



The NEWSCASTER

The Official Publication of the Winnipeg Amateur Radio Club

<http://ve4.net/warc/>

April 2005

VE4BB

Free to Members

Home Brew Night Bring out your winter projects

Date: April 11th, 2005

Time: 7:30 p.m.

Place: Sturgeon Creek Regional Secondary School

The President's Call

By John, VE4QV



Spring has sprung, the grass is grizz? Well the weather has finally turned the corner and there's lots of things coming up on the WARC calendar. Home Brew Night is April 11th and its always a great event. Come out and see what your fellow Hams have been up to over the winter.

Less than a week after Home Brew Night is the spring Flea Market on Sunday, April 17th. Doors open to the general public at 10:00 AM. Admission is only \$ 2.00 and of course the food will be provided by Ruth's Kitchen. There may be a few tables left so contact Ruth VE4XXL if you're interested one of the few that may be remaining.

Our Field Day site at Bird's Hill Park is booked for Friday, Saturday, and Sunday June 24th, 25th, and 26th. Camping is welcomed and encouraged and we're hoping for a great turnout. This is a wonderful opportunity to give your friends and family a chance to see what Amateur Radio is all about. This is also a very important exercise in emergency preparedness for all Amateurs.

Our thanks to Tom, VE4SE for arranging last month's presentation on fire safety. I certainly learned a lot and I hope you did as well. After Home Brew Night our last presentation for this year will be on AMSAT by Gerry VE4GTB. I'm really keen on seeing this one as I have to admit I'm pretty green on Amateur satellite communications. The June meeting will be the elections for the coming WARC year.

See you all Monday, April 11th for our next general meeting and of course Home Brew Night!

WARC: Executive for 2004

Past President	Louis Gaudry	lcgaudry@mts.net
President	John Pura	ve4qv@rac.ca
Vice-Pres	Vacant	
Secretary	Ed Horton	ve4eih@rac.ca
Treasurer	Fred Venema	fvenema@shaw.ca
Membership	Mark Blumm	ve4mab@rac.ca
Program	Vacant	
Director at Large	Jan Schippers	schippej@squared.com

Winnipeg Senior Citizens Radio Club News

by Adam, VE4SN



As we watch the huge piles of snow diminish and the water levels rise, we can get a kind of smug satisfaction that the worst of a horrible winter is over. Temperatures are rising, daylight is increasing and most of my backyard decorations which have been hidden since the first major snowfall, are beginning to make an appearance. The crows are back but I have yet to see my first robin! It may have been my imagination but I think I heard some geese honking as they flew over my house yesterday headed in a northerly direction. I hope that everyone who celebrated the occasion had a wonderful Easter weekend and kept chocolate consumption to a reasonable level.

Our Club activities, as usual, seem to be guided by weather conditions. The March breakfast attracted only ten participants due mainly to the fact that the morning of March 10th was very cold and snowy. No draw for the free breakfast was held at this event due to the poor turnout. The next breakfast gathering is on April 14th. Let's make up for the small turn-outs and really pack the place this time.

In February, because of a misunderstanding and also some misdirection, the Girl Guide visits to our station didn't come off as expected. Only Gil Frederick VE4AG was at the controls when a handful of girls finally arrived somewhat late. I understand that those who did finally make it, enjoyed themselves even though QSO's with other groups on HF was not available. There's always next year!

All the arrangements for our next Christmas Luncheon, (here I am talking Christmas with Spring just around the

Industry Canada Amateur Centre
Voice 1-888-780-3333 (toll-free)
Fax: 1-613-991-5575
Email: spectrum.amateur@ic.gc.ca

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

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

Newsletters - past issues

<http://www.ve4.net/newsletters.html>

corner!) have been finalized. It will be at the same location, same caterer providing a great turkey dinner and same time. Only the date is changed so please mark Tuesday, December 6th on your calendar right now!

Our Club is putting on a Morse Code display as part of The Aviation Museum's annual hobby show with a theme of Trains, Planes and Sails. This will occur on April 9th and 10th at the Museum. For those that might attend, we will be on the second floor.

Finally, thanks to Adam, VE4SN, Paul, VE4OPC and president Irv, VE4UG the Constitution and Club rules were reviewed and in some instances revised for presentation to the Executive Board and then to the membership at a later date for approval.

Minutes for March 14th, 2005

Submitted by Ed, VE4EIH

The meeting started at 19:37 hours. There were 37 members and guests present. The meeting started with the presentation first. Tom VE4SE introduced Rick Stephenchew. A fire and safety educator, from the Winnipeg Fire and Paramedic service. Rick showed a video called, Fire in the work place. Getting out Alive. Rick explained that the video, would give an idea on how to plan to leave home in case of fire. After the video Rick talked about the different types of fire extinguishers. Rick explained that the smoke detectors should be tested once a week. And that the CO2 detectors last about 10 years. (This also depends on manufacturers instructions.)

After a quick coffee break, the meeting began. The intros were done. John asked if there were any errors, from last Newscaster. Dick VE4HK and Glen VE4GWN 2nd motioned to accept the minutes. They were accepted.

Parkside Appliance & Electronics



**Sales & Service of
Computers & Software
Home repairs offered**

John, VE4JNF

386 Belvidere Street

885-9278

<http://www.escape.ca/~ve4jnf> ve4jnf@escape.ca

IRLP

John reported that Les VA4LES has the IRLP computer is ready to go. John explained as how he was going to meet with MRS, to set up the system.

Program

April is Home brew.

Correspondence

There was only Derek's VE4HAY e-mail about a motion

Treasures report

The financial statement for February was 2 memberships at \$30.00 50/50 draw at \$16.00. For a total of \$46.00. The expenses for February were: postage \$48.15 Prizes, for the rest of the year was \$117.26. A total of \$165.41 for expenses. Balance for February was \$5928.58.

Membership

Mark reports that there are currently 101 members. The Newscasters were mailed to those who have yet to re-new as a courtesy. Tom asked about the mailings. He explained how if a person has not re-newed then the News casters should stop. Mark explained that this was how he was told to handle the Newscaster issue.

RAC

Adam VE4SN explained that there has been nothing specific about CW as of yet. Adam said he would inform us if there have been any changes.

DX

Adam told how the conditions are not the best. He said how that Ed VE4YU is getting the good contacts. Adam then told of Congo 906QJ will be doing 10-15m at 1800z. This would be a good one to get. San Fernando 5T2BF would be a rare one to get. The qso manager is W3HNK. Islands on the air IOTR from Orleans Island near Ottawa, will be 10, 20, and 30 m. South Africa Will be having a 100 year celebration will be HF UHF and VHF.

ARES

The next meeting is on the 15 March at 1900, at the William Stevenson Library. Tom pointed out the sign up sheets for the up and coming Manitoba Marathon. Tom told how they are looking for 80 to 85 volunteers. Those that are interested can see or talk to Robert VE4RST.

Flea Market

Ruth still has a table or two still available. Ed. VE4OAK is looking for help on tar down and set up.

Filed Day

June is the field day on the 24 June. There is still no coordinator at this time. The spot is booked. Those that are interested in cord. This event, talk to a member of the exec.

Motion: That the Winnipeg Amateur Radio Club, once per fiscal year, sponsor a group of youth (Scouts, Guides, or any other youth group age 14 or more) for enrollment into an Amateur Radio course, such as the one that is put on by VE4WSC.

Moved by Derek, VE4HAY

Seconded by, Adam, VE4SN

Derek explained as how he trying to find ways to get people in to the hobby. Derek explained as to how to get a group of youths, and have WARC pay for there course. There would be 10 to 15 youths per course, at \$35.00 for a total of \$350.00 per year. The study guides would be lent, and then returned after the course. These youths would come from Scouts, Guides, and etc. Adam also explained as to how RAC may help out. The seniors club may be available on Saturday mornings if the seniors are willing. After a discussion, the motion was read to the members again.

Most of those in attendance voted in favor, of the motion. MOTION CARRIED

David VE4DAR Talked about the proposal. He told of a display he helped on. The display was for the Maples, Cub and Scouts. He explained as to how the youths went from display to display. They had set up a HF, 2m and IRLP station. David explained as to how there should be a plan. David explained that the students should place a \$20.00 deposit; which would be refunded after the course. David explained as how the course should be between 40 to 60 hours in length. That every student should have an Elmer. David told he was willing to make up a plan, only if the majority approved. The majority did.

Good & Welfare

John informed all the members in attendance, of a silent key. Hugh Dollar VE7PB passed away.

Ed Henderson Told how he found an interesting book called Spark to Space. Ed, read a quick history of WARC. This is also on the Radio Active MB web site. Ed., then pointed out how Adam was the first President of WARC.

Dick VE4HK the next general MRS meeting is 28 April.

Dick motioned to adjourn the meeting. Meeting ended at 2143.

Calendar

April

SP DX Contest		1500Z	Apr 2
EA RTTY Contest	RTTY	1600Z	Apr 2
Missouri QSO Party		1800Z	Apr 2
QCWA Spring QSO Party	And	1800Z	Apr 3
144 MHz Spring Sprint		1800Z	Apr 2
ARS Spartan Sprint (Apr)		1900 local	Apr 4
YLRL DX-YL to NA-YL	CW	0200Z	Apr 5
SARL 80-Meter QSO Party		1400Z	Apr 5
JIDX CW Contest	CW	1700Z	Apr 7
ARCI Spring QSO Party		0700Z	Apr 9
EU Spring Sprint	SSB	1200Z	Apr 9
Georgia QSO Party		1500Z	Apr 9
UBA Spring Contest	And	1800Z	Apr 9
Hamnet 40m Simulated Emerg		1400Z	Apr 10
222 MHz Spring Sprint		0600Z	Apr 10
YLRL DX-YL to NA-YL	SSB	1200Z	Apr 10
Holyland DX Contest		1900 local	Apr 12
TARA Skirmish Prefix	Digital	1400Z	Apr 13
ES Open HF Championship		0000Z	Apr 16
YU DX Contest		0500Z	Apr 16
EU Spring Sprint	CW	1200Z	Apr 16
Michigan QSO Party		1500Z	Apr 16
Ontario QSO Party		1600Z	Apr 16
432 MHz Spring Sprint		1800Z	Apr 16
		1900 local	Apr 20

DX Colombia International		0000Z	Apr 23
SP DX RTTY Contest	RTTY	1200Z	Apr 23
Helvetia Contest		1300Z	Apr 23
Florida QSO Party		1600Z	Apr 23
	And	1200Z	Apr 24
Nebraska QSO Party		1700Z	Apr 23
EUCW/FISTS QRS Party		0001Z	Apr 24
SBMS 2 GHz and Up WW Club		0600 local	Apr 30

May

May CW Sprint		0000Z	May 1
AGCW QRP/QRP Party		1300Z	May 1
RSGB 80m Club Championship	SSB	2000Z	May 2
ARS Spartan Sprint May	CW	0200Z	May 3
SSA 10 m Aktivitetstest	CW/SSB/FM	1800Z	May 5
MARAC County Hunter	CW	0000Z	May 7
Nevada QSO Party		0000Z	May 7
US IPARC Annual	CW	0000Z	May 7
10-10 Int. Spring	CW	0001Z	May 7
Microwave Spring Sprint		0600 local	May 7
SL Contest	CW	1100Z	May 7
SL Contest	SSB	1230Z	May 7
Oregon QSO Party		1400Z	May 7
Indiana QSO Party		1600Z	May 7
ARI International DX		2000Z	May 7
New England QSO Party		2000Z	May 7
	And	1300Z	May 8
US IPARC Annual	SSB	0000Z	May 8
AGCW Activity Week	CW/RTTY	0000Z	May 9
RSGB 80m Club Championship	Data	2000Z	May 11
US Counties QSO Party	SSB	0000Z	May 14
Portuguese Navy Day	CW/SSB	0800Z	May 14
CQ-M International DX		1200Z	May 14
VOLTA WW	RTTY	1200Z	May 14
Mid-Atlantic QSO Party		1600Z	May 14
	And	1100Z	May 15
FISTS Spring Sprint		1700Z	May 14
Anatolian WW RTTY Contest	RTTY	1800Z	May 14
50 MHz Spring Sprint		2300Z	May 14
Mid-Atlantic QSO Party	CW/Phone	1100Z	May 15
SSA Månadstest nr 5	CW	1400Z	May 15
SSA Månadstest nr 5	SSB	1515Z	May 15
RSGB 80m Club Championship	CW	2000Z	May 19
VK/Trans-Tasman 80m	Phone	0800Z	May 21
EU PSK DX Contest		1200Z	May 21
Portuguese Navy Day Contest	PSK31	1300Z	May 21
Manchester Mineira	CW	1500Z	May 21
His Maj. King of Spain	CW	1800Z	May 21
Baltic Contest	CW/SSB	2100Z	May 21
SSA Portabeltest Våromg.	CW/SSB	0700Z	May 22
CQ WW WPX Contest	CW	0000Z	May 28
ARCI Hootowl Sprint		2000Z	May 29
MI QRP Memorial Day	CW	2300Z	May 29

Semi- Annual

WARC

Flea Market

April 17, 2005
Heritage Victoria Community
club
950 Sturgeon Rd.

\$2.00 Entrance fee

Tables are \$5.00 for WARC members, \$10.00 for non
WARC members and commercial outlets.

Ed Horton VE4EIH is the Coordinator. If you would
like to volunteer for various jobs please contact him.

Ruth VE4XYL and Tom VE4SE will be selling tables,
please contact them at 837-6915 or at 605 Bruce Ave.

WPGARES**By Jeff, VE4MBQ Emergency Coordinator**

Our March General Meeting featured a presentation on Interoperability by Don Mackinnon VE4DJ.

Several WPGARES members including VE4s SE, XYL, GWN, YYL, and JNF joined Manitoba ARES Executive members at Public Safety and Emergency Preparedness Canada (PSEPC) VE4PSC SUN 20 MARCH for their first familiarization session with station equipment. Five WPGARES members got the new IC-718 HF radio



set up at PASCP VE4WWO on FRI 25 MARCH. Thanks to VE4s KEH, ESX, GWN, YYL, MBQ. The VE4EMO team is eagerly awaiting the opportunity to get re-familiarized with VE4EMO in the Manitoba Emergency Coordination Centre (MECC).

CANWARN Spotter Training will be held 1000h SAT 07 MAY in Portage la Prairie at the Portage City Library. The library is located on Royal Road N, just north of Saskatchewan Avenue (Hwy #1A) in downtown Portage la Prairie. The Portage la Prairie City Hall is on the southwest corner of Royal Rd N and Saskatchewan Avenue. Talk-in on VE4PTG 147.165+. If interested in attending Spotter Training please notify your local ARES EC by FRI 22 APR. If interested in going for lunch afterwards please notify Portage ARES EC Bill Simm VE4ALW: ve4alw@rac.ca

If you are interested in attending Spotter Training or volunteering for the Manitoba Marathon SUN 19 JUN and you don't have e-mail please drop by the WPGARES table at the WARC Flea Market SUN 17 APR and we'll sign you up. If you do have e-mail, volunteer registration is much easier to facilitate via e-mail. Feel free to drop by our table if you have any questions about ARES generally or what we do or how we do it!

Our next General Meeting is TUE 19 APR 1900h at Sir Wm Stephenson Library 765 Keewatin Street. Kent Haase VE4KEH will be giving us a presentation "Operating From Remote Locations".

Looking for Youth interested in HAM Radio

Are you involved in a youth group? Would your youth group be interested in taking a HAM radio course?

At the last WARC meeting the following motion was passed.

Motion: That the Winnipeg Amateur Radio Club, once per fiscal year, sponsor a group of youth (Scouts, Guides, or any other youth group age 14 or more) for enrollment into an Amateur Radio course, such as the one that is put on by VE4WSC.

Moved by Derek, VE4HAY

Seconded by, Adam, VE4SN

The next step is to find a youth group (boys, girls or both) who would like to take a HAM radio course. So what better place to look for group leaders/volunteers than within our club itself. If you are involved in a group or know someone who is, please think about this. It could be a wonderful opportunity for the youth to learn about radio and to enjoy a great life long hobby.

If you are interested, please get in touch with John, VE4QV (info on front page) the current president of WARC who will take it to the executive and then find a course to take.

DIAMOND IMAGE

Floyd Ralph VE4 FDR
835 Cavalier Drive Tel: (204) 888-3227
Winnipeg, MB R2Y 1C6 Fax: (204) 831-6400

- **South Western & Victorian home decor**
- **ty Beanie Babies**
- **Balloon bouquets & decorating**
- **Gifts**
- **Printing eg: Business cards, letterhead, envelopes**
- **Wedding invitations**



News from the Net

World Amateur Radio Day

World Amateur Radio Day is celebrated by the IARU on 18 April each year. The WARD 2005 Award commemorates World Amateur Radio Day and is issued by MK QTC, the Polish radio amateurs' journal, with the support of PZK, the Polish national amateur radio society. The award is issued to those making at least 10 QSOs on the HF bands, or five QSOs on the VHF bands on 18 April. -- *WIA*

IRLP and Echolink

Use of Echolink and IRLP are now legal to use by radio amateurs in South Africa. This came with a recent announcement by the South African Minister of Communications regarding VoIP technologies. -- *Irish Radio Transmitters Society*

Norwegian club stations gain 5 MHz

The Norwegian Post and Telecommunication Authority has granted permission to Norwegian Amateur Radio club stations to operate on eight 60-meter spot frequencies from April 1, 2005, until December 31, 2007, on a non-interference-basis. Five of the channels are the same as those available to US radio amateurs. Permissible modes are upper sideband and CW with a maximum transmitter power of 100 W. The channel center frequencies 5280, 5290, 5332, 5348, 5368, 5373, 5400 and 5405 kHz (the USB "dial frequency" would be 1.5 kHz lower for each channel) -- *RSGB*

BPL (PLC) DEALT BLOW IN EUROPE

On 20 January 2005, Europe has a new law that may become the global turning point against radio frequency pollution from Broadband over Power Lines systems.

Europe enters 2005 with some very positive news indeed that the European Union has amended its 1989 Electromagnetic Compatibility or EMC Directive. Its new Directive includes protection against electromagnetic disturbance for both radio broadcast reception and the amateur radio service – clearly against the hopes of the BPL lobby. This is an important first step in the battle against BPL emission pollution in the radio spectrum. -- *ISRAEL AMATEUR RADIO CLUB*

5Z4 land Gain 30 & 160 MHz

Ted Alleyne, 5Z4NU, Chairman / Secretary of the Amateur Radio Society of Kenya reports Kenyan regulatory authority CCK has just re-issued a license which contains the new Schedule A (frequencies, modes and power limits).

Kenyan's are now permitted to use 30 meters (10.100 to 10.150 MHz) and 160 meters (1.81 to 1.85 Mhz) -- *RAC*

Britain to Deregulate ??

Following an invitation from the Board of Ofcom, a delegation led by the President, Jeff Smith, MI0AEX, is meeting the Vice Chairman of Ofcom, Richard Hooper, and Ofcom's Operations Director Vic Brasco on 24 March to discuss the future direction of amateur radio licensing and the possible lead on to deregulation of amateur radio over the next five to 10 years.

The RSGB is strongly opposed to any steps that Ofcom may take to bring deregulation on to the agenda and will fight hard to maintain the status of radio amateurs and the privileges they currently enjoy.

The outcome of these discussions will be published as early as possible via this news service, the RSGB website, RadCom and other amateur radio publications. -- *RSGB*

ELECTRONIC HOLE THEORY EXPOSED AS FRAUD

Have you ever been confused by the Electronic Hole Theory of Semiconductor Physics? I do know my stuff when it comes to electronics and have done a careful study of the illusory phenomenon of electron flow and here is what I have found. After years of research, I have come to realize that the hole theory may Not be Correct. My theory, which has been proven time and time again in service shops all across the country, is this.

All Electronic Devices and Especially IC's Work on Smoke... Yes, that's what I said, Smoke! I have recently discovered that every electronic device manufactured and all IC makers, encapsulate a certain amount of Black Smoke in every one of their devices. This smoke is what does the work and performs the magic of electron flow inside the device. Undoubtedly, you have often noticed that a component will quit working when this encapsulated smoke leaks out. I have documented this many times and it conclusively proves my theory. After all, when a storm comes up, the sky gets black, The lightening starts to flash through the black clouds, which must be smoke. Because when the sky clears and is no longer black the lightening stops!

So the Smoke is the answer to electron flow... Proof Positive: Have you ever been able to operate an electronic component after the Smoke leaked out? I rest my case.....

(ed's note - It is April right)

A message from EMCMM MONTHLY - February 2005

Extracted from The Canadian Amateur Radio Bulletin

IT'S that time of year. Winter storms can suddenly cripple the power grid and landline communications. In Northern

California we have had several power widespread power outages in the past few weeks lasting from a few hours to several days. If your ARES® team doesn't have an appendix in your local plan that is specific to power outages, here is a "ready to go" plan that you can adopt and adapt as needed and add to your plan.

GUIDELINES AND A "GENERIC" PLAN FOR ARES TEAMS DURING AND/OR EXTENDED POWER OUTAGES AND TELEPHONE SYSTEM FAILURES.

BEFORE THE POWER OUTAGE:

1 - MAINTAIN your radios, accessories, lighting, and other gear in a "state of readiness." Keep your batteries charged, your generator serviced, and enough fresh fuel (safely stored) to keep it running at least 24 hours. Always keep the fuel tank in your vehicle(s) at least 1/2 full. (When the power is out... service stations cannot pump fuel.)

2 - PARTICIPATE in daily and weekly nets, drills, and training. Get to know your EC, AEC, and other members on your ARES® team. Remain familiar with your local and regional emergency plan.

3 - CULTIVATE good public relations on a daily basis. Let your friends, neighbors, and local community leaders know what amateur radio is and what it is capable (and not capable) of doing.

DURING A POWER OUTAGE AND/OR TELEPHONE SYSTEM FAILURE:

1 - CHECK ON your family and neighbors. Especially any elderly, disabled, or infirm persons you know. If assistance is needed summon help as appropriate.

2 - ACTIVATE your station by connecting to your auxiliary power source. Monitor designated local and section EMCMM frequencies. Keep an accurate log of pertinent information and traffic.

3 - CONSERVE battery power and help keep the frequencies clear by not transmitting unless you have traffic, useful information or checking in on schedule.

4 - AS SOON AS a net has been activated, check in when your area is called. Advise the NCS of your availability for assignment(s).

5 - YOU MAY BE asked to stay at home and serve as a relief NCS or a relay station. ARES stations (fixed or mobile) with both VHF and HF are especially valuable.

6 - IF YOU GO MOBILE, travel self-contained. Appropriate clothing, food and drink. First Aid Kit. Tool Kit. Shovel. Two strap. Tire chains. A good quality (heavy duty) flashlight or two; plus extra batteries is essential. Clipboard, notepad, pens and pencils, and local maps. Carry an adequate supply of blank RADIOGRAMS.

7 - RESPOND as directed by your NCS or go to the nearest location where people congregate during an emergency. This may be a local fire station, community hall, school, church, general store, or even an intersection. When surveying an affected area, be alert for people who may have an immediate need for communications or other special needs. Obey all laws, stay out of the way of emergency vehicles, and periodically keep the NCS station informed of your location.

8 - IDENTIFY yourself as an emergency communications unit. Wear your ARES® cap, jacket, or other ID materials. On vehicles, magnetic signs are nice, or you can make placards and place them on your dashboard or sun visor.

9 - INTRODUCE yourself to local officials. Briefly tell them who you are, what you can do, where you will be located, and that they may refer persons with emergency, priority, or health and welfare messages to you. Remain polite, cooperative and helpful.

10 - KEEP IN CONTACT with the NCS. Check in every half-hour or as directed. The EC or acting EC may need you to move to another location (such as a hospital, utility office or city hall).

11 - IF YOU MUST leave your post or assignment notify the NCS. Allow enough time for him/her to find a replacement.

12 - KNOW your own limitations. Do not try to be a "marathon operator." When your relief arrives, give him/her a brief report, turn over your log and/or notes, and go get some rest. You may be needed tomorrow!

(A message from EMCMM MONTHLY - February 2005)

It Here.... Right Now Home Brew Night April 11th

What have you decided to build ? If you start now, you should have it built in time for the big night. So start building and show your soldering prowess by bringing your project out on April 14th, to be judged by your fellow hams. If you are lost for idea's, check out these sites on home brew projects.

Amateur Radio Sampler

by David VE4DAR

"Cool, cool" were just some of the expressions from 14 Cubs and Scouts heard by hams from three Winnipeg amateur radio clubs while giving the 3rd Maples Scout Group a taste of amateur radio. On March 7, members of the Winnipeg Amateur Radio Club, the Winnipeg Seniors Radio Club and Winnipeg ARES provided an overview of our hobby; talked about their own experiences; demonstrated some equipment and gave the kids a chance to try things out. After a brief introduction to the hobby, kids moved in small groups through four demonstration stations organized by David VE4DAR.



At the first station, the boys looked at some journals, an operator's licence and the RAC Study Manual. Then each one talked with Ruthie VE4CRS on 2m, using our new ARES repeater. Next, they listened to 11 year old Aruni VE4WMK



explain communications using amateur satellites. Her visual aids included pictures of satellites, a diagram of the signal's path between Winnipeg and California, and a QSL card from a QSO with the Boy Scouts of America. Aruni played a tape of a QSO using a satellite. Aruni's father, Kumar VE4WMK and her sister, Piyumi provided support.



Kent VE4KEH demonstrated how joining a laptop computer with a Hallicraft K2 radio yields greater spectral efficiency and captures weaker signals. Digipan allowed the boys to see a spectral display and view the text of a QSO. Some slow scan television images were shown as well.



Ed VE4YU filled in for a presenter who took ill at the last moment. After explaining how the call sign prefixes vary across Canada, Ed talked about IRLP using diagrams illustrating the radio connections to the Internet. One contact was made with Thunder Bay. To illustrate that amateur radio is more than talking on a handheld; Ed discussed the many modes within our hobby.

By coincidence each of the men presenting had been a Cub or Scout. Ed VE4YU surprised us all by arriving in his original Scout shirt and neckerchief! Each cub and Scout went home with Ed's brochure on amateur radio, a sheet showing the International Phonetic Alphabet, and a smile.

Most of the kids expressed great interest, and a few even said they would try for their licence. We hope the appetizer will create a desire for the whole meal.

The Satellite Beacon

A monthly article presented by the Project OSCAR Amateur Radio Club

Can You Build a Satellite?

By: Emily Clarke W0EEC, Project OSCAR Vice President

Building and launching satellites has been an amateur tradition for 48 years. "48 years?" you might ask. Yes – in 1957 when the Soviet Union launched Sputnik a group of hams in the San Francisco Bay Area met and at the conclusion of the meeting they walked away with the feeling "We can do this!" That group formed Project OSCAR and launched the first Amateur Satellite in 1961.

Since that time 51 OSCAR amateur satellites have been launched, however, many more amateur satellites have been launched all over the world. Many are small projects built by students for research and amateurs for fun. Some are technically not satellites since they don't achieve orbit, but the activity allows students and hams to learn the skills and techniques that advance the art of satellite building.

High-Altitude Balloon Projects

Hams have been using high-altitude balloons (HABs) to "launch" payloads 30km and more into the upper atmosphere. While technically not "space" the sky is black and the Earth's curvature can be seen. HABs allow hams to build and test transponders, telemetry and camera systems that could potentially be used in satellites. Some may carry live amateur TV cameras and transmitters to relay video back to earth. Building a HAB is not difficult – most use off-the-shelf components and use surplus weather balloons, but recovering the payload can be a challenge. At some point in the



journey the balloon gets so high that it bursts, and the payload falls back to earth. Most carry parachutes, and are tracked to earth via APRS.

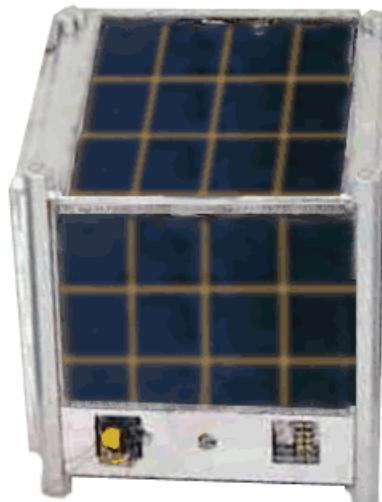
CanSats and BeoSats

CanSats are small satellites launched by amateur rockets that typically reach 3500m (but are being expanded and may reach 30km in the future.) Builders must design CanSats to the exact shape, size and weight as a beverage can, which is inserted into the rocket.

When the rocket reaches its maximum altitude the Can-SAT is ejected, deploys any antennas and a parachute, and functions as it descends back to earth. Though not reaching the same altitude as HABs, CanSats will experience the same G-forces during launch that an earth-orbiting satellite would experience. Due to weight and size restrictions CanSat builders must also build the satellite in a very state of the art manner, though complete CanSat kits are available for about 200 \$US. ARISS (A Rocket Launch for International Student Satellites) holds international fly-offs at Black Rock Desert in Nevada.

CubeSats

CubeSats are 10cm cubes that form the largest movement in student satellite building. The first Cubesats were launched in 2003 and there will be 13 CubeSats built by students in 5 countries will be launched in June 2005. Over 40 universities and high schools are currently participating in the CubeSat program where students work hands-on to develop the necessary skills and experience needed to succeed in industry. The educational benefits are tremendous.



CubeSats are built mostly by universities and high schools and are launched into space in a pod that will eject several into space simultaneously, thus reducing launch costs. Most CubeSats are launched into 700km high polar orbits and will operate for months and possibly years. Most of these will carry 70cm band transmitters that will send either 1200 or 9600 baud data, and transmitters will output .5 to 3 watts.

To participate in a CubeSat Program, all that is necessary is to design and build a satellite conforming to the CubeSat Standard, created by CalPoly and Stanford Universities. There is a lot of information about building and testing Cubesats provided by the universities. There are even pre-fabricated CubeSat kits available at reasonable costs, though most builders prefer to build from scratch.

Launch costs are the limiting factor as launching a CubeSat can cost at least 40K \$US.

So Can You Build One? YES!

There are no limitations about who can build and launch an amateur satellite other than the control operator must be a licensed amateur and the purpose of the mission must not be commercial. This applies to balloons, CanSats and CubeSats, regardless of where and how long the satellites remain operational.

However many hams can participate in satellite construction projects indirectly. Colleges, university and schools are always in need of volunteers who will act as advisors to help with mentoring students to become licensed hams, helping with ground station construction, testing and construction. In some cases hams have been proactive and have helped start satellite projects. So yes! Getting involved in satellite projects is something every ham can do. Here are some resources to help.

The CubeSat Website – <http://www.cubesat.org>

WORPK's Amateur Radio HAB Links - <http://users.crosspaths.net/~wallio/HABLinks.html>

ARLISS's CanSat Information - <http://www.arliss.org/>

The Association of Experimental Rocketry of the Pacific (AERO-PAC) - <http://www.aeropac.org/>

Weather Radio and the "SAME" system. Provided by Rob, VE4RRB, Section Manager

Environment Canada will soon be implementing and upgrading their Weather Radio VHF (162 MHz) system across Canada this summer with the SAME system. What does SAME stand for you ask? SAME stands for "Specific Area Message Encoding". It was first implemented in the US in 1994 by the NOAA, (National Oceanic and Atmospheric Administration). The SAME system is a all Weather/All Hazard monitor system which provides you with constant monitoring of your local Environment Canada Weather Service VHF broadcast for messages warning you of hazardous conditions. The SAME decoding allows you to hear only messages concerning the area you are in. You can now have a choice as to what information will be brought to your attention unlike the old Weather Alert that

has been in use for many years. SAME decoding allows you to chose the information, area and alert you want to be alerted to without annoying and sometimes false weather alerts. The SAME system lets a user choose which alerts to be alerted to such as a Weather Watch, Warning or Statement. A SAME equipped weather receiver can alert you to over 50 different kinds of weather related conditions which on many models of weather radios can scroll across an LCD screen built into the radio. When the alert feature is activated, the receiver remains in standby mode. As SAME coded messages are received, the receiver automatically activates to warn you of dangerous weather conditions. While the SAME system is still not up and operational at this time. I will update when I receive more information on this new and exciting system.

QTX~ By Derek, VE4HAY



Well I know it's Spring time. The snow is melting so fast that my window wells filled up with water and leaked into my basement from around the window casing. Now I'm afraid to touch my computer in fear of a shock. But I need to get the newsletter out

I want to thank the few HAM's who sent me articles this month. I have been so busy that I have not had time to really search the net for stuff. So every bit helps. Plus the articles are on subjects you are interested in, not my guess as to what everyone want to read. It's hard to please the masses, when you have no idea what they want. So if you are interested in a particular part of our little hobby, why not send me an article, or better yet, write one for me. Any length will do, from a few sentences to multi paragraph. It all helps to expand the hobby and to keep us informed.

OK it's April and it's tax time. Time to start thinking what rig your gonna buy with that tax refund. I see there is an Icom 756 Pro for sale on the swap & shop. Hmm.... I wonder who gets their refund first.

Am I wasting space here , you bet... It's not quite time to turn off the pumps out in the yard yet. Just think this space could have been yours to write something in. You starting to follow the theme here. Send me articles !!!! I know you have been thinking about it. So come on put paper to pen. TV's full of re-runs anyway, and the bands are still dead.

Remember the Flea Market and the MRS Annual General Meeting. They both need your support. If you can't write something for me, at least go to both of these events.