

Message from the London Amateur Radio Club



Promoting Amateur Radio in London
And surrounding area since 1920

January 7, 2012

L.A.R.C. Executive

President

Doug Elliott, VA3DAE

Vice-President

David Lambert, VE3K GK

Past President

Doug Tompkins, VE3IDT

Treasurer

Brian Bouckley, VA3ATB

Secretary, Flea Market

Ruth Dahl, VE3RBO

Director, Flea Market

Ann Rundle, VA3EOR

Director, Membership

John Visser, VA3MSV

Director

Mike Watts, VE3ACW

Non-Voting

Director, ARES & CANWARN

Brett Gilbank, VE3ZBG

Appointments

LARC Repeater Coordinator

Brad Seward, VE3NRJ

Repeater

Operator/Programmer

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, January 12, 2012** and will feature Deputy Fire Chief **Dan Oldridge VE3NCI**. He'll be speaking about the Fire Department's Communications and Operations, and we're pretty sure there will be some interesting radio topics discussed.

RAC Bulletin 2011-046E - New Membership rates

December 20, 2011

IMPORTANT NOTICE REGARDING MEMBERSHIPS

It has been many years but the Radio Amateurs of Canada have finally raised the membership rates.

Rates had previously been raised for United States and International Members to take into account the increased mailing costs for non-Canadian residents.

Canadian membership rates are among the lowest in the world and will remain so. A membership in the Radio Amateurs of Canada will continue to be less than a tank of gas and the increase is less than a cup of coffee for most memberships.

These price changes are now reflected on the RAC website.

Membership: Full Regular \$52.00, Full Family \$25.00, Full Blind \$25.00, Full Maple Leaf Operator \$100.00, Associate Regular \$52.00, Associate Family \$25.00, Associate Blind \$25.00, Associate Corporate \$150.00, Associate U.S. \$90, Associate International \$130

The above Membership Dues are subject to GST and/or HST from your province of residence.

5% - AB, MB, NT, NU, MB, PE, QC, SK, YT	12% - BC
13% - NB, NL, ON	15% - NS

Frank Greene

Office Manager - Radio Amateurs of Canada

Next Meeting is Where and When?

Reminder: The next monthly L.A.R.C. meeting on January 12, 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 February 9, 2012. This meeting will be a presentation by

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

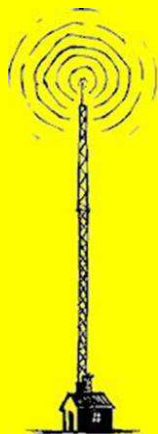
VE3STR 443.825 + 114.8 Hz
IRLP Node: 2482

Goderich

VE3OBC 146.910 - 123.0 Hz

Whitechurch

VE3WWD 443.075 + 123.0 Hz



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 92. As of the beginning of the 2011/2012 year we have gotten 6 new members 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. Unfortunately 3 past members of the club became a Silent Key last year.

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

RAC Bulletin 2011-042E - Address/phone number/email updates needed

December 5, 2011

Every month RAC sends out renewal notices to members whose membership is to expire in a month. Every two months the TCA magazine is mailed.

However members move and do not send a change of address notice to headquarters or do not update their information online @ rac.ca, including phone numbers and email addresses.

Canada Post charges us for returned mail and members do not get their renewal notices or their TCA magazine.

This is a reminder to please send a change of address notice to headquarters or update your information online @ rac.ca, including phone number and email address.

If you know a ham that has moved in the last year remind them to make these changes.

We are looking for new addresses for:

- VE1AIP, VE1JIM, VE1LT
- VA2AX, VA2RC, VE2RG, VA2RJC, VE2GMJ, VE2HCH, VE2LAM, VE2TAW, VE2VW
- VA3COX, VA3DRV, VA3GAX, VA3MEW, VA3NV, VA3QR, VE3BZF, VE3DDD, VE3DXZ, VE3FGV, VE3GBD, VE3GNM, VE3ICQ, VE3HMG, VE3LUJ, VE3NY, VE3RTB, VE3YT
- VE4AT, VE4JP, VE4ZD
- VE5LQ, VE5VL, VE5VT
- VE6BBE, VE6CUT, VE6FS, VE6KY, VE6LEN, VE6OOO, VE6SAR
- VA7LNX, VA7SND, VE7ABV, VE7BWW, VE7CDL, VE7CJZ, VE7ECW, VE7HLO, VE7HTC, VE7JCR, VE7MLT, VE7PW, VE7WQ
- VE9OA, VE9JEF
- VY1WWW

If you know these members please have them send their new address to racgm@rac.ca (Frank Greene)

Frank Greene
Office Manager - Radio Amateurs of Canada

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.

Upcoming Events

Sun., Jun. 3, 2011

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

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

RAC Bulletin 2011-044E - New Manager of NARED, the National Amateur Radio Emergency Database

December 10, 2011

Doug Mercer VO1DM CEC RAC Vice President Field Services is pleased to announce the appointment of Pat Barrett, VE3RNH Manager NARED effective immediately. Pat has an extensive management background and most recently sat on the Ontario Restructuring Commission chaired by RAC Director Bill Unger VE3XT. Pat is active with ARES, the Barrie Amateur Radio Club, and speaking with her she is looking forward to moving NARED forward, adding her knowledge and experience. If you have ideas or suggestions I know she would like to hear from you. Contact her at ve3rnh@rac.ca.

In making this announcement, also also would like to extend a warm 'thank you old friend' to Merv Halvorsen VE3TSA the outgoing NARED Manager. Merv, I knew I wouldn't have you for long, and sincere thanks for all of your efforts.

73

Doug Mercer VO1DM

Vice President Field Services - Radio Amateurs of Canada

P.O. Box 1042 Goulds

Newfoundland Labrador A1S 1H2

Tel.: 709-364-4741

Cell.: 709-697-3319

E-mail: dougvo1dtm@gmail.com

"We're ALL about Amateur Radio!"

"Tous ensemble pour la radioamateur!"

Hamvention News: No Increase In Flea Market Space Cost In 2012

December 9, 2011

The Dayton Hamvention has announced that Flea Market vendor space cost will not be changing in 2012. All in-aisle Flea Market vendor spaces will still be \$70.00 each with end of aisle spaces remaining at \$100.

Also, ham radio clubs can rent 4 spaces in a row or front to back, excluding end spaces, for \$100. This after providing they supply proof that the club exists at time of payment.

Also those making club purchases are advised to do so directly with the Flea Market Sales Office and not on-line. This is because the Flea Market Committee will have to adjust the prices before your payment is made.

For more information please contact the committee by e-mail to fleamarket@Hamvention.org

(Hamvention)

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.

Looking for Amateur Radio Operators for the Canadian Ski Marathon 2012 - February 11-12, 2012 in Western Quebec/Ottawa Valley

December 29, 2011

I received this message since I receive the Montreal Amateur Radio Club (MARC) club e-mail and I thought I should share it with you.

73

Vernon Ikeda - VE2MBS/VE2QQ

Pointe-Claire, Québec

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

Date: Thu, 29 Dec 2011 10:15:41 -0500

Subject: Looking for Amateur Radio Operators for the Canadian Ski Marathon 2012 - February 11-12, 2012 in Western Quebec/Ottawa Valley

From: Harold Hamilton

I would appreciate it if you would help me by spreading the word throughout your local ham radio communities. We are looking for radio operators.

Once again the Canadian Ski Marathon (CSM) is spooling up. This year is the 46th anniversary for the CSM. Radio is a few years behind that.

The CSM depends on ham radio volunteers to provide important and timely safety and logistical communication for the benefit of the skiers. The amateur radio CSM web page (<http://www.radio-1.ca>) is up and running with 2012 information. The event runs between Buckingham and Lachute in western Quebec - snow or shine.

If you would like to volunteer this year, please email Harold VA3UNK (radio1@admin2.ca). Although I can't promise anything, assignment requests are generally first-come, first-served.

Please join me the second weekend in February (11th-12th) and help make 39th our best year yet!

Bye for now,
Harold, VA3UNK

RAC Volunteer Appreciation Award

Doug Mercer, VO1DTM CEC – RAC Vice-President Field Services (vo1dtm@rac.ca)

In this issue of "The RAC Report" we would like to recognize Gary Hyatt, VE3MJT.



It is indeed a pleasure to introduce you to one of the key volunteers who provides important support to RAC Headquarters in

Ottawa.

Gary grew up in Ontario and attended Arthur Voden Vocational School in St. Thomas. He

enjoyed a career in retail, owned and operated the Champlain Astrolabe Campsite in Cobden, Ontario and in later years became proficient and certified in digital and fibre optic assembly.

Gary was first licensed as VE3MJT in 1980. He is a member of the Quarter Century Wireless Association and received his "25 years licensed" pin at the Chapter 70 November 2008 dinner meeting.

On behalf of President Geoff Bawden, VE6BAW and the entire Board of Directors and Executive, thank you for over a decade of volunteer service to the Radio Amateurs of Canada.

How To Get A New Ham On A 2 Meter Repeater

December 30, 2011

And finally this week, if you are new to ham radio and are sitting with a brand new HT or 2 meter mobile you got for Christmas but afraid to make a first contact, then we have just what you need. Simply take your web browser to www.tinyurl.com/new-on-two. That's where you will find a video produced and hosted by Tyler Pattison, N7TFP, of Gig Harbor, Washington that takes you step by step through making your first contact over a local 2 meter VHF repeater.

In his video, N7TFP, explains every aspect of getting on a repeater including what a repeater really is.

In the video, N7TFP is joined in on the air contact demonstrations by Aaron Taht, N7FSM, and Rick Taylor, K7CAH Together the three

show the newcomer what a simple, every day on-the-air contact sounds like. We should add that the lessons taught in this video are applicable to most repeater operation on other bands as well.

Tyler Pattison, N7TFP, has several well produced getting started videos posted on YouTube but at this time of year this one on making a first contact seems very apropos. If you know someone who is new to the hobby and unsure of how to make that very first contact over a repeater, we highly recommend that you send them to this short and friendly video. Again the direct route to it is www.tinyurl.com/new-on-two. Whomever you send there will likely be happy that you did.

(ARNewline™, Southgate)

Amateur Radio Operator Certificate Services

Derek Hay, VE4HAY – RAC Midwest Director (ve4hay@rac.ca)

Industry Canada has now opened up their online Amateur Radio Operator Certificate Services website.

<http://www.ic.gc.ca/eic/site/025.nsf/eng/home>
(English)

<http://www.ic.gc.ca/eic/site/025.nsf/fra/accueil>
(French)

I was part of the testing team while in the Beta mode and was impressed with what we can now do online as compared to what required mailing and/or faxing in the past. Any changes to your account are immediately updated within 30 minutes or less. As I write this the page is just newly available for use.

When you get a chance, please check out the new site using the links below. To sign up for your account you will need your Certificate of Proficiency. Make a note of your password and you are now free to make changes to your

account. Most of the things you can do are at no charge, including possibly some things that used to cost money to make changes. Items that do require payment will be noted. Enjoy your new access and if you have any problems please contact the Amateur Service Centre directly.

Amateur Service Centre

Industry Canada

Amateur Radio Service Centre

PO Box 9654 Postal Station "T"

Ottawa, ON K1G 6K9

Telephone: 1-888-780-3333

Fax: 1-613-991-5575

Email: spectrum.amateur@ic.gc.ca


*Hours of Operation: 8:30 am to 4:30 pm
(Eastern Time)*

http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/h_sf01709.html (English)

http://www.ic.gc.ca/eic/site/smt-gst.nsf/fra/h_sf01709.html (French)

Verizon Sends Test Alert Without Labeling It As A Test

December 16, 2011

 A snafu by Verizon Wireless sent a very authentic looking but false emergency alert message to its customers in parts of New Jersey on Monday, December 12, 2011.

The alert to subscribers in Middlesex, Monmouth and Ocean county New Jersey told of a "civil emergency" and advised people to "take shelter now." Only there was no emergency.

According to news reports the message was meant to be a test but it wasn't labeled as such. Verizon later admitted the mistake but not before some of its network users started contacting a variety of local, county and state

emergency response agencies. This to express their concerns and ask what the emergency was. At airtime it's not known as to how many called in and to what agencies.

It took about an hour and a half for New Jersey State Homeland Security and emergency management offices to respond by posting to Twitter that no emergency existed. Later in an e-mail an unnamed Verizon spokesman said the company apologized for any inconvenience or concern that the erroneous message caused.


Verizon didn't say why the message was sent without being labeled as a test or whether the incident was the first time such a mistake had occurred.

(CGC, Published News Reports)

LightSquared vs Congress Could Hold Up Approval Of New FCC Commissioners

December 16, 2011

 The ongoing saga of LightSquared versus the U.S. congress has reached a new level. This with Iowa Senator Charles Grassley pledging to block the nominations of Jessica Rosenworcel and Ajit Pai as FCC Commissioners.

 Senator Grassley's says that his decision has nothing to do with the qualifications of the nominees. Rather he is using it as a tool to challenge the FCC's refusal to turn over to him documents related to the waiver the FCC granted to LightSquared to launch a terrestrial wireless broadband network using satellite spectrum.

As previously reported, FCC approval of the LightSquared service is conditional on it not interfering with the Global Positioning System

operating in adjacent spectrum. This is an issue that LightSquared is currently trying to resolve so that its wholesale wireless service can be launched.

Senator Grassley says that he is concerned about the impact to GPS by the proposed LightSquared system. He wants to be certain that broadband deployment does not cause interference issues to the Global Positioning System and he will do all in his power to protect it.

For those not aware, a single senator can hold up nominations, and does not even have to make that public. However Senator Grassley has made no secret of his intentions to take this road unless the FCC gives in to his demands.

(B&C)

LightSquared vs. GPS Industry - Round 6

December 23, 2011



The federal government has confirmed reports that tests conducted by a joint Technical Working Group show that signals from a nationwide wireless broadband network proposed by LightSquared interfered with the majority of commercial GPS receivers that it tested.

A joint statement issued December 13th by the Department of Transportation and the Department of Defense confirms that testing did show that LightSquared signals caused harmful interference to the majority of tested general purpose GPS receivers. A separate battery of tests, conducted by the Federal Aviation Administration has shown the LightSquared like signals also interfered with Terrain Avoidance and Warning Systems. These rely heavily on GPS signals for reference to an aircraft's proximity to the ground.

In response, LightSquared executive vice-president Jeffrey Carlisle sent a letter on December 12th to FCC Secretary Marlene H. Dortch. In it, LightSquared offered to surrender authority over use of the upper part of its allotted spectrum to the National

Executive Committee for Space-Based Positioning, Navigation and Timing which is a government organization of military and commercial telecommunications officials. The move would effectively shut LightSquared out from utilizing that bandwidth, which is immediately adjacent to the spectrum used by G-P-S receivers.

But here is a catch. In exchange for the concession, the company asked for immediate access to the lower 10 MHz of the spectrum initially granted to LightSquared by the FCC in December 2010. LightSquared claims signals utilizing this bandwidth will not interfere with most GPS devices, provided they are fitted with narrow bandwidth sharp cutoff filters.

That proposal from LightSquared was met with suspicion from the Coalition to Save our GPS. In a statement, coalition member the National Business Aviation Association noted LightSquared's offer doesn't alleviate the overall concern that its system will still interfere with GPS signals. As such, there exists the potential of jeopardizing the safety of countless pilots and others who rely on GPS for navigation.

(NABA)

IBEC Closes Down BPL Operations Due To Financial Losses

January 6, 2012

One of the very few remaining United States operators of a Broadband over Powerline Internet access system has announced that it is shutting down. A notice that appeared on the International Broadband Electric Communications web site said that due to its inability to overcome financial damage from the April 27th 2011 tornadoes that ravaged some of its service areas in Alabama, it regrets that it has no other option than to close its doors and cease operations.

International Broadband Electric Communications better known by the acronym IBEC went on to say the customer support

would cease on January 16th and urged its customer base to seek alternative Internet access as soon as possible. It also stated that it sincerely cares about the Internet needs of rural America and detests watching the national carriers ignore the communications needs of so many hard working families across the nation.

IBEC was headquartered in Huntsville, Alabama. It provided Internet service using broadband over power line technology to rural communities in several states including Virginia, Pennsylvania, Indiana as well as Alabama. With its departure, the ARRL says

that there is no other Broadband over Powerline system in the United States that uses the amateur bands in their deployments.

You can read the IBEC closure announcement on its website at www.ibec.net.

(Various news reports)

Transatlantic Amateur Radio Balloon In Flight

December 16, 2011



An amateur radio balloon carrying APRS that left the United States mainland and headed across the Atlantic Ocean toward the European

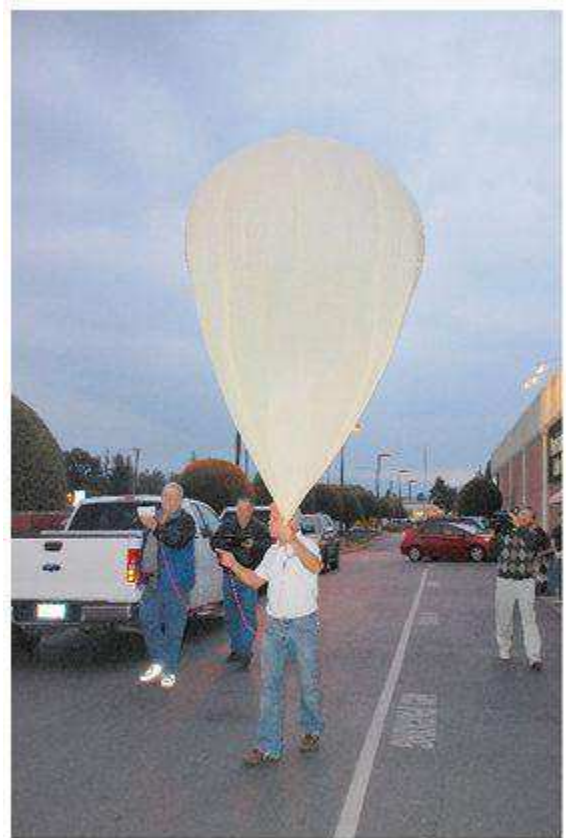
continent made it. at 35 miles an hour. At that point, it's assumed to have fallen into the sea but not before traveling over 7,000 statute miles at well over 100,000 feet. Possibly a new record for an APRS equipped ham radio long distance balloon flight. On this point we will have to wait and see.

continent made it.

Ron Meadows, K6RPT, of the California Near Space Project launched four high-altitude balloons on at 0000 UTC on Monday, December 12th. The balloons were expected to come down somewhere in the midwest US but one identifying on APRS as K6RPT-11 decided to take a cruise on the jet stream.

After departing US soil over New Jersey at an altitude of 110,000 ft, it crossed the Atlantic Ocean overnight, Hams in Southern Europe were asked to tune their gear to 144.390 which is the APRS channel used in the United States. They were then requested to assist in tracking K6RPT-11 on its pass over Europe.

The question at the time was where would it land. The answer came early in the morning of December 14th. At the time the balloon was out over the Alboran Sea in the Mediterranean when APRS tracking showed it suddenly descending. The last report via EB6AOK showed it at 14,558 feet and traveling



Ron Meadows walks the balloon out for launch. This was after sunset to limit UV exposure. Don Ferguson, KD6IRE (left in blue jacket) carries the payload. [Bob Snelgrove, KG6TBY, Photo]

CLOSE X

(W6DTW, APRS.FI)

Ham Radio In Space: FASTRAC 1 Needs Your Help

December 9 2011

The FASTRAC satellites have been in operation for more than a year and the team has been able to get a lot of data from them. But over the last month the team noticed that one of FASTRAC 1's on board microcontrollers which controls one of the experiments has not been booting up correctly. The team has done everything possible to correct this issue apart from turning it off which can only happen if the batteries fall below a specific charge level.

Since the satellites have been power positive throughout this whole year the only way this can happen is if the satellites transmit more often. Given that one of FASTRAC goals has always been to eventually provide a platform for amateur radio enthusiasts to use after the primary mission was over, the team has decided to open up FASTRAC 1 to the amateur

radio community with the hope as more people use it to digipeat through the satellite, the battery levels will diminish and cause a hard reset of the microcontrollers on board.

The satellite is configured so that hams were able to begin using it to digipeat on December 2nd. To increase the chances of causing a hard reset, it was requested that as many amateur radio enthusiasts as possible try to digipeat through the satellite on the weekend of December 10th.

If you are successful at digipeating through the satellites or have any problems doing so please let us the team know by e-mail to fastracsats@gmail.com or via the Facebook page www.facebook.com/fastracsats.

(FASTRAC)

Fastrac Oscar 69 (FASTRAC 1) Information

Spacecraft Summary

OSCAR Designation:	Fastrac Oscar 69	Oscar Number:	FO-69
International Designator:	2010-062F	Norad Number:	37227
Common Name:	FASTRAC 1	Alternate Name:	Sara Lily
Satellite Type:	Satellite	Launch Date:	November 20, 2010
Launch Location:	Kodiak, Alaska	Launch Vehicle:	Minotaur
Apogee:	650.00	Perigee:	650.00
Inclination:	72.00	Period:	90.00
Weight:	23.500 Kg		
Organization:	The University of Texas at Austin		



Frequency Information

Mode V/U (J) Packet:	Non-Operational
Uplink:	145.8250 MHz FM 9600 BPS
Downlink:	437.3450 MHz FM 9600 BPS
Uplink:	145.9800 MHz FM 1200 BPS
Downlink:	437.3450 MHz FM 1200 BPS
Mode U Telemetry:	Operational
Downlink:	437.3450 MHz FM 1200 BPS

Detailed Description

FASTRAC 1 is half of a pair of student-built nanosatellites to investigate relative navigation, attitude determination with GPS, and a micro-discharge plasma thruster. Amateurs are encouraged to submit telemetry from both satellites via the project website. After the primary science mission is completed, both satellites may be opened for general amateur radio use as digipeaters.



ARRL Seeking Input On A 60 Meter Bandplan

January 6, 2012



The ARRL is seeking input on a proposed new bandplan for the 5 MHz or 60 meter band.

As previously reported, last November the FCC released a Report and Order detailing new rules for the 5 MHz Amateur Radio band. This announcement brought with it a number of changes for 60 meter operators.

Changes include substituting a channel at 5 point 358 point 5 MHz for 5 point 368 MHz previously authorized. The effective radiated limit in the 60 meter band will be raised by 3 dB to 100 W Peak Envelope Power relative to a

half-wave dipole. Also, three additional emission types are authorized. These are Data, RTTY and CW will be authorized as soon as an effective date for a rules change is announced.

The ARRL says that considering the expected increase in 60 meter activity when the FCC's Report and Order finally takes effect, the League is asking for feedback to assist in crafting a proposed band plan. If you're a 60-meter operator, e-mail your suggestions to hf-band-plan (at) arrl (dot) org. You can also participate in an online survey at tinyurl.com/60-meter-plan.

(ARRL)

Your Help Needed To Keep W5KUB Netcasts On The Web

January 6, 2012

One of the true good-guys of ham radio says that he needs the financial support of those who watch his live video coverage of the Dayton Hamvention and other major ham radio events at www.W5KUB.com to keep these Netcasts coming their way.

Tom Medlin, W5KUB, has been Netcasting the Dayton Hamvention and Huntsville Hamfest for the past 10 years. He says that covering such events is a major undertaking for him that requires several months of preparation for each one that is live streamed. And during the decade he has provide this service he has done so paying almost every penny himself.

Medlin lives in the Memphis, Tennessee area. According to W5KUB, it now costs him close to \$1500 to live stream any of these shows to viewers worldwide. Using the Dayton Hamvention as an example, some of his expenses include over \$500 in hotel charges; \$200 or more in gasoline for his mobile unit and another \$210 for his flea-market parking spaces.

But that's not all. As Tom points out, his video streaming service is not a part of the

Hamvention he gets no subsidy from it. So he has to pay another \$70 for tickets for himself and his crew plus about \$400 for food and expendable items such as batteries and the like. And in the end it works out at about \$1500 each time he provides the video streaming service.

According to a posting on his www.W5KUB.com website, expenses have climbed through the roof over the past few years. As such, he is asking those who view his Netcasts to please consider donating a little to help defray his expenses in providing this service. He says that his goal is to try to raise at least \$1000 in donations this year to go towards the \$1500 expense. If he can get that, he will continue to subsidize the difference.

Tom adds he never wanted to ask for donations but that may be what it takes if he is to continue broadcasting these events. More information on how to support this worthy cause is on-line at www.tmedlin.com/donate.html.

(ARNewline™ from W5KUB.com posting)

Ham Radio in Hollywood: Comedian Tim Allen Stars as Radio Amateur on New TV Show

December 12, 2011

Tim Allen -- star of [Home Improvement](#), [Toy Story](#), [The Santa Clause](#) and [Galaxy Quest](#), just to name a few -- stars in [Last Man Standing](#), an ABC comedy airing at 8 PM (EST) on Tuesday nights. Allen plays Mike Baxter, KA0XTT, a married father of three and the director of marketing at an outdoor sporting goods store in Colorado whose life is dominated by women. While Amateur Radio has not been prominently featured in the first episodes, according to John Amodeo, NN6JA -- the producer of *Last Man Standing* -- it is a part of the show and an important part of Mike's character. The episode that will establish Mike as a radio amateur is currently scheduled to air in mid-January.



Comedian Tim Allen plays Mike Baxter, KA0XTT, on the new hit television show *Last Man Standing*. The ARRL has been working with John Amodeo, NN6JA -- the producer of *Last Man Standing* -- to make sure that Amateur Radio is correctly portrayed on the show. The ARRL has also provided many props used on the set. Note the ARRL stickers and the issues of QST -- the October 2011 issue (open to the Product Review article on the table) and the September 2011 issue (on the drafting board) -- as well as an issue of NCJ (on the drafting board) and a QEX (next to the radio). [©American Broadcasting Companies, Inc, used by permission]

"Tim's character Mike is involved in creating the sales strategy for the store, including their catalog and Internet identity," Amodeo told the ARRL. "The store is like Bass Pro Shops or Cabelas. There is a strong self-sufficiency overtone to Mike's approach to life. Ham radio fits in the story as a means of emergency communication. It's not directly featured in the foreground story, but at the moment, it's a background element on the home set. Once I allow something to be put on the set, there's a chance the writers will feature it. Now that we have actually established Mike Baxter as KA0XTT, we can do more things featuring Amateur Radio."

To make Mike a ham, Amodeo needed Mike to have a call sign. So he contacted ARRL Media and Public Relations Manager Allen Pitts, W1AGP, to help him out. "In film and TV, we create fictitious telephone numbers, addresses and brands," Amodeo explained. "We do this mostly to avoid being sued by real brands and to avoid complications with advertisers. As a producer and a ham, I was torn between wanting the show to be accurate and needing to keep my studios out of trouble. An accurate and positive portrayal of ham radio on TV would be a good thing." Many TV shows and movies use telephone numbers with a 555 exchange (such as 555-1212), as that exchange is not valid.



The ARRL also provided mock-up certificates for Allen's character, including DXCC (CW), Worked All States (RTTY), Worked All Continents (Phone) and a Morse Code Proficiency Certificate (with endorsements for 20 and 25 words per minute). All certificates have an issue date of December 25, playing on Allen's role in *The Santa Clause* movie series. At Amodeo's request, ARRL HQ staffers sent in their personal QSL cards. Cards from News Editor S. Khrystyne Keane, K1SFA; Media and Public Relations Manager Allen Pitts, W1AGP; Membership and Volunteer Programs Assistant Manager Norm Fusaro, W3IZ, and Marketing Manager Bob Inderbitzen, NQ1R, adorn the wall. Both Keane and Pitts have been instrumental in providing props to the *Last Man Standing* set. [Photo courtesy of John Amodeo, NN6JA]

Together with Pitts, and with input from Tim Allen, Amodeo created a call sign for Mike Baxter: KA0XTT. Since the show is set in Colorado, they wanted Mike to have a call sign with a 0 in it. "We wanted a call sign that sounded real, but was not valid," Amodeo said. "The call sign is a 2x3 format with an X suffix.

A call sign in this format is an experimental call sign and is not assignable to a radio amateur except in special circumstances. We especially liked the suffix, as it is a play on Tim's character from his former show, *Home Improvement*: 'ex-Tim Taylor.'"

Amodeo told the ARRL that both his studio (Fox) and ABC were "delighted to have a useable call sign. In the past, TV shows just made up some crazy call or used someone else's without permission. And because we've had so much talk about Amateur Radio here on the show, a few of my production assistants took their Technician exam." Amodeo applied to be an ARRL Volunteer Examiner so he could help administer the exams. On October 6, Amodeo and two other ARRL VEs administered the Technician exam to seven prospective hams. All seven passed, with two making perfect scores.

Since Mike Baxter is a ham, he needed a shack. So Amodeo and the set designers installed an Amateur Radio station in the corner of Mike's set office. Allen, as Baxter, uses an ICOM IC-9100 HF/6 meter/2 meter transceiver and an IC-92AD handheld transceiver, both provided to the show courtesy of ICOM America. Amodeo told the ARRL that he has plans to add vintage equipment to the shack in the future. "The radio equipment was originally intended to be used as props and set dressing items," Amodeo told the ARRL. "But since eight of the show's staff members are radio amateurs, it didn't take long before we made the radio equipment 'practical,' which is to say, actually capable of making radio calls live from the stage when we're not shooting." He said that radios will always be on and lit whenever they are shooting scenes in the office.

Pitts and ARRL News Editor S. Khrystyne Keane, K1SFA, have been working with Amodeo to make sure that Amateur Radio is correctly portrayed in the show. Keane also provided ARRL and Amateur Radio-related materials that are used on the set, such as issues of [QST](#), [NCJ](#) and [QEX](#), as well as a call sign map, a [2012 ARRL Handbook](#), a 2012

ARRL calendar and various ARRL stickers (look for one on the HF rig). "We also sent fake versions of [DXCC](#), [Worked All States](#) and [Worked All Continents](#) certificates, as well as a [Morse Code Proficiency Certificate](#)," Keane explained.

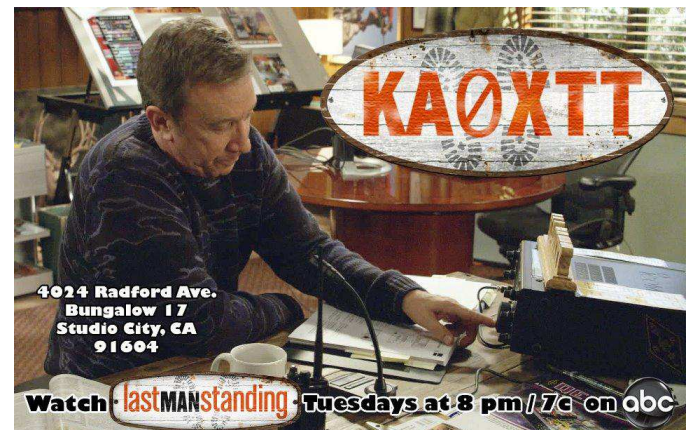
"Each certificate bears the name Mike Baxter and has KA0XTT as the call sign. All the certificates have issue dates of December 25, playing upon Tim Allen's role in *The Santa Clause* movie series."

Amodeo told the ARRL that he also installed a Comet CHV-5X HF dipole and GP-1 antenna for 2 meters and 70 cm (courtesy of NCG/Comet) "up high, about 50 feet, inside the sound stage. The ultimate goal is to have the hams on our staff make contacts from our stage during down times."

Last Man Standing also stars Nancy Travis ([Three Men and a Baby](#)) as Mike's wife and Hector Elizondo ([Pretty Woman](#), [The Princess Diaries](#), [Monk](#)) as Mike's boss. Amodeo also produced the critically acclaimed [Sports Night](#) and [Arrested Development](#).

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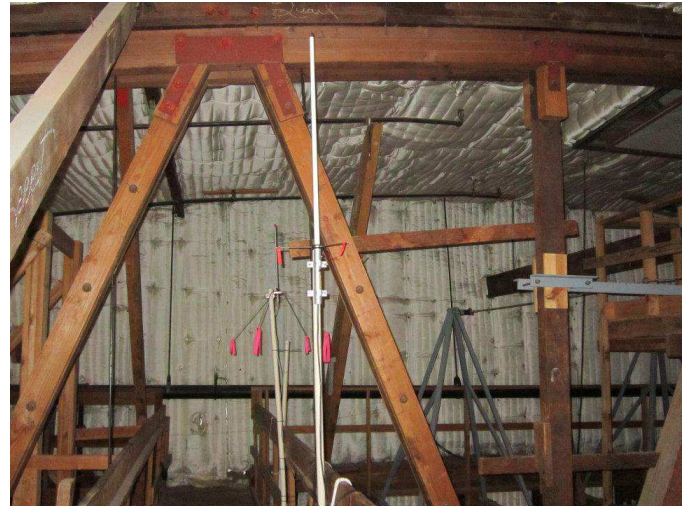
More photos found online.



I believe that this is a QSL Card that was made for the show. Apparently if you mail your QSL Card to the show, you may receive one of these card, limited quantities available.



A Comet CHV-5X (multiband rotatable dipole) mounted 50 feet above Mike's office set.



Arrow Antennas GP146 and GP435 also mounted in the rafters of the sound stage.

EDITOR NOTE: It has been suggested in various forums that Tim Allen actually work at getting his license.

Ham Tech

Volume 2, Number 1

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Tropospheric Scattering 70 cm Over-the-Horizon Stations

Last month we explored some of the fundamentals of propagation by Tropospheric Scattering of VHF & UHF signals. Using a chart method developed by Collins Radio Co. in the early 1970's we were able to calculate the median propagation loss on a 200 mile path, with 50 ft. high antennas, at 2 M, 70 cm and 23 cm. The propagation losses (L_{Prop})_{50%} were 226.8, 220.1 and 223.4 dB respectively. Since 70 cm gave the lowest loss we will pick that band to construct and analyze our two stations this month.

Let's pick some basic components for our stations with a focus on being practical and keeping costs reasonable. Mode wise we will

start with good old CW and then extrapolate to SSB voice and PSK-31. Here are my major component picks.

1. A single long Yagi antenna such as the M² model 32-9WL, 28 elements on a 21 ft boom. Free Space Gain (G_A) = 19.45 dBi. Noise Temperature (T_A) = 290° K.
2. A 100 watt ($P_T = +20$ dBw) power amp located at the top of the tower.
3. A 0.8 dB NF ($T_R = 58.7^\circ$ K) low noise preamp with built in duplexer located at the antenna feed point.
4. Coax from the power amp to duplexer is 15 ft of 9913. Loss (L_T) = 0.5 dB

5. Coax from shack to duplexer and shack to power amplifier is 100 ft of 9913. Loss = 3.3 dB maximum..
6. A 70 cm transceiver with +/- 0.01 ppm or better frequency stability that supports CW, SSB and AFSK digital modes.

Our evaluation criteria will be the signal to noise ratio $(S/N)_{50\%}$ on CW with a 240 Hz BW receiver.

1. $S/N_{50\%} = P_R / P_N$
2. $S/N \text{ (dB)}_{50\%} = 10 \log P_R \text{ (dBw)} - 10 \log P_N \text{ (dBw)}$
3. $P_R \text{ (dBw)} = P_T \text{ (dBw)} + 2 G_A \text{ (dBi)} - L_T \text{ (dB)} - L_{\text{Prop}} \text{ (dB)}_{50\%} = + 20 + 38.9 - 0.5 - 220.1$
 $P_R = - 161.7 \text{ (dBw)}$
4. $T_S = T_A + T_R = 290 + 58.7 = 348.7^\circ \text{ K.}$
(See Ref. No. 1)
5. $P_N = 10 \log (KT_S BW_{\text{Hz}})$
where K = Boltzman's Constant = $1.38 (10^{-23})$
 $BW_{\text{Hz}} = 240 \text{ Hz for CW}$
 $P_N = 10 \log ((1.38)(10^{-23})(348.7)(240))$
 $= -179.4 \text{ dBw (See Ref No. 1)}$
6. $(S/N)_{50\%} = -161.7 - (-179.4) = 17.7 \text{ dB CW}$

For SSB voice with a 2400 Hz receiver bandwidth the $(S/N)_{50\%} = + 7.7 \text{ dB}$ since the BW and the receiver noise power is 10 times greater.

For PSK-31 which digitally implements a 60 Hz bandwidth the $(S/N)_{50\%}$ is 6 dB greater or + 23.7 dB because the noise is one fourth that of the 240 Hz CW receiver.

The 17.7 dB value for CW is almost 3 S units above noise and more than adequate for reliable copy. The PSK-31 signal is almost 4 S units above noise and should produce very reliable copy. The 7.7 dB SSB voice S/N is really marginal. But let's hold off declaring it non usable until we understand just what the $(S/N)_{50\%}$ term really means.

Equation 3 above list the propagation loss as $L_{\text{Prop}} \text{ (dB)}_{50\%}$. This loss is the mean value of the propagation loss measured ever second for a year and then averaged. It is the mother of all

mean values. Within that year are all types of fading with the slowest varying with the seasons and the fastest varying over one second of time. Different phenomena are responsible for the variations including the weather. We do know from much observing that the mean loss in the summer months is about 10 dB less than the calculated yearly average. Likewise in the dead of winter, typically February, the loss increases by approximately 8 dB. These are rule of thumb values but they are useful. In the summer the 7.7 dB mean on SSB voice increases to almost 18 dB or 3 S units, a very useful mode. In February work PSK-31 or one of Joe Taylor's (K1JT) very narrow band digital modes.

Fast fading is due to multiple signal paths in the troposphere creating varying addition and subtraction of the signals. To improve a signal from 50% to 99% reliability requires about another 8 to 10 dB of S/N. There are diversity techniques both frequency and spatial that can nearly eliminate this fast fading loss but they are not too practical for the average HAM.

What I have presented in these two issues of Ham Tech are some simple charts that allow you to forecast the propagation losses of VHF / UHF tropo scatter communication and some simple equations that allow you to evaluate a station. There is a lot I didn't cover due to lack of space but you can ask questions and I will answer them.

Next month I am going to digress from propagation and focus on some antenna basics including patterns and antenna interaction with the earth. I will answer the question of why I used free space antenna gain in the calculations for Tropo Scatter at 70 cm.

Reference No. 1: Reference Data For Engineers ITT. Fifth Edition 1972 Chapter 27.



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

Member # 3	Last Name	First Name	Call Sign
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RAC Member?	RAC Member #	ARES Volunteer?	Email Address
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Member # 4	Last Name	First Name	Call Sign
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