

April 2009

(www.k7id.org)

P.O. Box 5222 Coeur d'Alene, ID 83816

REGULAR CLUB MEETINGS:

Monday, April 13

Search and Rescue Building

Program: Amateur TV - Fast-Scan and Slow-Scan TV

Presenter: Larry Telles, K6SPP

Refreshments: Bonnie, KG6QQM & Charles, W7SGS.

Monday, May 11

Program: QSL Card Contest

Presenter: K.A.R.S. Board

Refreshments: ???

SOCIAL EVENTS:

IN THIS ISSUE

Brain Teaser 2

EME? No, EVE 6

Dear Club Members:

Spring is officially here, but then we are in North Idaho, and as I write this input for the Newsletter on 3/23, I notice new snow on the ground around the house. There was a small turnout at the March meeting, probably due to the weather and illness, but those who attended received a great overview of VoIP by Thomas Barrett, KD7JUS. As for myself, as soon as I know what my income tax situation is, I intend to invest in some hardware so I can try out this mode.

Six people tested and all passed with two upgrades to Extra Class and four new Technicians. All members not at the General level should consider upgrading their license. Let me know if you have an interest in becoming a General Class and I will help you with material and steer you to other members who can help you attain this goal.

Two upcoming events listed in the March Newsletter have already taken place and the results will be discussed at our next meeting. The QSO party on March 14-15 was supported by a number of members working individually from their home stations. The Boy Scout Merit Badge sessions were held just last weekend on March 21st and was supported by members who met with the Scouts and other members who talked to them on HF simulating a QSO. The club needs to consider some portable HF Antennas which can be used to support future outside events. What a great club project this would make! Review your March issue of QST, which is their Annual Antenna issue, and bring your ideas to the next meeting.

Remember, your input to the QSL card contest is due at the April General meeting.

Volunteers are needed to provide refreshments for General Meetings after April through the end of the year. Please speak up if you have never done this task or I will help people volunteer at the next meeting.

Please plan on attending our April meeting as our talented member Larry Telles (K6SPP) presents Fast-Scan and Slow-Scan TV techniques. Larry is an Author and Teacher. I guarantee he will hold your interest during his presentation.

How did you do on last months Brain Teasers ? The answers are in this newsletter along with a few questions from the General Class test.

I hope you are all healthy and have survived the flu bug as it makes its rounds. Consider giving Gabbee Perry a call to cheer her up after her shoulder

surgery. Bailey & Verena Barrett would also like to hear from members as they stick close to home.

See you on the radio

Ed Hannigan, KE7FOW
Club President



Spring '09

Thanks to **Thomas KD7JUS** for his VoIP program last month.

This month **Larry K6SPP** will be doing a presentation on slow and fast scan Amateur Television.

See ya'll there- 73 KB7TIC Jeff

VE TESTING

Send an e-mail to vetesting@k7id.org for an auto response containing all the details.

Exams begin at 5:30PM and go till 7:00PM. Applicants should remember to bring a copy of their existing license (that we can keep), and cash or a check made out to the ARRL for \$15.00 for the exam fee. A reminder that as long as you keep passing the exams, you can take them all, one after the other, on the same \$15.00 fee!

BRAIN TEASER

- Answer to the March questions:
 - Light travels 30 cm in a nanosecond (one foot).
 - Remember that the only force acting on bike and rider after they leave ramp is gravity. The weight of the bike and rider does not matter. It takes 0.45 sec. to fall one meter, therefore 2 m. divided by 0.45 sec = 4.44 m/sec or 10 mph.
 - New Problems: (from General Class question pool)
 - How long does it take charged particles from coronal mass ejections to affect radio-wave propagation on the Earth ?
 - What is the maximum symbol rate permitted for packet emissions on 2-meter band?
-

Section Manager Report – April, 2009

Thanks to all who participated in the recent Idaho QSO Party (see report elsewhere in this issue of Propagation).

Here is a very nice link to all of the Hamfests and Conventions in the Northwest:

<http://www.n7cfo.com/amradio/hf/hf.htm>

And here is a link to our Idaho ARRL Web Page: <http://www.idahoarrl.info/>

The webmaster does a nice job of keeping the website current and there is a lot of content, so stop by and update yourself on what is happening in Idaho.

Operating Events: The 7th Call Area QSO Party (“7QP”) will be held on 05/02-05/03 this year. Read about it at: <http://www.codxc.com/new/page.asp?content=dryland7s>

Amateur Radio Field Day: The grand-daddy of all Amateur Radio events will take place on June 27-28 this year. The good news is that this is a week after the local Iron Man event. Clubs and individuals are encouraged to participate in Field Day. Read about this one at: <http://www.arrl.org/contests/announcements/fd/>

If you have questions about the ARRL, feel free to contact me!

Ed Stuckey, AI7H (ai7h@arrl.org)

For Sale: Cushcraft R5 HF Vertical. Still on tower to demonstrate. Will only take a few minutes to take down. \$150. Jim, N7ESU, 208-755-2100, or n7esu@arrl.net.

Idaho QSO Party Report

The Idaho QSO Party took place as scheduled on 14-15 March. A few Club members participated individually, and a small gang of us obtained permission from K7ID trustee, Jerry (KA7RNX) to use the Club call for a "multi-multi" station. Our results were: 201 SSB QSO's, 85 CW QSO's, and 22 Digital QSO's, not bad considering that some of us had 'the Crud' during the event period. As of press time, a total of 68 stations have submitted their logs for checking. We will be looking for some KARS hams to assist in log checking, since KARS is the official sponsoring Club for the event. Contact any Club officer if you are interested in doing some log checking (it is interesting and fun!).
Ed Stuckey, AI7H

Preparing for KARS Hamfest

If you have some ham radio gear that you would like to sell, you'll have a good opportunity at the KARS Hamfest, which will take place on 06/13 this year. And if you are doing spring cleaning, and have old gear or parts that you would like to donate to the Club, we'd love to hear from you. The past two years the Club has operated a table to sell donations from various members, and this has provided a very nice cash flow to the treasury.

Public Service Opportunities in the Local area

Kootenai County

Ford Coeur d'Alene Triathlon – June 21, 2009. This event starts about 6:00 a.m. and ends at 12:00 midnight.. This event is sponsored by the Ford Motor Corporation and is a sanctioned event. The portions in which Amateur Radio is involved is the 120-mile bicycle race and the 26-mile marathon. This event as of press time has 22 hams signed up. The Communications coordinator would like to have about 70 hams available. Contact Thomas Barrett, KD7JUS, at KD7JUS@arrl.net.

Tour de Lacs – (Tour of the Lakes) – Held in September, this two-day fun ride from Spokane to Coeur d'Alene and

SPOKANE, WA - Register for ham license tests in Spokane by calling **Mary, AA7RT** at 509-991-2192 or e-mail: AA7RT@arrl.net for dates, locations and times.

Attention: Kootenai County ARES/RACES Members! Don't forget! New meeting location for the monthly KC ARES/RACES meetings, Civil Air Patrol, Sheprock Building, Coeur d'Alene Airport. The start time remains 6:30 p.m., on the third Monday of the month.

back involves both Kootenai and Spokane ARES/RACES members. Contact Jim Linden, N7JIL, for further information at N7JIL@arrl.net.

MS-150 Bike Rally – Held in September, this two-day event supports the Multiple Sclerosis Association's fund raiser by providing radio communications along the Trail of the Coeur d'Alenes from the Coeur d'Alene Casino to Mullan and back. Contact Jim Linden for further information at N7JIL@arrl.net.

Grant and Lincoln Counties

Desert 100 Motorcycle Race - Usually the first weekend in April, sponsored by the Stump Jumper's Motorcycle Club. <http://stumpjumpers.org/desert-100/> This large event is held in Lincoln County about 8 miles west of Odessa just off Highway 28 and Irby road. This is our largest event requiring 15 to 20 Hams to cover the checkpoints on a 50 mile course covering portions of 32 sections of sagebrush, rim rocks, and a creek.

Two Rivers Fireworks - Sponsored by the Two Rivers Casino at the confluence of the Spokane and Columbia Rivers. So far they have always had this on the Saturday night closest to July 4th. We set up our Communications van in the IC area and use several Hams to observe from the crowd and a boat or two and observe for fire.

(Continued next page)

COFFEE & DONUTS
EVERY WEDNESDAY MORNING
8:00 A.M.
To
10:00 A.M.



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Bring a writing instrument. Pleasant Land Books 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.

(Continue on page 4)

Grand Columbian Triathlon: <http://www.thegrandcolumbian.com/>. This event is held on a Saturday near the middle of September and starts at Electric City with a swim, then a bike ride up into Lincoln County ending in Coulee Dam, then a run down the Columbia River, ending back at Coulee Dam. This event is covered by Hams from Okanogan, Lincoln, and Grant Counties, running from around 07:00 and some of the runners finishing up around midnight. This last year Okanogan and Lincoln Counties covered the swim and run while Grant County came up in the early afternoon and stayed for the run.

Spokane County

Frozen Flatlands – April 4, 2009 – Bicycle tour around Cheney, Washington. Contact Mike, KD7GHZ, at KD7GHZ@arrl.net.

Bloomsday – Spokane hosts the largest all-age foot race in the nation on the first Sunday in May. Amateurs coordinate the staggered start and at the various check-points along the seven-plus mile course. Contact: Kyle, K7CSP, for further information.

Lilac City Armed Forces Day Parade – Held on 16 May 2009, Spokane Amateur Radio has been providing support for the past 38 years. Contact Gordon Grove, WA7LNC at gorgroinc@juno.com.

Tour des Lacs – See entry for Kootenai County.

MS-150 – See entry for Kootenai County.

Latah-Whitman Counties

April 17-19 – Riggins, ID - Jet Boat Races
Contact: N7UBO@msn.com

June – Whitebird, ID (south of Grangeville on US 95). Just For The Hill Of It Bike Race.
Contact: KT7KEN on the 147.24 Spokane Link to Latah-Whitman Counties.

FCC Clarifies What Constitutes an Amateur Radio Repeater

In December 2007, Gary Mitchell, WB6YRU, President of the Northern California Packet Association (NCPA), filed a Petition with the FCC, asking for the Commission to clarify the definition of a repeater. According to Part 97, Section 3(a)(39), A repeater in the amateur service is “[a]n amateur station that simultaneously retransmits the

transmission of another amateur station on a different channel or channels.”

Mitchell sought clarification on the word “simultaneously,” asking if it referred to the signal information being retransmitted, or to the fact that the receiver and transmitter must both be active at the same time while acting on the same signal information. On March 23, 2009, the Commission clarified that even if there is a slight delay between what is received and what it transmits (as in the case of D-STAR and other digital repeaters), it is considered simultaneous if the receiver and transmitter are both active at the same time.

Mitchell pointed out in his petition that while the Commission’s Rules specify on which bands amateur repeaters may operate, “some amateur repeaters are operating on bands other than set forth in Section 97.205(b) with systems that are essentially voice repeater stations, but that digitize and retransmit the user’s voice, on the theory that because there is a small delay in retransmitting the signal of another amateur station, the signal is not ‘simultaneously’ retransmitted and, therefore, the system is not a repeater.”

In its reply, the Commission pointed out that prior to 1994, a repeater was defined as “[a]n amateur station that automatically retransmits the signals of other stations.” This, the Commission told Mitchell, was revised to clarify “that certain accommodations for message forwarding systems do not apply to other operating activities such as repeaters and auxiliary stations.” The Commission proposed to define a repeater as “[a]n amateur station that instantaneously retransmits the transmission of another amateur station on a different channel or channels,” but ultimately replaced “instantaneously” with “simultaneously” because commenters noted that there is always a small propagation delay through a repeater. As one commenter explained, “The word ‘simultaneously’ in this case means that the repeater is receiving and transmitting concurrently, whereas each signal might be slightly displaced in time between receive and transmit.”

To be able to repeat another station’s transmission, the Commission said that a repeater “must be able to receive a transmission from another station and retransmit it. Because the word ‘simultaneously’ in the definition is used to modify ‘retransmit,’ we believe it refers to a repeater station’s transmitter being active when retransmitting the signal received by the repeater station’s receiver from another amateur station. We conclude, therefore, that ‘simultaneously’ as used in the definition of a repeater refers to the receiver and transmitter both being active at the same time.”

NORTH DAKOTA HAMS HELP TO HEAD OFF RIVER FLOODING

Early on Friday, March 27, the Red River — the natural boundary separating North Dakota and Minnesota — rose to 40.32 feet, more than 22 feet above flood stage and inches more than the previous high water mark of 40.10 feet set April 7, 1897. According to Mark Johnson, KC0SHM, President of the Red River Radio Amateurs (RRRA) <<http://www.rrra.org/>>, hams are “substantially involved” with the flood operations. “This flooding event is impacting residents in both North Dakota and Minnesota” he told the ARRL. “National Weather Service forecasters are predicting that the river will crest to 41 feet, maybe even as high as 43 feet, by Saturday.”

Johnson said that on March 22, officials in North Dakota’s Cass County and Minnesota’s Clay County requested the assistance of local amateurs. Hams set up local nets on the WOIL0 repeater system, using 444.875+ and 145.350-. “Initially, hams supported the area, helping out with coordinating food and water requests for the Salvation Army and Red Cross,” he said. “In addition, Clay County hams have been heavily involved with coordinating sand and sandbag logistics.”

In Fargo, schools were closed and trials in the municipal court were suspended. According to “The New York Times,” hundreds of people swarmed onto the floor of the Fargodome, home of the North Dakota State University football team and where a rodeo had been scheduled for this week. In the center of the stadium, the “Times” reported that “mountains of clay- and rock-filled sand were surrounded by college students, children, members of the National Guard and ordinary residents, all bearing shovels and filling white sandbags. Thousands of volunteers — from places as far as Florida and Alaska — have filled 2.5 million sandbags in just five days. Little forklifts whirred around bearing pallets of bags and dump trucks drove through delivering more sand, even as volunteers offered ‘fresh hot cookies,’ neck massages and tetanus shots” <http://www.nytimes.com/2009/03/27/us/27flood.html?_r=1&ref=us>.

Johnson said that as the river continues to rise and sandbagging operations near completion, “ham activity is morphing from dike preparations to developing emergency communications for evacuations, in the event should that become necessary. As of Thursday, March 26, we are currently communicating between three hospitals, two county Emergency Operation Centers, volunteer centers, the Salvation Army, the American Red Cross, the Coast Guard and a helipad.” Johnson said these are 24 hour operations.

“Honestly, I do not know the number of hams participating; I would estimate roughly 30 or more at this time to support the operations,” Johnson told the ARRL. “The volunteer response has been enormous — we believe we have enough volunteers on hand to manage through the weekend. After the weekend, we are relying on other area hams who have responded to the call that are standing by.” Since all resource needs are being met by amateurs in the North Dakota and Minnesota Sections, ARRL Emergency Preparedness and Response Manager Dennis Dura, K2DCD, said that there is no need for Amateur Radio assistance from other Sections at this time.

Cass County Sherriff Paul Laney told the “Times” that south of the city — near the Red River and the Wild Rice River — 46 residents and 12 pets had to be rescued by boat from homes in which water had pressed through sandbags and made its way into first floors, and that on Thursday, he and his officers were headed off on boats to make 11 additional rescues.

Concerns about major flooding extend well beyond Fargo. Throughout parts of North Dakota and western Minnesota, residents are bracing for the Red River, nearby streams and rivers and the Missouri River to spill their banks — the result, according to the NWS, of a combination of factors. In the fall, the flat terrain was saturated by rain, followed by a winter of heavy snow, and now — as so much snow began melting — came days more of rain and, on Wednesday, half a foot of snow in some places.

In the Canadian province of Manitoba, the Manitoba Emergency Measures Organization and the City of Winnipeg Emergency Program have requested assistance from local ARES groups there to help out with the flooding on that side of the border, said Radio Amateurs of Canada’s Manitoba Section Emergency Coordinator Don Gerrard, VE4DWG. “Both organizations are in the process of activating their Emergency Operations Centers and have requested ARES radio operators to begin staffing the radio room at the facilities beginning Monday March 30, 2009,” he posted on an RAC ARES reflector. “Jeff Dovyak, VE4MBQ, District Emergency Coordinator of the Capital Region, advises that he is beginning the process of scheduling ARES radio operators for these current taskings. Further requirements are likely as water levels rise, and will be communicated when received.”

“As both a ham and a resident of Fargo, I am deeply touched by the community outpouring of support for fellow man,” Johnson said. “Volunteers by the thousands have poured into churches to help with food, volunteer centers to help fill sand bags and to the front lines for sand bag

placement. Everyone pray for us — we need a miracle for the community as a whole to pull this off.”

FCC PROPOSES NEW RULES FOR MEDICAL DEVICES OPERATING ON 70 CM BAND

On March 20, the FCC issued a Notice of Proposed Rulemaking (NPRM) <http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-09-20A1.pdf>, proposing to allocate spectrum and adopt service and technical rules for the utilization of new implanted medical devices that operate on 413-457 MHz (70 cm). According to the Commission, these devices, called implanted neuromuscular microstimulators, would greatly expand the use of functional electric stimulation to restore sensation, mobility and function to those persons with paralyzed limbs and organs; they would be implanted in a patient and function as wireless broadband medical micro-power networks (MMNs). The Amateur Radio Service has a secondary allocation in the 70 cm band.

The FCC said that several proponents claim that this technology “could revolutionize medical treatment and therapy for millions of people living with brain and spinal cord injuries and neuromuscular disorders such as multiple sclerosis, polio, cerebral palsy and ALS (amyotrophic lateral sclerosis, often referred to as ‘Lou Gehrig’s Disease’), as well as numerous other neurological disorders. It could be used in conjunction with next-generation prosthetic limbs to provide wireless sensation and control to the prostheses. Of particular note, this technology can provide an important tool in the medical treatment and care of numerous US soldiers who suffered spinal cord, brain and other serious injuries in Iraq, Afghanistan and other missions abroad.”

Last month, ARRL General Counsel Chris Imlay, W3KD, and Technical Relations Manager Brennan Price, N4QX, met with officials of the Alfred Mann Foundation, developers of the implanted neuromuscular microstimulators, to discuss ARRL concerns with the NPRM. Imlay and Price both came away satisfied that the project should have little, if any, impact on Amateur Radio operators. “There are redundant layers of interference rejection mechanisms built into the product that should protect its users from being impacted by strong Amateur Radio signals,” Price said. “The very low power output of these devices should have no impact on the Amateur Radio Service. The ARRL Executive Committee will monitor this filing and take action as appropriate.”

The FCC is seeking comments on the feasibility of allowing up to 20 MHz of spectrum in the 413-457 MHz band to be used under the Medical Device Radiocommunication Service (MedRadio Service, formerly the Medical Implant Communications Service [MICS]) in Part 95 of the Commission’s rules, and seeks comments on the allocation of four specific segments for this purpose: 413-419 MHz, 426-432 MHz, 438-444 MHz and 451-457 MHz. The Commission also seeks comments on the prospective service and technical rules that would govern MMN operations, such as transmitter power, emission bandwidth, duty cycle, contention protocols, and other operating specifications that generally comport with the framework of the existing MedRadio Service.

EVE ! - Radio Amateurs bounce a signal off Venus

Radio Amateurs have achieved the very first reception of amateur signals bounced off the planet **Venus**, over 50 million km away - **EVE** (Earth-Venus-Earth)

Peter Guelzow DB2OS, President of **AMSAT-DL** has provided a description of this landmark achievement.

On March 25th, 2009 a team from the German space organisation AMSAT-DL reached another milestone on its way to an own interplanetary probe towards planet Mars.

The ground station at the Bochum observatory transmitted radio signals to Venus. After travelling almost 100 million kilometers and a round trip delay of about 5 minutes, they were clearly received as echoes from the surface of Venus.

Receiving these planetary echoes is a first for Germany and Europe. In addition, this is the farthest distance crossed by radio amateurs, over 100 times further than echoes from the moon (EME reflections).

For receiving the EVE signals, an FFT analysis with an integration time of 5 minutes was used. After integrating for 2 minutes only, the reflected signals were clearly visible in the display. Despite the bad weather, signals from Venus could be detected from 1038UT until the planet reached the local horizon.

The 2.4 GHz high power amplifier used for this achievement is described in the current AMSAT-DL journal. This represented a crucial test for a final key component of the planned P5-A Mars mission. By receiving echoes from Venus, the ground and command station for the Mars probe has been cleared for operational use and the AMSAT team is now gearing up for building the P5-A space probe.

More information and the link to the official press release [in German]: <http://www.amsat-dl.org/index.php?o...=166&Itemid=97>

Kootenai Amateur Radio Society

PO Box 5222, Coeur d'Alene, Idaho 83814



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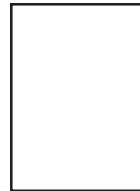
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KOOTENAI AMATEUR RADIO SOCIETY
P.O. Box 5222
Coeur d'Alene, ID 83816



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.

2009 CLUB OFFICERS

President: Ed Hannigan, KE7FOW
208 818-7235 president@k7id.org

Vice-President: Jeff Wall, KB7TIC
208 640-7455 vicepresident@k7id.org

Executive Director: Gary Roth, KE7IAT
509 993-8468 excdirector@k7id.org

Secretary: Thomas Barrett, KD7JUS
208 818-2039 secretary@k7id.org

Treasurer: Tom Richmond, NI7W
208 772-0907 treasurer@k7id.org

Newsletter Editor: Gary Roth, KE7IAT

Repeater Trustee: Jerry Hooper, KA7RNX
ka7rnx@arrl.net

Repeater Tech: Jim Monroe, N7ESU
208 687-2251 n7esu@arrl.net

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

Past President: Ed Stuckey, AI7H
ai7h@arrl.net

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.