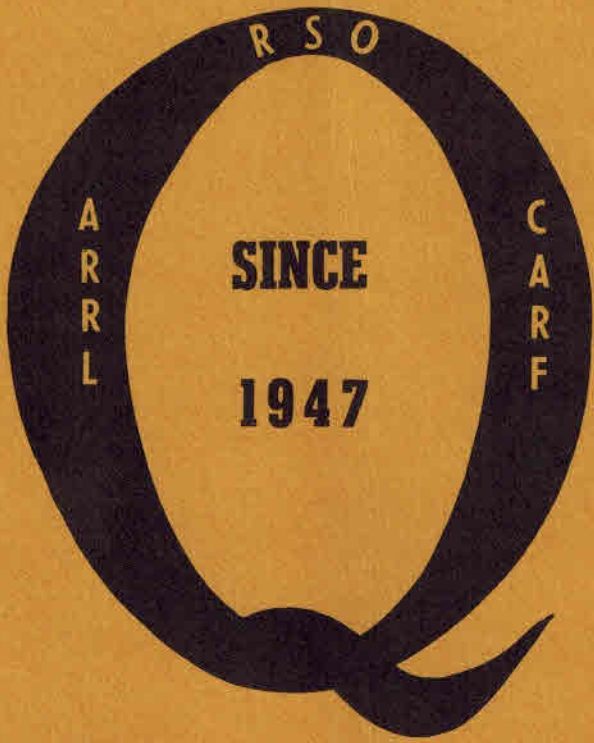


OCT 77  
NOV  
DEC 77

# QUINTE QRM



## QUINTE AMATEUR RADIO CLUB VE3BSQ

BELLEVILLE REPEATER VE3KBR

146.40 ~~146.460~~ - ~~147.060~~ 147.00  
MHZ

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NOV '77

CLUB CALL  
VE3BSQ

REPEATER VE3KBR  
146.400-147.000

QUINTE QRM

Membership dues for QARC are \$6.00 per Calender year. Contact the Treasurer Mr. Glen Campbell VE3CJG, 149 Wright Ave., Belleville, Ont. - K8P 4E7. 962-3960. Membership is open to anyone having an interest in Amateur Radio. It is not necessary to be a licensed Amateur to be a member. The President for 1977 is Mr. Al Davis, VE3HNJ, 120 Nisbet Ave., Belleville, Ont. K8P 4B9 - 966-3084. The Secretary is Mr. Fred Levere VE3HBV, 15 McCann St., Trenton, Ont. # K8V 1W2 - 392-8445.

Date of Meeting - - - 9 Nov., 1977 Wed. Nite.

Time - - - - - 8 PM.

Place - - - - - Loyalist College, Kente Bldg.,  
Room 3L10.

Program - - - - Mr. Sid Horne VE3EGO will give a talk on his project of building, adjusting and modifications to the Log Periodic Beam for HF he is now using. This project appeared a few weeks ago in QST and Sid's results bear out the articles claims for superior performance. If you are interested in antennas, better not miss this one.

Repeater News -

Effective Nov. 4 the FCC have allocated additional space for repeaters at 144.5 to 145.5 MHZ. This should relieve the crowded repeater situation at 146 to 148 MHZ. Canadians should bear in mind that regs limit the use of this segment to narrow band FM. That is 3.5 KHZ plus & minus.

Credit CARF News Service.

- - - - -

The noise in the repeater that is present with a weak signal has been under investigation for the past few days. Eric VE3GSI, Glen VE3CJG and Howard VE3RL have been out to the site investigating. It has been determined that something is loose up on the tower. Another expedition is planned at which time Ron VE3IVC will climb up to have a look.

Sept. 24 was shack repair day at the repeater site. Tim VE3HCM, Grant VE3IVU, Ron VE3IVC and Howard VE3RL carried out the work on the shack to winterise it.

VHF NEWS

WALEXN ART near Augusta Maine has established a beacon on 50.019. He turns it on when the possibility of an opening exists.

- - - - -

Frequencies above 146.000 MHZ will not be permitted on 2 meters for use in contests. That is repeater or direct channels in the FM band plan. No word on the new low end channels as yet. It is not certain yet if there will be any direct channels in the low end FM segment.

FOR SALE

Linear Amplifier. 700 watts PEP. 600 watts DC. uses a pair of 4CX250B tubes. In a Hammond cabinet. Looks nice, works good. contact Sid Horne VE3EGO.

WANTED (for the repeater)

G.E. Progress TK strips using 2 - 6146 tubes with or without AC rack mounted supply. K506 and K507 relays from AC supply. Please contact VE3RL.

ODDS & ENDS OF NEWS

Jim Eadie VE3DCK is back in the area. Stationed at Madoc with the O.P.P.

Congrats. to ERIC VE3GSI on his fine article in CART News Bulletin.

Welcome to Fred VE3HOV to 2 meter mobile.

VE3AXR ED from Cardiff is in the Peterborough Hospital for repairs. A stalwart on the ONTARS net & the Blackfly repeater, ED hopes to be back home soon.

Our deepest sympathy to HARRY VE3FJJ on the loss of his mother.

QARC DUES

We received some flack last year re cutting of the Bulletin to people who were not paid up by March 31. Club policy re dues is as follows:-

1. The Club year is the calender year. Dues are due by Dec. 31.
2. If dues are not paid by 31 March your name will not be on the mailing list which is sent out with the April Bulletin and you will not receive the April Bulletin.
3. See first page of Bulletin for Treasurers name and address or see him at any regular meeting.

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This Bulletin will probably arrive without a cover. The Printer forgot to tell us that he was running out of covers. GLEN VE3CJG and Howard VE3RL have been doing some leg work to contact our advertisers, the Federal and Provincial Tax people and the Print shop. Expect to have a new stock of covers soon.

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It's almost time again for elections. A nominating committee will be appointed in November and will have a slate of officers ready to present on election nite at the December meeting.

THOUGHT FOR THE DAY

If your'e going to complain about the way the ball bounces, Don't drop it.



TECHNI- TOPIC

As the demand for more frequency space keeps increasing, it is apparent that both commercial and amateur users will have to move to higher and higher areas of the spectrum to fill their needs.

Operation in the GHz regions presents problems not found at the lower frequencies. For instance the problem of rain and fog on the signals. Even at 450 MHz local fast scan TV men have found that in summer the leaves on trees cause attenuation not present in winter. Also on wet rainy days, the signals are attenuated.

The effects of moisture in the air increase as the frequency goes up. In terms visibility it has been found that at 30 GHz when fog limits visibility to 150 ft. the attenuation is about .5DB per mile. It takes twice the moisture content to cut visibility to 100 ft. at which point attenuation is about 1.6 DB per mile.

Molecular absorption is severe in the GHz region and there are resonant points. For instance there is a peak at 22.4 GHz.

There are ways to get around some of these problems. Diversity transmission is one. A high percentage of rain occurrence is confined to small areas and use of two paths at spacings of just over 5 miles works wonders. Waveguides have been tried but attenuation is high in conventional types and losses increase with frequency. Experiments show that round waveguide and circular polarisation cuts losses dramatically. Also loss decreases with frequency. Since the physical size also decreases with frequency it is possible to use a small pipe that can carry thousands of channels with low loss. In theory the losses would approach zero as the frequency approaches infinity. However the mechanical requirements become very stringent and the frequency is limited in practise. Any roughness inside the pipe for instance, causes a change of mode.

Amateurs should become familiar with the GHz frequencies and how they behave. In the foreseeable future we are going to be using them - - there is no other alternative.

VE3RL.

# EVERYTHING FOR THE AMATEUR



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