

HOT BANANAS

Oakville Amateur Radio Club

November 2005

VE3HB



Meetings: The Oakville Amateur Radio Club meets on the second Monday of the month at 7:30 p.m. and meetings will be held at the Oakville Fire Department Training Campus at 1144 South Service Road West.

Breakfast: We also meet for breakfast at 7am most Saturdays at *Angel's Diner*, at 369 Speers Road.

Coffee: Finally, we meet at Friday 10:30 a.m. for coffee at Tim Horton's on Cross Ave.

Please join us at all these meetings: All current and future radio amateurs are welcome!

VE3OAK - 147.015 +.600 (131.8Hz CTCSS)
VE3OAK - 444.325 +5 MHz

NET: Mondays at 7:30 pm (except meeting nights and holidays) on 147.015 VHF.

www.oakvilleamateurs.net

President	Greg Foster	VA3GGF
Vice President	Brian Kremer	VE3DNF
Treasurer	Jim Byers	VE3YZA
Secretary	Russ Schwandt	VE3JUZ
Director	Denny Zidek	VE3OKD

Club Coordinators 2004-2005

Membership	Russ Schwandt	VE3JUZ
Meeting Programs	Denny Zidek	VE3OKD
Emergency Coordinator	Rick Harrison	VA3NV
Assistant Emergency Coordinators		
	Russ Schwandt	VE3JUZ
	Jack Livingstone	VE3ITM
	Rob Hagley	VA3WXR
VHF Net	Club Directors	
Repeater Maintenance	Greg Foster	VA3GGF
	Harry Kosterman	VA3EC
	Gary Hetherington	VE3TGH
Web Site	Brian Kremer	VE3DNF
Bulletin Editor	Ian Amos	VE3ESH
Training and Examiner	Jack Livingstone	VE3ITM
Public Relations	Peter West	VE3HG

In this Issue:

1. **President's Message for November**
2. **Editor's Note**
3. **Christmas Diner 2005**
4. **Minutes of Sept Meeting**
5. **How not to be a lid by VE3HG**
6. **A "C" antenna for 50 MHz by VE3ZUF**
7. **QRT by VE3HG**

President's Message

Here I am late in getting this message compiled and over to Ian. (Sorry Ian). I had full intentions of getting this put together last weekend but found I lacked the motivation, and who could blame me. We (Tony VE3RZ, Peter VE3HG, Ian VE3ESH, Mike VE3MW, Ken VA3RRW) were all guest of the Corbiel Contest Club with Ken VA3SK and Paul VA3PC acting as host. This past weekend was CQ WW SSB contest and for the past three years we have made the trek to North Bay to work the contest.

The weekend approached with anticipation, having gone back to work full time the beginning of October I was ready for a break. I picked Tony up just after 04:00 and with your usual stop in South River for breakfast we found ourselves at the site by 08:30, not much traffic at that time of day!

No time to sit around, there were two antennas to build and erect a K9AY receiving loop for 80 & 160 and a half square for 80. The first was the K9AY, a word of caution do not try to raise a 30' mast that has the strength of a wet noodle. Well after a number of tries with the help of 2 sets of guys, the loops themselves and Ken we managed to get it somewhat vertical. The half square proved to be a lot easier it only required us to get a weighed line up over some trees and down again which proved to be a little more trouble than planned.

By mid afternoon we had the two antennas up and the coax run into the barn (the shack). By then Peter, Ian and Mike had arrived, there were still radials to deploy for the 160 vertical (they are kept coiled so as not to interfere with deer) and a rotor to change on the Explorer. By about 18:00 all the outside work was done and all that remained was to set up the two operating positions along with the spotting and logging networks.

We ran in the multi-single category (multiple operators – single transmitter) which also allows for a multiplier station to operate. The run station consisted of a 756 PRO III with a LK-500 amp and the mult station was very similar with a 756 PRO and a second LK-500. The antenna farm consisted of a 3 element 40 meter bean at 120', a Explorer at 64', and TH7 at 64" (all on rotors), a 4 element 15 meter mono-band fixed on

Europe, a 80 meter dipole at 100', a 160 m inverted V at 100', a 160 meter vertical, the half square on 80 and the K9AY receiving loops. Truly an assortment of antennas with approximately 80% of them switchable between the two operating positions.

Well 20:00 came around and the gun sounds, we are off. This year we instilled a little more rigor in our plans with a fixed schedule of operating times which made things a little easier (you knew when you were going to sleep) and insuring no one had too long a shift (need to keep those Q's up – run run run).

In past years Murphy had paid us a visit on the weekend. One year was the year of the amplifiers, 3 down including big Bertha and the other year two rigs (same chip in the auto tuner). We have also had a smattering of PC networking and mother board failures. This year Murphy stayed away, with the exception of losing the packet spots for a couple of hours late Sunday everything work flawlessly. This was reflected in our score, while our number of multipliers were down (575 – 658) our total number of Q's were up (3312 – 2803) for a final points comparison of 4,722,625 (2005) to 4,425,700 (2004). All in all a great weekend but I really did not get my article done!

Each of us only operated for about 15 hours of the 48 that the contest ran but the weekend was more that operating. It was a chance to get away with a bunch of like minded guys to play radio, improve our operating skills, learn a little, watch the hockey game in colour (7-0 Leafs loose, with no RFI thanks to Mike for the satellite dish and Tony for the colour TV) but more importantly relaxing and spending three days building friendships doing a hobby that I truly enjoy.

Thank you Ken, Mike, Peter, Tony, Ian, Paul and Ken with a special thanks to Bob VA3RTW, his better half and Shadow (Peter's friend) for allowing us the use of their property.

Greg – VA3GGF
President

Editor's Note

Welcome to the Fall issue of Hot Bananas for the 2005 / 2006 club year. Well the fall has come once again and antenna repair season is just starting. I have just finished repairing my 80 m loop with big hopes of better DX from my QTH.



Another project that I have been working on is organizing all of my logs and QSLs into one location. I downloaded the DX Lab suite of programs and been giving them a test drive. I would say that for freeware these programs are great. I have converted and loaded all but about 300 QSOs into the DX Keeper log tracking program and recorded all of the QSLs that I have received from the bureau. Next I printed labels for all of those that asked for a QSL, about 300, and now I am about ready to ship them to the bureau. This was many hours of hard work and has taught me not to get this far behind again. So, the statistics when I was done all of the hard work was: From June 2003 to date, over 9000 QSOs, 121 separate countries, 49 States, 35 of the 40 Zones, plus a whole bunch of things. Needless to say I was pleased with the results and glad that I am done.

My last item for this issue is that I am just back from North Bay where Ken, VA3SK hosted the CQ WW DX - SSB contest in the multi-operator single transmitter category. This was a great opportunity to play radio on a world-class station with a fun group of hams. The raw score was 3312 QSOs with a total score = 4,722,624 points. According to the 3830 contest reflector and at the time of writing this note, this places the team 12th in the world.

Hope you enjoy the bulletin and see you at the next meeting.

73,
Ian, VE3ESH

Christmas Diner 2005

Jim, VE3YZA has made a group reservation for the regular meeting night at Tucker's Market Place, Monday Dec 12, 2005 @ 19:30 for the OARC Annual Christmas Diner. The location is:

Tucker's Market Place
Burlington
3110 South Service Road (QEW & Guelph Line)
(905) 634-1815

The cost is 20.00 per person plus drinks and tips. The diner is set up for everyone to pay individually and the menu is the same as last year. We have space for up to 50 people, but need to confirm the numbers at least 48 hrs prior.

So please contact Jim by e-mail at jimbyers@gmail.com or at the next club meeting to reserve your spot(s).

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Oakville Amateur Radio Club
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OAKVILE AMATEUR RADIO CLUB MEETING MINUTES

SEPTEMBER 12, 2005

- President Greg VA3GGF opened the meeting at 19:33 hrs.
- Introduction of 18 members and 4 guests
- Denny VE3OKD advised about upcoming topics and speakers
 - Oct. – Presentation on software defined radio by Rick Stasiak VE3MM
 - Nov. – Presentation on collecting and restoring Heathkit radios by Alan Baird
 - Dec. – Christmas Dinner – details to be advised
 - Jan. – Presentation on Collins Radio by Peter Shilton
 - Feb. – TBA
 - Mar. – TBA
 - Apr. – Presentation on DX by Gary Hammond
- Greg VA3GGF called for volunteers for the Sept. 10/05 Halton Lung Association Bike Trek.
- A reminder of OARC Monday night nets:
 - 7:00 pm - 70 cm
 - 7:30 pm - 2 m
- Greg VA3GGF advised that Ian VE3ESH is looking for articles for the November edition of the club bulletin – Hot Bananas.
- Rick VA3NV asked that any members interested in ARES see him after the meeting.
- Brian VE3DNF updated members on the club website.
- Tickets are being sold on an Icom IC-T2H 2m handheld transceiver donated by Gary VE3TGH. The drawing is to be held at the club Christmas dinner.
- It was moved by Ian VA3IPC that the club directors consider a donation in some form to the Katrina hurricane fund. Seconded by Jim VA3JNO. Motion carried.
- Russ VE3JUZ introduced this evening's guest speaker – Brian Durdin, assistant deputy chief, Oakville Fire Department. The topic will be municipal emergency planning and the Town Emergency Plan.

How not to be a lid On HF, VHF and UHF Part II

In our last article we looked at basic protocol and proper procedures. Now let's look at the bands we can operate on with our new licensing privileges.

Before we progress to HF let's stop and have a look at six meters. There are lots of six meter band plans on the Internet and I'd recommend the one at the ARRL website at <http://www.arrl.org/FandES/field/regulations/bandplan.html>.

In general CW starts at 50.0 and goes to 50.1. USB starts at 50.1 and goes to 50.3. The rest of the band is open for FM. Now if you're planning on any six meter operation checkout the band plan as there are suggested frequencies for beacons, radio remote control of models, packet and FM simplex and repeaters. You are going to need to know where you are on this band before you key your transmitter.

By the way, one of the reasons six meters hasn't been the most popular band in southern Ontario is historic. Six meters at 54 MHz is just at the edge of the frequency spread for TV channel two. If you've got someone watching Buffalo's channel two with an outside antenna, you'll be all over their TV if you fire up on 6. With the popularity of cable and satellite, this is not such a big deal anymore. But guess what, the guy living next door to me is too cheap to have cable and watches TV using an outside antenna. Yikes! This pretty much kills any 6-meter activity from my QTH.

Here's one rule of thumb when it comes to which sideband to use on which HF band. The convention is lower sideband from 160 to 40 meters and upper sideband from 20 to 10 meters. Using the opposite sideband from what is normal just takes up bandwidth and creates unnecessary confusion and QRM. AM is still used on some bands and can normally be heard on 160, 80 and sometimes 40 meters. Often the AM guys are using old tube equipment.

Here's the link for the Canadian band plans as found on the RAC website:

<http://www.rac.ca/service/hfband.htm>.

Our first stop in the HF spectrum is 10 meters. Now 10 is interesting because it is the only HF band that allows FM and FM repeaters from 29 to 29.7. The CW band starts at 28.0 and ends at 28.2. There's a beacon band from 28.2 to 28.3 and then there's the upper side band frequencies, SSTV and satellite frequencies. Again consult the band plan before keying up. When the 11-year sun spot cycle is at its peak, you can work the world with 5 watts into a mobile whip. Right now, 10 is dead to HF work with the exception of some exotic and unpredictable tropospheric propagation in a north-south direction.

The 12-meter band, is the first of the so-called WARC bands and is the smallest of our HF frequencies starting at 24.890 to 24.990. This band too can be worked with a few watts but the band plan is crowded with digital and beacons taking up some bandwidth. There is no contesting allowed on any WARC band so the 12-meter band is a great place to hang out during contest weekends.

The 15-meter starts at 21.0 for CW, which ends at 21.150 with upper sideband dominating to the end of the band at 21.450. This is a great DX band when it's open and is very popular with the Europeans.

The 17-meter band is another interesting band. Again this is a WARC band beginning at 18.068 with CW to 18.100 and upper sideband to 18.168. This band lends itself to casual conversations around the world and is not a bad place to hang out on HF. The band acts much like 20 meters and usually closes during the hours of darkness.

And now the dominant DX band: 20 meters starts with CW at 14.0, which ends at 14.07. At 14.070 the guys who run PSK-31 operate and the RTTY guys are usually around 14.080. Anyone who has an HF rig and a computer can download free software for any of these and other digital modes. If you want to try PSK-31 remember to decrease your power level to somewhere around 10 to 15 watts. Anymore power than that and you'll be taking up more

bandwidth than you need. It's amazing to run a panoramic display software package like MultiPsk and watch a dozen or more conversations in simultaneous progress taking place from all around the world.

The Canadian phone portion of 20 meters begins just above 14.100 (At 14.100 there are a series of propagation beacons in operation.) and ends at 14.350. The American phone band doesn't start until 14.150 and the so-called DX window on 20 begins at 14.195 and extends to 14.200 or more depending on conditions. Don't be surprised if you hear U.S. stations monopolizing these frequencies as some of these guys were on the air when the Titanic went down and they're not moving away from "their" frequency.

Sometimes a really rare station will get on 14.195 and will work split by transmitting on 14.195 and then listening up 2, 3 or 5 KHz up the band. He will normally announce that he's listening up. Just tune for the pileup and use your A/B VFOs or split frequency feature on your radio.

Since 20 provides worldwide coverage there are a couple of frequencies to avoid. The slow scan TV bunch huddle around 14.234 and vicinity. If you hear a strange noise, it's them. Fire up with 5 KHz of their frequency and someone will not so politely tell you to QSY. Same goes for the 24-hour marine net at 14.300 and the hurricane net at 14.325. You won't be welcome if you're just dropping in to say hello from Canada.

Most of you won't ever be on 30 meters and that's a shame because the band which runs from 10.1 to 10.150 is CW only and again there's no contests as it's a WARC band. This band combines the DX characteristics of the 20 meter band with the solid night-time characteristics of 40.

Next on our list is the very confusing 40-meter band. Starting at 7.0 with CW to 7.050 with the suggested Canadian lower sub band phone band from 7.050 to 7.1, we share this band with international broadcasters who are licensed to transmit in the 40-meter band. From 7.1 to 7.150 is the U.S. novice CW band and from 7.150 to 7.3 is the U.S. and the rest of the Canadian phone band. By the way, while

QRP (low power – usually 5 watts or less of power) has its own CW calling frequency on every band, the one on 40 at 7.040 is the most popular.

Most DX work on 40 is done using split frequencies. Again if your rig will allow you to work split or if it has two VFOs, you're in luck. Most European and a lots of Canadian stations will work contests by transmitting in the 7.050 to 7.100 segment of the band and then listen up the band in a clear spot between 7.150 and 7.3. If you own a modern Icom with the DualWatch feature you can also simultaneously listen to your transmitting frequency as well. It all gets very confusing but is great fun. Remember to tune your antenna to your transmitting and not receiving frequency if you decide to give 40-meter contesting a go.

The 80-meter band is perhaps one of the most difficult for a newcomer to get on. Seems like every frequency has a long-established net running and not all of them are real happy to admit new participants. Starting at 3.5 with the U.S. CW band runs to 3.750. (The Canadian CW band ends at 3.725 which doesn't mean you can't work US stations above 3.725 on CW but does mean you're no longer using the suggested band plan.) We've now got Canadian AM guys starting on 3.725 and lower sideband all the way up to the end of the band at 4. There is a DX window around 3.8 MHz and you'd be well advised to keep at least 5 KHz away on either side.

The 160-meter band can be operated from a suburban lot using a 60-foot sloper antenna. It's a challenge but it can be done. The band starts at 1.8 with CW to 1.840 and then it's lower sideband and some AM from there to the end of the band at 2. There is a European DX window from 1.830 to 1.840. 160 is a fantastic band to work and nobody understands the way propagation works on this "the gentlemen's band".

The best advice I can give a newcomer is to listen, listen, listen and then listen some more before you key up the microphone or key. Ham radio is a wonderful and diverse hobby but it does have its protocols built up over a 100 years of operating. Once you understand the procedures, you'll be a welcome addition to any conversation on any band at anytime.

Full wave C antenna for 50 MHz

Ernest Latal, VE3ZUF

My first rendezvous with 6-meter band was in 1946 in Europe. At that time 50 MHz band was very popular in the USA as 2-meter band is today. As a new ham, I used our family room and bedroom to run 10-meter length of double wire on the floor as double line and used a small bulb and yardstick to measure frequency of the antenna oscillator. No crystals or other equipment was available at that time, just excellent small German vacuum tubes from WW2 to build the low power transceiver.

To rediscover the miracle of 6-meter band at present time, I was looking for omni directional antenna with good efficiency and low angle of radiation.

With my past experience using **C Dipole Antenna**, designed by **Brian, KF2YN**, on 20 and 40-meter bands, I tried the same approach on the 6-meter band. C Dipole Antenna doesn't need a ground, but the efficiency of the antenna is dependent of ground soil conductivity. The tuning frequency is significantly changed with the height of the antenna above the ground.

I used the same principles as Brian's C Dipole Antenna, but instead of half wave design, I used full wave design and was pleased with the results. I concluded that using the current balun is a must. Depending on the type of inductance on balun and surroundings, the antenna should be retuned to the frequency of 50Ω coax impedance.

Tuning a C half wave antenna is very simple, by moving the feed point. If you move the feed point away from the center, you get higher impedance and conversely, going closer to the center you are lowering the impedance. A similar approach can be used for full wavelength antenna, but it is a little more trickier. To change the resonant frequency, you trim the ends of the antenna, as you would do on strait dipole or full wave horizontal antenna.

My C λ antenna has two pieces of 100cm horizontal wire for the beams, a vertical wire of 217cm on one side and 121cm upper vertical wire and 92cm lower vertical wire on the other side. (See antenna diagram). The antenna is made of 2mm diameter copper wire.

Dependability of antenna on ground conductivity is minimal. Differences in ground conductivity from 0.008S/m to 0.08S/m represent increase max. 0.5 dB on 7.8 dB on main radiation angle. The antenna needs approximately 2.5m of vertical space. To place the antenna 3m above the ground ($\square 2$) you need a hanging point, which is 5.5m above the ground. I have used an old windsurfing mast, light and very strong to build an antenna mast. You can buy used or damaged surfers mast for a good bargain price. The mast 6m or 10m long is suitable for this full wave C-antenna and 90° turning is easy too without the rotator. The antenna weighs about 4lbs.

The practical design calls for two 1m plastic tubes used for the beams with wire inserted inside. I have used a grey plastic tube for central vacuum cleaner, which is rigid and lighter then plumbing pipes. The 50Ω coaxial connector is easily installed on the lower beam tube with protective encapsulation to keep water away. The rope to hang the antenna on the hoist point is attached to the upper beam tubing.

Note: For portable operation, it is convenient to carry just one pair of 1m-beam tubing and a few sets of vertical wires for different bands. I use screws on the ends of the beams to attach the vertical wires with eyelets. Upper and lower vertical wires are joined by insulator-spacer. I used insulated #14 AWG braided

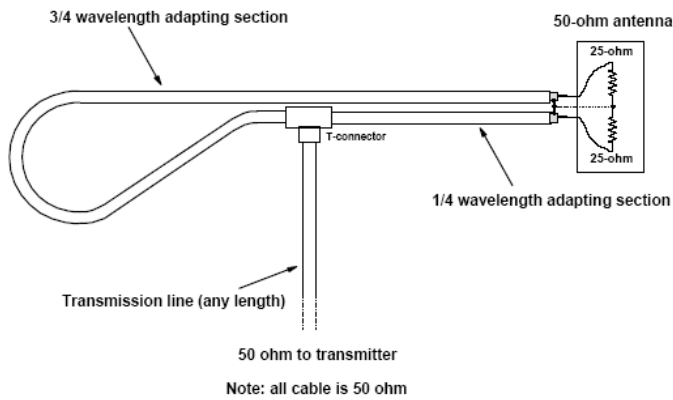
wire to prevent the copper from corroding. (At my place in Etobicoke, the bare copper wire antenna is blackening in just one week.)

The following diagrams shows **C Dipole Antenna** and **C Full Wave Antenna** as compared by EZNEC software program. In the real world you have to tune C Dipole Antenna for different heights over the ground (O/G) to get suitable SWR for the requested frequency. For C Full Wave Antenna, it is not necessary to retune the antenna if the height above the ground changes. Similar to vertical antenna, the C Full Wave Antenna has a very low radiation angle but no counterpoised wires are needed.

At the end of the article are listed approximate antenna wire lengths for 10m and 2m bands..... and remember.....NO ANTENNA IS PERFECT

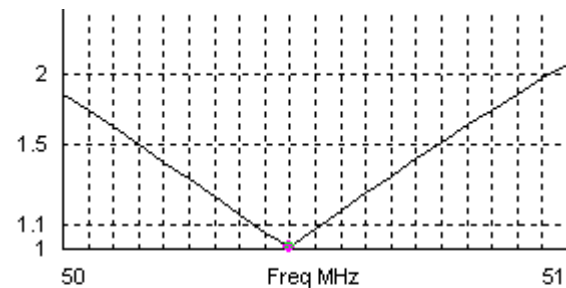
Coax balun 1:1

by Antonio Vernucci, I0JX - K0JX



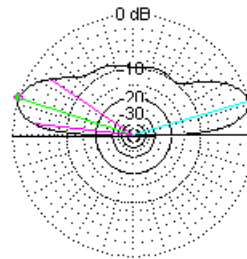
C dipole 50 MHz B 0.44 Long 1.2 U 0.62 L 0.37 m wire 2mm DIA

$\lambda/4$ O/G



Freq 50.45 MHz Source # 1
 SWR 1.01 Z0 50 ohms
 Z 50.29 + j 0.4007 ohms
 Refl Coeff 0.004928 at 53.96 deg.

Total Field

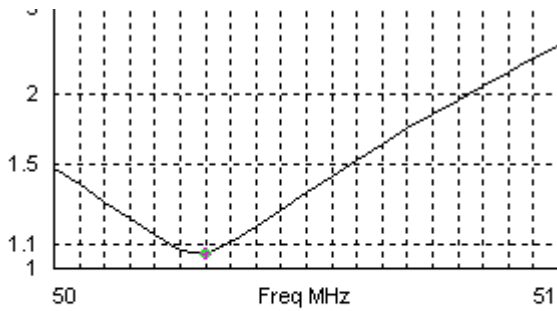


EZNEC

50 MHz

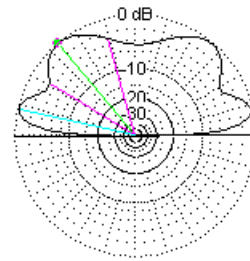
Elevation Plot		Cursor Elev	162.0 deg.
Azimuth Angle	15.0 deg.	Gain	1.44 dBi
Outer Ring	1.44 dBi		0.0 dBmax
Slice Max Gain	1.44 dBi @ Elev Angle = 162.0 deg.		
Beamwidth	26.9 deg.; -3dB @ 146.1, 173.0 deg.		
Sidelobe Gain	1.23 dBi @ Elev Angle = 17.0 deg.		
Front/Sidelobe	0.21 dB		

$\lambda/2$ O/G



Freq 50.3 MHz Source # 1
 SWR 1.055 Z0 50 ohms
 Z 52.66 + j 0.6065 ohms
 Refl Coeff 0.02656 at 12.51 deg.

^ Total Field



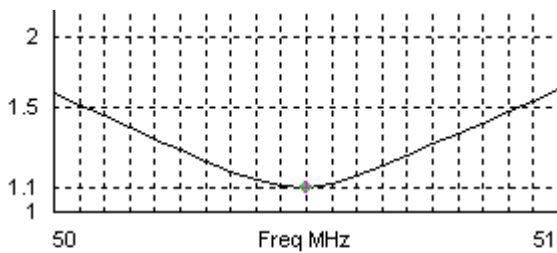
EZNEC

50 MHz

Elevation Plot Azimuth Angle 15.0 deg. Outer Ring 1.49 dBi
 Cursor Elev 130.0 deg. Gain 1.49 dBi 0.0 dBmax
 Slice Max Gain 1.49 dBi @ Elev Angle = 130.0 deg.
 Beamwidth 42.6 deg; -3dB @ 106.2, 148.8 deg.
 Sidelobe Gain 1.36 dBi @ Elev Angle = 167.0 deg.
 Front/Sidelobe 0.13 dB

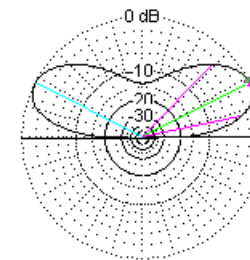
C 50 MHz full wavelength B 1.0 Long 2.17 U 1.21 L 0.92 m wire 2 mm DIA

$\lambda/4$ O/G



Freq 50.5 MHz Source # 1
 SWR 1.095 Z0 50 ohms
 Z 54.73 + j 0.1956 ohms
 Refl Coeff 0.04525 at 2.26 deg.

^ Total Field

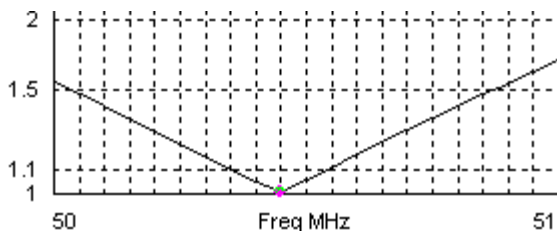


EZNEC

50.2 MHz

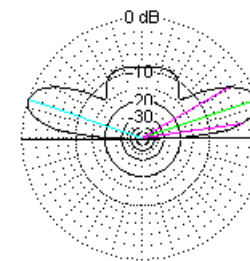
Elevation Plot Azimuth Angle 0.0 deg. Outer Ring 6.95 dBi
 Cursor Elev 27.0 deg. Gain 6.95 dBi 0.0 dBmax
 Slice Max Gain 6.95 dBi @ Elev Angle = 27.0 deg.
 Beamwidth 33.9 deg; -3dB @ 12.3, 46.2 deg.
 Sidelobe Gain 6.95 dBi @ Elev Angle = 153.0 deg.
 Front/Sidelobe 0.0 dB

$\lambda/2$ O/G



Freq 50.45 MHz Source # 1
 SWR 1.006 Z0 50 ohms
 Z 49.9 + j 0.2954 ohms
 Refl Coeff 0.003135 at 109.22 deg.

^ Total Field



EZNEC

50.2 MHz

Elevation Plot Azimuth Angle 0.0 deg. Outer Ring 8.6 dBi
 Cursor Elev 19.0 deg. Gain 8.6 dBi 0.0 dBmax
 Slice Max Gain 8.6 dBi @ Elev Angle = 19.0 deg.
 Beamwidth 21.7 deg; -3dB @ 8.9, 30.6 deg.
 Sidelobe Gain 8.6 dBi @ Elev Angle = 161.0 deg.
 Front/Sidelobe 0.0 dB

No changes on frequency and SWR over $\lambda/4$ O/G and up. 1λ O/G main lobe elev. 11deg gain 9.3 dB.

QRT by VE3HG

I have seen the future and if you were one of the fortune members to attend the club meeting of Oct. 17 you saw it too.



I'm talking about FlexRadio Systems SDR-1000 HF+VHF software defined radio. Richard, VE3MM, a software defined radio owner and enthusiast, came up from his St. Catharines QTH to provide us with a fabulous PowerPoint show and real-time demonstration of the future of radio.

For \$1500 (U.S.) you too can join the software defined radio crowd. So why would you want to shell out that much cash? Reason number one is this radio is running circles around traditional hardware radios including the new \$15,000 superboxes being offered by Icom and Yaseu. Reason number two is the radio's software is infinitely updateable so, in theory, it will never go out of date. Reason number three is it will soon be capable of running in the single-operator, two radio mode (SO2R) which right now requires you to own two contest-quality radios (at \$3K each or more) and interlacing hardware (figure at least another \$1K) and you see the advantage right away.

How good is the radio? Well the software filters can go down to 25Hz (That's right 25Hz not 250Hz which is the normal bandwidth of an extremely tight CW filter.) without ringing. The ARRL review in the October issue of *QST* says that IMD at 5Khz is as good as it has ever measured at -130dBm. What that means is if Harry, VA3EC, who is 360 meters north of my QTH, owned an SDR-1000 he'd never hear me at one kilowatt even if we were within a few kilohertz of each other! As it is now, we are beating the heck out of each

other and our solution is to put up a wireless link between us so we can operate in the multi-multi or multi-single categories during major contests.

There's a large and growing community of hams using software defined radios. A mini-40 meter version called the SoftRock 40 sold out all 800 kits at \$25 each in a couple of weeks from

<http://www.amgrp.org/kits/softrock40/index.html>

the American QRP club. The SoftRock 40 used the same free software as the SDR-1000. How cool is that?

On top of all the great stuff this radio does on the ham bands it also receives the new digital shortwave mode, which again may well be the way of the future for shortwave broadcasters.

One funny thing about the SDR-1000 is it doesn't do QSK CW. There's a latency issue (a delay caused by the software) that means the computer processor takes a few milliseconds to respond to the tap of the CW paddles. It's just enough of a delay that most true blue CW operators use an external keyer like the very excellent Idiom Press Logikeyer

<http://www.idiompress.com/keyers.html>.

(I own one and I love it.)

Future design changes may fix this issue but in real life contesting few (if any) contesters use QSK (which allows you to hear your receiver in between dits and dahs). QSK is just too fatiguing to listen to for hours on end. It's great for nets where you want to interject a quick comment but I don't use it for contests as my amplifier can't switch fast enough to keep up.

I've been attending ham radio club meeting since the early 1960s when tubes were king and amplitude modulation (AM) was the only voice mode in town. Some nuts ran RTTY using refrigerator size equipment but that was about it. There was some experimentation with something called double sideband but nobody gave it much thought until we had a demonstration of the new mode at a Skywide Club meeting. That night we saw the future of radio – just like the Oakville club meeting on Oct. 17.

Fantastic!