



The **NEWSCASTER**

The Official Publication of the Winnipeg Amateur Radio Club
<http://www.virtualmultimedia.com/warc/>

October 2002

Free to Members

Propagation

What is it and how to make it work
for you.

By Adam, VE4SN

Date: October 21, 2002
Time: 7:30 p.m.
Place: Sturgeon Creek Regional Secondary School

Other Important Dates:

Articles: October 29th Deadline for November Newscaster

WARC: November 18 Contesting,
December 9 - Cafeteria, January 13, February 10,
March 10, April 14 - Cafeteria, May 12, June 9

WSC: Oct. 10 - Breakfast. Canad Inns Garden City,
Oct. 16 - Board meeting - open to all members
Dec. 10 - Xmas Party Assiniboia Christian Centre
Dec. 18 - Annual General Meeting - All to Attend

ARES: Oct 15 - ARES AGM

Other: Oct 20th - Flea Market

Nets: Daily 01:00 UTC MB Evening Phone net 3760 KHz
Daily 01:30 UTC Prairie traffic Net (CW) 3660 KHz
Daily 02:30 UTC Aurora #2 net 7055 KHz
Weekdays 9:00am Seniors morning net 147.390 MHz
Wed. 9:00 pm Six Meter net 50.240 MHz.
Thursday 9:00pm MRS Net 147.390 MHz +
Sunday 1:00pm MRS Net 147.390 MHz +

The President's Call

By Louis, VE4PLJ

Hello every one. Well our first WARC meeting of the year has come and gone. It was so nice to see such a big turn out. I could see alot of people talking at the coffee break talking about what they did during the summer, and catching up on things. Just a reminder to every one. The flea market is this month on Oct. 20, 2002 at the Victoria Heritage Community Club. Vendor's get in at 9:00 am and shoppers get in at 10:00 am. The lobby will be open at 8:00 am for coffee. I'm sorry I will not be at this month's meeting or flea market with I was looking so forward to. But I will be at the next meeting. If any one has any question's or comment's. Please contact any one of us executive members. Bye for now, and hope every one is well.

Fall Flea Market

Sunday October 20 '02

Heritage-Victoria

Community Club

950 Sturgeon Road

10:00 AM

\$2.00 Entrance Fee

Call Ruth VE4XYL 837-6915 to book your table

WARC: Executive for 2002-2003

Past President	Darcy Wilson	VE4DDW
President	Louis Gaudry	lsgaudry@mb.sympatico.ca
Vice-Pres	John Pura	ve4qv@rac.ca
Secretary	Ruthie Maman	rmaman@mb.sympatico.ca
Treasurer	Fred Venema	fvenema@shaw.ca
Membership	Mark Blumm	ve4mab@rac.ca
Program	Glen Napady	ve4gwn@rac.ca
Director at Large	Rick Allan	rickalla@mts.net

Minutes for W.A.R.C. September 9th, 2002
Submitted by Ruthie, VE4CRS

Meeting called to order by President Louis VE4PLJ at 1935 hours. Louis introduced the new executive and welcomed new hams. Introductions followed. 53 members and 3 guests attended.

Motion to accept minutes as printed in September Newscaster by Dick VE4HK and seconded by George VE4GHR. Carried.

Correspondence.

Card of thanks from Manitoba Marathon.

Email from Isaac Cohen LU9KBI Argentina re making radio contact with Winnipeg hams. Emailing Isaac with info re Trans Canada net (14.140 at 18UTC, Sat. and Sun).

Treasurer's Report Sue VE4SYM

Income Statement for July 31, 2002.	
Revenue	\$ 90.00
Expenses	0.00
Net income	\$ 90.00.
Income Statement for August 31, 2002.	
Revenue	\$ 0.00
Expenses	\$ 0.00
Net Income	\$ 0.00
Bank Balance August 31, p2002.	\$ 4, 885.29

Programming Glen VE4GWN

October program: - Adam VE4SN on Propagation.

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

Comments or if you just want to reach us :

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 Newsletters - past issues
<http://www.ve4.net/newsletters.html>

Possible visit in March or April to Manitoba Electrical Museum. Members showed interest in visit. Glen asked members for suggestions for programming and for volunteers.

Membership Mark VE4MAB

Membership renewal taken before meeting and at coffee break. Membership due September.

ARES Jeff VE4MBQ

CANWARN Summer Severe Weather season ran 17 weeks. Eighteen ARES members served as on-call Net Controllers. Jeff thanked them. ARES members that were involved with the Manitoba EMO call-out Sept. 11, 2001 will be participating in the Parade of Honour. Twenty-four ARES members are providing volunteer amateur communications for the Terry Fox Run.

DX Sleuths Adam VE4SN

Conditions not good – sun-spot activity. 20 meters best band, 15 sporadic, 10 none. Russians on air.

MARM FEST

Attendance is down. All who attended had a good time.

International Ham Fest

It was good. Next year is Ham Fest's 40th anniversary. Rick Allan VE4RA is member of committee. Looking for two more members to join the committee and asked for volunteers. Meeting next month.

New Business

1. Dick VE4HK awarded Worked All Winnipeg Award to Bruce VE4BLB. He worked 27 stations.
2. Louis VE4PLJ asked members if they wanted to continue prizes as previous year. Agreed to continue with prizes like last year (attendance and draw).
3. Louis asked for volunteer to tend to coffee and timbits for WARC meetings. A hand of applause to Ruth VE4XYL who has tended to the coffee for eight years.
4. October and November meetings will be the third Monday of the month, October 21, and November 18.
5. Louis asked for a volunteer to chair October 20th Flea Market. Ruth VE4XYL will book tables and tend to kitchen. Gladys VE4GE will do doors. Tom VE4SE mentioned members need to get involved and both he and Glen explained re Flea Market "BOX" with all info for chairing. Ruth suggested to contact Jim VE4AJR to do the coordinating from home.
6. Gas generator owned by WSC needs maintenance after 2002 Field Day. Motion to spend \$42.40 for maintenance by David VE4DAR and seconded by Jeff VE4MBQ. Carried.

7. Verne VE4VQ asked re archives. All correspondence, minutes, etc. kept by secretary.

8. Bert VE4AND expressed thanks to outgoing executive. Round of applause followed.

Good and Welfare

Time for members at large to express themselves.

1. Derek VE4HAY expressed need for articles for Newscaster and asked for volunteer writers. Derek mentioned article on documentary "Human Race" included Ham Radio. International associations are involved except RAC. Suggestion to email BJ to get involved.

2. Tom VE4SE asked for verification re space station installing HR antenna.

3. David VE4DAR expressed need to recruit new members to WARC. Discussion followed re suggestions for recruiting, what has been done and what is/could be done.

4. John VE4JNF volunteered to do coffee as alternative.

Meeting adjourned at 2035 hours for long coffee break!

Hints & Kinks

by Ralph, VE4RY

Splicing Small Wires

For modern low current applications, we often find ourselves having to solder fine insulated wires together. Many of us habitually use the old Western Union Telegraph splice where you twist the wires around each other before soldering. In most cases, I have found that you can actually create a better splice by simply overlapping the ends to be joined. Instead of stressing the wire by twisting it, just hold the two wire ends pointed toward each other and overlapped for about 1/4-inch and apply solder to the overlap. A bit of heat shrink tubing over the joint and the job's done.

With small wire, this type of joint is typically stronger than the twisted style, since there is less chance of kinking the wires, and besides, the joint is much neater and a lot less stiff and bulky.

Gord, VE4GF also reminds us that with small stranded wire, you can intertwine the ends of the strands and solder them for a nice, low-profile splice.

The suggested splicing method may not be strong enough for wire antennas or AC cords where the wire is likely to be pulled on hard. But, for general small electronic repair and assembly where the wires will not be stressed, I highly recommend using this simple, yet effective splicing technique.

Winnipeg ARES Report

by Jeff, VE4MBQ - Winnipeg EC

September proved to be a very busy month. The CANWARN Summer Severe Weather program for southern Manitoba drew to a close. Eighteen ARES members provided on-call Net Control Service for VE4WWO in the Prairie Storm Prediction Centre from 0930-2130h daily for seventeen weeks 13MAY to 08SEP. Thanks to VE4s: KU, SE, AJR, WF, EH, KAZ, MBQ, TJR, RCJ, HGD, HAZ, ACX, DWG, VID, GWN, HK, MMG, AND.

Eleven ARES members participated with Manitoba EMO in the Parade of Honour held 11SEP02. ARES participants were drawn from the twenty-five ARES members that were involved with the MEMO call-out 11SEP01. Participants were VE4s: AJR, ACX, AND, KAZ, JNF, HGD, WF, CDP, YYL, DJM, MBQ.

Twenty-three WPGARES members provided volunteer amateur communications 15SEP for the Terry Fox Run, covering four run sites and the Terry Fox Office. Thanks to Interlake ARES for use of VE4ARC. Participants were VE4s: KAZ, KU, BSR, TJR, KLM, YU, MMG, WTS, HK, CDP, AND, WF, EIH, SE, XYL, MAQ, DWG, MGR, GWB, RST, AJR, MBQ, and VA4AA.

Sixteen WPGARES members provided volunteer amateur communications 21SEP for the Head of the Red Regatta on the Red River. Thanks to: Interlake ARES for use of VE4ARC, Yori Tsuji for use of VE4TWO, and Garth Blumm for use of his boat. Participants were VE4s: HK, MJM, MMG, HAZ, ACX, MAB, GWB, SE, VID, CDP, XYL, JNF, DWG, WF, AJR, KAZ.

Nine WPGARES members provided volunteer amateur communications 22SEP for the Parkinson Superwalk in St Vital Park. Participants were VE4s: GWB, WF, HK, MMG, DL, DAR, GWN, CRS, AJR.

I would like to thank Richard VE4KAZ and Dick VE4HK for agreeing to be the ARES Coordinator for Head of the Red Regatta and Parkinson Superwalk respectively since work, school, family, and ARES pressures added up to too many things to look after simultaneously in September.

The next WPGARES meeting will be our Annual General Meeting, TUE 15 OCT 1900h Sir Wm Stephenson Library 765 Keewatin Street. We will be electing the 2002-03 WPGARES Executive, considering the 2001-02 Financial Statement, approving the 2002-03 Budget, and reviewing the 2001-02 EC's Summary of Activities.

An Enlightening Experience

By Ted, VE4VID

This article is the result of a request from Jeff - VE4MBQ, that I make a presentation to the Winnipeg A.R.E.S. group for December 2001. When Jeff asked me by e-mail to speak that evening he titled the subject "an Enlightening Talk", and that's a good title.

Friday July 6th, 2001

Our day started at 04:30 on July 6th, 2001, with a loud and bright crash. Like all good men I sat up, looked around, and sniffed, and sensing nothing amiss promptly went back to sleep. It wasn't until the alarm woke me that I found out that my wife had paced the floor for that 1 ½ hours. It wasn't until I arrived home from work that I learned what had happened and what she had been through that day.

The water meter had sprung a leak whenever water was used. The telephone service was not working. MTS detected 2 phones shorted, the alarm system shorted in addition to the protection devices destroyed.

When I arrived home it didn't take long to start finding other damages. In our office/ library my new PIII Pentium 733 mhz was totally non functioning, along with the external fax modem.

In the shack in the basement it was far more grim. All packet equipment, (radio, tnc, power supply, SWR meter, antenna diplexer) were destroyed (it was turned on), excluding the PC (removed for maintenance). The PC monitor and printer did not function and were found to be damaged beyond repair. These items were connected to one surge protected power bar that was also destroyed. (Cdn Tire special)

The second surge protected power bar did not trip. The 2 meter station though the antenna switch was grounded, appeared to have survived and worked for a while, it became evident that it suffered damage. Initially some equip. worked fine but within a short time after powering it up difficulties started to occur and progressively got worse.

After a number of days we discovered that our stereo system was also damaged. The tuner, CD player, and cassette deck all appeared to have failed. Testing has shown only the tuner is damaged and it took months to have it inspected and repaired.

Saturday July 7th, 2001

Saturday morning I visited the nearest office of the firm handling our insurance. I notified them of the strike and what damage I had confirmed at that time. Since we were departing the next afternoon on a two week holiday trip I gave them my sons phone number as he would act as a contact for them. I

informed them that the computer was required ASAP upon our return and if possible to have it checked by the store that I deal with.

The insurance office immediately informed the district office in the city. The information was forwarded while I was in attendance, so that I could answer any questions at that time. They were also informed by the agent I saw that this was only preliminary finds and more were certain to be found.

Insurance Company Response

The first work day after our return from holidays the insurance adjuster contacted me and authorized me to replace the telephones, take the computer, monitor, and printer for testing. She asked if I had a preference of firms to handle the amateur radio repairs and I told her Comtelco Electronics or Prairie Mobile. I wasn't sure if Mike had the facilities to handle the antenna work, but was sure he would know who to hire for that task. Comtelco was approved and I was instructed to take the damaged gear to Mike for evaluation and to have antenna's and cabling checked. The dual band vertical was destroyed and that could be seen from the ground. Pieces of fiberglass were spread all over the place.

Insurance Coverage

My house insurance provided 100% coverage with no deductible as we had never had a claim before. The claims adjuster handled everything with courtesy and a helpful manner.

Our nearest office of Ranger Insurance was very helpful and Halifax Insurance was very quick to jump on the claim and get it started. The adjuster, (Kathy) has been great to work with during the process. I was told that if I wanted to update or upgrade any of the equipment that this was a good time as I just had to pay costs above the approved claim value. I didn't expect things to be handled so well as I've hear horror stories about insurance claims in years past.

The Aftermath

The computer replacement took about six work days to have it replaced, setup and functioning. It was ordered from Toronto and had to be shipped in. As for my station, that is best called "reconstruction", it took a while to have everything checked. All of the equipment had to be tested and a suggestion for repair or replace had to be made to the insurance company. Not much of the equipment is now available so it was a case of finding it's equivalent replacement and placing a value on each item. Mike had this task plus estimating repair costs for tower cabling etc. I sure was glad it was him and not me.

My immediate decision was not to replace the dedicated packet equipment. I was finding less and less time for packet so I felt it best to invest it's value in other equipment. A shopping list was required once the replacement estimate was approved. Each item was selected for durability and price and of course the items that were a must (ie. Rotor and control) were at the top of the list. It took several hours in the store and many more on the Internet reading specifications etc. on possible equipment for the list. Once everything was selected it was Mikes job to order in the items and see to installation.

While waiting for all of the items ordered to arrive I set about improving grounding. I went from one ground rod with two tower legs grounded to it, to each leg having it's own ground rod. The tripod placed on the garage was a rod and all rods are connected together with a single cable which then runs to the station ground inside the house. The spark arresters were moved from the basement to inside the tower base. Each feed line is connected to MFJ switches with grounded center positions, and from there to the transceiver. The grounding work was not covered and was at my own expense.

The Result

I now have a fine station that is far nicer than I dreamed I'd ever have and the sacrifice of the packet equipment was worth it to me. While I'm studying code I still have the pleasure of listening to HF and also can operate on 6 meters and 2 meters on all modes.

A 6 meter SSB net has been started, and is helping me to become familiar with my new transceiver. In addition I have had the pleasure of joining with a 2m group from Manitoba and the northern USA. I have had the pleasure of four 6m contacts in Alaska and four on 2m nearby, with 2 wishing confirmed contacts from grid square "EN19". My goal was to pass the 5 wpm code test by Christmas, but that will take some time longer.

What started as a envisioned nightmare, trying to replace all the household and radio equipment has worked out well with nowhere near the frustration I expected. Members of the amateur community have been very helpful through the ordeal and Mike at Comtelco Electronics saved the day. Mike made it possible for me to enjoy my hobby more than I thought possible. My parting suggestion for everyone is clear, see to correct station grounding and protection, but most of all "ENSURE THAT YOU HAVE THE CORRECT INSURANCE COVERAGE FROM A GOOD COMPANY THAT REALLY CARES."

Contest Calendar

October, 2002

TARA PSK31 Rumble		0000Z	Oct 5
Oceania DX Contest	Phone	0800Z	Oct 5
EU Autumn Sprint	SSB	1500Z	Oct 5
California QSO Party		1600Z	Oct 5
QCWA QSO Party		1800Z	Oct 5
RSGB 21/28 MHz Contest	SSB	0700Z	Oct 6
YLRL Anniversary Party	CW	1400Z	Oct 9
10-10 Day Sprint		0001Z	Oct 10
Oceania DX Contest	CW	0800Z	Oct 12
EU Autumn Sprint	CW	1500Z	Oct 12
Pennsylvania QSO Party		1600Z	Oct 12
		1300Z	Oct 13
FISTS Fall Sprint		1700Z	Oct 12
Iberoamericano Contest		2000Z	Oct 12
North American Sprint	RTTY	0000Z	Oct 13
YLRL Anniversary Party	SSB	1400Z	Oct 16
JARTS WW RTTY Contest		0000Z	Oct 19
ARCI Fall QSO Party		1200Z	Oct 19
Worked All Germany Contest		1500Z	Oct 19
Asia-Pacific Sprint	CW	0000Z	Oct 20
RSGB 21/28 MHz Contest	CW	0700Z	Oct 20
Illinois QSO Party		1800Z	Oct 20
CQ Worldwide DX Contest	SSB	0000Z	Oct 26
ARRL International EME Contest		0000Z	Oct 26
10-10 Int. Fall Contest	CW	0001Z	Oct 26

November

IPA Contest	CW	0600Z	Nov 2
		1400Z	Nov 2
Ukrainian DX Contest		1200Z	Nov 2
ARRL Sweepstakes Contest	CW	2100Z	Nov 2
North American Collegiate ARC	CW	2100Z	Nov 2
ARCI Running of the QRP Bulls		2100Z	Nov 2
IPA Contest	SSB	0600Z	Nov 3
		1400Z	Nov 3
High Speed Club CW Contest		0900Z	Nov 3
		1500Z	Nov 3
DARC 10-Meter Digital Contest		1100Z	Nov 3
Japan Int. DX Contest, Phone		2300Z	Nov 8
WAE DX Contest	RTTY	0000Z	Nov 9
OK/OM DX Contest	CW	1200Z	Nov 9
Anatolian ATA PSK31 Contest		1800Z	Nov 9
LZ DX Contest	CW	1200Z	Nov 16
All Austrian 160-Meter Contest		1600Z	Nov 16
ARRL Sweepstakes Contest	SSB	2100Z	Nov 16
North American Collegiate ARC C	SSB	2100Z	Nov 16
RSGB 1.8 MHz Contest	CW	2100Z	Nov 16
CQ Worldwide DX Contest	CW	0000Z	Nov 23
ARRL International EME Contest		0000Z	Nov 23

MDECG - SK

By Dick, VE43KQ

The Manitoba Digital Emergency Communications Group (MDECG) is in the process of wrapping up its activities. Membership has dropped to zero and the group cannot continue. The reasons for the decline in the packet activity are many and it is not our purpose to probe these reasons.

The Brandon station was shut down last fall as the water tower there has been scheduled for demolition in the future.

The Minnedosa station has been inactive for some time as the VHF antenna lead has had a problem. The Manitoba Repeater Society will be taking over ownership of this site and will move the former Neepawa repeater here as they have recently lost their host site at Riding Mountain.

The Portage Club under the direction of Keith, VE4KK, are taking over the use of the site and equipment at Portage. Their repeater has been located at the site for some time and has been using the VHF antennae. They hope to link the repeater into other systems and with the UHF radios and antennae they can accomplish this much sooner. The site and equipment will be used to the advantage of amateurs in Manitoba. It is also planned to use this site for an APRS node.

Glenn, VE4GN, is converting the site at Beausejour to an APRS node. This site belonged to the Beausejour Club with some equipment donation from MDECG. The club will maintain the site which will also be used for emergency communications if necessary.

A new packet group in Winnipeg is going to continue the use of the PKT site in Winnipeg for digital communications for all amateurs in Winnipeg.

The tower at the site near Sidney has been sold to the property owners.

The equipment has been removed from the sites and will hopefully be sold. It is planned to donate all funds to the good of amateur radio, with recipients being Amateur Radio organizations for the general good of Amateur Radio.

If you have any comments or concerns please contact Richard Holder, ve4qk@mts.net

News from the Net

Free Foreign Accommodation

The International Travel Host Exchange, or <http://www.darc.de/referate/ausland/ithe>, is a program administered by the German national society, DARC. It provides radio amateurs with the possibility of free accommodation with other amateurs around the world in exchange for you offering accommodation to overseas amateurs. Most members are in Europe, but there are also amateurs registered in Australia, Canada, India, Indonesia, Japan, Malaysia, New Zealand, Syria, Thailand and the USA. Once registered, postal or e-mail addresses are made available so that contact can be established well before any visit takes place. If a trip is planned well in advance, it is possible to travel from one member to another and thus experience a whole region or country. However, it should be noted that there is no explicit commitment to host anybody at any time. The organizer of the scheme, Thilo Kootz, DL9KCE, has written to the RSGB and comments that the amount of members of ITHE in the United Kingdom is very low compared with other countries. If you would like further information, please contact Thilo by e-mail: d19kce@darc.de or by phone on 00 49 5153 963054.

AMSAT GLOBAL SATELLITE NET

Internet technology is allowing worldwide access to a new AMSAT net for beginning satellite operators. The AMSAT Global Satellite Net was recently started by Neil Hays, W6FOG, and may be accessed on VHF or UHF through repeaters linked via the Internet using the IRLP Internet Radio Linking Project network.

For those without IRLP access, but with HF equipment, the net may also be found on 14.250 MHz on 20 meters, every Wednesday between 0200 and 0330 UTC. I-R-L-P access is via radio only, but activity may be monitored by anyone with a computer, sound card and Internet connection. For more information on I-R-L-P, go to <http://www.irlp.net> For details on the AMSAT Global Satellite Net, see <http://www.w6for.net> (W6FOG, AMSAT via ARNewsLine)

AMSAT-NA To build New Communications satellite

(AMSAT-NA) has started construction of a new Low Earth Orbit (LEO) communications satellite. Although the satellite will be similar in mass and size to the original AMSAT MICROSAT design, it will incorporate all new, leading edge electronics and RF technology.

Robin Haighton, VE3FRH, AMSAT-NA President, discussed the new project at the organization's Board of

Directors meeting held in Washington, DC, April 20-21, 2002. "I am very pleased that we are embarking on a brand new satellite project. I am particularly pleased that this new project will operate as an "EZ Sat," as well as serving as a test bed for new and exciting technologies." he said.

Returning to the original pre-launch numbering system used in many of the earliest AMSAT-NA developed satellites, the new "bird" will be named AMSAT-OSCAR E (Echo) until launch. Plans call for the satellite to contain analog and digital VHF/UHF FM transponders similar to those carried on the UOSAT-OSCAR 14 and AMRAD-OSCAR 27 satellites currently in orbit. In addition, the new satellite will have the capability to host one or two other experimental payloads.

Continuing an approach used in past projects, AMSAT-NA has partnered with an outside contractor, SpaceQuest, Ltd. of Fairfax, Virginia, who will assist in building the satellite bus. AMSAT volunteers are responsible for the design, development, integration and testing of the various experimental payloads.

Dr. Tom Clark, W3IWI, AMSAT-NA BOD member and one of the "spark plugs" for the original MICROSAT project noted that, "The last major program that AMSAT-NA managed was the MICROSATS and this is a superb chance for us to update that legacy with all-new technology." He went on to note that, "We now have accumulated about 70 years of on-orbit experience with the MICROSAT design since our original flock were launched back in 1990, with several other satellites of that same basic design now on the drawing boards. The design is a true classic."

The spacecraft is now slated to be ready for launch in late 2003. A number of affordable launch opportunities are being actively explored.

AMSAT is very proud of its long tradition of excellence and the contributions it has made to the advancement of space communications, space education and the space sciences. AMSAT-OSCAR E will be a new vehicle for Amateur Radio to continue that quest for communications technologies for future generations.

["http://www.amsat.org"](http://www.amsat.org)

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John, VE4JNF

**386 Belvidere Street
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ve4jnf@escape.ca

Radio emerges from the electronic soup Submitted by Chris, VE4SET

19:00 28 August 02

Exclusive from New Scientist Print Edition

A self-organising electronic circuit has stunned engineers by turning itself into a radio receiver.

This accidental reinvention of the radio followed an experiment to see if an automated design process, that uses an evolutionary computer program, could be used to "breed" an electronic circuit called an oscillator. An oscillator produces a repetitive electronic signal, usually in the form of a sine wave.

Paul Layzell and Jon Bird at the University of Sussex in Brighton applied the program to a simple arrangement of transistors and found that an oscillating output did indeed evolve.

But when they looked more closely they found that, despite producing an oscillating signal, the circuit itself was not actually an oscillator. Instead, it was behaving more like a radio receiver, picking up a signal from a nearby computer and delivering it as an output.

In essence, the evolving circuit had cheated, relaying oscillations generated elsewhere, rather than generating its own.

Gene mixing

Layzell and Bird were using the software to control the connections between 10 transistors plugged into a circuit board that was fitted with programmable switches. The switches made it possible to connect the transistors differently.

Treating each switch as analogous to a gene allowed new circuits to evolve. Those that oscillated best were allowed to survive to a next generation. These "fittest" candidates were then mated by mixing their genes together, or mutated by making random changes to them.

After several thousand generations you end up with a clear winner, says Layzell. But precisely why the winner was a radio still mystifies them.

To pick up a radio signal you need other elements such as an antenna. After exhaustive testing they found that a long track in the circuit board had functioned as the antenna. But how the circuit "figured out" that this would work is not known.

"There's probably one sudden key mutation that enabled radio frequencies to be picked up," says Bird.

Duncan Graham-Rowe

<http://www.newscientist.com/news/news.jsp?id=ns99992732>

Spectrum, the Life Blood of Amateur Radio

(David Sumner, K1ZZ Secretary, IARU)

To exist, Amateur Radio must have access to the radio frequency spectrum. Without it, our radio equipment is like an automobile without a road or a boat without water, interesting to look at, perhaps, but utterly useless. Amateur Radio exists for the purpose of self-training, intercommunication and technical investigations. To accomplish these broad objectives, amateurs must be afforded reasonable access to the spectrum from the lowest frequencies to the highest. Yet, spectrum access is an increasingly valuable commodity. Commercial interests willingly pay billions of dollars for access to the frequencies they require in order to be able to sell telecommunications services. The radio spectrum is so valuable that even government and military users are under great pressure to relinquish frequencies for commercial exploitation.

The future may look bleak, but let us remember this:

It has happened before, and Amateur Radio survived and prospered. In the early 1920s it was the radio amateurs who found that short-wave signals could be heard all over the world. The rush soon began to exploit this newly discovered phenomenon. Radio amateurs, the very people whose experiments had revealed the value of the short waves in the first place, were in grave danger of being pushed aside.

Fortunately, there were far-sighted individuals who understood the problem and were able to find a solution. In 1925 they met in Paris and formally created the International Amateur Radio Union, or IARU.

The first major challenge for the IARU occurred in 1927 at the Washington International Radiotelegraph Conference. Radio amateurs easily could have been forced into bands that would have been too narrow to support future growth. Instead, allocations were won that we still know today as 160, 80, 40, 20, and 10 meters, with a 5-meter band that was moved to 6 meters after World War II. The other amateur bands we now enjoy were the result of decades of patient effort through the IARU. From less than 30,000 radio amateurs who were licensed as of 1927, the Amateur Radio movement has grown to three million. From the representatives of 25 countries who formed the IARU in 1925, the IARU has grown to include 150 national associations representing virtually every country with enough amateurs to form an organization.

Individual radio amateurs support the work of the IARU through their membership in their own national IARU member-society. That support is vital to the future of

Amateur Radio. The IARU is recognized by the International Telecommunication Union (ITU) as the representative of the interests of radio amateurs throughout the world. It is our voice in the offices and meeting rooms of the ITU and regional telecommunications organizations, where the decisions affecting our future access to the radio spectrum are made.

All licensed radio amateurs benefit from the work of the IARU, whether or not they are members of their national IARU member-society. But every licensed radio amateur should be a member. Only by combining our efforts in this way can we ensure the future health of Amateur Radio, for ourselves and for future generations.

What is a HAM?

Submitted by Gord VE4TGR

When I told the guys I work with that I have a radio I use to talk to space men.... they looked at me a little funny but let it pass....

Then when I told them some guy in the U S of A launched a battery operated toolbox into space and left a tape measure sticking out.... and I can use my radio to contact stations all over North America.... then they started sitting at the other table during lunch.....

When I tried to explain apogee and perigee and LOS and TCA and AOS ... that pretty much sealed it.... they got me a hat with LIS on it..... they said it means Lost In Space.....

I lost all credibility when I told them I talked to a woman in space.. and she answered me.....

I guess I better not show them my "station" seeing all these antennas and radios and computers.... probably would be more than they could handle.....

What other hobby could you bounce signals off a tool box and a tape measure... or use an eggbeater.... or an inverted V.. and talk in 3 letter words... QSL QRM...??? or a coffee can.... or walk around with radio, gps, tnc, boom mike.... and not work for the secret service..... EH!!!!

What a wonderful hobby.....

To all of you... you know who you are.... who make our incredible hobby so exciting.... I thank you..... and future generations will too ---Snip (anonymous)

RAC Membership Drive

From the latest IC database, there are 1637 VE4/VA4 callsigns current (this includes multi-callsigns, club & repeater). Of this there are 225 VE4 and 1 VA4 RAC members. This represent approx. 14% of issued callsigns that have a RAC membership. So taking into account the multi-callsigns, club & repeater 20% is a realistic estimate.

The results of the RAC membership drive netted the MidWest region 69 new members for a total membership of 454. I do not know how many of the 69 are VE4's or VE5's. It clearly should be higher to allow RAC to properly represent the amateur community

Membership Drive - Final

Atlantic Region = 71
 Quebec Region = 130
 Ontario-North Region = 110
 Ontario-South Region = 226
 Midwest Region = 69
 Alberta/NWT/Nunavut Region = 92
 Pacific/Yukon Region = 205
 Total = 903

RAC membership numbers as of September 5/02:

Canada = 6860
 Atlantic Region = 736
 Quebec Region = 433
 Ontario-North Region = 1270
 Ontario-South Region = 2059
 Midwest Region = 454
 Alberta/NWT/Nunavut Region = 670
 Pacific/Yukon Region = 1237
 Foreign members = 72
 Grand Total = 6932

IRLP Update

By Ron, VE4MGR

The IRLP nodes are up to 611 as of today, we are still node # 165. For anyone interested on Wednesday evening @ 8:00 p:m CDT there is a net ,it used to be called the Ontario net. It is on the UMARS repeater 147.270+. Brad, ve3mxj has been looking after the net in most cases, he lives in Thunder Bay.

Another thing that is a bit of fun is ECHOLINK the site for this is www.synergenics.com I know it is not HF but , for people that may have antenna restrictions this too can be a lot of fun

Policy

Submitted by David, VE4DAR

Start with a cage containing five apes.

In the cage, hang a banana on a string and put stairs under it. Before long, an ape will go to the stairs and start to climb towards the banana. As soon as he touches the stairs, spray all of the apes with cold water. After a while, another ape makes an attempt with the same result - all the apes are sprayed with cold water. Turn off the cold water. If, later, another ape tries to climb the stairs, the other apes will try to prevent it, even though no water sprays them. Now, remove one ape from the cage and replace it with a new one. The new ape sees the banana and wants to climb the stairs. To his horror, all of the other apes attack him. After another attempt and attack, he knows that if he tries to climb the stairs, he will be assaulted. Next, remove another of the original five apes and replace it with a new one. The newcomer goes to the stairs and is attacked. The previous newcomer takes part in the punishment with enthusiasm. Now, replace a third original ape with a new one. The new one makes it to the stairs and is attacked as well. Two of the four apes that beat him have no idea why they were not permitted to climb the stairs, or why they are participating in the beating of the newest ape. After replacing the fourth and fifth original apes, all the apes, which have been sprayed with cold water, have been replaced. Nevertheless, no ape ever again approaches the stairs. Why not? "Because that's the way it's always been around here." That's how company policy begins....

From the Planning Chair:

Glen, VE4GWN

As I look out the window, and see the leaves that need to raked up, it reminds me of one thing, the WARC Flea Market is near.

The Flea Market will be on Sunday October 20 '02 at the Heritage-Victoria Community Club, 950 Sturgeon Rd. The door for vendors opens at 0900, and the Flea Market door opens at 1000. The next WARC meeting will be on Monday October 21 at Sturgeon Creek Collegiate. Our guest speaker will be Adam, VE4SN giving a presentation on propagation. November should be Ed, VE4YU giving a presentation called "Ham Radio Contesting can be FUN".

I do have other ideas in the works, but can always use suggestions please fell free to contact me at ve4gwn@rac.ca, phone 831 8082 (evenings), or you can try the radio (who would have thought of that) on the VE4WPG repeater.

News Winnipeg Senior Citizens Radio Club

By Gil Frederick, VE4AG, President

October 10 (Thursday) - the monthly breakfast. Still being held at the Canad Inns Garden City, McPhillips at Jefferson. Starts at 9:00 a.m., with the draw for the free breakfast (or ?) from the sign-in sheet list. October 16 (Wednesday) - the Board meeting. At the Club. Starts at 10:00 a.m., and members are encouraged to attend. December 10 (Tuesday) - our annual Christmas Dinner. Tickets are available at the Club - or you can make arrangements to receive yours by phoning 233-3122. Price is \$15.00 per person. It's being held again at the Assiniboia Christian Centre, Portage Ave. at Rouge Rd. Come anytime after 11 a.m. - the catered turkey dinner (with all the trimmings) will be served during the noon hour. December 18 - the Annual General meeting, at the Club (boardroom). This is the most important meeting of the year - and all members should try and attend. We have elections for the new Executive and Board, and voting on important motions that may be brought up. Annual reports and financial statements will also be available. If you feel a calling to be active in the Club during 2003 (the 20th year since incorporation) - please contact George Moodie, VE4GOM (Nominating Committee).

Much work has been accomplished at the club during the past few months: we thank Harsha for the installation of the Linksys Router, the modifications to some computers, and the extensive wiring that he accomplished, with the help of Al Thoren, VE4YZ and Grant VE4HGD. We thank George, VE4GOM and John, VE4EI, for the untold hours of work in our teaching room, trying to get (and keep) the systems up-and-running. We thank Ed, VE4YU for the great interest and time spent in putting the BBS into operation at the Club. It is now operational (callsign remains VE4BBS) with link to VE4KLN, and we also thank Ed for running the Windows/Word teaching course during the 2 sessions that have been held so far. We thank Werner, VE4UA, for taking the time to come to the Club and being of great help to Ed with the BBS installation.

The Basic course is up and running again this Fall - 16 have signed up, with 13 present at the first meeting (some could not make this meeting).

We have THREE new members. We welcome Grant Delaney, VE4HGD, Christine Barrie, VE4CMB, and Jim Barrie, VE4FK, to our membership roll. We hope you enjoy your retirement years in an active association with our group.

The October "Blips 'n' Blurbs" is available for pickup by members, at the club. Great reading - George, VE4GNG, does a good job finding stuff for each issue.

Ex-president Martin Boyd, VE4AKA, has moved to Red Deer. Alf, VE4ALKF, will try and locate him during his trip there to visit relatives, so we can continue to have contact with Martin.

Editors Ramblings

By Derek VE4HAY

Did you Know

Industry Canada has a new (with a really neat interface) exam generator program, which can be found at <http://strategis.ic.gc.ca/SSG/sf05378e.html>

RAC continues to discuss code vs. no-code as an amateur radio license requirement. Would you care to share your opinion in this matter? I would appreciate input.

You can communicate directly to your RAC Regional Director (VE5FX) using an on-line form on the RAC website found at <http://www.rac.ca/sbox.htm>



Bruce Brown, VE4BLB receiving his Worked All Winnipeg Award. The award is being presented by Dick Maguire, 9 September '02. More information about this award can be found at

<http://www.virtualmultimedia.com/warc/awards.html>

**DIAMOND
IMAGE**

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