

The

NEWSCASTER

The Official Publication of the Winnipeg Amateur Radio Club http://www.WinnipegARC.org

January 2016

Facebook Winnipeg Amateur Radio Club - VE4BB Twitter @ve4bbwarc

VE4BB

A Summary of the VA4WAN System AKA Hamwan, Hinternet, HSMM

Date: Monday, January 11, 2016

Time: 7:30 PM

Place: Dakota Collegiate - Cafeteria See you there!

661 Dakota Street (At Beliveau Rd.)

Other Important Dates...

Newscaster: Deadline January 27, 2016

WARC: Monthly Meeting Dates...

February 8, 2016 March 14, 2016

WSC: 2nd Thursday of month

Breakfast - Garden City Inn

ARES: Tuesday, January 19, 2016

Sir Wm Stephenson Library 765 Keewatin Street -

Presentation - Emergency Preparedness and the Role of Public

Safety Canada.

Other: - WARC Spring Flea Market

Sunday, April 17, 2016

WARC Executive for 2015-2016...

President David Latour ve4dla@gmail.com Vice-Pres. Rolf Bandlow rolban@mymts.net Treasurer Bob Jacobs rcjacobs@hotmail.ca Gerry Sherman ve4gks@outlook.com Secretary Ross Gibson rossg@prefixservice.com Membership Peter Toth ve4tth@gmail.com **Programs** Director Chris Dickens dickens67@hotmail.com Past President Garth Blumm ve4gwb@gmail.com

Public Information Officer....

Kurt Sargent kurtsargent@gmail.com

From the President's desk ...

Happy New Year to all my fellow amateurs, young, old, new and grizzled, and to all their family and friends!

We are blessed with a kind start to 2016. let is hope it is a sign of things to come. I am looking forward to interesting program talks, new maker classes, newly smoked hams, foxhunts, contests and a fresh crop or two of fleas. I may even get the lending 'library' up and running on our website, with Mark's capable help. Well, maybe, anyway. The tools and equipment are available, regardless. An Anderson PowerPole crimper has been added to the list.

73, David Latour VE4DLA President



WARC President David VE4DLA presenting Adam VE4SN with the OSCAR Award



WARC President David VE4DLA presenting Dick VE4HK with a special ... "Outstanding Service Award"

Our Vision

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

Manitoba Repeater Society Memberships , The History of the VE4MAN Repeater By Dan VE4DRK

Greetings. This is your friendly MRS reminder about your 2016 membership renewal was due January 1, 2016.

Your renewal is VITAL to accomplish the many important services provided through the MRS. Annual memberships are the sole dependable source of funding available to the MRS and our continued existence would be impossible without the support of local amateurs like you!

We trust that as a user of the repeaters and the repeater system you will find great value in supporting the Manitoba Amateur Radio Society. We welcome your thoughts and ideas and encourage you to contact any member of the executive with any concerns you may have.

We would greatly appreciate if all current and prospective members renew their membership for this year and support the group.

Attached is a membership form that can be used, or you can join / renew at the website.

73, Dan ve4drk MRS Membership Chair



The Manitoba Repeater Society operates and maintains a linked repeater system across southern Manitoba, including Winnipeg.

If you are a user of any of these repeaters, we urge you to support the group by becoming a member.

VE4MAN - Starbuck, VE4CDN - Morris,

VE4PLP - Portage, VE4MRS - Bruxelles, VE4GIM - Gimli, VE4MIL - Milner Ridge

VE4EMB - Hadashville, VE4FAL - Falcon Lake,

VE4WPG - Winnipeg, VE4VJ - Winnipeg, VE4WRS

- Autopatch & IRLP link Winnipeg

Links to repeaters in Ontario, Brandon, Selkirk and soon to be the Dauphin & area.

info@mb-repeater-society.ca http://www.mb-repeater-society.ca/ http://www.facebook.com/ManitobaRepeaterSociety

By Ron VE4PL

Sometime back in 1977 I found myself some 800 feet in the air standing on a small platform keeping a CBC TV film cameraman company while he shot the surrounding farmland for the suppertime news. Not being required to record any sound I had time to look around at the beautiful farmland below me stretching as far as the eye could see. In the distance to the northeast Winnipeg, the town of Morris to the southeast, Portage La Prairie to the northwest and Carmen just down Highway 2.

We had come up to this platform in a small caged radio controlled elevator just large enough to hold maybe three skinny people standing face to face. This tower reaching over a thousand feet and located at Springsteen about 5 km west of the west Perimeter Highway was one of the very few in North America with an elevator within its tower legs. What I found very interesting there was a power out let marked 110V AC. With power available and elevator access it occurred to me that here might be the perfect spot for a small self contained 2 meter repeater. With almost no feed line loss or huge heliax cost the antenna could be located right at the repeater.

Could it be done? Could our repeater group obtain the required permission and did our group have the expertise to build and install a repeater on a TV tower some 800 feet in the air subjected to the most extreme temperatures that Manitoba is famous for? Also what about the high powered TV stations on the tower just meters above my head running thousands of watts? Would our equipment cause any interference to the many studio links and audio equipment at the site? Would the white noise generated by these high powered TV transmitters make reception impossible and most of all would the CBC let us do it?

Such a project requires tower climbing, rigging and technical expertise. I knew that the precedent for a ham repeater on a CBC site had been set by the hams at Radio Canada who had installed a 2 meter repeater at the Mount Royal site in Montreal. That would help. One of the most important questions that had to be answered before taking the idea any further was could the repeater operate in such a high RF environment?

CBWT, CBWFT and CKND TV operated at the site with their antennas only meters above the proposed location. An HT was taken up to the location with very promising results. As stations stood by in various locations and reported good copy. VE4BI called in from Winnipeg beach and Jim Watt VE4VJ, always ready to help reported very good copy in Winni-Continued...

With the test very successful on transmit running about 5 watts or less and most importantly good copy on receive it was decided to proceed with the next steps, selling the idea to the membership and to the CBC!

The results of our test was presented to the membership who enthusiastically supported the project with 26 members putting up \$ 100.00 to finance the project. In return they were granted life memberships. A very good deal at the time.

To help our case of putting the repeater on the CBC tower it was decided to solicit support from various government agencies who might have an interest in such an Amateur radio emergency communication system available to them. Meetings were held with EMO, Red Cross, militia and City of Winnipeg, explaining the project and requesting there support by sending a letter to CBC Winnipeg management. We were fortunate to have Mike VE4WZ as the militia commander at the time and he was very enthusiastic about the project. All the agencies sent letters of support endorsing our project. These letters were presented to the CBC regional engineer George Goosen who just happened to hold one of the first Amateur digital licenses in Canada. Without his enthusiastic support VE4MAN would never have gotten off the ground.

Others like Murray Ronald VE4RE put his engineering credentials behind the project and his company, Prairie Mobile Communications, provided test equipment and facilities. We had an occasion to take his 20 thousand dollar spectrum analyzer up the tower. I think dropping it would have put him out of business. His friend Tom Blair, a teacher and part time Prairie tech, was key in making everything work and spent a considerable amount of his time working on the project. Even though he was not keen on going up the tower he spent many hours going up the tower working on the repeater. We affectionately called him "White Knuckles Tom".

Without the mechanical and climbing abilities of Phil Barton VE4QB we would never have received the OK for the enclosure he made that held the repeater on the tower leg supported by the iron arms Phil built to hold it. Phil was a very valuable member of the team as he had built an number of devices and enclosures for equipment on the tower and was very much respected for his mechanical and electronic expertise. Phil was also responsible for hanging the repeater on the tower and also doing the climbing to install the 4 bay Sinclair antenna on the tower just below the repeater. This probably was the only repeater with its antenna mounted below it! Who or how we talked George into letting us install a large 4 bay antenna on the tower I don't recall as the original plan had a quarter wave or

WARC's Basic Short Course 11

Runs ... 5 Saturdays - February 20, 27, March 5, 12 and 19, 2016 from 9am to 4pm

Now Accepting On-Line Registrations!

For your family, friends or co-workers who are interested in joining the hobby of Amateur Radio pass on the web link below...

http://winnipegarc.org/basic course.html

5/8 wave whip mounted on the enclosure.

The frequency of 146.010 / 146.610 was determined by inputting all the frequencies used at the tower into a computer program. It told us this pair would be least likely to be affected. The club chose VE4MAN as the call and at that time it was decided to change the call on the Richardson building repeater to VE4WPG.

After so many years many of those who worked on the project are silent keys or forgotten. Some names and calls that come to mind and who spent many hours out at the tower, or giving assistance in other ways, were Vic Rowe VE4GJ, Jack McIntyre VE4ER, Tom Mills VE4SE, Jim VE4OE, John VE4ADS Norm VE4EO and Ron VE4PL along with those key names and calls I have mentioned.

Today VE4MAN is still at the CBC site but now safely at ground level. Many changes have been made to the tower and to VE4MAN itself. Linking has been added and various changes made inside by the dedicated hams who took over. The repeater has proven to be a valuable asset to the community and stands as a tribute to all those hams who made it work.

You can help support VE4MAN repeater by joining the Manitoba Repeater Society. Visit ...

http://www.mb-repeater-society.ca/

Saturday Mornings Newbie Net By David VE4DAR

The Newbie Net is intended to give students and relatively new hams a chance to learn more about our hobby and to practice their on-air skills.

Newbie Net is held Saturday mornings at 1000 o'clock local time on the VE4WPG repeater. For now, Net Control Operator is David VE4DAR. In time we hope to have trained some neophytes to be net control operators for this and other nets.

So if you got your "ticket" in the past year or so, or are just setting up your first station, check in Saturday mornings. Visitors to the Winnipeg area are also welcome to check in. We'd love to talk with you.

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Winnipeg ARES
Jeff Dovyak VE4MBQ
ve4mbq@rac.ca

Yori Tsuji VE4ACX donated the UHF duplexers being used on VE4ARC UHF repeater THANKS Yori!

Our December General Meeting featured a review of Call-Outs and Equipment and we started exchanging expiring ARES photo-ID cards for the new issue which expires DEC 2020. City of Winnipeg Emergency Preparedness Coordinator Randy Hull dropped in and provided some additional prizes for our break-time draw. Parrish Andrews AF7BA, a visiting amateur from Montana who is temporarily working in Winnipeg, gave us a very interesting and amusing impromptu presentation on how his ARES group acquired a 31 foot travel trailer that had been confiscated by the US government and what US Customs and/or the DEA missed inside.

On SAT 19 DEC we conducted an availability poll by e-mail for twelve hours as our participation in 2015 Global SET. In total 26 Winnipeg ARES members participated:

VE4s MMW, MAB, GWB, EH, JDH, VD, DWG, MWH, HAY, HAZ, JAH, KAZ, AFL, DLA, CDM, GWN, RCA, GIS, ESX, DJS, SIG, TTH and MBQ VA4s MAC, RWT and PNO.

Elsewhere in the WARC newsletter you will find an article about the ARES display at Sir Wm Stephenson Library as well as a separate article on how to register as a volunteer operator for the 2016 Manitoba Marathon.

The next Winnipeg ARES General Meeting is TUE 19 JAN 1900h at Sir Wm Stephenson Library 765 Keewatin Street. Cameron Buchanan, Acting Regional Director Public Safety Canada is scheduled to do a presentation on Emergency Preparedness and the Role of Public Safety Canada.

Manitoba Marathon Jeff Dovyak VE4MBQ ve4mbq@rac.ca

The 2016 Manitoba Marathon will be SUN 19 JUNE. If you volunteered last year we'd like you back for the 38th Marathon. If you are a new Amateur we will pair you up with someone who has done the event previously.

The 2016 Amateur Radio Group Volunteer Briefing is TUE 14 JUNE 1900h Norwood Community Club 87 Walmer (Map 17 C8 in the Sherlock map Book).

Although the briefing starts at 1900h we will begin distribution of race information, documentation, volunteer t-shirts and pre-arranged equipment loans at 1815h. If you register as an Amateur Radio volunteer and cannot attend the 14 JUNE briefing please let us know in advance who will be attending to pick up your briefing materials and volunteer t-shirt. There will be an additional Medical Team briefing on another date for those assigned to the medical side.

It is greatly appreciated if the completed volunteer registration form is returned to me via e-mail (saves lots of re-typing), but it would be preferred if you register on-line thru the terrific form that WARC Web-Master Mark VE4MAB has set up at:

http://winnipegarc.org/marathon.html

For the 2015 Manitoba Marathon we had over eighty Amateur Radio volunteers. The sooner registrations are submitted the sooner we can start working on the 2016 roster. We need a completed new registration form from each Amateur Radio volunteer every year regardless of what Amateur organization they belong to.

ARES Display
Sir William Stephenson Library
765 Keewatin Street

The City of Winnipeg Emergency Program is our primary served agency. The Emergency Program has facilitated our monthly general meetings at Sir William Stephenson Library since 16 SEP 1997. Recently Library Service Assistant Mike Davies borrowed some ARES badges and equipment to feature Winnipeg ARES in the library's display case.



It's really nice to see our 1997 Flood of the Century Appreciation Certificate from the City of Winnipeg and Wing Commanders Commendation from 17 Wing (for Air Force Run) on display instead of tucked away.

The TM-241 transceiver in lower right side was used at VE4EOC during 1997 Flood Operations

S Contact Color day		CWops Mini-CWT Test	1300Z-1400Z, Jan 20
Contest Calendar			1900Z-2000Z, Jan 20
Extracted From		1	d 0300Z-0400Z, Jan 21
http://www.hornucopia.com/contestcal/		NAQCC CW Sprint	0130Z-0330Z, Jan 21
		NCCC RTTY Sprint	0145Z-0215Z, Jan 22
For January		QRP Fox Hunt	0200Z-0330Z, Jan 22
		NCCC Sprint Ladder	0230Z-0300Z, Jan 22
ARS Spartan Sprint	0200Z-0400Z, Jan 5	YL-ISSB QSO Party, CW/SSB	0000Z, Jan 23
QRP Fox Hunt	0200Z-0330Z, Jan 6		to 2359Z, Jan 24
Phone Fray	0230Z-0300Z, Jan 6	Montana QSO Party	0000Z-2400Z, Jan 23
CWops Mini-CWT Test	1300Z-1400Z, Jan 6	BARTG RTTY Sprint	1200Z, Jan 23
	and 1900Z-2000Z, Jan 6	Britis Kill Sprint	to 1200Z, Jan 24
	and 0300Z-0400Z, Jan 7	UK/EI DX Contest, CW	1200Z, Jan 23
UKEICC 80m Contest	2000Z-2100Z, Jan 6	City Eli Dix Contest, C W	to 1200Z, Jan 24
NCCC RTTY Sprint	0145Z-0215Z, Jan 8	WAB 1.8 MHz Phone	1900Z-2300Z, Jan 23
QRP Fox Hunt	0200Z-0330Z, Jan 8	QRP ARCI Fireside SSB Sprint	2000Z-2359Z, Jan 24
NCCC Sprint Ladder	0230Z-0300Z, Jan 8	SKCC Sprint	0000Z-0200Z, Jan 27
Old New Year Contest	0500Z-0900Z, Jan 9	QRP Fox Hunt	0200Z-0330Z, Jan 27
UBA PSK63 Prefix Contest	1200 Z , Jan 9	Phone Fray	0230Z-0300Z, Jan 27
	to 1200Z, Jan 10	CWops Mini-CWT Test	1300Z-1400Z, Jan 27
SKCC Weekend Sprintathor	n 1200Z, Jan 9		d 1900Z-2000Z, Jan 27
	to 2400Z, Jan 10	1	d 0300Z-0400Z, Jan 28
North American QSO Party	, CW 1800Z, Jan 9	UKEICC 80m Contest	2000Z-2100Z, Jan 27
	to 0559Z, Jan 10	NCCC RTTY Sprint	0145Z-0215Z, Jan 29
NRAU-Baltic Contest, SSB	0630Z-0830Z, Jan 10	QRP Fox Hunt	0200Z-0330Z, Jan 29
NRAU-Baltic Contest, CW	0900Z-1100Z, Jan 10	NCCC Sprint Ladder	0230Z-0300Z, Jan 29
DARC 10-Meter Contest	0900Z-1059Z, Jan 10	CQ 160-Meter Contest, CW	2200Z, Jan 29
Midwinter Contest	1000Z-1400Z, Jan 10	SQ 100 Meter Soutest, SW	to 2200Z, Jan 31
NAQCC CW Sprint	0130Z-0330Z, Jan 13	Feld Hell Sprint	0000Z-2359Z, Jan 30
QRP Fox Hunt	0200Z-0330Z, Jan 13	REF Contest, CW	0600Z, Jan 30
Phone Fray	0230Z-0300Z, Jan 13		to 1800Z, Jan 31
CWops Mini-CWT Test	1300Z-1400Z, Jan 13	UBA DX Contest, SSB	1300Z, Jan 30
	and 1900Z-2000Z, Jan 13		to 1300Z, Jan 31
and 0300Z-0400Z, Jan 14		Winter Field Day	1700Z, Jan 30
AWA Linc Cundall Memorial CW Contest			to 1700Z, Jan 31
	2300Z, Jan 13	ARRL January VHF Contest	1900Z, Jan 30
	to 2300Z, Jan 14		to 0359Z, Feb 1
	and 2300Z, Jan 16	Classic Exchange, CW	1400Z, Jan 31
	to 2300Z, Jan 17		to 0800Z, Feb 1
NCCC RTTY Sprint	0145Z-0215Z, Jan 15		and 1400Z, Feb 2
QRP Fox Hunt	0200Z-0330Z, Jan 15		to 0800Z, Feb 3
NCCC Sprint Ladder	0230Z-0300Z, Jan 15		
LZ Open Contest	1800Z-2200Z, Jan 15	Into February	
Hungarian DX Contest	1200Z, Jan 16		
N. J. A. GGO.D.	to 1159Z, Jan 17	RSGB 80m Club Championship.	SSB
North American QSO Party, SSB 1800Z, Jan 16			2000Z-2130Z, Feb 1
to 0559Z, Jan 17		ARS Spartan Sprint	0200Z-0400Z, Feb 2
Feld Hell Sprint		QRP Fox Hunt	0200Z-0330Z, Feb 3
2000Z-2359Z, Jan 16 (EU/AF/MidEast)		Phone Fray	0230Z-0300Z, Feb 3
and 2300Z, Jan 16		CWops Mini-CWT Test	1300Z-1400Z, Feb 3
to 0259Z, Jan 17 (ENA/SA/Carib)		· -	nd 1900Z-2000Z, Feb 3
and 0200Z-0559Z, Jan 17 (WNA/AS/OC)		1	nd 0300Z-0400Z, Feb 4
Run for the Bacon QRP Con		UKEICC 80m Contest	2000Z-2100Z, Feb 3
ODD For Hand	0200Z-0400Z, Jan 18		•
QRP Fox Hunt Phone Fray	0200Z-0330Z, Jan 20		
I none rray	0230Z-0300Z, Jan 20	Good Luck In T	he Contest
I		Good Luck In The Contest	

British Columbia QSO Party Invite! From Rebecca VA7BEC

The BCQP 2016 promotion bandwagon has rolled out, and I would like to invite WARC members to join the party. Some of the other same-day QSO parties may attract more attention at your QTH, but if anyone who happens to be on the air hears VE7/VA7s calling CQ, please give them a shout.

I've attached the official BCQP 2016 announcement. Would you pass the word along, please?

The most important thing to know is the date and time of the 2016 event: UTC 1600z Feb 6 to 0400z Feb 7. That's February 6, 10am to 10pm in Manitoba.

Another important point is that the list of BC districts the multipliers in BCQP has changed. We use federal electoral districts since BC has no counties, and with the last election, the electoral map was redrawn, resulting in not only new district names and thus new three-letter combinations for our purposes but also six more districts within the province. Of note, these six new districts are in the most populous areas of BC, which are also where the majority of BCQP in-province participants are located. This should help stations everywhere build bigger logs with higher mult counts. The updated multiplier list for 2016 can be found at

http://www.orcadxcc.org/bcqp_districts.html

Other info, such as rules, in-depth event analysis/ reports and scores from past years, is available for viewing from links on the BCQP page of the Orca DXCC website at

http://www.orcadxcc.org/bcqp.html

BCQP is fully supported by N1MM and N3FJP logging software. The writers of both programs have updated their respective programs with the newest multiplier list. Other generic programs can be used as well, but they do not necessarily score accurately. There's no need to worry about score, though, as the Contest Committee confirms claimed scores anyway.

As always, top category results are recognized with unique, photo-based certificates and plaques highlighting something scenic or special about BC. The photos are different every year, taken especially for the event, and therefore collectible. If submitted logs are particularly numerous in any given category or certain results merit special recognition, additional certificates are awarded.

In addition, the plaque program has grown and thanks to the continued commitment of sponsors, we are able

to offer plaques in nine categories, a net increase of one. (We lost "Top Rookie".) So going into BCQP 2016, we have sponsored plaques for Top BC Score, Top YL Score, Top Score Canada Outside BC, Top US Score, Most Electoral Districts Contacted, Top DX, Top Mixed Mode, Top Club BC (new) and Top Multi-Op (new).

To see how the 2015 certificate and plaque photos turned out, go to

http://www.orcadxcc.org/bcqp_awards.html

As contest coordinator for BCQP, I am here to help. If you or your club members have questions, I am just an email away.

73, Rebecca VA7BEC Contest Coordinator for BCQP, Orca DXCC

Photos from WARC's Christmas Party By Mark VE4MAB



"Eye Ball" QSOs.

A time to reflect on the past year and look forward to the year ahead.

The Winnipeg Amateur Radio Club Wishes you all the best in 2016!!

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Nostalgia Radio CJNU 93.7

CJNU 93.7 FM is where you'll hear the very best easy listening music that has been popular over the past eight decade!

Listen On-Line at ... http://www.cjnu.ca

Editor's Notes...

Minutes ... for WARC's November and December meetings were unavailable at publication time.

Corrections... In the December 2015 VA4WAN, Hamwan, Hinternet, HSMM article - Les's Call Sign should have read VA4LES and the SSID to connect to should have read "VA4WAN" in uppercase.

Dayton Hamvention...

I have TWO available seats/beds for Dayton Hamvention – http://hamvention.org May 20-22

Leaving Winnipeg early May 18th (overnight in Peoria) – returning May 23rd evening (overnight in Alexandria May 22).

We will split the gas and hotel 4 ways.

Contact Derek, VE4Hay@shaw.ca if interested

Amateur Radios, Antennas, and more are available from your local

Winnipeg ICOM Dealer...

Micro-HighTech Communications Ltd.

NEW LOCATION

2223 Henderson Hwy, East St. Paul, MB (Just south of perimeter hwy)

Ph. (204)-783-1885 Fax (204) 779-7522 Contact George Hill, VE4GDH

Visit their web site..

http://www.microhightech.ca/

VHF Nets

MRS Nets - 147.390 Mhz + Sundays & Thursdays at 9:00 pm

This net covers Winnipeg and the MRS linked repeater system, and includes various announcements on amateur radio activities and Dick's "Swap & Shop"

The Morning Net 147.390 Mhz+ Weekdays at 9:00 am

This net covers Winnipeg and hams of all ages are welcome to join in this net which is always a lot of fim!

Friendly Manitoba IRLP Net Net - 145.450 Mhz - (Node # 1066) On - The Great Lakes Reflector #9611 Wednesdays at 7:00 pm

This net connects you with the world using the internet as the backbone!

Newbie Net 147.390 Mhz+ Saturdays at 10:00 am

This net is intended to give students and neophyte hams a chance to learn more about our hobby and to practice their on-air skills.

D-Star Nets on the VE4WDR System using UHF 444.575+ DV Port B and/or VHF 145.490- DV Port C

TransCanada D-Star Net - Fridays at 8:00 pm On "Free Star" Reflector 21 (XRF021BO) HamNation D-Star Net Wednesday at 9:15pm On "DPlus" Reflector 14 (REF014CL) Ozark Mtn. D-Star Net - Sundays at 8:00 pm On "DPlus" Reflector 1 (REF001CL) More nets http://www.dstarinfo.com/nets.aspx

HF Nets

MB Evening Phone Net - 3747 Khz Daily at 7:00 PM Local Time (CT)

Prairie Traffic Net (CW) 3660 Khz Daily at 01:30 UTC

Aurora # 2 Net 7055 Khz Daily at 02:30 UTC

MB Wx Net 3743 Khz Daily at 8:30 Local Time (CT)

ARES Manitoba Monthly Readiness Net

4TH Sunday of each month 4:00 PM - 4:10 PM -7,075 Khz 4:10 PM - 4:20 PM -3,675 Khz LSB 5,375 USB Manitoba IRLP Nodes - Use reflector 9003 Winnipeg VE4WSC (Node 1809) Pinawa VE4PIN (Node 1981), Flin Flon VE5ROD (Node 1750), DARC Swan River VE4SRR (Node 1700)

The Newscaster is the Official Publication of Winnipeg Amateur Radio Club
Please send your submissions/comments to the editor Mark VE4MAB, - newscaster@WinnipegARC.org