

marcOgram

Official Publication of The Montreal Amateur Radio Club Inc.
Box 53047 - RPO Dorval, Dorval Quebec H9S 5W4



Volume 63, Number 1

Sep 2016

NEXT MEETING

Wednesday 28 September 2016

Ragchew and Fleamarket: 19:30

Club meeting: 20:00

St. Ignatius of Loyola Parish Church

4455 West Broadway (corner of Terrebonne) in N.D.G. - Montreal

**** John Grow VE2EQL will elaborate on Go-Kits. ****

FROM THE NOOBIE EDITOR'S DESK

OK, that's it, folks. Summer is over and it's back to work or play, or whatever keeps your funds going to buy or build new/used equipment for your shacks.

At our first meeting of the season September 28 John Grow, VE2EQL, will inform us about "Go-Kits". A Go-Kit is similar to the catastrophe survivalists' BOB (Bug-Out Bag); a kit containing enough equipment to put your station on the air anywhere anytime with a minimum of preparation.

Thanks again to Marc-André, VE2EVN, and Jim, editor and interim editor respectively, for their assistance in producing MARCOgram. More submitted content would be appreciated. As every editor has pointed out, MARCOgram is only as good as its contributors, so start writing, folks.

73 de Nora, VA2NH

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SILENT KEYS

Luc, VE2DWE.

Luc, president of VE2CBS, the Sorel-Tracy amateur radio club, died 1 Jul 2016, at the age of 60. I'm sure many of you who frequented the Sorel hamfest will have met and known Luc. He will be missed and our thoughts are with his friends and family. Thanks to Claudette VE2ECP for passing along the information.

Eli, VE2DJ.

Eli was a long-time member of MARC and was respected for his ham radio knowledge. He lost his battle with cancer in June, and our condolences are extended to his relatives. Thanks to Herb VA2DJA (ex-VE2DJA) for the information.

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The MarcOgram is published nine times per year on the second to last Wednesday of September through June, excepting December by the Montreal Amateur Radio Club. Advertising and copy deadline is one week prior to publication.

Annual fees are:			
General Members	...	...	\$25.00
Associate Members	...	...	\$25.00
White Cane Members...	...	...	\$15.00
Family Members (per family)	...	...	\$30.00
Postal delivery of MarcOgram	...	...	\$ 5.00

The membership year runs from September 1 to August 31. Memberships received on or after June 1 commence immediately and extend through the subsequent membership year - covering a period of up to fifteen months.

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Directors

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Club Call Sign: VE2ARC

Club Website: <http://www.marc.qc.ca>

Repeaters

VE2BG 147.06 MHz (+)

Owned and operated by the Montreal Amateur Radio Club. Located on the Pointe Claire water tower.

VE2RED 147.27 MHz (+)

Owned and operated by the Montreal Amateur Radio Club. Located on Covey Hill in Franklin, QC.

The repeaters are open to all amateurs.

Meetings of the Board of Directors

Meetings of the Board of Directors are open to any member to attend. Board meetings are held the first Wednesday of the month (Sept. to June) at 19:30 in the Wardens' Room, St. Ignatius of Loyola Parish, 4455 West Broadway. Should you wish to attend one of the meetings you are welcome; just speak to one of the directors before-hand to make certain that the meeting has neither been cancelled, nor the location changed.

Club Activities

Monthly Meetings

28 September 2016 — John VE2EQL on Go-Kits.

Radio Classes

A basic level course is held starting in January of each year. If you know of anyone interested in taking the course they should send a message to classes@marc.ca.

MARC Hamfest

We are planning to hold the flea market in April 2017 at the LaSalle Legion. Please watch this space or go to <https://www.facebook.com/ve2arc> for more information.

Incoming QSL card service

As has been mentioned in previous MarcOgrams, we are resuming the club's service of having incoming QSL cards sent to the club for members to pick up at meetings. This is a service which we are offering to our members which both saves the individual members money as well as makes more efficient use of our collective resources.

If you would like to avail yourself of this service please send an e-mail to gsl@marc.ca and we will add you to the list of cards that the incoming bureau sends to the club and bring them to the monthly meetings.

IN CASE OF EMERGENCY

Montreal 911 Centre	514-280-2121
Laval 911 Centre	450-662-4240
Longueuil 911 Centre	450-646-8570
Sûreté du Québec	310-4141
Kahnawake Peace Keepers	450-632-6505

These numbers are for emergencies ONLY

INTRODUCTION TO SEPTEMBER'S PRESENTATION

By John VE2EQL

A Radio Go Kit, what every Amateur should have.

I will be discussing the in's and out's of building and using a already packed "GO-KIT".

Based on my many years experience, trial and errors, and a lot of costly mistakes, I'll show real-life examples of how to build your own. It will always be at the ready, for a day out, camping or vacation. Don't prepare a load of stuff as if you are getting ready for D-Day. Just bring what you need.

Detailed topics:

- Power Sources
- Portable Antenna's
- Radio
- Accessories

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UPCOMING FLEAS

What: HARC Hamfest
Who: Hamilton Amateur Radio Club
When: Saturday, 1 Oct 2016
Where: School Fair Building, Ancaster Fair Grounds
630 Trinity Road, Ancaster, ON
Details: <http://www.hamiltonarc.ca/>

What: DELTA ComFest Swap Meet
Who: Delta Amateur Radio Society
When: Sunday, 2 Oct, 2016
Where: South Delta Recreation Centre
1720 56 Street, off Hwy 17, Delta, BC
Details: <http://deltaamateurradio.com/wp/>

What: NEARfest.
Who: New England Amateur Radio Festival
When: Friday-Saturday, 14-15 Oct 2016
Where: Deerfield Fairgrounds, Deerfield, NH
Details: <http://NEAR-fest.com>

What: Montreal South Shore Hamfest
Who: Club Radio Amateur Rive-Sud de Montréal
When: Saturday, 15 Oct, 2016
Where: Place Desaulniers
1023, Taschereau blvd, Longueuil, QC
Details: <http://www.ve2clm.ca/articles.php?lng=fr&pg=120>

What: 40th York Region Hamfest
Who: York Region ARC
When: Saturday, 5 Nov, 2016
Where: Markham Fairgrounds,
10801 McCowan Road, Markham, ON
Details: <http://yrarc.org/index.php/our-hamfest>

What: Maple Ridge Swap Meet
Who: Maple Ridge Amateur Radio Club
When: Sunday, 6 Nov, 2016
Where: Old REC Building,
12460 Harris Road, Pitt Meadows, BC
Details: <http://mrarc.net/>

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PORTABLE OPERATION: LONG-WIRE HF AND DISCONE VHF/UHF ANTENNAS

By Leo Nikkinen, VE2SI
leo49@videotron.ca

Operating a portable or temporary station usually involves a search for a suitable radio and antennas. Many of modern HF/VHF/UHF radios are small and light enough to be considered portable, certainly in the easily transportable category. We use a Yaesu FT-897D with the optional built-in power supply.

If one is to operate on H.F. and VHF/UHF bands, then at least two antennas are needed. That leaves the range wide open, anything from a portable H.F. log-periodic for the wealthy and brave, to a wire antenna for those interested in something that's not too difficult to set up. VHF and/or UHF requirements could be met by a simple vertical or ground plane antenna.

Nora VA2NH and I usually set up a temporary station during our summer holidays in the Gaspé peninsula. After using an array of trapped dipoles for many years we decided to look for something that's a little easier to set up. Easy installation was the goal. One option was to use a non-resonant antenna and employ an antenna tuner to match the antenna's impedance to something that would suit the transmitter. Our portable radio is a Yaesu FT-897D and operates best with a load that's close to 50 ohms.

We didn't want to spend our time adjusting a manual tuner every time we changed frequencies or bands, so we looked into automatic antenna tuners, particularly those made by SGC. Several models would work, but the SG-237 seemed to provide the best fit for our HF station. We have lots of room for wire and our antenna generally ends up being about 220 feet long, well above the minimum length given for the SG-237. While the SG-237 is housed in a waterproof case, the instruction manual suggests an additional cover to protect it from rain. A small plastic office-size garbage bin was just what was needed.

The SG-237 is best installed close to the antenna, which then allows 50-ohm cable to be used between the tuner and radio. With this arrangement, RF inside the shack is also minimized. A ground system is also needed. For portable operation we've used as few as four 33-foot long ground radials lying on the ground. This was sufficient to allow the tuner to match a 20-foot tall vertical whip to the radio. In the Gaspé we have four 33-foot ground radials that are buried in the ground.

The SG-237 requires 12 volts DC to operate and there are some control wires that must be hooked up. The control wires enable/disable the tuner and provide information on its operation. A simple control box with some LEDs and a few switches is all that's needed. A multi-



conductor cable, with weatherproof connectors, extends the controls back into the house and next to the radio.

The whole HF station, including the tuner, coax, control cable and control box, but excluding the antenna and ground wire, fits into a large attaché case as shown above. There's actually room for the ground radials and some antenna wire if it all had to fit into the case. It's a bit on the heavy side, 24 pounds for the radio, tuner, wires and attaché case, but it allows operation at 100W on the HF bands.

How long does it take to set it all up? The tuner, its control box, and the RF and control cables are usually hooked up within 15 minutes. The tuner takes about 10 minutes to cable-tie into the plastic bin and the whole package is then cable-tied to the side of the house. The wire antenna takes a little longer. We leave ropes up in the trees at the end of each summer and they're usually ready to use on our next visit. The total time to set up everything comes to between one and two hours, depending on how diligently we work. The SG-237 matches the wire antenna from 80m to 6m, and some portions of the 160m band. The tuner needs only a few seconds to tune at most frequencies and will return to a previous "tune" setting when it detects transmit RF on the same, or a nearby, frequency.

That takes care of the HF bands, but what about 2m and 70cm? I'm a great believer in antennas that are inherently broadband. A log-periodic will not offer the gain of a multi-element single-band yagi, but one antenna can serve many bands, but we needed something that was omnidirectional. For VHF/UHF operation a discone is a good choice. It won't have the gain of a tall collinear vertical array, but for operation on the 2m and higher-frequency bands it can be acceptably compact and allow us to reach the local repeaters.

Diamond and other manufacturers make discone antennas that can receive from 25MHz, lower than was needed, up to 1300MHz. We were in the Gaspé, so availability from stock was also a requirement. MFJ has two almost identical discone antennas; the MFJ-1866 can transmit on the 144, 220, 440, 900 and 1290MHz bands. The MFJ-1868 adds an extra vertical radiator element to extend the transmit frequency range to the 50MHz band.

The MFJ-1866 was in stock in Toronto and an overnight courier brought the antenna to us in 24 hours. Everything was in the box and the instructions showed that it would be easy to assemble. The components are shown on the next page.

When assembled the radial skirt is about 30 inches in

diameter and the overall antenna height is around 2 feet (I measured everything but I can't find the numbers right now.) The quality of the hardware appeared good and the antenna was easy to assemble. The radials are aluminum



rods inserted into plated fittings that appeared to be made of brass. Once I had gathered the required tools, total assembly time was 15 minutes. The fully assembled antenna is shown above. The antenna is in its second year of use and working well, but the radials show slight weathering due to the salty air in the Gaspé. A spray coat of lacquer would probably provide adequate protection for the time it is exposed to the salt.

How does the MFJ-1866 work? I haven't yet measured the SWR, but our FT-897D shows a 1:1 SWR on both 2m and 70cm bands. We can reach all the local repeaters and use the discone to listen to other VHF traffic in the area. All together, an antenna that's easy to set up and get us onto the VHF/UHF bands.



UPCOMING EVENTS

26 October 2016:

The Annual General Meeting. Election of officers and presentation of reports. We look forward to welcoming our new board of directors.

30 November 2016:

Mark-André Gingras VE2EVN will present information on software defined radios, SDRs.

28 December 2016: No meeting due to holidays.

HAPPY NEW YEAR!

25 January 2017:

Norm Pearl VE2BQS will elaborate on the Automatic Identification System, AIS, marine vessel tracking.

22 February 2017:

Got something to say or to show? Say it here.

8 April 2017:

MARC hamfest! Bring out your fleas! Stuff sale!!

NEW ISS CREW INCREMENT WITH TWO RADIO AMATEURS ON STATION

By Alan Griffin

NASA astronaut Kate Rubins, KG5FYJ, astronaut Takuya Onishi, KF5LKS, of the Japan Aerospace Exploration Agency (JAXA), and cosmonaut Anatoly Ivanishin of Roscosmos officially joined their Expedition 48 International Space Station (ISS) crew members on July 9 at 0626 UTC, when the hatches opened between their Soyuz MS-01 and the space station. There now are four Radio Amateurs onboard the ISS.

Expedition 48 Commander Jeff Williams, KD5TVQ, of NASA, and Flight Engineers Oleg Skripochka, RN3FU, and Alexey Ovchinin of Roscosmos greeted the newcomers. Rubins, Onishi, and cosmonaut Ivanishin replaced Expedition 47 Commander Tim Kopra, KE5UDN; Flight Engineer Tim Peake, KG5BVI/GB1SS, and Yuri Malenchenko, RK3DUP, who returned to Earth in mid-June after a little more than six months in space.

Later this summer, Williams and Rubins are scheduled to install the first of two international docking adapters, soon to launch to the ISS. The adapters will allow commercial spacecraft to dock to the station in the near future when transporting astronauts as part of NASA's Commercial Crew Program.

Rubins, Ivanishin and Onishi are scheduled to remain aboard the station until late October. The trio launched early on July 7 from the Baikonur Cosmodrome, traveling to the ISS onboard an upgraded Soyuz MS-01 spacecraft on its maiden voyage. Williams, Skripochka and Ovchinin will return to Earth in September.

Source: A. R. R. L. news, 2016-07-19

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PATRICK GEORGE DOHERTY VE3PD SK

Radio Amateurs of Canada has received the sad news that former RAC President, Pat Doherty, VE3PD, became a Silent Key on Monday September 5, 2016 at age 81. The following information was extracted from the online obituary notice.

Pat was born and raised in Fort William, Ontario, the son of Patrick & Mary Doherty. He was employed at N.M. Paterson for 38 years starting as a messenger at 18, retiring in 1991 as Vice President & General Manager of the Steamship Division. During his retirement, he held the position of Director and Chair of the Thunder Bay Port Authority for six years.

He was a long-time Amateur Radio operator and travelled to Irkutsk, Siberia and the South Pacific, lugging equipment with him. He served a term as the President of the Radio Amateurs of Canada.

On his personal webpage Pat recalls:

“In 1973 I became interested in Amateur 'Ham' Radio, getting my licence in March of 1974. My original call was VE3HFS which I held until 1994 when I switched to the two-letter call of VA3GD and changed to VE3PD in November of 1997. Amateur Radio has not only been a hobby, but also a passport to travel.”

He is survived by his loving wife Lisa, children Eric & Rachael (Brandon), brothers Glen (Gertrude) & Jim (Kathy), sisters Val Kulp & Barbara Darrow (Chris), brothers-in-law Doug Stankey & Richard Stankey, sisters-in-law Linda (Carmine) Felice, Sharon Marshall & Diane Stankey, nieces, nephews, cousins, and extended family.

He will be missed by his good friends, Laurie Bridget & Jim O'Brien & both his McDonald's coffee clubs.

RAC would like to extend its sincere condolences to his family and friends. Watch for a tribute article to Pat in the November-December 2016 issue of The Canadian Amateur magazine.

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MARC MEMBERSHIP RENEWAL

MARC membership runs from 1 Sept to 31 Aug of the following year. The membership renewal is therefore due this month.

The Marcogram newsletter is sent to members via email. If you wish to receive your Marcogram by post instead of e-mail, please note there is an added \$5 to defray the increased postal costs.

You can renew your membership in person at the next meeting by handing me your completed renewal form, or by mail using the same renewal form.

For your convenience, you can also use the online form to renew your membership using PayPal at this address: <http://www.hay-net.net/~ve2arc/memform/>

I look forward to seeing you at the next meeting, and don't forget your completed form if you wish to renew in person.

Marc-Andre, VE2EVN, MARC Membership Director

NOTICE OF ANNUAL GENERAL MEETING

Notice is hereby given that the annual general meeting of the Montreal Amateur Radio Club Inc., will be held on Wednesday, 25 October 2016, at 20:00 at the St. Ignatius of Loyola Parish Church, 4455 West Broadway, Montreal, QC.

The meeting is called to:

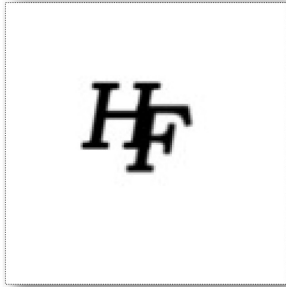
- ◇ Receive and if thought fit approve the reports of the officers;
- ◇ Receive and if thought fit approve the report of the auditor;
- ◇ To consider a proposal to be made by the Board of Directors to change the annual dues;
- ◇ Elect directors and officers to hold office for the coming year;
- ◇ To transact such other business as may properly come before the meeting.

Given at Montreal this 16th. day of September 2016.

(Sgd.) James R. Hay

James R. Hay
Secretary-Treasurer
Montreal Amateur Radio Club, Inc.

RADIO H.F.



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A.O.R., ALINCO, GRUNDIG/ETON, ICOM, JRC, S.G.C., YAESU

SCANNERS / BALAYEURS D'ONDES

A.O.R., ALINCO, ICOM, UNIDEN/BEARCAT, WINRADIO

AMATEUR RADIO / RADIO-AMATEUR

ALINCO, ICOM, KENWOOD, RANGER, S.G.C., YAESU

CITIZENS BAND (CB) / BANDE PUBLIQUE (CB)

ASTATIC, COBRA, GALAXY, K40, MACO, PARADYNAMICS, RANGER, ROAD NOISE, SHAKE-SPEARE, SOLARCON/ANTRON, UNIDEN, VALOR/PRO-AM, WILSON, WORKMAN

FRS & GMRS TWO WAY RADIOS / FRS ET GMRS PORTATIFS UHF

COBRA, GARMIN, ICOM, MOTOROLA

ANTENNAS / ANTENNES

ALPHA DELTA, ARROW, BUTTERNUT, COMET, COMPROD, CUBEX, CUSHCRAFT, DIAMOND, FIRESTICK, FORCE 12, HUSTLER, HYGAIN, ISOTRON, LARSEN, MALDOL, MFJ, MIRACLE ANTENNA, OUTBACKER, PRYME, RADIOWAVZ, TENNADYNE, VALOR/PRO-AM, WORKMAN

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PUBLICATIONS / PUBLICATIONS

AMERICAN RADIO RELAY LEAGUE (ARRL), ARTSCI, BAYLIN PUBLICATIONS, BILLBOARD (WRTH), CQ, CRB, HIGHTEXT, IBS (PASSPORT), KLINGENFUSS, KRAUSE, LOOMPANICS, NATIONAL RADIO CLUB, RADIO SOCIETY OF GREAT BRITAIN, RADIO AMATEUR CALLBOOK, RADIO AMATEURS DU QUEBEC, SCHIFFER BOOKS, SONORAN, TAB, TIARE

NATURE BOOKS / LIVRES DE LA NATURE

SIBLEY GUIDES, PETERSON FIELD GUIDES, NATIONAL AUDUBON SOCIETY