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# **WAVELENGTH**

Official bulletin of Scarborough Amateur Radio Club, Inc. www.ve3we.org

PARTICIPATE – LEARN – ENJOY

October 2010 Volume 4 Issue 8

**SARC Nets** 

President: Bernadine Dinnard-Williams Sunday 28.730 Mhz

VE3YDB

CW 10:00 AM Vice-President: Ralph Muecke VE3VXY SSB 10:30 AM

Tuesday 147.060 MHz (VE3RPT) Ray Chow VE3ZXC 7:30 PM

Secretary: Lambert Philadelphia VE3LYP

Treasurer: Alternate frequency Ian Gibbard VA3IGD Membership: 146.520 MHz simplex

Communications: Luc Seguin VA3LMS Thursday 28.730 MHz

Field Day: Rod Long VE3SOY SSB 7:00 PM

Education: Ralph Muecke VE3VXY

Examiner: Nick Blacklock VE3EBC Everyone is invited to check in on CW before the Assistant Dean Dalrymple VA3DBD nets start.

Secretary/Treasurer

These are open nets. All licensed hams are welcome. Archives: Gord Hogarth VE3CNA Come and join us.

Audrey Little VA3YD

Elmer: **Rod Long VE3SOY** We also want to emphasize that 28.730 MHz is our Nick Blacklock VE3EBC

calling frequency. Please monitor and/or call your

friends. 7:00 PM is a good time.

## **Antennas for 160 and 80 Metres**

by Tony Fegan, VE3QF

Editor's note: Tony recently became a Silent Key. This article was originally published in the Scarborough ARC Newsletter, and reprinted in the TDXS Bullsheet, June 1994.

### The Big Back Yard

These two bands pose a problem for the average amateur because of the physical size of a resonant antenna and also because the antenna is going to be electrically close to the ground. A dipole for 160 metres at 50 feet is still only 0.1 wavelengths above ground and as such presents an impedance at the centre feedpoint of anywhere between 20 and 50 ohms depending on the ground and nearby objects. This antenna would also be up to 260 feet long. A dipole for 80 metres is still around 125 feet long which still requires a large back yard.

If you are lucky enough to have the room then a dipole supported as high as possible is probably the best choice. The length of a half wave dipole is derived from the formula - length (feet) = 468 divided by the frequency (MHz). Some experimentation may be required to get a good match to the transmitter. At these frequencies feedline loss is very small and may be ignored for all lines under 100 feet. Thus an antenna tuner at the transmitter will usually function satisfactorily for matching purposes.

#### The Small Back Yard

Now we come to the average amateur on a 100 foot deep lot. Obviously there is no room for a full size dipole in a straight line. Most of the radiation from an antenna comes from the high current portion. In a dipole this is the centre portion. If the centre of the antenna is located as high as possible for as long as possible the remaining ends of the antenna may be bent down or sideways (preferably at an angle of greater than 90 degrees). Providing about two thirds of the antenna is straight, the bent ends will not noticeably degrade the antenna. This will usually take care of the 80 metre band but not the 160 metre band.

For 160 metres I have had success with a quarter wave bent antenna known as the Twin Lead Marconi. This antenna is made out of 300 ohm TV twin lead. Being a quarter wave antenna a good ground is essential. I laid 3 or 4 wire radials of about 50 feet under the lawn and also connected them to the house water supply before the water meter (the city's largest ground system is free). The total length of the antenna is derived from the formula – length (feet) = 234 divided by the frequency (MHz). A short is made at a distance of a quarter wave from the feed point taking into account the velocity factor of the twin lead (about 80%). From this short the remainder of the antenna may be made of bare wire or more twin lead.

The twin lead is run from the ground to some high support (tower or tree) and the remaining portion bent and stretched out to another support or failing that back towards ground at a distant point. At the ground end one side of the twin lead is connected to the ground system and the shield of the 50 ohm coax feedline. The other lead is connected to the coax inner conductor.

Another antenna which can be used on both 80 and 160 metres is known as the multee. The multee acts as a dipole on 80 metres and as a top loaded vertical on 160 metres. Operation on 160 metres also requires a good ground system. Some details of this and other antennas can be found in the ARRL Antenna Handbook.

#### The Apartment Situation

It is a real challenge to get an efficient radiator for the lower bands within the confines of an apartment balcony. Usually permanent antennas are not allowed so whatever antenna is used must be fairly unobtrusive. The simple approach is to use a mobile inductively loaded whip at an angle or horizontal to the window or balcony. With this arrangement a good ground is essential. A balcony or window used for the support and ground may be improved by connecting it electrically to the water supply pipes and the heating pipes with short lengths of 12 gauge copper wire. An antenna tuner either internal or external will usually allow this antenna to be used over the entire 80 metre band. An external antenna tuner is usually required for 160 metres.

Another approach is to use the small loop antenna consisting of 2 or 3 turns of 5/8 inch copper tubing (4 or 5 feet in diameter) tuned by a split stator high voltage (over 6000 volts) capacitor of about 500 pf. The antenna is coupled to the feedline using a smaller loop. The capacitor is motor tuned as the useful bandwidth of the antenna is very small. An antenna tuner should not normally be used with a small loop antenna and must be capable of being switched out of line while tuning the antenna. If the antenna tuner is first tuned into a 50 ohm dummy load then it may be left in line while tuning the antenna.

# **About the Satellites**

by Bob Chrysler, VE3IEL

As well as being a member of the Scarborough Amateur Radio Club, I am a member of an affiliate group called the Satellites. I am probably not the best person to submit an article about them; but, here goes anyway.

As listed on their web site, the Satellites initially started in 1986 as a group of retired hams who decided to get together once a week to discuss items of interest, query others about their challenges, and speak of their accomplishments.

Early pictures show an interesting gathering: Ole Theisen VE3FST, I am sorry that I do not remember him. Charlie Urban VE3JPB, indeed a former member of SARC. Bill Morris VE3TM, who has attended the SARC Club, more in the form of guest speaker, and video projector provider. Bill Whitelock VE3CBW, I remember as being on the SARC executive at one time. Willard MacEachern VE3MCU, an old timer with the Scarborough Club. Leo Kelly VE3HUN, who used to be one of the code instructors at the club code and theory classes. Paul Kovac VE3HFM, a former member of SARC, and, not often seen now at the Satellites meetings. Bob McLuckie VE3PNN, who I used to hear checking into our Sunday morning ten metre nets, years ago. David Millyard VE3OYW, again someone I am afraid I do not remember from SARC. Arthur Millard VE3PKK I dimly do remember from years back, and, not to be forgotten, Salt Jones VE3PJ.

Since those early days, Tony Fegan VE3QF, Bill Catlender VE3PA, John Chapman VE3LM, Norm Wardle VE3JNE, and Bill Cate VE3HR, were added to the Satellites roster with Doug Netherton VE3MCF, Wray Thomson VE3OUY, Ken Stockwell VE3BWO, Jack Botner VE3LNY, Don Guthrie VE3EVZ, and, Bert Almemo VE3OBU.

The latest Satellites roster includes George Burr VE3BCG, Ian Duff VE3GNB, Abdul Rahman VE3ILG, and myself, Bob Chrysler VE3IEL. Of all that group, only Bill Catlender VE3PA, Bill Cate VE3HR, and I, Bob Chrysler VE3IEL are listed as present members of the Scarborough Club.

Our Satellites group meet every Wednesday morning at 9:30 AM, at the Community Centre on Eastpark Blvd, near Cedarbrae Collegiate Institute.

At our Satellite meetings a chairman chooses a topic; and, gives a presentation on that topic. After the topic is discussed there is a break for coffee and treats. After coffee time there is a round table where each member relates some information on what they have been doing or what is of interest to them.

Some may have had some interesting DX. Others may have been on an enjoyable trip. Still others might seek advice on a problem they are trying to solve. At noon, the meeting breaks up.

The Satellites do have a Tuesday evening radio net at 9:00 PM. on 3.747 MHZ. You do not need to be a Satellite to join in on the net.

I do have to say that the Satellites group is a seniors group, that is obvious. Most of the newer members are recommended to the group by an elder member.

The coffee is always good. I make it.

Perhaps someone from the Senators group might consider an article on their activities for an issue of WAVELENGTH.

# **Meeting Schedule**

General club meetings are usually on the 2<sup>nd</sup> and 4<sup>th</sup> Monday of the month from September to June, with executive meetings on the first Monday of the month. This year we are trying something a little different. Since we have the meeting room booked every Monday night, we will have movies or other presentations on the off nights (3<sup>rd</sup> or 5<sup>th</sup> Monday). Visit our website, <a href="http://ve3we.org/">http://ve3we.org/</a>, for details.

Our meetings run from 7 PM to 9:30 PM. The location is the Seniors Lounge on the upper level of the Don Montgomery Community Centre, 2467 Eglinton Avenue East, Scarborough. Parking is available, and the Kennedy TTC/GO station is next door.

Tech nights are every Friday from 7 to 9 PM at the same location.

## **Hamfests and Flea Markets**

Courtesy of RAC.

## **York Region ARC Hamfest**

Date: Saturday, November 6, 2010

Closest town: Markham, ON

Directions to location: Markham Fair grounds, 10801 McCowan Road on the

North East corner of McCowan Road and Elgin Mills Road. McCowan Road runs North/South and is the first road west of Hwy#48 (Markham Road). There is an exit for

McCowan Road from Hwy#401 and also an exit for McCowan Road from Hwy#407. Markham Fair grounds are North of both Highways. For a detailed map and maps

that you can print off go to the following site:

http://www.markhamfair.ca/how\_to\_get.asp

For those of you with a GPS unit plug in the address above

or use the following data:

LAT: 43 deg 55 min 29 sec N

LONG: 79 deg 17 min 39 sec W

Opening times: 0630 for Vendors; 0900 for General Admission

Cost: All admissions include free coffee!

General Admission: \$7.00

Vendors: \$30 per 8 ft table, with one free admission per

table rented. Additional admissions are \$7.00.

Talk-in frequency: VE3YRA 145.350 MHz (-)

Description: This the the 34th edition of the largest indoor hamfest in

Canada. With winter on its way this a great time to think about your favourite indoor hobby, Amateur Radio.

- Over 200 vendors

- Lots of space for socializing

- Exhibits

- Free Parking

- Great Door Prizes

- Refreshments

- Grand Prizes including (2) \$500.00 gift certificates

- Licensing Examinations (register with Hamfest Coordinator prior to Hamfest to ensure we bring enough

exams.)

For more info: 1) Visit the YRARC Hamfest site at:

http://www.yrarc.on.ca/hamfest.shtml

or

2) Send an email to yrarc.hamfest@gmail.com

Email contact: yrarc.hamfest@gmail.com

Webpage: http://www.yrarc.on.ca/hamfest.shtml

# **Durham ARES Simulated Emergency Test**

In order to avoid false alarms, anxiety, concerns and confusion, Durham ARES is sharing this information.

2010-Oct-30, from 08:00 to 14:00 hrs, Durham ARES will be conducting a Simulated Emergency Test (SET). The scenario will be the 2004 Bowmanville explosion at Caledon Propane.

Please treat any communications (traffic) regarding a blast, fireball, or evacuation coming out of the VE3OSH repeater and simplex frequencies on October 30 as an "exercise only" and not real. Per protocol, announcements will be made on the VE3OSH repeater and the simplex frequency during the exercise.

Durham ARES and its members will be using VE3OSH (147.120) and a simplex frequency during the exercise.

Thank You

Signed:

Luis Lopez (VA3TCL) Asst. Emergency Coordinator Region of Durham ARES

## **DX News**

QST de W1AW DX Bulletin 44 ARLD044 From ARRL Headquarters Newington CT October 21, 2010 To all radio amateurs

This week's bulletin was made possible with information provided by NC1L, QRZ DX, The Daily DX, the OPDX Bulletin, DXNL, Contest Corral from QST and the ARRL Contest Calendar and WA7BNM web sites. Thanks to all.

AZERBAIJAN, 4J. A group of operators are QRV as 4J0WFF from Gey-Gel Lake Natural Reserve until October 25. Activity is on 40 to 12 meters. QSL via 4J5T.

MADAGASCAR, 5R. A group of operators will be QRV as 5R8X from Antananarivo, IOTA AF-013, from October 26 to November 10. Activity is on the HF bands. This includes being an entry in the upcoming CQ WW DX contest. QSL via operators' instructions.

MALDIVES, 8Q. Jim, G3VDB will be QRV as 8Q7EJ from Bandos Island, IOTA AS-013, beginning October 24 for two weeks. Activity is intermittent holiday style mostly on 20 meters using CW. QSL to home call.

RWANDA, 9X. A group of operators will be QRV as 9X0SL from October 26 to November 2. Activity will be on 160 to 10 meters using CW, SSB and various digital modes. QSL via DL7DF.

BOTSWANA, A2. A group of operators are QRV as A25ZY, A25DF, A25CF, A25MB, A25BI, A25ASL and A25AN until November 4. Activity is on 160 to 6 meters with three stations active simultaneously. This includes an entry in the upcoming CQ WW DX contest as A25HQ. QSL contest call via K5LBU and all others to home calls.

THE GAMBIA, C5. Filip, ON4TA is QRV as C56FR from Kerr Sering until November 11. He will be active holiday style on 20 and 17 meters, and possibly 6 and 2 meters and 70 cm using SSB. QSL to home call.

MOZAMBIQUE, C9. Tony, G4LDL is QRV as C91DL from Bilene until October 24. Activity is on 160 meters. QSL via G14FUM.

SABLE ISLAND, CY0. Operators N0TG, AI5P and VE1RGB are QRV as home calls/CY0 until October 29. Activity is on 160 to 6 meters using CW, SSB and RTTY. QSL all calls direct via N0TG.

ST. PIERRE AND MIQUELON, FP. Eric, KV1J will be QRV as FP/home call from Miquelon, IOTA NA-032, from October 25 to November 2. Activity will be on 160 to 6 meters, including 70 cm on Satellite AO-51, using CW, SSB, RTTY and PSK31. This includes an entry in the upcoming CQ WW DX contest. QSL to home call.

REPUBLIC OF KOREA, HL. Members of the Busan DX Club will be QRV as 6M0V/5 from Suu-Do Island, IOTA AS-081, on October 23 and 24. QSL via DS5ACV.

MARIANA ISLANDS, KH0. Operators JA6EGL, JA6JXN, JE6DND, JA6GLD and JR6DRH are QRV as KK6WW/KH0, AC2BO/KH0, KH0R, WH0AA and KR1V/KH0, respectively, from Saipan, IOTA OC-086, until October 25. Activity is on 160 to 10 meters using CW and SSB. QSL to home calls.

HAWAII, KH6. John, KL7JR and Claire, WL7MY will be QRV as either N7I or KH6/KL7JR from Maui Island, USI HI-018S, from October 24 to 31. Activity will be on 20 to 10 meters using SSB. QSL via operators' instructions.

PERU, OA. Special event station OC80A is QRV until the end of 2010 in celebration of the 80th anniversary of the Radio Club Peruano. QSL via OA4O.

BONAIRE, PJ4. Peter, PJ4NX is active on 40 to 12 meters using SSB. QSL to home call.

SEYCHELLES, S7. Davide, IW0HLG will be QRV as S79AD from Mahe Island, IOTA AF-024, from October 26 to November 4. Activity will be holiday style on the HF bands and 6 meters using SSB and various digital modes. QSL to home call.

DODECANESE, SV5. Operators ON4PO and ON4MW will be QRV as J45PO and J45MW, respectively, from Rhodes, IOTA EU-001, from October 26 to November 2. They will be QRV as SX5P in the upcoming CQ WW DX contest. QSL via operators' instructions.

ST. KITTS AND NEVIS, V4. Operator W5JON is QRV as V47JA from Calypso Bay on St. Kitts, IOTA NA-104, until November 10. Activity is on 160 to 10 meters holiday style. This includes an entry in the upcoming CQ WW DX contest. QSL direct to home call.

OPERATIONS APPROVED FOR DXCC CREDIT. The following operations are approved for DXCC credit: Burundi, 9U1KI, 9U1RSI, 9U1VO, 9U4T, 2010 operations; Bhutan, A51A, 2010 operation, and Afghanistan, T6MB, 2010 operation.

THIS WEEKEND ON THE RADIO. The 10-10 International Fall CW Contest, Stew Perry Topband CW Challenge, NCCC Sprint, FOC CW QSO Party, Araucaria VHF Contest, SYLRA Contest and the W/VE Islands QSO Party are all on tap for this weekend. The SKCC CW Sprint and RSGB 80-Meter Club SSB Sprint are both scheduled for October 27. Please see October QST, page 84 and the ARRL and WA7BNM contest web sites for details.