



The **NEWSCASTER**

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

June 2017

Facebook [Winnipeg Amateur Radio Club - VE4BB](#) Twitter [@ve4bbwarc](#)

VE4BB

Field Day Primer & Election Night

Date: Monday, June 12, 2017

Time: 7:30 PM

Place: Dakota Collegiate - Theatre *See You There*
661 Dakota Street (At Beliveau Road)

Other Important Dates:

Newscaster: Deadline August 30, 2017

WARC: Monthly Meeting Dates
September 11, 2017
October 16, 2017 AGM
November 13, 2017

ARES: Tuesday, June 27, 2017
Sir Wm Stephenson Library
765 Keewatin Street -
Debrief of RCAF Run and
Manitoba Marathon
operations

Other: Field Day - June 24 - 25, 2017
54th International Hamfest July 8, 2017

WARC Executive for 2016-2017...

President	Peter Toth	ve4tth@gmail.com
Vice-Pres.	John Romanec	ve4vjr@gmail.com
Treasurer	David Latour	ve4dla@gmail.com
Secretary	Gerry Sherman	ve4gks@outlook.com
Membership	Jessy Blanchette	ve4jbb@gmail.com
Programs	Your Executive	
Director	Gary Goodman	va4rwt@shaw.ca
Director	David Freemantle	
Past President	David Latour	ve4dla@gmail.com
Public Information Officer....		
	Kurt Sargent	kurtsargent@gmail.com

Fallen from the President's Desk ...

Jun 24th and 25th are SPECIAL DAYS

Have those two days set aside, they are very important!
That is the weekend for the annual Field Day!

We will be setting up again at the Scouts Canada site of Camp Amisk, and you will be approached no doubt to help out. When you are, please don't turn and run away, it really is painless, and is in fact a lot of fun. This year Radio Sport Manitoba will be coordinating the activities, and WARC will provide equipment and as many volunteers as are willing.

Like last year, if you wish to camp out for the night, there is power available for RV's, and a specially designed, low odour privy for your comfort as well. Well, it is low odour until it gets used that is. So make sure to step up and lend a hand, even the smallest help goes a long way. It would be great if we had a bunch of people eager to take a turn at operating our new Icom IC-7300 radio. It's state of the art, leading edge technology, compact, and carries a big punch. We will ensure that there is a capable operator to get you started, so you know what buttons to push, and knobs to twiddle. Our aim is to have 2 stations operating on different frequencies, and maybe a third operating RTTY.

Hope to see you all there, and lets hope the weather is good.

NEWS from RAC:

-You can now renew your membership for more than one year if you wish. 2 and 3 year renewals are available. If you're anything like me, I hate the annual exercise, and would take advantage of renewing for 3 years at a time. So if you find that appealing, it's now available.

-The 630 metre band access is moving forward but has not been completed yet. RAC is requesting secondary access to this band but it has not yet been implemented.

Continued....

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

²
-The concept of the Foundation License is receiving positive responses with very little opposition. The current BASIC question bank is creating problems with ambiguous wording and outdated questions and needs to either be re-written or at least updated. Evidently, changing the wording of the question bank is possible but actually changing the curriculum would present a major problem with the regulator. If you encounter any such issues, please write a specific report and submit it to me or to the RAC office.

- This year's RAC Canada Day Contest is a big deal as it is the 150 anniversary and we are allowed to use the special prefixes as well. Hopefully we can all participate. Do you know of someone who would undertake to run the VE4RAC special callsigns? Just to add to the confusion, you might even operate as CG4RAC. Please let me know if you have a candidate for the official callsign and I'll pass it along to RAC.

- The 630 metre band access is moving forward but has not been completed yet. RAC is requesting secondary access to this band but it has not yet been implemented.

See you all at the next general meeting, and 73

Peter Toth

VE4TTH

Spotlight On: Dennis Hurt VE4XE ***By David VE4DAR***

Over coffee one Saturday at the Arches, Dennis Hurt VE4XE told me that he got started by being interested in electricity and electronics. "Two-radio started it all. Later, I was friends with someone who had worked on the DEW line."



"I took a night class at Tec Voc with about 12 other students. John Bell VE4OL was the instructor."
Dennis got his ticket in 1970.

Build or buy? "I bought the transceiver; built some Heathkit receivers. I built an HW-8, which was 3 watts on CW only."

"My first CW DX contact was into Central America using the HW-8 through a makeshift antenna on top of my home."

What have you gotten out of ham radio? "Over the years I've enjoyed meeting people, and learning more about general electronics and radio."

Any particular interest? "Not really; generally I've been interested in everything."

Public service? "Many marathons. In the early years we used to work the snowshoe marathons for the St. John's Cathedral Boys' School in Selkirk.

Advice for new hams? "Hard to answer. Things have changed so much since I started; there's more electronics."

Future for ham radio? "It will survive. Changes will continue. It will become more technical; more use of computers. Digital communication will evolve more."

Thanks for this, Dennis.

Manitoba Repeater Society

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>

MRS Memberships Expire December 31
You Can Renew Today On-Line

The Manitoba Association of Physics Teacher's HAB Flight Day 2017

Langruth, a small town on the west side of Lake Manitoba, was the perfect launch site for MAPT's High Altitude Balloon Flight Day 2017. This is the third year that the Manitoba Association of Physics Teachers has organized HAB flights that launch from rural schools.

Eight teams launched HABs this year and other schools sent observers. Students from the HAB schools work on their payloads all year long. Each payload includes science and engineering experiments as well as a 2-metre band Automatic Packet Reporting System (APRS) transmitter. The HAB's APRS beacon transmits a call sign, as well as latitude, longitude, altitude and airspeed provided by the attached GPS receiver. Most teams include students and teachers who are certified amateur radio operators.

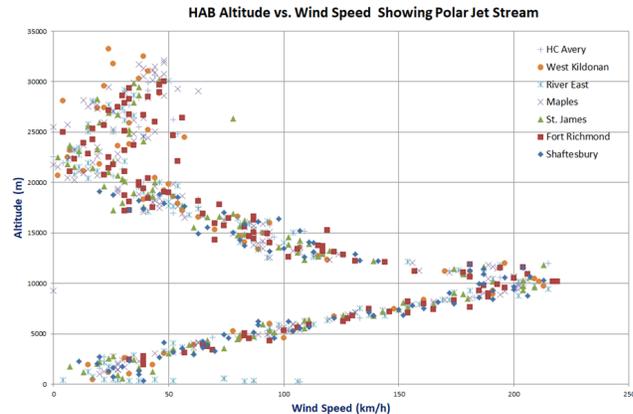
Shaftesbury High School's team (SHARP) launched their HAB using teacher Adrian Deakin's call sign VA4AMD-8 first. All HABs were in the air by noon. The weather was warm and sunny. Surface winds were light. The children of Langruth Elementary School watched with great interest from the edge of the field. Launches are always fun and exciting events for our growing community of young scientists and engineers.



SHARP 7Ir is launched from Langruth Elementary School. St. James Collegiate and Maples Collegiate HABs are ready to go.

After the launches, all the HABs drifted out over Lake Manitoba. The teams quickly cleaned up the launch site and got into their vehicles and proceeded to chase their high flying experiments.

At an altitude of about 10 km, near the city of Portage la Prairie, the HABs entered the polar jet stream. The balloons were now travelling at over 200 km/h. These speeds were faster than our model had predicted and concern was growing among some teams that their payloads could land in the United States.



The Polar Jet Stream May 4th, 2017 is 10 km above Portage la Prairie (HAB data via APRS).

A half hour later, the Shaftesbury High School HAB was at an altitude of almost 20 km (65 000 feet) and about 40 km to the southeast of the chase team. The crew had stopped at a gas station on the outskirts of Portage la Prairie to consider the speed and range problem. The HAB was now above the jet stream but it was much farther south than predicted. The team decided that an engineering experiment called the Iridium Satellite Transceiver Circuit in the Shaftesbury payload should be activated right away. Student Bryce Jenkins sent a command from his cell phone, through the Iridium satellite system, to the SHARP HAB at 12:37 to "cut" the Dacron line between the parachute and the balloon. The Iridium transceiver-Arduino circuit worked perfectly. This turned out to be the right decision. Although the Shaftesbury payload did not reach its desired 30 km altitude in a region of the atmosphere called near space, it did stay in Canada. Otherwise the Shaftesbury payload would have joined another team, landing just across the border in Minnesota. Thank you Tom Tessier (VE4TRT), president of Solara Remote Data Delivery for mentoring students Bryce Jenkins (VA4VBC) and Matthew Hewlett (VE4MRH) on this project! Tom and MAPT will encourage the guys to develop the device further.

The SHARP payload, free of the balloon, descended to Earth hanging from its parachute. It landed within a few hundred metres of a farmhouse three miles north-east of Plum Coulee, Manitoba. The farmer who owned the land, discovered the payload. Mr. Nickel happily gave it to students Bowen LeMay and Bryce Jenkins. A good discussion about the HABs and the technology in the payload was had with the Nickel family. Bryce had earlier decided to not trigger the cold smoke dispenser in the payload, just before the landing, because the team would not be near enough to see the coloured smoke trail. Now with the payload on the ground, Bryce sent the command, through the Iridium satellite system, to trigger the smoke. Unfortunately the smoke dispenser was damaged when the payload landed and it did not start properly. All we saw was a puff of smoke from the fuse. Our new friends gave Bryce a propane torch and lots of orange smoke was quickly produced.



The Shaftesbury High School payload is recovered on the Nickel farm Near Plum Coulee. Peter Toth (VE4TTH), Winnipeg Amateur Radio Club president and RAC assistant director is third from the left. Bryce Jenkins (VA4VBC) is third from the right.

All teams had adventures which makes these science and engineering field trips really special and unique events. MAPT looks forward to the annual MB HAB Schools Symposium where students will present papers on what they learned from the May 2017 flights and relive their successes and failures and discuss plans for future flights.

“The Cockroaches Did Not Survive” and Other Short Stories From Near Space

- The jet stream encountered by the school HABs on May 4th was part of the infamous omega block which resulted in a stalled cyclone over eastern Canada. This resulted in days of rain followed by severe flooding in Gatineau and Montreal. Weather, including atmospheric circulation patterns and the jet stream are studied by Canadian science students in grade 10. School HABs built by students, return data revealing the structure of Earth’s atmosphere.

- More than 400 illegal migrants have crossed into Manitoba from the USA since January 1st. The following storey comes from Fort Richmond Collegiate (FRC) physics teacher Jennifer Piaseck (VE4JPI) whose students receive live TV from their HABs.

FRC managed to retrieve our payload. It was 3 km from Emerson and just 0.5 km north of the US border! The APRS transmitter’s battery conked out at 7000 m on the descent. We predicted the area where the payload might be and then began grid searching. We had two false alarms, where we ran into the field but were disappointed. A school bus driving by saw us running in the field, a kid called his mom to say there were 20 black people in the field and she called the Canadian border patrol. We talked to the patrol twice before they figured out that the illegals they were looking for were us! Maybe the student on the bus was referring to FRC’s black T-shirts.

As we were about to give up the search and drive home, a farmer caught up to us and said he had found our payload and had it back on the corner of his property.

He had also talked to the border patrol so he knew we were driving around searching. Lots of excitement and even some crying ensued! We arrived back in Winnipeg at 7:45pm. Quote from student; “Best field trip ever!”



The Garden City Collegiate Gophernaut (GopherSpace mascot) soars over Lake Manitoba.

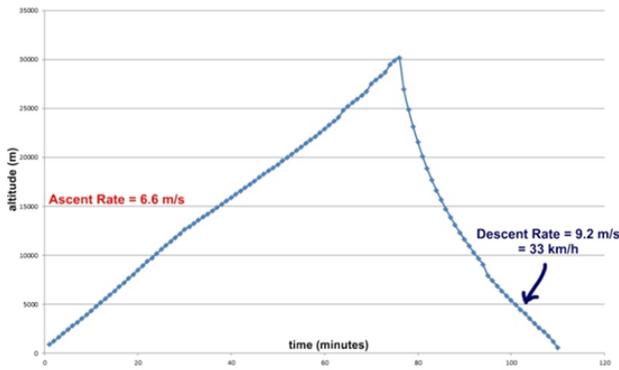
Garden City Collegiate teachers Barbara Gajda (VE4PAZ) and Gabe Kraljevic (VE4GMK) report that their students used a device incorporating an electronic force sensor to measure the neck lift of their balloon before launch with great success. Grade 10 student Nik Riechert (VE4NJR) used sensors to measure and log UV intensity and ozone levels with an Arduino microcontroller. The GopherSpace payload carried a plasmid genetic damage experiment. Plasmids are short pieces of bacterial DNA. The DNA will now undergo gel electrophoresis at the University of Winnipeg to look for molecular fragmentation from exposure to the near space environment. GopherSpace had a CBC TV news crew follow them all day. They were featured on the Friday National News at 10PM. Thanks CBC! (promo video: https://youtu.be/yp_DCH-cdAg)

- MAPT president Heidi Werner provided the following report.

The St. James Collegiate Jimmies had a wonderful time and everything seemed to go very smoothly. Thanks to teacher Andrea Misner (VA4NGC) and the Maples Collegiate team (Maraud Air) for sharing their helium as we ran out. Our flight path was pretty much as predicted and we recovered our payload just northwest of Lowe Farm at 2:30. The cockroaches did not survive, but we are not sure if they died in nearspace or on impact. It looks like they got a bit squashed on landing as some items came loose from the velcro. We are just beginning to sort through all our footage and data, but the Jimmies reached an altitude of 30.2 km. The lowest external temperature recorded was -50 °C at 11930 m (the tropopause). The jet stream is just below the tropopause. The lowest pressure recorded was 1.3 kPa, roughly 0.01 atm, at an altitude of 99000 feet. Our radiation sensor didn't seem to work. The APRS tracking beacon and all four cameras worked great. Two cameras lasted the duration of the flight with the other two stopping just before landing. We have excellent video of the burst and all the beautiful landscape of southern Manitoba. (<https://www.youtube.com/watch?v=aWw8WVknwp4>)



A St. James Collegiate sunburst
St. James HAB-3 Ascent Rate



Motion graphs are studied in grade 10 science and grades 11 and 12 physics.

- The highest altitude achieved this year was by a new team from West Kildonan Collegiate. The team Icarus HAB burst at 33,223 m or 109,000 feet. This Icarus flew high but landed safely.
- HC Avery Middle School reported that students and teachers had a great experience and the team is already talking about plans for next year's flight.
- River East Collegiate is another new team for 2017. Teacher Dean Hallick (VE4ADH) gives the following report.

Our team's launch and recovery was an unforgettable, positive experience. The fill went a little slow but the release was near perfect. We retrieved our payload just north of Rosenfeld, a few hundred metres from where we received our final APRS packet. We had two Möbius video cameras on board and the footage is outstanding. We absolutely plan on launching in the future and look forward to working with everyone again.



River East Collegiate student Joshua Chornick (VE4BAZ) waits by the parachute for the rest of his team.

- The last story is about the Maples Collegiate HAB flight. The Maples HAB moved along the Canada-US border for over an hour before the balloon burst at a height of 32 km; about 15 km northeast of Emerson. The payload landed just across the border near Hallock Minnesota and was recovered quickly by a farmer. Maples Collegiate teacher Andrea Misner (VA4NGC) made this report on May 25th, three weeks after flight day.

I have good and bad news about our payload. The good news is we finally got it back! The bad news is none of our cameras have video! Certainly the cameras were recording at launch. My feeling is someone at the border deleted the files.



The Maple's flight track. The payload returned from the USA sans video files.

Ms. Misner will attempt to recover the deleted video files from the camera's micro SD cards.

Many Thanks!

- Thank you Langruth Elementary school principal Tim Klein for hosting our group. We hope your students enjoyed watching the high altitude balloon launches. Coincidentally, Langruth Elementary held their annual science fair the next day. Perfect timing! Flight is a unit of study in grade 6 science classes. Thank you to all the school administrators for supporting our STEM projects by releasing staff and students for the day. Thank you to the parents and drivers who made the day possible.

• Thanks to all the farmers across Manitoba (and now Minnesota) who keep finding and returning our payloads.

• Thank you to our local hams for their equipment donations, the Winnipeg Amateur Radio Club (WARC) for providing our students with amateur radio classes, the University of Manitoba Amateur Radio Society (UMARS) for providing Arduino workshops and tracking help on flight days, the radio amateurs in Manitoba and North Dakota who provide the APRS infrastructure that allows real time HAB tracking and provides our students with much useful data to study and finally, thank you Radio Amateurs of Canada for the community grants and scholarships and bursaries which continue to help our science and engineering minded students.

With the support of the schools, RAC, WARC, and the amateur radio community, the Manitoba Association of Physics Teachers will grow the Manitoba schools HAB project and work to develop a for-credit Science, Technology, Engineering and Mathematics (STEM) program centred on amateur radio, electronics, science and aerospace that will excite and inspire the next generation of Canadian engineers and scientists.

Rob Striemer (VE4SHS)
Manitoba Association of Physics Teachers

Contest Calendar

Extracted From
<http://www.hornucopia.com/contestcal/>

For June ...

Phone Fray	0230Z-0300Z, Jun 7
CWops Mini-CWT Test	1300Z-1400Z, Jun 7 and 1900Z-2000Z, Jun 7 and 0300Z-0400Z, Jun 8
NCCC RTTY Sprint	0145Z-0215Z, Jun 9
NCCC Sprint	0230Z-0300Z, Jun 9
HA3NS Sprint Memorial Contest	1900Z-1929Z, Jun 9 (40m) and 1930Z-1959Z, Jun 9 (80m)
DRCG WW RTTY Contest	0000Z-0759Z, Jun 10 and 600Z-2359Z, Jun 10 and 0800Z-1559Z, Jun 11
VK Shires Contest	0600Z, Jun 10 to 0600Z, Jun 11
Asia-Pacific Sprint, SSB	1100Z-1300Z, Jun 10
Portugal Day Contest	1200Z, Jun 10 to 1200Z, Jun 11
SKCC Weekend Sprintathon	1200Z, Jun 10 to 2400Z, Jun 11
GACW WWSA CW DX Contest	1500Z, Jun 10 to 1500Z, Jun 11
REF DDFM 6m Contest	1600Z, Jun 10 to 1600Z, Jun 11
ARRL June VHF Contest	1800Z, Jun 10 to 0259Z, Jun 12
Cookie Crumble QRP Contest	1700Z-2200Z, Jun 11
4 States QRP Group Second Sunday Sprint	0000Z-0200Z, Jun 12

NAQCC CW Sprint	0030Z-0230Z, Jun 14
Phone Fray	0230Z-0300Z, Jun 14
CWops Mini-CWT Test	1300Z-1400Z, Jun 14 and 1900Z-2000Z, Jun 14 and 0300Z-0400Z, Jun 15
RSGB 80m Club Championship, CW	1900Z-2030Z, Jun 14
NCCC RTTY Sprint	0145Z-0215Z, Jun 16
NCCC Sprint	0230Z-0300Z, Jun 16
SMIRK Contest	0000Z, Jun 17 to 2400Z, Jun 18
All Asian DX Contest, CW	000Z, Jun 17 to 2400Z, Jun 18
Ukrainian DX Classic RTTY Contest	1200Z, Jun 17 to 1159Z, Jun 18
ARR BPSK63 Contest	1200Z, Jun 17 to 1200Z, Jun 18
IARU Region 1 50 MHz Contest	1400Z, Jun 17 to 1400Z, Jun 18
AGCW VHF/UHF Contest	1400Z-1700Z, Jun 17 (144) and 1700Z-1800Z, Jun 17 (432)
Stew Perry Topband Challenge	1500Z, Jun 17 to 1500Z, Jun 18
West Virginia QSO Party	1600Z, Jun 17 to 0200Z, Jun 18
Feld Hell Sprint	1800Z-1959Z, Jun 17
WAB 50 MHz Phone	0900Z-1500Z, Jun 18
Kid's Day Contest	1800Z-2359Z, Jun 18
Run for the Bacon QRP Contest	0100Z-0300Z, Jun 19
Phone Fray	0230Z-0300Z, Jun 21
CWops Mini-CWT Test	1300Z-1400Z, Jun 21 and 1900Z-2000Z, Jun 21 and 300Z-0400Z, Jun 22
NAQCC CW Sprint	0030Z-0230Z, Jun 22
RSGB 80m Club Championship, SSB	1900Z-2030Z, Jun 22
NCCC RTTY Sprint	0145Z-0215Z, Jun 23
NCCC Sprint	0230Z-0300Z, Jun 23
Battle of Carabobo International Contest	0000Z, Jun 24 to 2400Z, Jun 25
UFT QRP Contest	0600Z-0900Z, Jun 24 and 1400Z-1700Z, Jun 24
His Maj. King of Spain Contest, SSB	1200Z, Jun 24 to 1200Z, Jun 25
Ukrainian DX DIGI Contest	1200Z, Jun 24 to 1200Z, Jun 25
ARRL Field Day	1800Z, Jun 24 to 2100Z, Jun 25
SKCC Sprint	0000Z-0200Z, Jun 28
Phone Fray	0230Z-0300Z, Jun 28
CWops Mini-CWT Test	1300Z-1400Z, Jun 28 and 1900Z-2000Z, Jun 28 and 0300Z-0400Z, Jun 29
QRP Fox Hunt	0100Z-0230Z, Jun 30
NCCC RTTY Sprint	0145Z-0215Z, Jun 30
NCCC Sprint	0230Z-0300Z, Jun 30

Good Luck In The Contest

⁷
For July 2017...

RAC Canada Day Contest 0000Z-2359Z, Jul 1
FISTS Summer Slow Speed Sprint 0000Z-0400Z, Jul 1
Venezuelan Ind. Day Contest 0000Z-2359Z, Jul 1
DL-DX RTTY Contest 1100Z, Jul 1 to 1059Z, Jul 2
Marconi Memorial HF Contest 1400Z, Jul 1 to 1400Z, Jul 2
Original QRP Contest 1500Z, Jul 1 to 1500Z, Jul 2
PODXS 070 Club 40m Firecracker Sprint 2000Z, Jul 1 to 2000Z, Jul 2
DARC 10-Meter Digital Contest 1100Z-1700Z, Jul 2
10-10 Int. Spirit of 76 QSO Party 0001Z, Jul 3 to 2400Z, Jul 9
IQRP Quarterly Marathon 0800Z, Jul 3 to 2000Z, Jul 9
RSGB 80m Club Championship, CW 1900Z-2030Z, Jul 3
ARS Spartan Sprint 0100Z-0300Z, Jul 4
Phone Fray 0230Z-0300Z, Jul 5
CWops Mini-CWT Test 1300Z-1400Z, Jul 5 and 1900Z-2000Z, Jul 5 and 0300Z-0400Z, Jul 6
NRAU 10m Activity Contest 1700Z-1800Z, Jul 6 (CW) and 1800Z-1900Z, Jul 6 (SSB) and 1900Z-2000Z, Jul 6 (FM) and 2000Z-2100Z, Jul 6 (Dig)
QRP Fox Hunt 0100Z-0230Z, Jul 7
NCCC RTTY Sprint 0145Z-0215Z, Jul 7
NCCC Sprint 0230Z-0300Z, Jul 7
FISTS Summer Unlimited Sprint 0000Z-0400Z, Jul 8
IARU HF World Championship 1200Z, Jul 8 to 1200Z, Jul 9
SKCC Weekend Sprintathon 1200Z, Jul 8 to 2400Z, Jul 9
CQC Great Colorado Gold Rush 2000Z-2159Z, Jul 10
QRP ARCI Summer Homebrew Sprint 2000Z-2359Z, Jul 9
Phone Fray 0230Z-0300Z, Jul 12
CWops Mini-CWT Test 1300Z-1400Z, Jul 12 and 1900Z-2000Z, Jul 12 and 0300Z-0400Z, Jul 13
RSGB 80m Club Championship, SSB 1900Z-2030Z, Jul 12
QRP Fox Hunt 0100Z-0230Z, Jul 14
NCCC RTTY Sprint 0145Z-0215Z, Jul 14
NCCC Sprint 0230Z-0300Z, Jul 14
Russian Radio Team Championship 0700Z-1459Z, Jul 15
Trans-Tasman Low-Bands Challenge 0800Z-1400Z, Jul 15
DMC RTTY Contest 1200Z, Jul 15 to 1200Z, Jul 16
Feld Hell Sprint 1200Z-1359Z, Jul 15
North American QSO Party, RTTY 1800Z, Jul 15 to 0559Z, Jul 16
CQ Worldwide VHF Contest 1800Z, Jul 15 to 2100Z, Jul 16
RSGB Low Power Contest 0900Z-1200Z and 1300Z-1600Z, Jul 16

Run for the Bacon QRP Contest 0100Z-0300Z, Jul 17
Phone Fray 0230Z-0300Z, Jul 19
CWops Mini-CWT Test 1300Z-1400Z, Jul 19 and 1900Z-2000Z, Jul 19 and 0300Z-0400Z, Jul 20
NAQCC CW Sprint 0030Z-0230Z, Jul 20
QRP Fox Hunt 0100Z-0230Z, Jul 21
NCCC RTTY Sprint 0145Z-0215Z, Jul 21
NCCC Sprint 0230Z-0300Z, Jul 21
SA Sprint Contest 2000Z-2400Z, Jul 22
SKCC Sprint 0000Z-0200Z, Jul 26
Phone Fray 0230Z-0300Z, Jul 26
CWops Mini-CWT Test 1300Z-1400Z, Jul 26 and 1900Z-2000Z, Jul 26 and 0300Z-0400Z, Jul 27
RSGB 80m Club Championship, Data 1900Z-2030Z, Jul 27
QRP Fox Hunt 0100Z-0230Z, Jul 28
NCCC RTTY Sprint 0145Z-0215Z, Jul 28
NCCC Sprint 0230Z-0300Z, Jul 28
Feld Hell Sprint 0000Z-2359Z, Jul 29
RSGB IOTA Contest 1200Z, Jul 29 to 1200Z, Jul 30
ARS Flight of the Bumblebees 1700Z-2100Z, Jul 30

*Manitoba Repeater Society—Updates
By Dick VE4HK*

May 31, Dave VE4DJS and Yori VE4ACX travelled to Gimli, and returned the VHF repeater VE4GIM, along with the link radio to the Diageo site. The VHF repeater appears to be working well. Richard VE4ESX was good copy on the repeater from Clandeboye to the Hecla Island causeway today. Other stations north of Winnipeg also reported good coverage from VE4GIM

June 1, 2, and 3 rd VE4MAN VHF repeater on the CBC tower at Starbuck failed. Yori VE4ACX attended the site, and removed the power supply for repairs. It failed very soon after being put back into service. Ellis VE4AJO and Yori replaced the power supply with one from our container. The VHF signal from VE4MAN is noticeably quieter.

June 5, Dave VE4DJS and Yori VE4ACX travelled to our Milner Ridge site VE4MIL, to test and install the link to VE4GIM in Gimli. The signal from Gimli is strong. It appears we will not have to re-aim the UHF link beam antenna. The VHF signal is down from past measurements. This will require further testing.

Please contact Dick VE4HK ve4hk@rac.ca with any comments or suggestions.

Technicians Wanted !!

The Manitoba Repeater Society is looking for radio technicians to service our repeaters, duplexers, controllers, and other equipment. Experience preferred. Will train suitable candidates

Contact Dick VE4HK ve4hk@rac.ca , 204-256-3143, or on VE4WPG repeater, for further information or to apply

Winnipeg ARES
Jeff Dovyak VE4MBQ
ve4mbq@rac.ca

Our May General Meeting saw the 2017 CANWARN Net Controller briefing as we have been doing for a number of years now. Ideally we will have a CANARN Net Controller on-call for VE4WWO in the Prairie & Arctic Storm Prediction Centre for 12 hours/day now thru 10 SEP.

Twenty-seven (27) Winnipeg ARES members and affiliates provided volunteer Amateur Radio communications for the RCAF Run SUN 28 MAY based at 17 Wing. This event was coordinated by Craig Martin VE4CDM and John Erwin VE4WX. Special thanks to Bruce Johnson VE4KQ for use of the VE4AGA repeater. One of our new dual-band aluminum J-Pole antennas was used for Net Control. Our volunteer operators were:

VA4s CEM, RAD, PNO, RWT, VMM,
 VE4s HQ, SE, VD, HK, RCA, PRP, GMB, GWN, YYL,
 KIZ, DLA, DJS, BIT, MWH, GKS, BOY, MMG, GIS,
 DTF, KAZ, WX and CDM.



*Craig VE4CDM getting ready for RCAF Run
 Photo Credit John Erwin VE4WX*

A dozen or so Winnipeg ARES members and affiliates will be providing volunteer Amateur Communications for Scouts Canada Camp Zangime 11, 12 JUN.

A reminder to all Winnipeg ARES members that 2017-18 dues are due in JUN, payable by cheque made out to Winnipeg ARES Inc. or via PayPal thru the URL previously provided. Our next General Meeting will be TUE 27 JUN 1900h Sir Wm Stephenson Library 765 Keewatin Street, no guest speaker just debrief of RCAF Run and Manitoba Marathon operations. There will be no General Meeting in JUL but we will resume 15 AUG with Nicki Albus VE4MMW giving us a presentation on emergency planning considerations for mass public events.

*Amateur Radios, Antennas, and more ...
 Winnipeg ICOM Dealer...*

Micro-HighTech Communications Ltd.

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/>

Manitoba Marathon
Jeff Dovyak VE4MBQ
ve4mbq@rac.ca

We still need about five (5) Marathon-experienced Amateur Radio operators for the Manitoba Marathon.

The on-line volunteer registration form for the 2017 Manitoba Marathon has been live since mid-JAN on the WARC web-site:

http://www.winnipegarc.org/marathon_with_form.html

In particular, for back-up we still need two Marathon-experienced Amateurs living south of the Assiniboine as well as one Marathon-experienced Amateur living north of the Assiniboine who have not registered yet. Ideally I'd also have two as medical operator back-up.

The 2017 Amateur Radio Group Volunteer Briefing is TUE 13 JUNE 1900h at Crescentwood CC 1170 Corydon Avenue (Map 24 D2 in the Sherlock Map Book) not Norwood CC. Materials distribution will begin at 1815h.

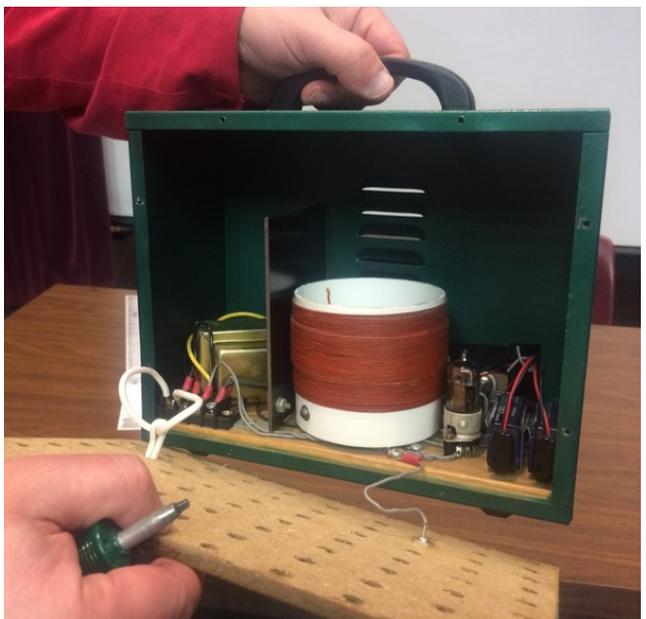
Entries From April's Home Brew Night....



Portable Dipole Antenna by Peter VE4TTH



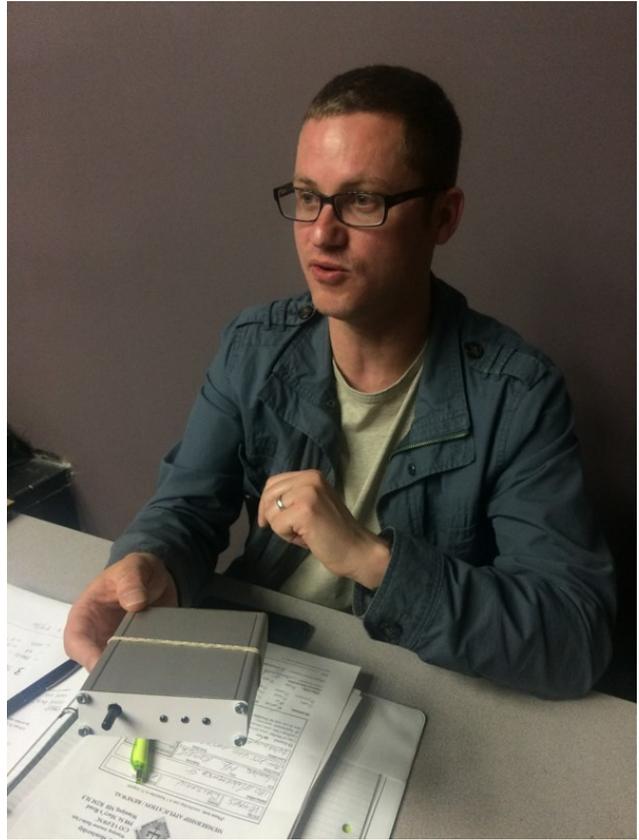
Frequency Counter (left) and HF 1.8 to 30 Mhz Tuner (Below) by Rolf VE4VZ



1 Tube Am Radio Receiver by Robin VE4IO



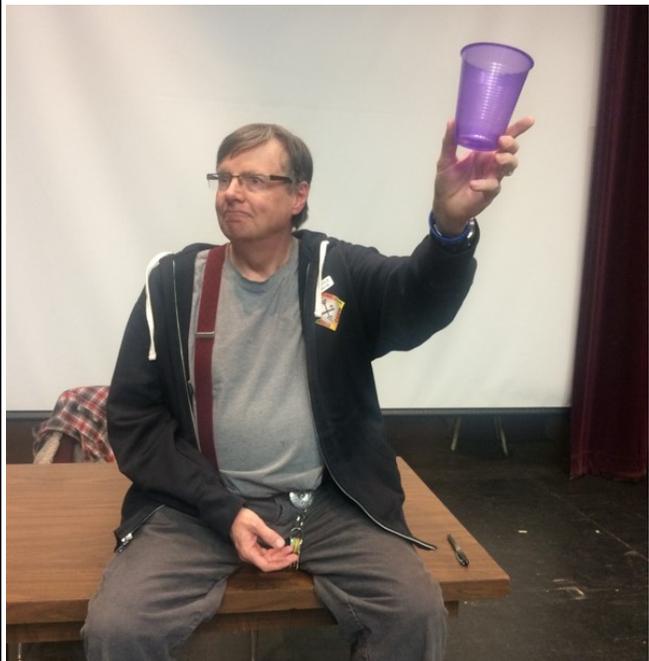
Copper Pipe J-Pole by Chris VE4AAO



Keyer by Jessy VE4JBB



2 meter Antenna Painter Pole Special by David VE4DTF



Simple Tuned Speaker Cabinet by David VE4DLA

Thanks to the Home Brew presenters!!

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!

<http://www.cjnu.ca>

11
RAC Bulletin
Countdown to World
Radiocommunication Conference 2019

Bryan Rawlings, VE3QN, RAC Special Advisor, is in Geneva, Switzerland attending Preparatory Meetings for the World Radiocommunication Conference (WRC).

The current meetings are the third of a series of meetings which will continue until just before WRC-19 now scheduled to be held in Geneva from October 28 to November 22, 2019.

Preparatory Meetings are almost always two weeks in duration and are held at the International Telecommunication Union (ITU) headquarters in Geneva. This time Bryan is attending as a member of the Canadian Delegation and also as an Expert Consultant for the International Amateur Radio Union (IARU).

Preparatory Meetings primarily prepare documents on the agenda items identified for the upcoming WRC. They are in turn preceded by meetings and the submission of documents from the participating administrations, for example, Canada through its authorized government agency, the Department of Innovation, Science and Economic Development (ISED; formerly Industry Canada). Canada is represented by ISED. The RAC representative is made a member of the delegation by invitation and Bryan's role is to advise on Amateur issues.

The principal Amateur Radio issue is an international authorization of the 50 to 54 MHz band in ITU Region 1 (Europe, Africa and the Middle East) – not a critical issue for Canadian Amateurs.

Also under consideration are:

1) an expansion of Radio Local Area Networks (RLANs) into the 5 GHz band. Amateurs have a secondary allocation here in 5650 to 5925 MHz which we already share with the Primary Users and with ISM (Wi-Fi, etc.).

2) proposals to study frequencies for wireless power transfer, e.g., charging cellphones and bigger devices. Depending upon the frequencies planned and the technical characteristics there may be a significant potential for interference to Amateurs.

3) studying the possible frequency range for International Mobile Telephony (IMT) in a range between 24.25 and 81.5 GHz. Radio Amateurs will be carefully watching our Primary allocation in 47 to 47.2 GHz.

As was the case during the WRC-15 conference, Bryan will be tweeting comments on Amateur Radio issues from the meeting using the hashtag #RACatITU. You can also follow him via @ractweets.

Bryan will also be including a report in the next issue of

The Canadian Amateur magazine at the conclusion of the meetings.

For more information visit the RAC website at:
<http://wp.rac.ca/wrc-preparatory-meetings-may2017/>

RAC-Bulletin
A “Whisper” (WSPR) for Canada C3:
Coast to Coast to Coast

An Epic Journey to Celebrate Canada and Connect Canadians

A Canada 150 Signature project, Canada C3 is a 150-day expedition from Toronto to Victoria via the Northwest Passage. It will inspire a deeper understanding of our land, our peoples and our country.

The Canada C3 organizers have kindly permitted a group of enthusiasts under the leadership of Barrie Crampton, VE3BSB, to install a WSPR (pronounced "whisper") beacon on the Canada C3 vessel. This provides a unique opportunity to track the vessel on its 150-day sailing voyage around the Canadian coast – the longest coastline in the world.

Stopping at a different location every day, Canada C3 will visit 50 coastal communities, 36 Indigenous communities, 13 National Parks and 20 Migratory Bird sanctuaries. Canadians are encouraged to join the adventure as a virtual expeditioner, tracking the voyage online via website updates and museum hubs.

The WSPR project will be part of science experiments and research to be carried out on the voyage. The location and frequencies for the WSPR, CG3EXP, may be viewed at: <http://wsprnet.org/drupal/wsprnet/map>

Many of the locations to be visited by Canada C3 lie in areas where radio communication is difficult. Phenomena such as “arctic flutter” and disturbances from the aurora have traditionally been a problem in the north. Very few, if any, of these locations will have a WSPR beacon and are thus, until now, outside the worldwide WSPR network. The gathering of information on radio propagation simultaneously by several receiving stations will be of scientific interest – and it will also be fun. The WSPR network of stations meets this need comprising, as it does, a series of receiving sites and stations capable of reporting, in real time, the reception of, and location, of the beacons.

The community of people tracking the Canada C3 WSPR beacon are expected to come up with new and innovative ideas for its use.

Some ideas already suggested are:

- An “awards” program offering certificates for people copying the beacon at Canada C3's various stopping points along the way.

Continued....

- Special maps to complement the maps of WSPR activity being generated continuously on <http://wsprnet.org>. At the conclusion of the voyage it might be possible to produce a map showing the course of the voyage with a summary at each stop of the numbers and locations of listeners who logged the Canada C3 beacon.
- A software defined radio building project relating specifically to the Canada C3 WSPR.
- Publications, articles and reports such as an article on the propagation of WSPR signals during the voyage.

While this project is associated with the Canada C3 Expedition, results might provide “proof of concept” more generally for remote telemetry applications from Arctic regions. With the impending increase in non-commercial adventurers traversing the Northwest Passage, this low-cost technology might fill a need. Researchers following the Canada C3 “whisper” might wish to compare the experience to other ship-borne uses of WSPR as reported on several Internet sites.

For more information visit: <https://canadac3.ca> and <http://wp.rac.ca/a-whisper-for-canada-c3/>

Twitter: https://twitter.com/canada_c3

Facebook: <https://www.facebook.com/CanadaC3/>

As of Thursday, June 1, 2017:

A live tracking link, generated by QRP-labs, the supplier of the tracking hardware, has been activated. It is being hosted in Canada by Jeff Milne, VE3EFF, and can be found online at:

<http://www.qrp-labs.com/c3.html>

The track will be shown on the map by a series of red dots to draw a continuous track line. The location is based on the smallest maidenhead grid square locator code.

Note: At the time of this update on June 1, 2017, the track is shown in blue and depicts Sunday’s relocation of the ship from Prescott, Ontario to Toronto. You need to zoom in to see the path and it will be easier to see it as the ship continues on its voyage.

Alan Griffin
RAC MarCom Director

D-Star’s D-Tip
By Garth VE4GWB

If connecting a DVAP or other hotspot for a net make sure to connect directly to the reflector that the net is on and not through VE4WDR. When the net is over you can reconnect back to VE4WDR.

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 fun!

**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 Net (Afternoon) 7055 Khz
Daily at 23:30 UTC
Aurora # 2 Net (Evening) 7055 Khz
Daily at 02:30 UTC

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