightning over a much shorter period of a few weeks they noted that when the sun was most active they did see a drop in cosmic rays. The big surprise was that they also noted a definite increase in amount of lightning.

As part of the study, the scientists looked at the speed of the solar wind coming off the sun, which varies depending on which part of the sun is facing the Earth. When a fast solar wind swept over our home planet, the researchers found that the number of recorded lightning strikes actually went up.

The exact cause of this phenomenon has yet to be determined, but one possibility is that charged particles from the sun are riding on extremely fast solar winds. While they don't move quite as quickly as the cosmic rays, they may move fast enough to serve the same function with the aid of a swift movement from the solar wind. If the theory eventually proves to be true, it could help weather forecasters to predict the likelihood of lightning storms in the future. This in turn could be a safety net to let hams and other two-way radio users know when they should lower their towers, make sure to disconnect all gear from both their antenna lead in cables and ground all connectors. Also that it's time to disconnect their gear from the AC power lines coming into their homes.

The study describing the findings was recently published in the journal Environmental Research Letters. (iopletters.org, other published news reports)

13 Colonies Special Event:

The 4th of July Independence week is almost upon us. Time for burgers and suds, parties and friends and relatives. And ALSO the 13 COLONIES SPECIAL EVENT, starting July 1st to July 6th.

Come and help us celebrate our Independence by participating and earning a "Clean Sweep" endorsement on your certificate. Start time July 1st-9am eastern (13:00 UTC) and end time Midnight July 6th Midnight Eastern (04:00 July 7th). We have about 70+ operators eager to make a "Q" with you and to wish you a happy Independence week, so join us in the most patriotic holiday/event of the year!

13 Colonies Special Event News:

Hi All! Just a reminder that we have two "Bonus" stations this year with a certificate endorsement! Our old friend WM3PEN, for a "Liberty Bell" endorsement and for 2014, W3FT out of Baltimore, celebrating the Star Spangled Banner. An 1812 US flag will be the endorsement for this Bonus station. ALL Colony states have a SINGLE QSL manager for you to QSL to, listed on our website and on my QRZ.com page under my call (KU2US). Please do not send cards to each individual operator, this is what the state QSL manager is for. It will be faster and easier. An SASE would be appreciated! All our operators are excited to get this event rolling! We are fully staffed and praying for good propagation. For you folks with nerves of steel, this year we have some dedicated Colony QRP operators who would love to make a contact with you! We will also make a special effort to weed out QRP stations in the pile-up! Please join us, every year we have so much fun blowing amps, fighting solar flares and T-storms in July :) ALSO, most of our operators have an ample supply of "Preparation H" so they can stay on the air longer-hihi. Hope to work you all!
73-Ken KU2US Event Manager

International Radio for Disaster Relief On-the-Air Trial Set for June 5-6

A test - or trial - of the International Radio for Disaster Relief (IRDR) project will take place via international HF broadcast outlets on June 5-6, during the Media Summit on Climate Change, ICTs and Disaster Risk Reduction in Jakarta, Indonesia. Twelve major international HF broadcasters will take part in the exercise. The aim of the project is to identify and select dedicated interference-free frequencies that may be put into service to disseminate critical information during a disaster in the Asia Pacific Region. Broadcasters in Australia, Japan, Thailand, and the Philippines will be among those taking part. The on-the-air trial is sponsored by the High Frequency Coordination Conference (HFCC), a non-governmental,

non-profit organization and sector member of the International Telecommunication Union (ITU).

"From its infancy in the 1920s shortwave radio has [had the] potential of being a communication tool in emergencies," HFCC said. "This use of shortwave radio is still very much present among Amateur Radio enthusiasts, for example, who discovered its long-distance properties early in the 20th century. In contrast the huge technical potential of international shortwave broadcasting, which operates transmitter facilities tens or hundreds of times more powerful than those of Amateur Radio, remains almost unused in emergencies. At the moment when local and even regional communication and information networks are needed most, they are destroyed or overloaded, and the population suffers from an information blackout. Shortwave radio is capable of remaining the only source of information."

HFCC said that while the life-saving role of radio broadcasting is widely recognized, no concrete projects have ever been designed and no regulatory framework has been developed. The International Radio for Disaster Relief project that is based on a system of online frequency co-ordination, managed by the HFCC in accordance with International Radio Regulations.

"The use of shortwave transmissions as a delivery platform has some important advantages," HFCC has explained. "For example, the transmitter of All India Radio located at Bangalore...is capable of covering the Malay Peninsula, Indonesia, Southern Philippines, then down toward New Guinea and the northwestern part of Australia."

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

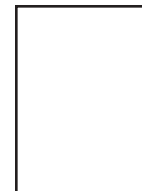
Email address _____

Signature _____

Internal Use Only

Cash	<input type="checkbox"/>	Check	<input type="checkbox"/>	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
president@k7id.org

Vice-President: Jim Monroe, N7ESU
vicepresident@k7id.org

Exec. Director: Scott Howard, KF7USV
excdirector@k7id.org

Secretary: Open, due to illness
secretary@k7id.org

Treasurer: Bob Bluhm, W6CRA
treasurer@k7id.org

Newsletter Editor: Gary Roth, KE7IAT
509 993-8468 ke7iat@comcast.net

Repeater Trustee: Rick Van Landingham,
KI7I ki7i@arrl.net

Repeater Tech: Dale DuRee, KE7VMN

Webmaster: Larry Telles, K6SPP
208 762-2548 ltelles@icehouse.net

Past President: Bonnie Patterson,
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.