

# Message from the London Amateur Radio Club



Promoting Amateur Radio in London  
And surrounding area since 1920

May 6, 2012

## L.A.R.C. Executive

### President

Doug Elliott, VA3DAE

### Vice-President

David Lambert, VE3K GK

### Past President

Doug Tompkins, VE3IDT

### Treasurer

Brian Bouckley, VA3ATB

### Secretary, Flea Market

Ruth Dahl, VE3RBO

### Director, Flea Market

Ann Rundle, VA3EOR

### Director, Membership

John Visser, VA3MSV

### Director

Mike Watts, VE3ACW

### Non-Voting

### Director, ARES & CANWARN

Brett Gilbank, VE3ZBG

### Appointments

### LARC Repeater Coordinator

Brad Seward, VE3NRJ

### Repeater

**Operator/Programmer**  
Vacant

### Field Day Coordinator

Dave Lambert, VE3K GK

### Webmaster

Doug Elliott, VA3DAE

### Newsletter Editor

John Visser, VA3MSV

### Auditor

Rob Hockin, VA3HO

## March's L.A.R.C. Meeting

The next LARC meeting will be **Thursday May 10 at 7:30**. **Camille Riggs and Tom Tipping, VE3IFR** from the London Air Patrol will tell the story of volunteer airborne search and rescue in our area.

## Special Event Station VX3W

April 19, 2012

Members of the Manotick Amateur Radio Group will be operating special event station VX3W from Fort Wellington in Prescott, Ontario, on Saturday, May 19th from 10:00 EDT to 16:00 EDT (1400Z to 2000Z) to commemorate the 200th anniversary of the War of 1812.

Operating Modes: We will be operating on various HF bands, depending on the conditions. Local operators may be able to find us on simplex VHF and/or UHF. While most operations will be voice, we may also operate in digital modes.

Check the VX3W board on our club's forums for more information:  
<http://www.ve3rix.ca/forums/forumdisplay.php?f=43>.

If you make contact with VX3W, please send us a QSL card to the address below. We will send out cards in return and ask that you include a first class stamp for Canadian addresses or an IRC for any other country.

QSL Information:

Manotick Amateur Radio Group  
c/o 609-45 Holland Avenue  
Ottawa, Ontario, Canada  
K1Y 4S3

\*\*\_\*\*

Vernon Ikeda - VE2MBS/VE2QQ

Pointe-Claire, Québec

RAC Blog Editor/RAC E-News/Web News Bulletin Editor

## Next Meeting is Where and When?

**Reminder: The next monthly L.A.R.C. meeting on May 10, 2012 at 7:30 pm**

All meetings are normally located at St. Judes Anglican Church, 1537 Adelaide Street North at Fanshawe Park Road East in London, Ontario.

The meetings are **normally** held on the second Thursday of the month at 7:30 pm EST during the months of September to June.

Next Meeting will be May 14, 2012. This meeting topic is still to be confirmed.

## Area Repeaters

### LARC Repeaters

#### London

VA3LON 147.060 + 114.8Hz

VE3MGI 145.390 - 114.8Hz

### SORT Repeaters

#### London

VE3TTT 147.180 + 114.8Hz  
Echolink Node 10741

VE3SUE 444.400 + 114.8 Hz  
IRLP Node 2400

VE3TTT 442.200 + D-Star

#### Ipperwash

VE3TCB 146.940 - 114.8 Hz  
Linked to VE3SUE

#### Grand Bend

VE3SRT 442.050 + 114.8 Hz  
Linked to VE3SUE

### Other Area Repeaters

#### London

VA3SIX 53.470 - 114.8 Hz

VE3OME 145.450 - 114.8 Hz  
CANWARN

VA3FEZ 444.100 + 114.8 Hz

#### Grand Bend

VE3RGB 146.760 + 173.8 Hz

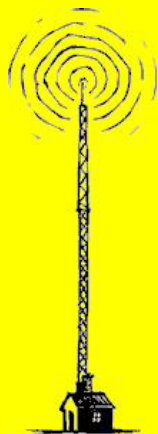
#### Stratfordville

VE3DPL 146.655 - 131.8 Hz

#### St. Thomas

VE3STR 147.330 + 114.8 Hz  
Echolink Node: 72886

VE3STR 443.825 + 114.8 Hz  
IRLP Node: 2482



If you have a repeater that should be listed here, please forward the information to John Visser, VA3MSV at [va3msv@hotmail.com](mailto:va3msv@hotmail.com) and I'll add it to the list.

## Membership Certificates

The Club has created membership certificates for its current members. You can see your own certificate at the following link. <http://www.larc.ca/member-list.htm>

Simply click on your surname and it will bring up a PDF of your certificate suitable for printing.

## Flaunt Your Face – Show Your Shack

In our hobby it's not always easy to put a face to all the fellow hams you talk to on the air. To help us all figure who's who, LARC invites its members to submit digital photos of yourself and/or your shack to be published on the membership page of our website. Purely voluntary of course, and if you prefer you can submit just one (depending on whether you think your face or your shack is more presentable).

How will it work? On the membership page, we'll attach your own picture where your first name appears, and the picture of your shack to your callsign. See the entry for Doug Elliott, VA3DAE for an example.

How do you submit your pictures?

Just email them to the LARC site webmaster address, which is: [webmaster@larc.ca](mailto:webmaster@larc.ca)

## Mutual Aid

Would you be willing to answer some questions if a fellow ham needed some advice? Got a problem you can't figure out? Want to try something new but need someone to show you the ropes? Check out our new **Mutual AID page** (<http://www.larc.ca/mutual-aid.html>), a new way to get people who are looking for assistance together with the folks who can help supply the answers. **Let us know** what you think of this new facility.

## Membership Report

Currently the membership is at 118 to the club. Of the 17 Honorary Members brought in from the L.S.R.C., 4 have paid for the current 2011/2012 year. For the 2011/2012 year, have now have 19 new members. Unfortunately 3 past members of the club became a Silent Key last year.

I would like to welcome the following new members.

Gary Stapleton, VA3YAT

Craig Dixon, VACDF

Perron Goodyear VE3PSG - Public Relations & Development Representative, Salvation Army

From the Middlesex-London Health Unit

Patricia Simone, VE3HIS - Manager, Emergency Preparedness

Ross Graham - Manager, Special Projects

Mark Przyslupski, VA3MPW

Mark Riedl, VA3MWR

Gordon Horner, VA3AEV

Scott McIntosh, VA3AEY

Rosemary Boyd, VA3AEH

Raymond Day, VA3AEU

## Nets



### Daily

#### Trans Provincial Net

7.055 MHz 7:00 am – 5:00 pm

#### London Senior's Net

146.400 MHz 7:00 pm – 7:30 pm

### Sunday

#### Swap Net

7.055 MHz LSB 12:00 pm

#### ARES Ontario Net

7.153 MHz 1:00 pm

7.055 MHz 3:00 pm

3.742 MHz 7:15 pm

IRLP Reflector 9005 8:00 pm

### Monday

#### LARC 2m Net

147.060 MHz + 8:00 pm

### Wednesday

#### ARES Net

145.450 + VE3OME 7:30 pm

#### ARES Ontario Net

IRLP Reflector 9005 8:00 pm

### Thursday

#### PROCOMM Net

147.180 + VE3TTT 8:00 pm

444.400 + VE3SUE 8:00 pm

### Friday

#### Tech Net

147.180 + VE3TTT 8:00 pm

444.400 + VE3SUE 8:00 pm

### Saturday

#### VE3TTT 2m Net

147.180 + VE3TTT 7:30 pm

444.400 + VE3SUE 7:30 pm

146.940 - VE3TCB 7:30 pm

442.050 + VE3SRT 7:30 pm

If you have a Net that should be listed here, please forward the information to John Visser, VA3MSV at [va3msv@hotmail.com](mailto:va3msv@hotmail.com) and I'll add it to the list.

# 2011/2012 L.A.R.C. Executive Elections

It is that time of year again for us to think about the lineup for the club's executive members for 2010-2011.

Every May we decide who will be responsible for the handling of the money, physical resources, and determining the future direction of the club.

The club's executive requires at least 7 members each year and if you are interested, we request that you make yourself available one night per month to go over club business.

Some of us have been on the executive for several years and enjoy the experience.

We have some simple rules

1. Any current member of the club can request to be a member of the club's executive and added to the ballot.
2. Only members in good standing can vote (must be a paid member)
3. We must have a quorum (at least 25 members in good standing) in order to hold a valid election.

Some of the activities that require planning, coordination or at least some monthly discussions: Monthly meeting topics, fund raising, flea market, field day, repeaters & other equipment, extra activities.

We currently meet the 4th Thursday of the month from 7:30 pm to about 9:00 pm. All club members are invited to attend any executive meeting. If you have some interest but are unsure, and want to come and see what we do, just check with one of the executive as to where we are meeting.

The next page is a snip from the club's by-laws that specifically deal with the election process.

## Upcoming Events

Sun., Jun. 3, 2011

[Central Ontario Hamfest & Fleamarket](#) - Guelph ARC & Kitchener-Waterloo ARC

Waterloo Regional Police Association  
Recreation Centre  
R.R. 2, 1128 Rife Rd. North Dumfries  
Township

Sat., Jun. 23, 2012 –

Sun., Jun. 24, 2012

[ARRL Field Day 2012](#)

London Amateur Radio Club's Field Day  
site will be located at Reservoir Park in  
Bryon

Sat., Jul. 14, 2012

[ONTARIO HAMFEST](#) -  
**Burlington Amateur Radio Club**  
Milton Agricultural Fairgrounds  
Milton, ON

Sat., Jul. 28, 2012 –

Sun., Jul. 29, 2012

[Rona MS Bike Tour 2012](#)

The organizers are anxious for our help  
once again. We hope to have Hams  
riding in all the Voyageur vans, and will  
therefore need some additional  
operators. If you're curious as to what's  
involved, send an email to  
[webmaster@larc.ca](mailto:webmaster@larc.ca) and we'll do our  
best to entice you to share in the fun.

Sun., Sep. 23, 2012

[35th Annual 2010 London  
Amateur Radio Club Flea  
Market](#) - London Amateur  
Radio Club

Located at the Western Fairgrounds  
Special Events Building. London,  
Ontario

Sat., Oct. 13, 2012

[HARC Hamfest 2012](#) - The  
**Hamilton Amateur Radio Club**  
Ancaster Fair Grounds

If you have an upcoming event  
that you would like to have  
listed here, please forward the  
information to John Visser,  
VA3MSV at  
[va3msv@hotmail.com](mailto:va3msv@hotmail.com) and I'll  
add it to the list.

# 2011/2012 L.A.R.C. Executive Elections

*from the LONDON AMATEUR RADIO CLUB  
INCORPORATED - BY-LAW #1*

## 3. Board of Directors

3.1 The day-to-day affairs of the Corporation shall be arranged by a Board of Directors composed of 7 selected Directors, 1 non-voting Director appointed by the Amateur Radio Emergency Service (A.R.E.S.) and the Past President of the Corporation.

3.3 To be eligible to stand for election to the Board of Directors one must be a member in good standing for at least 30 days prior to the Annual Meeting at which members of the Board of Directors will be elected.

*This year's Annual Meeting will be held May 10, 2011*

3.4 A Nominating Committee shall be struck by the President at least 90 days prior to the Annual Meeting and it shall begin its activities immediately upon being appointed.

3.4.1 The Committee shall be composed of three members in good standing. The Past President shall be the Chairperson of the Committee.

3.5 The recommendations of the Nominating Committee shall be presented to the Board of Directors. The Board shall cause such report to be published in the L.A.R.C. Newsletter, which will be sent to all members in good standing as notice of the Annual Meeting. Such report shall also outline the procedure pertaining to additional nominations.

3.6 Additional nominations may be received by the Secretary up to 12 hours prior to the Annual Meeting if submitted by a member in good standing supported by the written agreement of 4 other members and the written acceptance of the nominee.

3.7 The election of the Board of Directors shall take place at the Annual Meeting of LARC. The Directors shall be elected by a simple majority vote of the members. The Directors shall take office on July 1 of that year.

Please contact the L.A.R.C. Secretary Ruth Dahl, VE3RBO, if you have any nominees or questions. You can reach me at [ragann61@hotmail.com](mailto:ragann61@hotmail.com).

## The HF Corner – May 2012

April 26, 2012

By David Lambert, VE3KGK

Some HF operations that are coming up in May 2012

<b>Date:</b>	<b>Country</b>	<b>Prefix</b>	<b>Bands</b>	<b>Mode</b>
May 1 to May 30	Lebanon	OD5	80-10	SSB & CW
May 3 to May 13	Mozambique	C91	40-10	SSAB & CW
May 5 to June 30	Gibraltar	ZQ3	All bands	SSB & CW
May 7 to May 13	Bermuda	VP9	80-10	SSB & CW
May 8 to May 16	Aruba	P40 FM		
		P40 X	80-10	SSB & CW
May 11 to May 16	Maldives	8Q7	80-10	SSB & CW
May 11 to May 31	Belize	V31	80-10	SSB & CW
May 12 to May 19	Guernsey	MU/home call	80-10	SSB & CW
May 15 to May 23	Seychelles	S79 RR	80-10	SSB & CW
May 17 to May 20	Canary Is	EH8	40-10	SSB & CW
May 17 to May 23	Macao	XX9	160-6	SSB & CW*
May 25 to May 30	Somalia	6O3A	HF	SSB & CW
June 1 to June 7	American Samoa	KH8	40-10	SSB & CW
June 6 to June 12	Montserrat	VP2MRT	HF	SSB & CW
June 6 to June 14	Bhutan	A52	160-6	SSB & CW*

\* May be available on digital modes as well.

May 26/27 2012 CQ WW DX CW Contest

Contest exchange: RST plus your CQ Zone number. Ontario CQ Zone Number is 4

Your exchange would be 59904

You will receive your report as RST plus CQ Zone Number of station you work.

### QSO Parties

7<sup>th</sup> Area QSO Party      1300 Z May 5 to 0700 Z May 6<sup>th</sup>  
Indiana QSO Party      1600 Z May 5 to 0400 Z May 6<sup>th</sup>  
Nevada Mustang Roundup      1700 Z May 12<sup>th</sup> to 1700 Z May 13<sup>th</sup>

Exchange is usually his/her signal report plus your province

You will receive your signal report plus his/her location.

In any of these brief contacts the signal report is almost always 5/9 regardless. The object, for those who are serious, is to work as many stations in the time frame as possible, so to speed things up signal reports are always 5/9 even if they really are 4/3!!

Give a listen and see what you can hear. Check such web sites as DX Watch to see who is on what frequency. DX Watch is a site that has all sorts of real time information on it and it is updated 24/7/365 every 10 seconds. Great site to play with.

If I can be of any help to anyone interested in HF operations, e-mail me at david.lambert@sympatico.ca

## Building a 40/80 meter Dipole

April 30, 2012

By David Lambert, VE3KGK

The idea for this antenna came out of a conversation with Ansil Rock, VE3HDR. I was visiting Rocky at his shack and asked him what antenna he was using on 40 and 80 meters and he showed me some information he had pulled off the Internet. I have included pictures of the coil alone, the 80 meter section (the short section between the coil and the end insulator) one leg showing the 40/80 meter length and also the feed point connector.



One of the coils

Dave Tadlock, KG0ZZ had posted some videos on his website, one of which showed how to wind coils for converting a 40 meter dipole into a 40/80 meter dipole. I watched the video and decided that the construction looked pretty simple for someone like me whose antenna building experiences in my early years as a ham had amounted to buying ready-made antennas such as a Mosley Jr. three element beam which I got when a lady in Toronto got in touch with me and told me that her husband had become a silent key and if I would take down the tower and the antenna and rotor, I could have them for free. Back in those days I was young and brash (now I'm old and brash!) so I went to Toronto by myself and took down the beam and a 48 foot tower without using a gin pole, packed it all in my Ford Torino wagon and brought it home. That was 34 years ago! I have learned since then that working on towers alone is .....perhaps stupid? You bet it is!

Then later I bought two traps and built myself a trap antenna which was easy as all I had to do was read the instructions and cut the wires to the correct lengths and I had an antenna that worked

well. Eventually the traps broke down from weathering and I took that antenna down.

Next my friend Tony Ward, VE3IAT, convinced me that a sloper on 80 meters would work well, so he built that antenna for me and I was good on 80 meters even if I had an antenna that was very directional.

I also played around a bit with a five band trapped vertical which I built by reading the instructions and clamping tubes that telescoped together at the lengths specified in the instructions, and the hardest parts of that exercise were digging in the clay where I live to put in ground radials, and actually *reading* the instructions. Real men don't read instructions!

I am indebted to Bob Rice, VE3HKY, for designing his Bobbi-pole antenna, and to John Pedersen, VE3MGR for allowing me to pester him as I struggled to build a version of VE3HKY's antenna. This was my first foray into actually scratch-building an antenna, rather than assembling commercially available parts. I can honestly say if it had not been for Bob and his encouragement I would never have built an antenna that required more than hooking a couple of wires to a coil and a feed point connector and hauling that up onto my tower. I know I speak for several other hams who have built antennas using Bob's design, who had never attempted building an antenna before but who are now using his dipole. My experience building that antenna and getting it to work certainly allowed me to wind the coils for my 40/80 dipole and build a feed point connector that can be re-used if necessary, and put the wire up in the air and get it working with the assistance of Mike Watts, VE3ACW, who helped me tune it.

Winding the coils and building the feed point connector were easy after watching the videos that Dave, KG0ZZ put on his website. You can find out how to build the feed point connector and how to wind the coils by looking at his web site at: <http://www.amateurradio.bz/>

The coils are made by winding 78 turns of the 18 SWG enameled wire onto the PVC coil forms. Ansil, VE3HDR donated enough 18 SWG enameled wire to build my coils.



The PVC tubing that you would need for the coil forms is available locally at Lowe's. However, the conduit is hideously expensive at just over \$16.00 for a ten foot length, particularly when you only need about ten inches of the conduit! Being a true ham looking for a bargain, I happened to be in Port Huron and I went into Lowe's there and found the same conduit for \$4.31 for ten feet. A ten foot length of conduit could easily fit in my van so you can just guess what I did! I also priced 14 gauge copper house wiring locally and found out it was just twice as expensive here as in Port Huron so I sourced my wire there as well. Yes, I know I'm not supporting local businesses, but I am looking out for *my* bottom line!

I contacted Dave, KGOZZ and he told me that he had found that the measurements he had mentioned on his web site had to be modified slightly, and when the antenna went up, Mike and I found that indeed the lengths were not where we wanted them. In fact the 40 meter lengths were too short and the 80 meter lengths were too long. Measure twice, cut once? Yes, but it was too late for that! I'd either have to scrap the 40 meter legs or add some wire. We started out adding six inches to each leg of the 40 meter side. That changed things ever so slightly, so I grabbed some extra wire I had and held up a section between my hands and said, "What do you think Mike? About *this* much? Mike said "Yeah, let's try that."

We added 'that much' to both of the 40 meter legs and tested the SWR. It had come down a lot. Flat across the 40 meter band! Well, flat enough so that the SWR was no more than 2:1 over most of the band. I was not terribly worried about the CW portion of the band although I could operate there

if I was up to snuff with my CW! Sure, I could have used an antenna tuner (I have a Drake MN-4) but it is one more step you have to perform when you are tuning across the band listening for a rare DX station and hear one you want to work.

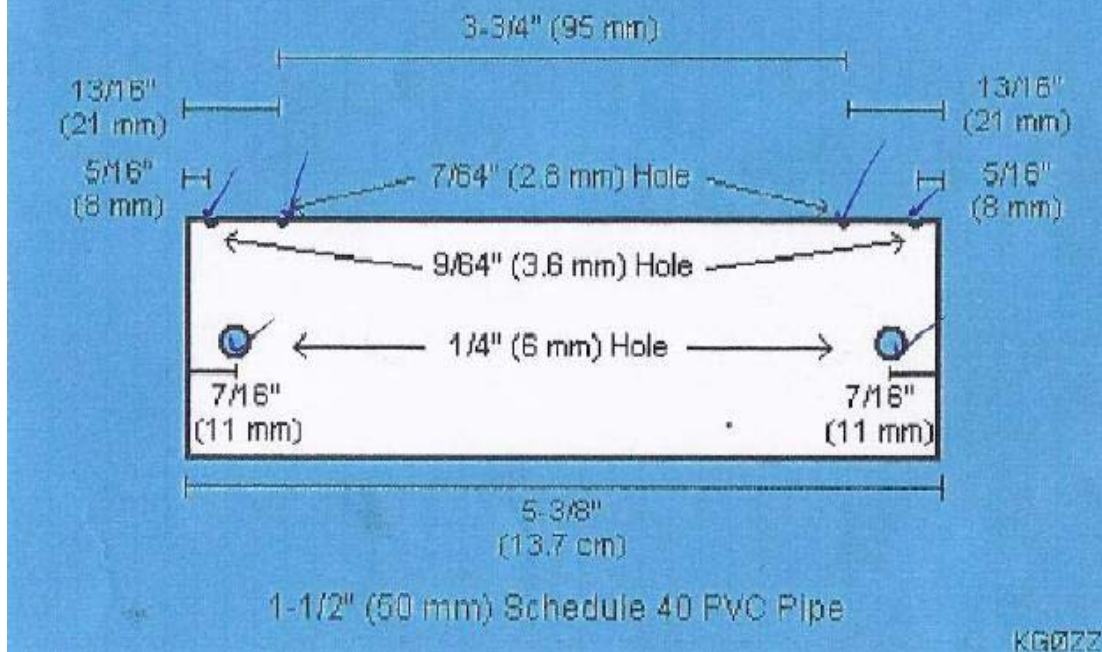
Then we tried to tune the 80 meter part of the antenna. Way low, so we started shortening the two legs below the coils. By cutting an inch at a time off each end we got the antenna so it was resonant between about 3.765 and 3.815, which was perfect for me as those frequencies cover the DX portion of the 80 meter band which was where I wanted to be. You could get the frequency lower by shortening the legs some more or get the frequency higher by lengthening the legs. We cut the legs as we went rather than wrapping the extra wire around the legs pointing towards the coax as those 'tails' can affect the tuning, and we knew we were trying to raise the resonant frequency.

The SWR rises quite rapidly if you go beyond the frequencies noted, which means the 80 meter part of the antenna is very narrow banded. KGOZZ tells me that if I played with the coils by changing the number of turns (shortening the length of the coil wires by about seven to nine turns it would change how 80 meters behaves, but I was so proud of how neat my coils looked when I had finished building them and the antenna was resonant where I wanted it to be, so I left the coils just the way they were. I wrapped the coils in electrical tape before putting the antenna up because I did not want to run the risk of scratching the enamel off the coil wires as they bounced around while I was raising and lowering the antenna for tuning.

I have provided the measurements I used which have worked well for me. Depending on where in the two bands you want the antenna to be resonant, your measurements may vary. The main reason I looked at this antenna was that any other 40/80 antenna that I looked at could not be put up on my lot oriented towards Europe and Australia. A full length 40/80 meter dipole could only fit on my lot oriented towards the north and south, which was not what I wanted. With the antenna mounted the way I have it, I did not use a balun as the impedance measured about sixty ohms, which I did not think was too bad.

I have also included a drawing of the coil form and the measurements for drilling it.

## PVC Coil Form for 40/80 Meter Antenna

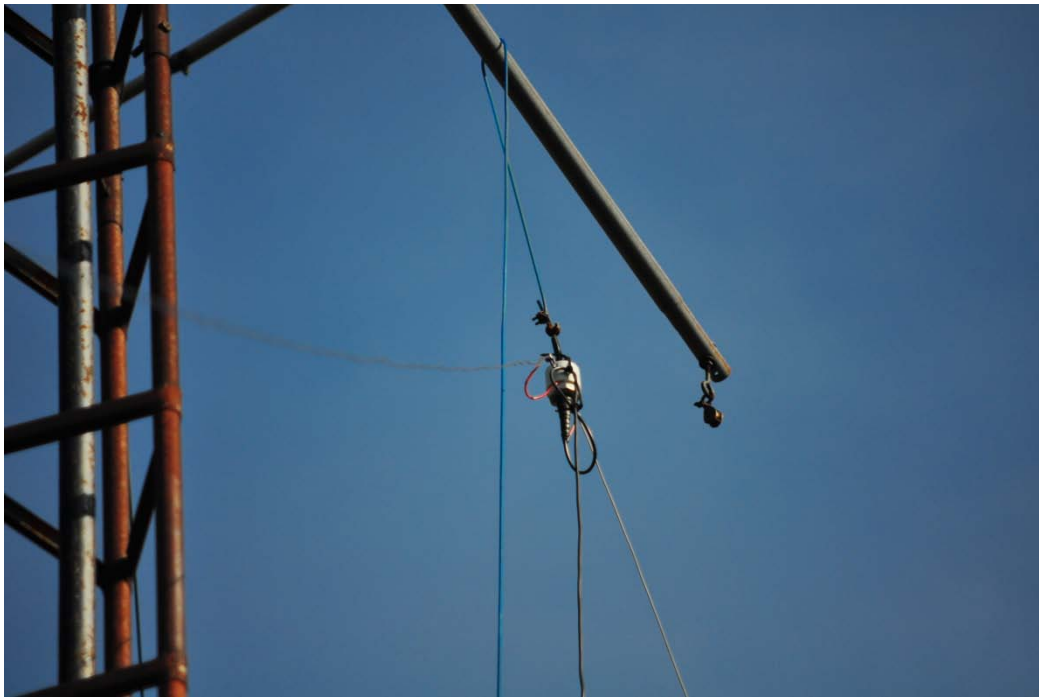


I have nine feet of the two inch PVC schedule 40 conduit that I used left over if anyone needs coil forms, if you decide you would like to build a similar antenna. Any PVC conduit you source from Rona or Home Depot will be too large in diameter. Those two outlets sell Canadian made pipe that is 53 mm in diameter where the one available at Lowe's is US made and almost exactly 50 mm which is what I wanted. However, as an aside, I would not purchase US sourced electrical items if I intended to use such electrical items as the PVC conduit or wire *inside* my house, since US electrical products intended for use in the US market are Underwriters Laboratories certified, while Canadian products are ULC certified, the 'C' meaning testing by a Canadian laboratory and Canadian testing standards are more stringent. Having something electrical that is not ULC certified in your home may complicate an insurance

settlement. Since my antenna is outside I'm not worried about that.

The feed point connector I used was made of two PVC parts, one a 1 1/2" cap and the other a 1 1/2" plug, both of which I cemented together with PVC cement. Because I was in Lowe's in Port Huron, I sourced those two parts there. The SO 239 I used was purchased at the Burlington Flea Market for a dollar. The feed point connector is not hard to build and is one of the small building projects that Mike ACR suggested could be a club project. If people want to build a similar feed point connector I will source the parts in Port Huron when I am over there on one of my trips. The cost was around \$3:00 for the PVC parts and the connector was a flea market purchase from someone's used collection. The entire connector cost me less than \$12:00 with stainless hardware and it is reusable. If you chose to build it with non-stainless eye bolts the cost would come down to about \$6:00.





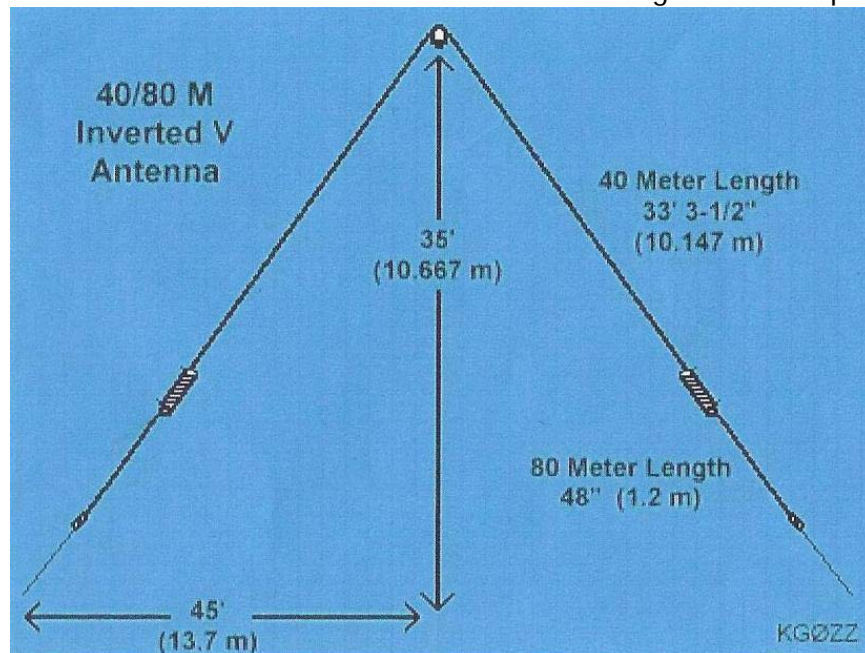
The feed point connector

Again I must thank Bob, VE3HKY for being the catalyst that made me brave enough to try to build my own antenna. I've been licensed since 1978 but I have always tended to buy something commercial that will work as long as I followed the instructions. Bob's excellent instructions in his video on the Internet enabled me to build an antenna like his which worked when I tested it. This success led me to try my hand at building another antenna that I now know works for me. My next project is to help a new ham build one of the semi-vertical trap

antennas that Bob designed so he can get on the air and then I'll be putting one up at my QTH in the not-too-distant future.

On the included diagram of the antenna the lengths shown did not work for me when I used an MFJ 259 antenna analyzer to check the resonant frequency and SWR. The lengths I used are shown below:

- 40 meter length: 35 ½ feet per side
- 80 meter length: 3' 8 ½" per side



The lengths are from coil form to eye bolt on the 40 meter leg and from the coil form to the insulator

on the 80 meter leg. I added 10" to the length to wrap around the eye bolts to secure the leg and

about 16" where I connected to the coil form. This allowed me some leeway to increase length if I needed to. I added the same 10" and 16" measurements to the 80 meter leg for a similar reason. I marked the wire at the 10" and 16" points and bent the wire at 90 degrees at the marks and I placed the bends at the eye bolt and at the hole I

the coil form and similarly at the hole in the insulator and the other hole in the coil form. You may be able to see from the pictures that the pieces I added to the 40 meter legs are not insulated. That was because that was the wire I had to hand!



One leg of the antenna

My included angle is wider than the suggested 45' (dictated by where my tie-off points are located, and my height is about 40' where the suggested height shown is 35'. The height and angle will make slight differences to the impedance and may change the SWR somewhat from the values I was able to obtain. Height and angle will be dependent on the amount of real estate you have and where you can tie off the ends of the antenna. If you install it as a flat dipole as opposed to mine which is an inverted 'V' you would need a 1:1 balun to match the coax to antenna impedance, depending on what the feed line is. I am using RG58 coax.

You will need approximately 80' of 18 SWG enameled wire. I secured one end of each 40' length in a vice and used a pair of pliers to pull the other end to stretch the wire. It will stretch about 1% or a little over 5" and you will be able to feel when you have stretched it enough. I know that sounds strange but until you try it, it is not easy to envision that. If you stretch it more than about 6" you may end up breaking it. Just gently pull on it and you will feel it move easily at first, then start to get harder to pull. That's when you stop. Stretching

the wire stops it from changing length with extremes in temperature, something we are certainly used to in this part of the world.

Happy building! If you need any help or advice on building this antenna you can contact me at [david.lambert@sympatico.ca](mailto:david.lambert@sympatico.ca)

I am willing to cut up the rest of the 2" PVC conduit I have to make coil forms (I have a nice chop saw that makes nice neat square cuts) and I have enough to make coil forms for about eight, or maybe nine antennas. Ask soon enough and you will receive. When the PVC is gone, well.....! This is a first come, first served offer.

Disclaimer: I am by no means an antenna expert. This is only the second antenna I have built from scratch. What I can tell you is that using the measurements I used and installing it where I have it, and using it with my Kenwood TS870, it works how I want it to work, and so far I'm happy with the results.

My apologies for not being metric. It is nigh on impossible to teach this old dog any new tricks!

## RAC Bulletin 2012-023E - Distracted Driving in Ontario

April 17, 2012

On April 16 the MTO posted a regulatory notice proposing a change to Ontario Regulation # 366/09 (Display Screens and Hand-Held Devices) that would Extend the current exemption for licenced amateur radio operators for an additional five years.

As you know, the exemption was due to expire at the end of this calendar year, and Radio Amateurs of Canada has been lobbying for a permanent exemption since this regulation was introduced back in 2009. We will be providing comments to the Road User Safety Branch of MTO on this issue and will continue to press for a permanent exemption. That said, a 5-year extension is certainly welcome at this point but is not the ultimate resolution that we have been seeking.

The only other group to obtain an extension are commercial, public transit, and public function drivers.

You can view the notice in the provincial registry at:

<http://www.ontariocanada.com/registry/view.do?postingId=9043&language=en>

RAC and the Distracted Driving Committee wishes to thank all organisations that supplied letters of support to assist us in obtaining this extension. This shows the support we have from many Ontario organisations.

Bill Unger VE3XT - North/East Ontario Regional Director

Chair - RAC Distracted Driving Committee  
Radio Amateurs of Canada

\*\*\_\*\*

Vernon Ikeda - VE2MBS/VE2QQ

Pointe-Claire, Québec

RAC Blog Editor/RAC E-News/Web News  
Bulletin Editor

## BSA Morse Code Interpreter Strip

May 4, 2012

By Richard P. Clem, W0IS

The Boy Scouts of America just announced a new "Interpreter Strip" for Morse Code. An "Interpreter Strip" on the uniform means that the Scout or adult leader is able to communicate in a particular language. The requirements for the Morse Code strip closely follow the requirements for other languages, such as francais, espanol, and Klingon.

(Well, the Klingon one is actually unofficial, but Morse Code is official.)

<http://blog.scoutingmagazine.org/2012/05/04/a-blast-from-the-past-in-code/> (This article is below)

This will be a good incentive for my Cub Scout to learn the code, since his Cubmaster (me) will be wearing one!



## A Blast From The Past – In Code

May 4, 2012

Get ready to dot-dot your I's and dash your T's.

Today, the Boy Scouts of America released the **Morse Code Interpreter Strip**, an official patch for Scouts and Scouters who can demonstrate their ability to "speak" this special language.

Morse Code joins languages like Spanish, French, Italian, German, Japanese, Arabic, Chinese, Hebrew, Sign Language, and several others as interpreter strips available for wear on Scout uniforms (above the right pocket).

To get a typical interpreter strip, you must carry on a five-minute conversation, translate a two-minute speech, write a letter in the language, and translate 200 words from the written word.

But Morse Code, a vital communications tool during World War II, doesn't really work with those requirements. So Jim Wilson and the BSA team crafted new ones:

### Morse Code Interpreter Strip requirements

- Carry on a five-minute conversation in Morse Code at a speed of at least five words per minute.



The patch design spells the message M-O-R-S-E

- Copy correctly a two-minute message sent in Morse Code at a minimum of five words per minute. Copying means writing the message down as it is received.
- Send a 25-word written document in Morse Code at a minimum of five words per minute.

### How to order

Call BSA Supply toll-free at 800-323-0736 and ask for Supply No. 615120.

### Official requirements

Find them [here \(PDF\)](#).

### Decode this

In closing, I'll leave you with my thoughts on this news:

— •••• •• ••• / •• ••• / —•—• ——— ——— •••• !

Can you read that?

## 2012 Olympics: UK Regulator Ofcom Issues Proposed Anti-Interference Rules For 2012 Olympic Game Venues

May 4, 2012

UK Telecommunications regulator Ofcom have issued a notice dealing with proposed regulations that will enable prompt enforcement action for interference cases that affect the 2012 Olympics. One that affects every citizen that operates two way radio gear or even unintentional radiators.

The Proposed Regulations set out a requirement that applies to apparatus in relation to a Games' "event zone." Where the use of a given apparatus does not meet requirements of causing zero interference to communications within an Olympic venue Ofcom may serve on the person in

possession of the apparatus a notice prohibiting its use. Breach of such a notice would be considered to be a criminal offence. The draft regulations designate 25 to 35 km radius around all major venues across the UK, including football stadiums, where enhanced enforcement could apply.

The announcement follows last week's Ofcom announcement of restrictions to the 70cm, 2.3 and 3.4GHz amateur bands. The new proposal would apply to anyone, ham or non-ham, within the range of the Olympic venues. (RSGB, others)

## RSGB Says Olympic Games A Good Way To Publicize Ham Radio

May 4, 2012

Meantime, the Radio Society of Great Britain calls the upcoming Olympics a great chance for ham radio to show its colors

The London 2012 Olympic and Paralympic Games provide an outstanding opportunity to publicize

amateur radio. To that end, the RSGB negotiated a very limited number of special prefixes starting with 2 Oscar One Two followed by a single letter suffix.

The idea is for these calls are given an extensive airing over the Olympic period this summer. Special

stations are already planned for London, 2O12L, and Wales, 2O12W, and there will be a special callsign for the National Radio Centre.

Groups in Scotland and Northern Ireland are encouraged to take advantage of the special callsign secured for their region.

If you are a ham radio group in Scotland or Northern Ireland, you can apply for use of one of the special Olympic call signs by contacting Bob Whelen by e-mail to [G3PJT@btinternet.com](mailto:G3PJT@btinternet.com). (GB2RS)

## FAA May Look Again At Banned RF Devices On Planes

May 4, 2012

And finally this week, using your laptop, iPad or Kindle during a commercial US flight might become a reality in the not to distant future. This with word that the Federal Aviation Administration may be willing to take a second look at its policy on electronics usage aboard airplanes.

While some airlines permit very limited use of wireless devices once an aircraft is at altitude, actual availability is quite limited. But according to a recent report credited to columnist Nick Bilton and the New York Times, the FAA has decided to take an updated look at the use of personal electronics on planes.

The report continues by quoting FAA spokesperson Laura Brown. She told the press that with the advent of new and evolving electronic technology, and because the airlines have not conducted the testing necessary to approve the use of new devices, the FAA may be taking a fresh look at the use of personal electronic devices, other than cell phones, on aircraft.

Currently, airline passengers must turn off any electronic device that can transmit or receive a radio signal that cannot be disabled. While, the FAA indicates that it is open to testing new devices, it will more than likely be a long road before any substantive changes take place. This is because every airline giving thought to allow such operations would first have to test one of each version of a device on each of model of every aircraft in its fleet.

Whatever happens, the FAA has already been quoted as saying that it will not budge on its policy of not permitting use of mobile phones during a flight. And don't even consider trying to use a ham radio HT on a commercial airliner. Even if that one were lifted by the FAA the domestic US airlines would likely keep a ban in place on the use of ham gear and other two way radios on board their flights. (Tech Trends)

## RFinder For Apple Portable Products Released

May 4, 2012

W2CYK has announced the latest platform release of RFinder - The World Wide Repeater Directory. The new version is designed for Apple iPhone, iPad and iPod users and is available for immediate download from the Apple App Store.

Previous versions of RFinder run on Android based gear and can be found on-line at [web.rfinder.net](http://web.rfinder.net). The World Wide Repeater Directory is also accessible from RT Systems radio programmers and via CHIRP on Windows, Linux and Macintosh with the same user/password you use on handheld devices. (W2CYK)

## Digital Mobile Radio On Ham Radio Now

April 27, 2012

The future of digital audio in VHF and UHF amateur radio is the subject of a video conversation between video producer Gary Pearce, KN4AQ, and expert Jeff Parker, WA1WXL, who works for Motorola Solutions. The video presents a discussion

of alternative digital audio systems available today and what may be coming to the ham radio market in the very near future. You can see it on line as Episode 7 of Pearce's Ham Radio New series. The URL is [hamradionow.tv](http://hamradionow.tv). (Various)

## Emerging Technology: 5 MHz Propagation Study Released In UK

May 4, 2012

A paper entitled Comparison of Propagation Predictions and Measurements for Mid-Latitude HF Near-Vertical Incidence Sky Wave Links at 5 MHz has just been published in the peer-reviewed, academic journal, Radio Science. Authored by Dr. Marcus Walden, G0IJZ, the paper compares near-

vertical incidence skywave or NVIS measurements from the U-K 5 MHz beacon network with High Frequency propagation predictions using VOACAP and ASAPS software. Further information, including a link to the paper, can be found at [tinyurl.com/7ahx8vt](http://tinyurl.com/7ahx8vt). (GB2RS)

## Ultra Thin Flexible Batteries Expected In 2013

April 27, 2012

In news from around the world, an ultra-thin flexible battery is on its way from Japan electronic giant NEC. According to reports, the company has worked for over a decade to design an organic battery is just one one-hundredth of an inch thick, can refresh a teeny screen 2,000 times and can be recharged in less than a minute.

In 2013, the battery is expected to be included in such items as enhanced credit and debit cards that display balances, electronic hotel keys, subway and train passes, and in much slimmer and lighter smart phones. The organic battery is also expected to pave the way for slender flat-screen displays and e-readers with a texture that feels like paper. (Kiplinger, CGC)

## New Dedicated IRLP Topic Channel For Scouts

April 20, 2012

Radio Scouting and the Jamboree on the Air now have a common meeting place for Internet Radio Linking Project contacts or IRLP. As one of the new Topic Channels, scouts need only connect to IRLP Node 9091 to make contact with one another.

The Radio Scouting and Jamboree on the Air Topic Channel is available for use 24 hours a day, 7 days a week. A recommended time for calling has initially been established for 1800 UTC for weekend activities, such as Radio Merit Badge events, as

well as contacts during Summer Camp. Another suggested time is 0100 UTC to accommodate most scouts during the evening hours.

For detailed information on available IRLP repeaters in your area, how IRLP works and operating guidelines, visit [www.irlp.net](http://www.irlp.net) on the World-Wide-Web. For more information about this and other IRLP Topic Channels take your web browser to [www.irlptopics.net](http://www.irlptopics.net). (NZART)

## Two Senators Ask FCC To Save LightSquared

April 13, 2012

The story that never seems to want to die just took a step toward the weirder. This with word that two well known United States senators are asking the FCC to save LightSquared from oblivion by moving the proposed broadband network to alternative spectrum in an effort to save the troubled company from going under.

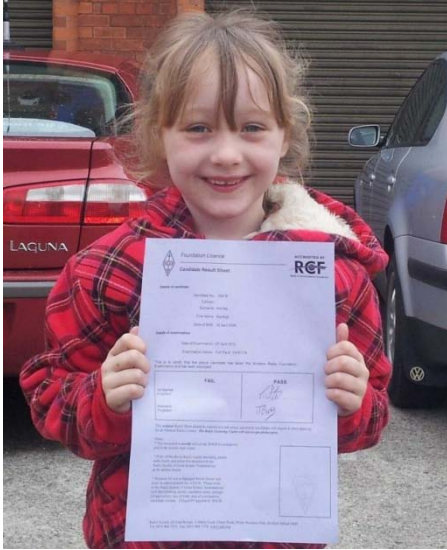
As previously reported, LightSquared has invested billions of dollars in plans for a nationwide 4G network in spectrum directly adjacent to that used by the Global Positioning System or GPS. But in February the FCC moved to block the network over concerns that it would interfere with GPS devices.

Now in a letter obtained by the on-line blog The Hill, Democratic senator John Kerry and Republican senator Lindsey Graham have stated their view to FCC Chairman Julius Genachowski that they understand his agency's decision to prevent LightSquared from interfering with GPS devices. But the senators said that instead of putting the company out of business, the FCC should allocate a different block wireless spectrum to LightSquared.

The two senators did not suggest which block of spectrum the government should set aside for LightSquared to use. The company had previously stated that its needs can only be fulfilled in bandpace in or close to where its infrastructure is right now. (ARN, Various news reports)

## 6 Year Old Believed To Be Youngest Ever UK Ham

April 13, 2012



Some names in the news. First up is Kayleigh Huntley, who at age 6 is believed to be the youngest person ever to hold a United Kingdom amateur radio license.

According to the Humber Fortress DX Amateur Radio, Kayleigh passed her Foundation exam at age 5 years and eleven months. The news release from the Humber Fortress club did not however mention Kayleigh's callsign.

Kayleigh Huntley is the granddaughter of Andy Neilsen G7LRR who is credited with introducing her to the magic world off amateur radio some three years ago. (Southgate)

## HAM TECH

Volume 2, Number 5

John R. Fogleboch, Sr, WY2J, [wy2j@arrl.net](mailto:wy2j@arrl.net)

### HF Antennas: Horizontal or Vertical Polarization? - Part 1 of 2

Is there any truth to the old saying that vertical antennas have better low angle performance and therefore yield better DX than horizontal antennas? This question has been around, and largely unanswered with hard facts for many decades. If we go back 100 years to the earliest days of radio we find only vertical antennas. Why? Because the first useful mode of propagation that these early experimenters tripped over was ground wave and this mode must be vertically polarized to propagate. So important was this mode and the low and medium frequencies that supported it; that it was the reason that the Hams were kicked out of the frequencies below 1500 KHz (200 meters) by the original FCC when they started issuing licenses in 1912. The present day commercial AM broadcasting still uses vertical polarization and ground wave to deliver daytime signals to the public. Low frequency navigation like the 100 KHz Loran C depends on ground wave to deliver straight line great circle propagation between their transmitters and the receivers on ships at sea. WWVB delivers 60 KHz atomic clock signals to your radio controlled clocks by vertically polarized ground wave.

So when did horizontal antennas and polarization appear? It was probably when some ham ran a random length of wire out an attic window to a back yard tree and found out it worked on 40 and 80 meters. He didn't know why or how well it worked anymore than his professional engineering cousins did. Neither had the analytical tools needed so they both resorted to experiments with varying degrees of rigor. The least rigorist are the RST reports from Ham QSOs but you still read this defense for an antenna in QST articles today. At least the editors run the antennas through a minimum level of simulation to sort out the truly unbelievable claims. The tools that let us do accurate antenna performance calculations today are computer simulation programs that grew out of extensive government funded work in the 1970's and 80's on electromagnetic computations. In essence they built a program to solve James Clerk Maxwell's famous four equations from the 1860's, that describe one of the four fundamental forces of the universe, electro-magnetism, and predicts propagation.

After the Numerical Electromagnetic Code (NEC-2) software was released to the public domain, Roy Lewallen W7EL wrote a Windows user friendly front

end for it and sold it as EZNEC. Chapter 4 in the ARRL 20<sup>th</sup> edition Antenna Handbook gives a good introduction to antenna modeling and the capabilities of several software modeling tools. It's a good read and not too technical. We are going to use the free ARRL version of this software that comes with the Antenna Handbook, to compare two very elementary antennas and to try and quantitatively answer the question; which is better horizontal or vertical polarization.

The modeled antennas are simple half wave center fed dipoles, one horizontal and one vertical. Both can run on the free ARRL version of EZNEC which is limited to 20 segments. Why not use the common 1/4 wavelength vertical? Because it requires an extensive radial ground that introduces significant near field losses and makes comparisons difficult with horizontal antennas. I will cover the 1/4 wavelength vertical in part two next month.

Figure 1 is the elevation gain pattern of the horizontal dipole mounted 1/2 wavelength, (34.7 ft at 20 meters) above good ground. For good ground the conductivity is specified as 0.03 Siemens/Meter with a dielectric constant of 20. We will cover the sensitivity to ground characteristics next month.

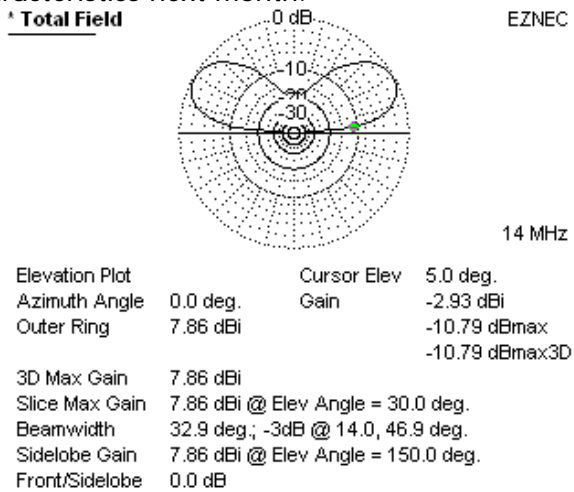


Fig.1. Horizontal Dipole at 1/2 wavelengths

Note that at 30 degrees elevation angle this antenna has 7.86 dBi of gain but this deteriorates by 10.79 dB to -2.93 dBi at the 5 degree angle commonly forecast for long distance DX. This was the angle we forecast in last month's HAM TECH propagation from NJ to Australia on 20 & 15 meters.

Lets' erect the vertical dipole with the center at 1/4 wavelengths above ground. This is when the top element end is at 34.7 ft and the bottom is nearly at ground level, a practical configuration. The performance is shown in figure 2 below.

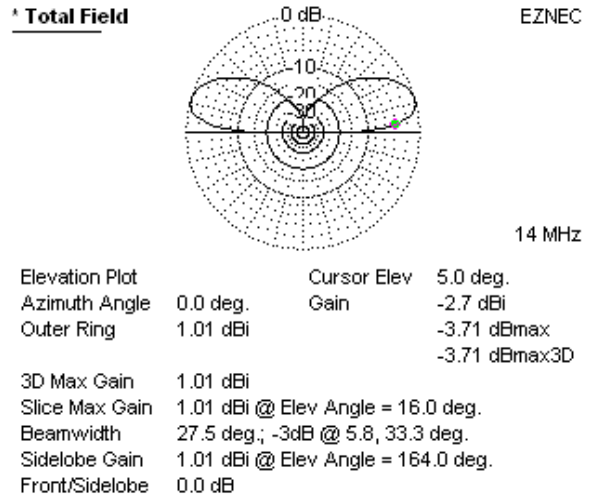


Fig.2. Vertical Dipole at 1/4 wavelengths

The peak of the elevation plot is now 16 degrees but the peak gain is only +1.01 dBi where as the horizontal had a peak gain of +7.86 dBi. At the 5 degree DX elevation angle the gain is down to -2.7 dBi, only 0.23 dB better than the horizontal. Let's raise the vertical so that the maximum current center is at the same height as the center of the horizontal. The pattern is given in figure 3.

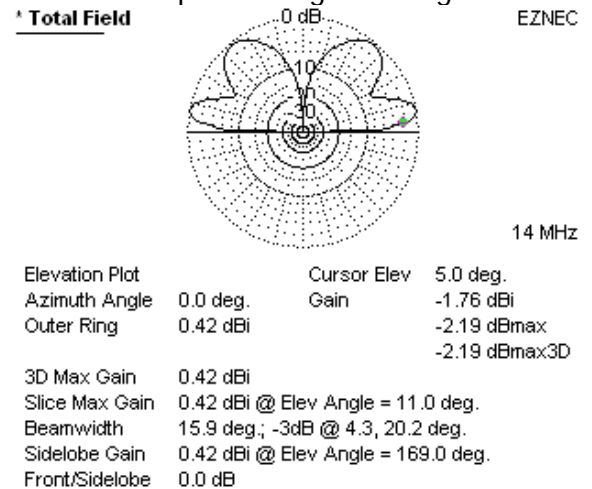


Fig. 3. Vertical Dipole at 1/2 wavelengths

The elevation pattern split in two with the lower lobe at 11 degrees and a modest null at 30 degrees, an angle useful for shorter range QSOs. The gain at 5 degrees is -1.76 dBi, only 1.17 dB better than the horizontal and 0.94 dB better than the lower vertical. It looks like the verticals aren't delivering much improved low angle performance over the horizontal. Could this long standing belief about verticals and superior DX be just a myth?

Next month we will look at what happens when the ground conditions change from excellent to poor and when we introduce the radial grounding system to allow shortening the vertical to 1/4 wavelengths.



# **MEMBERSHIP INVITATION**

-- Membership application and dues are currently requested.

Our term of membership runs from November 1 to October 31 of the following year. Each and every year it is increasingly more difficult to get Amateurs to commit to membership in their local club due to the alternate functions we are asked to fund.

The **London Amateur Radio Club** has a long history of providing technical support, social support and repeater facilities. Public service efforts are currently provided by a club affiliation with Amateur Radio Emergency Services (**ARES**) and **Radio Amateurs of Canada (RAC)**.

Your Directors work tirelessly to provide meeting topics that are informative and entertaining, events that are timely (Christmas meeting, field day, bus trip) and participate in events that display and promote Amateur Radio in the community.

To be effective in its pursuits, the Club needs the support of the local Amateur fraternity through membership.

While we obtain financial support from our Annual Flea Market, we require membership support to fund such things as meeting hall rent, repeater sites rent and maintenance, web site fees, membership cards and liability insurance. For what it's worth, none of these things are getting any cheaper.

The cost of membership has not changed for a number of years and even in the face of increased cost, we would like to keep it that way.

With more than 1000 'hams' in the London area, it's inconceivable that less than 10% support a pastime about which most of us are passionate.

**PLEASE**, make a choice and do your part to keep the **London Amateur Radio Club** alive and well by purchasing your membership at our next meeting (or by mail – details on our web site). The cost is still only \$25.00 (single) or \$30.00 (family residing at the same address).



# EMERGENCY PREPAREDNESS

## OPEN HOUSE

SATURDAY, MAY 12 – 10 AM TO 4 PM

- *Tour London's Emergency Operations Centre*
- *Check out emergency vehicles and displays*
- *Learn how to prepare your family for the first 72 hours*

**Location:**  
**Byron Fire Hall # 12**  
**275 Boler Rd.**



Preparation you can't live without.