

Message from the London Amateur Radio Club



Promoting Amateur Radio in London
And surrounding area since 1920

September 7, 2014

L.A.R.C. Executive September L.A.R.C. Meeting

President

Mike Watts, VE3ACW

Vice-President, Membership

John Visser, VA3MSV

Past President

Doug Elliott, VA3DAE

Treasurer

Brian Bouckley, VA3ATB

Secretary, Flea Market

Ruth Dahl, VE3RBO

Director

Norm Campbell, VA3XCN

Director

Jim Morris, VA3AQH

Director

Tom Pillon, VE3HOR

Non-Voting

ARES Representative

Currently Vacant

Appointments

Repeater Committee Chair

Mike Watts, VE3ACW

Repeater Coordinator

Brad Seward, VE3NRJ

Repeater Tech Support

John Visser, VE3FDV

Rob Leroy, VE3MGQ

Field Day Coordinator

Currently Vacant

Webmasters

Jim Morris, VA3AHQ

Tom Pillon, VE3HOR

Simon Wilton, VA3SII/G7HCD

Newsletter Editor

John Visser, VA3MSV

Auditor

Rob Hockin, VA3HO

The next L.A.R.C. meeting will be held on **September 11th at 7:30pm**. We have arranged to have RAC Ontario South Director, Rod Hardman, VE3RHF speak to us about **"Digital Reformation: what we want from our national radio organization, enabling technologies and our role in that change."**

If you have any questions or ideas for Rod, make sure you attend.

The usual, coffee, donuts, conversation and 50/50 draw will also be at the meeting.

The meeting will be located at St. Judes Anglican Church, 1537 Adelaide Street North at Fanshawe Park Road East in London, Ontario.

Radio Amateurs Named to Order of Canada

August 14, 2014

Two radio amateurs were among those recently named to the Order of Canada. The list of recipients included telecommunications researcher Veena Rawat, VA3ITU, and Canadian astronaut Chris Hadfield, VA3OOG/KC5RNJ.

Rawat was honored as a "Companion of the Order of Canada" for contributions to telecommunications engineering and for her leadership in establishing a global regulatory framework for radio spectrum management. She has served as president of the Communications Research Centre at Industry Canada and as a vice president at Research in Motion. Rawat chaired the World Radiocommunication Conference in 2003 and was instrumental in resolving the 40 meter "harmonization" issue that led to shifting international broadcasters from part of the 7 MHz band.

Hadfield was honored as an "Officer of the Order of Canada" for "his commitment to promoting scientific discovery and for sharing the wonders of space exploration with the world." Hadfield was the International Space Station Expedition 35 commander during his 2013 duty tour.

The Order of Canada is the third-highest award in Canada, to recognize outstanding merit or distinguished service. *(ARRL Letter)*

Next Meeting is Where and When?

Reminder: The next monthly L.A.R.C. meeting on September 11, 2014 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 October 9, 2014. Meeting topic still to be determined.

Area Repeaters

LARC Repeaters

London

VA3LON 147.060 + 114.8Hz

VA3MGI 145.390 - 114.8Hz

SORT Repeaters

London

VE3GYQ 145.350 - 114.8Hz

VE3TTT 147.180 + 114.8Hz

IRLP Node 2400

Echolink Node 10741

VE3SUE 444.400 + 114.8 Hz

ALLSTAR Node 2416

VE3TTT 442.300 + 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

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

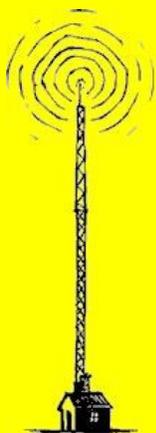
St. Thomas

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. This feature is still a work in progress with the new website.

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).

I am not sure we will continue this feature with the member list. Few members submitted a pic of their shack for others to see on the web site.

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?

I think we have plans to continue this service. Still a work in progress I think.

Membership Report

Currently the L.A.R.C. membership stands at 96 members with 10 of them being new members.

The following is a list of new member for the 2013/2014 Membership Year with the date that they joined L.A.R.C.

Bill Ambler, VE3CFY	Oct 10, 13
Jim Ballantine, VA3JBY	Jun 11, 13
Brian Coleman, VE3DTM	Sep 12, 13
Jay Gall, SWL	Apr 11, 13
John Hood, VE3VJH	Sep 12, 13
Jim Morris, VA3AHQ	Sep 12, 13
Martin Southcott, VA3MRS	May 31, 13
Brian Wilkins, VA3OPT	Jun 13, 13
John Young, VE3ZJY	Sep 12, 13
James Hodgson, VE3HOV	Mar 13, 14

Nets



Daily

ONTARS Net

3.755 MHz 7:00 am – 6:00 pm

Trans Provincial Net

7.055 MHz 7:00 am – 5:00 pm

London Senior's Net (JO Net)

146.400 MHz 7:00 pm – 7:30 pm

Sunday

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 + VA3LON 8:00 pm

SATERN Net

147.180 + VE3TTT 9:00 pm

444.400 + VE3SUE 9:00 pm

Tuesday

ELMER Net

147.060 + VA3LON 9:00 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

Balloons Carrying Amateur Radio Payloads Still Circling the Earth

August 28, 2014

Three plastic foil-envelope [balloons](#) carrying Amateur Radio payloads and launched from the UK by Leo Bodnar, M0XER, remain aloft and continue to circle the Earth. The oldest, identified as B-63, was released on July 8 and became the second of Bodnar's balloons to circumnavigate the globe. The first to do so, B-64, went up on July 12 and had completed one lap around the Northern Hemisphere by July 31. Air currents have carried the balloon within 9 km of the North Pole and within 10 km of its launch site. The last balloon to make it around the Earth was B-66, which Bodnar released on July 15.



The B-64 solar-powered payload on a scale. [Leo Bodnar, M0XER, photo]

Each balloon carries a tiny 10 mW solar-powered transmitter that can alternate between [APRS](#) and Contestia 64/1000 digital mode on 434.500 MHz (USB). The Amateur Radio payload weighs just 11 grams.

As of this week, the B-64 balloon (M0XER-4 on APRS) was north of Moscow, Russia, at an elevation of more than 40,200 feet; the B-63 balloon (M0XER-3 on APRS) appeared to be located nearly 42,000 feet above South Korea, and the B-66 balloon (M0XER-6 on APRS) appeared to be nearly 44,000 feet above Ukraine. Notes on the [M0XER-3](#) and [M0XER-6](#) APRS pages flag their reported trajectories with "Seriously bad path," however, and add, "This station appears to be flying at high altitude and using digipeaters, which causes serious congestion in the APRS network. The

tracker should be configured to only use digipeaters when at low altitude."

The numeral following the "B" denotes the number of similar balloons Bodnar has launched (B-65 failed to deploy). The transmitter stores positions during its flight and transmits a log file that can recall 5 days of previous locations in the comments field of its APRS transmissions. If it has been out of radio contact, however, a straight line will appear on the APRS map.

The paths of all of them in flight over the past 6 weeks can be seen at <http://spaceneer.us/tracker/flyb.php> (ARRL Letter)

Broadband-Hamnet Adds 5.8 GHz Support

July, 11 2014

Broadband-Hamnet has announced a new firmware release in the form of an update to the original Linksys WRT54G, GL and GS gear, and for the Ubiquiti firmware originally released for the 2.4GHz ham band this past February. With this publication, Broadband-Hamnet now supports the Ubiquiti M5-series hardware, giving hams use of the 5.8 GHz band for mesh networking. Among the many new features is the ability to easily connect collocated nodes into clusters and to span the mesh across both ham bands. More about the new software is on the web at www.broadband-hamnet.org (Broadband-Hamnet, K5KTF) Amateur Radio Newsline(tm)

Upcoming Events

Sun., Sep. 21, 2014

[London Amateur Radio Club](#)
[37th Annual Hamfest](#) – London
Amateur Radio Club

Hellenic Community Centre,
133 Southdale Rd. W., London, ON

Sat., Nov. 1, 2014

[The 38th Annual York Region](#)
[Hamfest](#) - York Region ARC

Markham Fairgrounds, 10801 McCowan
Rd, Markham, ON

Every Saturday Morning

Starting at 8:30 am.

Breakfast at the Cottage
Restaurant. Located across the
street from the London Police
Station on Dundas St.

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.

ILLW 2014 Sets Some New Records

August 29, 2014

The just concluded 2014 International Lighthouse and Lightship Weekend saw 541 registrations from 56 countries making for some new records in the annual event.

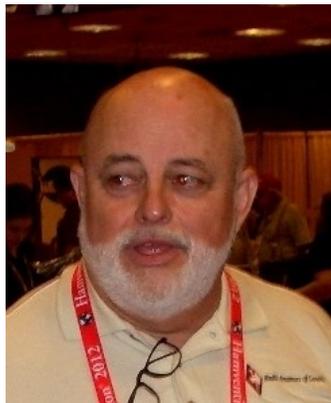
According to Jim Linton, VK3PC, some 20 per cent of all registrations were first-time activations. New countries for the event included Barbados and Kuwait.

Linton says that it was an outstanding year for the United States which has with 91 activations. This, exceeded the previous an all time high of 80 it achieved back in 2011.

Some first-time portable operations of former maritime navigation structures came from several countries that in all numbered more than 100.

Linton says that already 30 registrations are listed for next year's International Lighthouse and Lightship Weekend that will be held on August 15 and 16 of 2015. More about this year's event is on the web at illw.net (VK3PC) *Amateur Radio Newsline(tm)*

Ian MacFarquhar, VE9IM, Appointed as ARISS Regional Representative



June 12, 2014

The Radio Amateurs of Canada (RAC) has appointed Ian MacFarquhar, VE9IM, to be the new Amateur Radio on the International Space Station (ARISS) Regional Representative, replacing Daniel Lamoureux, VE2KA.

"Canadian ARISS representatives have always been a huge benefit to the ARISS team," said Rosalie White, K1STO, ARRL's ARISS delegate and ARISS-International Secretary-Treasurer. "Not only have the Canadians contributed a great deal of sound

thinking and hard work, but many have been highly active with IARU long before getting involved in ARISS -- this was a huge benefit since ARISS is an international group."

RAC President Geoff Bawden, VE4BAW, pointed out that MacFarquhar has served as RAC Vice President, supervised its successful insurance program, "and has been a pillar in RAC for longer than he cares to remember." -- *Thanks to RAC (ARRL Letter)*

BAOFENG Rebrands to Pofung

June 19, 2014

Chinese radio manufacturer BAOFENG is rebranding its products under the "Pofung" label in international markets. The company said BAOFENG -- a literal Pinyin translation of the company's Chinese character name -- "may be difficult for a hobbyist across the ocean to pronounce." The company said the new name, Pofung, is easier to pronounce and more customer-friendly, while maintaining the brand's phonetic symbolism. Products for the domestic market in China will retain their current brand name and identity, and the company's web domain, www.baofengradio.com, will remain unchanged. -- *Thanks to Amateur Radio Newsline,*

Baofeng (ARRL Letter)

**LONDON AMATEUR RADIO CLUB
37TH ANNUAL
HAMFEST**

**SUNDAY, SEPT. 21, 2014
9.00 AM TO 12.00 PM
VENDOR SETUP: 8AM**

**ADMISSION: \$8.00, (Age 10 and up)
TABLES: \$20.00
Extra Tables: \$15.00**

Special Draws: 2 Radioworld Gift Certificates



**HELLENIC
COMMUNITY CENTRE**

**133 Southdale Rd. W.
London, ON N6J 2J2
42°56'18.6"N 81°15'57.4"W**

Talk in VA3LON. 147.060 PL 114.8

**Free Parking ~ Air Conditioned
Commercial Dealers**

Wheelchair Accessible with Handicap Washrooms

Bring & Buy: Let LARC sell your item(s) at our club table.

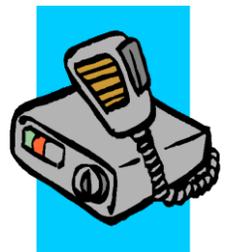
{2 items max}

Inquiries: Email

LARChamfest@gmail.com

Note: All email answered within 72 hrs.

Phone: (519) 455-9465 (Ruth)



Make Cheque or Money Order Payable to

"London Amateur Radio Club Inc."

(not to Ruth Dahl) and mail to:

Ruth Dahl VE3RBO

Apt #805 700 Wonderland Rd N

London ON N6H 4V3

ATTENTION HAMFEST VENDORS

*Book early, tables are booked on first come first served basis. 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.*

Talk in VA3LON, 147.060 PL 114.8

Name: _____ Admission: _____ x \$8.00 = _____
Maximum of 2 admissions only

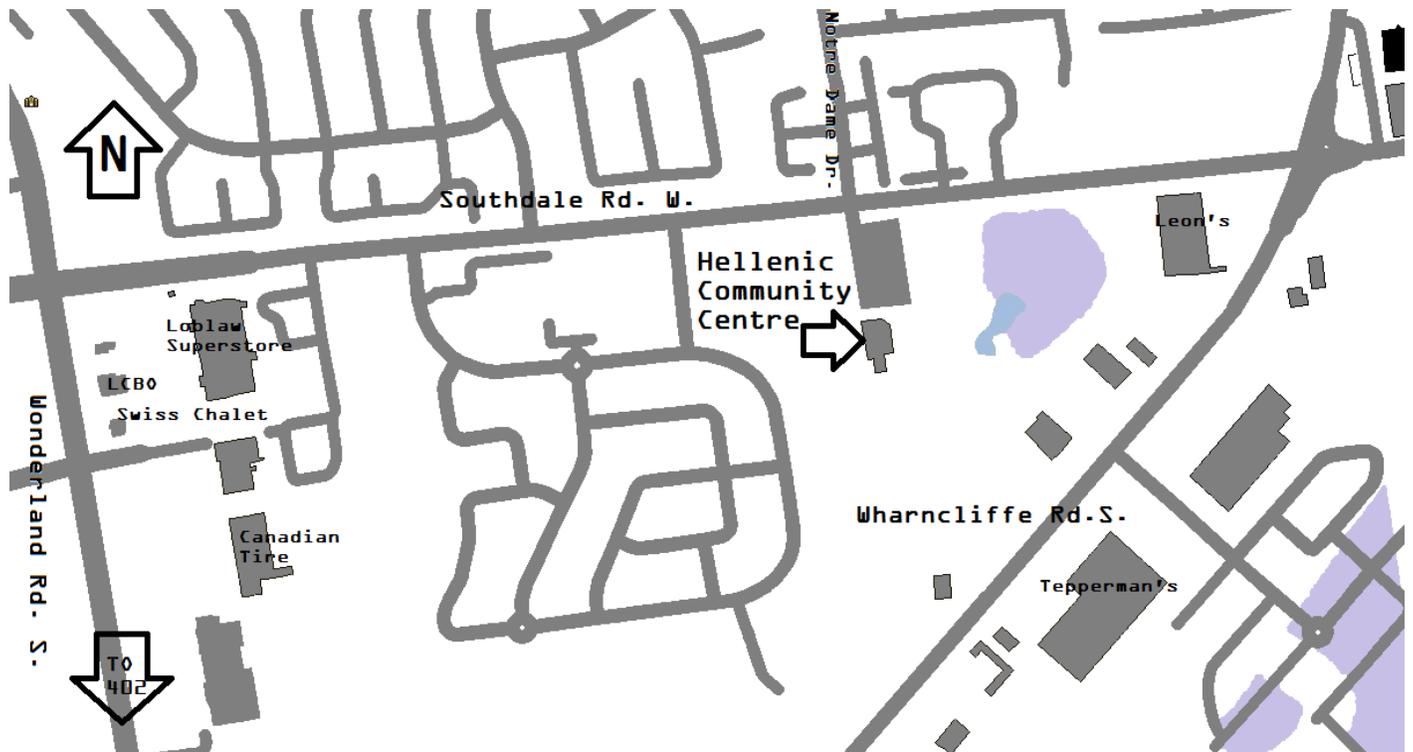
Callsign: _____ Tables: _____ x \$20.00 = _____
 Extra Tables _____ x \$15.00 = _____

Email Address: _____ Total: = _____

Mailing Address: _____

City: _____ Postal Code: _____

Phone: (____) _____



Coming from Hwy 402, exit on to Wonderland Road (Exit 100) and go North to Southdale Road and turn Right. Go East until Notre Dame Drive and entrance of Hellenic Centre on the right.

Coming from the West on Hwy 401, exit onto Colonel Talbot Road and go North until Main Street in Lambeth. Turn Right and go East until Wonderland Road South. Turn Left and follow directions above.

Coming from the East on Hwy 401, exit on to Wellington Road and go North until Southdale Road. Turn Left and head West until Notre Dame Drive and entrance to the Hellenic Centre on the Left.

DX Corner

By John Visser, VA3MSV

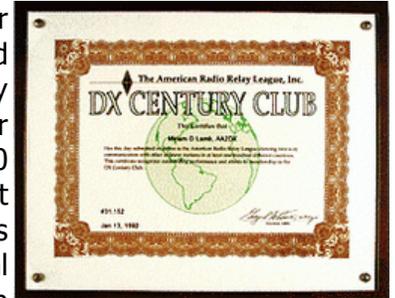
Aug 22 to Sep 30	Fericii Island	YPOF	HF Bands
Sep 01 to Sep 09	Matthew Island	TX4A	40m – 10m CW/SSB
Sep 02 to Sep 09	Niue Island	E6MF	40m – 6m SSB All Asian DX SSB Contest On
Sep 02 to Sep 09	Palau	T88VW	80m – 6m SSB/CW/Digital
Sep 04 to Sep 10	Bhutan	A52LSS	HF Bands CW/SSB/Digital Modes
Sep 04 to Sep 11	Bhutan	A52IVU	HF SSB/RTTY/PSK31
Sep 05 to Sep 08	Palau	T88PB & T88ZD	HF
Sep 05 to Sep 12	Monaco	3A/YO2MSB	HF
Sep 05 to Oct 10	Cape Verde Island	D44KS	40m – 6m SSB/RTTY Spare Time Operation
Sep 08 to Sep 08	Sable Island	CY0C	30m & 17m CW, 20m SSB 1430-2130z
Sep 09 to Oct 03	Tristan da Cunha	ZD9XF & ZD9ZS	HF CW/SSB
Sep 10 to Sep 17	Luxembourg	LX/	All Bands All Modes
Sep 11 to Sep 14	Papua New Guinea	P29VCX	20m – 15m CW/RTTY/SSB
Sep 11 to Sep 16	Chatham Island	ZL7X	160m – 6m CW/SSB/Digital
Sep 11 to Oct 08	French Polynesia	FO/DF1YP	HF Holiday Style Operation
Sep 12 to Sep 15	Mariana Island	KH0	80m – 10m SSB/CW WAEDC SSB Contest
Sep 12 to Sep 21	Norfolk Island	VK9NT	160m – 10m SSB/CW
Sep 12 to Sep 22	Thassos Island	SW8WW	160m – 6m CW/SSB/RTTY
Sep 12 to Sep 26	Rotuma	3D2AG/p	40m – 6m CW
Sep 12 to Oct 08	Moorea Island	DF1YP/FO	20m SSB Holiday Style
Sep 13 to Sep 20	Liechtenstein	DL2SBY	80m – 10m CW/SSB/RTTY
Sep 15 to Sep 20	Papua New Guinea	P29NI	20m – 15m CW/RTTY/SSB
Sep 18 to Sep 25	Malta	9H3JA	40m – 10m Holiday Style SSB/Digital Modes
Sep 18 to Sep 25	Fernando de Noronha	PY0FF	80m – 10m SSB/CW/digital
Sep 18 to Sep 27	Dodecanese	SV5/PA1FJ/p	HF SSB/CW/digital
Sep 18 to Oct 02	Christmas Island	VK9AN	80m – 10m CW/SSB/digital
Sep 19 to Sep 22	Eritrea	E3	SSB/CW Spare Time Operation
Sep 21 to Sep 25	Papua New Guinea	P29VCX	20m – 15m CW/RTTY/SSB
Sep 21 to Oct 03	Saba & Sint Eustatius	PJ5/	160m – 10m SSB/CW/digital CQWW DX RTTY
Sep 23 to Nov 05	Nepal	9N7CJ	
Sep 25 to Sep 30	Papua New Guinea	P29NI	20m – 15m CW/RTTY/SSB
Sep 25 to Oct 03	Togo		160m – 10m CW/SSB/Digital Modes/CQ WWDX RTTY
Sep 26 to Oct 02	Bhutan	A52YY	SSB
Sep 28 to Oct 10	Tanzania	5H1MD	HF CW/SSB/digital
Sep 28 to Oct 14	Republic of Nauru	C21GC	160m – 10m CW/SSB/RTTY
Sep 29 to Nov 02	Saba & St Eustatius	PJ6/G4IUF	80m – 6m SSB/CW/RTTY
Sep 29 to Nov 12	Calypso Bay	V47JA	160m – 6m SSB/CQWW DX SSB Contest
Oct 01 to Oct 09	Turks & Caicos	VP5/G3SWH	80m – 10m CW
Oct 02 to Oct 15	West Kiribati	T30D	160-6m CW/SSB/RTTY
Oct 03 to Oct 09	Fiji	3D2YA	30m – 10m CW/SSB/digital
Oct 03 to Oct 13	Austral I	TX5Z	80m – 10m CW/SSB/digital
Oct 03 to Oct 13	Tonga	A35RT	80m – 10m Spare Time Op/Oceania DX Contest
Oct 03 to Oct 15	Vanuatu	YJ0X	160m – 6m CW/SSB/RTTY/Oceania DX Contest
Oct 04 to Oct 18	Seychelles	S79KB	30m – 10m CW/SSB/RTTY
Oct 04 to Oct 19	Lamu Island	DJ4EL/5Z4	40m – 10m SSB

Operations Approved for DXCC Credit

August 28, 2014

The ARRL DXCC Desk has approved these operations for DX Century Club credit: A52JR, 4W/HB9FLX, 4W/N1YC, and 4W/PE7T. If a request for DXCC credit for any of these operations has been rejected in a prior application, [contact](#) the ARRL DXCC Desk to be placed on the list for an update to your record. Please note the submission date and/or reference number of your application in order to expedite the search for any rejected contacts.

DXCC is Amateur Radio's premier award that hams can earn by confirming on-the-air contacts with 100 DXCC "[entities](#)," most of which are countries in the traditional sense. You can begin with the basic DXCC award and work your way up to the DXCC Honor Roll. Learn [more](#). (*The ARRL Letter*)



N7NG And OH2BH To Lead Upcoming Heard Island DXpedition

August 8, 2014

Next year's Heard Island DXpedition will definitely take place. This according to a press release on the VK0EK web page that says that an informal agreement has been made with Wayne Mills, N7NG, and Martti Laine, OH2BH, to lead the Heard Island radio DXpedition team.

The release goes on to say that the duo will have complete authority and responsibility to build the team, interface with the DXing community, manage radio operations on Heard Island, and other issues relating to the radio part of the expedition.

Matters that concern the entire expedition planning such as safety, scheduling, logistics,

communications, facilities, and finances will remain the responsibility of the Expedition Leader, Robert Schmieder, KK6EK. Schmieder is the founder and Expedition Leader of Cordell Expeditions, which is a non-profit research group begun in 1977.

This latest operation will be centered on a scientific expedition to Heard Island during the Austral summer of 2015 to 2016. A formal agreement will be completed in the near future that specifies the various roles and responsibilities of all involved. More information will be provided as it becomes available and posted to the DXpedition web page at [VK0EK.org](#). (*OPDX, vk0ek.org, heardisland.org*) *Amateur Radio Newsline™*

PA700MG Commemorates WW2 Operation Market Basket

August 22, 2014

On the air, keep an ear open for special event station PA700MG, to be operational from the Netherlands from September 12th to the 21st. This to commemorate the 70th anniversary of the World War 2 Operation Market Garden by paratroopers and allied forces which began on September 17th 1944

to help liberate the region after four years of German occupation. If you make contact QSL's go direct or via the bureau to PBOAEZ. More information on Operation Market Basket and this ham radio special event operation can be found on-line at [pa2p.nl/pa700mg](#). (*PA700MG*) *Amateur Radio Newsline™*

ARRL DXCC & Awards Manager Bill Moore, NC1L, Recuperating Following Accident

August 07, 2014

ARRL DXCC and Awards Manager Bill Moore, NC1L, was seriously injured in a single-car accident on the afternoon of Thursday, July 3.

Moore suffered a broken neck and other injuries and is paralyzed from the chest down. He is stable and recuperating in a Newington rehabilitation facility. There is no timetable for his return to work at ARRL Headquarters.

DXCC and awards questions that would normally be handled by Moore should be sent to one of the e-mail addresses listed on the [DXCC Contacts web page](#).



Cards and get-well wishes are appreciated, and should be sent to Bill Moore, NC1L, 92 Reservoir Rd, Newington, CT 06111. (*The ARRL Letter*)

King Juan Carlos of Spain, EA0JC, to Step Down

June 5, 2014

King of Spain Juan Carlos de Borbón, EA0JC, announced June 2 that he will abdicate his throne after 39 years in favor of his son, Crown Prince Felipe. The king turned 76 in January.

Prince Felipe, a former Olympic yachtsman, is the father of two daughters. He's married to Letizia Ortiz, a former TV news anchor. In addition to Spanish, he is fluent in English, French, and Catalan and studied in Canada for a year.

He holds a degree in law and has earned a master's in international relations from Georgetown University.



King Juan Carlos ascended the throne upon the death of Dictator Francisco Franco in 1975, winning the respect of his subjects by guiding the country into an era of democratic rule. (*ARRL Letter*)

Ham Radio Celebrates Hollywood To Be Reprised On September 28

August 8, 2014

The popular operating event Ham Radio Celebrates Hollywood will be reprised on Sunday, September 28th from 7:00 am to 3:00 pm Pacific Time. This, from Stage 9 of the CBS Studio Center facility in Studio City, California.

For those not aware, Studio Center is a historic venue where such hit programs as Seinfeld, Spin City, the Mary Tyler Moore Show and The Defenders originated. Before that it was the home of many early films including those produced by the legendary Max Sennett.

Currently it is the home of the hit ABC situation comedy Last Man Standing that stars Tim Allen as the operator of a sporting goods store in Colorado who also happens to be a ham radio operator with the call letters KA0XTT. As such, ham radio has been a part of the shows plotline in past episodes.

The amateur radio gear seen as props on the show is actually operational and was used by members of

the Southern California-based PAPA System for the first Ham Radio Celebrates Hollywood operation held back in October of 2012. Once again the call K6H will be used for this September's outing with operations taking place on HF, VHF, UHF, D-STAR, Echolink and IRLP.

It should be noted that this is not a contest. Rather it is a fun opportunity for hams world-wide to talk directly to the stage on the equipment seen on "Last Man Standing" each week. A special, limited edition QSL card will be issued to all confirmed contacts. A schedule of operating times and frequencies will be announced shortly.

For more information contact concerning K6H keep an eye on the PAPA System website at www.papasys.com. Also, the complete and very interesting account of Studio Center's past and present can be found on the web at tinyurl.com/Studio-Center-History. (*PAPA, Facebook*)
Amateur Radio Newslite™

July/August Sat Magazine Available For Free Download

July, 25 2014

The July/August 2014 issue of the free professional publication Sat Magazine features stories TechDemoSat, UKube-1 with its FUNcube-2 boards and DX-1. Also included is the publication OSCAR

News produced quarterly by AMSAT-UK. The publication is available for download in PDF format at tinyurl.com/july-2014-satmag (Southgate) Amateur Radio Newslines™

ITU Handbook on Amateur and Amateur-Satellite Services Available

June 19, 2014

The 2014 International Telecommunication Union (ITU) *Handbook on Amateur and Amateur-Satellite Services* is now available for [download](#) as a PDF file, courtesy of the Belgian Amateur Radio Society (UBA). The *Handbook*, produced by the ITU



Radiocommunication Bureau (ITU-R), provides general information about the Amateur and Amateur-Satellite services, including Amateur Radio allocations and band plans, extracts of *Radio Regulations*, and ITU-R questions, recommendations and other texts relevant to the Amateur Service. (ARRL Letter)

Free September 2014 CQ-DATV Now Available

September 5, 2014

The September 2014 issue of the free amateur television magazine CQ-DATV is now available for download. This month's issue contains articles on the MAX7456 OSD Computer USB Controller; the

DATV Express Project update and the latest Digital amateur television news. You can download your copy as a PDF file at tinyurl.com/cq-datv-september (CQ-DATV) Amateur Radio Newslines(tm)

Ring In Development At MIT Will Help The Blind To Read

July, 25 2014

When we think of communications usually the words radio or broadband tend to come into our mind. But for those who are blind, getting access to the printed word makes communications take on a more far reaching meaning.

Over the years several devices have been devised to assist the blind to read text. The problem is that most have been fairly large or they require some form of scanner coupled to a computer. Now comes word of a totally new and wearable unit developed by the Massachusetts Institute of Technology Media Lab promises far more flexibility to those who cannot see.

The device, which is still in its prototype stage, is being called the Finger Reader. A tiny camera at the tip of the wearers' finger converts text into audio. The ring scanner also has the ability to track when the user's finger goes off the line of text with alert that vibrates the ring.

A market-ready version of the Finger Reader is still quite some time off, and there is no price point set on it yet. But the researchers believe it could be made available at a reasonable cost to consumers when it does eventually go on sale.

Our thanks to Hap Holly, KC9RP, of the Radio Amateur Information Network for this information. (KC9RP, RAIN) Amateur Radio Newslines™

Ham Radio To Fly Around The Moon

August 15, 2014

The Southgate News says that towards the end of the year, radio amateurs will have the opportunity to receive what might just be the ultimate DX. This, from a ham radio payload transmitting the data mode JT65B as it flies around the Moon.

According to AMSAT-UK, China is planning to send a lunar orbiter around the Moon carrying a battery powered ham radio payload known as 4M-LXS. The amateur radio payload will transmit a JT65B signal on 145.990 MHz which can be decoded by radio amateurs using the free WJST software.

The orbiter is one of the test models for pre-mission testing of Beijing's new lunar probe called Chang'e-5. When finally launched, Chang'e 5 will be tasked with landing on the moon, collecting samples and returning to Earth.

For the initial test, the orbiter will be launched into Lunar Transfer Orbit then will perform a flyby around the Moon while sending data back home. After that it will make a return trip to our world and re-enter the Earth's atmosphere after 9 days.

The launch of this ham radio orbiter is planned for 4th quarter 2014, and is aimed at testing the technologies that are vital for the success of the later Chang'e-5 round trip Lunar flight.

The orbiter has already arrived at the Xichang Satellite Launch Center. As soon as an exact launch date is announced we will let you know. More on this story is posted at amsat-uk.org. (Southgate, AMSAT-UK, xinhaunet.com) Amateur Radio Newsline™

NASA Searching For High Speed Mars To Earth Data Links

August 1, 2014

NASA is asking for future assistance to help to get data back from its science missions that are orbiting Mars and roaming its surface of the red planet.

The United States space agency is acting now to close a potential communications gap that is set to occur in or around the year 2020. This is because it currently has no plans to launch new orbiters capable of taking over data relay duties from existing but ageing spacecraft that will be circling Mars in 6 to 7 years.

NASA currently relies on the Odyssey and the Reconnaissance Orbiter to along data radioed to them from the Curiosity rover. These two spacecraft can send data back to Earth at a rate of about 2 Megabytes per Second which is far faster than the data transfer speed that a rover can manage by itself.

In the near future, these data relay duties are set to be taken over by two newer spacecraft that are due to arrive at Mars later this year and in 2016. NASA's Mars Atmosphere and Volatile Evolution satellite will go into service this September and Europe's Exo Mars Trace Gas Orbiter craft will arrive in 2016.

But after the arrival of its Mars Atmosphere and Volatile Evolution satellite NASA has no plans to launch any more Mars-bound science and data relay orbiters. On the other side, there are plans to land more rovers on the planet, potentially creating a problem retrieving data gathered by these wandering robots.

Because of this the space agency is seeking input from universities and companies about better ways to continue the high speed relay of data back to Earth once the new orbiters eventually go dark. It adds that commercial partners could help overcome this shortfall.

One possibility for the future might be the use of Laser based communications. A system like this was tried in October 2013 during the Lunar Atmosphere and Dust Environment Explorer mission. During that test, data rates between the Moon and Earth hit 622 Megabytes Per Second. The problem that even a system such as this would require sending an orbiter so equipped to Mars which is not in the cards or in NASA's long term budget right now. (G7Vfy, Southgate, SpaceWorld) Amateur Radio Newsline™

Lithium Carbon Batteries May Offer Higher Energy Portable Power Source

August 15, 2014

Yet another new type of battery is on its way that holds promise for more power capacity in a small space.

The journal known as Nature Scientific reports on a new chapter in the development of very high energy rechargeable batteries. This using a system called Insitu Induced Fluorination of a Carbon Nanotube Cathode are in development.

According to the report, the advantages of using carbon are that it is cost-effective, safe to use, and the energy output is five to eight times higher than lithium-ion batteries currently on the market. This new battery technology also performs better than

two other future technologies being explored. These are lithium-sulfur batteries and lithium-air batteries.

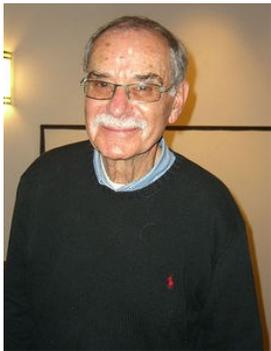
The research team developed the new battery technology for energy storage using carbon nano-materials and a process called induced fluorination. They claim that among other things that the induced-fluorination technology could be used to produce cellphone batteries that would charge faster and last longer.

You can read an in-depth article on the work to develop these new high performance batteries at tinyurl.com/lithium-carbon-future. (nextbigfuture.com) Amateur Radio Newsline™

"Archie's Ham Radio Adventure" Comic Artist Stan Goldberg, SK

September 4, 2014

[Stan Goldberg](#), the artist who, with Mike Esposito, drew the "Archie's Ham Radio Adventure" comic for ARRL in the 1990s, died August 31. He was 82. A New York City native, Goldberg was Marvel Comics' chief colorist during the 1960s, when most of the characters now associated with Marvel were created.



"He's the reason Spider Man's costume is red and dark blue, the reason the Incredible Hulk's skin is green," said Jim Massara, N2EST, who penned QST cartoons in the 1980s and also once worked for Marvel. "Goldberg was a giant in our industry."

Massara said Goldberg was best known for drawing teen-related comics, first for Timely, a Marvel Comics predecessor, where Goldberg started as a staff colorist in 1949, when he was just 16. He went on to work for DC Comics and, finally, for Archie Comics starting in the early 1970s. "He was Archie Comics' prolific lead artist for a number of years, and along with Dan DeCarlo was one of two artists who defined the look of Archie and the gang for several decades," Massara told ARRL.

Massara said Goldberg was well liked and respected by his colleagues. In 1994, he was honored with an Inkpot Award at Comic-Con International in San Diego, and in 2012 he was inducted into the National Cartoonist Society's Hall of Fame.

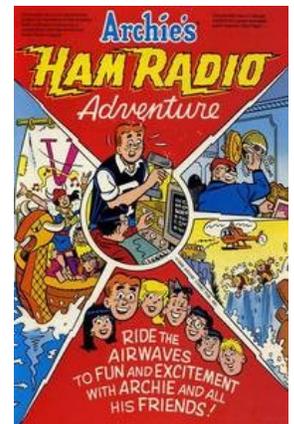
Among his regrets, Massara said, is that he never got to meet Goldberg, who was working as a freelancer while he worked for Marvel as an assistant editor.

"Goldberg was on my extremely short list of old pros I eventually wanted to meet and thank for their influence," Massara said.

"Even though he and his wife had been in a severe car accident recently, I had heard they were both on the mend, and I had no reason to believe his passing was

imminent. I'd never heard anything about Goldberg other than what a gentleman and professional he was. I'm sorry I never got to meet him."

Goldberg had suffered a debilitating stroke in mid-August. His [Facebook page](#) includes more information on his work. *The ARRL Letter*



The ARRL and members of the Amateur Radio business community cooperated to develop the "Archie's Ham Radio Adventure" comic.

A Century of Amateur Radio and the ARRL

June 5, 2014

A VHF-and-above ham license had been discussed and debated for years. When the FCC changed the Amateur Radio license structure on July 1, 1951, it established the Technician class license. It required passing a Morse code test of 5 WPM; the written exam was the same as the General class test.

The purpose of the Technician license was to allow electronics-minded people to get on the air easily to experiment on 220 MHz and higher frequencies, at a time when major advances were taking place on those amateur bands. As it turned out, the number of experimenters in the Technician ranks was fairly small; most Technician licensees wanted to be communicators. The FCC responded to this fact by progressively granting additional operating privileges to Techs.

In 1955, Technicians got privileges on 6 meters; in 1959, they obtained

privileges on 145 to 147 MHz; in 1972, 145 to 148 MHz; in 1978, *all* privileges above 50 MHz, and in 1987, a small subband for 10 meter SSB. In 2000, Technicians who had passed a 5 WPM code test were allowed to operate CW on the Novice segments of 80, 40, and 15 meters, and to use all modes on 10 meters.

Experimentation and advances in the state of the Amateur Radio art on VHF-and-above remained, for the most part, the domain of higher-class licensees, although a fair percentage of Technicians contributed too.

As communicators, Technician licensees have proven to be a great asset to Amateur Radio during disasters and emergencies, for which the VHF/UHF bands have become primary. The proliferation of mobile stations on VHF and above also has played an important role in providing public service and emergency communication support.

As the FCC intended, both Technician and Novice licensees spurred the growth of Amateur Radio in the US. In 1950 there were about 90,000 hams; by 1956, there were more than 140,000; by 1963, more than 250,000, and today there are some 723,000 licensees.

Joe Speroni, AH0A, has compiled ham radio licensing [statistics](#) from June 1997 to the present. -- *Al Brogdon, W1AB (ARRL Letter)*



ARRL Life Member Jim Pickett, K5LAD, got his Technician ticket not long after his Novice, holding both licenses simultaneously. The FCC cancelled his Tech license after he upgraded to General. Some Novices who had trouble passing the 13 WPM Morse test got Technician licenses to "hold" their call signs beyond the 1-year Novice term. [From K5LAD - 50+ Years of Ham Radio Memories]

A Century of Amateur Radio and the ARRL

June 12, 2014

Let's continue our stroll through ham radio in the early 1950s.

TVI was the major technical problem facing radio amateurs during the 1950s, and the ARRL led the fight. Articles appeared in *QST*, authored by George Grammer, W1DF; Phil Rand, W1DBM; and others. The League worked with TV manufacturers to reduce TVI problems in future TV designs. Hams started using low-pass filters at the output of their HF transmitters, and band-pass filters at the output of their VHF and UHF transmitters. Yet the TVI problem persisted for many years.

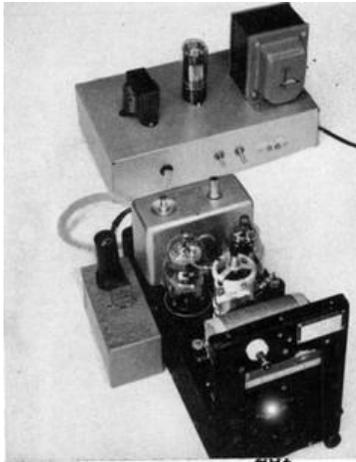
In addition to TVI, there was ITV -- interference *from* TV receivers, caused by strong radiation from the horizontal oscillators at 15.734 kHz and multiples

thereof, well into the HF range. As you tuned across a lower HF band, there would be raspy "markers" every 15.7 kHz.

In the early 1950s, a few hams started working with amateur television (ATV), building complex equipment to generate NTSC video signals. They were successful, but usually there were only a few stations near enough to make contact -- sometimes only one other ATV-active ham. Although it was an excellent technical accomplishment, ATV never caught on in a big way in the 1950s.

Military surplus equipment and its conversion to amateur use continued to be of considerable interest, with articles in *QST* detailing how such

conversions could be made. New vacuum tubes that had been developed for military use during the WW



An ARRL Handbook project showed how to convert a military surplus "command set" into a Novice transmitter for 80 meters.

II years found great utility in ham equipment, particularly the tubes developed for high-power HF and VHF/UHF transmitters.

These surplus tubes were very inexpensive. One popular one was the 1625, the 12 V filament equivalent of the 807, a workhorse tube that was good for 75 W or so. They sold for 25¢ each, or four for \$1. The 813 was another popular tube for higher power, A pair could run 500 W input.

The ARRL continued the push to get more hams on the VHF/UHF bands. Ed Tilton, W1HDQ, wrote many articles about the VHF/UHF equipment he designed and built, including a 2 meter station for Novices. *QST* began publishing a box listing of states worked on 50 MHz (with maximum path lengths noted), and the first 50 MHz Worked All States (WAS) awards (48 states back then) were earned.

A new idea -- voice-operated transmit (VOX) -- appeared in the early 1950s, so phone operators could chat back and forth quickly, rather than taking turns transmitting long monologues. A few AM operators used VOX, but the idea was quickly put into use by SSB enthusiasts. The earliest VOX switches required the operator to use headphones, so the VOX would not be triggered by the receiver audio, but anti-VOX circuits were soon published in *QST* that would allow use of the station speaker.

Next week: A continuing look at Amateur Radio and its advances in the early 1950s. -- Al Brogdon, W1AB (ARRL Letter)

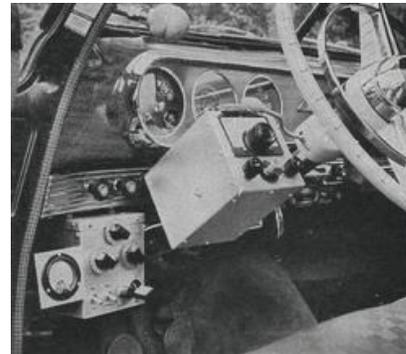
A Century of Amateur Radio and the ARRL

June 19, 2014

Continuing our look at ham radio in the early 1950s, we see that *QST* reported regularly on states that offered call sign license plates for motor vehicles. Just a handful of states offered call sign plates at first, but the idea gained momentum as more and more states joined in. Ham clubs -- or groups of ham clubs -- would lobby their state legislators to introduce bills requesting a new law. One notable example was Mississippi, where an *eight-member* Amateur Radio club lobbied successfully, leading to a new state law allowing Amateur Radio call sign tags!

With the help and advice of the ARRL, governments at the federal, state, and local levels started looking at ham radio's role in Civil Defense. The idea was to get a CD organization in place *before* an emergency, rather than waiting until afterward (as happened in World War II). By this time, the value of hams in providing emergency communication had been demonstrated to and appreciated by government agencies all over, so the ARRL's role was to get things operating smoothly while in the planning stages, rather than having to make a "hard sell."

The 1950s were, of course, the time of the "Cold War" and the threat of all-out nuclear war. Seattle,



Going mobile in the 1950s was not for the faint of heart, as can be seen in this 1952 ARRL Handbook photo. Note the crystal poking out from the transmitter below the dashboard.

Washington, was the scene of a massive "A-Bomb Test," to test all aspects of emergency preparedness, should a nuclear device hit the city, and the Amateur Radio Emergency Corps -- as ARES was known in those days -- was a major asset

during the test. On a related note, *QST* carried several articles on radiological monitoring during the early 1950s.

Following World War II, the number of private automobiles in the country increased by leaps and bounds, as vehicle production shifted from military to civilian needs, and as the populace became more affluent and more mobile. In 1938, about 1.7 million American cars were built; in 1953, more than 6 million. As a result, *QST* published many articles on

mobile receiving converters, mobile transmitters (single-band and bandswitching), and mobile antennas -- particularly multiband antennas.

Other areas that received attention in *QST* included VHF topics, the Military Affiliate (now "Auxiliary") Radio System (MARS), huge rotary arrays for 10 meters, antennas for VHF/UHF, RTTY, HF receivers and transmitters, and electronic keyers.

The ugly face of zoning restrictions first appeared in the 1950s. The ARRL got involved in helping hams wage legal battles against overly restrictive community limits on antenna and tower heights -- or, in some cases, complete prohibitions of antennas. These cases were reported in *QST* as they developed. Happily, the radio amateurs always won complete or partial victories in the court cases, thereby setting precedents for future battles of a similar nature. -- Al Brogdon, W1AB (*ARRL Letter*)

A Century of Amateur Radio and the ARRL

June 26, 2014



On June 25, 1950, the Korean War began, with a surprise invasion by North Korea. In the days following, Amateur Radio played a valuable and unexpected role. When the invasion began, military

personnel who were hams -- mostly in South Korea, Japan, and the US -- were the first bearers of the bad news, even before military communication links got word back to Washington. Until United Nations military personnel became organized with their own communication, hams continued to provide early radio communication.

Throughout the Korean War, the Military Affiliate (now Auxiliary) Radio Service (MARS) and amateur operators devoted tens of thousands of hours to handling phone patch traffic between military personnel and their families back home.

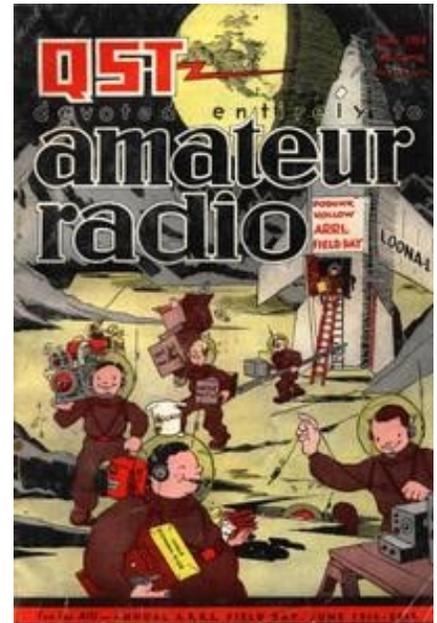
In 1952, W2ZXM/mm, Captain Kurt Carlsen, [brought the world's attention](#) to Amateur Radio in a huge way. His command, the passenger/freighter *Flying Enterprise*, was damaged mid-sea by hurricane-force winds and high seas. "Captain Stay-Put" -- as the news media dubbed him -- ordered crew and passengers to abandon ship when the vessel started taking on water and listing heavily. Using his ham know-how, he managed to stay on the air using improvised equipment, antennas, and power, even after the radio room was flooded. He remained in radio contact from the ship until just before it sank. He was the star of an New York City ticker-tape parade and was knighted by the King of Denmark for his heroism.

The 15 meter band opened for US hams on May 1, 1952 -- at first, for CW only. At the same time, the 40 meter voice sub-band was opened to US hams.

On August 15, 1952, the Radio Amateur Civil Emergency Service (RACES) came into being. *QST* continued to publish article on mobile/portable Civil Defense equipment for 10 and 6 meters. In addition to RACES operation on 10 meters, many hams were becoming quite interested in the band for its DX potential.

Two interesting articles appeared in *QST* describing extreme 10 meter antennas. One was a 3 element vertical beam for mobile use. A quarter-wave director and reflector were added to the typical mobile whip for portable (*not* mobile) use on a rear bumper-mounted boom. The driver would position the car to "rotate" the antenna. The second extreme antenna was a full-sized Yagi featuring rack-and-pinion gearing to adjust the lengths of each element from the shack, so the antenna could be tuned exactly.

A third extreme antenna -- not reported in *QST* -- was built by a Midwestern ham who commuted daily in his VW Beetle. Much of his commute involved about 40 minutes of driving on a long stretch of highway with no overpasses. He built a quarter-wave mobile antenna that could be assembled and disassembled quickly. When he reached the start of



Sixty years ago: The June 1954 cover of *QST* featured this fanciful Field Day on the moon cartoon by Gil, W1CJD.

his unobstructed drive, he would put up his antenna and put out a *big* signal on 40 phone.

Lots of things were happening in Amateur Radio in the early 1950s, so next week we will look at that period a bit more. -- Al Brogdon, W1AB (ARRL Letter)

A Century of Amateur Radio and the ARRL

July 3, 2014

Looking further at the early 1950s, we see that amateur incentive licensing (an on-again/off-again thing with the FCC) ended on February 18, 1953. That same month, a *QST* article by W1GXJ introduced a new gadget to hams -- ferrite cores.

K2AH authored a *QST* article in March 1953 telling of what appears to be the first use of a transistor in a ham transmitter, running 50 ¼W output on 2 meters to make contacts of up to 25 miles away. In the same issue, an article reported the success of W4AO and W3GKP in receiving a 2 meter ham signal bounced off the Moon!

W6QYT and W6POH were exploring another new frontier -- meteor-scatter communication on 20 and 15 meters.

CW still reigned as king in the 1950s, which saw many articles published in *QST* about electronic keyers. Those ran the gamut from W3FQB's tubeless "Corkey" to W6SRV's "Ultimatic Keyer" with three dual triodes and *seven* relays. In the May 1953 issue of *QST* W6DSR described building a 40 meter CW transceiver around a BC-453 command receiver; as you tuned it, the transmitter frequency moved in sync.

Effective March 28, 1953, phone operation was allowed on 15 meters.

One facet of the Amateur Extra exam during the 1950 was amusing: The transistor, invented in 1948, was in its infancy. The FCC, wanting to keep up with the latest, formulated *one* question about transistors, which found its way into various study guides and appeared in *every* Extra class exam for a couple of years.

The May 1953 issue of *QST* published an article by W3FQB that remains, to this day, one of my favorite

QST offerings -- "The Man Who Broke the Bank." Although written as a humor piece, it had the ring of futuristic hamming about it. It tells the tale of a radio club with a new member whose day job was working with those

newfangled electronic calculators. Sweepstakes rolled around, and the new ham turned in an unbelievably large score. There was

much heated discussion over the entry's validity, but the club finally agreed to submit it to ARRL, which didn't believe it, either. After cross-checking every single contact, they admitted that it was accurate and correct. Two weeks later, Ed Handy, W1BDI, visited to tour the new member's station to get to the bottom of the story.

That's all the room I have for this week, so visit the ARRL website, [search](#) for the article, and read the whole thing. Enjoy! -- Al Brogdon, W1AB (ARRL Letter)



During the early years of the Novice license, theory and code classes sprang up all over. Most were taught through radio clubs, but even ham employees of Allied Radio started a class, as a volunteer effort. This 1958 photo shows father and son Ed Bachner, Jr, and seventh grader Ed III, at one of the classes. Father Ed, now SK, became KN9OIS, and son Ed became KN9OBZ.

A Century of Amateur Radio and the ARRL

July 10, 2014

In the early 1950s, television interference -- TVI -- became a major problem for hams. The ARRL took two important steps toward educating hams *and* the public about TVI, and how TVI was often the fault of the TV set, not the ham. Talk about a hard sell!

Lew McCoy, W1ICP, went on the road with a live TVI-education show, complete with "fixed" and "unfixed" TV sets, ham transmitters, etc. His show was a success but it couldn't reach everyone. The ARRL also scripted and supplied photographs for a

15-minute slide presentation that could be shown on local TV stations or to live audiences. As more hams started using 50 MHz, TVI problems frequently showed up there, especially in areas that had a TV station on channel 2, which was immediately above 6 meters.

The League also began a strong effort to get more hams on 220 MHz, to show the FCC the band was being used and to help fight off other services' efforts to take over the shared band.

As more hams became seriously interested in 2 meters for long-haul

communication, beams became enormous. Articles and photos in *QST* showed rotatable

arrays with as many as 104 elements. Long-haul 2 meter tests were pursued by W4HHK, W4AO, W2UK, W1HDQ, and others, pushing the 2 meter DX envelope. In 1954, the first successful coast-to-coast



The CK722 germanium transistor was introduced in late 1952.

message relay on 2 meters occurred. With such efforts underway, it was no surprise that the 1954 ARRL VHF Sweepstakes broke *all* records.

Modern-day DXpeditions started being staged. A notable one was the 1954 effort to put much-wanted Clipperton Island on the air. The FO8AJ DXpedition was organized and executed by W0NWX and a large supporting cast.

Multiband tank circuits became quite popular, used in projects such as W1JEQ's three-control, six-band, 500 W transmitter, described in *QST*. New 10 GHz DX records were set and reset by W7JIP and W7OKV, out in the land of tall mountains. The 813 beam-power tube, developed during World War II and available on the surplus market, became a very popular final tube. The popular CK722 germanium transistor showed up in various small projects in *QST*, such as W6CHB's tiny code-practice oscillator. Herbert Hoover Jr, W6ZH, was appointed Undersecretary of State. And, effective June 10, 1954, Novice and Technician license exams would be sent by mail and administered by a qualified local radio amateur, rather than making applicants appear in person. -- Al Brogdon, W1AB (*ARRL Letter*)

A Century of Amateur Radio and the ARRL

July 17, 2014

This week, we'll look at the 1950s. Danny Weil, VP2VB, began his well-known series of *Yasme* DXpeditions around the world in 1955, putting some rare countries on the air. That series lasted until 1963, and it gave thousands of DXers the opportunity to work some new ones.

In the mid-1950s, The FCC ran out of 1 × 3 call signs with W and K prefixes and began reissuing lapsed W and K call signs. When those ran out, they went on to 2 × 3 call signs with WA (and, later, WB) prefixes.

The log periodic antenna -- a new and very useful concept -- was introduced to hams in the late 1950s. It had been developed by D.E. Isbell at the University of Illinois.

Late in 1958, hams lost the shared use of 11 meters, which then became the Class D Citizens Band.

During the late 1950s, amateurs continued to push the limits of VHF and higher bands. W6NLZ and KH6UK ran regular schedules on VHF and succeeded in making two-way contact on 144 MHz in 1957, and on 220 MHz in 1959.

Another Amateur Radio first took place in 1960, when the first EME (moonbounce) [contact](#) was made

on 1296 MHz between W6HB in California and W1BU in Massachusetts.

During the 1950s and 1960s, The USSR and the US were in the midst of the so-called "Cold War." Fearing that Soviet bombers could home in on radio signals to find their targets, the CONELRAD (CONtrol of ELEctromagnetic RADiation) system went into effect from 1957 to 1962. For their part hams were required to (1) monitor an AM broadcast station at least every 10 minutes to be sure it was still on the air; and (2) shut down, if broadcast stations went off the air. In the event of such an emergency, key 50 kW AM stations would move to either 640 or 1240 kHz to broadcast emergency information. The stations on each of those



A CONELRAD information poster from the 1950s, advising citizens where to tune "for official information."

frequencies would go on and off the air in a continually varying sequence, while all carried the

same audio to provide continuous information to the public. -- *Al Brogdon, W1AB (ARRL Letter)*

A Century of Amateur Radio and the ARRL

July 24, 2014

During the decade of the 1960s and subsequently, Gus Browning, W4BPD, traveled the world and operated from over 100 countries, many of them extremely rare ones and sometimes the first ham operation for that country. Gus was an ordinary guy, always a gentleman, and an unflappable pileup operator. He was the first DXer elected to the DX Hall of Fame.

On December 12, 1961, OSCAR 1, the first Amateur Radio satellite, was launched into orbit. OSCAR 2 followed on June 2, 1962. Both paved the way for the amateur satellites that followed.

By 1963, the US ham population had reached a quarter of a million, although at that time there were more CB operators than hams.

During the 1960s, repeater operation began on 2 meters. At first, there was a fair amount of confusion -- questions of legality had to be sorted out by the FCC, a lot of hams thought channelized operation wasn't a good thing, equipment had to be

developed, etc. But eventually things settled down, and repeater operation on 2 meters took off, with repeater operation on other VHF/UHF ham bands and 6 meters soon to follow.

On March 27, 1964, a magnitude 9.2 [earthquake and the resulting tsunami](#)

struck Alaska and caused extensive damages in many parts of the state. As in most natural and man-made disasters, hams were quick to put together emergency communication links to help with disaster relief.

Late in 1967, incentive licensing returned to ham radio. This had been an on-again/off-again issue with FCC for about 15 years. -- *Al Brogdon, W1AB (ARRL Letter)*



An ARRL prototype of OSCAR 1.

A Century of Amateur Radio and the ARRL

August 07, 2014

The FCC made numerous rules changes during the 1970s -- some major, and many minor. The Commission had to work hard to keep up with rapidly advancing technology as well as with call sign matters.



Major changes included relaxed logging requirements, which had always been stringent. The

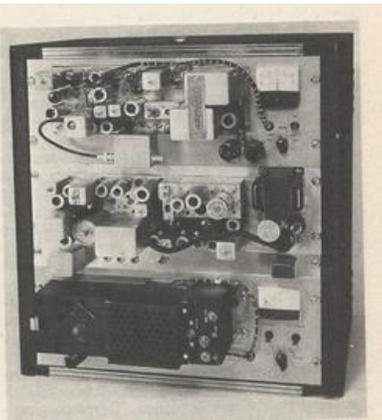
first rules governing repeaters were released. Novices were allowed to use VFOs, not just crystal control. The 2 meter sub-band for Technicians was expanded, allowing operation between 145 and 148 MHz. Phone allocations on the HF bands were widened.

In 1973, the FCC reduced to 1 year the time you had to have been licensed before applying for the Amateur Extra class license. As repeaters became more popular and more common, the FCC started issuing WR-prefix call signs for repeater stations

(these were phased out in the 1980s). In 1976 and 1977, the FCC, in steps, began allowing Amateur Extras to apply for specific 1 × 2 call signs. The first Extras allowed to apply were those licensed the longest. This system preceded the current vanity call sign system and was purely a bonus for hams who had reached the top rung of the licensing ladder.

In 1977 the FCC dropped the mobile and portable operation ID requirements and further expanded Technician privileges on 2 meters to permit operation from 144.5 to 148 MHz. Technicians also gained privileges on the Novice sub-bands. Novices were allowed to run up to 250 W, and even higher-class licensees were limited to that power while operating in the Novice segments. As the ham radio population grew, the pool of available call signs became shallow, and the FCC started issuing 2 × 2 call signs (beginning with W) to Amateur Extra licensees.

In 1978, Novice licenses became renewable, with a 5-year term. The FCC eliminated the Conditional



A typical 2 meter repeater in the 1970s often employed surplus commercial repeater equipment. This one uses GE Prog Line transmitter and receiver decks. Those curious metal cylinders are vacuum tube shields. [*The Radio Amateur's Handbook*, 55th ed, 1978]

license; those licensees became Generals. Technician licensees gained all amateur privileges above 50 MHz. Because so many CB operators were using linear amplifiers to "enhance" their 5 W signals, the FCC outlawed commercially manufactured amplifiers that could operate between 24 and 35

MHz. The FCC also dropped the requirement to obtain a new call district-appropriate call sign when moving from one district to another.

During the late 1970s, the FCC had to work hard to keep up with ham radio!

Next week, we'll look at what happened to Amateur Radio on the technical front during the 1970s. -- *Al Brogdon, WIAB (ARRL Letter)*

A Century of Amateur Radio and the ARRL

August 14, 2014

A comprehensive and fascinating article on long-delayed echoes (LDEs) appeared in the February 1970 *QST*. LDEs are signals that have been transmitted, go away somewhere, and then are heard -- at low signal levels but often with good readability -- 10 or more seconds later. They were first heard on the ham bands in 1927. An article in the May 1969 *QST* described them and asked for reports from readers who had heard them. The 1970 follow-up article summarized more than 40 reports. A May 1971 *QST* article later reported on more than 90 observed LDE events.

The effort to get more amateurs on the VHF and UHF bands continued, with *QST* publishing articles on 432 MHz transmitters, 220 MHz kilowatt amplifiers, state-of-the-art low-noise receiver preamplifiers, new propagation modes and how to use them, portable beams for 2 meter mountain-topping, and more.

The number of hams using very low power -- QRP - also continued to grow, with equipment and portable HF antennas featured in *QST* articles, as well as reports of QRP use by hikers and mountain-climbing hams.

Repeaters for 2 meter FM operation were becoming very popular, and their numbers were growing rapidly. *QST* described how to build repeater duplexers, control equipment, antennas, and control

links, and it kept repeater control operators informed of relevant FCC rules as they were developed.

Amateur Radio satellites continued to attract more and more attention. *QST* articles provided information to encourage and help hams get up and running on the satellites. Topics covered in those many

articles included how to plot satellite orbits, build beams that could be rotated in both azimuth and elevation, construct circularly polarized beams, determine when you can use the satellites for contacts over a given path, along with other tips and information. As each new OSCAR was built and launched, *QST* carried announcements and information on how to use it.

A nice article on "The \$22,000,000.00 Ham Shack" appeared in the April 1970 *QST*. No, it wasn't an April Fool's article. It told of the first flight of the new Boeing 747, with WA7IBL using one of the aircraft's radios to make HF SSB contacts.



A May 1976 *QST* [article](#) by Doug DeMaw, W1CER, described how to build the Tuna-Tin 2 QRP transmitter for 40 meters.

As the 1970s rolled along, many homeowners purchased hi-fi and stereo audio equipment. Most consumer electronic equipment was not built to reject interference from ham transmitters, however. Articles in *QST* during the 1970s told hams how to deal with those interference issues.

In 1970, the much-anticipated Heath SB-220 HF kilowatt linear amplifier came on the market, with a selling price of \$350.

A Century of Amateur Radio and the ARRL

August 21, 2014

Continuing through the 1970s, *QST* articles written by Lew McCoy, W1ICP, helped Novice licensees and other new hams by describing various transmitters, amplifiers, antennas, and station accessories, as well as coaching newcomers on general radio knowledge and techniques.

The first two-way Amateur Radio laser contact (at 475 THz) took place in 1971 between WA8WEJ and W4UDS, operating inside a building of the US Air Force Academy.

Over the years, many other radio services tried to take 220 MHz away from the Amateur Service. In 1971, the Electronic Industries Association petitioned the FCC to reallocate approximately one-half of the band to the Citizens Radio Service. The effort failed.

John Troster, W6ISQ, continued his fine humorous articles and spoofs in *QST* during the 1970s, amusing us greatly. His "fictional" tales often reminded us of real experiences we had along the same lines.

A May 1972 *QST* article introduced readers to a new device that was beginning to have a few practical applications -- the light-emitting diode (LED).



Slow-Scan TV on HF was gaining in popularity in the 1970s. [*The Radio Amateur's Handbook* 1974]

As the Apollo space missions began, W4HHK and K2RIW developed receiving systems to listen in on the 2287.5 MHz signals from the program's spacecraft, as reported in June 1972 *QST*.

As transistors' performance continued to improve, homebrew solid-state equipment became progressively more popular. *QST* reported on many interesting projects that used transistors, including VFOs, QRP rigs, receivers and receiver preamplifiers, transmitting linear amplifiers, and accessories. -- *Al Brogdon, W1AB (ARRL Letter)*

During the 1970s, interest continued in electronic keyers, and many articles on the topic appeared in *QST*. New developments included automatic character and word spacing and solid-state memories for repeating often-used messages such as CQs and contest exchanges.

In late 1973, after discussions that spanned many years, the ARRL Board of Directors voted to establish the ARRL Foundation.

The log-periodic dipole array and its great utility in amateur use were described by K4EWG in the November 1973 *QST*.

Amateur DXpeditions increased in popularity during



KINGMAN REEF
This remote reef is located 820 miles south of Hawaii. During the 20's it was an emergency landing station for the Pan American Clippers flying between the U.S. and New Zealand. KP6KR was the first amateur operation from this atoll -- 900 feet long and 6 feet high. The expedition was organized and operated by the Northern California DX Club and sponsored by the Northern California DX Foundation, Inc. During the 29 hour, 43 minute operating period, 5535 QSO's were made. Operation was on the 7, 14, 21 and 28 megahertz bands.
EQUIPMENT: TARKI 2 FT101B's schottky VFO's, 1 PL2100B amplifier. Antennas were 10 Gain 14AVD and 18AVT.
OPERATORS: Bob Ferris, K5AHV, "Rusty" Egan, W8AT, Pete Grotzky, W8SD, Jim Kallberg, W4UCEJL

The back side of the KP6KR QSL card from the 1874 DXpedition to the Pacific atoll. [Tom Roscoe, K8CX, hamgallery.com collection]

1974. That adventure included a two-day search to find the island, 5535 contacts in just under 30 hours of operation, and a white-knuckle departure during gale-force winds.

QST articles in the 1970s often reported on the progress of both amateur TV (ATV) on the UHF bands and slow-scan TV (SSTV) on the HF bands, as well as showing station equipment and setups.

Radio contesting started to become more automated during the 1970s. In the February 1975 *QST*, WA4HQW presented "The Contester," a semi-automatic contest station controller that sent CW,

the 1970s. These ranged from casual "holiday" operation by businessmen or tourists to stand-out expeditions, such as the KP6KR Kingman Reef operation in

checked dupe sheets, recorded the time, filled in the log, and kept a running contact count. One of WA4HQW's observations has been overtaken by events: "There are things that no machine can do, such as copy two or three CW signals at once, which will leave the human operator king for a long time to come."

By 1974, *QST* was publishing reports of the League's preparations -- already in progress -- for the 1979 World Administrative Radio Conference (WARC) to address the allocation of the limited radio spectrum among radio amateurs and other users. WARC-1979 had a very positive outcome for the Amateur Service. -- *Al Brogdon, W1AB (ARRL Letter)*

A Century of Amateur Radio and the ARRL

August 28, 2014

In January 1976, *QST* expanded to an 8-1/2 × 11 format! The new size would reduce the printing cost by \$100,000 a year. The old, smaller format had remained in place for years, because it was the size of the press the local printer had in those early days.

Following the fall of South Vietnam, thousands of refugees from that country poured into the US. The State Department provided housing in unused military bases, but there was a need for communication to help reunite families. US State Department employee Jim Bullington, K4LSD, saw that ham radio would be ideal for the task and proposed the idea to the ARRL Board of Directors (which happened to be in session at the time). The Board supported the idea, and hams entered a new area of public service that provided humanitarian aid -- again showing the public what our operators could do. See "Operation Vietnamese Refugee" by George Hart, W1NJM, in the February 1976 *QST* for a full description of the effort.

By the mid-1970s, Citizens Band radio had become hugely popular, which led to a major crime wave of mobile CB radio thefts. Criminals typically are not noted for their superior intellect, so occasionally 2 meter ham gear was purloined and even used, with the thief believing he was on CB. In some cases, hams were able to identify the pirate for the police to investigate.

The League began encouraging clubs to recruit CB operators into Amateur Radio. Many CB operators

rose to the challenge, as they came up against the limitations of CB operation. As a result, the number of new licensees rose sharply.

QST published a series of articles called "Learning to Work with Integrated Circuits," to help hams keep up with that new technology.

The state of the art in power transistors continued to improve, and *QST* articles appeared, detailing the construction of solid-state kilowatt amplifiers for the ham.

During the latter half of the 1970s, articles and editorials in *QST* reported on the League's work in preparation for defending our amateur allocations at World Administrative Radio Conference 1979 (WARC-79).

Hidden transmitter hunts, also known as radio foxhunting, had been very popular in Europe for some time, and the sport started catching on in the US, mostly involving the use of 2 meter FM. -- *Al Brogdon, W1AB (ARRL Letter)*



Art Smith, W6INI, discusses refugee message handling with interpreter Sharon Truong at the Camp Pendleton Amateur Radio station. [WB6AKR photo from Feb 1976 *QST*]

A Century of Amateur Radio and the ARRL

September 4, 2014

The September 1976 issue of *QST* announced that Al, K2UYH, had succeeded at Worked All Continents ([WAC](#)) on 432 MHz -- via moonbounce!

Amateur Radio was well represented at the 1976 grand opening of the Smithsonian National Air and Space Museum. A backup OSCAR 1 satellite -- the

world's first non-government satellite -- was on display, and a battery-powered station was set up to make contacts via OSCARs 6 and 7.

After 12 years in pursuit of 2 meter Worked All States ([WAS](#)) using meteor scatter, auroral, tropospheric, and moonbounce propagation, K0MQS

finally turned the trick in early 1976! Showing that there are always new adventures in ham radio, W9JA in 1976 earned a 5-band WAS for working *only* hams with 1 × 2 call signs!

By 1977, plans had begun for the Phase III Amateur Radio satellite, which would be far more sophisticated and capable than any AMSAT "birds" to date.

Articles began appearing in *QST* in the late 1970s that reported on hams building alternative power systems using solar and wind power.

During the late 1970s, more and more 2 meter repeaters were put on the air, mostly by ham clubs. Sorting out new rules and regulations for them turned into a major undertaking for the FCC, including dealing with phone patches and autopatches via repeaters. *QST* responded with articles and notes to report the rules changes.

On March 20, 1978, the FCC banned 10 meter amplifiers, because of the large-scale misuse of them on Citizens Band. This happened, despite the efforts of ARRL and many individual hams and ham clubs to leave the hams alone and to go after errant CBers instead. A guest editorial by Dave Bell, W6AQ, in the May 1978 *QST* is a splendid fable mirroring the FCC decision.

JG1QFW, First Solo Explorer to Reach the North Pole

To assist, fellow hams set up an emergency circuit and followed Naomi Uemura's dog sledge from reports relayed through the Nimbus 6 satellite.



By the late

1970s, attention began to be focused on the potential dangers to hams of RF radiation.

A *QST* article in September 1978 described the experiences of Naomi Uemura, JG1QFW, as the first solo explorer to reach the North Pole. Hams set up an emergency circuit for his support, and tracked his dog sledge via reports relayed through the *Nimbus 6* satellite.

During the late 1970s, considerable attention was given to the new concept of narrowband voice modulation (NBVM). The new technique of frequency-compressed SSB was reported in the December 1977 *QST*, and the editorial in the September 1978 issue announced that W1AW would soon begin test transmissions, together with instructions as to how the signal can be tuned in (with reduced intelligibility) using normal SSB receivers. NBVM never caught on, however.

Two new annual contests began in 1978 -- the ARRL EME Competition and the ARRL UHF Contest. An article in October 1978 *QST* reported on a newly discovered mode of VHF propagation -- Equatorial FAI (transequatorial propagation enhanced by magnetic-field-aligned irregularities). -- Al Brogdon, W1AB *The ARRL Letter*



MEMBERSHIP INVITATION

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

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

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

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

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

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

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

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



LONDON AMATEUR RADIO CLUB Inc. MEMBERSHIP APPLICATION FORM

- Single Membership: \$25.00 Renewal
 Family Membership: \$30.00 New Member

Name: _____ Call Sign: _____

RAC Member? Yes No RAC Member # _____ ARES Volunteer? Yes No

Address: _____

City: _____ Prov: _____ Postal Code: _____

Privacy policy: We do not publish private member contact information in the newsletter, or on the Web site. Occasionally other members will ask how to contact other members via email or phone.

- I wish to receive LARC News by email
 I give permission to have my email address given to other LARC Executive members when requested
 I give permission to have my email address given to other LARC Members when requested
 I give permission to have my phone number given to other LARC Executive members when requested
 I give permission to have my phone number given to other LARC Members when requested

Email Address: _____ Phone Number: _____

My interests are:

- | | | | |
|---|---------------------------------------|---------------------------------------|---|
| <input type="checkbox"/> HF-SSB | <input type="checkbox"/> VHF/UHF | <input type="checkbox"/> ARES | <input type="checkbox"/> Mentor/Elmer |
| <input type="checkbox"/> HF-CW | <input type="checkbox"/> Repeaters | <input type="checkbox"/> Satellite | <input type="checkbox"/> Require Mentoring |
| <input type="checkbox"/> HF-RTTY | <input type="checkbox"/> Slow Scan TV | <input type="checkbox"/> Kit Building | <input type="checkbox"/> Event Communications |
| <input type="checkbox"/> HF-Digital Modes | <input type="checkbox"/> APRS | <input type="checkbox"/> Contesting | |

Family Membership *(Must be living in the same household)*

Name: _____ Call Sign: _____

Name: _____ Call Sign: _____

Name: _____ Call Sign: _____

Date: _____

All information requested should be completed - this will be used for the club's membership database only.

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

Paid: _____
Cash: Cheque:
Membership Card Needed:
Sticker Needed: