



# GUYWIRE

October 2016

A monthly publication of the RARA Inc. except July and August.

If you wish to receive or be removed from the e-mailing please contact the editor/publisher at the RARA e-mail address @ ve5rara@gmail.com

NOTE: all e-mail and web addresses are active hyperlinks

## GENERAL MEETING

October 12th @ 7:00 p.m.

Regent Place Library - Regina Market Mall - 331 Albert St.

**Practicing message handling.**

## GUYWIRE

The Guywire depends on submissions of articles and pictures sent in by members for most of its content. If you have a story, pictures or a favorite website, send it in to [ve5rara@gmail.com](mailto:ve5rara@gmail.com).

We would particularly like to have pictures from past club events.

## 2016 PUBLIC SERVICE EVENTS

EVENT      DATE      ORGANIZER

### UPCOMING

Santa Claus Parade Nov. 20th - Rick VE5RJR

### COMPLETED

Klondike Hike - Feb. 20th - Justin VA5RED

RPS Half Marathon - May 1st - Terry VE5TLW

MS Walk - May 1 - Rick VE5RJR

Cosmo Learning Centre - May 13 - Harv VE5AD

Mayors Walk /Run - May 31 - Terry VE5TLW

Spoke n'Hot 100km Ride - Aug.7- TBA

MS Bike Tour - Aug. 20-21- Rick VE5RJR

The Queen City Marathon - No help requested

Terry Fox Run - Richard VE5RJR

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## New Hams on I.S.S.

NASA astronaut Kate Rubins, KG5FYJ, astronaut Takuya Onishi, KF5LKS, of the Japan Aerospace Exploration Agency (JAXA), and cosmonaut Anatoly Ivanishin of Roscosmos officially joined their Expedition 48 International Space Station (ISS) crew members on July 9 at 0626 UTC, when the hatches opened between their Soyuz MS-01 and the space station. There now are four Radio Amateurs onboard the ISS.

Expedition 48 Commander Jeff Williams, KD5TVQ, of NASA, and Flight Engineers Oleg Skripochka, RN3FU, and Alexey Ovchinin of Roscosmos greeted the newcomers. Rubins, Onishi, and cosmonaut Ivanishin replaced Expedition 47 Commander Tim Kopra, KE5UDN; Flight Engineer Tim Peake, KG5BVI/GB1SS, and Yuri Malenchenko, RK3DUP, who returned to Earth in mid-June after a little more than six months in space.

## Interesting websites

(Please note that you may have to enter the web address to get access)

Good reasons why it's a good idea to get your amateur license:

<http://beforeitsnews.com/survival/2016/08/should-you-get-a-ham-radio-license-or-hide-from-the-government-2635244.html>

Want to find out what DX stations are on the air at any time of the day on any band? Go to:

<http://cluster.sdr-radio.com/>

## Repeater news

Please note the change in frequency for the VE5YQR UHF repeater. This repeater is now on 444.350 + mHz due to interference on the originally assigned frequency,

To accommodate this change, the VE5UU UHF repeater in Pilot Butte will move to 444.625 + mHz.

## Last Months Puzzler

In electronic circuits, what is a varistor used for?

A varistor is an electronic component with an electrical resistance that varies with the applied voltage. Also known as a voltage-dependent resistor (VDR), it has a nonlinear, non-ohmic current-voltage characteristic that is similar to that of a diode. It is used in voltage control circuits.

## This Months' Puzzler

Amateurs from which two countries can claim the record for the longest two-way communication on the 630m band 472-479 kHz)?

Answer next month



Given the present band conditions, Summer, VE5SDH suggests this might be the band to use.

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# Duke and Duchess of Cambridge first to use new 'telegraph to tweet' technology at Whitehorse museum"

Report by Cheryl Kawaja, CBC News

Former Yukon Commissioner Doug Bell was delighted to meet the Duke and Duchess of Cambridge in Whitehorse Wednesday morning, and to help launch a new made-in-Yukon technology created for the MacBride Museum — a 100-year-old telegraph key that can now send messages to Twitter.

In the log Telegraph House, a building dating back to the turn of the last century, Will and Kate dictated a message transcribed by 90-year-old Bell into Morse code. It appeared instantly on Twitter.

"THE DUKE AND DUCHESS OF CAMBRIDGE, SEPTEMBER 2016, WHITEHORSE YUKON"

"Well I guess it's the old way and the new way joining hands," said Bell, who came north to the Yukon in the 1940s as a telegraph operator. "It's crossing the generations and the technology and joining them together for a neat way to say hello."

The "telegraph to tweet" technology was created by Make IT Solutions' software developer Seamus Venasse, who said he was honoured the Duke and Duchess were the first to use his technology.

For the complete story please visit:  
<http://www.cbc.ca/news/canada/north/telegraph-twitter-yukon-museum-royal-visit-1.3781615>

(Please note that you may have to enter the web address to get access)

## 1922 Band Plan

This is how the U.S. government divided up the frequency spectrum in 1922. All listings are given as Wavelength. To give you some perspective, 130 Meters = 2300kHz, 200M = 1500 kHz, 300 M = 1000 kHz and 1200 M=250 kHz. It is interesting to note that provision was made for Aircraft communications. The only amateur allocation was 150-200 Meters - approx. (1500-2000 kHz). There were no allocations for frequencies above 2300 kHz which was uncharted territory at the time.

Abreviation Spk = Spark

Wave Length Restrictions 1922  
WaveLength, Meters-(Below) Service  
130 Reserved.  
130 Government, CW, exclusive.  
130-143 Reserved.  
143 Government, CW, exclusive.  
143-150 Reserved.  
150-176 Amateur, CW, ICW, Ph., exclusive.  
176-200 Amateur, CW, ICW, Ph., Spk., exclusive.  
200-222 Special amateur, and technical training schools, CW, exclusive.  
222-231 Aircraft, CW, ICW, Ph., nonexclusive.  
222-286 Class A broadcasting, Ph., exclusive.  
286-288 Reserved.  
288-300 Class B broadcasting, Ph., exclusive.  
300 Marine, CW, ICW, Spk., non-exclusive.  
300 '150 Class B broadcasting, Ph., exclusive.  
450 Marine, CW, ICW, Spk., exclusive.  
450-545 Class B broadcasting, Ph., exclusive.  
545-600 Marine and aircraft, CW, ICW, Spk., exclusive.  
600 Marine and aircraft, CW, ICW, exclusive.  
600-674 Marine and aircraft, CW, ICW, Spk., exclusive.  
674 Government, CW, non-exclusive.  
674 800 Marine and aircraft, CW, ICW, Spk., exclusive.  
800 Radio compass, CW, ICW, Spk., exclusive.  
800-952 Marine, Ph., exclusive.

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952 Government, CW, ICW, Spk., exclusive.  
952-1000 Reserved.  
1000 Radio beacons, CW, ICW, Spk., exclusive.  
1000-1053 Reserved.  
1,053-1091 Marine, Ph., exclusive.  
1091 Government, CW, ICW, non-exclusive.  
1091-1200 Marine, Ph., exclusive.  
1200 Government, CW, ICW, non-exclusive.  
1200-1277 Marine, Ph., exclusive.  
1277-1304 University, college, and experimental,  
CW, ICW, exclusive.  
1304-1579 Government, CW, ICW, Spk.,  
exclusive.  
1579 Marine and point-to-point, non  
-government,  
CW, ICW, Spk., exclusive.  
2500-3158 Government, CW, ICW, Spk.,  
exclusive.  
SHIVER

## Born From Flame

Modern electronic technicians sometimes overlook the contributions that the vacuum tube has made towards the development of solid state devices. The invention of the transistor was born out of the technology of World War 2 Radar and needed that basic research which was spurred on by advances in vacuum tubes.

If we look at electronics from 1920 to 1947, then the vacuum tube with all its faults provided us with great advances in those 27 years. In 1920, commercial broadcasts began with one or two tube home receivers, using battery filament and plate supplies. Fast forward 25 years later there was an advanced tracking aircraft radar SCR-568. The SCR 568 was part of a complete anti-aircraft system. The SC 568 sent information to a Bell Labs M-9 gun director predictor, which fed its information to a 90mm anti-aircraft gun firing proximity fused shells. The proximity fuse consisted of a miniature four tube radar receiver trigger. The next time you see a documentary of from World Wa2, showing the V1 pilotless

flying bombs being shot down. It will show black puffs of exploding shells around the V1, then an explosion. That was vacuum tubes in action! Whew!

The advances in electronics matched the growth of aeronautics. It may be more than a coincidence that both the beam power tetrode (6L6) and the Douglass DC-3 came out in 1935. Both to a large degree made commercial aviation profitable. The beam power tetrode provided the backbone of amateur radio and commercial transmitters in the late 1930's. You will still find beam power tetrodes in some high end HI-FI gear.

I think I really got interested in electronics, when I came across an old triode from the early thirties. You could look down inside the tube, seeing the glowing filament, surrounded by the grid coiled around the filament and then surrounded by the plate. Here was electronics you could see.

In the 1950's I had a 600 watt transmitter inside a six foot rolling cabinet. It had push-pull 813's in the final with plug-in coils with a swinging link. The power supply was a pole-peg transformer with 866 mercury vapor rectifiers. The modulator used 805's, which caused those old 866's to really give off a ghostly blue glow. The screen grid power supply used seven VR-150's in series for regulation. Now that rig really glowed in the dark!

In closing, there are some hardy and talented hobbyists who make their own vacuum tubes. This is more of an art as it requires skills in glass blowing and careful positioning of the electrodes, then pulling a good vacuum.

Solid state devices help make the world as it is today. It owes its existence to vacuum tubes.

The Telephone Pioneer QSO Party is on October 17th. See [tpqso.com](http://tpqso.com) for full details.

73 Jim N6TP

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## Willow Island Expedition 1994

When cleaning out Bruce VE5RC (SK) belongings, Terry VE5TLW came upon a QSL card from the Willow Island Expedition of 1994. This was organized by Bruce who was quite active with the Islands On The Air project. Old timers will recognize quite a few familiar faces among the crew.



Confirming contact with \_\_\_\_\_ on Sept.10,1994 at \_\_\_\_\_ UTC on a frequency of \_\_\_\_\_ Mhz, \_\_\_\_\_ mode with a signal report of \_\_\_\_\_.

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This is the first time amateur radio has operated from Willow Island (SK002) for the Canadian Islands Award. Thanks to the Wascana Centre Authority for their help without which the Dxpedition would not have taken place.

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Thanks to these amateurs for making the project possible - VE5s AAA,EE,ILK,RJR SF,SWR,YK,ZG and to the many who made the "perilous" journey to participate.

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Photo - Standing-Ir-VE5YK,VE5FAR,VE5SWR,VE5ZG,VE5AAA,VE5EE,VE5ELJ  
Sitting-Ir-VE5RC,VE5ILK,VE5SJA,VE5CPU,VE5SF

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Special thanks to my xyl Bonnie for lighting up the area with the van headlights ensuring our safe departure in the dark. WILLOW ISLAND WILL RISE AGAIN!

.... 73 Bruce-VE5RC-

Dxpedition photos by VE5AGM.

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## VE100VIMY Special Event Call sign Expression of Interest for Portable Operations

The VIMY Commemorative Station Society has arranged with Industry Canada for the Special Event Call sign VE100VIMY to be used as VE100VIMY/VEn where n is the license region in Canada. This is similar to the W1AW/ operations last year.

We would like to offer one Club in each Canadian call area the opportunity to use VE100VIMY/VEn for a one week period beginning on January 1st of 2017, where n is 3,4,7 etc. for the call area.

The background for this special event is given in the attached RAC article. Our objective is to raise awareness of the Vimy event and its significance to Canada by having the Call sign as active as possible prior to the actual activation on Vimy Ridge March 31 through April 9, 2017.

If your club is interested please respond by December 1, 2016 to VE100vimy@rac.ca with the following information:

1. Contact person (email and phone)
2. Brief description of how the Club plans to operate with the Special Event Call sign: from a Club station (brief description of the station) or from member stations.
3. How logs will be collected (We recommend N1MM but can accept .ADI files) for QSL purposes.
4. Club website
5. Preferred week of operation with alternatives.

It is important that logs are received along with the call sign of each operator and station location (E.G. VE7KW operating at VE7NSR) both for QSL purposes as well as to meet Industry Canada requirements.

Only one station may be on the air at one time.

Below is for planning purposes.  
Actual areas may be different.

<b>VEn</b>	<b>UTC Start Day</b>	<b>UTC Start Date</b>	<b>UTC Start Time</b>	<b>UTC End Date</b>	<b>UTC End Day</b>	<b>UTC End Time</b>
VE1:	Sunday	January 1	00:00 UTC	Saturday	January 7	2359 UTC
VE2:	Sunday	January 8	00:00 UTC	Saturday	January 14	2359 UTC
VE3:	Sunday	January 15	00:00 UTC	Saturday	January 21	2359 UTC
VE4:	Sunday	January 22	00:00 UTC	Saturday	January 28	2359 UTC
VE5:	Sunday	January 29	00:00 UTC	Saturday	February 4	2359 UTC
VE6:	Sunday	February 5	00:00 UTC	Saturday	February 11	2359 UTC
VE7:	Sunday	February 12	00:00 UTC	Saturday	February 18	2359 UTC
VE8:	Sunday	February 19	00:00 UTC	Saturday	February 25	2359 UTC
VE9:	Sunday	February 26	00:00 UTC	Saturday	March 4	2359 UTC
VO1:	Sunday	March 5	00:00 UTC	Saturday	March 11	2359 UTC
VY1:	Sunday	March 12	00:00 UTC	Saturday	March 18	2359 UTC
VY0:	Sunday	March 19	00:00 UTC	Saturday	March 25	2359 UTC