

marcOgram

Official Publication of The Montreal Amateur Radio Club Inc.
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Volume 66, Number 3

November 2019

NEXT MEETING

Tuesday 26 November 2019

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

**** Marc-André VE2EVN, . ****

More details on Marc-André's project, mCHF QRP, with demo.

FROM THE EDITOR'S DESK

Winter hit with surprising suddenness this year. I hope all your antennae and support systems were ready for it as we're in for the long haul to spring now.

The renewed board thanks Paul Iarrera, VE2OFH, for his years of service on the board.



MARC is still looking for an appropriate space in which to hold our hamfest in April. Anyone with ideas please contact Jim, VE2VE.

MARCOgram can always use more material. Somebody out there must surely have something about which to write an article, and photographs / diagrams are always appreciated.

73 de Nora, VA2NH

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MEMBERSHIP

Two months in but we'll still take it! September 1 was the start of the new membership year. We'd like to see you back even if it's been a while since you were a member.

Go to <http://www.marc.ca/memform/> and complete the online form and pay with PayPal. If your information is unchanged, you can simply send a PayPal payment with your dues to paypal@marc.ca.

I hope to see you at a meeting soon.

Jim.

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Annual fees are:

General Members	...	\$30.00
Family Members (per family)	...	\$35.00
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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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. **Currently OFF AIR**, looking for a new location..

VE2RED 147.27 MHz (+) 103.5

On the air from Ridgewood Ave. in Montreal; CTCSS tone of 103.5 Hz for access. Thanks to Claude Everton, the VE2RMP group and Metrocom for making this possible.

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 on the first Tuesday of the month (Aug 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

(last Tuesday of the month)

Nov 26 - Marc-André, VE2EVN, on mcHF

QRP Demo

Dec 4 - Christmas-Solstice Party

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

The 2019 flea market was held at the LaSalle Legion on **6 April**. Plans are already afoot for the next hamfest; we'll need a new location. **Ideas are welcome!** Go to <http://www.marc.ca/fest/fest.html> for more information as it happens.

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 qsl@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.

CW CLASSES

By Leo VE2SI

Some members have expressed an interest in learning what is now called the International Morse Code and adding CW to their operating capabilities.

If you're interested send an email to VE2ARC@marc.ca and indicate your level of interest.

SolderSpot

Group build Power Supply Project - By Leo VE2SI

If you're interested and even if you've spoken with me before, please send an email to VE2ARC@marc.ca and indicate your level of interest.

Participation is open to everyone and MARC membership is not a requirement. .



UPCOMING FLEAS/EVENTS

2020

What: HAM-CON

Who: Radio Amateurs of Northern VT

When: Saturday, 22 Feb, 2020

Where: Holiday Inn Convention Center, South Burlington, VT

What: VE3CJ Memorial Spring Fleamarket

Who: Burlington Amateur Radio Club

When: Saturday, 29 Feb, 2020

Where: Burlington ON

What: Ham-Ex 2020

Who: Peel and Mississauga AR Clubs

When: Saturday, 28 Mar 2020

Where: Brampton/Caledon, ON

FOR SALE:

From the Estate of Pierre Lafortune, VE2ANH SK

Kenwood TS-820s transceiver.

With manual. In quite good condition as Pierre was very meticulous. Contact Jim, VE2VE.



HOW TO MAKE THE WORLD'S SMALLEST 3-TUBE RADIO SET

by Arthur C. Miller

Published in Radio-Craft, December 1936

When using this "Belt-Radio" the wearer is quite unmindful that the latest news or dance music is coming from an ultra-midget receiver which is actually being worn on the belt! And it takes only a minute to put the whole equipment on - and less to take it off!

Technical men will better appreciate the amazing sensitivity of this tiny set, with its "hat" antenna, on being told that the writer has had no difficulty in receiving WCAI (Philadelphia) and WHAM (Rochester), on the 5th floor of a 14-story all-steel building in mid-Manhattan!

The circuit is fundamentally a regenerative detector followed by 2 stages of audio amplification. A closer inspection, though, will reveal that the gridleak and condenser combination is arranged in an unusual manner - across the tuning coil and in series with the variable condenser (C1). This was found to give far better results with a closed antenna circuit of the type used than the more conventional method, and also enabled absolute stability to be obtained with the minimum of bypassing and shielding. In fact no shielding at all was used. Finally, there is not the slightest trace of hand-capacity effect to upset the tuning on the 200 to 550 meter range (broadcast band).

There are one or two important points to remember. The loop aerial was designed to fit 'round the head because that was found to be the only position in which it gave satisfactory results. On the back it was too close to the body and when the receiver was in its most sensitive state (just before circuit oscillation) every movement of the body upset tuning and regeneration. But, unfortunately, there is one disadvantage in having the aerial placed that way. The 4-ft. cable connecting it with the receiver acts as a capacity and restricts the tuning range of the set. What

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the author did was to choose the most powerful local (New York) transmitter (which happened to be WOR, Carteret, N. J.) and wind the number of turns on the loop which enabled him to tune to that frequency (710 kc.). Besides WOR he could receive WLW (700 kc.) in Cincinnati, WEAJ (660 kc.) in New York, and in the other direction WJZ (760 kc.) in Bound Brook, N. J. Of course tapping the coil will help considerably to broaden the tuning range.

Building the set is quite simple. A thin bakelite panel is used ($3/16$ -in. thick, and $31/2 \times 21/2$ ins. wide) on which are mounted the midjet tuning condenser and the 15,000-ohm, wire-wound, regeneration and volume control. The tiny chassis is also made from bakelite of the same thickness, on which are mounted the 3 sockets to hold the tiny tubes (distributed, like the sockets, in the U.S. by Wholesale Radio Service Co.). The sockets will have to be cut down to fit the chassis which measures only $2\% \times 3/4$ -in. wide. It may be well to mention here the importance of using only the specified parts. They are the smallest known and any larger parts will, of course, make it impossible for the reader to keep the set at its present small dimensions. A good suggestion, too, would be to advise the use of a small soldering iron! (The kind the author recommends is not larger than an electric stencil pencil.)

The loop aerial is wound on a cardboard disc 13 ins. in dia. Litz wire is used and 22 turns are interlaced around the 9 ribs. (Note that an uneven number must be used.) A tap is made at the 17th turn from the start. This is the "A -" lead to the set. A 3-way mike plug and connector separates the loop from the receiver so as to facilitate putting the equipment on and taking it off. The completed set and the two 45-V. batteries are mounted with black elastic bands ($3/4$ -in. wide) onto an ordinary leather belt. Tap one of the 45-V. units at $221/2$ V. Due to the extremely low "B" drain, about $21/2$ ma., the two 45-V. batteries should give at least 100 hours of service. This is calculated on the daily use of the set for about 3 continuous hours. A liquid unspillable storage cell supplies the 2 V. for the filaments. This tiny "battery" (as most people prefer to call it) should last from 7 to 10 hours before needing to be recharged. It is sold with an oiled silk bag

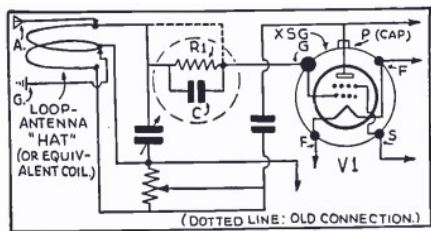


Fig. 2. Alternative wiring of the gridleak.

and fits in the hip pocket. Note: the grid prong of the tiny tubes is larger than the remaining prongs. As L, in Fig. 2, you may use either the "hat" loop, or a small, experimental coil when using a ground and outside antenna (for DX). The writer imported several of the ultra-small condensers detailed, for constructors who wish to make them, in Fig. 3. The "secret," if you want to call it that, of success with this tiny set is in the high degree of A.F. and R.F. amplification secured.

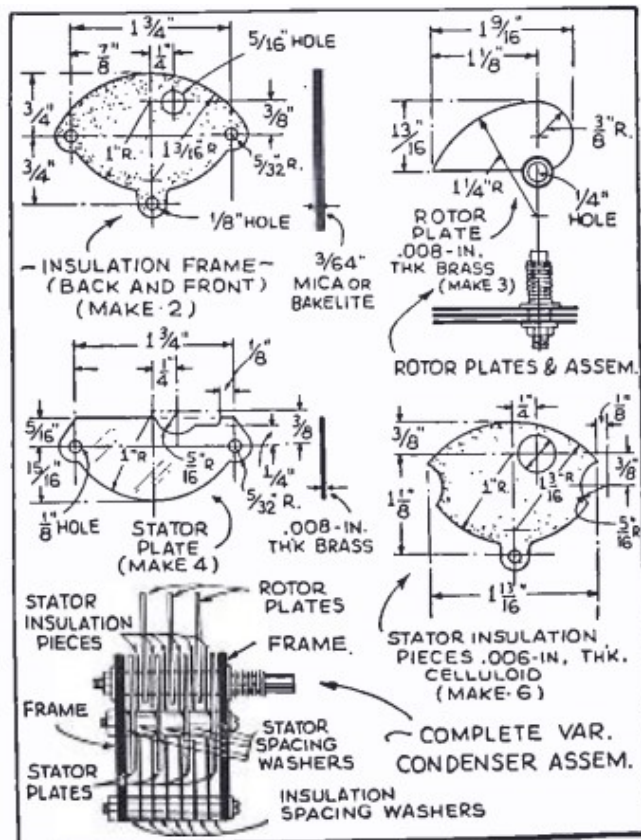
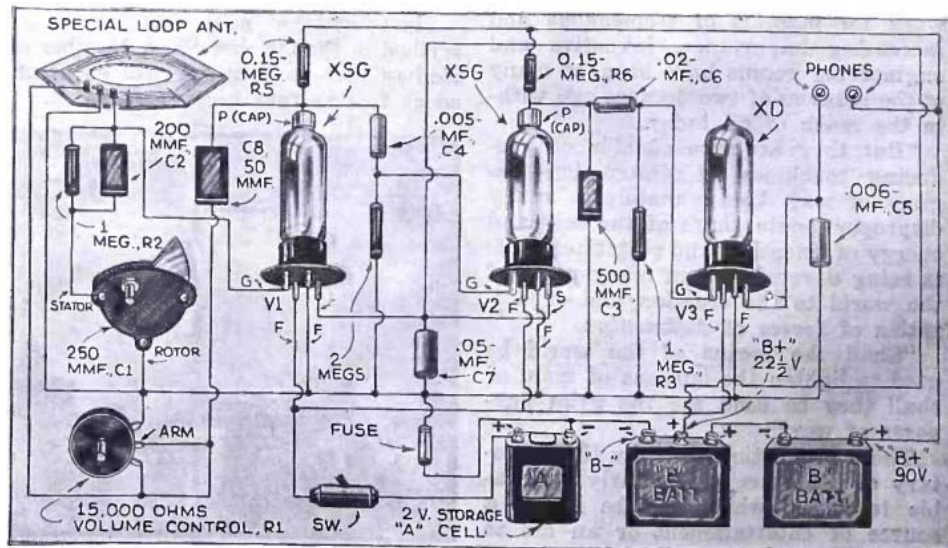


Fig. 3. The special tuning condenser is made according to these specifications. Two separators are used between stator plates.





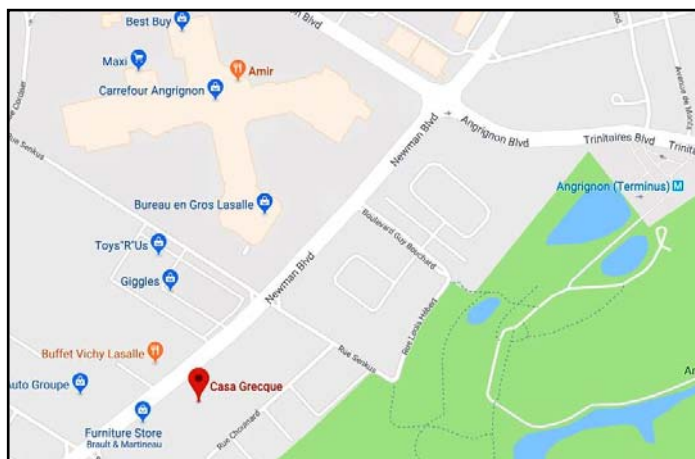
Radio-Craft Magazine, December 1936, pp 238-9; Courtesy of www.americanradiohistory.com.
Inspiration from the Canadian SouthWest corner, Surrey Amateur Radio Club newsletter "The Communicator".

Christmas Party!

Celebrate the Solstice!

The days will soon be getting longer!

You are all invited to the MARC Christmas Party, to be held at 19:30 on 4 December, 2019, at the Casa Grecque, 7218 Newman Boulevard, Lasalle, QC, H8N 1X2



The restaurant is one block west of the Angrignon Shopping centre, on the southerly side of Newman. We will be ordering from the regular menu (<https://casagrecque.ca/menu/>) and, as is customary, the club will pay the service charge/tip.

In order to advise the restaurant of the size of the group please confirm your attendance, and if you are bringing a guest or guests to me at ve2ve@marc.ca or by telephone at 514-990-1965; if I don't answer just leave a message. While we can always accommodate a few last minute changes, if possible, please confirm your attendance before Dec. 1.

73 de Jim.