



# GUYWIRE

May 2015

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

**2015-16  
Membership Fee Due**

## GENERAL MEETING

May 13th @ 7:00 p.m.

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

## Planning for Field Day

### Field Day 2015 -June 27 - 28

The following organizing positions need to be filled:

Field Day Prime, ARES Truck & Trailer, Cooking, Ancillary Coordinator, Tower / Antenna(s), and Post Field day Cleanup.

If these positions are not filled by the end of the May 13th General Meeting, the executive will in all likelihood cancel our "2015 Field day activity".

### 2015

## PUBLIC SERVICE EVENTS

EVENT      DATE      ORGANIZER

### UPCOMING

Cosmopolitan Connections-May 15-Havey VE5AD  
Mayor's Run/Walk for Fitness-May 31 - Terry (VE5TLW)  
Run for Women(Mental Health) - June 6 -Rick VE5RJR

### COMPLETED

RPS Half Marathon -April 26th - Terry (VE5TLW)  
MS Super Cities Walk April 26th - Rick VE5RJR

Please contact the coordinator directly if you can assist with the event or via ve5rara@gmail.com.

## Mayors Run/Walk for Fitness May 31st

We have been asked to provide communications for this year's event. It is to take place on May 31st. Approximately 10 - 12 radio operators will be required to adequately cover the route. The start time for all events is 8:30, and it should wrap up about 11:30. The ARES MCV will be at the City Square Plaza, which is near the Start/Finish Line. Meeting time is 8:00 at the ARES MCV for any possible last minute assignment changes.

We will use the VE5YQR repeater (147.120+) as the primary, with the Regina North repeater (146.640-), as the backup. The official website is: <https://www.regina.ca/residents/regina-mayor/mayorrun-walk/>

If you have a location preference, please advise me, and I will try to accommodate your request.

73 - Terry



## FM Radio Being Scrapped

Norway will become the first country to scrap FM radio after it announced final plans to switch to digital radio in the next two years. The government said in a statement that it will make the transition to Digital Audio Broadcasting by 2017, following up on a 2011 government proposal. It will be the first country to do away entirely with FM radio, The Verge reports.

The move will allow for roughly 40 national channels, including 22 already in use, compared to five national channels on the FM system. Transmission costs are also eight times more expensive on the FM network than the DAB network.

“Radio digitization will open the door to a far greater range of radio channels, benefiting listeners across the country,” Minister of Culture Thorhild Widvey said in a statement. “Listeners will have access to more diverse and pluralistic radio-content, and enjoy better sound quality and new functionality.”

VE5TLW

## Interesting Websites

Which is faster – Morse code or Texting? Go to this website for an interesting video of a Guinness world record:

[http://www.dailymotion.com/video/x6n4zk\\_fastest-morse-code-sent-and-receive\\_tech](http://www.dailymotion.com/video/x6n4zk_fastest-morse-code-sent-and-receive_tech)

In another article in this months Guywire we featured the OH8X Superstation. For more technical and mechanical information on OH8X you can go to:

[http://vk6ysf.com/Radio\\_Extremes.htm](http://vk6ysf.com/Radio_Extremes.htm)

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## **Radio Amateurs of Canada proposal on international 60M allocation accepted by Industry Canada**

Radio Amateurs of Canada is pleased to pass on the news that the CPC (the IC consultative committee that IC uses to determine its position on WRC matters) has accepted the RAC proposal on WRC 15 Agenda Item 1.4 (to establish a 60m allocation for amateurs on secondary basis). This proposal will be tabled at the CITEL (ITU R2 countries minus Cuba) meetings in Merida, Mexico next month to be considered as the CITEL position going in to WRC15. In short it proposes two 25 KHz band segments for amateurs: 5 330 - 5 355 kHz and 5 405 - 5 430 kHz. Amateur access would be on a non-interfering, listen before transmit (secondary) basis, a standard operating approach already in force for several other amateur allocations (e.g. 440MHz).

This is only possible because of the last two plus years of work by Bryan Rawlings, VE3QN, the RAC representative on these domestic committees and as a Canadian and IARU delegate at ITU meetings. His role and the hours of work (essentially an unpaid job) attending many, many formal and informal meetings with our regulator and with interested parties in Canada and internationally are a key factor in gaining formal Canadian government support. We are very fortunate to have his talents and willingness to sacrifice his on-the-air time for all of us. I'd also wish to acknowledge the strong support of Industry Canada at these Working Parties, other committees and at the ITU preparatory meetings.

Although this is very good news, the process is still ongoing. The decision will be made next year at WRC15. However, presenting a firm proposal from Canada with specific frequencies for support by the ITU R2 countries at CITEL is a giant step toward a favourable outcome at WRC15.

Director's note: We already have domestic channelized access to a portion of this band. This proposal is for an international allocation. We would be secondary users of the band(s). Brazil is also making a proposal. Stay tuned on this via bulletins or in TCA as it develops.

Did you know that as a result of RAC official's hard work, Radio Amateurs in Canada have gained new frequencies, which include access to the 60 meter band (5 channels in the 5.332 – 5.405 MHz area) as well as a small block in the 135.7-137.8 KHz range. And as of May 1st, 2014 the amateur service is now authorized to use the 472-479 kHz band. Yes, it was because of the hard work of RAC officials that we were able to sit down at the table with Industry Canada and negotiate these new frequencies as compared to losing frequencies to commercial interests. It is only with member support that we are able to do accomplish such change. No other group, association or entity has sat down with Industry Canada and been able to accomplish these feats.

## **U.S. Proposes Two New Amateur Bands**

Amateur Radio is poised to gain access to two new bands! The FCC has allocated a new LF band, 135.7 to 137.8 kHz, to the Amateur Service on a secondary basis. Allocation of the 2.1 kHz segment, known as 2200 meters, was in accordance with the Final Acts of the 2007 World Radiocommunication Conference (WRC-07). The Commission also has proposed a new secondary 630 meter MF allocation at 472 to 479 kHz to Amateur Radio, implementing decisions made at WRC-12.

No Amateur Radio operation will be permitted in either band until the FCC determines, on the basis of comments, the specific Part 97 rules it must frame to permit operation in the new bands. Amateur Radio would share both allocations with unlicensed Part 15 power line carrier (PLC) systems operated by utilities to control the power grid, as well as with other users.

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## Welcome

We are pleased to welcome a new ham to the our ranks. Congratulations to Monty Clifford (VE5RTW) on obtaining his amateur radio license.

## Low Audio Level Reports

If you consistently get reports that your audio levels are low when using a repeater, here is something you might want to look into.

The setup menu of your VHF radio should have a place where you can select either "Narrow" or "Wide" bandwidth. You should have yours set to "Wide". If you have an older radio and it doesn't have provision for setting bandwidth, it probably is fixed at Wide. The narrow bandwidth setting is what some commercial radio systems in the U.S. must use because of a lack of frequencies there, however in amateur work, and especially in western Canada, we have plenty of bandwidth to accommodate Wide FM, which has the advantage of noticeably increasing a repeaters coverage area as well as providing improved audio quality.

## Do you know your bits from your bytes?

1,000 bytes = one kilobyte (KB)  
1,000 kb = one megabyte (MB)  
1,000 MB = one gigabyte (GB)  
1,000 GB = one terabyte (TB)  
1,000 TB = one petabyte (PB)  
1,000 PB = one exabyte (EB)  
1,000 EB = one zettabyte (ZB)  
1,000 ZB = one yottabyte (YB)  
1,000 YB = one brontobyte (BB)

[1,000 BB = one geobyte ]

[Current largest possible measurement for data storage.]

(Figures are decimal, not binary)

## Last Months Puzzler

We hear a lot about the men at the International Space Station who are hams. You may have contacted some of them, but do you know which YL ham holds the female record of 195 days in the space station?

### ANSWER:

Astronaut Sunita Williams KD5PLB spent 195 days in the International Space Station.

## This Months Puzzler

Who is considered the patron Saint of Amateur Radio?

**Answer next month**

## Wanted

I'm looking for someone who is definitely going to the Dayton Hamfest. If so I would ask them to look for a Mosley CM-1 receiver and bring it back to me or ship it to me at my expense.. Due to health issues I'm unable to make the trip. I will give you \$50.00 cdn or USA above the purchase price for your trouble. I can also give you \$200.00 cdn or USD to take with you for the purchase. If you find one in the flea market and it works please buy it without looking for another one. I will also accept a non-working rcvr. They only made these receivers between 1961 and 1962. I've been looking for one for years. It's on my bucket list. It also uses FIVE 6AW8s so if you see those please pick them as well.

Tnx & 73 Bruce VE5RC

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## Nepal earthquake (people turn to ham radio)

As the death toll climbs in the wake of the devastating magnitude 7.9 earthquake in Nepal, rescue and recovery work is continuing, and Amateur Radio volunteers have been a part of it. The earthquake — said to be the worst in Nepal in 80 years — hit an area between the capital city of Kathmandu and the city of Pokhara. An emergency net had been running around the clock on 20 meters with Jayu Bhide, VU2JAU, as net control station and other stations in India participating. Bhide is the Amateur Radio Society of India National Coordinator for Disaster Communication.

The Nepal disaster has claimed more than 3200 lives and wreaked widespread damage. Many others are missing or have been injured. Hospitals have been flooded with those who suffered serious injuries in the earthquake. Persistent aftershocks continue to terrorize those who managed to escape harm. On Mount Everest an avalanche devastated base camp, and at least 100 climbers were stranded on the mountain. Several mountaineers were reported among the dead.

Hams in India have been among the most active responders. Parts of eastern India also suffered earthquake damage. Within Nepal, members of the Nepal Amateur Radio Society are reported to be active on HF emergency nets as well as on VHF/UHF to handle local traffic.

“The situation in Nepal is getting worse, as tremors continue to strike every hour at a magnitude of 4.7,” Bhide said. The government of Nepal has asked all people to stay out of buildings, as damage is expected to increase. Due to the conditions, emergency communication with 9N1 stations came to a standstill; no communication was possible overnight as the earthquake demolished the building where emergency communication gear was installed.”

He said Satish Kharel, 9N1AA, and his daughter Tej, 9N1DX, were able to return to the air this morning. Both are in Kathmandu. 9N1AA has said he’s operating low power with the help of solar power and coordinating with the Nepal police in Kathmandu. Suresh Upreti, 9N1HA, has been assisting with emergency communication as well. Internet service has been spotty in Nepal at best. So far, there has been no cross-border movement of either radio equipment and radio amateurs.

Sanjeeb Panday, 9N1SP, has indicated that he will be on 21.360 MHz at 1645 UTC, and radio amateurs not involved in the disaster response should avoid this frequency. 9N1SP has intermittent Internet service. He has said that propagation on 20 meters, where an initial emergency net was established was poor, but he has been in contact on 15 meters with Tim McFadden, KB2RLB/T6TM, a Military Auxiliary Radio System (MARS) member in Afghanistan. Ironically, McFadden, Kharel, Panday, and others took part in MARS exercises in 2013 and 2014 in which the emergency scenario was an earthquake in Nepal. Army MARS Program Officer Paul English, WD8DBY, said the response to this earthquake followed the procedures trained during those earlier exercises. McFadden had been scanning International Amateur Radio Union (IARU) Global Emergency Center of Activity (GECO) frequencies for stations in Nepal. GECO frequencies were established as places to pass emergency traffic. Worldwide GECO frequencies are 21.360 MHz, 18.160 MHz, 14.300 MHz, 7.240 MHz, 7.060 MHz, 3.985 MHz, and 3.750 MHz.

Nepal’s first Amateur Radio repeater, set up in 2012 by the National Society for Earthquake Technology (NSET), and at least a dozen ham in various locations were reported on VHF. The 9N1KS repeater (434.500 MHz in/145.000 MHz out) is on the NSET headquarters building on the outskirts of Kathmandu. A drill conducted in 2012 indicated good coverage of the Kathmandu Valley.

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The US chapter of the Computer Association of Nepal provided technical and financial assistance for the repeater and supplied equipment to use it. The repeater has a battery back-up power source. The NGO "Humanity Road" is maintaining an updated summary of damage as well as of immediate needs.

"Hams from India and other countries have set an example to provide essential communication during disasters," Bhida said. "The coordination and cooperation have also demonstrated [there is] one world, one language." — Thanks to Jayu Bhide, VU2JAU; Jim Linton, VK3PC; Tim McFadden, T6TM; Lloyd Colston, KC5FM; US Army MARS, and others

## Learning Code Part 2

We came across the following article in a Radio News magazine from 1933. The content is just as pertinent today as it was when it was written 82 years ago. Walter Candler trained Ted McElroy who held the world record for copying 75.2 wpm for 5 minutes. This is the second of two parts. The first part appeared last month.

### PART 2

#### SOME IMPORTANT HINTS IN LEARNING THE CODE

By Walter H. Candler

The joining of your dits or dahs in parts of a letter must be uniformly done or you make something else than what you intended. Example, the letter "v." If made thus (... \_) it is "st." If thus (.. .-\_) it is "ia." If (. . . \_) it is "eet." If thus (. ..\_) it is "eu." So you will readily understand that "v," like all the signals of Continental code, can be transmitted but the one way, thus (...\_). Skill, then is the result of repetition. The man who has half a dozen or more different styles of penmanship never becomes a skilled penman, and so with any and everything, but most particularly does this apply to transmitting code.

For twenty years I have been preaching the one purposeful slogan to my students, and may I not suggest it to you? "If you are going to be a Radio operator, be a good one!" You send and write with your hand. The motive power of your hand is supplied by the muscles of your fingers, wrist, forearm, upper arm, neck, shoulders and back. The controlling power of the muscles is supplied by the nerves, which are amenable to the brain. We learn to telegraph, hence it is an intellectual process. When we succeed, through certain procedure, in tying it up with our instincts, it becomes what we term "second nature," just as do most of our other acquirements. When, through a process of coordinative training, we can transmit and receive code without conscious thought as to how many dits make the letter "h" and how many dahs make the letter "o," and varying combinations for other signals, we become skilled proportionately. Lack of skill simply means we have not yet acquired the ability to co- ordinate our faculties. Trying, in a "hit -or- miss" manner to force untrained faculties to co- ordinate is like trying to force a savage chieftain to read, write and act the part of a gentleman. That is why so many ambitious code students become so nervous that in many instances, under pressure, they collapse. The foregoing is for the purpose of conveying to you that poor concentration, lack of receiving, writing and sending ability, inability to copy a few words behind and make a clean, accurate copy, are effects, only. Trying to handle effects is futile. We must deal directly with fundamental causes. To overlook or ignore the functioning of the brain in telegraphing is a grave error. You telegraph with your brain. The hand that sends and writes is merely a servant of your mind – does as the mind directs. When your hand, for any reason, cannot execute the commands of the brain, the brain frets and worries. Your hand is passive -it does not think, hence it does not worry. It can be trained to co- ordinate with the brain and carry out its commands, but until it

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has been so trained its capabilities are extremely limited. Science teaches us that the muscular system is an automatic living mechanism of the most complicated and wonderful kind. To every muscle arteries carry their vital streams of food and oxygen. The muscle cells select their own diet, and the veins (not the arteries) take away the waste products. Anything that interferes with this process interferes with the co-ordinative principle of your body and throws it out of gear. On every muscle there are the fine endings of some nerve which comes directly or indirectly from the spinal cord, and, at the proper moment, a discharge along the nerve causes the whole mass of cells or fibers in the muscle to contract simultaneously and lift the bone to which the muscle is attached. The nerve impulse is slight, merely like the match set to the great energy stored up like powder in the muscle. Now apply this process to telegraphing -to sending, to receiving and writing with a pen or "mill". "No one ever became a skilled telegraph operator in a 'hit-or miss' way, any more than has any one ever become a skilled musician, surgeon, typist, tennis player, or in fact, anything that requires skill." The transmitting key should be placed on the table far enough in from the edge so that your arm will be supported comfortably by the muscles in the forearm. The key should be held loosely, but not squeezed, in a comfortable position so that the muscles will be able to obey the commandments of the nervous system including the brain. Then start in practicing sending the code from a newspaper or from a book, keeping in mind the spacing requirements that I have previously set forth. But be sure that you're your spacings exactly correct so that your future practice will teach you to transmit the code correctly rather than incorrectly. Practice makes perfect but bad habits in sending the code are just as hard to get rid of as any bad habit.

RADIO NEWS FOR FEBRUARY, 1933  
www.americanradiohistory.

## World Radio Day Regina

Yes, though it wasn't a huge success. Here's my report:

Those attending the World Amateur Radio day demo at the Prince of Wales library were George VE5UU, Justin VA5RED, Chelsea VE52B, Summer VE5SDH and Neil VA5SCA.

We were met with great enthusiasm by the librarians at about 11:00 hrs on 18 April 2015. Saturday mornings tend to be slow at the Prince of Wales, which gave Justin a chance to find that there was very poor reception inside the library with his antenna. This turned out not to be a problem, however...

From the time we arrived until about 14:00 hrs, the library staff greatly outnumbered the patrons. The branch head was quite apologetic, and said it was the slowest Saturday in months. She also said that one gentleman had come in before we arrived, and left disappointed; he had heard of the event on CBC radio that morning, but apparently hadn't listened to the advertised time of our presence. That fellow never did come back, darn it.

In the end, only two people came to talk to us; one was a lady interested in why we were there, but not in our subject; the other was actually one of the librarians, who came in on her day off just for us. Since we were tearing down by then, and reception was terrible, there wasn't much left for her to see, but I know I will see her there, as that's my local branch, and I go there often. I will have many opportunities to explain our hobby.

So, only two visitors, and poor radio reception; not the best day for showing off amateur radio, but we learned how to put together a display, and how NOT to show off an HF antenna. Summer did her best to encourage me in my CW skills, and Chelsea took photos of us. We

had a mostly pleasant day together, gained some experience, and we will do better next time.

73,  
Neil  
VA5SCA





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# This was the Worlds' Largest Ham Antenna

## RADIO ARCALA OH8X

The tower stood 330 feet high and was fully rotatable by a very large geared motor at the base.

The top boom had a full size 1/2 wave 80 meter beam. The boom length was about 215 feet with 5 elements ranging up to 140 feet in length. The gain was rated at 15.7 dBi.

The next lower level boom had a 160 meter beam. It has 3 elements up to 190 feet in length, with large capacitance hats on the ends. The rated gain is 12.9dBi.

A little lower down the tower were 2 stacked 40 meter beams.

Unfortunately on Dec. 9th 2013 a powerful windstorm took down the tower. It fell cleanly and did not hit any of the other towers at the station.

For more information on this station, go to:  
[www.k3dav.com/yourantennas.htm](http://www.k3dav.com/yourantennas.htm)



OH8X Finland

