



MARC



MISSISSAUGA AMATEUR RADIO CLUB NEWSLETTER

January 13, 2000

Vol. 3-5

EDITORIAL....



It's the year 2000. Yikes, where has my life gone!? The *Wye Tookay Bug* is officially rendered asunder. What are people going to do with all that dried food they bought? There will probably be some good deals out there for generators as well.

I can remember when I was in my teens (no sarcastic remarks are required from anyone) and figuring out that I would be nearly 54 years old when the year 2000 arrived. I couldn't possibly imagine what it would be like to be 54 years old. Geeze, that was O-L-D when I was 16 or so. Yet here it is, the time is nigh. Strangely, it's not so old now.

I look back over the intervening years and marvel at all that has changed: the advances in medical treatment, landing on the moon, jumbo jets, the computer age, the Internet, VCR's, colour Television, the #%\$*& metric system, etc.

But what really amazes me is that I got married, had two beautiful children who are now themselves married and responsible members of the community at large, and that I had an interesting and rewarding career with the nation's public broadcaster and am now retired. Never in my wildest dreams could I have imagined that as a youngster.

For all the changes that have occurred, some don't change all that much, amateur radio being one of them. Yes the equipment is improved and has more features and is more compact. We use SSB instead of AM, but the form of communication has not changed at all. We still speak into a microphone, still send cw with a straight key or variations thereof, or you can get fancy with software, but that's kinda cheating. We still use speakers to hear, and string up antennas, both simple and exotic depending on our resources and properties etc.

With the changing technologies out there, it is difficult to get young people interested in talking over the air with the static and noise that is present most times.

Of course, the '60's were the height of the cold war and it was really interesting listening to Radio Moscow, the BBC and VOA. For me, the static and noise brings back memories from that era. I would tune the shortwave bands and back in the 60's there were a lot of stations on the air. It was challenging to try and snag them. I played with antennas on the rooftop of the building we lived in, much to my mother's chagrin. She would worry that I might fall off or electrocute myself. I never fell off, but I did manage to receive a few good jolts. Probably why I'm the way I am now...got some frazzled gray matter but I digress.

Dad was an amateur when I was very young, but wasn't active during the '60's, but he did have his Heathkit AR-3 and he would play with that. So would I when he wasn't around. I finally absconded with it in later years as he traveled a great deal and was rarely home. I was a happy camper let me tell you.

I have since acquired another AR-3 receiver and I like to play around with it. It is still a good receiver and certainly brings back some fond memories.

I used to listen to AM radio as well. Living in Quebec City, we didn't have an abundance of English stations to listen to, one to be exact, CJQC putting out 1000 Watts if I'm not mistaken. So once it got dark, I would start tuning around for the "good" stations playing good old rock 'n roll. I used to tune in CFCF out of Montreal, WKBW out of Buffalo: "The Hound" was the DJ if I recall correctly, and I would also receive WPTR. There were others, but these are the ones that come quickly to mind. Nothing like hearing Chuck Berry, Bo-Diddley, Elvis, The

Crickets, The Platters, Drifters, Little Richard et al. I still enjoy the music of that era and have it on vinyl.

Cars were cars back then too. Not like the weird looking jellybeans we drive today, but REAL cars: large (2 tons) with big V-8's, lotsa chrome, 2 tone paint jobs, real hardtops (no pillars and the windows went ALL the way down), fins and personalities. But I digress again.

Anyway, back on topic, whatever that was. Amateur radio offers something that the Internet does not. There is nothing like turning on your radio, hearing some Ham from some faraway place calling CQ. You push the PTT switch on your mike and give him a holler. Lo and behold, he hears you! What a thrill!

My very first DX contact was with a fellow named Peter in Uganda 5XTA. He worked very hard to get me as my signal was weak. I will always remember his patience working me. Chatrooms on the Internet just don't cut it when compared to this.

Anyhow the point, if there is one at all, is that it would really be wonderful if somehow we could encourage our youth to become interested in amateur radio. How to go about this is the \$64 question. Our hobby is in danger, the number of new amateurs obtaining their licenses is declining, so in order for the hobby to survive in future years, we will have to change in some form or another. Being in a club and promoting the hobby to the public via special event stations, providing communications on walkathons, helping out at the Santa Claus Parade and being available to provide emergency communications in times of disaster are steps in the right direction. Next time someone asks you to help out, think of what you may be doing for the hobby as a whole and not how much it is putting you out. Let's be positive. Enough of me babbling on.

73 de Tony (VA3AJC)

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HAMEX 2000

Our club has committed to the Peel Club to help out on HAMEX 2000. We need people to come out the evening before to help set-up and we need lots of volunteers on Saturday, March 25, the day of the hamfest.

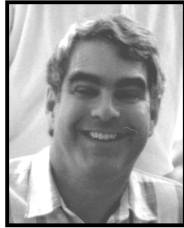
Sunday Brunch

February 6 2000

The next club breakfast will be held on February 6 at 9:30AM. The location is The Golden Griddle Restaurant on Erin Mills Parkway just north of the QEW on the west side off Leanne Boulevard.



From the Gavel...



Happy New Year to everyone reading this! I hope you all had a great holiday, and that Santa Claus paid particular attention to your radio needs. As for myself, I am still sitting in front of my old FT102. Oh well, maybe next year...

As you all know by now, the Y2K problem turned out to be a non-problem in the end. However, we were prepared as usual, thanks to the efforts of Mike VE3MSE, our Emergency Coordinator. Mike organized an informal net at about 7 pm on New Year's Eve, and followed up with a slightly more formal one about midnight. Tony, VE3FTA camped out at City Hall around midnight for a while as well. I wonder if it was because of our efforts that the Y2K bug stayed away??

Some of you may know that Vic Henderson, VE3FOX, of the Peel Club, has been appointed as District Public Service Coordinator for Halton and Peel Regions. Vic will no doubt be chatting to our Public Service Group in the near future.

We are still working with the City regarding improving our emergency preparedness capabilities. We should know more in late February.

Hamex (keep March 25 open!) planning continues. Lorne, VE3CXT, and I have dropped off some flyers at Mississauga electronics parts and computer suppliers. We are hopeful that we will see some of these vendors at Hamex. As noted elsewhere in this issue, we have committed to provide help with set-up on Friday evening, and during the day on Saturday. Please consider volunteering, as the more help we provide the better the Club looks.

Before Christmas, we put together a membership survey and attached it to the December newsletter. Please take the time to fill it out, and bring it back or mail it in. Your views are important to us. We would like to develop the club in the directions you would like it to go, but we need your input!. If you have ideas, please let us know.

We have some interesting speakers coming in the new year, thanks to the efforts of Murray, VE3JMY. Also, we hope to make use of the second meeting of the month to demonstrate and discuss some of the new digital modes, such as PSK31.

I'm looking forward to an exciting year, as we begin the new millennium (and learn to write 2000 after the date!). See you at the meetings...

Michael, VE3TKI

Special Canadian Y2K prefixes: Industry Canada informs Canadian amateurs that the following national special event prefixes are authorized through February 16, 2000.

- VE1 = CG1 VE7 = CG7
VA1 = CF1 VA7 = CF7
VE2 = CG2 VE8 = CG8
VA2 = CF2 VE9 = CG9
VE3 = CG3 VO1 = CH1
VA3 = CF3 VO2 = CH2
VE4 = CG4 VY0 = CI0
VA4 = CF4 VY1 = CI1
VE5 = CG5 VY2 = CI2
VA5 = CF5
VE6 = CG6
VA6 = CF6

*Pls. verify at Rac web site...

Mississauga Amateur Radio Club Directors and Managers

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Website: www.marc.on.ca

Email: ve3mis@rac.ca

Directors

Table with 3 columns: Position, Name, Call Sign. Includes President (Michael Brickell, VE3TKI), 2nd Vice President (Mike Butler, VA3MDB), Secretary (Tony Champion, VA3AJC), 1st Vice President (Lorne Jackson, VE3CXT), Treasurer (Neil Anderson, VA3NAA), Past President (Art Sinclair, VE3SQG).

Managers

Table with 3 columns: Position, Name, Call Sign. Lists various roles like Membership (John Kenzie, VE3WJK), Ed. Asst (Frank Lamb, VE3HTX), Repeater (Tony Allsop, VE3FTA), HF Net (Lorne Jackson, VE3CXT), Club Station (Asim Zaidi, VE3XAP), House (Philimene Barfoot, VA3PIE), Contest Asst 1 (Rick Brown, VE3IMG), Special Events (Mike Sawitzki, VE3MSE), Field Day (Earle Laycock, VE3XEL), Field Day Asst 2 (Asim Zaidi, VE3XAP), Canwarn (Louise Sawitzki, VA3CLC), Webmaster (Art Sinclair, VE3SQG), Education (Tony Allsop, VE3FTA), Newsletter (Tony Champion, VA3AJC), VHF Net (Don Brown, VE3UXC), VHF Tech Net (Jamie Holmes, VE3GXQ), Club Station Asst (Jamie Holmes, VE3GXQ), Contests (Asim Zaidi, VE3XAP), Contests Asst 2 (Bob Strohm, VE3HEE), QSL (Michael Brickell, VE3TKI), Field Day Asst 1 (Neil Anderson, VA3NAA), Programmes (Murray Yewer, VE3JMY), Canwarn Asst (Chris Allsop, VE3SKH), Historian/Photographer (Mark Barfoot, VA3QMX).

Public Service Events/ARES

Table with 3 columns: Position, Name, Call Sign. Includes Emerg Coord (Mike Sawitzki, VE3MSE), Emerg Asst 1 (Art Sinclair, VE3SQG), Emerg Asst 2 (Jamie Holmes, VE3GXQ).

Audit Committee

Table with 3 columns: Position, Name, Call Sign. Includes Auditor 1 (Mike Sawitzki, VE3MSE), Auditor 2 (Bill Reid, VE3VBC).



Minutes of General Meeting #5

Date: November 11, 1999
Location: Scout Hall
80 King Street West, Mississauga

Officers Present:

Michael Brickell	VE3TKI	President
Lorne Jackson	VE3CXT	1st Vice-president
Mike Butler	VA3MDB	2 nd Vice President
Neil Anderson	VA3NAA	Treasurer
Tony Champion	VA3AJC	Secretary

Attendance:

- 35 including 1 visitor (Jerry)

Opening Remarks by Michael (VE3TKI)

- Opened the meeting at 7:30PM. He welcomed all visitors and introduced the executive.
- Talked about the future UHF repeater to be located at the LPGI:
 - a. We require a "License of Operation" before we can operate at this site
 1. Art Sinclair (VE3SQG) made a motion to accept the agreement in principle with LPGI.
 2. John Duffy (VE3DRZ) seconded the motion.
 3. The motion was unanimously carried by a show of hands of those present. There were no dissenters and no abstentions.
 - b. Location of repeater will be at the very top of the power house
 - c. OPGI will install an 8 bay antenna, power (117V), and 1 outgoing telephone line
 - d. There was a concern about liability, there is a 30 day limit to remove equipment if agreement is terminated.
 - e. The club has, through the city, \$2 Million of Third Party Liability Insurance and \$1 Million Third Party Property Damages insurance.
 - f. Access to the site will require

"advance notice"

- g. The existing UHF repeater presently located with our VHF one will be relocated to LPGI. The existing UHF frequency will be used with the VE3MIS callsign.
 - h. The term of the agreement will be 10 years, renewable.
- The club has formally approached LPGI for funding.

Public Service report (VE3MSE)

- The club has received a letter from Judy Simmons thanking the club for their assistance in the "Miles for Mylin" walkathon.
- The Goblin Patrol was successful and the police were pleased with our participation.
- Santa Claus Parade is on November 14 and we need more volunteers to come out and help

50/50 Draw

- Addendum to the minutes of general meeting of October 28/99. Jamie (VE3GXQ) won the 50/50 draw and donated his share of the winnings back to the club (\$23.00)
- John (VE3GTT) won \$21.50 this week.

Speaker

- Dave Pearce (VA3DVP) gave an interesting talk on Y2K preparedness telling us what he has done and what we can do in case there are problems over the transition from 1999 to 2000.

Adjournment

The meeting was adjourned at 10:10PM

Prepared by: A.J. Champion (VA3AJC)
Secretary.

Date: November 20/99

General Meeting #7

Please note that there were no minutes taken at the December 9/99 meeting as it was the pot luck Christmas get together.

A.J. Champion (VA3AJC)
Secretary MARC

Future Fleamarkets

NPARC BIG EVENT 22

Niagara Peninsula Amateur Radio Club
Saturday, February 5, 2000
St. Catharines ON

BARC 3rd Annual Spring Fleamarket

Burlington ARC Inc
Saturday, February 26, 2000
Burlington On

Hamex 2000

The Peel Amateur Radio Club
Saturday, March 25, 2000.
Brampton ON



RAC News

Date: January 2, 2000

Subject: **New HF Band Planning Committee**

RAC establishes new HF Band Planning Committee

The RAC Board of Directors has appointed a new committee to advise on revisions and improvements to RAC band plans covering the spectrum from 1.8. to 29 MHz. The new committee will be chaired by Bob Nash VE3KZ.

Among other things, the committee will consider the proposed restructuring of the HF Amateur bands in the USA as proposed by the ARRL and by the FCC and offer advice and recommendations for changes to the Canadian plans if appropriate. (The current RAC HF bandplan was prepared by a committee chaired by Pat Doherty VA3PD, and was approved in 1995).

The committee will also review the changes to the 40 metre band proposed by the IARU, and recommend a Canadian position on the changes.

And finally, the committee has also been asked to consider possible new HF amateur bands between 1.8 and 30 MHz and recommend priorities for RAC in dealings with the Canadian Government and the ITU if appropriate.

On his committee, Bob will have the following representatives from across Canada.

Augustus Samuelson	V01MP	gussam@voyager.newcomm.net
John Connor	VE3TG	ve3tg@rac.ca
Garry Hammond	VE3XN	ghammond@gate-way.net
Robert Kaufmann	VE4GV	rkaufman@magic.mb.ca
Donald Moman	VE6JY	ve6jy@freenet.edmonton.ab.ca
Timothy Ellam	VE6SH	ve6sh@rac.ca

All Canadian amateurs can have a say in the band planning process.

If you wish to have an input, please send your comments and suggestions to Bob Nash at rtnash@netcom.ca or contact the committee member nearest to you.

The committee will report to the President through Vice President International Affairs, Ken Pulfer VE3PU.

Amateur Restructuring is Here: Three License Classes, One Code Speed

NEWINGTON, CT, Dec 30, 1999--Amateur Radio will get a new look in the new millennium. The FCC today issued its long-awaited Report and Order in the 1998 Biennial Regulatory Review of Part 97--more commonly known as "license restructuring." The bottom line is that starting April 15, 2000, there will be three license classes--Technician, General, and Amateur Extra--and a single Morse code requirement--5 WPM.

"We believe that an individual's ability to demonstrate increased Morse code proficiency is not necessarily indicative of that individual's ability to contribute to the advancement of the radio art," the FCC said.

Besides drastically streamlining the Amateur Radio licensing process, the FCC said its actions would "eliminate unnecessary requirements that may discourage or limit individuals from becoming trained operators, technicians, and electronic experts."

Although no new Novice and Advanced licenses will be issued after the effective date of the Report and Order, the FCC does not plan to automatically upgrade any existing license privileges. The ARRL had proposed a one-time across-the-board upgrading of current Novice and Tech Plus licensees to General class, but the FCC declined to adopt the idea. This means that current licensees will retain their current operating privileges, including access to various modes and subbands, and will be able to renew their licenses indefinitely.

Starting April 15, 2000, individuals who qualified for the Technician class license prior to March 21, 1987, will be able to upgrade to General class by providing documentary proof to a Volunteer Examiner Coordinator, paying an application fee, and completing FCC Form 605.

The FCC's decision not to automatically upgrade Novice and Tech Plus licensees means the current Novice/Tech Plus HF subbands will remain and not be "refarmed" to higher class licensees as the ARRL had proposed. The FCC said it did not reform these subbands because there was "no consensus" within the amateur community as to what to do with them.

As it had proposed earlier, the FCC decided to lump Technician and Tech Plus licensees into a single licensee database, all designated as "Technician" licensees. Those who can document having passed the 5 WPM Morse code examination will continue to have the current Tech Plus HF privileges. "If documentation is needed to verify whether a licensee has passed a telegraphy examination, we may request the documentation from that licensee or the VECs," the FCC said.

In addition to reducing the number of license classes from six to three and eliminating the 20 and 13 WPM code tests, the FCC also will reduce the number of written examination elements from five to three, authorize Advanced Class hams to prepare and administer General class examinations, and eliminate Radio Amateur Civil Emergency Service (RACES) station licenses. RACES will remain, however. "After review of

the record, we conclude that we should eliminate RACES station licenses because RACES station licenses are unnecessary for amateur stations and amateur service licenses to provide emergency communications," the FCC said.

Under the new licensing scheme, there will be four examination elements. Element 1 will be the 5 WPM Morse code exam. Element 2 will be a 35-question written test to obtain a Technician license; Element 3 will be a 35-question written test to obtain a General license, and Element 4 will be a 50-question written test for the Amateur Extra license. The FCC has left it in the hands of the National Conference of VECs Question Pool Committee to determine the specific mix and makeup of written examination questions.

Current Amateur Radio study materials remain valid at least until the new rules become effective in April.

The FCC's new licensing plan means someone will be able to become a ham by passing a single 35-question written examination. The plan also simplifies and shortens the upgrade path from the ground floor through Amateur Extra--especially since amateurs will only have to pass one Morse code test.

Elimination of the 13 and 20 WPM Morse requirements also means an end to physician certification waivers for applicants claiming an inability to pass the Morse code examination due to physical handicap.

The effective date provides a window of upgrade opportunity for current Advanced licensees. Between now and April 15, current Advanced holders may take the existing Element 4B, a 40-question test, giving them credit for having passed the current Extra written examination. Likewise, holders of a Certificate of Successful Completion of Examination (CSCCE) for Elements 3B or 4B dated on or after April 17, 1999, will be able to qualify for General or Amateur Extra respectively when the new rules go into effect on April 15, 2000.

The FCC disagreed with the League's suggestion that it undertake a restructuring of operating privileges along with licensing restructuring.

"We believe that in light of ongoing discussions concerning implementation of new and more modern communications technologies within the amateur service community, we should accord the amateur service community an opportunity to complete such discussions and possibly reach a consensus regarding implementation of new technologies before we undertake a comprehensive restructuring of the amateur service operating privileges and frequencies," the FCC said in its Report and Order.

In its amendments to Part 97, the FCC's Report and Order refers to a "Club Station Call Sign Administrator," something that does not exist under the current rules and which was not explained in the R&O itself. An FCC spokesperson said the Commission plans to issue a Public Notice soon to explain the program and to solicit qualified entities to serve as call sign administrators for club station applications.

Canada and USA sign agreement on 220-222 MHz band

On December 23rd 1999, RAC was informed by Industry Canada officials that at long last, an agreement has been signed between Canada and the US on the use of the 220 to 222 MHz band along the Canada /US border corridor. The agreement will be of particular interest for the larger border cities such as Toronto, Windsor and Vancouver.

As most Canadian amateurs know, our 220 MHz band extends from 220 to 225 MHz. In the USA, the amateur band extends only from 222 to 225 MHz, with the 220 to 222 portion being allocated to Fixed and Mobile services. The 220 MHz band is the only amateur band between 148 and 24,000 MHz where we in Canada have a primary allocation.

For the past 5 years, Canada and the US have been negotiating the details of how Canadian Amateurs and US Fixed and Mobile services can share the 220 to 222 segment in areas close to the border, where there is potential for interference. RAC has of course been consulted to ensure that our interests were taken into account.

The new agreement will allocate this segment to Canadian amateurs on a primary basis in certain areas of the country, and on a secondary basis in others, based on population density, and band usage. There will be some constraints on antenna heights and on transmitter power, when a station is located near the border.

Full details will be published soon. The RAC VHF/UHF band planning committee chaired by Graham Ide, VE3BYT will be assessing the impact on Canadian amateurs and providing advice and suggestions for making best use of the band.



Simple Hints for CW Operations

By Hector NP4FW #2531

I have a friend who hates eating spinach and there is no one in this world that will make him eat it. If he does, he will do it just for the respect paid to a dinner invitation otherwise, he will not go for it. My friend is quite aware of the nutritional facts of "Spinach" and he also knows that even Popeye the Sailor takes that stuff for his healthy muscles. No matter what, my good old friend just can't eat that herb and I must abide by his wish.

For some people, Morse Code is just like the Spinach to my friend. They just can't stand it for long. I also have a few friends that will die on a different mode rather than going for the code. So far so good.

I also have lots of friends that have their individual concerns but are willing to try and those with much more expertise have had no problems at all.

For them and for the people out there that likes CW no matter what, for those out there that are willing to try some keying once in a while, here are some basic tips to enjoy the code.

- #1 Keep your key in good shape. Get rid of excessive dust using a small brush. A clean gear will give a good response.
- #2 If you use a straight key, keep contacts clean. If you use an electronic key; disconnect batteries if you are not using your key. Sometimes we forget to take batteries out and they just melt down inside the combo cage damaging the key from the inside.
- #3 If you are among the ones that by luck or inspiration of our beloved Samuel B. Morse has the ability to keep a memory track on everything you are being sent; good for you. However, if you are like myself, among the ones that writes down on a piece of paper your QSOs, do it neatly and write carefully. By doing so, you will not miss too much of your QSO.
- #4 Copy as many characters you can and don't ever put your pencil down. Keep on copying as many words you can. At the end, the complete sentence will be there at your finger tips.
- #5 Be considerate with the other party. Send your CW to a level of speed good for both. More than that, send CW at the speed you would like the other party to transmit on to you. If you send fast the other party will respond fast also on the assumption that you are quick minded.
- #6 If you have any difficulty on copying the other party's QSO because of the speed he is using, let him know. He/she will understand and will lower the speed for you. The same thing goes for facts you cannot get. If you missed something, ask again.
- #7 If your skills are not so perfect, if you feel you still have a lot more to improve, go out there and practice every day for some time. My Elmer NP4FE told me once that in order for me to copy, I had to go on the air, the sooner the better and do at least two contacts a day.
- #8 My last advice; CW is like learning another Language. It might not be so easy the first time but you will do it very soon. But, by God's sake, do not use nor copy dots and dashes as we used to do back on the good old days with the Boy Scouts. I have visited the shack of a couple of friends and while waiting for them at their shack, I have seen pieces of paper full with dots and dashes. Shame on them. Morse is a combination of short sounds and long sounds a "dit" is "E" and a "dahh" is a "T".

Ham radio is there for everyone to enjoy as long as you are honest with yourself.

It would be unfair to criticize the other party because he is using a straight key, a bug, paddles or even a keyboard to do CW or a TNC to view CW. All of these items were built with a purpose and as long as they fulfill the desire of every single individual to enjoy the hobby, "blessed the Lord".

A few years ago I met this fellow on a hamfest; he used to be a radioman at a merchant liner. He claimed that he had spent all his life doing CW but now, he felt he needed a break so he was using a TNC for that purpose. An applause for him because he enjoys the hobby and takes fun out of it.

Good luck and 73s

NP4FW-FIST 2531 Hector (Luigi) PereA-Diaz

Reprinted from the July 1999 issue of Fists

Morse, the Man

A fascinating book "Made in America" by the well known author Bill Bryson, is an interesting account of the history of the United States from a cultural and linguistic viewpoint. The following extract is from the chapter entitled: "We're in the Money: The Age of Invention." Bryson was discussing people who profited from others' discoveries and inventions.

But perhaps the greatest historical snub was that meted out to Professor Joseph Henry of Princeton, who in 1831 invented the telegraph. The word itself had been coined thirty-seven years earlier by a Frenchman called Claude Chappe, for a kind of semaphore system employed during the French Revolution, and by 1802 was being used to describe long-distance messages of all types. Henry not only had the idea of transmitting messages as coded electrical impulses via wires, but worked out all the essentials that would make such a system feasible, but for some reason he never bothered to perfect, or more crucially patent, the process.

That fell to a talented, well-connected, but generally unattractive fellow from Charleston, Massachusetts, named Samuel Finley Breese Morse. Morse - Finley to family and friends - would have been a man of distinction even if he had never perfected the telegraph. The scion of a leading New England clan (his grandfather had been president of Princeton), he was an accomplished artist, a member of Britain's Royal Academy, a professor of fine arts at New York University, a dedicated dabbler in the creative sciences and a would-be politician of distinctly revolutionary bent (he ran twice for mayor of New York on a violently anti-Catholic ticket and believed, among other things, that slavery was not just a good thing but divinely inspired.) His consuming passion, however, was the idea of transmitting messages along wires, to the extent that he abandoned his career and spent five desperately impoverished years perfecting the telegraph and lobbying Congress for funding. Finally, in 1842, Congress - proving that it is seldom more than half smart - appropriated \$30,000 for Morse's experiments and \$30,000 to be spent on the equally exciting new science of mesmerism

With his share of the funds, Morse strung a wire between Washington and Baltimore and on 11 May 1844 sent the first telegraphic message (it would not be called a telegram for another twelve years.) Every schoolchild knows that this first message was "What hath God wrought?". In fact it was not. The first message was "Everything worked well". The more famous and ringing words, chosen not by Morse but the daughter of the Commissioner of Patents, came at a later public demonstration. Morse's only real invention was the simple code that bears his name.** Much of the rest was utterly beyond him. To build a working telegraph, Morse not only stole from Henry's original papers, but when stuck would call on the eminent scientist for guidance. For years, Henry encouraged and assisted his efforts. Yet later, when Morse had grown immensely famous and rich, he refused to acknowledge even the slightest degree of debt to his mentor.

*** It is a myth, incidentally, that SOS stands for "save our ship" or "save our souls". It stands for nothing. It was chosen as a distress signal at an international conference in 1906 not because it had any meaning but because its nine keystrokes (three dots, three dashes, three dots) were simple to transmit. (Carver "A History of English in its Own Words" p. 245).*

Throughout his career Morse was the lucky benefactor of men more generous and gifted than he. In Paris he persuaded Louis Daguerre to show him how his newly invented photographic process worked. He then took it home with him to America and handsomely supplemented his fortune by making pictures and selling them, (becoming in the process the first to photograph a living person). On the same trip he actually stole a magnet crucial to long-distance telegraphy invented by Louis Breguet, and took it home to study at leisure.

It is almost impossible to conceive at this remove how the telegraph astonished and captivated the world. That news from remote places could be conveyed instantly to locations hundreds of miles away was as miraculous to Americans as it would be today if someone announced a way to teleport humans between continents. It was too miraculous for words. Within just four years of Morse's first public demonstration, America had five thousand miles of telegraph wire and Morse was widely regarded as the greatest man of his age.

Reprinted from the September/October 1999 issue of Fists



OPTIMUM WORKING FREQUENCY
JANUARY 2000

The monthly HF propagation forecast chart lists, in MHz, the OWF (Optimum Working Frequency) for various circuits originating/terminating in Canada.

The OWF is, in theory, 80% of the MUF (Maximum Usable Frequency) for the same period and on the same circuit.

If you use a frequency higher than the listed OWF but less than the MUF, your chances of establishing and maintaining reliable communications decrease very rapidly.

When the ALF (Absorption Lowest Frequency) is higher than the OWF the table will contain a 0 in that specific hourly cell.

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, theoretical auroral zone.

For the purpose of establishing these tables, all the circuits are assumed to be reciprocal, thus the listed OWF's can be used for transmission / reception from either end of the circuits.

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.

NVIS propagation mode can be very useful for emergency communications when the regular VHF repeaters are out of commission.

NOTE: The OWF chart is updated on or near the 15th of the preceding month.

Table with 24 columns (UTC 00-23) and 24 rows (Eastern to South Pacific) showing frequency values in MHz.

ASAPS for Windows is used to prepare these tables.

Prepared by: Jacques d'Avignon, VE3VIA

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Up-coming On Air Events

- 15 LZ Open Contest, CW
15-16 Hunting Lions in the Air Contest
15-16 North American QSO Party, SSB
15-16 MI QRP Club CW Contest

- 22-23 BARTG RTTY Sprint
22-24 ARRL January VHF Sweepstakes



THE Y2K TEST

By Dave Pearce (VA3DVP)

Ed Note: This is, in essence, a hard copy of the talk that Dave gave to the club back in November.

It is one second past midnight the morning of 2000, January 01. A power failure occurs due to Y2K problems with your Hydro. What would you do?

I want to share with you the Y2K TEST that I did to prepare for a Y2K problem on 2000, January 01.

My plan was to power off the house at midnight on a Friday night to simulate the condition that may occur on midnight New Years Eve, 1999, December 31 which also is a Friday night. The weekend I chose started Friday, February 20.

We have three children at home and one away at college so that leaves five in the house. I talked with the family telling them that I would be doing this next weekend. To prepare for it, I watched the TVO program, Studio 2, which had a 40 minute program on the issue. George Hartwell, a friend of mine, (he has a cottage which I rent each summer) was on the program. George was invited on the program since he organized a community Y2K Preparedness Group in the Toronto West end. The program talked about being ready for Y2K. George raised the question, "What steps are being taken by banks, Hydro, the airlines, the business community to get ready for Y2K? What should individual families do to prepare? What if there was a power failure? Are you going to get your money out of banking machines? Is your bank account going to be correct? Are your computers going to work with the proper date?" Yes, these are valid questions.

The Y2K expert Peter de Jager was on the program. He stated, "There will be some Y2K problems occurring. One extreme is that things will fail all over the place and there will be a power failure for a month similar to the ice storm in Eastern Canada last year. The best case is that things will run smoothly with just minor glitches. It is my opinion that the results will be somewhere in middle which I call mixed chaos."

A second expert was taped on the show, Richard Worzel mentioned that some of these minor glitches maybe similar to setting your clocks ahead of time in the spring or the fall. He stated, "When you change your clocks, do you remember them all? No! I usually miss one or two. I fix them when I notice them like the one in the basement and the one in the car. The Y2K problem on January the 1st maybe as simple as that."

A vice president of the Royal Bank, Rich Cochrane, in charge of Y2K watched the TVO video and commented, "The tape was informative. I think the message, 'Be aware, take some precautions but don't go overboard' is the right one."

FRIDAY MIDNIGHT

Early Friday evening, February 20th, I got the 5 gallon water jug and filled it with water. That Friday evening, my children went to young peoples at the local church. When they came back, the lights were still on. They whispered to my wife, "Is daddy going to power off the house? Is he going to forget?" My wife didn't say anything because I had not discussed the matter since a week previously.

At midnight, I walked downstairs to the basement and turned off the main switch of the house. My oldest daughter was playing on the computer, my wife was watching TV in the living room, and my two younger children were on the 2nd floor going to bed.

When the lights went off, the first thing I did was to grab the flashlight on the wall at the base of the stairs. The light was dim because the batteries were weak. (My wife and I had not known that our children had been using the flashlights to read after we had gone to bed and that is why

the batteries were drained.) The dim flashlight helped my daughter and I to climb the stairs. We came in the living room to find the emergency light on. We used the emergency light to find fresh batteries in the bedroom upstairs. We then went to the kitchen and opened the new kerosene lamps. We opened the new kerosene cover and realized that we needed a funnel to pour the kerosene. Now, we looked around the house trying to find a funnel. My wife found a funnel in the miscellaneous kitchen drawer. Finally we poured the kerosene in the lamps. The next step was to light them. Where are the matches? My wife scrounged around the drawer where she had the birthday candles and found the matches. Lighting the first kerosene lamp in the kitchen caused smoke to billow all over the house. The kerosene smell was very strong. The next two lamps were lit outside. The last time I lit a kerosene lamp was some 30 years ago when I was on the farm. I should have remembered.

On the farm, we had a propane system, which ran the furnace and stove so that I was familiar with propane. Also, we used kerosene lamps to go around the yard. With that knowledge, I decided to use a kerosene lamp to go outside on that dark windy winters night to get the propane stove, propane light, propane tank and propane hoses out of the shed. We took the propane equipment to the kitchen. I had to replace the old mantel on the propane light. The propane light was lit using matches. Now we had a propane light and stove working in the kitchen.

The next step was to get heat to the basement. I had a kerosene space heater in the shed. I used the kerosene lamp to see my way outside to pick up the kerosene heater. I took the heater downstairs to the basement, in the laundry room. This is where the water pipes are in the house. I put two new batteries in the battery holder of the heater. Then the heater was lit using the battery powered ignition switch. There were no smoking problems as the heater burned efficiently.

This whole exercise was completed by 1AM. It was time to retire.

SATURDAY

Saturday morning we all slept in until 10:00. When we got up, the house was cold. I checked the temperature and it was around 60 F or 15 C. Thus, we dressed warmly putting on an extra layer of clothes. Down in the basement, the temperature was around 65 F or 18 C. During the night, the Toronto temperature was 24 F or -4 C.

I reminded everyone that we were to use water only from the water container for cooking and drinking. We were to pretend that the water from the taps was no good. We could use the toilet but that is all. At the cottage, we had a rule to only flush the toilet when we did number 2. We would use this rule here as if we were short of water.

For breakfast, we cooked eggs and bacon on the griddle. As we cooked breakfast, the kitchen warmed up. One thing we learned about the two burner stove is that the griddle took up both burners. Getting out the one burner stove from the shed to heat up the water was necessary. The kids had to learn that you toasted only one side of the bread with the toaster. If you toasted both sides, the bread became totally dried out and hard.

I sat down with my wife and assessed items that we could use to make it more comfortable.

What was missing in the night was a night light in the bedroom hallway. A propane light was needed in the living room. We also needed a fresh supply of batteries.

My oldest daughter left the house during the day to visit her friends. For lunch, we had grilled cheese sandwiches. My younger daughter went to a birthday party. Now there was only the three of us including my younger son. Then, my wife and I went to Canadian Tire to purchase the items listed above.



This left my 15 year old son by himself. He was fascinated with the condition of the house being all dark. Unknown to us, he went down to the electrical box in the basement and turned on and off the master switch several times. He was excited to see everything going off and on just to see if he could do it.

In the evening we installed the battery powered fluorescent light in the bedroom hallway. The switch was left in the "night light" position. We told the kids to switch the light to the "low" position in the bathroom. The last one going to bed was to put the "night light" switch out.

As to the children's homework, we installed the portable table in the middle of the living room. The propane light was placed in front of the table so that our children could do their homework on the table. Both my wife and I read books in the living room.

SUNDAY

We woke up and found the house colder than the night before. The kerosene heater in the basement ran out of kerosene during the night. The house temperature was 55 F or 12 C. The kerosene container was refilled. An hour later the temperature was up to 65 F or 18 C.

For breakfast, we had cereal and toasted bagels. The family went to church for the morning arriving back home for lunch. Lunch consisted of a meal of canned goods: ham, corn, macaroni and cheese.

Sunday afternoon, we turned the power back on. Half an hour later, the temperature was normal, i.e. 70 F or 21 C.

At the end of the test, we put the small camping goods in a storage bench in the living room such as pots, pans, coffeepot, batteries and kerosene lamps. The large camping equipment was stored in the shed such as propane tanks, stoves, lights, heaters, kerosene heater and fuel. We stored the water container in the porch.

CONCLUSION

The main thing that I learned from the exercise is that if you do some camping, you can survive in the winter with a power failure for a few days. The preparations that you do for Y2K will also do for any type of power failure emergency. After all, didn't Eastern Canada survive 5 weeks without power as a direct result of the ice storm?

Secondly, take time to take stock of the inventory of camp items that you have around the house, garage and/or shed. Then you can be prepared for emergency power outages and brown outs should they occur.

Thirdly, the children worked much harder on their homework than usual without the temptation of TV and computer games. Even Mom and Dad enjoyed the pleasant, relaxation of sitting in the living room with the family, reading.

Fourthly, we spent \$131.59 the day before the adventure and \$366.22 on the Saturday for a total expenditure of \$497.81. It was worth it because now we have everything in place should anything happen and we have upgraded our camping equipment for better camping days ahead.

Yes! You can experience camping in the city in the "great indoors".

CAMP EQUIPMENT USED FOR THE TEST

I assessed the camp equipment that I had around the house and shed at the start as follows:

- kerosene space heater
- kerosene
- funnel
- propane stoves, 2 burner
- propane stove, 1 burner
- propane tank
- propane light
- propane hoses
- propane space heater
- pots and pan kit

- camp stove toaster
- propane cylinders
- griddle
- flashlights (3) (one for each floor)
- emergency rechargeable flashlight
- 6 volt flashlight (2)
- spare batteries
- am/fm radios
- ham radio
- sleeping bags
- water container (5 gallons)
- portable table

The day before the Y2K TEST, I purchased the following items:

- mantel
- hurricane kerosene lamps (3)
- kerosene (4 litres)
- coffee pot

The following is a list of the items purchased as a result of the test:

- propane light
- propane tank
- propane tree
- propane regulator hose
- propane regular hose
- Battery operated fluorescent light with night light, low and high options.
- D size batteries (24)
- 9 volt batteries (6)
- C size batteries (8)
- AA batteries (24)

RESULTS

- Emergency light worked like a charm. It was actually the brightest flashlight. It came on as soon as the power went off.
- Water used up: 2.5 gallons for a family of 5.
- Fridge: The freezer section of the fridge was barely above freezing. The ice cream was solid but almost runny. It was eaten quickly at 1 3/4 days. It was freezing outdoors therefore we put the ice cream in the porch exposing it to the freezing temperatures. Milk was moved to the freezer on Saturday to keep it cooler.
- Fridge : The regular section of the fridge was ok after 1 3/4 days. Some vegetables were stored in the porch.
- Kerosene used: 1 gallon for each day. The kerosene container lasted about 30 hours.
- Remember to check the level of the kerosene before going to bed. Thus it will not go out during the night.
- Living room temperature: 55 to 65 F degrees (12 C to 18 C) from coldest to warmest.
- Coldest: 55 degrees F (12 C) at night when the kerosene heater went off.
- Warmest: 65 degrees (18 C) with the heater on in the basement, the propane stove and light working in the kitchen and the propane heater working in the living room.
- Toronto temperature: 8 to 24 degrees F (-13 to -4 C) from coldest to warmest for the night and day temperatures.
- Propane stove, use a 3 burner stove: two burners for the griddle and one for the coffee pot.
- Kerosene lamps, light the lamps outside the house. Remember to have a funnel.
- Phones: The phone worked without problems.
- Flashlights need checking regularly.
- Matches: Remember where you put them.
- PROPANE WARNING: Be aware of carbon monoxide poisoning especially in a well-insulated house. Leave a window open because propane will use up the oxygen in the house. Get a battery operated carbon monoxide alarm to warn you of any problems



The Death of HF Radio Operation? (Part 2 of 2)

Opinion Column Ed Mitchell, KF7VY

HF Spectrum Filling with Digital Noise Makers As described in Part 1 and Part 2 of "The Great Broadband Internet Hoax" series, two-way cable modems are using the 5 to 40 Mhz bandwidth for upstream cable modem signaling. How bad will this leakage be? I just finished a several mile walk around my neighborhood and found television carrier leakage from the cable system; fortunately, none of it was within the Amateur radio bands. With two-way cable uplinks in the HF band we are likely to have leakage on top of existing Amateur HF allocations.

A problem that may further compound this situation is that home phone networking and cable modems are being routed through existing, internal home wiring systems, the quality of which is often quite poor (in other words, the "twisted pair" may not even be twisted). When my mother-in-law had a cable modem service installed, the cable company had to replace all of the internal wiring to get the system to work properly.

The 2 to 30 Mhz spectrum is rapidly filling with digital noisemakers. Not only do these systems emit RF noise but they are very susceptible to interference from clean and legal Amateur radio transmissions. There is no simple filtering arrangement to eliminate the interference to Amateur radio or from Amateur radio to home networks.

Home network products promise significant challenges to future Amateur HF operation in residential areas. With estimates that 54% of homes will have multiple PCs by 2001, and that networking such systems is a high priority, it is a guarantee that Amateur radio operators will be in close proximity to these noisemakers and HF operation will become a significant source of interference to home networks. Specifically, for the 75% of the U.S. population that lives in urban areas, nearly all in-home phone network users will be in range of Amateur HF transmitters capable of causing interference. Major companies are backing these phone and AC line technologies: AT&T, Intel, Microsoft, Compaq, TCI and many others. Therefore, it is likely that these products will become widely available and used by millions of home computer owners.

Where Does This Leave Amateur Radio? Legally, Amateur radio operators have Federal communications law on their side. Home networking equipment operates under Part 15 rules and must put up with any interference it receives from licensed radio services. Realistically, while the law is on the side of Amateur radio, home network and Internet users vastly outnumber Amateur radio operators. The politics of the situation do not favor Amateur radio operation on the HF bands, as we know it today. Oddly, the ARRL continues to promote an incentive licensing scheme that puts all of the incentives in the HF bands (4 out of 5 the existing license classes are

HF-centric). The ARRL is currently conducting technical tests near 5 MHz for the purpose of potentially requesting additional HF radio spectrum for Amateur Radio, and in the recent license restructuring proposals, the ARRL strongly supported retention of telegraphy proficiency (historically used most extensively at HF) requirement in the Amateur service. While these are admirable goals, the reality of the world we live in today is that HF operation is rapidly becoming impossible for most Americans in a world filled with antenna prohibitions on all new housing and where homes will soon be filled with home networks operating in the 2-30 MHz HF spectrum. Literally, Amateur Radio is potentially off limits to most Americans. Is it any wonder our numbers are decreasing?

Our Amateur Radio "product" is significantly out of step with the real world, which may explain why the ARRL recently reported the loss of 14,000 members, and the overall U.S. Amateur population declined in 1998 by 1,090 individuals. Worse, with nearly 1 in 3 Amateurs over the age of 65[3], and very few Amateurs under the age of 40, these numbers may indicate that the Amateur Radio service is literally dying. A few years back, slow Amateur radio service growth was based on poor HF radio propagation due to the bottom of solar sunspot cycle. With the sunspots now doing their thing, that theory is largely moot.

In my humble opinion, a hobby radio service that is declining in numbers may be in an extremely difficult position to defend its HF operations in the presence of vastly more home computer and digital entertainment consumers.

There is a fair amount of evidence that our Amateur radio "product" needs a wholesale rethinking and a major new vision for the 21st century. I have suggested ideas for new directions in past Opinion columns, and I won't repeat them here. The bottom line is that the ARRL[4] needs to exert a strong vision of a "new" Amateur Radio service for the 21st century, consistent with the new world that we live in. What can you do? You need to communicate your thoughts on these issues directly to your ARRL Director.

- [1] "The Home Phonline Networking Alliance", white paper, <http://www.homepna.org>
- [2] "Tut Systems soars after IPO", <http://www.news.com/News/Item/0,4,31584,00.html>
- [3] February 1997 QST reviewed a survey of ARRL members. This data point is from that survey and may not be indicative of the overall Amateur population.
- [4] In both written (see <http://www.nocode.org/>) and verbal comments made to amateurs, the FCC has stated clearly that it primarily accepts input on Amateur radio matters from the ARRL or the QCWA and generally does not act on specific proposal from other entities.



CLUB CALENDAR FOR 1999-2000

		JANUARY	20	Thursday	Public Service Group
02	Sunday**	Breakfast at Golden Griddle	27	Thursday	Activity Night,
13	Thursday	Douglas Rhodes (VA3DFR)			Nominations for Elected
20	Thursday	Public Service Group			Executive
27	Thursday	Activity Night			
		FEBRUARY			MAY
03	Thursday	Executive Meeting	04	Thursday	Field Day Planning
06	Sunday**	Breakfast at Golden Griddle	07	Sunday**	Breakfast at Golden Griddle
10	Thursday	Pierre Mainville (VA3PM)	11	Thursday	Speaker Night
		RAC Field Services Mgr-	18	Thursday	Public Service Group
		Emergency Planning	19-21	Fri-Sun	2000 Hamvention ®
17	Thursday	Public Service Group	25	Thursday	Annual General Meeting,
24	Thursday	Activity Night			Elections & Reports
		MARCH			JUNE
05	Sunday**	Breakfast at Golden Griddle	01	Thursday	Field Day Planning
09	Thursday	Fred Benedikt-CBC Digital	03-04	Sat & Sun	Bread & Honey Festival
		Audio Broadcasting Update	04	Sunday	Breakfast at 9:00AM, Vic
16	Thursday	Public Service Group			Johnson Arena
23	Thursday	Activity Night	08	Thursday	Speaker Night
25	Saturday	HAMEX 2000	15	Thursday	Executive Changeover
		APRIL	22	Thursday	Pot Luck Social
02	Sunday**	Breakfast at Golden Griddle	24-25	Sat & Sun	ARRL Field Day
06	Thursday	Executive Meeting			JULY
13	Thursday	Speaker Night	01	Saturday	RAC Canada Day Contest

NOTE: ALL MEETINGS START AT 1930 HOURS (7:30PM)

**Events marked with asterisks start at 0930

Visit our website for any updates of the calendar

Item for Sale

Icom R-71A communications receiver c/w manuals
For further information call (905) 507-1389
or call Blago (VA3AMB) AT (905) 238-8111
PRICE: \$500.00 Firm

Item for Sale

Glen Martin Engineering roof-tower, Mod. RT-832
Never used. Still in box
Specs: 8'0" tall c/w 4 legs for roof mounting. Base 32"W
Supports 120lb ant. Max ant area 6 sq ft at 100-mph winds.
Contact Lorne (VE3CXT) at (905) 858-8594
PRICE: \$200.00

Did you know that in :

- 1900 AM radio was invented
- 1901 Marconi received the first wireless telegraph
- 1906 Reginald Fessenden broadcast sound over radio
- 1914 Was the first radio broadcast from an airplane
- 1919 Shortwave radio was developed
- 1924 Zenith introduced the portable radio
- 1932 First car radio was introduced by Blaupunkt