

# Message from the London Amateur Radio Club



Promoting Amateur Radio in London  
And surrounding area since 1920

March 7, 2010

## L.A.R.C. Executive

### President

Doug Elliott, VA3DAE

### Vice-President

Pat Ross, VE3CNX

### Past President

Doug Tompkins, VE3IDT

### Treasurer

Brian Bouckley, VA3ATB

### Secretary

Ruth Dahl, VE3RBO

### Director, Flea Market

Ann Rundle, VA3EOR

### Director, Membership

John Visser, VA3MSV

### Director

David Lambert, VE3K GK

### Non-Voting

#### Director, ARES & CANWARN

Brett Gilbank, VE3ZBG

### Appointments

#### LARC Repeater Coordinator

Brad Seward, VE3NRJ

### Repeater

#### Operator/Programmer

David Young, VE3EAY

### Field Day Coordinator

Pat Ross, VE3CNX

Assistant - David Lambert, VE3K GK

### Webmaster

Doug Elliott, VA3DAE

### Newsletter Editor

John Visser, VA3MSV

### Auditors

Rob Hockin, VA3HO

William Clothier, VE3BCU

## Next Meeting Topic

The next LARC meeting will be held on **Thursday, March 11** at 7:30 pm, with a presentation by **Mike Cook, VE3ZMC** entitled "**How they see through us**". It will be an exploration of medical imaging, including CT (Computed Tomography) and MRI (Magnetic Resonance Imaging) scanning.

## Silent Key - Dr. David Bradley Toth, VE3GYQ

It is with heavy hearts, that we the family announce the passing of Dr. David Bradley Toth on February 26, 2010 at the age of 55. Beloved father to Michael, Christopher and Caitlin Toth. Survived by his wife Ronda Nartker and stepson Rusty of Spencerville Ohio. Beloved eldest son of Magdalen and the late Thomas Toth, Windsor. David will forever be remembered by his loving siblings Brian (Susan) Toth of London, Sandra (Dana) Woltz of Windsor, Stephanie (Frank) Capizzi of Shelby Township Michigan, Dr. Darryl (Helena) Toth of Lakeshore. David was the proud Uncle to several nieces and nephews. Beloved nephew of Apollonia Noll of Windsor.

Continued on Page 5 after 2010/2011 L.A.R.C. Executive Elections information.

## Next Meeting is Where and When?

**Reminder: The next monthly L.A.R.C. meeting on March 11, 2010 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 (no meetings July and August).

Next Meeting will be April 8, 2010. Topic of this meeting has not been confirmed yet

## Area Repeaters

### LARC Repeaters

#### London

VA3LON 147.060 + 114.8Hz

VE3MGI 145.390 - 114.8Hz

### SORT Repeaters

#### London

VE3TTT 147.180 + 114.8Hz

ULR Link repeater  
"SORT" System

VE3SUE 444.400 + 114.8 Hz

ULR link repeater "SORT"  
System, IRLP

#### Ipperwash

VE3TCB 146.940 - 123.0 Hz

Linked to VE3SUE

#### Grand Bend

VE3RGB 146.750 + 123.0 Hz

VE3SRT 442.050 + 123.0 Hz

Linked to VE3SUE

#### Goderich

VE3OBC 146.910 - 123.0 Hz

#### Whitechurch

VE3WWD 443.075 + 123.0 Hz

### Other Area Repeaters

#### London

VA3SIX 53.470 - 114.8 Hz

VE3OME 145.450 - 114.8 Hz

CANWARN

#### Stratfordville

VE3DPL 146.655 - 131.8 Hz

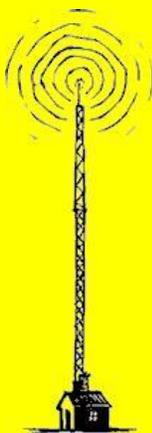
#### St. Thomas

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

As of March 6, 2010, the London Amateur Radio Club has 98 members. 11 members fall under the Honourary Membership category. Of the 87 paid members, 22 of them fall under the Family Membership category.

## Nets



### Daily

Trans Provincial Net  
7.055 MHz 7:00 am – 5:00 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 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  
442.300 + VE3TCB 7:30 pm  
447.050 - VE3SRT 7:30 pm  
447.075 - VE3BHR 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.

# 2010/2011 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

**Thu., Mar. 11, 2010**

**L.A.R.C. Meeting** – A presentation by Mike Cook, VE3ZMC entitled "How They See Through You"

**Sat., Mar. 27, 2010**

### Ham-Ex 2010

Peel and Mississauga Radio Clubs  
Brampton Fair Grounds, Hearsh Lake Rd.

**Sat., Apr. 17, 2010**

### The 34th Durham Amateur Radio Hamfest

The North Shore ARC and the South Pickering ARC  
Iroquois Park Recreation Center in Whitby, Ontario. The site is located on Victoria Street at the corner of Henry Street and is wheelchair accessible.

**Sun., Jun. 6, 2010**

### Central Ontario Hamfest & Fleamarket

GARC & KWARC  
Waterloo Regional Police Association,  
R.R. 2, 1128 Rife Rd. North Dumfries Township. Beside Hwy 401, between exits 268 & 275. Lat: 43° 20' 51.20" N, Long: 80° 24' 58.89" W

**Sat., Jun. 12, 2010**

### London Vintage Radio Club Annual Flea Market

London Vintage Radio Club  
Held at Hammond Manufacturing, 394 Edinburgh Road, Guelph Ontario

**Sat, Aug 14, 2010**

### Hamfest 2010

Brantford Amateur Radio Club  
held in the Burford Fairgrounds

**Sat., Sep. 11, 2010**

### Barrie-Orillia Hamfest

Barrie Amateur Radio Club & Orillia Amateur Radio Club  
Located at the Oro-Medonte Fairgrounds

**Sun., Sep. 26, 2010**

### 33rd Annual 2010 London Amateur Radio Club Flea Market

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

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.

# 2010/2011 L.A.R.C. Executive Elections continued

## *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 13, 2010***

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).

## Silent Key - Dr. David Bradley Toth, VE3GYQ



Dr. Toth graduated from the University of Western Ontario Medical School in 1978 where he set up a family medicine practice in London

Ontario following his graduation. In 1993 he moved to the US to pursue his passion for the fast pace of emergency medicine. He was a partner of Premier Health Care Services, in Dayton, and worked at Lima Memorial Health System and St. Rita's Medical Center as an emergency medicine/trauma physician. David thoroughly enjoyed his many passions in life as he lived his life to the fullest. He was a private pilot for 30 years and loved to fly his Twin Comanche as much as possible. He was a member of the American Aircraft Owners and Pilots Association, EAA and the Comanche Flyers. Besides flying, he was an avid astronomer and would spend many a clear night in his own

computer controlled observatory. David was also a member of the Royal Astronomical Society of Canada and one of the founders of the London, Ontario, Astronomy Club serving as its president. David proudly traveled for NASA to Chile and Australia to participate in servicing of the space telescope and eclipse and solar system photography. He was also a HAM radio operator since the 1970s and is the founder of the London Ontario Repeater Towers (VE3GYQ) and served as the president of the Tucson Amateur Packet Radio Association from 2004 to 2009. Funeral and Mass Service was held on Wednesday, March 3, 2010 at St. Charles Catholic Church in Lima Ohio. In remembrance of David donations to the Canadian Cancer Society or Charity of your choice would be appreciated by the family. A memorial service for David will be held in Windsor and will be announced in a Saturday Edition of the London Free Press in April. On line condolences can be made at [www.remembering.ca](http://www.remembering.ca).

*Note from editor*

*The Funeral and Mass Service was attended by Jim Spicer, VE3CTS and Dan Shack, VE3FLK. Both Jim and Dan has collaborated together on an article for next month's newsletter about Dr. David Toth and his local contributions to the local amateur radio community.*

# Silent Key - Dr. David Bradley Toth, VE3GYQ



From

## **Dr. David Bradley Toth**

February 27, 2010 7:24 PM

### **Spencerville**

Dr. David Bradley Toth, 55, died at 3:10 p.m. Feb. 26, 2010, at his residence.

He was born Aug. 11, 1954, in Windsor, Ontario, to Thomas S. and Magda M. Kachler Toth. His mother survives in Windsor. On June 16, 2009, he married Ronda S. Nartker, who survives in Spencerville.

Dr. Toth graduated from the University of Western Ontario Medical School in 1978. He practiced family medicine in London, Ontario. He moved to the U.S. in 1993 and began a career in emergency medicine. He was a partner of Premier Health Care Services, in Dayton, and worked at Lima Memorial Health System and St. Rita's Medical Center until the time of his illness. He was a member of the American College of Emergency Physicians, College of Physicians and Surgeons of Ontario. He was board certified in Family Medicine of Canada. He was president of the Regional Physician Advisory Board of EMS and was also the medical director of Ada, Bath and Spencerville EMS.

He was a private pilot for 30 years. He loved to go to the Allen County Airport and fly his Twin Comanche as much as possible. He was a member of the Aircraft Owners and Pilots Association, EAA and the Comanche Flyers. Besides flying, he was an amateur astronomer. Since he was a young boy in school, he enjoyed looking at the night sky and reading about space and

the stars. He had his own observatory that was seen opened up on clear nights. He set up the London, Ontario, Astronomy Club and served as its president. He was also a member of the Royal Astronomical Society of Canada and belonged to the Lima, Dayton and Columbus Astronomy Clubs. He traveled for NASA to Chile and Australia to fix telescope problems. He worked closely with Software Bisque to make computer programs to operate telescopes. You could catch him planning trips to Starfest and the Winter Star Party yearly.

He was also a HAM radio operator since the 1970s. He would talk for hours with his call sign VE3GYQ. He set up the London, Ontario, towers. He was the Tucson Amateur Packet Radio president from 2004 to 2009. In his spare time, he enjoyed a round or two of golf with partners or for fundraisers. He also enjoyed hitting the slopes if possible to ski.

Survivors also include two sons, Michael Toth, of Bowling Green, and Christopher Toth, of London, Ontario; a daughter, Caitlin Toth, of Montreal; a stepson, Rusty Nartker, of Spencerville; two brothers, Brian (Susan) Toth, of London, Ontario, and Darryl (Helena) Toth, of Lakeshore, Ontario; two sisters, Stephanie (Frank) Capizzi, of Shelby Township, Mich., and Sondra (Dana) Woltz, of Windsor, Ontario; an aunt, Apollonia "Loni" Noll of Windsor, Ontario; and numerous nephews and nieces.

# Silent Key - Dr. David Bradley Toth, VE3GYQ

## TAPR President Emeritus Dr David Toth, VE3GYQ (SK)

From arrl.org



Dr David Toth, VE3GYQ -- President Emeritus of Tucson Amateur Packet Radio (TAPR) -- passed away Friday, February 26 after a long battle with cancer. He was 55. A resident of Spencerville, Ohio, Toth served as a Director and

Executive Vice President of TAPR in the 1980s and was elected President of the organization in September 2005. With his advancing illness, he decided not to stand for re-election last October and was instead named President Emeritus with Steve Bible, N7HPR, taking the reins as TAPR President.

"Dave was a great manager during his tenure at the head of TAPR," said ARRL Contributing Editor and TAPR Secretary Stan Horzepa, WA1LOU. "I give him a lot of credit for the success of TAPR's involvement in the high performance software defined radio (HPSDR) projects. The ham radio world has lost one of its best with VE3GYQ's passing."

An ARRL Life Member, Toth was a medical doctor who, despite his busy schedule, still made time to be an active amateur. In addition to experimenting with digital communications, he was an avid VHF contester. Licensed since the 1970s, Toth -- a native of Windsor, Ontario -- came to the US in 1993 to practice emergency medicine in Ohio. He was a partner of Premier Health Care Services in Dayton and worked at Lima (Ohio) Memorial Health System and St Rita's Medical Center (also in Lima) until the time of his illness.

"Dave was an extreme pleasure to work with," TAPR President Steven Bible, N7HPR, told the ARRL. "Most people saw Dave's dry wit and humour, but underneath, he was also very passionate about TAPR and promoting the technical side of the Amateur Radio."

QST Editor Steve Ford, WB8IMY, remembered Toth fondly: "After years of telephone chats and e-mails, I finally met Dave Toth in the flesh at the 2006 ARRL/TAPR Digital Communications Conference in Tucson. Some say a brilliant intellect and a well-developed sense of humour are mutually exclusive, but Dave defied the stereotype. It was difficult to keep a straight face at the forums while Dave was muttering irreverent comments. He will be greatly missed."

Bob McGwier, N4HY, who worked with Toth on SDR and other digital communications projects, told the ARRL that Toth was important to Amateur Radio "in so many ways. He was an early member of TAPR, a long time supporter of AMSAT and he gave of his time and talents to promote technical endeavours in Amateur Radio. Dave was an important player in the earliest days of packet radio in that he helped promote packet and supported it with on the air hardware, but he also participated in the development of a widely used BBS software suite that helped promote packet radio. As a board member and President of TAPR, he helped TAPR become the principal support for [Open HPSDR](#), a project to promote the development of hardware and software for software defined radio use by Amateur Radio. TAPR kitted the hardware developments and made the widely available to amateurs everywhere. Dave was a great confidante, advisor, and friend. He will be sorely missed by all who knew him."

Toth was a private pilot for more than 30 years and an avid amateur astronomer. Since he was a young boy, Toth enjoyed looking at the night sky and reading about space and the stars. He had his own observatory that he opened up on clear nights. Toth was the founding member of the London (Ontario) Astronomy Club and served as its president; he was a member of the Royal Astronomical Society of Canada and belonged to the Lima, Dayton and Columbus Astronomy Clubs.

## ARRL Seeks Input for New IARU Region 2 Band Plan



The International Amateur Radio Region 2 ([IARU R2](#)) conference -- held later this year in El Salvador -- brings together delegations from the national Amateur Radio Societies in the Western Hemisphere. One of the topics on the agenda

will be the [Region 2 HF band plan](#). This band plan is "harmonized with" -- spectrum management-speak for "very similar to" -- the [IARU Region 1](#) and [Region 3 band plans](#).

According to ARRL President Kay Craigie, N3KN, many hams in the USA probably did not know there was such a thing as a Region 2 band plan until recently. Now, however, many more American hams have heard of it, but may not know how -- if at all -- this band plan affects them. Here are important facts for American hams to keep in mind:

- IARU band plans are voluntary guidelines. They do not have the force of FCC regulations.
- It would be inappropriate to incorporate Region 2 band plans into the FCC rules, and the ARRL has no plan to petition the FCC to do so.
- Most other countries do not have the detailed sub-band regulations that are in [Part 97 of the FCC Rules](#); for amateurs in those countries, IARU band plans offer the only guidance on frequency use.
- The recognition of a calling frequency or band segment for a particular purpose or mode in the IARU band plan does not

convey any special rights or exclusivity of use.

A new, more transparent procedure will be followed this year for considering possible changes to the Region 2 band plan. The ARRL is cooperating with this procedure by inviting input to be sent to the ARRL Board of Directors' Band Planning Committee. The committee will review the existing Region 2 band plan, consider input from the amateur community and make recommendations to the ARRL Board for submission to IARU Region 2.

The inadvertent omission of the AM center of activity frequency (calling frequency) -- 3.885 MHz on 80 meters -- has already been noted, and this will be one of the recommended revisions.

The deadline line set by Region 2 for gathering input and formulating recommendations is rather short. Amateurs who would like to submit input should take the following steps:

- First, study the existing [IARU Region 2 band plan](#) posted on the Region 2 Web site. The Region 1 and Region 3 band plans are also posted there, so be sure you are looking at the band plan for Region 2.
- Next, formulate a clear statement of any change you propose. Include a brief explanation of why you think the change would be beneficial. Please include your name and call sign in your input.
- Finally, send your input via [e-mail](#) no later than April 5, 2010. Messages will be automatically acknowledged.

If you live in another country in Region 2, please contact your national Amateur Radio Society for information on how to submit input for the band plan process.

# Amateur Radio in Space: A Close Encounter for AMSAT-OSCAR 51



While many in North America were fast asleep Monday morning, March 1, the [AMSAT-OSCAR 51](#) satellite had a potentially dangerous encounter with another spacecraft known as [Formosat 3D](#). OSCAR 51 is a popular Amateur Radio satellite

that often functions as a crossband FM repeater, relaying brief conversations over hundreds of miles. Formosat 3D is part of a constellation of six remote sensing microsattellites that collect atmospheric data for weather prediction and for ionosphere, climate and gravity research. Both orbit at an altitude of approximately 500 miles.

On Sunday evening, AMSAT-NA Vice President of Operations, Drew Glasbrenner, KO4MA, received an e-mail alert from the [US Joint Space Operations Center](#), warning of the close approach between Formosat 3D and OSCAR 51 that would take place the following morning. "There is really nothing we can do other than watch and try to collect telemetry," Glasbrenner said. "Of course, any contact would mean instant death for OSCAR 51. It's

all predictive until they smack together, but the estimate was that they would come within 2900 feet overall, but only 130 feet radially. I'm visualizing that scenario as one car merging

on a highway at 17,500 MPH with another car 2900 feet in front and 130 feet to the left or right. Scale the 17,500 MPH to 70 MPH and the distances in the analogy would be 12 feet in front and 6 inches abreast, just to put the velocity and distances in perspective!"

Glasbrenner was awake early Monday morning to monitor OSCAR 51's telemetry as the close approach unfolded. At 1056 UTC, he determined that the satellite was still alive, having survived the encounter without a scratch. "We were all relieved that OSCAR 51 was fine," Glasbrenner said, "but it reinforces how tenuous our satellite presence is, and the fact that we should be constantly working and fundraising to build and launch new satellites."



## W1AW Announces New Schedule for Digital Bulletin Transmissions



Beginning Monday, March 15, [W1AW, the Hiram Percy Maxim Memorial Station,](#)

will alternate the digital modes used for its digital bulletin transmissions. While Baudot, PSK31 and MFSK16 still make up the digital mode complement, W1AW Station Manager Joe Carcia, NJ1Q, says that the schedule will be altered to give more exposure to PSK31 and MFSK16. "Because of time constraints and the varying lengths of digital bulletins, there were many instances where only Baudot was used," he said. "With the new schedule, amateurs preferring either PSK31 or MFSK16 will find these modes no longer secondary."

The regular callup will be made using the mode that is transmitted first. The digital bulletin times remain at 6 PM and 9 PM (Eastern Time) daily. The Tuesday and Friday Keplerian data bulletins will continue to be sent using just Baudot and PSK31.

The new digital schedule is as follows:

- Monday: Baudot, PSK31, MFSK16
- Tuesday: PSK31, MFSK16, Baudot
- Wednesday: MFSK16, Baudot, PSK31
- Thursday: Baudot, PSK31, MFSK16
- Friday: PSK31, Baudot, MFSK16

"Given time constraints and bulletin lengths, all three modes may not always be transmitted," Carcia explained. The complete W1AW schedule can be found on page 100 of the January issue of *QST*, or on the [ARRL Web site](#).

## High Efficiency Organic Solar Cells Developed

Scientists at the Department of Microsystems Engineering and the Freiburg Materials Research Center have succeeded in developing a method for treating the surface of nanoparticles which greatly improves the efficiency of organic solar cells. The researchers were able to attain an efficiency of 2 percent higher than previously expected by using so-called quantum dots composed of cadmium selenide.

Organic solar cells belong to the so-called third generation of solar cells and are still in the developmental stage. The world record for purely organic solar cells in which both components of the photoactive layer consist of

organic materials is currently at 7 percent through wet chemical methods.

Organic solar cells have many advantages over the conventional silicon cells typically used for large-scale energy production. Not only are they are considerably thinner and more flexible but are also less expensive and quicker to produce. As such, they are well suited for powering everyday devices which are not in constant use such as sensors or electrical appliances.

The procedure to produce these new cells has been patented and the results were published in a recent issue of the journal *Applied Physics Letters*. (ScienceDaily)

## 7-Band Semi-Vertical Trap Antenna Visited

By David Lambert, VE3KGK



VE3HKY, Bob's shack, Dave, VE3KGK at the mic after enjoying several contacts with great signal reports and very low SWR.

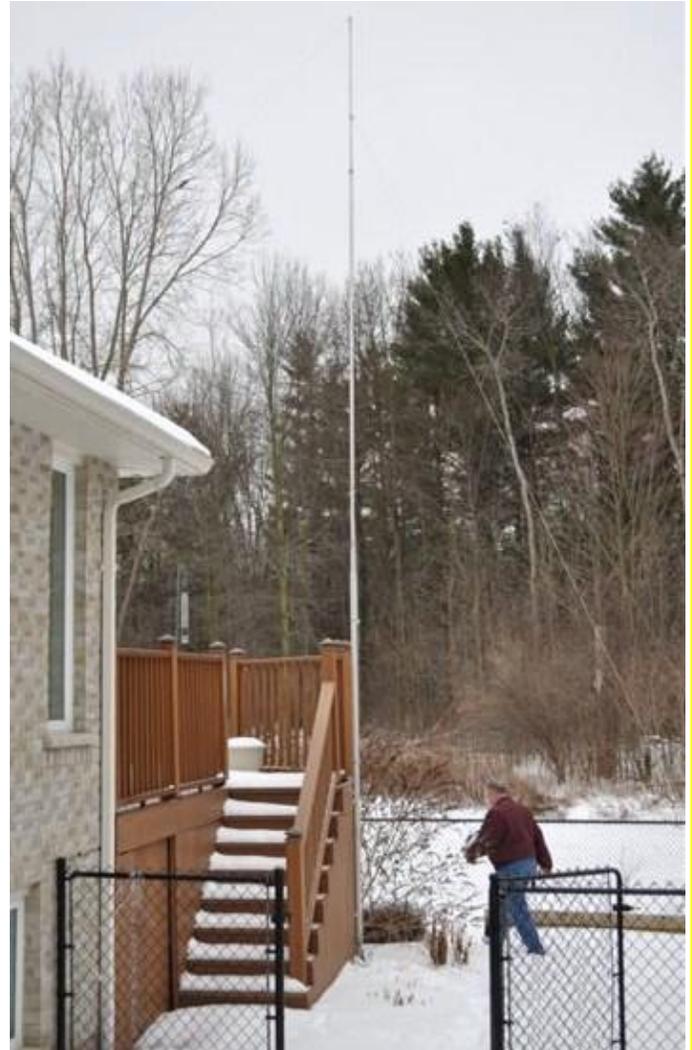
As those of us who were fortunate enough to attend the February Club Meeting know, Bob Rice (VE3HKY) took us through a very interesting talk and PowerPoint presentation on his semi-vertical trap antenna. Given the number of questions asked after he had finished the presentation, it was obvious that he sparked quite a bit of interest.

Now I'm one of those people who can grasp concepts more easily when I can look at something physically, after it has been explained to me. I approached Bob after the meeting and asked him if he would mind if I went out to his house and had a look at the antenna. Bob graciously extended an invitation to me to not only look at the antenna, but to check the SWR to see if I found it matched the quite astonishingly low results he showed us at the meeting. He also offered me a chance to operate his station to get a feel for how the antenna worked.

On Wednesday, February 17, I went out to Bob's house and he first showed me the antenna, how it was mounted and guyed, how it was fed, and I was also able to look at the construction details closely. I'm sworn to secrecy on the wine that was originally in the bottle that now supports the base.

The construction looks straightforward enough and should not be beyond the capability of most self-respecting hams. Heck, even I could

do it! And even if you feel it might be beyond your ability, Bob has expressed a willingness to guide us through the crucial parts.



Antenna. Guy wires come down to fence at right



Base of Antenna. Feed line is black and attached to the base of the tower along with vertical stub wires at the wine bottle. Coax shield is attached to the capacitor with Marettes and then to the ground rod and radials. The feed line is wound around the toroid partially buried in the snow at bottom of photo, before going on to the base of the antenna at the wine bottle.



This picture shows stubs and the stand-offs.



This picture shows trap at top of antenna

As we get older, tower climbing becomes something we no longer can do, in some cases, and in others, something we may no longer want to do. As we older hams now understand, getting someone to climb a tower and maintain or repair a beam or rotor is becoming more difficult and can be quite costly. I'm at that stage in my life where the height is not the issue; it is the knees which are failing. With this in mind I've been casting around for an antenna that will do what I want but which is not tower mounted.

My experience with a vertical in the past was how noisy it was in receiving mode. I was interested in hearing Bob's antenna at work to see how it fared.

After the outside tour, Bob and I went to his shack and he demonstrated the SWR on each band. Amazing! It was exactly as he had described it. Once we had done that, he turned the microphone over to me for some operating experience. I tried 40 meters and 20 meters and was able to make contacts on both those bands. I also made my first ever WARC band contact on 18114. There was about an S2 to S3 noise floor on the bands, which I am not willing to contribute to the antenna since at my own QTH with my Cushcraft A4 beam at 50' I find a similar noise level these days. There was also considerable QSB (we were

operating at between 1930 and 2015 GMT.) Contacts were made with Santander, Spain, Miami, Florida, Troy, Alabama, and Pocatello, Idaho to name some, and the signal reports in all but one case were very good. The one less than stellar signal report was from a Florida station who answered my CQ and he was way down in the noise when I managed to pull him out. He also had difficulty with my signal so I'm of the opinion we just happened to make the contact during a short period of the signal fading that marked the bands that afternoon. I was noticing fading of incoming signals and was getting reports of my signal fading a bit as well. The signal reports going both ways ranged between 5/5 and 5/9+, and in each case we were giving comparable signal reports and all contacts reported using beams and one ham was on a G5RV. During my contacts I monitored the SWR and it was as low as Bob reported it to be at the club meeting. I tried it on 20 between 14165 and 14270 and at no time did the SWR go up as high as 1.5:1. Mostly it was around 1.2:1. Fantastic!

Would I consider building this antenna? Absolutely. In a heartbeat. It is unobtrusive, it is easy to erect, easy to take down if it requires maintenance or repair, it is easy and not costly to build, in my tests it worked well, and my XYL would love to see "that horrible monstrosity" (my beloved A4) come down! I'm sure I could work DX and pile ups with this antenna.

In my experience, working DXpeditions successfully has to have two components. One is your ability to figure out what the operators' operating style is, and the other is to have great operators at the DX location. No matter

how badly I need a country for DXCC, if the DX operator is only working one or two every two to three minutes, I'm not sticking around for that. If the operator is great, (and there are several great ones out there who go on DXpeditions,) with good listening skills on my part I am sure I can easily work them with Bob's antenna. I'm at over 325 DX entities now, and I'd say that the last 45 or so have been worked with 100 watts, so high power is not necessary. Good listening skills are important no matter what antenna you have. If you **really** listen before you call, and figure out the operator's pattern (and there always is one!) you will enjoy success.

One thing I did not do at Bob's house was use a headset. Over the last 25 years I have spent at least 15 weekends each summer at car races in North America and Mexico, much of it without hearing protection. I'm now paying the price, and find pulling stations out of the QRM easier with headphones. I did not find hearing the stations answering my CQ's any problem. However, I'm sure that for extended periods of time using this antenna I'd use headphones, since that is now my preferred way of listening. Even with my A4, I **always** use headphones.

I would like to thank Bob for allowing me to look at and test his antenna, and I can report that I found it to be everything he said it was. And the fact that he has offered to be an advisor to someone wanting to build an antenna like his is proof the true ham spirit still lives.

Thank you, Bob, VE3 HKY.

# LONDON AMATEUR RADIO CLUB

33rd ANNUAL  
2010 FLEA MARKET

SUNDAY, SEPT. 26th  
9.00 AM TO 1.00 PM

**VENDOR SETUP: 7:30 AM**

**\*BOOK EARLY AND SAVE ON ADMISSION\***

ADMISSION: \$6.00, (Age 10 and up)

TABLES: \$ 10.00



LOCATED AT THE  
WESTERN FAIR GROUNDS  
SPECIAL EVENTS BUILDING  
LONDON, ONTARIO



Talk in VA3LON. 147.060 PL 114.8

Free Parking ~ Air Conditioned  
Commercial Dealers ~ Snack Bar Facilities

Wheelchair Accessible with Handicap Washrooms

Bring & Buy: Let LARC sell your item(s) at our club table.  
{2 items max} INFO: <http://www.larc.ca/larctable.html>

Inquiries: Email  
LARChamfest@gmail.com  
Note: All email answered within 72 hrs  
Phone: (519) 238-1542 (Ann)

Make Cheque or Money Order Payable to  
"London Amateur Radio Club Inc"  
(not to Ann Rundle) and mail to:

Ann Rundle VA3EOR  
36797 Crediton Rd RR2  
Dashwood, On N0M 1N0

## ATTENTION 2010 FLEA MARKET VENDOR

Book early, tables are booked on first come first served basis. Loading door available. We do not reserve unpaid tables. No separate hydro for tables BUT there will be a test table with power for seller demonstrations. Only two vendors passes allowed per vendor prior to doors opening on the day of the flea market. Vendor passes will not be sold without table sales. Table information and site Map will be sent to you in your vendor's conformation package.

**\*Book early (before Aug 1<sup>st</sup> ) and 1 vendor admission is reduced to \$ 4**

Name: \_\_\_\_\_ Admission(s) x \$ 6 (\$ 4) \_\_\_\_\_

Callsign: \_\_\_\_\_ Table(s): x \$ 10 \_\_\_\_\_

Total: = \_\_\_\_\_

Email address: \_\_\_\_\_

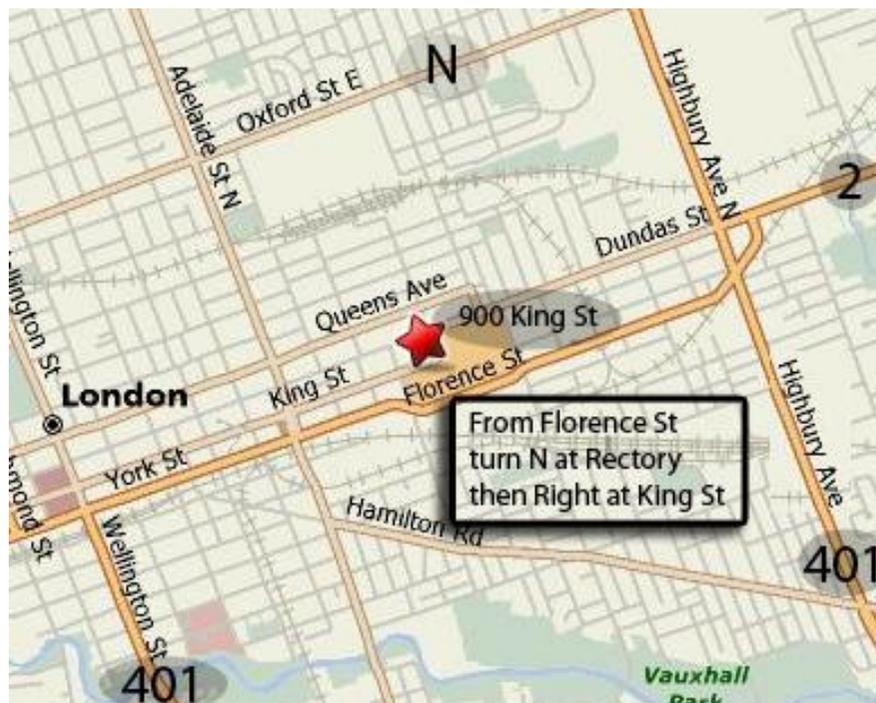
Mailing address: \_\_\_\_\_ City \_\_\_\_\_ PO code \_\_\_\_\_

Phone: \_\_\_\_\_

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Talk in VA3LON, 147.060 PL 114.8

N 42.9876 W 81.2213



# **MEMBERSHIP INVITATION**

*-- Membership application and dues are currently requested.*

*Our term of membership runs from October 1 to September 30 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).



Office Use Only	
<input type="checkbox"/> Paid _____	
<input type="checkbox"/> Cash <input type="checkbox"/> Chq	
Membership Card	
<input type="checkbox"/> Needed <input type="checkbox"/> Rec'd	
Sticker	
<input type="checkbox"/> Needed <input type="checkbox"/> Rec'd	

**LONDON AMATEUR RADIO CLUB INC.  
MEMBERSHIP APPLICATION**

PLEASE PRINT

SINGLE MEMBERSHIP: \$25.00       RENEWAL  
 FAMILY MEMBERSHIP: \$30.00       NEW MEMBER

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Member # 1	Last Name	First Name	Call Sign
	_____	_____	_____
	RAC Member?	RAC Member #	ARES Volunteer? Email Address
	<input type="checkbox"/> No <input type="checkbox"/> Yes	_____	<input type="checkbox"/> Yes <input type="checkbox"/> No _____

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Member # 2	Last Name	First Name	Call Sign
	_____	_____	_____
	RAC Member?	RAC Member #	ARES Volunteer? Email Address
	<input type="checkbox"/> No <input type="checkbox"/> Yes	_____	<input type="checkbox"/> Yes <input type="checkbox"/> No _____

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Member # 3	Last Name	First Name	Call Sign
	_____	_____	_____
	RAC Member?	RAC Member #	ARES Volunteer? Email Address
	<input type="checkbox"/> No <input type="checkbox"/> Yes	_____	<input type="checkbox"/> Yes <input type="checkbox"/> No _____

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Member # 4	Last Name	First Name	Call Sign
	_____	_____	_____
	RAC Member?	RAC Member #	ARES Volunteer? Email Address
	<input type="checkbox"/> No <input type="checkbox"/> Yes	_____	<input type="checkbox"/> Yes <input type="checkbox"/> No _____

---

Address: \_\_\_\_\_

\_\_\_\_\_ Street/P.O. Box

\_\_\_\_\_ City/Town \_\_\_\_\_ Province \_\_\_\_\_ Postal Code

\_\_\_\_\_ Phone Number

Date: \_\_\_\_\_

*All information requested should be completed - this will be used for the club's membership database only.  
All LARC membership information is held in strict confidence.*

Please make cheque payable to: **London Amateur Radio Club Inc.**

Mailing Address: London Amateur Radio Club  
c/o Membership Director, VA3MSV  
P.O. Box 82, Station B  
London, Ontario, N6A 4V3