

The

NEWSCASTER

The Official Publication of the Winnipeg Amateur Radio Club http://www.mts.net/~warc

November 2007

IRLP # 1066

VE4BB

RAC President Earle Smith - VE6NM

Date: November 12th, 2007

Time: 7:30 p.m.

Place: Dakota Collegiate

661 Dakota Street

Other Important Dates:

WARC: Dec. 10, Xmas Party-, Jan. 14, 2008, Feb. 11,

Mar. 10 - Electronic Tips, Apr. 14, Home Brew,

May 12, June 9

WSC: 2nd Thurs. of month - Breakfast - Garden City Inn

ARES: Nov 11. World simulated emergency test

Nov 17 VE4MAQ - Klondike Derby

Other:

By Geoff, VE4BAW

And now for a word from the President ...

Halloween had come and gone and happy little gremlins, witches, and Britney Spears [don't ask] have been given many over wrapped Halloween goodies. The largesse is somewhat different from my youth when candies were most often those hard chewy things that were probably designed by dentists to tear fillings from teeth and then teeth from gums. Costumes are more elaborate and decorations around the house more sophisticated. What hasn't changed is the smile on the faces of the very little children that are out for the first or second time and find great wonder at being given goodies from strangers under their parent's protective and watchful eyes.

Halloween was often the first day of snow – it often didn't stay but the ground was often covered with a thin dusting. It was the notice that winter was coming and the darkness was only going to get longer before it got shorter.

It is dark on the HF bands too ... for the last couple of months the bands have been especially quiet [at least for me!]. There is a rumour that we hit bottom of cycle 23 in March 07 .. if so then we should be on the upswing. I read somewhere that this is one of the longest valleys between cycles for many a cycle [can't speak from experience of course]. I hope that cycle 24 comes soon and that we can once again talk easily across the globe.

This next meeting we have a real opportunity to speak to a man who has seen a couple of cycles and who has provided leadership to the amateur radio community for quite some time. I am speaking of our eloquent President of the Radio Amateurs of Canada, Mr. Earle Smith, ve6nm. I first met Earle two years ago at the Saskatoon Hamfest and annual RAC Meeting. I found Earle to be a gentleman, well spoken, amiable and a leader – exactly the man who you would want at the helm of RAC. I understand that he has

WARC: Executive for 2006-2007

Past President John Pura ve4qv at rac.ca
President Geoff Bawden ve4baw at rac.ca
Vice-Pres Albert Sousa albert.sousa at shaw.ca
Secretary Ruthie Maman rmaman at mts.net

Treasurer Vacant

Membership Mark Blumm ve4mab at rac.ca Program Derek Hay ve4hay at rac.ca

Director at Large Vacant

Our Vision - To increase public awareness and respect for Amateur radio; to provide education and support in all aspects of the hobby to our members in a social atmosphere.

Freq	Prov/State	Net	UTC
3.860	MN	Minnesota Net	23:00
3.747	MB	Evening Phone Net	00:00
3.937	ND	North Dakota Net	00:30
3.735	SK	SK Public Service Net	01:00
3.750	NWON	NW Ontario Net	01:15
3.700	AB	AB Public Service Net	01:30
3.660	MB, SK, AB	Prairie Traffic Net	01:30
3.743	MB	Mb Morning WX Net	14:30
145.450 -	WW	MB IRLP Net	02:00 Wednesday
147.390 +	MB	Seniors Morning Net	09:00 Local
147.390 +	MB	MRS Net Thursday	21:00 Local
147.390 +	MB	MRS Net Sunday	21:00 Local

Amateur Radio Service Centre - Industry Canada

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Telephone: (613) 780-3333

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E-mail: spectrum.amateur@ic.gc.ca

http://strategis.ic.gc.ca/epic/internet/insmt-gst.nsf/en/h_sf01709e.html

IRLP Node 1066
145.450 MHz -600 KHz
(VE4WRS)

Comments or if you just want to reach us:

Winnipeg Amateur Radio Club C/O VE4WSC

> 598 St. Mary's Road Winnipeg, MB R2M 3L5

decided to release the mantle of leadership and move on from the President's role. I respect his decision, of course. but feel that RAC will be losing an able and respected spokesman. I am excited that he is coming to Winnipeg to offer his views and answer our questions. He has a national platform to see the hobby across Canada form opinions on where it is going and how we can help keep it vibrant.

Please come out to the next WARC meeting to hear and speak to Earle ... I am sure that you won't regret it.

Program Chair By Derek, VE4HAY



Thank you to Geoff, VE4BAW for is great presentation on alternative energy. I guess I should also thank his co-partner in the audience Rolf, VE4VZ. The two of them put on quite the show & tell. While the who solar energy system is expensive (at least the storage part) is was still quite interesting to hear of now just Geoff, but a number of other hams who are using it as their primary power at their cottages.

This month we will be honoured to have the Radio Amateurs of Canada President, VE6NM, Earle Smith as our presenter. Earle will be talking about RAC present & future, as well as his views on amateur radio. You will not want to miss this presentation.

Next month is the annual Christmas party. The club is looking for a coordinator for this event as well as idea on entertainment. We really need volunteers to step forward. Without the volunteers, we may not have a party. Remember it's your club, but you can not just sit back and wait for things to happen. You must make an effort to contribute.

The program for the New year is still be developed, but if you have any presentation you want to see. Let me know.

DIAMOND **IMAGE** Floyd Rolph VE4 FDR



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Winnipeg Amateur Radio Club Hamfest



August 8 - 10, 2008

Minutes for October 15th, 2007 Submitted by Derek, VE4HAY

The meeting was called to order at 7:35 by President VE4BAW, followed by introductions of all in attendance.

Minutes

VE4GWN moved the be accepted as printed in the newscaster, seconded by VE4HK - passed

Correspondence

The letter from VE4EIH is still waiting for him to talk about it

Treasurer

VA4AS read off the audit report done by Betty, xyl of VE4HAZ. No issues outstanding. VE4QV moved acceptance, seconded by VE4OV - passed

The club is still looking for a treasurer - anyone care to volunteer - dead silence.

Standing committees

- Marathon- the final debriefing was held a couple of weeks ago. A plan was laid out for 2008 and the first meeting will take place in the New Year.
- Education need a volunteer to coordinate our education program. We have instructors but need a coordinator any volunteers dead silence
- Flea market- VE4HK said the event is this weekend. VE4XYL has sold all tables. The next flea market will be August 2008 at the Hamfest.
- Field Day we are looking for a coordinator. VE4VZ to talk to last year coordinators VE4's ISP & ACE.
- DX- we are at the bottom of cycle 23. 24 should be starting soon hopefully....
- Program- this month is alternative power, next month is RAC President Earle Smith. Following will be the Christmas party. The New Year is being planned. Need presenters.
- Hamfest- volunteers for the committee needed.
- Good & welfare VE4OV mention that our newest ham 8-year-old Supun VE4WSP.

The draw

50/50 won by VE4OAK mbrshp Raffle - Won by VE4WMK

Adjourned

WPGARES

By Jeff, VE4MBQ -Emergency Coordinator

We still have one open seat for an ARES member to attend the Winnipeg Emergency Management course 26-28 NOV. If interested please contact me ASAP.

Det SGT Randy Antonio provided a very interesting overview of GSAR, USAR & CBRN at our OCT General Meeting. Our OCT meeting closed with a Call for Nominations for the 2007-2008 Winnipeg ARES Executive. Nominations close TUE 13 NOV. We are seeking nominations for:

President

Secretary

Treasurer

The current Secretary and Treasurer have both indicated a willingness to stand again for the Executive. When submitting nominations to me please ensure that the person you wish to nominate is willing to serve.

Thanks to all of our supporters who purchased "50-50" tickets during the WARC Flea Market 21 OCT. Congratulations to Garth Blumm VE4GWB, who won the "50-50" prize of \$95. Special thanks to those who ran the ARES table:

Kent VE4KEH, Isabel, Luke VE4WTF and Roger VE4RLF.

Our next meeting will be our Annual General Meeting TUE 20 NOV 1900h at Sir Wm Stephenson Library. Bob Poole VE4MAQ will be giving us a short presentation on the Scouts Canada Klondike Derby that some of us have volunteered at.

What have you done to "promote amateur radio this week"

That line we credit to an old News stalwart, Peter Parker with using in his old VK1 and VK3 casts many years ago and it still stands true -- WIA

Killer Electrons

Researchers at Los Alamos National Laboratory, in New Mexico, say they have solved the mystery of satellite-zapping "killer electrons" that are sometimes produced in Earth's outer atmosphere. These highly energetic electrons strong enough to damage electronics and human tissue pose a danger to spacecraft, satellites, and astronauts. For many years, the mechanism by which they are produced has remained little understood, in spite of physicists' attempts at solving this puzzle.

Now, Yue Chen, Geoffrey Reeves, and Reiner Friedel say they have conclusively proved that killer electrons come about because very-low-frequency electromagnetic waves themselves of somewhat mysterious origin accelerate ordinary electrons in the Van Allen radiation belts to a point where they are traveling at velocities close to the speed of light. The three scientists published their results in the July 2007 issue of the journal Nature Physics.

If they are right, it would be a big step toward understanding the physics of the Van Allen belts and could pave the way to space-weather forecasts. Such reports would be valuable to airlines and operators of satellites and telecommunication systems, because storms in the Van Allen belts regularly disrupt communications and occasionally damage satellites.

"Our results are crucial for the development of a predictive model of space weather," says Chen. And with space-weather forecasts, "actions can be taken to protect satellites."

The Van Allen belts, named after their discoverer, James Van Allen (1914–2006), are two concentric, roughly doughnut-shaped zones of radiation containing electrons and ions that extend thousands of kilometers into space. They are caused by interactions of the Earth's magnetosphere with cosmic rays and the solar wind— the stream of charged particles that is continuously emitted by the sun. Geostationary satellites orbit within the outer belt; many low-orbiting satellites encounter the belts only if they pass near the poles, where both belts bend in toward Earth.

The electrons in the Van Allen belts are normally not dangerous to satellites and spacecraft, but every month or so radiation levels spike to as much as a thousand times their usual intensity. These surges called geomagnetic storms are related to increased intensity of the solar wind and are associated with spectacular auroral displays over the poles. But until now there was no definitive understanding of how relatively harmless electrons get accelerated to become killer electrons.

"Debates on the source of the acceleration have lasted for at least a decade, and this paper finally settles the argument based on observations," Chen says.

Part of the reason the problem has been so tough to crack is that some of the electromagnetic wavelengths that need to be studied to understand the electrons' behavior range in the tens of kilometers far too long for laboratory experiments. Addressing the problem also requires data from more than one altitude above the Earth's magnetic equator, where differences in a key term called "electron phase space density"— a measurement of the flow of electrons traveling through an area divided by the square of their momentum— would be the most telling. Getting more than one data point from the magnetic equator was something scientists had not previously done.

Chen and his colleagues managed to work out the logistics by using data from an electron detector aboard a Global Positioning System satellite, and by using other particle detectors aboard a geosynchronous satellite and NASA's Polar satellite.

Their observations seem to imply that the killer electrons could result only from an acceleration process produced by the interaction of charged particles and electromagnetic waves. However, the experiment did not explain the exact mechanism of the interaction, says Reeves, adding that while they had conclusively proved the process, much work still needed to be done to understand how it works. The source of the electromagnetic waves is not a settled issue. They may be born of turbulence in the flow of electrons within the Van Allen belts themselves or they may emanate from lightning in the Earth's atmosphere.

In a competing theory of killer electrons called "radial diffusion," the Earth's magnetic field lines are thought of as acting like an elastic band. When plucked by a burst of solar wind, the field wobbles and vibrates. If an electron in the Van Allen belt happens to be wobbling at the same rate, it will gain energy and accelerate across the magnetic field. But the pattern of electron phase space density picked up by the three satellites matched what you'd expect if the electrons were driven by interactions with electromagnetic waves, not radial diffusion.

The Los Alamos team's experiment "certainly represents a major step in an area of research where controversy still exists and has grown, even after some four decades of radiation- belt investigations," says Louis Lanzerotti, professor of physics at the New Jersey Institute of Technology, in Newark, and an expert in the physics of charged particles in space.

But Lanzerotti says it is still too early to say whether Chen and his colleagues have proved beyond doubt the mechanism behind killer electrons. He says that the definitive answer will probably come when the NASA Radiation Belt Storm Probes mission is launched in 2012.

That mission, involving two spacecraft, was specifically designed to understand the killer-electron problem. Observations will enable the development of empirical models that engineers can use to design better radiation-hardened spacecraft. The models will also help physicists to predict geomagnetic storms in order to alert both astronauts and spacecraft operators to potential hazards.

Michael Schulz, a space physicist at Lockheed Martin Missile and Space Co.'s Advanced Technology Center, in Palo Alto, Calif., agrees that the jury is still out on whether the Los Alamos team has solved the mystery. "What this really means is that radial diffusion is not the whole story," he says, pointing out that there are other physical processes that need to be studied in detail, too.

But Stanford electrical engineering professor Umran S. Inan is in the Los Alamos team's corner, having always suspected that electromagnetic waves were the main cause of killer electrons. Inan, along with colleagues in the U.S. Air Force, actually plans to see if they can do something about the high-energy radiation. By 2010, they plan to launch a satellite, dubbed DSX (Demonstration and Science Experiment), that will test Inan's theory that low-frequency electromagnetic radiation injected into the lower Van Allen belt could cause the high-energy electrons to prematurely rain out into the atmosphere, potentially ending a month-long geomagnetic storm in a matter of days. 31 August 2007 — Los Alamos, New Mexico

-- Ottawa Amateur Radio Club - Groundwave -November 2007



Are You A Member?

Help Wanted - People to sit on the WARC Clubhouse committee. If you are interested, please contact any executive member

<u>Help Wanted</u> - The Manitoba Repeater Society is looking for someone to fill a vacant seat on their executive. Interested in repeaters, have any type of technical background, then contact VE4HK

Help Wanted - The Winnipeg Amateur Radio Club is looking to fill two vacant executive positions. Are you interested in Amateur Radio in Winnipeg. Then we need you to sit on the executive. Please contact club president, VE4BAW

Help Wanted - we need an active, intelligent, personable leader to follow in the footsteps of Dave and Kent and provide leadership on the training new hams. Potentially we need to support the Win-Cube project which trains high school students and additionally and potentially a second class at Red River Princess Campus. It would be a shame to loose momentum on these exciting projects. You know who you are ... you leader you. Step forward and lead .. clearly there are many who will follow.

Help Wanted - Be a stalwart member of a leadership team determined to train new hams. Be a teacher, a ham professor, a raconteur of the amateur radio persuasion ... last year 11 people identified themselves as persons who would give of themselves and stepped forward to help turn young minds into hams. Let us see if we can expand that number!

Is it not time you gave back to amateur radio for everything it has given you. One of these positions must fit your life. Come one step forward......

News from the Net

HAM RADIO PROMOTION: MGM FILM PRESENTS RADIO HAMS

A film from Metro Goldwayn Mayer that promotes Amateur Radio has surfaced On the Internet. Produced in 1939 by Pete Smith, "Radio Hams centres on a family called to dinner. All but the teenage son respond. When family members go looking for him, one by one they are snared into a world of ham radio high adventure. One that includes a rescue in Alaska and a tragic search for a downed aircraft at sea. Unlike most films promoting ham radio, this one is not a documentary. It's a fully scripted 10 minute dramatic

presentation featuring a cast of professional actors well directed by Felix Fiest. E. Mauriece Adler is credited with writing the screen play. "Radio Hams" is really a nostalgic look back at ham radio the way it never was. — *WIA*

http://www.youtube.com:80/watch?v=vBGIdf0VjQ4

A COLOSSUS CODE BREAKING EVENT

To celebrate the completion of the British-built World War 2 decrypting machine called the Colossus Mark 2, there will be an on the air ham radio operating event on November 15th and 16th. And in this one the challenge is truly complex. Here's how it goes. A series of messages will be enciphered on a World War 2 Lorenz cipher machine. They will then be transmitted using six tone RTTY from the Heinz Nixdorf Computer Museum in Paderborn, Germany. The challenge is for anyone to break the cipher settings and decipher these messages before the rebuilt Colossus Mark 2 at Bletchley Park in the United Kingdom does it. The Milton Keynes Amateur Radio Society which is based at Bletchley Park has already been involved in making test transmissions with the Heinz Nixdorf Computer Museum. The actual frequencies, tones for Mark are 900, 1620 and 2340 hertz. For Space they are 540, 1260 and 1980 hertz. At airtime the operating frequencies for the event have not been announced. Bletchley Park is the historic site of secret British code breaking activities during World War Two and the birthplace of the modern computer. More is on-line at http://www.codesandciphers.org.uk/cevent.ht WIA

Global cooperation on emergency communications

Next month will see a number of amateur radio societies unite to participate in the first global simulated emergency test. While these emergency communications training exercises have occurred in various countries, and been organized in the International Amateur Radio Union Region 1 in the past, this preparedness for emergencies is now going world-wide. The IARU Region 1 has invited Regions 2 and 3 to join it in the Third Emergency Communications, or EmComParty on the 11th of November.

US Amateur fined by FCC for malicious interference to VE7RPT Repeater

Months of hard work tracking various sources of malicious interference directed at the VE7RPT repeater, owned and operated by the BCFMCA and located on Mt Seymour, have finally begun to pay off. On September 25th the FCC issued a Notice of Apparent Liability, including fines totaling \$7,000, to James Grinton, K7VNI, located in Bellingham Washington. A copy of this notice is attached for your information. Grinton repeatedly and maliciously interfered with the operation of VE7RPT on a frequent basis. During the last 2 years Grinton directed his malicious interference and harassment at the President of the BCFMCA, jammed phone patches and periodically flooded

the repeater with music and other forms of intentional interference. In early 2006 a team of Canadian Hams began tracking the interfering signals and quickly determined they originated south of the Canada/US border. A group of Hams in the US were approached to provide assistance and the source of the interference was identified shortly thereafter. A number of independent confirmations were made to verify the location, the address of which was determined to be that of James Grinton, K7VNI.

A complaint was formally made to the FCC regarding this interference and the information collected by the combined Canadian and US tracking team was provided to the Seattle office of the FCC. An agent from the FCC Enforcement Bureau's Seattle Office independently verified the location and source of the interference during late 2006 and a Warning of Interference to Communications Letter was sent to James Grinton, K7VNI, on January 19, 2007.

Grinton continued to interfere with the operation of VE7RPT after receipt of the warning letter. In fact, the Seattle agent recorded over 160 violations during the period January 19, 2007 to June 23, 2007.

A Notice of Apparent Liability, including fines totaling \$7,000, was issued to James Grinton, K7VNI, on September 25, 2007.

This is the second of a series of interference complaints affecting repeaters in the Greater Vancouver area to be brought to a conclusion. Additional interference investigations are on-going.

Many thanks to all the people who devoted countless hours tracking and identifying the source of this interference. This is an excellent example of the tremendous spirit of cooperation that exists between Amateur Radio operators in both Canada and the US. In addition, many thanks to the Seattle office of the FCC for their support and subsequent enforcement action.

-- (Thanks to the Greater Vancouver Amateur Radio Council (GVARC) Interference Committee)

Thai amateurs given five HF bands

Amateur radio enthusiasts in Thailand are celebrating their new allocation of five new HF bands. On 12th October they were granted segments at 160m, 80m, 30m, 17m and 12m. While the bands are not as wide as in some other jurisdictions, this is a welcome development. Congratulations to the Radio Amateur Society of Thailand for their tireless work to gain these bands for all Thai amateurs. -- RSGB

CLOSE RANGE INVISIBILITY POSSIBLE

Call this one Star Trek come to life. Science Daily reports that a unique computer model designed by a mathematician at the University of Liverpool has shown that it is possible to make objects such as airplanes and submarines appear invisible at close range. Until now, scientists could only make objects appear invisible from far

away. Now, Liverpool mathematician Sébastien Guenneau, together with Dr Frédéric Zolla and Professors André Nicolet from the University of Marseille, using a specially designed computer model called GETDP have proven that objects can also be made to appear invisible from close range when light travels in waves rather than beams. Scientists have already created an 'invisibility cloak' made out of something called metamaterial. Metamaterial is a creation that has the ability to bend electromagnetic radiation such as visible light, radar or microwaves around a spherical space. This makes an object within this region appear invisible. They also say predict that invisibility will be possible for objects of any shape and size within the next decade. — WIA

World Radio Conference Ken Pulfer, VE3PU

Friday November 2nd marks the half way point in the World Radio Conference currently taking place in Geneva . In spite of a promising start and strong Amateur Radio participation in the conference, we have made relatively little real progress so far.

The Canadian proposal for a new, worldwide amateur band at 135 KHz has been stalled by a few countries in the Arab bloc for reasons which are difficult to understand. Several different wordings describing the proposed allocation were tried without success. Finally, on November 2nd, draft text was approved, subject to an objection by one country, and a footnote allowing a number of other countries to opt out. Even though the proposal has been accepted at the drafting level, it will still have to clear the committee and plenary level's before it can be included in the final acts of the conference.

All progress in the band from 4 to 10 MHz remains deadlocked as the two major opponents, the HF Broadcast service and the Fixed service (representing the interests of the defence community in most areas of the world), are showing little interest in a compromise solution. However, time is growing short. Even if a compromise can be found at this time, there is a large amount of detailed work to be done before the result can be translated into the regulatory language necessary to reach a decision by the end of the conference.

At the present time, changes to the amateur allocations have not been ruled out, but chances for any increased spectrum at 7 MHz seem slim to nonexistent, with only one country (Georgia) proposing the idea, and chances for a new 60 metre band are not a great deal more promising. In the event that a decision is reached, it is unlikely that any changes to broadcast bands will come into effect until the next sunspot minimum around 2015 to 2018, which seems a long way away to most amateurs.

Winnipeg Hamfest - 2008 By Derek, VE4HAY

The Winnipeg Amateur Radio club made a commitment 2 years ago to host the Radio Amateurs if Canada - Annual General Meeting in 2008 in conjunction with a to be planned Winnipeg Hamfest. A number of Committee chairs have been established as follows

Accommodations/hospitality - Derek, VE4HAY

Select a host site, coordinate meeting rooms, Banquet room, Lunch, Dinner, Breakfast, Nightly hospitality room

Communication - Albert, VA4AS

Develop website, online registrations, posters and advertising.

Finance - Sue, VE4SYM

Keeping us on track. Accept money for registrations, split to various accounts to pay for the functions. Etc...

Registration - Harm, VE4HAZ

Tracking all registration as they come in, making sure delegate information is waiting for them as they check-in.

Program - whole group

Work with committee to develop our 5 sessions – possible dual track if enough interest.

Entertainment - Rob, VE4RRB

Organize entertainment for the Saturday banquet, tours for non hams on Saturday, Possible Friday late afternoon tour for early arrivals

Flea Market - Dick, VE4HK

Plan table layout according to room, sell tables, w/power, w/o power, commercial, non-commercial, organize volunteers to help

Other committee members not assigned as of yet, but willing to help out where needed.

John, VE4JNF & Adam, VE4SN

We are still in need of volunteers for these committees, sub-committees and just general duties. It would be great if you would volunteer to help out. There is not much required in terms of time, until the event get closer. The more people we have on the committees now the bigger the pool for ideas and direction, as we get closer to the event and things get carved into stone, the more time we will need for meetings. I am anticipating that most of the work will be done via e-mail with monthly meetings

The Program is being worked on by the group for now to get as much input as possible. We are planning on running three tracks for presentations; Operating Track, Technical Track & an Ends of the Spectrum Track. Programs are being slotted as they are confirmed. If you have a program that will fit into these tracks, please let the committee know.

Contest Calendar

N			
<i>November</i> IPARC	CW	0600Z	Nov 3
II ARC	And	1400Z	Nov 3
Ukrainian DX	Allu	1400Z 1200Z	Nov 3
ARRL Sweepstakes	CW	2100Z	Nov 3
NA Collegiate ARC Championship	CW	2100Z	Nov 3
IPARC	SSB	2100Z 0600Z	Nov 4
IPARC			
High Speed Club	And CW	1400Z	Nov 4 Nov 4
High Speed Club		0900Z	Nov 4 Nov 4
DARC 10-Meter D	And	1500Z 1100Z	Nov 4 Nov 4
	igital	0200Z	Nov 4 Nov 6
ARS Spartan Sprint WAE DX R	TTV	0200Z	Nov 10
	TTY		
JIDX P OK/OM DX	hone	0700Z	Nov 10
	CW	1200Z 1400Z	Nov 10
Kentucky QSO Party			Nov 10 Nov 10
CQ-WE		1900Z 1000Z	Nov 10 Nov 17
SARL Field Day LZ DX		1000Z	Nov 17
	11.11	1200Z 1500Z	Nov 17
Feld Hell Sprint All Austrian 160-Meter	Hell	1500Z 1600Z	Nov 17 Nov 17
	SSB	2100Z	Nov 17
ARRL Sweepstakes		2100Z 2100Z	Nov 17
RSGB 2nd 1.8 MHz	CW SSB	2100Z 2100Z	Nov 17 Nov 17
NA Collegiate ARC Championship			
, ,	PK63	0000Z	Nov 18
Run for the Bacon QRP	CW	0200Z	Nov 19 Nov 22
NAQCC Straight Key/Bug Sprint	CW CW	0130Z 0000Z	Nov 24
CQ Worldwide DX ARRL EME	CW	0000Z	Nov 24 Nov 24
ARCI Topband Sprint		0000Z	Nov 24 Nov 29
ARRL 160-Meter		2200Z	Nov 30
ARRE 100-Weter		2200Z	1NOV 30
December			
	TTY	0000Z	Dec 1
Wake-Up! QRP Sprint		0400Z	Dec 1
······································	And	0430Z	Dec 1
	And	0500Z	Dec 1
	And	0530Z	Dec 1
TOPS Activity		1800Z	Dec 1
ARS Spartan Sprint	0200Z	Dec 4	
10 meter NAC CW/SSB/FM/	Digi	1800Z	Dec 6
ARRL 10-Meter	υ	0000Z	Dec 8
28 MHz SWL-Contest CW/P	hone	0000Z	Dec 8
Great Colorado Snowshoe Run	CW	0200Z	Dec 8
SKCC Sprint		0100Z	Dec 12
NAQCC Straight Key/Bug Sprint	CW	0130Z	Dec 12
NA HS Meteor Scatter Gemenids	All	0000Z	Dec 13
Russian 160 Meter CW/P		2100Z	Dec 14

MDXA DeathMatch	PSK	0000Z	Dec 15
OK DX	RTTY	0000Z	Dec 15
Lighthouse Christmas Lights QSo	O All	0001Z	Dec 15
Memory Lives Forever" C	W/SSB	0500	Dec 15
Croatian	CW	1400Z	Dec 15
SSA Månadstest nr 12	SSB	1400Z	Dec 16
SSA Månadstest nr 12	CW	1515Z	Dec 16
FeldSprint	Hell	1500Z	Dec 15
International Naval		1600Z	Dec 15
ARCI Holiday Spirits Homebrew	Sprint	2000Z	Dec 16
Run for the Bacon QRP		0200Z	Dec 17
SKCC Weekend Sprintathon		0000Z	Dec 23
RAEM	CW	0200Z	Dec 23
SSA Jultest (1)	CW	0800Z	Dec 25
SSA Jultest (2)	CW	0800Z	Dec 26
DARC Christmas		0830Z	Dec 26
RAC Winter		0000Z	Dec 29
Original QRP		1500Z	Dec 29
Stew Perry Topband Challenge		1500Z	Dec 29

QTX~ By Derek, VE4HAY

Did you know:



- interesting movie showing how it was in the 30's.
 - http://www.youtube.com:80/watch?v=vBGIdf0VjQ4 Submitted by Jim VE3DSR
- if you were submit an article it could have bee on the following two pages. Yes the newsletter is short this month. Was that because you have an article and just have not submitted it yet...?
- A clubhouse committee is slowly being formed. If you would like to be on the committee please contact WARC president VE4BAW
- That as I write this I wonder if people are actually reading it. The reason is the lack of members stepping forward to perform duties in the club. Yes you pay a membership fee to be part of the club, But the club is more than just money paid out. It is members helping members to be better HAM's. When was the last time you volunteered for a club?
- That I have nothing else to say Strange as it may seem.

What have you done to "promote amateur radio this week"

Amateur Radio A Community Resource