



January 2009

(www.k7id.org)

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

REGULAR CLUB MEETINGS:

Monday, January 12

Search and Rescue Building

Program: Winter Driving

Presenter(s): Idaho State Patrol

Refreshments: Ed and Marilyn
Hannigan

Monday, February 9

Search and Rescue Building

Program: Military Affiliate Radio
System (M.A.R.S.)

Presenter: Steve Twiggs, KM7U

SOCIAL EVENTS:

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Greetings

May you have good health, fun and new experiences in 2009.

Obviously winter has arrived. I was looking forward to ½ the snow amount of 2008 as predicted, but not in an 48 hour period. If you are pretty much snowed in like I am, then strap on the snowshoes or cross-country skis and tramp around your yard after plowing or shoveling driveways and walks. I am told this is good exercise for your heart, just don't over do it.

The Christmas potluck was enjoyable with lots of good food and fellowship. The Lake City Senior Center had great parking and ample room to accommodate the 65 attendees.

If the weather for the January 12 meeting at the SAR building is too dangerous for driving / parking / walking ,then the board will notify members that the meeting will be cancelled. I have been in contact with the leadership of the SAR organization and they cancelled their last meeting due to weather. I was able to obtain permission to store material at the SAR building, but we will need to provide a cabinet.

I signed up to help communicate to the local population what they need to do to assure their current TV will correctly receive digital signals after the February transition date. I am awaiting a call from the FCC Field Office to let us know how our club can participate.

I have made a list, and checked it twice, of members who regularly attend monthly meetings. This list will be used as a resource of members who may participate in future club activities. I plan on calling most of you before the next meeting.

Jeff has signed up a speaker from the ISP who will talk about winter driving at our next meeting. I personally have driven both of my cars off of icy secondary roads in the last few years and needed to be towed back on to the road.

Fortunately there was no damage done, not even a scratch. A set of new snow tires has been my solution with great results to date.

(continued on page 2)

Proposed new presentations and club activities for 2009 will be discussed with the membership at our next meeting.

Remember the reason for the season

Have a Merry Christmas and a Happy New Year..

Ed Hannigan, KE7FOW
Club President



2009!

*I hope everyone had a wonderful Holiday season! We had a great Potluck dinner with about **60** or so members and family! The food was so tasty!*

*Lake City Senior Center sends special thanks to **KARS** for our donation to their Meals on Wheels program.*



*Our January 12th meeting will feature the **Idaho State Police**. They will be presenting a winter driving seminar for the club. This is a timely program (what with all the **SNOW** we've had) hopefully we won't be snowed-in!*

BRAIN TEASER

Determine a two-digit number and then square it, AB times AB, and when you did that the result was a three digit number, CAB. Here is the question: What's the value of C?

"Why this Amateur Wants to Flush Widows Down the Toilet! Linux is the Winner!"

In the beginning there was Windows 1.0 (November 1985) which was curiosity among us command line users. Looking back it was for us, the beginning of the Windows/Mac OS war. Two years later Windows 2.0 appeared. Windows 3.1 (April 1992) appeared to be serious about dominating the Operating System World. Why, well because they borrowed the desktop from MacIntosh. The court sided with Gates, but we know better. The quantum leap came with the appearance of Windows 95 (August 1995), the beginning of headaches, heartaches, and the blue screen of death. Each time a new version was announced, you dug into your wallet and lined Bill Gates money vault in Redmond, Washington. To add insult to injury, a cosmetic fix appeared after much consumer screaming. This fix was called Windows 98 released in June 1998. Out comes the wallet again. About this time you begin to notice a trend. That is with each new version of Microsoft's OS, the worse things got. Then came 98 Second Edition (May 1999) and 98 Millennium (July 2000). Cha-ching goes the cash register and crash goes your computer. The only thing that saved the day was Windows 2000, which was a cosmetic change from Windows 4.0 NT. At least it was stable, but very short lived. Microsoft Window XP and its various flavors were released on February 5, 2001. I won't even get into Vista because it's the worst of them all. The Mac computer over the years has priced itself into the next millennium and has no ham radio software to my knowledge. Enter Linux.

So, what am I getting at? After putting up with an inferior operating system for nearly 24 years, you make your vocal decision on Linux in not more than a year and a half according to my knowledge. I have three computers running Linux and two running Windows. None of the Linux computers have ever crashed, but I can't say the same for Windows. All three of those Linux computers have no virus software because it isn't necessary. In addition 75% of all servers on the Internet are running on Linux software. Nothing unstable there. You state that the desktop is cluttered. Upon completion of the installation the desktop contains four icons. Do you consider that clutter? But moreover, which of the several desktops available to Linux are you referring to. Have you ever gone to a NILUG (North Idaho Linux Users Group) or similar Linux meetings and been given an in-depth look at the operating

system in question? Can Windows boot from a live CD? Did you know that Linux can boot from a USB flash drive? Windows requires you to activate your software at every turn. In Linux, there is no such thing as a pirated copy, since 99% of it is free. I can take my Linux based hard drive and put it in a different computer and it works. Can't say that about XP or Vista. Matter-of-fact Linux will run on a 33 MHz computer with 128 Mbps of memory. Did your last computer come with the operating disks, or were they on your hard drive in a special partition? That doesn't happen in Linux. Did you know that Dell and Gateway offer a Linux operating system on some of their new laptops!

Limited choice of applications is nonsense. There are about 3 to 5 times more ham radio programs for Linux than that for Windows. If you don't believe my, ask Randy. They probably are not specifically what you require, but they are available. Ninety percent of the software for Linux is written not by corporations, but by those geeky computer nerds that we avoided in high school. If you find a Linux ham radio program that needs improving, you can do two things. First tell the author of that software what might improve the program, and second send him a donation. He or she is doing the software development on their own. The finished program will be free to everyone and free to download.

What operating system can you name that offers it for free? In addition Open Office, a Microsoft Office clone is free. Just as Gimp, A Photoshop clone. K9 Copy will copy your DVDs and is a good replacement for Nero, which is available on Linux but must be purchased. MixW costs \$50 and only runs on Windows. Most amateurs like me feel that many of the 17 modes can be gotten from other sources. There are Linux programs out there that will do what MixW does. Getting upgrades to operating system grades as well as a program is easy on Linux. Unlike Windows that insist you update when they demand, Linux allows you to do it at your leisure. Matter-of-fact Linux not only downloads updates but installs them on the spot. The most important factor, you don't have to reboot your computer to make the updates work.

Your article was an anti-Linux indictment, or so several hams have told me. You are a well respected member of KARS and people listen to what you have to say. But in this case I don't believe you did your homework. Is this article anti-Windows? Maybe so, but I have used facts and not innuendos. Yes, Qtel improvements, I can wait. DX Atlas or Faros, I can wait. The RigExpert, I can wait. CW Skimmer, I can wait. At the moment I have Fldigi for PSK31 and Mini-Com for Packet, and that is adequate. After 24 years I look forward to an operating system that I can tweak here and there as I did building in my early days of ham radio. As an instructor at ITT Tech I enjoyed lecturing in the Linux lab, because the computers in the

Windows lab crashed during my lectures. I am looking forward to the day I can flush my copies of Windows down the toilet. That's also a fact! *Adapted /for the Propagation by K6SPP.*

SPOKANE, WA - Register to test 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.

Digital TV (DTV) Changeover

Everyone is probably tired of hearing about it, but the DTV changeover happens on 02/17/09. Hams in our Club may want to check on older friends and relatives who might need an assist getting changed over. Remember, people connected to Cable or Satellite won't need to do anything. The people that may need help are those who receive their TV over the air. You may enjoy this short video about getting changed over: <http://www.hulu.com/watch/36608/talkshow-with-spike-feresten-cable-psa>

If you have specific questions about DTV changeover details, contact Ed, AI7H (ai7h@arrl.net).

New Look for "QRZ"

If you're not already acquainted with the website www.qrz.com, you should go and look. The site contains information about all hams in the US and Canada. Type in his/her call sign, and you will learn where the ham lives, and information about his license. The ham may include additional information about him/her self, such as e-mail address, a short biography, and sometimes a picture. All hams are encouraged to set up their e-mail on QRZ so that other hams can reach you if need be. (The recent QRZ upgrade provides excellent security from spammers for your e-mail address). By the way, "QRZ" means "Who is calling me" or "Who are you".

Deadline for submitting articles, stories, reports, etc., is the 25th of each month for the following month's newsletter.

Events for 2009

February 14, 2009. Salem Hamfair & Computer/Electronics Swapmeet. Rickreall, Oregon at the Polk County Fairgrounds. *This is an ARRL Sanctioned event.* <http://www.w7sra.com>.

February 22, 2009. Burnaby ARC Amateur Radio Flea Market. New Westminster, B.C. http://rac.eton.ca/events/detail.php?event_ID=1291

March 7, 2009. Mike & Key Swap Meet. Puyallup Fairgrounds Exhibition Hall, Puyallup, WA. *This is an ARRL Sanctioned event.* For information, contact mwdink@eskimo.com; <http://www.mikeandkey.org/flea.htm>.

March 21, 2009. MicroHAMS Digital Conference, Bellevue, WA. MicroHAMS Radio Club. <http://www.microhams.com>.

April 4-5, 2009. Communications Academy. South Seattle Community College, Seattle, WA. *This is an ARRL Sanctioned event.* <http://www.commacademy.org>

April 5, 2009. Maple Ridge Ham Radio and Computer Swap Meet. Maple Ridge, B.C. http://rac.eton.ca/events/detail.php?event_ID=1287

April 11, 2009. Yakima Hamfest. Yakima, Washington. Selah Civic Center, 216 South 1st Street, Selah, WA. <http://w7aq.org/>.

April 24-26, 2009. Idaho State Convention. Voice of Idaho ARC. Holiday Inn — Boise Airport. **Idaho's FIRST Section Convention! This is an ARRL Sanctioned event.** <http://www.voiceofidaho.org/>.

May 1-3, 2009. EMCOMMWEST®, Reno, Nevada. <http://www.emcommwest.org/>

May 9, 2009. Stanwood Camano Amateur Radio Club (SCARC) Hamfest, Stanwood Middle School, Stanwood, WA. Always the second Saturday in May. Contact Vic, N7KRE (360)387-7705). nwecop@tgi.net.

June 2009. 4th Annual Port Ludlow ARC Tailgate Swap Meet. <http://www.n7pl.org/>.

June 5-7, 2009. Sea-Pac Hamfest. Seaside Convention Center, Seaside, Oregon. *This is an ARRL sanctioned event.* ai9q@arrl.net. www.seapac.org/.

June 12-14, 2009. Wenatchee Hamfest. Apple City ARC. Dryden Gun Club. Dryden, WA. Contact Jim, W7JBP at shultzjims@aol.com or Judy, at ka7zna@msn.com for information. <http://www.qsl.net/w7td/>.

June 13, 2009. KARS Hamfest 2009. Kootenai Amateur Radio Society. American Legion Hall, 1138 E. Poleline, Post Falls, Idaho. Always the 2nd Sat in June. Breakfast and lunch available on Saturday. VE Exams. Talk in 146.98/.38. For more info contact Jim, N7ESU at (208)755-2100 or email n7esu@arrl.net. <http://k7id.com/>.

June 20-21, 2009. Northeast Montana Father's Day Hamfest. Glendive, Montana. For more info or details contact Sam Moore, K7SAM, at navajomt@nemont.net. Exit 215 off I-94, north end of Glendive on the east side of the Yellowstone River. Talk in will be on the Glendive repeater, 146.760 - .

July 11, 2009. Chehalis Valley ARS Hamfair. Lewis County Fairgrounds. Contact John Ellingson, K7OSK. johnk7osk@boatanchor.com. <http://www.cvars.org/>

July 11, 2009. SalmonCon. Pacific Northwest QRP Group annual weekend outing. Bowman Bay campground, Deception Pass State Park. This event is run in conjunction with an East Coast QRP meet called LobsterCon. There will be equipment demonstrations, talks on various subjects and much camaraderie. For information, contact Wayne NB6M@Comcast.net.

July 18, 2009. Coos County Radio Club Hamfest and Swapmeet. North Bend Middle School, North Bend, OR. Contact Marilyn Mansker, ke7oam@yahoo.com or Dave Granicy k7nbo@charter.net; <http://www.coosradioclub.net/>.

July 17-19, 2009. Glacier Waterton International Peace Park Hamfest. This is an ARRL Sanctioned event. Glacier Meadows Campground, 13 miles west of East Glacier on MT Hwy 2. www.gwhamfest.org. Contact: Jim Cummins, N7YO, 1804 32nd St. So. Great Falls, MT, 59401, phone (406)899-1944 or email n7yo@mpiwifi.com.

August 7-9, 2009. 54th Annual Pacific Northwest DX Convention. Mirabeau Park Hotel, Spokane, WA. Hosted by the Spokane DX Assoc. *This is an ARRL Sanctioned event.* www.sdx.org.

August 2009. Radio Club of Tacoma Hamfest. Spanaway, WA. <http://www.w7dk.org/>; Hamfest@W7DK.org.

August 2009. W7PL Pendleton ARC Third Annual Swapmeet. Pendleton, OR. denton@oregontrail.net; <http://w7pl.com/>.

August 16, 2009. Antique Radio Swap Meet. Puget Sound Antique Radio Association. 9 AM to 1 PM. Shoreline Museum parking lot. N. 175th & Linden, Avenue, North Seattle. One block west of Aurora Avenue - one mile west of I-5, exit 176. Free admission. <http://www.eskimo.com/~hhagen/psara/swap.html> (Always the 3rd Sunday in August).

September 11-13, 2009. Northwest Automatic Position Reporting System (NWAPRS) Summer Gathering. Contact Dave/K7GPS at k7gps@arrl.net or (509)244-8484.

September 19, 2009. The 3rd Annual Clark County ARC Tail-Gate Swapmeet. Vancouver, WA. <http://www.w7aia.org/> Rob, K7JAO at k7jao@arrl.net.

September 26, 2009. Spokane Hamfest. Washington State Convention. University High School, 12420 E 32nd Ave, Spokane Valley WA 99216. *This is an ARRL sanctioned event.* For information contact Betsy, N7WRQ n7wrq@aol.com.

October 4, 2009, ComFest 2009 Swap Meet, Delta Amateur Radio Society, South Delta Rec. Center, details at www.deltamateurradio.com contact: ve7fky@rac.ca

October 9-11, 2009. Pacific Northwest VHF Society Annual Conference. *This is an ARRL Sanctioned event.* Seaside, Oregon. For information, contact secretary@pnwvhfs.org; <http://pnwvhfs.org/>.

October 2009. Bozeman Hamfest. Gallatin Ham Radio Club, Bozeman, MT. <http://www.gallatinhamradio.com>
Contact: Tom Lewis, AB5CK mail@gallatinhamradio.com.

October 2009. Swaptoberfest. Mid-Valley ARES. Polk County Fairgrounds, Rickreall, OR. Contact: Chris Portal, W7CLP (503)559-7837. w7clp@arrl.net. 520 South Pacific Highway. <http://www.swaptoberfest.net>.

November 8, 2009. Maple Ridge Ham Radio and Computer Swap Meet. Maple Ridge, BC. http://rac.eton.ca/events/detail.php?event_ID=1286

If you would like to use the club callsign, K7ID, contact Jerry Hooper, KA7RNX, or any of the KARS Board members. They have the approval forms available.

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EMERGING TECHNOLOGY: THE FUTRE IS LED LIGHTING

Science OnLine says that innovations in photonics and solid state lighting will lead to trillions of dollars in cost savings, along with a massive reduction in the amount of energy required to light homes and businesses around the globe. This, according to a paper published by two professors at Rensselaer Polytechnic Institute.

The paper suggests that a new generation of illuminating devices based on light-emitting diodes or LED's will supplant the common light bulb in coming years. In addition to the environmental and cost benefits of LEDs, the technology is expected to enable a wide range of advances in areas as diverse as healthcare, transportation systems, digital displays, and computer networking.

Researchers say that they are able to control every aspect of light generated by light-emitting diodes, allowing the light sources to be tweaked and optimized for nearly any situation. In general LED's will require 20 times less power than today's conventional light bulbs, and five times less power than compact fluorescent lamps. (ScienceOnLine)

ENFORCEMENT: WIRELESS PC HEADPHONES INTERFERE WITH VK REPEATER

From down-under comes word that Australia's telecommunications regulator ACMA has confiscated a consumer device that was wreaking havoc on a 2 meter repeater. The unit turned out to be a pair of wireless headphones, with a talk back-channel, designed to be used with a PC online.

The headphones carried a brand label Omni model WEP-910D. It turned out that they use the 2 meter frequency of 147.000 MHz as to deliver audio to the headphones. This explains why hams in range of the repeater being jammed heard endless hours of whatever was being processed through the offending PC's sound card.

Now, here's the kicker. Not knowing that the unit was in a ham radio band the users of these headphones complained that on some occasions they heard "voices talking to them" on their personal computer system.

As there may be more of these units in use anywhere in the world, hams need to keep an ear out for them. Most appear to operate on 147.000 MHz +/- about 15 kHz, so users listening to repeaters on or near 147.000 MHz are more likely to be affected by these units. (WIA News)

EMERGING TECHNOLOGY: HIGH POWER AUDIO TO THWART PIRATES AT SEA

A British firm is spearheading use of a high-tech "sonic laser" to beat bandits on the high seas. Burt Hicks, WB6MQV, has the details on this new media based unit:

About the size of a domestic satellite dish, the long range acoustic device blasts the target with a precise beam of sound. This could include warning messages, noise or sirens that can be tuned to excruciatingly painful levels should an attacker get too close.

The sound source for the unit is any standard off the shelf MP3 player. The device has shown to be very effective at up to 1,000 meters and excruciating if you get within 100 or 200 meters. At full power it would result in permanent hearing damage.

For the Amateur Radio Newsline, I'm Burt Hicks, WB6MQV, in Los Angeles.

According to reports, the device has been tested in an actual attack and the pirates were driven off. (WIA News)

RESTRUCTURING: SWITZERLAND ALLOCATES 6 METERS TO HAM RADIO ON JANUARY 1

Some good news for hams in Switzerland. Swiss telecommunications authorities will allocate the 50 MHz band to amateur radio on a secondary basis beginning January 1, 2009.

Swiss and foreign CEPT class licensees will be permitted to transmit with up to 100 watts PEP on 50 to 52 MHz without any antenna restrictions. The one caveat is that primary users may not be disturbed. This includes some TV stations active on the VHF band I in Northern Italy. (Southgate)

RESCUE RADIO: NEW RAC ARES OPERATIONS TRAINING MANUAL

The recently introduced Radio Amateurs of Canada ARES Operations Training Manual has met with widespread approval from the amateur radio community and is even being requested by Emcomm groups in other countries. Because of this plans are that it will be printed in a handy and portable hard copy form early in 2009. Once published, the new training resource will be offered for sale on the Radio Amateurs of Canada on-line store. It will

continue to be available for downloading, free of charge, at www.rac.ca/fieldorg/RACARESTrainingManual.htm. (RAC)

RESCUE RADIO: RAC ANNOUNCES EMCOMM E-MAIL ALERT SYSTEM

The Radio Amateurs of Canada Field Services Organization has also created an ARES-Alert system for Radio Amateurs who are part of the Amateur Radio Emergency Service or other Canadian Emcomm unit. The e-mail based system is being provided as a means to alert Canadian radio amateurs of emergencies or disasters, or threat of same, where ham radio emergency services are or may be required. It will also serve to advise stations of the need to avoid or monitor frequencies that are being used in an emergency event anywhere in the world. (RAC)

EMERGING TECHNOLOGY: THEY CALL IT TREE POWER

Imagine being able to run a QRP station by powering it from a near-by tree. Sound strange? Well that's one of the possible uses for an emerging technology called tree power. Jim Linton, VK3PC of the WIA News explains:

A voltage difference exists between a tree and the ground. Researchers have found that the metabolism of a tree works to maintain the voltage difference, whether it's day or night, rain or shine all year round.

Up to two volts is available, enough to trickle-charge a battery or power a wireless transmitter.

Tree-power will be helping to collect improved local climate data that is essential for computerized fire modeling.

The United States Forest Service is about to field test a tree-powered wireless network. It looks like being an alternative to installing intrusive solar panels in a forest.

The bio-energy source may have other applications too, such as border security and managing agriculture.

Could this lead to self-illuminated Christmas trees or even radio amateurs tapping in it for QRP operation?

Anyone pine for the day that this kind of energy becomes popular?

For the Amateur Radio Newsline, I'm Jim Linton VK3PC. (WIA News)

WORLDBEAT: SOUTH AFRICA ON TRACK FOR EXPANDED 40 METER BAND

The South African Radio League has received assurances from that nation's telecommunications regulator that the issue of making 7100 to 7200 kHz available to radio amateurs as of March 8, 2009, should be finalized by the end of January.

The various changes have been included in the South African national table of frequency allocation. It's expected

to be published for comments in the near future.

In the final process, the Minister of Communication will have to approve the table of frequency allocation before it is implemented. The new rules also will carry a correction of the Zed R allocation in the 20 meter band. (Southgate)

RESCUE RADIO: FEMA ANNOUNCES IPAWS CONTRACTOR HUNT

The Federal Emergency Management Agency is looking for vendors to help implement the future generation version of Emergency Activation System better known by the acronym EAS.

FEMA recently published a request for information on implementing the Integrated Public Alert and Warning System known by its own acronym of IPAWS. According to the news release IPAWS will use mobile media such as cell phones, pagers, laptop computers and other personal communications devices to warn people of dangerous situations. This through live or pre-recorded audio, video and text messages in multiple languages and with support for American Sign Language and Braille.

Responses to the government solicitation are due by January 30, 2009. A fascinating article about the IPAWS system and its role in future rescue radio operations is on-line at www.fema.gov/emergency/ipaws/#0 (FEMA, RW)

EMERGING TECHNOLOGY: FOX TV TO GO ALL HD BY 2010

Fox's television network group plans to distribute all of its cable and networks exclusively in high-definition within two years. It will also eliminate standard-definition feeds with an infrastructure upgrade the company expects will double its satellite capacity.

As part of the project, Fox will convert its encoding and satellite transmission infrastructure to Motorola equipment, covering all cable networks and the national broadcast network. The change will require all cable, satellite and other distributors to install new satellite receiver and decoder units from Motorola, although Fox for the time being will continue to offer the high-definition feeds in the widely used MPEG-2 encoding format.

Fox will begin the switch to the Motorola-based high definition gear on March 1, 2009. Its aiming to migrate all networks by the end of 2010. (MultiChannel News)

HAM HAPPENINGS: STRAIGHT KEY NIGHT ON OSCAR 2009

Ray Soifer, W2RS extends an invitation to all radio amateurs worldwide to participate in AMSAT's Straight Key Night on OSCAR 2009.

The event takes place between 0000 and 2400 UTC on

January 1st, 2009. Its C-W only and you must use a straight hand key.

Participating is easy. There really are no rules, no scoring and no need to send in a log. Just operate CW through any OSCAR satellite and have a good fun and safe New Years Eve. (ANS)

Repeater mapping travel search, terrain analysis

The K5EHX repeater mapping project is a collaboratively edited and maintained database of repeaters displayed using Google Maps. All data can be freely downloaded in multiple formats. You can get there by going to <http://k5ehx.net/repeaters>

For your Christmas traveling pleasure, the website now supports searching along a route. Just enter the From and To locations (next to "Directions") and google maps figures out the best route and searches for repeaters along the route. The Google Maps API doesn't yet support changing routes, so if you are taking the scenic route just split it into multiple searches. Printing should work, and there is a CSV data export "hack" in place - you have to copy and paste into a text editor for now (most browsers don't support saving files in Javascript).

Please note that the directions search has to be done by AJAX, and so it may take a few seconds (or minutes) to display the repeaters after displaying the route. It actually performs a search every twenty miles, then sorts them in the browser and removes duplicates. For long trips, this could mean more than a hundred separate searches!

Thanks to KD2BD's excellent (and open source) [SPLAT! terrestrial RF path analysis software](#) coupled with elevation data from the USGS and NASA, terrain analysis is now integrated into the website. If you want a repeater analyzed, set the position correctly along with the receive antenna height and it will be added to the queue. Other parameters are currently ignored, but may be used in future analysis or used by other projects such as [AB9RF's repeater footprint project](#). Terrain analysis is compute intensive, and currently runs at about 50 per day.

For some repeaters, viewing terrain analysis along with google maps' new "terrain" feature can be enlightening, or at least interesting. The shuttle radar topography mission is detailed enough to predict some radio shadows caused by large buildings. Refraction, however, is not taken into account so the two meter coverage is usually better than predicted, while the seventy centimeter coverage and above is fairly close. An example: [The WA5LVT 146.94 repeater near Sand Springs, OK](#)

The analysis used is Splat!'s simplistic line of sight / coverage model. Longley-Rice (which is supported by Splat!) turns out to require more computing horsepower than I have available. I have several computers available for analysis, hopefully between them all I can keep up with the demand. If you do set the location and receive antenna

height, please be patient as it could take a day or more before yours makes it into the queue. That should only apply for a short time after a large announcement (for instance, an article on QRZ.com), so normally it will only take a couple of hours before an analysis is available. AB9RF's project, when available, uses Longley-Rice to compute repeater availability by gridsquare.

ARRL Contests for 2009

January 1 - Straight Key Night

January 3-4 - ARRL RTTY Round-Up

January 3 - Kids Day

January 17-19 - ARRL January VHF Sweepstakes

February 21-22 - ARRL International DX Contest (CW)

March 7-8 - ARRL International DX Contest (Phone)

June 13-14 - ARRL June VHF QSO Party

June 20 - Kids Day

June 27-28 - ARRL Field Day

July 11-12 - IARU HF World Championships

August 1-2 - ARRL UHF Contest

August 15-16 - ARRL 10 GHz and Up Contest

September 12-13 - ARRL September VHF QSO Party

September 19-20 - ARRL 10 GHz and Up Contest

November 7-8 - ARRL November Sweepstakes (CW)

November 21-22 - ARRL November Sweepstakes (Phone)

December 4-6 - ARRL 160 Meter Contest

December 12-13 - ARRL 10 Meter Contest

Red Cross Murray River Canoe Marathon – Wireless Institute Civil Emergency Network (WICEN) does it again.

Date: 12/27/2008

Author : Peter Young - VK3MV

Today sees the start of the 40th Murray River canoe marathon, the world's longest and possibly toughest sporting event of this type. Again, the Wireless Institute Civil Emergency Network (WICEN) will provide safety communications for the five days of this event. This year will mark the 38th year of WICEN's involvement, which is a testimony to the dedication and commitment by its volunteers over the years.

This year there will be 26 operators that will assist the race marshals with reliable radio communications over the

flat terrain, where existing commercial systems struggle to achieve coverage. The communications teams at each check point use HF to maintain contact with the coordinating base station, and VHF for local communications with the safety boats and vehicles along the river.

Over the years many different ways have been tried on the communication front, but overall, low frequency HF voice communications, supplemented by local 2 meter VHF has proved to be the most reliable. The involvement by WICEN has allowed it to train new operators in message handling and equipment use in a real world environment where things don't always go to plan and situational management skills come to the fore in getting the message through. When you couple this exercise with a hostile weather environment where day-time temperatures can go to the high 30's degree C plus, it proves to be a challenging event for competitors and officials.

Rewind - The Russian Woodpecker.

Date : 12/21/2008

Author : Robert Broomhead - VK3KRB

The Russian Woodpecker was a notorious Soviet signal that was heard on the shortwave radio bands worldwide between July 1976 and December 1989. It sounded like a sharp, repetitive tapping noise, at 10 Hz, giving rise to the "Woodpecker" name. The random frequency hops disrupted legitimate broadcast, amateur radio, and utility transmissions and resulted in thousands of complaints by many countries worldwide.

The signal was long believed to be that of an over-the-horizon radar (OTH) system. This theory was publicly confirmed after the fall of the Soviet Union, and is now known to be the Duga-3 system, part of the Soviet ABM early-warning network.

History

The Soviets had been working on early warning radars for their anti-ballistic missile systems through the 1960s, but most of these had been line-of-sight systems that were useful for raid analysis and interception only. None of these systems had the capability to provide early-warning of a launch, which would give the defenses time to study the attack and plan a response. At the time the Soviet early-warning satellite network was not well developed, so work started on over-the-horizon radar systems for this associated role in the late 1960s.

The first experimental system, Duga-1, was built outside Mykolaiv in the Ukraine, successfully detecting rocket launches from Baikonur Cosmodrome at 2,500 kilometers. This was followed by the prototype Duga-2, built on the

same site, which was able to track launches from the far east and submarines in the Pacific Ocean as the missiles flew towards Novaya Zemlya. Both of these radars were aimed east and were fairly low power, but with the concept proven work began on an operational system. The new Duga-3 systems used a transmitter and receiver separated by about 60 km.

The Appearance Of The Woodpecker

Starting in 1976 a new and powerful radio signal was detected worldwide, and quickly dubbed the Woodpecker by radio amateurs. Transmission power on some woodpecker transmitters was estimated to be as high as 10 MW EIRP. As well as disrupting shortwave amateur radio and broadcasting it could sometimes be heard over telephone circuits due to the strength of the signals. This led to a thriving industry of “Woodpecker filters” and noise blankers.

One idea radio amateurs had to combat this interference was to attempt to “jam” the signal by transmitting synchronized unmodulated continuous wave signals, at the same pulse rate as the offending signal. This idea was considered, but abandoned as impractical. Simple CW pulses didn’t appear to have any effect. However, playing back recordings of the woodpecker transmissions sometimes caused the woodpecker transmissions to shift frequency leading to speculation that the receiving stations were able to differentiate between the “signature” waveform of the woodpecker transmissions and a simple pulsed carrier.

Identification Of The Woodpecker

Triangulation quickly revealed the signals to come from Ukraine. Confusion due to small differences in the reports being made from various military sources led to the site being alternatively located near Kiev, Minsk, Chernobyl, Gomel or Chernihiv. All of these reports were describing the same deployment, with the transmitter only a few kilometers southwest of Chernobyl (south of Minsk, northwest of Kiev) and the receiver about 50 km northwest of Chernobyl (just west of Chernihiv, south of Gomel). Unknown to most observers, NATO was well aware of the new radar installation, which they referred to as Steel Yard.

Even from the earliest reports, it was suspected they were tests of an over-the-horizon radar and this remained the most popular theory during the cold war. Several other theories were floated as well, including everything from jamming western broadcasts to submarine communications. The broadcast jamming theory was debunked early on when a monitoring survey showed that Radio Moscow and other pro-Soviet stations were just as badly affected by woodpecker interference as Western stations. More speculative explanations were also offered, claiming it was a system for weather control or even an attempt at mass

subconscious mind control.

As more information about the signal became available, its purpose as a radar signal became increasingly obvious. In particular, its signal contained a clearly recognizable structure in each pulse, which was eventually identified as a 31-bit pseudo-random binary sequence, with a bit-width of 100 us resulting in a 3.1 ms pulse. This sequence is usable for a 100 us chirped pulse amplification system, giving a resolution of 15 km (10 mi) (the distance light travels in 50 us). When a second Woodpecker appeared, this one located in eastern Russia but also pointed toward the US and covering blank spots in the first system’s pattern, this conclusion became inescapable.

In 1988, the Federal Communications Commission conducted a study on the Woodpecker signal. Data analysis showed an inter-pulse period of about 90 ms, a frequency range of 7 to 19 MHz, a bandwidth of 0.02 to 0.8 MHz, and typical transmission time of 7 minutes.

Disappearance Of The Woodpecker

Starting in the late 1980s, even as the FCC was publishing studies of the signal, the signals became less frequent, and in 1989 disappeared altogether. Today Google Map photography of the area shows that the antenna has been removed. The original Duga-3 site lies within the 30 kilometer Zone of Alienation around the Chernobyl power plant. It appears to have been permanently deactivated, since their continued maintenance did not figure in the negotiations between Russia and Ukraine over the active early warning radars at Mukachevo and Sevastopol. The antenna still stands, however, and has been reported to have been used by amateurs as a transmission tower (using their own antennas) and has been extensively photographed.

Thanks to John Alcorn VK2JWA for bringing this to our attention.

Text from http://en.wikipedia.org/wiki/Russian_Woodpecker

Further pictures and information available from <http://www.artificialowl.net/2008/12/abandoned-giant-duga-3-system-antenna.html>

Time to change your shortwave radio dial

After seventy years of broadcasting Canada’s official time, NRC’s shortwave station CHU will move the transmission frequency for the 7335 kHz transmitter to 7850 kHz. The change goes into effect on 01 January 2009 at 00:00 UTC.

CHU is a part of NRC’s system for disseminating official time throughout Canada, broadcasting 24 hours a day from a location approximately 15 km south-west of downtown Ottawa. Listeners hear tones to mark the

seconds, voice to announce the time in French and English, and digital data to set computers.

The atomic clocks at CHU are part of the ensemble of clocks in the time and frequency research laboratories in Ottawa, at the National Research Council Canada. The NRC clocks are used in conjunction with clocks in the time laboratories of other countries to construct the internationally accepted scale of time, UTC (Coordinated Universal Time), which is now the reference for official time used by all countries. UTC is the modern implementation of Greenwich Mean Time.

“Coincidentally, this frequency change comes at a time when NRC is investing resources to refurbish the aging transmitters at CHU in order to provide clear, dependable shortwave services as part of NRC’s mandate to disseminate time to all Canadians.” said Raymond Pelletier, Technical Officer at the NRC-Institute for National Measurement Standards, who oversees the CHU facility. “The shortwave time service is especially beneficial for those in remote locations where there is limited access to internet and telephone communication. CHU also provides a back up against failure of other services.”

In April 2007, the International Telecommunications Union re-allocated the 7300-7350 kHz band from a fixed service to a broadcasting service. Since then, interference on the 7335 kHz frequency has come from many information broadcasters around the world.

CHU listeners in Canada and around the world who have for so long considered the 7335 kHz frequency exclusively for time signals, are very vocal about this interference. We have heard from amateur radio operators, watchmakers, astronomers, and navigators who use the tones and voice signals. As well, comments were received from those who use the carrier as a calibration source at a distance for their equipment.

To give notice to users, CHU will broadcast an announcement in both English and French. More information about CHU can be found at:

http://inms-ienm.nrc-cnrc.gc.ca/time_services/shortwave_broadcasts_e.html

Storm Spotters Play Major Role in Weather Warnings

12/15/2008

Northeast Mississippi Daily Journal

BY DANZA JOHNSON

TUPELO - Ronald McCollum and Jim Miller spend a lot of time looking up at the sky, a hobby they wish more people would take up.

Both men are certified Skywarn Weather Spotters and Ham radio operators. As members of the KK5K Tupelo

Amateur Radio Club, Miller and McCollum take their weather spotting duties seriously.

Spotting since 1992, McCollum said storm spotters serve as the eyes for the National Weather Service and the local television stations.

“As storm spotters we really provide a public service,” said McCollum. “We’re not doing this for personal gain. Knowing when a storm is coming and where it’s coming from can be an issue of loss of life and property.”

Miller has been a spotter since 1967, a long time before weather radar was used to spot storm systems. He said a misconception many people have about spotting storms is that anyone can walk on their porch, look up at the sky and spot a storm system and call it in. But that’s not the case, he says.

“You have to actually complete a Skywarn storm spotter course before you are considered a legitimate storm spotter,” said Miller. “You have to know what to look for when you look at a storm system in order to call in the correct information. Getting the wrong information out to the public is not being helpful.”

In addition to National Weather Service courses, WTVA meteorologists Dick Rice and John Dolusic teach a storm spotter course to certify spotters in Northeast Mississippi. Rice said spotters are an essential part to getting severe weather warnings out to the public.

“Spotters allow us to get information out very rapidly,” said Rice. “They are invaluable to weather news. Without spotters, it’s hard to verify severe weather.”

Rice said the information trained storm spotters call in is very reliable.

Not to be mistaken for storm chasers, Miller said storm spotters don’t even have to leave the comfort of their home to spot severe weather, and they definitely should never chase a storm system.

“Safety is a priority,” explained Miller. “We observe from a distance and relay what we see to the weather service. We don’t try to run down storms. You can step out on your porch and look out and spot a storm.”

Miller also said he doesn’t advise untrained people to go out and try to spot storms.

“People call in all the time about tornadoes and things that they spot, and none are there,” said Miller. “Wrong information is bad information when dealing with storms.”

With about 60 storm spotters throughout Northeast Mississippi, McCollum said more are still needed.

“You can’t have enough storm spotters out there,” said McCollum. “We could use one in every square inch of the area.”

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 5222, Coeur d'Alene, Idaho 83814



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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.

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Notice

Propagation is published monthly by the Kootenai Amateur Radio Society (KARS). The club is located in Coeur d'Alene, Idaho and serves the North Idaho and the Spokane, Washington areas.

All opinions expressed in this newsletter are those of the individual contributors and not the radio club as a whole.

KARS operates a voice repeater on 146.98 and a packet repeater on 145.510 Mhz.

Anyone interested in Amateur Radio is welcome to join. Dues are \$12.00 (individual) and \$18.00 for a family membership. Contact the Treasurer if you wish to join.

If you know of anyone interested in joining KARS, you can notify the newsletter editor as to that parties email address. A copy of this newsletter will be sent with no obligation to join.

Material can be submitted for publication in Propagation. The deadline for articles, etc., is the 25th of each month for the following month's issue.