

## ISS Slow Scan TV Active On Weekend of April 11



The Russian Federal Space Agency (Roscosmos) has announced another round of amateur radio Slow Scan Television (SSTV) activity from the International Space Station (ISS) will take place.

Continuous operation, using the call sign RS0ISS, is expected to start at 1000 UT on Saturday, April 11 to commemorate the anniversary of the first human spaceflight by Yuri Gagarin which took place on April 12, 1961. Previous SSTV sessions have run for two days. Twelve different images will be sent on 145.800 MHz FM using the SSTV mode PD180, with a 3-minute off time between transmissions.

One of the photos shows the commemorative diploma created by PZK, the national Polish Amateur Radio society, on the occasion of the 80th anniversary of the birth of first cosmonaut Yuri Gagarin.

The equipment used will be the Kenwood D710 transceiver located in the Russian Service Module. It is thought the equipment may be producing about 25 watts output which should provide a very strong signal.

Plans are being discussed for transmitting new images from space enthusiasts around the world in the coming months. Additional details will be released.

The images received by amateurs world-wide during previous transmissions can be seen at [http://www.spaceflightsoftware.com/ARISS\\_SSTV/](http://www.spaceflightsoftware.com/ARISS_SSTV/) and you are invited to upload any pictures you receive during the upcoming transmissions.

In the UK newspaper the Daily Mail, Jonathan O'Callaghan wrote about how 22-year-old Radek Karwacki, an AMSAT-UK member, received pictures from

the ISS using a £10 (\$15) RTL-SDR dongle and a dipole antenna, see <http://amsat-uk.org/2015/02/04/iss-sstv-in-uk-press/>

All you need to do to receive SSTV pictures direct from the space station is to connect the audio output of a scanner or amateur radio transceiver via a simple interface to the soundcard on a Windows PC or an Apple iOS device, and tune in to 145.800 MHz FM. You can even receive pictures by holding an iPhone next to the radio loudspeaker.

On Windows PC's the free application MMSSTV can be used to decode the signal, on Apple iOS devices you can use the SSTV app for compatible modes. (Note: see comments below about MMSSTV clock adjustments

which may be needed to reduce picture slant). The sound card adjustments will vary slightly depending on the version of the OS you are running, but usually will be under the advanced properties for the device. You can probably use a higher sampling rate for the sound card so long as it is a power of 2 multiple (2,4,8, etc) of the value in MMSSTV. For instance 192k (8x) has no issues. The same applies to most similar software. 12000 Hz clock works fine but you need to set the Auto Slant Correction to ON, then you won't need to calibrate your

soundcard using WWV.

The ISS puts out a strong signal on 145.800 MHz FM and a 2m handheld with a 1/4 wave antenna will be enough to receive it. The FM transmission uses 5 kHz deviation which is standard in much of the world apart from the British Isles and Europe where 2.5 kHz deviation is more common.

Many FM rigs can be switched between wide and narrow deviation FM filters. For best results you should select the wider deviation filters. Handhelds all seem to have a single wide filter fitted as standard.

The ISS Fan Club website will show you when the space station is in range.

Paul Turner G4IJE, co-developer of the SSTV PD modes, says regarding the MMSSTV PD180 mode:

**2015 April Dinner Meeting**  
The dinner meeting will be on Thursday April 9th at 6 PM in the private room at Chicago Joe's. A Red Cross Representative will speak on 72 hours preparedness.

**LARC SENATE**

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**ABOUT US**

The Lakehead Amateur Radio Club (LARC) is an incorporated not for profit group of amateur radio operators in the Thunder Bay area that meet for self education, community service and fellowship. Our meetings are the second Thursday of the month at room 191 McIntyre Building, Confederation College, 7:30 PM. Our postal address is 1100C Memorial Ave. Suite 184, Thunder Bay, Ontario P7B 4A3. This newsletter is published monthly except for July and August by Ed Baumann VE3SNW and questions and submissions may be emailed to hiqnewsletter.com

**Nets in the Thunder Bay Area**

**Sunday** AMETHYST ARES VHF NET, on VE3TBR 146.820- pl 107.2 IRLP Ref. # 9031 @ 0045Z (7:45 pm), also Cook County ARES Response Team ( CARRT) net at 0100Z (8 pm) on the BWARC repeater, Grand Portage repeater - 146.655 with CTCSS 151.4

**Monday** SATERN NET on VE3TBR 146.820- pl 107.2 IRLP Ref. # 9032

SATERN DIGITAL NETS on **Monday & Wednesday** nights

8 pm- 14.065

9 pm- 7.065

10 pm- 3.5835

Mode :Olivia 8/500 1000Hz waterfall centre

**Every Day** The NORTHWESTERN ONTARIO ARES NET , every evening at 8:15PM (local) on 80m 3.750Mhz (note the time does not change with daylight savings time.)

Any questions on these or other nets please feel free to contact me at my e-mail: ve3mxj@rac.ca

**LARC OPEN ACCESS REPEATERS**

VE3YQT(Mount Baldy)147.060 (-600) Phone Patch

VE3TBR (St. Joseph's) 146.820 pl 107.2

442.075 (+5 MHz)pl 100

144.390 APRS

VE3UPP Upsala 145.470 (-600)



“Don’t forget to either enable “Always show RX viewer” or use the “Picture viewer” (magnifying glass icon) to show the picture at its real resolution of 640 x 496. If you just view as normal you will only see 320 x 248 resolution, which kind of defeats the object of using a high resolution mode.”

You can receive the SSTV transmissions online using the SUWS WebSDR remote receiver located near London along with the MMSSTV software <http://amsat-uk.org/2014/08/15/suws-websdr-moves-to-new-site/>

ISS Fan Club – Tracking / Predictions  
<http://www.issfanclub.com/>

Free MMSSTV Slow Scan TV software <http://hamsoft.ca/pages/mmsstv.php>

iOS SSTV App  
<https://itunes.apple.com/gb/app/sstv/id387910013>

For more on Slow Scan Television SSTV, see this article SSTV – The Basics <http://www.essexham.co.uk/sstv-the-basics>

How to be successful with the ISS Slow Scan Television (SSTV) imaging system  
<http://www.marexmg.org/fileshtml/howtoissstv.html>

IZ8BLY Vox Recorder, enables you to record the signals from the ISS on 145.800 MHz while you’re away at work <http://antoninoporcino.xoom.it/VoxRecorder/>

ARISS Slow Scan TV (SSTV) Blog and Gallery  
<http://ariss-sstv.blogspot.co.uk/>

Information on the MAI-75 SSTV experiment  
<http://www.energia.ru/eng/iss/researches/education-26.html>

Video showing reception of SSTV using the FUNcube Dongle Pro SDR and SDR-RADIO going into Virtual Audio Cable (VAC) then to MMSSTV software <https://www.youtube.com/watch?v=K6MOrX9iZCk>

ISS SSTV received online with SUWS WebSDR  
<http://amsat-uk.org/2014/09/06/iss-sstv-on-suws-websdr/>

Mauricio PY4MAB via Southgate Amateur Radio News Feed and Rob Mazur VA3ROM

## Treasurers Report

This month’s report is not available as Bill and Rita are visiting friends and relatives....looks like Bill is trying to make a new friend.



And Just In Case you missed it....Bill Unger signalling the end of another antenna season with a mighty blast of the famous “Klemacki” horn.



Thanks Mike VE3HZW

WARC Spring Flea market

A.R.A.C. Hamfest

When you receive this the major event of the spring will be just a few days away !!!

This is no April Fool's joke! Yes, the WARC Spring Flea Market is scheduled our old favourite location..

Sunday, April 12, 2015  
Heritage Victoria Community Centre  
950 Sturgeon Road  
Admission is only \$5.00

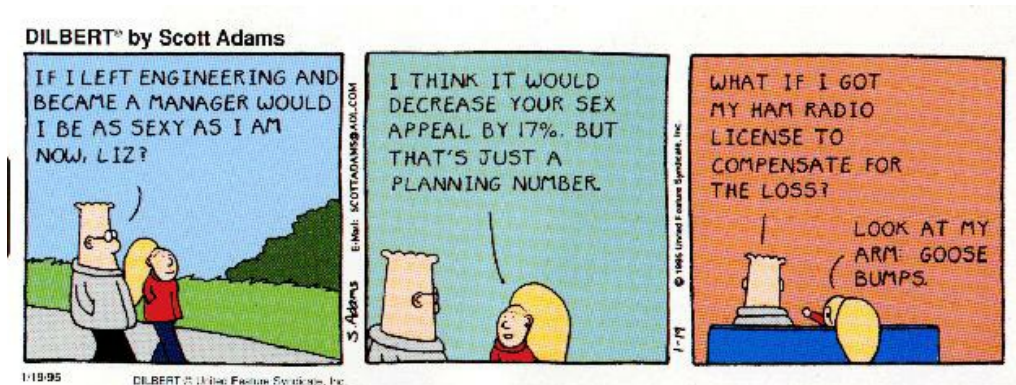
Please stick a \$5.00 bill in your pocket to pay at the door.

Saturday May 2nd 2015  
9:00am - 2:00pm Admission: \$7

HEAD OF THE LAKES FAIRGROUNDS - MULTI PURPOSE BUILDING  
4700 South Tower Ave. (Wisconsin Hwy 35) Superior, WI

A.R.A.C. home page:  
THEARAC.ORG<<http://thearac.org/>>

Here is the link to the A.R.A.C. 2015 Hamfest Flier.  
ARAC HAMFEST 2015  
FLYER<<http://thearac.org/hamfest%20flier15.pdf>>  
Please DL the flier, print it, and post it where interested people can see it.



Do You Hear What I Hear.....?

Ok, so now I know you're thinking 'XT has finally lost it by getting Christmas confused with Easter. Well I believe I'm still of reasonably sound mind and as an Amateur hopefully hearing as well. Hearing is the sense we rely on when we are operating CW or Phone. Therefore it's important that we maintain our hearing at peak performance.

The other part of the equation is the quality of our earphones or "cans" as the old timers called them. I remember my first set of "cans" that were a hand me down from my Uncle Peter, VE3DPJ (SK). They were heavy and made of a wire frame with a bit of cloth masquerading as padding. The ear pieces were made of Bakelite and after 10 to 15 minutes they squeezed your head like a set of vice grips. No wonder my early QSO's were no longer than 15 minutes, it was as long as I could stand them on my head.

Mercifully those days are long gone and present ear phones and ear buds are much more comfortable over long operating periods. But how efficient are they in transferring sound from your rig to your ears?  
Well like everything else in this Internet era there is a web page that will allow you to test your earphones and indirectly your hearing. Follow the hot link and start testing your ear sets. I have two primary sets, one noise cancelling set for operation at the home QTH and another set of buds that I use for portable operations so I was anxious to see how they performed. Follow the hot link and start testing.

[http://www.audiocheck.net/soundtests\\_headphones.php](http://www.audiocheck.net/soundtests_headphones.php)

This site is fun to play with and see how different “cans” compare. If you do nothing else try the Binaural test. It’s quite dramatic. Give it a whirl. I suspect some time with Mr. Google would also show many others as well. After testing my cans I know that my frequency range is way down from when I was younger. So I can no longer hear the highs above 10 kHz and very low frequencies below several hundred Hz. I prefer to think that I don’t need at much filtering to get rid of that pesky QRM! As I age my hearing is becoming more optimised for Amateur Radio operations.

One final caveat, this is not a substitute for a professionally administered hearing test. Take care of your hearing as it is one of the most important tools in the Amateur Radio Business.

Bill ‘XT

### “Cutsie” Web Pages and Videos

We all have at least one friend who sends us links to sites or You Tube videos that we must see or apparently our life will not be complete. Typically my reaction is to immediately reach for the Delete button and in most cases so far, the sun does rise the next morning and I’m apparently none the worse for wear.

So here goes, I’m going to suggest that you take ~30 seconds of your life and go visit this commercial from an Internet Service Provider (ISP) in Africa. After watching it your pride in being an Amateur Radio Operator could be like the Grinch’s heart and gets 10 times bigger .....

One commenter called it the “most brilliant endorsement of Amateur Radio”. I tend to agree.

<https://www.youtube.com/watch?v=hxU1ZhINaHk&feature=youtu.be>

Oh, if you do hit the delete button without watching it I’m betting the sun will still rise tomorrow.

Bill XT



## Minutes for the Lakehead Amateur Radio Club

**Date: March 12, 2015**

**President, Randy Gottfred VA3OJ Presiding.**

### **Guest Speaker:**

Randy Gottfred VA3OJ displayed a transmitter from the 1930's. A Harvey Wells Model TB5-50, 75w CW/AM 80 through 2 metres, xtal controlled.

### **Treasurer's Report: Bill Unger VE3XT**

Bill Unger VE3XT moves to accept the report as printed in Hi-Q. Seconded by Chris Chadwick VA3TBA. Passed.

### **Minutes of Previous Meeting:**

Karl Hamilton VE3RRP moves to accept the previous meeting's minutes as printed in Hi-Q. Seconded by Lori Bedford VE3VAI. Passed.

### **Old Business:**

#### **Public Service (John Sacek VA3JMS public events coordinator)**

##### **Past Events:**

Sleeping Giant Loppet

##### **Upcoming Events:**

May – 10 Mile Road Race – Norm VE3XRC coordinator

July - TBay Triathlon – cancelled for this year due to dam work

Aug - Conquer the Dog

Sept - Caribou Charity ride

Sept - Exterra Sleeping Giant run

##### **2 Day Weekend License Course: Karl Hamilton VE3RRP**

4 people signed up, and money received for 90 day online textbook subscription. Venue reserved. Excess funds will go to VE3SAO and LARC.

### **2015 April Dinner Meeting**

The dinner meeting will be on Thursday April 9<sup>th</sup> at 6 PM in the private room at Chicago Joe's. A Red Cross Representative will speak on 72 hours preparedness.

### **New Business**

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**50/50 Draw:** Norm Bell VE3XRC

**Adjournment** moved by: Norm Bell VE3XRC

**Next LARC Meeting: DINNER MEETING AT CHICAGO JOES  
Thurs. April 9, 2015, 6:00 PM**

# April 2015

| Mon | Tue | Wed | Thu  | Fri                             | Sat | Sun                               |
|-----|-----|-----|--|---------------------------------|-----|-----------------------------------|
|     |     | 1   | 2  | 3<br><small>Good Friday</small> | 4   | 5<br><small>Easter Sunday</small> |
| 6   | 7   | 8   | 9 LARC<br>Dinner<br>Meeting at<br>Chicago Joes | 10                              | 11  | 12                                |
| 13  | 14  | 15  | 16   | 17                              | 18  | 19                                |
| 20  | 21  | 22  | 23   | 24                              | 25  | 26                                |
| 27  | 28  | 29  | 30   |                                 |     |                                   |