

The LANDLINE

The Newsletter of the
COPPER COUNTRY RADIO AMATEUR ASSOCIATION, INC.
P.O. BOX 217 DOLLAR BAY, MICHIGAN 49922-0217
Visit us on the World Wide Web: www.ccraa.net

SLIENT KEY

Uno Moyryla, 83, W8FMT of Boston location (Calumet) passed away on July 14, 2006. Uno held an Associate Degree in Electrical Engineering from MTU, and was employed at the Houghton County Memorial Airport as an electronics technician. He is survived by his wife Ellen, 3 sons and 5 daughters., 52 grandchildren and 24 great grandchildren. Funeral services were held at the First Apostolic Church of Calumet with burial in the Liminga Cemetery.

(Editor's note: Uno was active on 10 meters during the 50's and enjoyed working "short skip" on 10)

(Submitted by Geo., W8FWG)

Amateur in Recovery;

Qst to amateur's in the area....

Mark (KC8YDU) is doing much better and looks forward to starting Physical therapy for his injured knee. Mark can be heard on the 315 Repeater and welcomes area Ham's to say Hello.....

Howard(KD8ABP)

V.E. TEST SESSION CHANGES:

The following (tentative) changes go into effect in 2007 for the CCRAA/HARC Testing Team in Houghton County. We're planning on giving exams only twice annually.....The second Saturday of April and September, is the new schedule. We also will accommodate schools or other organizations that need to give a test after their class on ham radio ends. Those sessions will be by appointment only, but will be open to everyone. In the rare case where we get an individual application we will also accommodate them if they pre-register. We will be retaining all of our present examiners. Thanks to all, who have helped over the years.

Geo., W8FWG

Space Station Sightings;

<http://spaceflight1.nasa.gov/realdata/sightings/>

Massive Ham-Sat Launch;

If you think that eight is enough, then 13 is even better, especially when it comes To putting Amateur Radio Satellites into space. Now scheduled for 26 July 2006,

A Russian-built rocket will take off from Baikonur Cosmodrome in Kazakstan in What will be the largest ever deployment of Amateur Satallites. The 13 are called CubeSats, each satellite is a 10cm cube weighing just 1 kilogram Into which is packed the battery, transmitter and various experiments. The satellites Will be put into a 500 by 566 Km orbit with a inclination of 97 degrees. One of the Cubesats to be launched is known as SEEDS. Built by students at the Nihon-University, it contains a CW beacon. After launch the CW beacon will operate On 437.485 mhz with the callsign JQ1YGU. The Digitalker experiment will be activated Later.

In all, twelve of the micro-sized birds will have downlinks in the Amateur Satellite Service allocation between 435 and 438 mhz and one will operate on 145.950 mhz. Further information on this mega Amateur Radio satellite launch can be seen at <http://littonlab.atl.calpoly.edu> WorldRadio, August 2006, page 2, [WWW.wr6wr.com](http://www.wr6wr.com) Howard(KD8ABP)

ARLS005 Massive CubeSat launch fails;

An attempt to launch 15 CubeSats from 11 universities and one private company failed July 26. Fourteen of the CubeSats, now lost, carried Amateur Radio transmit-only payloads.

The Dnepr-1LV rocket lifted off from Russia's Baikonur Cosmodrome in Kazakhstan at 1943 UTC on July 26. Space Launch Report cites payload users as reporting that the mission went awry sometime after first-stage separation. An Interfax, report said an emergency shutdown of the rocket's main engine initiated 86 seconds after launch, shortly before the first stage would have completed its burn. Gazeta.kz reported the vehicle fell to Earth almost 190 km from the launch site.

According to Satellite Launch Report, the original Dnepr launcher was replaced by a different one in June after a problem was detected in the original vehicle's digital flight control system. The Dnepr vehicle is a repurposed SS-18 "Satan" three-stage intercontinental ballistic missile.

ARRL
Howard(KD8ABP)

Equipment ForSale:

Subject: FS: 40 watt 2 meter Mobile for \$45
Date: 27 Jul 2006 17:40:23 -0700
From: "Doc" <we6a@wt.net>
Organization: <http://groups.google.com>
Newsgroups: rec.radio.swap
Here is a Kenwood TR-7850 40 watt mobile 2 meter mobile with microphone and manual for sale for \$45. Unit works well and is in fair to good cosmetic condition. Front panel is clean and digital display works well. Top and bottom show some wear but does not look abused at all.

This radio sounds great both TX and RX. A great deal for a new ham with limited funds.
73's Doc
we6a@wt.net

GUEST EDITORIAL:

Years ago (about 50!)....as young high schoolers we would ride around listening to “AM” broadcast on the car radios. (Anyone remember” AM” stations?) We would often hear the very strong “clear channel” 50 KW stations go into heavy distortion. As youngsters we figured the broadcasters were at fault (little did we know).

In reality, selective-fading occurs on all frequencies (See the related article attached).

In our work as telephone company employees we added chart recorders to the “IF” (Intermediate Frequency) strips in our microwave receivers. There we could monitor the first and second limiter current, (usually the first limiter to avoid the “saturation” of the signal, and this was a function of “received signal”.....the chart recorders showed some very awful looking results.....”deep fades’ (Fades of 40 to 60 dB) in a matter of minutes.

Our telecom engineers told us “never place a microwave route over a body of water”,.....because of the changing path loss on this route.

We believe we are seeing it even on our 2-meter bands, when a repeater will suddenly exhibit noise, and then be perfectly all right a few minutes (or hours) later. We haven’t proven it yet, but we believe this is happening to our Herman repeater south of L’Anse, where many of us up here (on the island) (Keweenaw Peninsula are noticing this phenomena. We’ve observed this phenomenon at local sundown a couple of nights in a row, during July of 2006.

Even with my daily weather reporting on 145.090 (packet radio), there are hours...and sometimes “days”....when I cannot get through to Negaunee, and we have a Yagi (11 element beam) at Mt. Horace Greeley, pointed right at Negaunee (NOAA weather)....and they in turn, also have a beam pointed at Mt. Horace Greeley.

It is our belief therefore, that this is simply propagation, and nothing we can do about it (unless we install diversity) two-channel equipment and expensive antenna arrays.

The remedy, as they say in the telephone industry.....”Try your call a little later!”.

(Submitted by: George, W8FWG)

From Wikipedia, the free encyclopedia

Propagation;

Selective fading is a radio propagation anomaly caused by partial cancellation of a radio signal by itself — the signal arrives at the receiver by two different paths, and at least one of the paths is changing (lengthening or shortening). This typically happens in the early

evening or early morning as the various layers in the ionosphere move, separate, and combine. The two paths can both be skywave or one be groundwave.

Selective fading manifests as a slow, cyclic disturbance; the cancellation effect, or "null", is deepest at one particular frequency, which changes constantly, sweeping through the received audio.

The best way to counteract the effect is to use two receivers with separate antennas spaced a quarter-wavelength apart, or a specially-designed diversity receiver with two antennas. Such a receiver continuously compares the signals arriving at the two antennas and presents the better signal.

(Submitted by: George, W8FWG)

Homeland Security's Chertoff says to stop communications turf wars;

Unless police, firefighters and other emergency responders end turf wars and talk to each other during disasters, billions of dollars spent on high-tech communication systems will go to waste, according to Homeland Security Secretary Michael Chertoff. He says that the value of the technology provided through federal grants has been diminished by local and state disagreements over control of the new communications equipment.

Officials representing police and fire departments acknowledge that there are some turf squabbles over the communication systems. These include which responders should have access to it, what codes should be used and who, overall, would be responsible in disasters with overlapping authorities. As a result, most emergency workers like police, firefighters, and hospital staff cannot talk to one other on the same radio frequency. This slows down getting a coordinated response to a disaster scene.

Chertoff says his department has provided \$2.1 billion over the last three years to buy equipment and train emergency responders to use it. But police and fire officials say those funds only scratch the surface of what's needed nationwide. They claim that the costs of merely getting the technology in hand still far exceeds the federal monies that has been provided. Meantime, emergency response agencies continue to rely on Amateur Radio operators in RACES, ARES and other organizations with their low-cost and low-priced gear to provide the inter-operability and cross service communications that their high-priced radio systems cannot. And as the numerous bureaucracies continue to struggle for political power in the area of controlling new radio systems, Hams may be providing these services for many years to come.

— *Ledger-Leader, ARNewsline*

Howard(KD8ABP)

U.P. HAM EXAM SCHEDULE FOR 2006

The 2006 schedule is posted on the CCRAA's Web page at: www.ccr_aa.net
Please note that some times are Central Time. Also note that PRE-REGISTRATION "IS" required for the Iron Range Club.

EXAM QUESTION POOLS UPDATE:

The Technician Class exam pool changes on July 1, 2006 and one other change is that there will be no circuit drawings in the new Tech. pool. The General changes on July 1, 2007, and the Extra on July 1, 2008. Some of these changes may be amended as the Morse code issue is still up in the air, and not decided upon as yet, by the FCC.

PRACTICE EXAM SITE:

Taking a "ham" test soon? No matter which one you are taking this is a good one, It even will allow you to "peek" at the right answers! But, try doing the exam as you would at a test session and see how you do. The 35 or 50 question answer sheet is right there too, and you insert your answers. Remember, this is only a practice run....it doesn't count...but it will allow you to see how you are coming along with your studies. Find it at: <http://www.w8mhb.com/exam/> Try it! You'll like it! [Thanks to the "Courage Center" [Handi-Hams] for alerting us to this site.

Submitted by Geo., W8FWG)

70 CM REPEATER ON MT. BROCKWAY:

As of 15 July 2006, the Brockway Mountain 444.150 repeater (+, PL 107.2) is on the air.

Note:

George, Howard, and other Amateurs in the Area;

As stated in a previous e-mail, I will be shutting 444.150 down when I am not in town until we can find local control ops to keep an eye on the system.

As soon as someone in the coverage area of the repeater has 440 access, I will be happy to give them the control codes to turn the system back on.

See you in a couple of weeks,

Michael(k9SJ)

The current repeater is nothing special to look at, it was removed from a mini 19 inch rack to save space for transporting up to Brockway.

It was formerly an ARES repeater in WI for close to 10 years, before being replaced with a GE MASTR II, and has been very reliable.

Eventually I want to bring up a rack and set the pieces back on shelves in the rack, along with the packet system for one neat package.

The controller does provide for secondary links into the system.

The repeater antenna is the left most antenna in the picture, to be mounted on the tower at a later date.

One step at a time.

Top left - Controller

Middle Left - receiver

Middle Right - Transmitter

Bottom Rack Mount - Sinclair filter duplexer
On floor - Marine Deep Cycle 27 series battery.
Standby current - 400 mA
Transmit Current - 3A

Please note this is version 1.0 for testing. The following upgrades will occur during the summer.

1. Filter duplexer will be replaced with a band pass / band reject filter this summer. This will considerably improve H/T coverage in the area. I have to finish cutting the cables to length for the new duplexer, and sweep / tune it before bringing it up. This should increase the rejection over the current duplexer by at least 30 dB, allowing me to add a GaSFET preamp to the system.
2. Antenna is currently mounted on the gift shop while tower repairs are made this summer. Once these repairs are made, the antenna and repeater will be moved to the tower site.
3. In order to keep power consumption low until the repeater is placed on it's own power supply at the tower site, output power from the duplexer is 6 - 7 watts into a 6 dB gain antenna. This will be boosted to the full coordinated power once the repeater is switched to the tower.
4. Secondary control ops need to be assigned for the area. Until this is accomplished, I will have to shut the machine down when I am not in the area. Any volunteers?
5. I will be contacting the Calumet Club and local hams for help when I am ready to start repairs. I have discussed the situation with the land owner, and have promised to get legal liability taken care of first.
6. Antenna is a dual band VHF / UHF unit. VHF side is slated for a packet node.

Regards,
Michael K9SJ

REPEATER UPGRADES:

The Hancock (146.880 MHz) and the Herman (146.670 MHz) repeaters both have new transmission lines (7/8" heliax) and new antennas (Telewave, 6dB gain types) Power amps have been added to both installations now, (100 w amps), and there should be some improvement over what we had before. Hancock's installation has developed a power amp problem, and that amp has been removed and will be sent in for repair, but in the mean time enjoy the operation of the new installations at these sites. Thanks to Chuck Savolainen, WB8FCY for all of his work in coordinating these projects, and special thanks to Jack Dueueke, KC8NPI of the Office of Emergency Measures in Houghton County for his help in obtaining funding for both of these jobs. It is much appreciated by the ham radio community. Still to come....some filtering at the Hancock site, to rid us of some paging transmitter interference that exists at Hancock. Overall, a fine job by all. Thanks to the Northern Tower Erectors of TraverseCity, MI and their crew of four who did the tower work at these sites. We encourage the

testing of these two sites by all radio hams!

(Submitted by George, W8FWG)

==>SOLAR UPDATE

==>SOLAR UPDATE

Astral aficionado Tad "Shooting Star" Cook, K7RA, Seattle, Washington, reports: Solar activity remains low. Average daily sunspot numbers dropped by more than 6 points to 19.4, and solar flux was down by more than 5 points to 70.7.

July 13 saw the solar flux dip just barely below 70 to 69.9. During extended periods with zero sunspots, we will see solar flux around 67 or 68.

The sun appears spotless, although the sunspot number is above zero. Expect continued low levels of solar activity. For the next few days expect solar flux around 70, rising to 75 after July 23.

Geomagnetic indices should be quiet, with a planetary A index of five. The next period of higher geomagnetic activity due to recurring coronal holes rotating into view is some moderate activity expected around Tuesday, July 25, and then some higher activity centered on August 1. Geophysical Institute Prague predicts quiet conditions for July 21-24, unsettled conditions July 25-26, and quiet to unsettled July 27.

For more information concerning radio propagation, see the ARRL Technical Information Service Propagation page
<http://www.arrl.org/tis/info/propagation.html>.

Sunspot numbers for July 13 through 19 were 11, 15, 17, 20, 23, 26 and 24. with a mean of 19.4. 10.7 cm flux was 69.9, 70.9, 70.2, 70.8, 71, 71.2, and 71.1, with a mean of 70.7. Estimated planetary A indices were 5, 14, 6, 4, 4, 3 and 2, with a mean of 5.4. Estimated mid-latitude A indices were 3, 10, 5, 2, 2, 2 and 2, with a mean of 3.7.
73's.....

Howard(KD8ABP)

HAMFEST CALENDAR:

Escanaba, Michigan – August 5, 9am.

Delta County ARS, Bay de Noc Community College, Joseph Heiman University Center (Building 9), 2001 N Lincoln Rd. College is on the N End of Escanaba along the combined Hwys of US Rtes 2, 41 and M35 at Danforth Rd (parking Lot D). Monitor 147.15, Adm:\$5, Tables:\$5.

POC Richard Thompson, N8OYR, 9560 Chaison N 5 RD., Gladstone,MI 49837; 906-428-2528; n8oyr@dcars.org; www.dcars.org

QST July 2006, page 89.

73;

Howard(KD8ABP)

Public Emergency Network;

The Midland Radio Corp., REACT International and National SOS.com have jointly

Announced their support for the National SOS Radio Network – www.NationalSOS.com - a free communications network based on the estimated 100 million FRS-compatible Radios already in the hands of the public. The National SOS Network initiative recommends for public use FRS channel 1 as a Primary emergency-communications channel (462.5625mhz).

Monitoring Times, Volume 25, No. 7 July 2006, page 6.
Howard(KD8ABP)

2-1-1 Upper Peninsula;

The 2-1-1 is now available for residents of the Upper Peninsula. Questions and Help on Long Term Care Options, Employment, Rent/Utility Assistance, Senior Services, Home Care, Housing, Volunteer Opportunities, Transportation.... And More.

U.P. 2-1-1 can put you in touch with one of thousands of Organizations providing health services through-out the Upper Peninsula. The phone call is **FREE** and available to all U.P.

Residents. U.P. 2-1-1 is available 24 hrs/day, 7 days/week, 365 days/year.

K.C.R.A. MEETING ANNOUNCEMENT:

Our sister club, the Keweenaw County Repeater Association, Inc. will hold its meeting on **Wednesday, October 11, 2006** at the Keweenaw Pines Apartments, in the Community Room, the Annex to Building "C." Keweenaw Pines Apts. Are located just one-half mile north of the Cliff Drive Road near Mohawk. Time: 7:00pm EST. Visit our Web Page at www.kcra-mi.net All persons interested in "ham" radio are invited to attend.

Door prize to be raffled!!!!!!!!!! If you need further information before the meeting date, please call George Thurner, W8FWG (Sec.-Treas.) at (906) 337-2542.

COPPER COUNTRY RADIO AMATEUR ASSOCIATION

MONTHLY MEETING MINUTES

JULY 11, 2006

- I. Meeting called to order at 7:PM by president Glenn WA8QNF.
- II. Minutes for June were approved.
- III. Treasurer's report: new Balance-\$2949.
- IV. Jack-N8WAV reported on a search by Superior Search and Rescue. 20 people plus several law enforcement officers worked 12 hours before subject was found. Thanks to all who turned out.

George W8FWG- reported on the 440 rig.
3 new HAMS from the last testing.
VE exams will be held twice a year starting in 2007.

George W8FWG reported for Chuck-new antennas and feed lines will be installed by the end of July. The band pass filters are ordered and the line filters have been received.

- V. New business: Walt W8ERB-reported on a new telegraph set up at the museum in Lake Linden. Anyone familiar with American Morse get a hold of Walt.
- VI. Old Business: Field Day had light attendance, but all had a more relaxed day.
- VII. Next meeting: August 1, 2006. 7:PM at the clubhouse.
- VIII. Meeting adjourned at 7:30 PM

Our thanks to Virginia Thurner and Diane Hansen for providing refreshments...

Respectfully submitted,

Andy Kangas (N8ZBJ)
Secretary

Next meeting Tuesday August 1, 2006, Osceola Club House, 7:00pm

Directions: Just follow Tower Road (2 miles south of Calumet, or one-tenth of a mile north of the Calumet Golf Course Road.) Tower Road is located on the west side of Highway U.S. 41, between the new Michigan State Police Post and the Northwoods Christian Assembly Church. Note: arrive 6:30pm early for a hot dog snack.

The "LANDLINE" is published monthly by the **Copper Country Radio Amateur Association, Inc.** Contributions for use in the LANDLINE, relating to the amateur radio service and to the CCRAA are welcomed at any time. Please submit your contributions directly to the editor, and they should be received by the 25th of the month before the meeting. Material received later may or may not make it into that issue. The LANDLINE Editor is Howard F. Klann, KD8ABP. If you have a question or a comment I can be reached at: (906) 337-2168 or E-mail to: msgklann@pasty.net. E-Mail copies are sent by Howard, KD8ABP. Complimentary copies to other radio clubs and the USPS copies are mailed by George, W8FWG. Please refer any delivery problems to the Editor (Howard, KD8ABP) at (906) 337-2168/ Fax (906) 337-0599. To find out more about the CCRAA Inc. or the Amateur Radio Service, please contact one of the officers listed below or write to the **CCRAA, POB 217, Dollar, Bay, MI 49922-0217** or visit us on the web: www.ccraa.net **Ask for our new FREE booklet for new prospects to ham radio, for your friends who may be interested in ham radio. It's available in Adobe E-Mail format or via USPS.**

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