

Message from the London Amateur Radio Club



Promoting Amateur Radio in London
And surrounding area since 1920

February 5, 2012

L.A.R.C. Executive

President

Doug Elliott, VA3DAE

Vice-President

David Lambert, VE3K GK

Past President

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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

David Young, VE3EAY

Field Day Coordinator

Dave Lambert, VE3K GK

Webmaster

Doug Elliott, VA3DAE

Newsletter Editor

John Visser, VA3MSV

Auditors

Rob Hockin, VA3HO

January's L.A.R.C. Meeting

The next LARC meeting will be **Thursday, February 9, 2012** and will feature **Dave Lambert, VE3K GK**. He'll be speaking about DXing. If you know Dave, you know that he will make it interesting.

RAC Bulletin 2012-004E - WRC-2012

January 23, 2012

The World Radiocommunication Conference (WRC 2012) gets underway today and runs until February 17 2012. What does the WRC +have to do with Amateur Radio? Its just one way that the Radio Amateurs of Canada are active in the rules governing not only our hobby, but radio as a whole. This year, the delegation from Canada is composed of Industry Canada Staff along with Bryan Rawlings VE3QN - our RAC representative.

Bryan is only part of the RAC team that deals with regulatory type matters. George Gorsline VE3YV acts at the International Affairs Officer. Norm Rashleigh VE3LC is the Industrial Liasion Officer. Bill Gade VE4WO is the Regulatory Affairs Officer with a good amount of help from Richard Ferch, who provides support for Regulatory Affairs.

Look forward to more details on WRC 2012 in a future TCA - and as always - remember that everyone at RAC is here not only to promote the hobby but to provide support to you, our members. Get in touch if we can be of assistance!

Bill Gade VE4WO
Regulatory Affairs Officer

Vernon Ikeda - VE2MBS/VE2QQ
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 February 9, 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 March 8, 2012. This meeting will be a presentation by Mike Cook, VE3ZMC. He hasn't announced his topic yet.

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

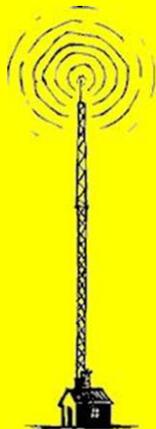
Stratfordville

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 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

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 109 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 16 new members. Unfortunately 3 past members of the club became a Silent Key last year.

I would like to welcome the following new members.

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 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

Sat., Feb. 25, 2012

[Burlington Spring Flea Market](#)
- Burlington Amateur Radio Club

Royal Canadian Legion - 828 Legion Rd., Burlington

Sat., Mar. 24, 2012

[Ham-Ex 2012](#) - Mississauga ARC and Peel ARC

Brampton Fall Fair Grounds, 12942 Heart Lake Road (Heart Lake Road and Old School Road)
GPS 43.771218 -79.8298

Sat., Apr. 21, 2012

[2012 Durham Region Amateur Radio Hamfest](#) - South Pickering Amateur Radio Club and North Shore Amateur Radio Club

Pickering Recreation Complex, 1867 Valley Farm Rd.

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., Jul. 14, 2012

[ONTARIO HAMFEST](#) - Burlington Amateur Radio Club

Milton Agricultural Fairgrounds
Milton, ON

Sun., Sep. 26, 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 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.

RAC Bulletin 2012-003E - New Quebec Director

January 22, 2012

Congratulations are extended to Mr. Sheldon M. Werner, VA2SH / VA6SH who was recently elected as the RAC Director for Quebec. Mr. Werner ran unopposed, eliminating the need for a balloted election. His role as Director will be for the remainder of a two year term which ends December 31, 2013. Mr. Werner has been a

certified amateur operator since 1976 and has been involved in many aspects of the hobby. He is currently serving as the Vice President for the Montreal Amateur Radio Club

Paul Burggraaf VO1PRB
RAC Corporate Secretary

RAC Bulletin 2012-005E - Outstanding ARES ID cards

January 29, 2012

Good morning,

I am happy to advise that all outstanding ARES ID Cards are now "in the mail". Please accept my thanks for your patience. This has been a frustrating time that started with an absent supplier, then a sick supplier, then on to sourcing a new supplier at a reasonable cost, to eventually purchasing our own machine so I now do the cards in house here at my home office. Future turn around time will be days instead of weeks.

The other advantage we now have is the ability to print custom cards. As a benefit to affiliated Clubs and ARES Groups we can now offer printing in

house of ID cards that are unique to your group, at the same cost (\$4.00) as the ARES cards. Not only is this a benefit to you our members, but it will assist in the cost recovery time of our printer. Again, many thanks for your patience!

Later today I will be e-mailing some of you who did not send a picture with your card application. If you get this e-mail just send me a picture and I'll send your card out post haste.

73,
Doug Mercer VO1DTM CEC
Chief Field Services Officer

Special WRC Report Number One

January 29, 2012

The International Telecommunication Union ("ITU") World Radiocommunication Conference 2012 (WRC-12) started 23 January 2012 in Geneva, Switzerland. This is the "big show" for spectrum allocation matters and a very important meeting if you are an amateur radio operator anywhere in the world. Every 4 or 5 years a WRC takes place. The last one was in 2007. Approximately 3,000 people will attend WRC-12. These are government officials, telecommunication industry people and others, like the IARU, who have an interest in the use of the radio spectrum. The agenda items discussed during WRC-12 were established at the previous WRC in 2007. In the past 4.5 years there have been many committee meetings within the ITU to try to arrive at solutions that will satisfy each of the agenda items. In the case of some of the agenda items, several possible methods to satisfy the agenda item have been identified. It is up to the WRC to select the most appropriate method to satisfy the agenda item, that is, to arrive

at an worldwide solution to the issue presented in the agenda item.

There are a number of agenda items for WRC-12 that have some impact on amateur radio, immediately or sometime in the future. Each of the agenda items is assigned to a committee and also sub-working groups. Within each of these sub-working groups the agenda items are discussed in detail, the proposals from regional telecommunication organizations are analyzed, and the discussion proceeds toward developing a consensus on the agenda item. It seems to the casual observer to be a slow, tedious process but it works quite well in developing consensus, assuming the parties are at least a little bit flexible in their views.

AI 1.23. The agenda item that has been discussed widely within the amateur community over the last 5 years is agenda item AI 1.23. In 2007, the agenda item was stated as follows: "to consider an allocation of about 15 kHz in parts of the band 415-

526.5 kHz to the amateur service on a secondary basis, taking into account the need to protect existing services" There are a number of suggested ways to satisfy this agenda item that are being discussed at the WRC: 1. A secondary allocation of up to 15 kHz to the ARS on a worldwide basis between 472 kHz and 487 kHz. 2. Two non-contiguous worldwide secondary allocations to the ARS at 461-469 kHz and 471-478 kHz, totalling 15 kHz. 3. A CEPT proposal for a worldwide secondary allocation of 8 KHz from 472 to 480 kHz. 4. No change.

- It appears from the first several days of committee meetings that many of the member states attending the WRC are in favor of granting the amateur radio service an allocation but the details remain to be established. The member states that are in favor of No Change (NOC) have stated that they are primarily concerned with possible interference to Non Direction Beacons that currently operate in the spectrum under consideration. It is still early in the process to determine if the amateur service will succeed in gaining an allocation in this portion of the spectrum.

AI 1.10. This agenda item is as follows: "to examine the frequency allocation requirements with regard to operation of safety systems for ships and ports and associated regulatory provisions, in accordance with Resolution 357 (WRC-07)" This agenda item might have impacted the IARU goal of achieving a secondary allocation under AI 1.23. However, with the dropping of the AI 1.23 Method for an amateur allocation between 493 and 510 kHz, there should no longer be a conflict between maritime service objectives for AI 1.10 and amateur service objectives for AI 1.23.

AI 1.15. This agenda item is as follows: "to consider possible allocations in the range 3-50 MHz to the radiolocation service for oceanographic radar applications, taking into account the results of ITU-R studies, in accordance with Resolution 612" ITU committee meetings leading up to WRC-12 have identified the following bands to be studied under this Agenda Item: 3.5 - 5.5 MHz, 8 - 10 MHz, 12 - 14 MHz, 24 - 30 MHz, 39 - 45 MHz. These have

been refined to particular candidate sub-bands including 5.060-5.450 MHz, 13.870-14.000 MHz, 24.000-24.890 MHz and 29.700-30.000 MHz. The IARU position is that oceanographic radar applications are incompatible with the amateur and amateur satellite services in the range 3 to 50 MHz and should not be allocated in bands already allocated to the amateur and amateur satellite service, including 5.250-5.450 MHz in which a growing number of administrations are providing for some access by amateurs on a domestic basis.

Footnotes. At each WRC, there is an agenda item that deals with footnotes contained within the Radio Regulations. Generally, this is a situation where an administration (a country) has "opted out" of the decision of a WRC and therefore creates an exception to the table of frequencies in the Radio Regulations. For example, a country may say that it will not use a certain service in a portion of the spectrum that has been designated for that service by the WRC. Therefore, a footnote is created in the Radio Regulations for that portion of the spectrum indicating a designated use is not available in that country even though it may be available in many other parts of the world. There are a number of examples of footnotes that relate to amateur radio. One of IARU's tasks during each WRC is to try to get administrations to remove their country's name from footnotes that prevent amateurs in that country from using spectrum that is available for amateur radio usage in other countries.

There are other agenda items which the IARU has determined to be a low threat to the amateur radio and the amateur-satellite services but those items will be closely watched by the IARU Team at the WRC-12 to make sure they do not negatively impact amateur radio.

WRC-12 started on Monday, 23 January and will conclude on Friday, 17 February. During this four week period, as the working groups and sub-working groups go through the agenda items I will report any significant developments in subsequent electronic newsletters.

Rod Stafford, W6ROD
Secretary - IARU Region 2

[IARU-R2-News 151] Looking For A New Amateur Radio Band

January 28, 2012

Ramon Santoyo V. - Secretary - IARU Region 2 wrote:

WRC-2012 report from G3PSM.

Progress was made with a compromise proposal on agenda item 1.23, drafted to take into consideration the views of those for and those against an amateur service allocation around 500kHz. This proposal suggests a 7kHz segment between 472-479kHz, very close to the CEPT position of 472-480kHz. Initial indications are that this could be acceptable to many administrations and regional organizations. However, various

meetings need to take place to have these formally accepted.

In order to tidy up the draft for the next meeting of the sub working group, a weekend meeting of the drafting group will be held. At the time of writing the NOC No Change advocates steadfastly maintain their positions.

Only 3 weeks left!

Source: Radio Society of Great Britain - Colin Thomas G3PSM

Amateur Radio At WRC-2012

January 27, 2012

Amateur radio is mentioned in the preface of the **International Telecommunication Union's agenda** document for the World Radiocommunication Conference 2012 now taking place in taking place in Geneva, Switzerland. Of interest to the Amateur and Amateur satellite Services is item 1.15. This, to consider possible allocations in the range 3 to 50 MHz to the radio location service for oceanographic radar applications, taking into account the results of ITU-R studies and in accordance with Resolution 612 from WRC-07.

Also, there is item 1.19 to consider regulatory measures and their relevance, in order to enable the introduction of software-defined radio and

cognitive radio systems. This one is based on the results of ITU-R studies, and in accordance with Resolution 956 of WRC-07.

Lastly, there are items 1.22 to examine the effect of emissions from short-range devices on radio communication services and item 1.23 which will consider an allocation of about 15 kHz in parts of the band from 415 to 526.5 kHz to the amateur service on a secondary basis. This, taking into account the need to protect existing services.

WRC 2012 runs through February the 17th. We will all know more once the final reports on all these measures are in and made public. *(ITU)*

WRC-2012 Still Considering New Ham Radio Allocation Near 500KHz

February 3, 2012

Ham radio is very much alive as a discussion topic at the 2012 World Radiocommunications Conference now taking place in Geneva Switzerland.

Rod Stafford, W6ROD, secretary for the International Amateur Radio Union's Region 2, says from his vantage point, it appears that there are several member countries that are in favor of granting the amateur radio service an allocation somewhere in the 415 to 526.5 kHz range.

It had been proposed to carve out a 15 kHz section for amateur use.

However, Stafford says those engaged in the discussions say there is a need to protect existing services.

And, Stafford says in a report on the WRC proceedings so far that there appear to be a couple of options:

First, a secondary allocation of up to 15 kHz to the amateur radio service on a worldwide basis between 472 kHz and 487 kHz.

Second, two non-contiguous worldwide secondary allocations to the amateur radio service between 461 and 469 kHz and 471 to 478 kHz, totalling 15 kHz.

Third, a proposal for a worldwide secondary allocation of 8 KHz from 472 to 480 kHz.

And, finally, no change or allocation.

He says some countries are concerned that non-direction beacons that operate in the spectrum could be subject to possible interference from any new allocations to amateur radio.

Stafford's assessment is that it's still early in the process to determine whether amateur operators will succeed in getting the spectrum allocation.

He says there's one other item of concern to amateur radio operators and the IARU being discussed at the conference.

That's a bid for oceanographic radar applications in the 3 to 50 MHz range.

Stafford says the IARU's position is the oceanographic radar applications are incompatible with the amateur and amateur satellite services in the range 3 to 50 MHz and should not be allocated in bands already allocated to the amateur and amateur satellite service, including 5.250 to 5.450 MHz.

WRC-12 wraps up on Feb. 17 and Stafford promises he'll keep the amateur community apprised of developments as they occur.

As an aside, the International Amateur Radio Club in Geneva is on the air using the special call 4U1WRC during the 2012 World Radiocommunication Conference. It's operating all modes on 160 through 6 meters until the close of the conference on February 17th. If you work this special commemorative station please QSL via 4U1ITU. *(WRC 2012)*

2012 To Be A Leap Second Year

January 20, 2012

Look for 2012 to be a tiny bit longer than years past. This is because 2012 will be a bit longer than 2011 or 2010. Confused?

The International Earth Rotation and Reference Systems Service has decided to add a leap second to Coordinated Universal Time at the end of June 2012.

The most recent leap was added on December 31, 2008. They have been necessary because of the **Earth's unpredictable rotation.**

Coordinated Universal Time, better known as UTC is based on highly accurate atomic clocks, but has been kept more or less synchronized with mean solar time by way of leap seconds.

Leap seconds were first introduced in 1972 but may not be with us much longer. Now however, a proposed revision of Standard-Frequency and Time Signal Emissions will be voted by the International Telecommunication Union Radiocommunication Assembly meeting, immediately before this year's World Radiocommunication Conference. If the international panel agrees, Leap Seconds will be eliminated by 2018.

Meantime with this being a so called leap year, February will have a total of 29 days instead of the usual 28, to make up for our rotation around the Sun. So adjust your computer logging software accordingly. *(VK3PC)*

Leap Seconds Get A Reprieve

January 27, 2012

The Leap Second is getting a temporary reprieve. This after delegates at an international telecommunications meeting in Geneva failed to reach a consensus on whether or not to delete these sporadic additions from the global time standard system.

As reported last week, attendees to the conference were supposed to decide whether to recommend the elimination of leap seconds. Since no decision was made, the issue has been referred back to a panel of

experts for further study. A revised proposal will be introduced no earlier than 2015.

Leap Seconds are time increments which are **occasionally added to the world's atomic clocks to keep them synchronized with Earth's rotational cycles.** The last leap second was added in 2008. The next one is this year at the end of June.

Also one correction to last week's report. As pointed out to us in an e-mail from John Rabold KS6M, the Earth doesn't rotate around the sun. Rather it revolves around the sun. *(Space & Science)*

Student Ham Radio D-Star Satellite To Launch Later This Year

January 20, 2012

D-Star should be in space before the end of 2012. Students at the University of Liege in Belgium are hoping their D-Star based ham radio satellite OUFTI-1 will be launched towards the end of this year if at all possible.

Plans originally called for it to be carried to orbit on **the maiden flight of the European Space Agency's** Vega launch vehicle. That now appears to be out of the question. However team leaders say that other opportunities have been identified and discussions are ongoing with at least one launch provider.

If and when OUFTI-1 makes it to orbit it could mean a lot of those on the fence about purchasing D-Star based gear might just take the plunge. This in turn would likely result in a major world-wide sales boost for Icom which to date is the only supplier of D-Star based ham radio gear.

An update on the satellite and plans to get it into space have been published in the January 2012 issue of the OUFTI-1 Newsletter. That issue focuses on the current status and near-future of D-Star based bird. You can read it on-line at www.tinyurl.com/oufti-1-2012. *(Various sources)*

UK School To Hold D-Star Event

January 27, 2012

A school in the village of Gresham in the United Kingdom will be holding an amateur radio special event station using the D-STAR digital network for children age 6 to 11 on May 23rd. The callsign will be GB2GVS which stands for Gresham Village School.

Andy Johnston, 2E0AIV is the event coordinator. He says that they have already arranged link-ups with schools in Northern Ireland, the USA and England, but are looking for more countries and schools to participate. If anyone is interested, they can contact Andy via e-mail at 2e0avi@2e0aiv.co.uk. (Southgate)

Less Than One Year Remains For Land Mobile Radio Licensees To Narrowband

January 13, 2012

Land mobile radio service licensees operating in the 150 to 174 MHz and in the 421 to 512 MHz bands now have less than a year to transition to FCC mandated narrowband operations. This as the regulatory agency issues a Public Notice reminding all licensees, frequency coordinators, equipment manufacturers, and other interested parties of the **Commission's January 1, 2013 deadline to migrate** to 12.5 kHz or narrower channel spacing technology.

By January 1, 2013, all VHF/UHF Industrial, Business and Public Safety Radio Pool licensees must operate on 12.5 kHz or narrower channels, or employ a technology that achieves the narrowband equivalent of at least one channel per 12.5 kHz of channel bandwidth. As of that same date equipment manufacturers will no longer be permitted to manufacture and import previously certified equipment that includes a 25 kHz channel spacing mode.

The FCC's Wireless Telecommunications Bureau, Public Safety and Homeland Security Bureau, and

Office of Engineering and Technology have issued prior guidance by Public Notice regarding narrowbanding migration, compliance, and waiver requests. In addition, detailed information and references to other resources concerning narrowbanding are available at www.fcc.gov/narrowbanding.

We should add that the amateur 2 meter and 70 centimeter bands are not affected by this FCC mandated narrowbanding order. It only affects commercial land mobile operations.

In the world of amateur radio FM and repeaters, most regions already use 15 kHz channel separation on 2 meters. On 70 centimeters, some regions are reportedly considering a shift from 25 to 12.5 kHz in crowded urban areas. And to be different than the rest of the nation, Southern California shifted from 25 to 20 kHz inter system spacing in the 70 centimeter repeater subband several years ago. *(FCC, ARNewsline™ archive)*

CQ To Introduce Maker Column

January 13, 2012

CQ magazine will introduce a quarterly "Maker" column, to be written by Matt Stultz, KB3TAN, that will appear in the March, June, September and December issues of the magazine.

KB3TAN is the founder of "HackPittsburgh. This is a community workshop for makers in Pittsburgh, Pennsylvania. He has been a ham since 2009 and has integrated amateur radio into many of HackPittsburgh's activities.

As already reported, the hacker and maker movement is a worldwide do-it-yourself phenomenon among mostly younger, tech-savvy individuals who enjoy hands-on tinkering and experimenting with electronics, crafts and similar projects. Many "makers" are not familiar with amateur radio, even though hams have been "makers" since the dawn of radio. CQ says that the goal of this column to help build and strengthen bridges between the amateur radio and the maker communities. *(CQ)*

Multiple Language Versions Of The DIY Magic Of Amateur Radio

January 13, 2012

And speaking of the maker and hacker communities, while it's not even been out a month, there appear to be several groups that have either asked permission to translate the ARRL's new the DIY Magic of Amateur Radio video into other languages or are already undertaking such a project.

Since its release last December 27th, word is that versions with either sub titles or over-dubbed audio are being prepared by individuals or groups around the globe in the Spanish, Portugese and possibly even Russian languages. And these are the ones that are known about.

Also, Tom Medlin who hosted the December 27th release of the video on his W5KUB website has made available some statistics. These show that the new video had viewers in Canada, Venezuela, Mexico, Argentina, France, Cayman Islands, Puerto Rico and New Zealand as well as across the United States.

Those who have not yet seen the new video can do so on-line on YouTube in English at tinyurl.com/arrl-diy-movie. You can also watch it or download it at www.arrl.org/DIY. *(ARNewsline™)*

Low Frequency Experiment: Opera Encoded Signal Travels 2200 Miles

January 13, 2012

Opera has made a big debut on the ham radio bands. Using the new Opera data mode, Gary Taylor, G4WGT, in Lancashire in the United Kingdom has successfully transmitted a signal on 137.5 kHz across the North Atlantic to Joe Craig, VO1NA, in Toebay, Canada. This over a distance of 3,500 kilometers or 2200 miles.

Taylor transmitted six full callsign frames in a two hour period, which is a big time saving over other slow digital modes like QRSS. Opera was created by Graham Brown, GONBD with the actual code written by Jose Ros, EA5HVK. This as a way of providing data operations for stations that only had the CW capability. The most up to date information on this mode can be found at groups.yahoo.com. *(Southgate)*

Norman Krim – Champion Of The Transistor – SK

January 20, 2012

And finally this week we pay homage Norman Krim, an electronics visionary who played a pivotal role in **the industry's transition from vacuum tube to solid state electronics.**

In a long career with the Raytheon Company Norman Krim made several important breakthroughs in popularizing the transistor to experimenters. He also had an early hand in the growth of the RadioShack chain.

Norman Krim did not invent the transistor. That was the work of a scientific team at Bell Laboratories back in 1947. Rather Krim saw the **device's potential and persuaded Raytheon to begin** manufacturing it on a mass scale, particularly for use in miniaturized hearing aids that he had designed. As a result, thousands of hearing **impaired benefited from Krim's initial** use of the transistor in compact hearing aids.

But not every transistor Raytheon made was suitable for that purpose and this is where Norman **Krim's foresight took hold.**

Harry Goldstein is an editor at IEEE Spectrum, the magazine of the Institute of Electrical and Electronics Engineers. He said that when transistors were first being manufactured by Raytheon on a **commercial scale, there was a batch called CK722's**

that were too noisy for use in hearing aids. So Krim contacted editors at magazines like Popular Science and Radio Electronics and began marketing the **CK722's to hobbyists. The result was that a whole** generation of kid engineers, many likely young ham radio operators working in their garages and basements got to construct all kinds of electronic projects. Among these were early transistor radios, guitar amplifiers, code oscillators, Geiger counters and metal detectors.

Goldstein says that as a result, a lot of them went on to become engineers. And as a result, Norman Krim became known as the father of the CK722.

After leaving Raytheon, Norman Krim bought two electronics stores in Boston called RadioShack. By the time he sold the business to the Tandy Corporation two years later, it had seven stores. Today the chain has about 7,300.

News reports say that Norman Krim passed away of congestive heart failure last December 14th in a retirement home in Newton, Massachusetts, at age 98. As far as we can determine, he was not a radio amateur. That said, the impact he had on our hobby was and is truly immeasurable. *(RW and other published reports)*

LightSquared Asks FCC To Confirm Its Right To Spectrum

January 27, 2012

The seemingly never ending story continues. This with word that LightSquared, the company that wants to build a nationwide broadband data distribution system has asked the FCC to confirm its right to use the spectrum licensed to it by the **federal government. It's also asking the regulatory** agency to confirm that commercial GPS manufacturers have no right to interference protection from LightSquared's **network since they** are not licensed users of that spectrum.

According to news reports, LightSquared claims that commercial GPS manufacturers are responsible for having designed and sold unlicensed devices that use adjacent spectrum licensed to LightSquared and its predecessor companies. In a petition recently filed with the FCC LightSquared claimed that commercial GPS receivers are not licensed, do not operate under any service rules, and thus are not entitled to any interference

protection whatsoever. The petition also noted that the FCC itself has stated that the GPS industry has been on notice for almost a decade that LightSquared was planning to use its spectrum to launch a nationwide broadband network.

LightSquared's petition claims that it has had FCC authorization to build its network for over eight years, and that authorization was endorsed by the GPS industry, and fully reviewed and allowed to proceed by several other government agencies. A company spokesman added that commercial GPS device-makers have had nearly a decade to design and sell devices that do not infringe on **LightSquared's licensed spectrum. They have no** right to complain in the eleventh-hour about incompatibility when they had ample opportunity to avoid this problem.

As previously reported, LightSquared plans to deploy an open 4G network to be used by existing

and new service providers to sell their own devices, applications and broadband connectivity. The company claims that the deployment and operation of the network represent more than \$14 billion of private investment over the next eight years.

In its closing remarks the company did moderate its position a tiny bit. It said that while it asks the FCC to confirm its legal rights, LightSquared remains fully committed to cooperate with all parties including the GPS industry, GPS users and

the federal government to ensure that its network is deployed in a way that is compatible with GPS users.

LightSquared says that it has always recognized the critical importance of the GPS system. As such it firmly believes that a way can be found for GPS devices to peacefully co-exist adjacent to its network. That said, the GPS industry and Congress are not so sure. *(Published News Reports)*

Logbook Of The World To Support CQ Operating Awards

January 27, 2012

CQ Communications and ARRL have signed an agreement to begin providing support for CQ-sponsored operating awards by the ARRL's Logbook of the World electronic confirmation system. CQ's awards will be the first non-ARRL awards supported by Logbook of the World and will be phased in, beginning with the CQ WPX award. Additional CQ awards will follow.

The target date for beginning Logbook of the World support for WPX is April 1st. Amateurs will be able to use Logbook of the World logs to generate lists of confirmed contacts to be submitted for WPX

credit. Standard Logbook of the World credit fees and CQ award fees will apply.

The ARRL's Logbook of the World system is an interactive database recording contacts between radio amateurs was created in 2003 and has been adopted by 47,500 radio amateurs worldwide. It already has records of 400 million contacts and grows weekly.

The agreement was announced jointly on Tuesday, January 24th by ARRL Chief Operating Officer Harold Kramer, WJ1B, and CQ Communications President Richard Ross, K2MGA. *(CQ)*

qrz.com Adds Gridmapper Service

February 3, 2012

Another service has been added to QRZ.com. Called the Gridmapper this feature allows you to see the grid square on a Google map of the station you are looking up. A six character square is

outlined. This is very handy for VHF and UHF enthusiasts who try to find and activate rare locations in the Maidenhead Grid Square location system. *(K8YSE)*

Emerging Technology: The iPad Passport

January 27, 2012

A Canadian man traveling by car to Vermont claims that his iPad helped save the day. This after he realized he left his passport, which is required to cross into the United States, at his home in Quebec.

According to news reports, Martin Reisch said that on December 30th he arrived at Canada's Stanstead crossing and proceeded to the U.S. border post. He then showed the U.S. officer his Canadian driver's license, his Medicaid card and a digital scan of his passport he had on his iPad. At that point says Reisch he was permitted to enter the United States.

But the U.S. Customs and Border Protection agency says that it did not happen that way calling Reisch's story false. In a statement the agency said that in this case, the individual had both a driver's license and birth certificate, which the CBP officer used to determine identity and citizenship in order to admit the traveler into the country.

But Reisch isn't backing down from his story. He told the press that he does not even know where his paper birth certificate is. He added that his experience does however make him think about how technology can be used for identification purposes when traveling at some point in the future. *(Various published news sources)*

Los Angeles Celebrates The 57th Anniversary Of The SigAlert Developed By The Late Lloyd Sigmon, W6LQ

January 27, 2012

Los Angeles transportation leaders gathered at Caltrans headquarters Monday January 23rd to commemorate the 57th anniversary of what may be **Los Angeles' most iconic gift to the rest of the world: the SigAlert**. And it was developed by a ham radio operator.

It's hard to fathom that it was 57 years ago this week that the late Lloyd Sigmon, W6LQ, developed the SigAlert. At the time Lloyd was a vice president and engineer at Gene Autry's Golden West Broadcasting AM radio station KMPC.

In the pre-Internet world of the 1950's KMPC had revolutionized Southern California driving by launching a fleet of fixed wing aircraft and helicopters to report live on traffic conditions during rush hours. But what became known as the **"KMPC Air Force" could not fly around the clock.**

In off hours Lloyd Sigmon had wanted Los Angeles Police Department officers to simply phone KMPC's news department when freeways or streets were clogged but the department rejected that idea. So W6LQ used his ham radio know how to develop a hardware-based work around that has been a region wide standard for more than half a century.

Today the California Highway Patrol and other police authorities still use the term SigAlert to advise motorists to an unplanned lane closure lasting more than 30 minutes. And over the years SigAlerts have not only aided in traffic reporting but have also been used in disaster alerting.

The first such emergency notification SigAlert took place in 1955 when it urged medical personnel to respond to a train derailment. It reportedly caused a traffic jam when many doctors and nurses showed up to assist at the scene.

W6LQ's SigAlert is also credited with saving the lives of hundreds when the Baldwin Hills Dam collapsed on December 14, 1963. And even today Lloyd Sigmon's basic alerting concept is in use nationwide in the form of the high-tech Emergency Alert System or EAS.

During his time in Southern California, Lloyd Sigmon, W6LQ, was very active and well known in the Los Angeles ham radio community. He was also a frequent guest on late-night talk shows, especially that of Ray Briem, N6FFT. There he could be heard discussing both his love of ham radio and, once in a while, a bit of the technology on the development of the SigAlert.

In later year after his retirement from KMPC Lloyd Sigmon moved back to his native Oklahoma. There, W6LQ, became a Silent Key in 2005 at age 90.

I was fortunate to have known Lloyd and to have appeared with him several times on the Ray Briem Show. I can tell you first hand that Lloyd Sigmon, W6LQ, was one truly nice guy.

You can learn more about both Lloyd Sigmon, W6LQ, and the SigAlert at www.tinyurl.com/3myftz!. *(Various published news reports and ARNewsline™ Archive)*

Ham Radio In Space: RS-39 Now On-Orbit: Reception Reports Wanted

February 3, 2012

The Chibis-M microsatellite, also known as RS-39, was placed on-orbit from a Russian Progress M cargo spacecraft on Tuesday January 24th. The satellite is designed to study atmospheric phenomena such as Terrestrial Gamma Ray Flashes associated with lightning.

RS-39 also carries CW beacons on 435.215 and 435.315 MHz. Hams hearing these signals are being asked to submit reception reports via e-mail to the Space Research Institute of the Russian Academy of Sciences at amateur-rs39@chibis.cosmos.ru. Each report will be acknowledged with a special QSL card. *(Southgate)*

Medical Implant Devices Coming To 70cm On Feb. 27

February 3, 2012

Monday, February 27th is the date when medical monitoring and control devices previously approved by the FCC could start showing up in various segments of the 70 centimeter band.

As reported, last November the FCC voted to allocate spectrum for use by new implanted medical devices that operate on 413 to 457 MHz range. These devices which range from short range monitors to more advanced diagnostic and treatment gear will be used on a secondary basis as part of the Part 95 Medical Device Radiocommunication Service. The rules established by the FCC allow access 24 megahertz of spectrum on a secondary basis in the 413 to 419, 426 to 432, 438 to 444, and 451 to 457 Megahertz bands.

Amateur radio should hear little in the way of interference from any of these devices to signal **reception. What's not known is the effect of nearby high power transmitters from various services across the spectrum to the operation of these devices or the ability of any remote transceiver system to hear their telemetry and send instructions back to these implanted units.** Most researchers believe this to be minimal to none at all.

The most important aspect of these devices will be their benefit to mankind by restoring mobility and other functions to paralyzed limbs for those who cannot now use them now. (FCC)

UK InnovAntennas Come To North America

February 3, 2012

InnovAntennas have come to North America. According to Bill Hein, AA7XT, the full line of high performance British built High Frequency, VHF and UHF amateur radio antennas from InnovAntennas are now available to customers across the United States at R&L Electronics in Hamilton, Ohio.

By way of background, InnovAntennas was launched in 2011 by Justin Johnson, G0KSC. This after his hobby of designing antennas for his personal use led to a flood of make one for me requests from amateur radio operators who **recognized that Johnson's designs outperformed** they could buy in any U-K store.

Today, InnovAntennas is building antennas at a former boat factory in Canvey Island, England and selling its products directly via InnovAntennas.com and via a network of dealers in Europe, Australia, and now, the United States. Designs include the Loop Fed Array and Opposing Phase – Driven Element System Yagis both of which have become very popular in the world of Moonbounce or EME operations.

For more information on the introduction of InnovAntennas to the United States ham radio marketplace, you can e-mail AA7XT to bill@innovantennas.com. You can also check the R and L website at www.RandL.com. (AA7XT)

Yaesu Hinting It Will Bring Out C4FM Digital Voice Gear For Amateur Radio

February 3, 2012

Yaesu is hinting that they will be coming out with new digital amateur radios in 2012.

A new pamphlet discussing amateur digital radios shows the new Vertex Standard APCO P-25 commercial radios, as well as new amateur radios based on the C4FM FDMA digital audio system commonly known as MotoTrobo.

The pamphlet makes it appear that Yaesu will be offering amateur gear based on the MotoTrobo digital standard sometime this. The new vertex radios look identical to their Motorola counterparts.

Our guess is that any launch of such a project would likely take place at the Dayton Hamvention in mid-May. (*Adapted from Yaesu Press Release*)

Ham Tech

Volume 2, Number 2

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HF Propagation and Antennas

This month we look at two subjects simultaneously, HF Propagation and HF antenna analysis. This approach was selected because of the tight interaction between the two. Unlike LOS and Tropo Scatter presented in earlier issues of HAM TECH, these two subjects rely on computer simulation rather than mathematical analysis.

There are several simulation programs that can predict HF (3 to 30 MHz) propagation performance. But few are free of charge and run on a Windows platform like W6EL PROP which is available for downloading at www.qsl.net. This propagation program does not allow integrating the antenna into the simulation but does easily allow correcting the signal level and S/N predictions based on a separate simulation of the antenna. It also provides the key data item to drive the antenna simulation.

There are two antenna simulation programs that are included in the CD ROM that comes with every ARRL Antenna Handbook. They are: YW for Yagi antennas and EZNEC ARRL version which is the complete EZNEC antenna analysis software but it is limited to 20 segments. It is adequate for simple dipoles and it also supports many of the antenna designs that are included in the handbook. If you want an unrestricted copy of EZNEC, prices start at \$50.

Newsletter space limitations in any one issue of precludes a full discussion of the software tools, how to use them and what do they do for you. So this issue just introduces you to them and gives you a peek at what they produce. There are at least two more follow on issues to finish the subject.

I fired up my copy of W6EL PROP in January, ran two simulations on 15, 20, 30 and 40 meter CW using 100 watts into a free space dipole, the default antenna of the software, using the solar parameters for the day. The first simulation was between Cherry Hill, NJ and Dallas, TX and the second was Cherry Hill to England. I then selected the time of day with the best signals for each

simulation and included that data into Tables 1 and 2. This includes Time, Frequency, received Signal level in dB above 0.05 microvolts (S0 on a properly calibrated S Meter), Signal to Noise ratio in dB, Availability, elevation launch Angle and ionosphere layer Hops.

Table 1 - Propagation C H, NJ to Dallas, TX

Jan 2011 SSN = 31.1 SF = 90 K = 1 D = 1307 mi.

UTC	Freq	SigdB	S/NdB	Avail	Angle	Hop
1700	7.1	27	9	1.0	26	FF
1700	10.1	29	15	0.96	26	FF
1700	14.1	41	31	1.0	10	F
1700	21.0	40	34	0.58	10	F

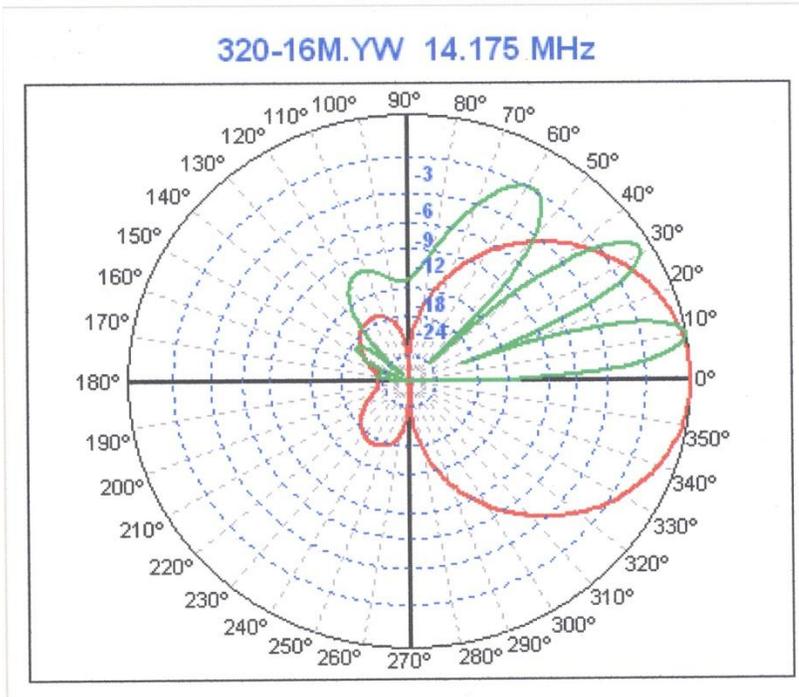
Table 2 - Propagation C H, NJ to England

Jan 2011 SSN = 31.1 SF = 90 K = 1 D = 3486 mi.

UTC	Freq	SigdB	S/NdB	Avail	Angle	Hop
1600	7.1	6	-12	1.0	19	FFFF
1600	10.1	18	3	1.0	13	FFF
1600	14.1	31	21	1.0	5	FF
1600	21.0	31	26	0.73	5	FF

So what does the data in the tables mean? On the 1300 mile circuit to Dallas you could use any of the four bands although the S/N on 40 meters is probably too low. On 20, 30 and 40 meters the probability of the band being open is nearly 100 percent (Availability = 1.0) while 15 meters is only 58 percent. Antenna with useful gain for launch angles of 10 degrees are not too difficult to achieve at 15 and 20 meters. On the 3500 mile path to England it is going to be a choice between 15 and 20 meters but the 5 degree launch angle is more demanding.

I ran a number of simulations of a 3 element 20 meter Yagi at different heights using the YW software. The 100 foot case performance and patterns are shown in the figure below.



Max. Gain: 13.3 dBi

F/B: 37.9 dB

F/R: 22.4 dB

100 feet

Peak elev. angle:

10 deg.

Az BW: 70 Deg.

EI BW: 10 Deg.

Print

Close

I took the relative gain in 5° steps off of the plot, added it to the max gain of 13.3 dBi and subtracted the 2.15 dB correction factor for dBi to dBd to generate the 100 ft. Yagi column in Table 3 below. Similar runs on YW at 33 and 66 ft. height and Dipoles on EZNEC at 33 ft. fill out Table 3.

Table 3. - Gain (dBd) Dipoles and 3 Element Yagis as a Function of Elevation Angle

El.	40DP33	20DP33	20Y33	20Y66	20Y100
5	-11.3	-5	+2.9	+5.0	+8.2
10	-6.3	-1	+4.5	+9.6	+11.2
15	-2.3	+1	+7.6	+11.0	+8.2
20	-0.3	+3	+9.4	+9.5	-12.8
25	+0.8	+4	+10.2	+6.5	+6.7
30	+1.8	+5	+10.4	-4.0	+9.6

Table 3 is a correction function used for the Signal and S/N data from Tables 1 and 2. They are all in dB so you simply add the correction function to the signal and S/N values. Select the appropriate antenna and an elevation angle from Table 3 that comes closest to the launch angle from Tables 1 or

2. Remember that the launch angle is determined by the ionosphere not your antenna. Also there are antennas at both stations on the link, not just your end. You apply the correction to both ends if you can make an educated guess as to what the other ham may use for an antenna. On 20 meters and higher frequencies a 3 element Yagi at modest height is a reasonable guess.

As an example the uncorrected signal level and S/N for the path to England at 20 meters is: Sig = 31 dB above 0.05 microvolts and the S/N = 21 dB. The launch angle is 5 degrees with two F layer hops. A 20 meter 33 foot high dipole would reduce both the Signal level and S/N by 5 dB while a 33 foot Yagi would increase both by 2.9 dB and a 66 foot Yagi would increase both by 5 dB. If you have a 66 foot high Yagi and a station likely to reply to your CQ has one at 33 feet you will gain almost 8 dB over the uncorrected data. Your signal level will be 39 dB (S-6 1/2) and the S/N will be 29 dB (5 S units above noise).

Next month we dig into the W6EL PROP software and learn what else it will provide, where we get the values that are required to run it and how to interpret the outputs.

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).

