



# GUYWIRE

March 2019

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

March 13th @ 7:00 p.m.

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

## Annual General Meeting

Presentation - Emergency Planning

**2019-21 RARA Executive positions in BOLD to be elected**

**President -**

**Secretary -**

**Director -**

**Director -**

**Continuing Executive to March 2020**

Treasurer - Mark Humphreys VA5LNX

Director - Justin Chapman - VA5RED

Director - Lyle Maystruck - VE5EE

Director - Terry White - VE5TLW

Past President - Harvey Drinkle - VE5AD

## Annual General Meeting March 13th 2019

**FOUR executive positions  
are required to be filled  
for the 2019-2021 term**

**Please consider volunteering  
as an executive.**

**The continued existence of the  
Regina Amateur Radio Association  
depends on members  
commitment.**

## FLASH

Word on the street is that the Saskatchewan Hamfest will be held at Battleford this year.

Keep an eye out for more information to come out soon.

# Moose Jaw Amateur Radio Club Flea Market

When: Saturday, May 11, 2019.

Location: Western Development Museum.  
50 Diefenbaker Dr. Moose Jaw, SK.

Time: Open to Vendors at 8 A.M.  
Flea Market Begins at 9 A.M.

Cost: Entrance fee \$5.  
Vendors fee Table \$5 which includes your entrance.

Coffee and donuts will be available.



## February Puzzler

Speaking of Canadian inventors.

Which Canadian invented the walkie talkie?

**Answer:** Canadian inventor Donald Hings.

It was invented in 1937 and originally called the “packset”, which of course was eventually called the walk-talkie. The walkie-talkie was instrumental in winning many battles during WW2.

For more information search for Donald Hings on the internet.

## March Puzzler

What is a ringdown board?

**Answer next month**

## Interesting Website

So you want to become a member of one of the highly trained, and respected occupations of the late 19th and early 20th century.

Here is the study guide that will walk you through all aspects of telegraphy on your way to becoming a telegrapher.

This was printed in 1899 and notice there are Morse symbols for Pounds Sterling, Shilling and Pence.

[https://www.princeton.edu/ssp/joseph-henry-project/telegraph/The\\_telegraph\\_instructor.pdf](https://www.princeton.edu/ssp/joseph-henry-project/telegraph/The_telegraph_instructor.pdf)



## What is the Difference Between a 50Ω Dummy Load and a 50Ω Termination?

If a dummy load is very close to 50Ω, it can be used as a 50Ω termination. A termination in its simplicity, a device that provides a 50Ω load to a low level signal, being measured on a piece of test equipment. Oscilloscopes are one type of test equipment that a termination would be used. A termination may be made by installing a 50Ω non-reactive 1/2 Watt resistor (carbon composition type) into a coaxial plug.

A dummy load is a termination that is designed to dissipate more power, in some cases as much as 1.5 KW. Usually, dummy loads are of a non-precision type and are only accurate up to approximately 50 MHz. If you do require a matched load into the VHF and UHF frequency range, a good termination can be made from a coil of coax cable, the lossier the better. As an example, a 200 foot length of open or shorted RG-58 will provide a 50Ω VSWR of 1.07:1 at 2 metres and a 1.00:1 at 70cm because of the loss in the cables at these frequencies.

## Batteries From the Past

We are all familiar with AA, AAA, C and D cells. Were there ever A and B cells and if so what happened to them?

There were A and B cells in common use in the bygone days, when radios used vacuum tubes and homes did not have commercial power. Vacuum tubes required two vastly different voltages to operate.

The first was low voltage to operate the heater (the part that glows), the second was high voltage to operate the plate circuits of the radio. The A cell, can be as low as 1.5 Volts. However the plate circuits require a higher voltage to operate. This is where the B cell comes into the picture, and can be as high as 90 Volts.

These batteries did not have a very long operating life, and may have only lasted six to eight hours. If you have one of these old radios and are looking for A and B cells, you can use an appropriate number of D cells in parallel to provide suitable current. For the B cell connect, ten 9 Volt batteries in series to provide the required 90 Volts.

As more and more homes were supplied with commercial power, battery eliminators were marketed, to replace the A and B cells.



## Emergency Snake

This is not exactly an Amateur Radio related activity, however there is an unusual and practical use, for coaxial cable around the house.

An 18 inch to 24 inch length of RG-58 or RG-59 cable with the connectors removed, makes a good emergency snake for clearing an obstruction in a kitchen sink or bathroom basin. It's flexible enough to go around bends in pipes but stiff enough to push through blockages.

A bonus, its cheap.

# RF Connector Sex Education (Gender)

We as Amateur Radio Operators, use RF connectors in almost all aspects of our day-to-day operations. Have we ever wondered about all the variations of connector types, from UHF, Type N, SMA, and BNC?

Starting with the ubiquitous **UHF (PL-259)** connector, it is pretty much straight forward.

The gender of the connector is determined by the centre pin, and is self explanatory. It is an inexpensive connector, and relatively easy to install. However, its drawback is, that it is a non-constant impedance device, meaning it is not a 50Ω connector. It is NOT waterproof. Due to most of the frequencies amateurs use, this is not of concern. If we move up past 70cm, there are better choices.



UHF Male



UHF Female

The next connector we encounter is the **Type N**.

Like the UHF connector, the gender is determined by the centre pin. This connector is waterproof and has constant impedance (no impedance “bump”), therefore it is a good choice for frequencies into the microwave region. The N type comes in two impedances (50 and 75Ω), so one must be aware of the two types. The 50Ω type has a larger centre pin as compared with the 75 Ω. In its original design it is a complicated connector to install, recent Type N connectors are available in a crimp style, and simplifies installation.



Type N Male



Type N Female

This is where things get complicated with the **SMA** connector types. This type of connector is available in reverse polarity. The difference between the normal and reverse polarity is how the centre pin gender and threads are reversed. This connector is of a constant impedance type, and like the Type N, it is good for use into the microwave region.



The **BNC** connector is found in some devices amateurs encounter. The gender is determined by the centre pin. It is of constant impedance, and is usable into the microwave region. Due to its small size, it is normally found on small diameter coaxial cables. One attribute this connector has, compared to the previous types, is it of a “bayonet” type and requires a “push and turn” to disconnect it. Like the Type N, it is available both 50Ω and 75Ω impedances and is differentiated by the 50Ω, having a larger centre pin as compared with the 75Ω.



MALE BNC PLUG



FEMALE BNC JACK