GUYWIRE

December 2018

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

December 12th @ 7:00 p.m.

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

"December Social"

Enjoy a relaxing chance to visit with fellow amateurs
(The club will provide drinks) (Members can provide goodies)

RARA Executive 2018-19

President - Neil Slater - VA5SCA
Treasurer - Mark Humphreys VA5LNX
Secretary - Position to be Filled
Past President - Harvey Drinkle - VE5AD
Director - Justin Chapman - VA5RED
Director - Jerome Kuntz VE5KZ
Director - Lyle Maystruck - VE5EE
Director - Allan Tidball VE5LAT
Director - Terry White - VE5TLW

2018 -2019 PUBLIC SERVICE EVENTS

EVENT DATE ORGANIZER

UPCOMING

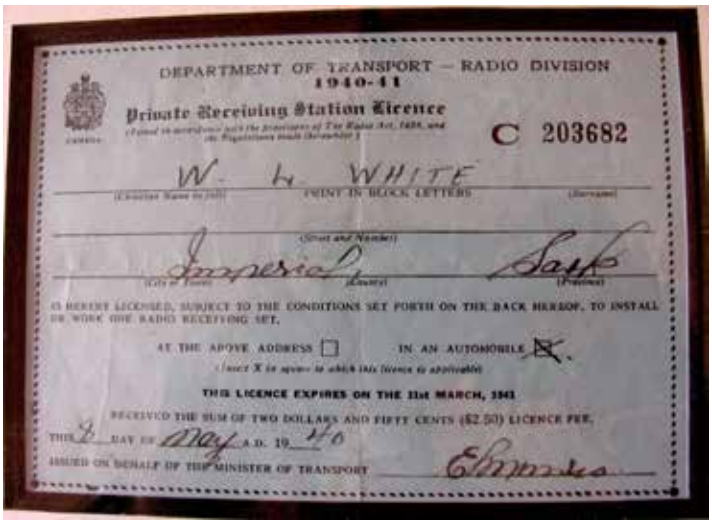
COMPLETED

RPS 1/2 marathon - April 29 - Terry VE5TLW
MS Super Cities Walk - April 29- Rick VE5RJR
MS Bike Tour- August 18th - Richard VE5RJR
Santa Parade - Nov. 18th- Richard VE5RJR.

Did You Know?

From the 1930s through to about 1950 a government license was required for any radio receiver. Radio Inspectors roamed through the communities looking for unlicensed radios. It was easy pickings. All they did was tune in to the frequency of the local oscillator of a suspected radio and follow the signal to its origin.

Below is a copy of as license issued to Terry VE5TLW's father.



DEPARTMENT OF TRANSPORT — RADIO DIVISION
1940-41
Private Receiving Station Licence
C 203682
W. H. WHITE
PRINT IN BLOCK LETTERS
Imperial Sask.
IS HEREBY LICENSED, SUBJECT TO THE CONDITIONS SET FORTH ON THE BACK HEREOF, TO INSTALL OR WORK ONE RADIO RECEIVING SET,
AT THE ABOVE ADDRESS ☐ IN AN AUTOMOBILE ☒.
THIS LICENCE EXPIRES ON THE 31st MARCH, 1941
RECEIVED THE SUM OF TWO DOLLARS AND FIFTY CENTS ($2.50) LICENCE FEE.
THIS 2 DAY OF May A.D. 19 40
ISSUED ON BEHALF OF THE MINISTER OF TRANSPORT Ellmore

November Puzzler

What are the Wouff Hong and the Rettysnitch and where would you find them.

Answer: The Wouff-Hong and Rettysnitch are amateur radio's most sacred symbols and stand for the enforcement of law and order in amateur operation. They had their beginnings with the formation of the American Radio League and Hira Maxim W1AW

December Puzzler

Beside the AM Broadcast band, what commercial radio service still uses Amplitude Modulation (AM)?

Answer next month

Interesting Websites

Allied Radio & Electronics was a mail order company for "one stop shopping" for all electronic related merchandise. It was started in 1928 and was in business until 1970 when it was sold to The Tandy Corporation (Radio Shack).

The following link has the entire series of Allied catalogues available for viewing:
http://www.alliedcatalogs.com/

Canadian Radio Amateurs Petition Parliament To End Deliberate Interference

Radio Amateurs in Canada -- primarily in the Province of Quebec -- have mounted a petition drive demanding that members of the House of Commons prompt decisive regulatory action against a Quebec resident who has been causing deliberate interference. The petition does not spell out the particulars of the allegations but says the alleged offender -- apparently unlicensed -- is already known to authorities. Petitioners claim that the individual's "malicious intentions" have been "threatening the security of emergency radio communication in the province," and they called upon Parliamentary lawmakers "to ensure the security" of HF radio communication.

"For 2 years, a Nicolet resident, near Trois-Rivières [Quebec], illegally set up a transmitting radio station and is generating interference on purpose," the petition recounts. "Amateur Radio operators in Quebec have identified the illegal radio station and brought it to the attention of Innovation, Science and Economic Development (ISED) Canada, and its inspectors seized the individual's radio equipment." One of ISED's functions is telecommunications regulation.

According to the petition, the alleged offender "acquired new equipment right away and returned to jamming the airwaves." The petition identifies the alleged offender as a male who "has regular encounters with the law."

"We are calling on the government to provide more support to the Department of Innovation, Science and Economic Development Canada, so that it can intervene more decisively in this matter," the petition declared.

Radio Amateurs of Canada (RAC) -- the country's national Amateur Radio organization -- was noncommittal. "While we have not had a chance to investigate the specific details of the incidents [that] the petition refers to, we agree with the importance of acting to support the security of high frequency communications," RAC said this week.

By mid-week, the online petition had gathered more than 850 signatures, primarily from Quebec and Ontario. Canada has more than 50,000 Amateur Radio licensees. Canadian Radio Amateurs Petition Parliament to End Deliberate Interference.

Isotropic Vs Omnidirectional Vs Directional Antennae

At times there is confusion between an isotropic, an omnidirectional, and a directional antenna. An isotropic antenna is one in which it radiates in all directions (vertically and horizontally) equally. It exists only in theory and acts as a reference antenna. An omnidirectional antenna is a real antenna and is used in everyday life, both by amateur radio operators and commercially. The omni antenna radiation pattern resembles a doughnut in shape. The attached diagram illustrates this pattern. A directional antenna, as its name implies, transmits and receives to the area in which the signal is required.

If we view the radiation pattern of a vertical omni antenna from its side, we see that the signal strength is minimum at the top and then increases to maximum at 90 degrees and then reduces to a minimum at the bottom of the antenna.

When we refer to an antenna having gain, it is not like an amplifier which has active components to increase the strength of a signal. When we refer an antenna has gain, it is the redistribution of the energy applied to the antenna as explained in the previous paragraph. In giving a value to the gain of antenna we have to refer it to a reference antenna. In some cases, we use the isotropic antenna as that reference point. In other cases we use a dipole antenna for that reference point.

A dipole antenna, in free space (away from trees, structures, etc.), has a gain of 2.14 dB with reference to an isotropic antenna and uses the term dBi. As an example, if we have a 5 element Yagi antenna, it will have an approximate gain of 9.5 dB with reference to a dipole antenna and uses the term dBd. Therefore, the 5 element Yagi has a gain of 2.14 dB + 9.5 dB = 11.6 dBi. A Yagi antenna will have a specification called Front-to-Back Ratio (FTB), and is defined as the Forward Signal Strength divided by the Reverse Signal Strength and is illustrated in an attachment. The FTB may be a s high as 50 to 60 dB. As we increase the number of elements of a directional antenna we increase the forward gain at the expense of beamwidth, which is the area of the radiation pattern with the highest signal strength, as illustrated.

So when we are looking at antennae specifications, we must look at the reference point to determine if it referenced to an isotropic or dipole antenna.

Terry (VE5TLW)

Name That Tune Or Become A Digital Detective

As you tune across the HF bands, you encounter a diversity of strange sounds. Some are musical others are downright grating to your auditory senses. There is now, such a variety of digital sounds on the HF bands. One finds it hard to believe that these musical notes, bangs, pings, ticks and hisses actually carry some information.

There are nearly a dozen and a half digital modes, some modes have various formats or flavours, with variations in bandwidth and number of tones.

To become a "Digital Detective", one must download and install a multimode software program such as MixW. A internet search for digimodes will result in many more digital programs. This will provide the user with the necessary demodulation method of the signal, as well as providing, a visual display or fingerprint on the software's "waterfall".

You can start your detective work with the wb8nut.com/digital website. This lists the digital modes in use on the Ham bands, with a general description of each and a link to a sound file of each mode in question.

Another useful list of digital sounds may be found at www.dxzone.com/cgi-bin/dir/jump2.cgi?ID=4657, which contains about 40 Ham and non-ham sound files.

With the "waterfall" display on the software package to work with, www.w1hkj.com is an excellent place to start a search. Click on the "Sights and Sounds of Digital Signals" link to open a page with both wa terfall waveforms and sound bites of digital Ham modes. It also includes many of the various formats or flavours, of many of the various digital signals.

There is a collection on non-ham modes to be found at www.kb9ukd.com/digital. This site contains over one hundred digital modulation sound samples. These include aircraft telemetry to railway crossing signal data.

Finally another interesting website that goes into the realm of the almost supernatural digital world is www.dxzone.com/cgi-bin/dir/jump2.cgi?ID=8861. Click on "Transmission Modes" link for a list of sound files that involve ham contacts using aurora, EME (Earth-Moon-Earth), the International Space Station, meteor scatter, satellites and SuitSat.

Good Sleuthing!!! Terry (VE5TLW)

Avoiding Guyed Wires

If you have a guyed tower, and you have to avoid the guys when walking or working in their vicinity there is a simple and inexpensive method to avoid walking into them.

Go to your local store that sells "pool noodles". They are the long round flotation devices used in water. Buy the ones with the highest visibility colour. Just slit them lengthwise and slip it over the guys.

Preventing Sharp Bends In Transmission Lines

Sometimes when running tx lines, a sharp bend is created. This condition may cause a discontinuity in the antenna system, thus raising the VSWR. Also over time, the centre conductor may migrate through the dielectric and contact the shield, creating a short circuit.

To remedy this situation, slip a short length of garden hose over the outside of the tx line at the point of the sharp bend to allow a greater radius at the bend. The garden hose is relatively stiffer than the coaxial cable, and will even out the sharp bend. Use black electrical tape to secure the hose in place.

Take The Strain Off

When a run of coaxial transmission line terminates at an antenna or other point of connection, a substantial strain may be placed on the connector. Over time the coax may pull away form the connector and you are left with a proble.

A strain relief may be made in a very simple fashion using two long "zip ties". As may be seen in the photo, by wrapping one zip tie with the other, a strain relief method is easily fabricated.

For illustration purposes, I used white zip ties. If available, the use of wide black zip ties would be preferable as they are more weather resistant and spreads the forces over a wider area.

Knots That Will Not Come Loose

For a knot that will not come loose, tie the knot, then cover it with hot glue.

Temporary Weather Seal

If a temporary or short term weather seal is required, just visit your local bicycle shop. Ask them for an old bicycle tire inner tube. Cut the tube to a length six inches or so longer than the area to be sealed, ensuring the area to be used, does not have any punctures, and is therefore airtight. Slide the inner tube over the TX line prior to making the connection. Secure the inner tube with a "zip tie" at each end. Orient the splice in the horizontal plane, if possible, so that water will not migrate into the end of the splice.

Power Cord Tip

Have you ever had the plug and socket of two extension cords pull apart? This simple method with a zip tie will secure the connection until it is time to separate the two extension cords. See the attached photo for this fix.

Public Service Events Do's & Don'ts

This list is presented in no particular order however all are important to remember.

Do's

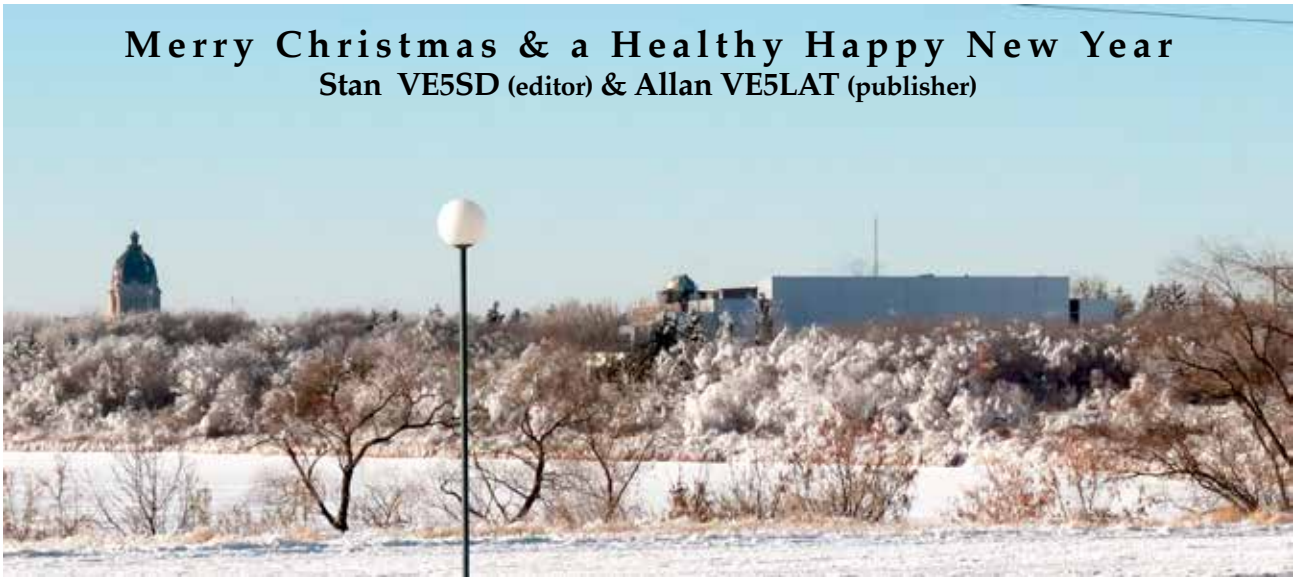
- Enjoy yourself!! Public service is fun.
- Wear a high visibility garment.
- Wear proper clothing & footwear.
- Carry a piece of identification.
- Get a crystal clear understanding of the needs of the event.
- Arrive on time.
- Inform the event coordinator ,if you cannot attend the event, as soon as possible.
- Prepare the night before.
- Make sure battery is charged.
- Bring spare charged battery (if available).
- Bring clipboard with paper, pen(s), elastic bands, zip lock bag(s) & paper clips.
- Bring a map of the event route.
- Is your vehicle fueled?
- Know of road closures & detours.
- Maintain situational awareness
- Bring sun screen and/or insect repellent

- Use a speaker/mike or headset.
- Use the highest transmit power available.
- Use a high gain antenna if available.
- Ensure squelch not set "too tight".
- Bring a small tool kit, include tape.
- Bring the radio's instruction manual.
- Bring water & a snack.
- Use plain language.
- Do not sit on ptt button
- Check in with event coordinator upon arrival.
- Maintain a courteous & professional image.
- Inform net control if you have to leave your assigned location, and provide an estimated time of return.
- Safely obey net control instructions.
- Use tactical call signs.
- Transmit as little as possible!!
- Silence is golden.
- Keep transmissions as short as possible.
- Resist the temptation to generate traffic.
- Know which repeater/frequency to be used.
- Listen to make sure the frequency is clear before transmitting.
- Use the "pro words": clear or out.
- Know the required emergency procedures for:
- Injuries
- Illness
- Traffic accidents
- Identify yourself to the other checkpoint personnel.
- Know that your communications are not private. The media has "big ears".
- Face traffic at all times, if possible, to observe oncoming traffic.
- Keep your eyes on the traffic.
- Be courteous, but firm. Be professional.
- Guide motorists/pedestrians in a clear and positive manner.
- Consider varying environmental conditions.

Don'ts

- Leave the frequency unless net control is advised.
- Over identify.
- Apply first aid.
- Transport an ill or injured participant.
- Offer more than you can deliver.
- Transmit non-relevant information.
- Use vox.

Merry Christmas & a Healthy Happy New Year
Stan VE5SD (editor) & Allan VE5LAT (publisher)



Santa Parade 2018
New Location - North Albert Street

Quadrant 3
Lead Vehicle

Getting Instructions
inside KIA showroom

View of 2nd Ave.
Floats Getting Ready

Two Horse Power Float

Santa Heading out to Albert St.

Amateurs Assisting
Richard Rickwood VE5RJR
Harvey Drinkle VE5AD
Conrad Berger VE5CON
Neil Slater VA5SCA
Terry White VE5TLW
Justin Chapman VA5RED
Hugh Hauser VE5HWH
Doug Gregorash VE5DUG
George Harwood VE5UU
Doug Pfaff VE5DCP
Mark Humphreys VA5LNX
Jim Goldie VE5HK
Allan Tidball VE5LAT

Photos by:
Justin Chapman VA5RED
Mark Humphreys VA5LNX
Allan Tidball VE5LAT

End Vehicle
Amateur Radio Operators
Almost Finished