The Communicator

Voice of the Mississauga Amateur Radio Club

We are Amateur Radio in Mississauga

January 8, 2004

Vol. 6-5

Category 1 Affiliation

From the Gavel - *President's Message*

By this time you have probably determined you survived yet another Christmas and New Year's season. The waistline and the credit card balances have expanded, and the only things that have lessened are the space in your cupboards and the bank account. Now that the holidays are over, we can once again turn our attention to the normal things of life and planning for those other special events that each year brings.

The first thing that leaps to my mind is the planning for HAMEX 2004 which will be held on March 20th. Some initial meetings and conversations have already been taken place, but now we must knuckle down and get all the arrangements done for the actual market and the banquet that evening. There will be a HAMEX Managers' meeting the first Wednesday in January, (history by the time you read this). It appears to be well in hand and another fine event will take place that we should all enjoy.

Of course, another event that may seem far off, is field day. Now before you tell me to hold on, that is not till June, you have to realize that planning and R&D takes time. And if you plan on designing and building that killer antenna that will be the envy of all around you, there is no time like the present to start. Maybe I've worked on too many consulting projects but it can never hurt to have a long development cycle. That way you can work out all the bugs, even though 90% of the work will get done in the last couple of weeks. It never hurts to start thinking about what you are going to do. Why myself I have started thinking about what would make 6m rock or what digital modes can we make the air waves sing with..

But even beyond these two momentous and grandiose exercises in co-ordination and planning, there are even smaller triumphs to be had. By that I mean for instance, IRLP, by the time you are reading this, the node should be functional. And if you haven't heard someone driving through the outback on our repeater by now it is only a matter of time. Even though we may not exactly know why we need to pass the time as we drive to work with a fellow ham that is waiting for the kangaroo crossing to clear, it will become part of our everyday lives.

Setting up a node may seem like a trivial exercise; oh it seems so till one actually does it. There has been much discussion on what macros need to exist for the repeater, to take care of courtesy tones and voice ids, then what scripts need to be written to make the node turn on, turn off, and other assorted functions. Not to mention those that have been eagerly waiting in the wings to use the link even when it wasn't quite ready for prime time. Barely was the shake down cruise underway there was someone wanting to take it for a test drive. Nonetheless when all the kinks are worked out it will be a fine addition to our repeater.

In case you think that we have any spare time left, fear not, I will find a way to fill it. There are many more plans in the works such as discussions a foot for the revival and introduction of packet. It is mainly for ARES message passing in case of an emergency, but in "normal" times the node could see other uses. Time will tell how and when it comes into play, but it will too be part of our club's offering.

There are so many things to look forward to in the first half of this year. We will be installing our new UHF repeater at our repeater site, once that is working we have a preliminary agreement with the Peel club to link the UHF repeaters to form the beginning of a new repeater network, and who knows where this will lead, a new repeater network, you never know.

And as if any of this wasn't enough, we are going to start planning on installing the antenna tower at Meals on Wheels which will become a home for our club station, at least until something even better comes along, man will it ever end? Oh yes, we even have a surprise or two tucked up our sleeves, but I'll save that for a little later. We are a progressive club, and just as the times are changing, so are we, for the better.

73 de Robin (VE3VVS)

This Month

Sunday Brunch

Sunday brunches are held on the first Sunday of each month. Time is 9:30AM at at **The Golden Griddle** located at 6400 Millcreek Drive (905)542-9964. Millcreek Drive is located 1 block north of Battleford and off Erin Mills Parkway. The restaurant is on the east side of Erin Mills Parkway. All are welcome to come out and have an opportunity to chat in an informal setting..

Sunday Brunch
February 1

Club Nets

2 Metre Tuesday Night Phone Net

Join in on the chatter starting at 8:30PM every Tuesday on the club repeater. Hosted by various net controllers.

Contact our VHF Net Manager, **Brad (VA3ZRT)**, if interested in becoming a net controller. 145.430MHz Tone 103.5 Minus (-) offset

75 Metre Sunday Night Net

Starts at 8:30PM every Sunday. Hosted by various net controllers. Contact our HF Net Manager, Michael **(VE3TKI)**, if interested in becoming a net controller.

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Commentary...

I remember falling on the floor in roars of laughter when I first started to work at the CBC so many moons ago. The reason: I had just received a statement of my retirement fund and on it was written that I would be eligible for early retirement in 2005. When you're 20 years old, that is one heck of a long time and it just struck me in a very humorous way. Then again a lot of things strike me in humorous ways. Geeze, a whole lot of years have flowed by and to top it off I actually retired in 1997. I took extra early retirement, and you know what – I don't regret one minute of it.

Over the years my generation has seen a great many new innovations and change; the transistor, integrated circuits, large scale integrated circuits, the beginning of TV, black & white at first, then colour. Man landing on the moon, pictures being sent from the Martian surface (no sign yet of little green men), and a myriad of other equally noteworthy changes.

Communications have changed too. Who would have thought that many would carry in their breast pocket, their very own personal telephones. Ones that could send and receive pictures no less! How about owning a personal computer, capable of storing and retrieving all sorts of information from around the world? And to be able to send pictures and to have voice communications to boot? Email, fax machines, satellite TV! One could live in a hut in the middle of the bush and still carry on with business as usual. The virtual office is a reality. So where am I going with all of this? I haven't a clue, but I'll carry on anyway and see where it takes us.

Over the same span of time, there has been much change to amateur radio. Side band transmissions, automatic antenna tuners. Handheld radios capable of operating on several bands, their size limited only by ergonomic necessities and battery packs. Who would have thought that one of these little beauties, the size of a pack of Marlboro's would be possible? We have also seen the demise of cw in all communication fields with the exception, until recently, amateur radio. Several countries have already dropped the requirement and more will follow. In this day and age, there is no need to have a cw endorsement requirement to obtain HF band privileges.

In Monday's (January 5) Toronto Star there was a story entitled "On the brink in blackout" by Bruce Campion-Smith of the Star's Ottawa Bureau. It was about the power blackout we experienced in August and was an interesting article because, amonst other things, he pointed out that:

- The province's 911 system nearly crashed as Bell Canada had trouble getting fuel for the back-up generators needed to keep the 911 emergency lines working
- The military had trouble with key computer systems.
- Emergency numbers for several federal agencies were out of service or they just rang unanswered.
- CBC Toronto and Teleglobe all made calls to Industry Canada with urgent request for more fuel to keep their emergency generators going

So what has this to do with amateur radio? We amateurs are in a rather unique position. Our hobby has changed with the times, but our main interest is to be able to communicate via the airwaves all over the world using our rigs and antennas from home, our automobiles or remotely using auxiliary power from some farmers field. Rather primitive to many, but because we own and have this equipment at our

(Continued on Page 8)

Mississauga Amateur Radio Club Directors and Managers

PO Box 2003, Square One Post Office, Mississauga, Ont., L5B 3C6

Website: www.marc.on.ca

Email: ve3mis@rac.ca

Directors

President.....:	Robin Stubbs	VE3VVS	905-826-6753	1st Vice President.....:	John Duffy	VE3DRZ	905-822-4661
2nd Vice President...:	Bob Giddy	VE3IAB	905-625-6846	Treasurer .....:	Jeff Stewart	VA3WXM	905-814-5882
Secretary.....:	Tony Champion	VA3QC	905-828-4004	Past President .....:	LorneJackson	VE3CXT	905-858-8594

Managers

Membership .....:	John Kenzie	VE3WJK	Education.....:	Earle Laycock	VE3XEL
Ed. Asst (Theory)...:	Bob Hawkins	VE3AGC	Ed. Asst (Theory) ....:	Alan Barolet	VA3AWB
Ed. Asst (CW).....:	Frank Lamb	VE3HTX	Ed. Asst (CW) .....:	Tony Champion	VA3QC
Repeater Mgr.....:	Michael Brickell	VE3TKI	Repeater Asst 1.....:	Art Sinclair	VE3SQG
Repeater Asst 2	Asim Zaidi	VE3XAP	VHF Net .....:	Brad Thomas	VA3ZRT
HF Net.....:	Michael Brickell	VE3TKI	Public Service.....:	Bob Boyer	VE3XBB
Club Station.....:	Rick Brown	VE3IMG	Club Station Asst.....:	Bob Giddy	VE3IAB
House .....:	John Duffy	VE3DRZ	Contests.....:	Rick Brown	VE3IMG
Contest Asst 1 .....:	Alex Malikov	VA3UA	Contests Asst 2 .....:	Asim Zaidi	VE3XAP
Newsletter .....:	Tony Champion	VA3QC	Special Events .....:	Bob Boyer	VE3XBB
Special Events Asst :	**OPEN**		QSL .....:	Michael Brickell	VE3TKI
Field Day.....:	Michael Brickell	VE3TKI	Field Day Asst 1 .....:	Tony Champion	VA3QC
Field Day Asst 2.....:	Jody Levine	VE3ION	Field Day Asst 3 .....:	John Duffy	VE3DRZ
Field Day Asst 4.....:			Canwarn .....:	**OPEN**	
Programmes.....:	Gerry Doran	VE3DOR	Programmes Asst 1..:	Bob Giddy	VE3IAB
Programmes Asst 2.:	Bob Boyer	VE3XBB	Webmaster.....:	Art Sinclair	VE3SQG

Public Service Events/ARES

Emerg Coord .....:	Sean Conlin	VA3MED	Emerg Asst 1 .....:	Art Sinclair	VE3SQG
Emerg Asst 2.....:	Michael Brickell	VE3TKI	Emerg Asst 3 .....:	Lorne Jackson	VE3CXT
Emerg Asst 4.....:	Bob Boyer	VE3XBB	Emerg Asst 5. .....:	Robin Stubbs	VE3VVS
Emerg Asst 6.....:	John Duffy	VE3DRZ			

Audit Committee

Auditor 1 .....:	**OPEN**		Auditor 2 .....:	Bill Dmytrasz	VE3DNY

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News from Hear and There

RABC recommends 220-222 MHz be transferred to the Mobile service

Use it or lose it! We have all heard that story. Canadian Radio Amateurs make very little use of the two MHz at the bottom of the 220-225 MHz band. Industry Canada can monitor usage and is well aware of this fact. US Amateurs were forced to give up this spectrum in the early 1990s.

Spectrum in the VHF range is very congested outside the amateur bands, and mobile service users such as the RCMP and the Railway Association of Canada have well documented needs for this spectrum. Their justification is based on harmonization with the USA, with increased demands for public security communications, and on the unique propagation characteristics of the 220 MHz band. Other public safety bands in the 700-800 MHz range have entirely different propagation characteristics.

The Radio Advisory Board of Canada (RABC) has been studying the needs of various services over the past 18 months, and has decided to recommend to Industry Canada that:

1. The 220-222 MHz band be transferred from the amateur to the mobile service.
2. Amateur repeaters in this portion of the band be grandfathered to continue operation for a number of years, with the number to be decided by Industry Canada.
3. 150 kHz of spectrum in the 220-222 MHz band be designated as public service spectrum to be shared by amateur and mobile services for special public safety and disaster communications applications.
4. The band 219-220 MHz be allocated on a secondary basis to the Amateur service in Canada, which would be in harmony with a similar allocation in the USA.
5. The band from 222-225 MHz remain as a primary exclusive amateur allocation.

Following consultation with Canadian amateurs in a survey conducted in July 2002, RAC as a member of the RABC, has vigorously opposed these proposed changes without success. In a recent RABC ballot, RAC was the only dissenting voice.

Here are RAC's comments to Industry Canada.

Radio Amateurs of Canada (RAC) does not approve the response of the RABC in this ballot. RAC understands the increased spectrum requirements of the services represented by the other RABC sponsor members in the VHF portion of the spectrum. However, the Amateur Service also has spectrum requirements for expansion, and its 220 -225 MHz band is the only primary allocation available to the amateur service between 148 MHz and 24 GHz. In addition to relieving the pressures on the congested 144-148 MHz (Primary) and 430-450 MHz (Secondary) amateur bands, the 220-225 MHz band would be used for amateur service emergency communications, particularly as its propagation characteristics bridge those provided by the 144 and 430 MHz bands. Development of the 220 MHz band is growing as equipment for the amateur service at 220 MHz increasingly is becoming available. Industry Canada must now take this advice, decide on a course of action, and in all likelihood conduct a public consultation before issuing a decision. The prospects do not look good. This could be the first loss of amateur spectrum in Canada for many years. Canadian amateurs cannot complain. The spectrum is valuable, and we do not make good use of it. Those are the facts. In spite of all the good work we do in emergency and disaster communications, our case for retention is weak. You've heard it before. USE it or LOSE it ! Maybe this RABC recommendation will make us take the saying more seriously.

(RAC News Service)

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Trans Provincial Net 2003 Report (Dec. 31 2003)

Reflecting back over the past year brings to mind a diverse year on the TPN. In the spring of the year, we experienced interference on the net that went on for some time. Our thanks go out to our friends south of the border who assisted is resolving this problem, a full report can be found on the TPN website in the Stories & Projects Area.

An annual event on the TPN, Valentines Day the ladies hosted the net for the day and as usual they did a tremendous job, very popular with all of the OM's, I'm sure all would agree.

As summer approached with marginal band conditions it was certainly a struggle to keep the net alive but it was a learning experience for many of us. In particular the electrical blackout which demonstrated that the TPN could come through with emergency communications, Jean VA3FW was at the helm on that occasion. The net also demonstrated its value during the Simulated Emergency Test (SET). Run by the members of ARES and NTS the TPN acted as a meeting point for many of the ARES groups across Ontario, indeed it was a very successful SET.

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As we neared September band conditions started to return to normal and the net went back into full swing, busy as ever. An annual tradition on the TPN, "Santa Claus on the air", Santa was popular as ever this year with lots of young ones waiting patiently to talk to Santa on Amateur Radio a full report can be found on the website (www.tpn7055.ca/santareport.html)

We now have a number of groups that have joined us on the frequency taking up net control spots on the net.

- Sarnia White Cane Amateur Radio Club on Mondays at 1pm
- The Clara Ladies Net on Tuesdays at 9am
- QCWA Chapters 70 and 73 the first Wednesday of the Month
- Military Communications and Electronic Museum on Thursdays at 10am
- White Cane Net on Fridays at 1pm
- Saturdays have been reserved for Club activity day which was started off by the Niagara Peninsula Amateur Radio Club running the net from 9am to 6pm and we certainly kept them busy. Coming up in the New Year, we can look forward to other clubs and ARES groups continuing this fine project.

On the Website scene, there were many changes as well. The "Rogues' Gallery" now has over 300 pictures of hams from all over Canada and the USA. So much news started flowing in from members a Notice Board had to be implemented to handle news items between weekly bulletins. Speaking of the Bulletin which now averages around 30 pages of Amateur Radio information every week. The coverage has tripled over the past year with over 1000 subscribers from all over the world receiving the bulletin every week.

The amount of information on the TPN website became so extensive it has been necessary to develop a new site (hfradio.net) to handle some of the load of information. The following areas will be moving to the new site.

- Ontario Amateur Radio Service
- Sandbox Roundtable Net
- Sarnia White Cane Amateur Radio Club
- Ontario Phone Net (NTS) (information page)
- Open Line Net (NTS) (information page)
- ARES Ontario HF Nets
- RAC Ontario Section Newsletter
- Canadian Amateur Radio Bulletin

The New Year also brings in some changes to the Net Management Team. With all the growth being experienced on the TPN, it has been necessary to bring on some extra help to manage the net.

Denny Wilkinson VE3EUI has moved on to the position of Net Liaison Officer, International Affairs to care for the interests of our net with our USA friends. Denny is very involved with the Michigan Section Staff as District Emergency Coordinator, an Assistant Section Traffic Manager, Denny will represent us well south of the border.

Jim Taylor VA3KU will be taking on the responsibility of Net Manager and will continue to care for the TPN Website Services.

New to the Management Team Wes Sawchuk VE3ADU will take on the post of Assistant Net Manager. Wes will care for the net control schedule and you will be hearing from Wes on a regular basis as he is Net Control at 11am daily, please drop by and say high to Wes on his hour.

Also new to the management team, Eric Olsen VE3GGO has taken on the new position as Awards Chairman. Eric is certainly not a new voice on the TPN as many of you know Eric is Net Control every Saturday and Sunday at 4pm with the bouncing ball hour, a tradition on the TPN for many years now. Eric will be caring for our newly developed TPN Towns and Cities Award, you can find out more in about this award program on the website.

There has been many changes in our net control team this year, we regret to have lost some of our old long standing Net Control Stations some moved away others off the air due to illness. It is gratifying to have many new hams come on board and support the net by committing to take on a net control spot. We are indebted to all the Net Control Stations who continue to keep the net running from 7am to 6pm everyday of the year.

With all these committed hams caring for the Trans Provincial Net I know we can look forward to a prosperous and successful New Year.

Happy New Year Everyone. Jim Taylor VA3KU, TPN Editor

www.tpn7055.ca

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Introducing a new service for Canadian Hams

A new service has been developed for Canadian Hams. "hfradio.net" is a information service geared to HF Radio in Canada

Goals:

1. To provide information about nets across Canada, times, freq., locations and website information.
2. To bring Canadian Hams the latest in Amateur Radio News on a weekly basis.
3. Provide web services for Amateur Radio Groups: Clubs, Net information Pages, or any Amateur Radio Group in need of Internet presence.

Full Details about this service can be found at: http://www.hfradio.net

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Amateur Radio assists in Iran earthquake relief

Turkey Amateur Radio Club President Aziz Sasa,TA1E, reports that three Amateur Radio operators joined the Turkish Relief Team that departed for the incident location--the city of Bam, some 600 miles south of Tehran--from Istanbul December 27 aboard a military aircraft. Local communications will be carried out on 2-meter simplex with HF operation on 14.270 MHz during the day and on 7092 kHz or 3777 kHz during hours of darkness. Soyhan Erim, TA2IJ, will handle HF operations at the Turkish Incident Command Post. He is part of the Ministry of Health team. Erdinç Sarimusaoglu, TA2RJ, is part of the AKUT Search and Rescue Team, while Mustafa Yuceturk, TA1CAN, is a member of the Istanbul Civil Defense Search-and-Rescue team. Also on site is Serdar Demirel, TA2NO, a member of the Ankara Civil Defense SAR team, who arrived earlier.

(ARRL News Service)

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Norwegian clubs experimenting on 60 meters

Norwegian Radio Relay League International Liaison Officer Ole Garpestad, LA2RR, reports that registered club stations there have enjoyed special permission to test on 5 MHz for the past three years. Almost all of these club stations have a one-letter call sign suffixes and, in some situations, they may use the LE prefix. The authorization is restricted for use in emergency communication or training, and Norwegian stations may not work stations outside of Norway on 5 MHz. Garpestad said Norway's elongated shape makes it impossible to communicate from one end of the country to the other on 80 meters, and 40 meters "has its shortcomings" during hours of darkness. "We are only allowed to use the two frequencies 5.410 and 5.420 MHz, all modes, 100 W," he said, "but only for communication between Norwegian club stations engaged in emergency communication or training for such communication, so this does not include any station outside of Norway."

(ARRL News Service)

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Papua New Guinea P29Z-prefix hams granted HF access

Rick Warnett, P29KFS, reports that the principal legal officer for PANGTEL, the telecommunications regulatory agency in Papua New Guinea--has authorized HF operation by those holding a Limited Amateur Operator's Certificate of Proficiency (P29Z-prefix call signs). The change is to become effective at 0000 PNG Time on December 31.

(ARRL News Service)

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DXCC Desk okays credit for Johnston Island operation

The ARRL DXCC Desk has approved the Johnston Island KH3/KT6E operation from March to June 2003 for DXCC credit. Only authorized persons are allowed to land on Johnston Island. Proof of presence at certain DXCC entities is required. Representatives of most operations are most helpful and cooperative in providing the necessary proof of presence and/or operating authorization as required. A very small number are not. Although no one has provided any information regarding that status of KH3/KT6E, some research on our part indicates that DXCC requirements have been met. Therefore, KH3/KT6E is accepted for DXCC credit. For more information, contact the DXCC Desk: dxcc@arrl.org

(ARRL News Service)

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California firm develops interference-free BPL technology

Canadian radio amateurs using the high frequency and VHF spectrum are becoming concerned that proposed broadband over power line (BPL) systems may render the bands unusable due to radiation from the power lines. Broadcasters and government agencies also fear that BPL radiation, including harmonics, have the potential to cause interference to VHF TV, FM radio and military and public safety communications in the HF and lower VHF spectrum.

Six weeks or so ago, I read a story that a California company, Corridor Systems, had demonstrated a BPL system that works at 2.4 and 5.3 GHz. The system, is designed to provide broadband (250 MHz) transmission suitable for high speed Internet access, using the existing power distribution system, but which does not pose any threat whatever to amateur radio or other users of the rf spectrum.

I tracked down Corridor Systems Chief Technology Officer, a radio amateur, Glenn Elmore N6GN, and he assured me that their BPL technology would not interfere with the HF ham bands. The story below is based on information found on the Corridor Systems web site.

Corridor Systems has developed and patented core technology that enables very high capacity, symmetric and full-duplex information transport over a variety of propagation medium types. Power Corridortm is an implementation of this fundamental technology which operates, in part, over a single conductor of an unmodified, existing power line. In Power Corridortm, information-carrying energy is coupled on and off the conductor by identical launch devices at each end of conductor segments. This energy, which may extend from VHF through the microwave portions of the spectrum, is launched as a surfacewave mode around the conductor.

Surfacewave transmission on an insulated single conductor was first discovered and presented by Goubau1 in the early 1950's and known as G-Line2 after the inventor. The characteristics of surfacewave propagation, when used with a variety of dielectric types,

thickness and specially prepared conductors, have been taught and available in reference texts for many years3. Though not widely utilized in practice, the mode can exhibit extremely low radiation and transmission losses from VHF into the microwave regions.

Corridor Systems has discovered, extended, developed and patented a much more general surfacewave mode for operation on lines which may be completely uninsulated and which need not have any special surface preparation. Additionally, lines which are much larger in diameter than those of previous work may be utilized. This invention, which makes possible very high rate information transport over existing medium-voltage electric utility power lines, is called E-linetm. As with G-line, the vast majority of energy propagates within a volume located relatively close to the single conductor. In Power Corridortm the diameter of this volume is only a few inches. Since the energy propagates at very nearly the speed of light, the relative velocity of propagation in this mode is quite close to unity.

Combined with the normal clearances maintained for aerial medium and high-voltage power lines and Corridor System's specially developed and patented launching devices, E-linetm provides an extremely effective mechanism for the transport of very high speed information over existing power line grids.

Measurements at ground level directly under the power line used during the test showed a maximum radiated power level of less than -10 dBm, 20 dB less than the typical power level from 802.11 based wireless cards.

Corridor Systems has tested and demonstrated simultaneous operation of its BPL technology and amateur radio HF communications. Utilizing a 100 watt, 7 MHz, 21 MHz and 28 MHz amateur SSB/CW transmitter connected to a dipole antenna located within 20 feet of an operating BPL system, there was not any evidence whatsoever of the operation of one system in the other. Amateur UHF communications at 446 MHz and at a 25-watt power level were similarly unaffected and in turn were not detected by the BPL system. Examination of the .1-30 MHz HF spectrum with a quality communications receiver also revealed no evidence of the BPL system.

Glenn also told me that Corridor's demonstration not only used the unlicensed bands, FCC Part 15 in the US, but also simultaneously supported fast scan amateur television with stereo audio under Part 97 of the US Rules. So while the system was being used to support high speed internet traffic it also served as an “open band” for amateur radio uses-- even with one end of the TV link mobile on the roadway near the power lines!

More information and photos can be found at:
http://www.corridor.biz/news.htm and
http://www.tvtechnology.com/dlrf/one.php?id=259

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VK amateurs celebrate removal of Morse qualification Jan 1, 2004

When 1 January 2004 arrived, so to did a new era for Amateur Radio operators around Australia.

At one minute past midnight, amidst the fireworks across Australia, Amateur Radio short wave frequencies lit up, too, as they celebrated the removal of a requirement for Morse Code qualification by getting on air in unprecedented numbers.

A quick scan through the 80metre band during the first hour of the QSO party showed that there was standing room only with stations of all license levels participating eagerly in the party with some limited and novice limited stations handling high amounts of static and nearby station noise with considerable skill. All states and territories activated special radio stations for the event.

For the full story, visit http://www.wiaq.com/qnews/upload/bcast.htm

(Thanks to QNEWS Canberra correspondent Peter Ellis)

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RAC Meets with Professor Townsend on Antenna Tower Policy Review

On Thursday, 18 December, RAC met with Professor David Townsend who is conducting the Antenna Tower Policy Review under contract to Industry Canada. Two meetings were held; the first meeting, in the morning, was as part of the Radio Advisory Board of Canada (RABC) Joint Working Group that prepared the RABC submission to the Review. Amateur radio interests in that paper were promoted. RAC participants were Executive members, Jim Dean, VE3IQ and Ken Pulfer, VE3PU.

The second meeting, in the afternoon and lasting two hours, was purely an RAC meeting with Professor Townsend, for which the RAC team was joined by Tim Ellam, VE6SH, by telephone from Calgary. RAC emphasized key considerations in the RAC submission to the Review, provided clarification, answered questions and discussed amateur experiences with the tower consultation process under CPC- 2-0-03. Tim Ellam provided information from his experience dealing with amateur tower cases that had been before the courts and in working with the City of Calgary on amateur tower issues.

Professor Townsend has a very good understanding of the concerns of the Amateur Service. As part of a government-industry exchange program early in his career, he spent two years working in the radio regulations section of the Department of Communications.

To read the full RAC response to Professor Townsend, see http://www.rac.ca/news/canada.htm#RAC%20response

(Thanks to Jim Dean, VE3IQ)

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2 Metre Net Preamble

Good evening, ladies and gentlemen. This is (**insert your call sign**). My name is (**insert your name**) and I'm your controller this evening for the Mississauga Amateur Radio Club 2 metre net.

The net is held every Tuesday night, starting at 8:30 PM with various net controllers on a rotating basis. If you would like to find out more about us or see who the net controllers are for future nets, visit our website at **www.marc.on.ca**. If you wish to contact us, our email address is **ve3mis@rac.ca**.

The purpose of the net is to pass news and views along to members and visitors of the club. It also provides experience to volunteer operators in net and emergency operating procedures.

All check-ins are welcome. We especially invite non-members to join in. Also good evening to our short wave and scanner listeners and to any visitors to the net tonight.

The Mississauga Amateur Radio Club meets on the 2nd and 4th Thursday of each month, at the St Thomas A Becket Church Hall, 3535 South Common Court, in Mississauga. South Common Court is located one block west of Erin Mills Parkway on the south side of Burnhamthorpe Road just west of South Common Mall. Meetings convene at 7:30PM.

Our meetings are open to guests and visitors to Mississauga. We are an active and progressive club, fostering learning and comradeship amongst fellow amateurs.

Again, your controller for tonight's net is (**insert your name**), and my call is (**insert your call sign**). When checking in , please announce your call sign using phonetics, followed by your first name.

Before we commence general check-ins, is there any emergency or priority traffic only? Come now please.....

Are there any check-ins with a time line? (That means if you're in a rush or your hand-held battery is about to expire.)
Come now please....

Are there any mobile check-ins. Come now please....

Are there any general check-ins for the Mississauga Amateur Radio Club Tuesday night net? Come now please with your call sign and name....

(last call)

I'll take one more listen for check-ins to the Mississauga Amateur Radio Club, Tuesday night net. Come now please....

(*at the end of net)*

Thank you for joining us tonight. If you have any comments, thoughts or suggestions you can contact us via email at **ve3mis@rac.ca**. If you want to learn more about our club, visit our website at **www.marc.on.ca**. This is (**insert your call sign**), closing the net and returning the repeater to normal use. Thank-you all, for your participation.
Good Night and 73.

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75 Metre Net Preamble

Good evening everybody, this is (**insert your call sign**), name (**insert your name**) and I'm your net controller for the Mississauga Amateur Radio Club weekly Sunday night 75 meter net. The net commences every Sunday night at 8:30 pm. This net is open to all whether or not you are a member of the Mississauga Amateur Radio Club.

If you are a member of the Mississauga Amateur Radio Club and you desire a Worked all Mississauga Club Certificate, you may exchange postal codes with other members checking in.

If you desire to learn more about the Mississauga Amateur radio Club, you are invited to examine the Club website at:

Whiskey whiskey whiskey dot mike alpha romeo charlie dot oscar november dot charlie alpha.

Sign off

Thank you for checking into the Mississauga Amateur Radio Club net. Once again our website is:
Whiskey whiskey whiskey dot mike alpha romeo charlie dot oscar november dot charlie alpha

Our email address is *Victor Echo 3 Mike India Sierra@Romeo Alpha Charlie dot Charlie Alpha*

The net is now closed and I am returning the frequency for regular use.

This is (**insert your call sign**) saying 73 and good night.

Commentary (continued from page 2)

disposal and we can get on the air quickly, we are called upon in times of emergency to set up communications so that the various emergency services can talk to one another until governments can get their acts together. Therein lies our strength.

All the fancy communication setups that are in place are quite vulnerable at times, such as ice storms, major power blackouts, earthquakes and acts of terrorism like 9-11. The amateur community comes together to lend a hand. ARES exists for this purpose. Our club is building up its ARES group. Many clubs have ARES groups.

It also needs to be pointed out that the Amateur Radio Service exists at the behest of the federal government because we can and do provide emergency communications in times of crises not because we like to talk on the radio for a hobby. Spectrum is too valuable a commodity for such mundane use! This is the bona fide reason for our existence. We are in the City of Mississauga's and Peel Region's emergency plan. It is incumbent on us to participate when called upon.

So to sum it all up, even though fancy communication linkups exist, sometimes in times of emergency, amateur radio is the first on the scene, able to fill the gap between the beginning of the emergency to such time as the officials can get their act together. Rather a sobering thought when one considers the consequences of what happened on September 9, 2001 in New York City when the communication systems crashed after the terrorist attack.

Happy New Year to all, and as Robin so eloquently pointed out, the Mississauga Amateur Radio Club is going through exciting times. For the full Toronto Star story see:

http:// www.thestar.com/NASApp/cs/ContentServer?pagename=thestar/Layout/Article_Type1&call_pageid=971358637177&c=Article&cid=1073258104386

73 de Tony (VA3QC)

Upcoming Fleamarkets

NPARC 26th Annual Big Event
Niagara Peninsula Amateur Radio Club
February 7, 2004 St. Catharines ON

Burlington Spring Flea Market
Burlington Amateur Radio Club
February 28, 2004, Burlington ON

HAM-EX 2004 Hamfest
The Brampton and Mississauga Amateur Radio Clubs
March 20, 2004, Brampton ON

Whitby ARC 2nd Annual Hamfest
Whitby Amateur Radio Club Whitby Ontario
April 17, 2004, Oshawa ON

Skywide ARC Annual Spring Hamfest & Fleamarket
Skywide Amateur Radio Club
May 8, 2004, Etobicoke ON

Central Ontario Fleamarket & Hamfest
Guelph ARC & Kitchener-Waterloo ARC
June 12, 2004, Fergus ON

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MAXIMUM USABLE FREQUENCY
JANUARY 2004

by Jacques d'Avignon, VE3VIA
monitor@rac.ca

The monthly HF propagation forecast chart lists, in MHz, the MUF (Maximum Usable Frequency) for various circuits originating / terminating in Canada. The number in each cell is the frequency that will sustain communications 50% of the time during the forecast period, at a specific time and over that specific circuit.

If you prefer to use the OWF (Optimum Working Frequency) it is in theory, 80% of the MUF for the same period and on the same circuit. Multiply the value in the cell by 0.80 and you have the approximate value of the OWF. But the ALF (Absorption Lowest Frequency) might be higher than the OWF and communications might be impossible to establish on the circuit at that frequency.

If you use a frequency higher than the listed MUF, your chances of establishing and maintaining reliable communications decrease very rapidly. At MUF the chances of establishing a reliable contact or hearing clearly an international broadcaster are only about 50%.

When the ALF is higher than the MUF the table will contain an asterisk (*). This does not mean that communications are impossible but that they are highly improbable, try and use the last listed MUF or below for that specific circuit.

The notation (P) after the name of one of the terminals of a specific circuit denotes that this is a polar circuit and that you should expect poor to unreliable communications on this circuit during geomagnetic disturbances. This notation will not appear in the circuits originating in the "Nunavut" and "West Arctic" listing, as these two terminals are normally located inside the theoretical auroral zone.

For the purpose of establishing these tables, all the circuits are assumed to be fully reciprocal, thus the listed MUF's can be used for transmission / reception from either end of the circuits. This assumption is not totally correct but the differences in frequencies are minimal

The District/NVIS (Near Vertical Incidence Skywave) forecast frequency calculated for the six areas of Canada, can be used for local communications within 300 kilometres of the station. To properly use this propagation mode it is essential that an antenna having a maximum radiation angle between 75 and 90 above the horizon be used, such as a half-wave dipole erected no higher than 1/8 to 1/4 wavelength over the ground. Most of the RF energy radiated by such an antenna and on the listed NVIS frequency will be returned to earth within 300 kilometres of your station.

NVIS propagation mode can be very useful for emergency communications when the regular VHF repeaters are out of commission. For more information on this peculiar and interesting propagation mode and its possible uses see "The NVIS Propagation Mode and the Ham" in the "ARRL Antenna Compendium, volume 5."

UTC >>>	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
EASTERN TO																								
District/NVIS	5	4	4	4	3	3	3	3	3	3	3	3	3	4	6	7	8	8	8	8	8	8	7	7
Atlantic Canada	8	7	6	6	5	5	5	5	5	5	5	5	6	9	12	14	14	15	15	15	14	14	12	10
Central Canada	10	8	6	6	5	5	5	5	5	5	5	5	5	5	7	11	13	14	14	15	15	15	14	12
Pacific Canada	15	12	10	8	8	7	7	7	7	7	7	7	7	7	8	12	16	19	20	21	21	21	21	18
Nunavut	10	9	8	7	7	7	7	7	7	7	7	7	7	8	11	14	16	17	17	18	17	16	14	12
Western Arctic	14	11	10	9	8	8	8	8	8	8	8	8	8	8	9	12	16	18	19	20	21	21	20	17
Eastern USA	8	7	6	5	5	5	4	4	5	5	4	4	4	7	10	11	12	13	13	13	12	12	11	10
Western USA	18	14	11	10	9	8	8	8	8	8	8	8	8	8	10	16	20	22	24	25	24	24	23	21
South America	18	15	14	14	14	14	14	14	13	12	13	13	17	20	24	26	27	27	28	28	27	27	25	22
Western Europe	10	10	9	9	9	9	9	9	10	11	10	10	12	17	22	23	23	21	18	14	12	11	10	10
Eastern Europe (P)	10	10	9	9	9	9	10	11	12	13	12	12	14	18	21	24	22	16	12	11	10	10	10	10
North Africa	12	12	11	11	10	10	10	10	10	10	*	*	12	18	22	23	20	18	16	14	13	13	13	12
South Africa	16	14	12	12	11	10	*	*	*	*	*	*	17	24	27	26	25	24	26	26	25	25	22	19
Middle East (P)	13	13	13	13	12	12	12	12	12	12	12	12	13	18	22	19	17	14	13	13	13	13	13	13
Central Asia (P)	13	12	13	13	13	13	13	13	13	13	14	14	14	14	15	13	12	13	12	12	12	12	13	13
India (P)	12	13	13	13	13	13	13	13	13	13	14	14	13	14	17	16	14	12	12	12	12	12	12	12
Indonesia (P)	19	16	*	*	*	*	*	*	11	11	11	11	11	11	13	18	19	17	15	13	11	13	19	22
Australia	21	17	*	*	*	*	*	*	*	10	10	10	10	10	12	17	21	20	19	17	16	19	21	21
China (P)	14	15	14	12	14	13	13	13	13	13	14	14	14	13	13	13	13	13	13	13	14	14	13	13
Japan	18	15	13	12	12	11	11	11	11	11	11	11	11	11	12	11	11	12	12	12	12	13	19	21
South Pacific	23	19	16	14	12	12	12	12	12	12	12	12	12	12	15	14	14	19	24	25	25	26	26	25

ASAPS for Windows is used to prepare these tables.

monitor@rac.ca

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CLUB CALENDAR FOR 2003-2004

JANUARY

04	Sunday	Sunday Brunch at ?? (note 2)
06	Tuesday	Code Class (note 3)
08	Thursday	General Meeting #08 –
13	Tuesday	Code Class (note 3)
15	Thursday	Public Service/ARES at RC (Cancross)
20	Tuesday	Code Class (note 3)
22	Thursday	General Meeting #09 –
27	Tuesday	Code Class (note 3)

FEBRUARY

01	Sunday	Sunday Brunch at ?? (note 2)
03	Tuesday	Code Class (note 3)
05	Thursday	Executive Meeting #05 at Earle's (VE3XEL)
10	Tuesday	Code Class (note 3)
12	Thursday	General Meeting #10 -
17	Tuesday	Code Class (note 3)
20	Thursday	Public Service/ARES at RC (Cancross)
24	Tuesday	Code Class (note 3)
26	Thursday	General Meeting #11 - Nominations Committee Formed

MARCH

02	Tuesday	Code Class (note 3)
04	Thursday	Executive Meeting #06 at ??
07	Sunday	Sunday Brunch at ?? (note 2)
09	Tuesday	Code Class (note 3)
11	Thursday	General Meeting #12 –
16	Tuesday	Code Class (note 3)
18	Thursday	Public Service/ARES at RC (Cancross)
23	Tuesday	Code Class (note 3)
25	Thursday	General Meeting #13 –
30	Tuesday	Code Class (note 3)

APRIL

01	Thursday	Executive Meeting #07
04	Sunday	Sunday Brunch at ?? (note 2)
08	Thursday	General Meeting #14 – Nomination of Directors
15	Thursday	Public Service/ARES at RC (Cancross)
22	Thursday	General Meeting #15-Annual General Meeting + Elections

MAY

02	Sunday	Sunday brunch at ?? (note 2)
06	Thursday	Executive Meeting #08 at ??-Executive Turnover Meeting
13	Thursday	General Meeting #16-Budget Presentation
20	Thursday	Public Service/ARES at RC (Cancross)
27	Thursday	General Meeting #17-Budget Approval

JUNE

03	Thursday	Executive Meeting #09 at ??
05-06	Sat - Sun	Streetsville Founders Bread & Honey Festival
06	Sunday	Sunday Brunch. 9:00AM at Vic Johnson Arena
10	Thursday	General Meeting #18-
17	Thursday	Public Service/ARES at RC (Cancross)
24	Thursday	General Meeting #19-Season wrap-up Pot Luck Social
26-27	Sat – Sun	ARRL Field Day

JULY

01	Thursday	RAC Canada Day Contest
04	Sunday	Sunday Brunch at ?? (note 2)

NOTES

1. Meetings start 7:30PM at St. Thomas A Becket Church Hall, 3535 South Common Court unless otherwise noted.
2. Brunch is at 9:30AM unless otherwise noted.
3. Classes are from 7:00PM - 9:00PM at Meals On Wheels at 2445 Dunwin Drive

Visit our website for any updates of the calendar

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