



Niagara/GTA ARES

July 13, 2020

Volume 4 Issue 7

Special points of interest:

- Niagara ARES Newsletter will be published periodically and emailed to ARES members in the Niagara Region. / Website: <http://www.aresniagara.ca>
- Niagara ARES CEC is Henry, VA3OV.
- Contact Henry at: va3ov@bell.net.
- Newsletter prepared by Geddie, VE3CJX.
- To unsubscribe from this newsletter, contact Geddie at ve3cjx@cogeco.ca
- **Niagara ARES Voice Net every Monday 8:00pm VE3RAF & Packet Net on Wednesdays.**

Thanks to all Who
Joined in the
Round Robin Chat Net
On VE3RAF

**Look Forward to Joining
in the Niagara ARES SET
on Saturday, July 18th
0900 to 1100 hrs.**

Our Annual Field Day has come and gone... Now what?

We had a good turn out for the event. A spirited effort was deployed for the occasion. Since your HF station is operational again, now is the time to continue to look for opportunities to get on the air and make QSO's with Hams beyond our shores. There are many HF, VHF contests scheduled in the next few months. (Check out the ARRL contest calendar and others). These events are modified to allow for health safety of individual Hams as we continue to face restrictive measures due to the pandemic. Slowly, life is returning to normal *but* it is not the time to relax our vigilance because the virus is still among us.

On Wednesday, July 15 at 1900, we will conduct a Virtual Niagara ARES and Technite meeting. We have a guest speaker who will present the effects of electromagnetic and geomagnetic interference to our communications systems. Expect to receive an invitation attend by email.

Because public gathering restraint establishments continue to limit access, so additional planning is required. A **SET exercise is scheduled for Saturday, July 18th from 0900 to 1100 hrs**, to demonstrate our communications and deployment capabilities in time of emergency. Please check in for the NET on VE3RAF 145.190 MHz for instructions on Friday at 2100.

Hopefully we can continue with our ARES exercises and be able to travel to various sectors of the region while maintaining the local as well as provincial rules of safety for this Pandemic situation.

The season of extreme weather is upon us. Tornadoes and violent thunderstorms have already struck the southern Ontario region. Let's be vigilant and monitor the extreme weather reports from Environment Canada, Weather Channel, and our own repeater VE3RAF 145.190 MHz for CAN-WARN activation. Please continue to check the aresniagara.ca web site calendar of events for up to date information.

73 Be prepared. Stay safe.

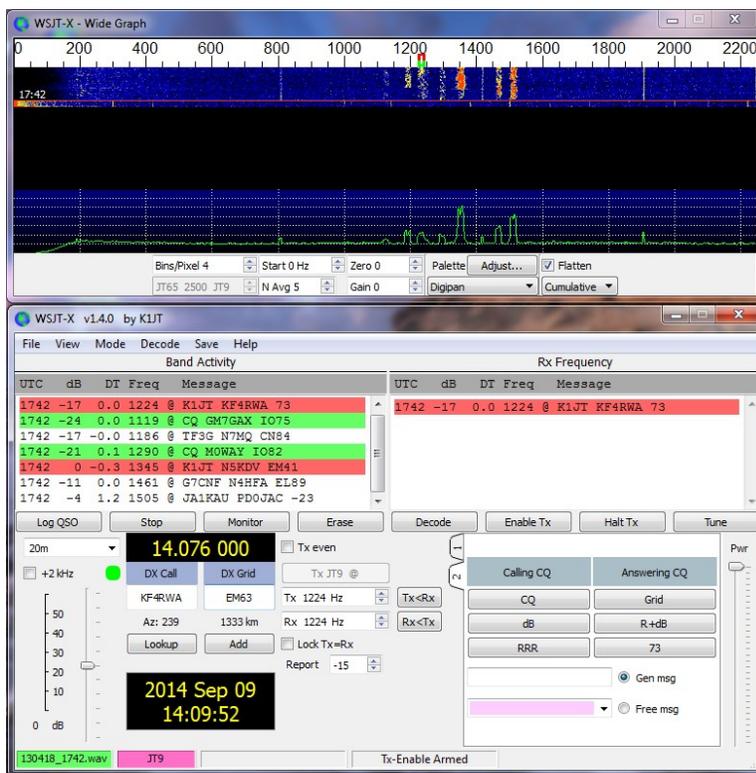
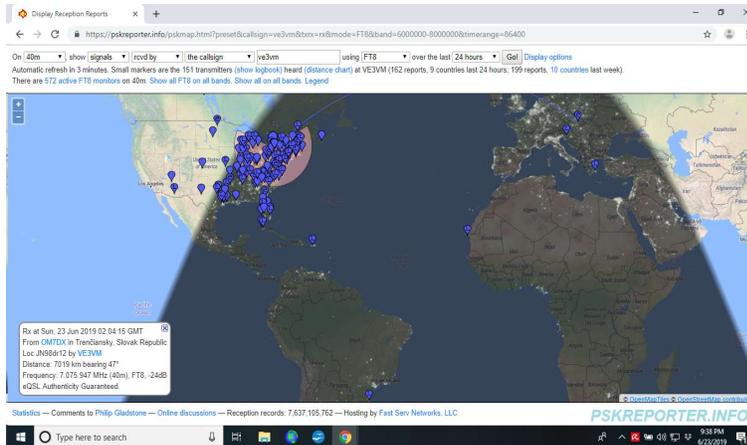
Henry Jarzyna VA3OV
EC, CEC Niagara ARES
va3ov@bell.net
289-407-4499



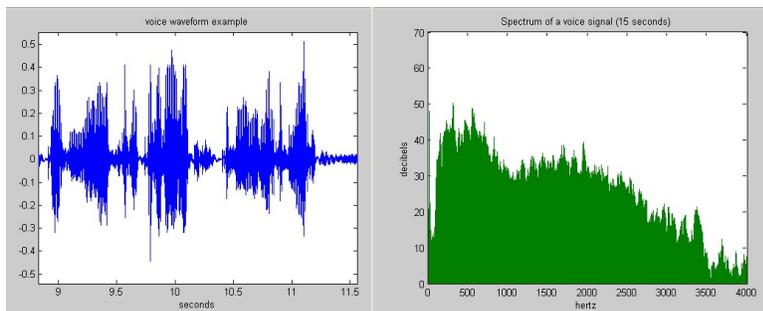
FT-8... Mode?

After all the work is done setting up the radio on FT-8, a digital mode, this is what you can keep as your memento. Using an omnidirectional Hustler brand antenna one can not only see where most of the Hams using the FT-8 mode are located but especially those you have had a contact. On a given day this type of record can be added to other information on propagation, your power settings thus summarizing the time of operation, the position of the gray line fully in context of the world.

If one checks out on the internet, [https://en.wikipedia.org/wiki/WSJT_\(amateur_radio_software\)](https://en.wikipedia.org/wiki/WSJT_(amateur_radio_software)), one finds out that this mode has since 2005 been available as an open source software. In detail the software allows for processing weak signals and you will find yourself reading about slow and fast digital signal processing (DSP), error detection, etc. However, these digital modes rely upon different propagation through the earth's upper atmosphere some 60 km (37 mi) to 1,000 km (620 mi) altitude, used on many different frequencies from 30 Hz to 300 GHz, the radio frequency bands.



Example of voice waveform and its frequency spectrum



<https://physics.princeton.edu/pu/lsar/K1JT/main-ui-1.4.png>

By Bob K at English Wikipedia - Own work by the original uploader Transferred from en.wikipedia to Commons by Maksim., Public Domain, <https://commons.wikimedia.org/w/index.php?curid=641991>

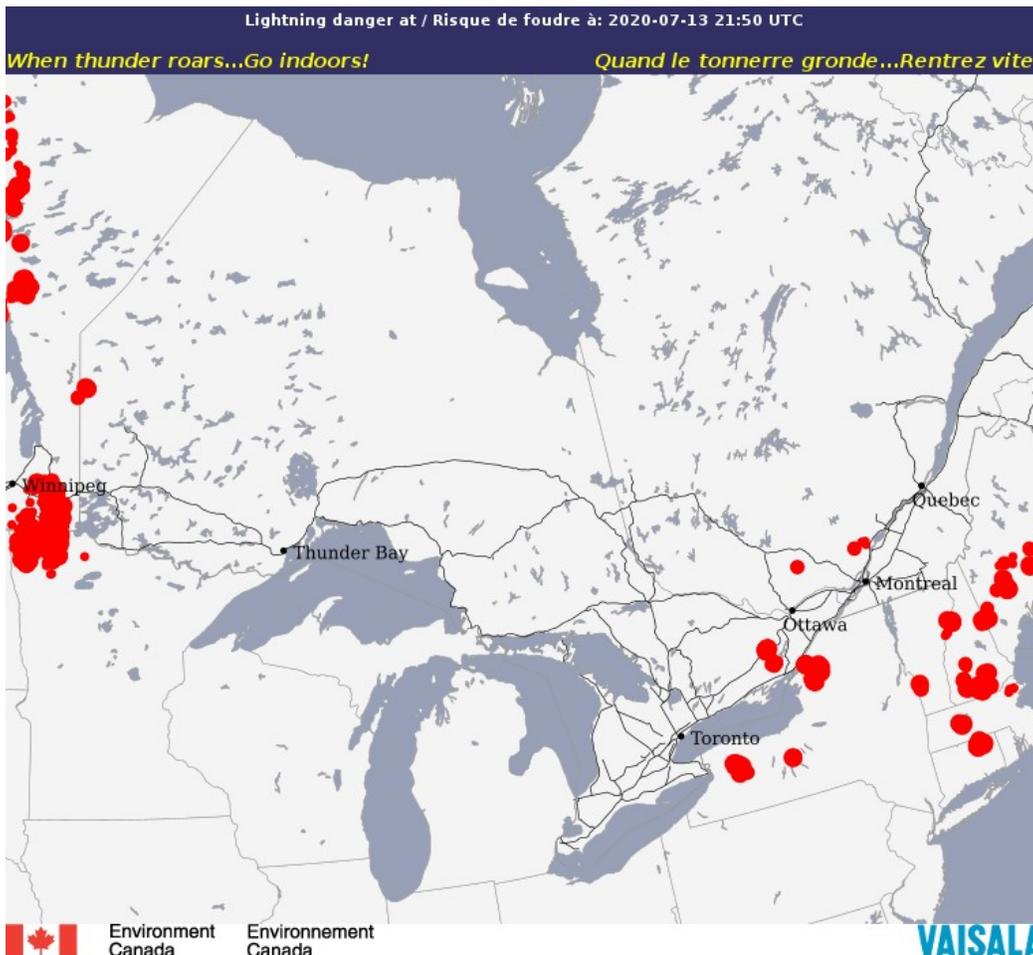
When Thunder Roars ... Go Indoors!



More than 74 % of injuries reported in the since 1986 have occurred between June and August and some 94% of lightning related deaths, according to a summary report entitled: Striking Back: An Assessment of Lightning-related Fatality and Injury Risk in Canada. Adaptation & Impacts Research Division, Environment Canada, Waterloo, Ontario, Canada. The researchers, including B. Mills, D Unrau, C. Parkinson, B. Jones, J. Yessis and K. Spring, have compiled information based on media reports, vital statistics, hospital admission and ER records. As well as fire loss data. Based on their work, it is estimated that there are between nine and 10 lightning related deaths and up to 164 lightning related injuries.

Now looking at US statistics, the odds of being struck in a given year are closer to that one-in-a-million mark, though: 1 in 1,222,000. So, while lightning strikes seem to be no big deal in cartoons and kids' movies, the reality is a little more shocking. According to the National Weather Service, a lightning strike can cause cardiac arrest, brain damage or death and is a major cause of storm related deaths in the United States.

The Canadian study reports a majority of the lightning fatalities, except in British Columbia involved cloud to ground lightning strikes related fatalities based on vital statistics since 1921 occur in Ontario, Quebec, Saskatchewan, Alberta and Manitoba. In addition most of the fatalities interestingly enough occur less common on Mondays and Wednesdays, so mostly on the traditional weekend and most victims injured or killed are male being younger than 45, engaged in outdoor recreational activities, and were in open areas or those sheltering under trees. Ref: [www.canada.ca/en/environment-climate-](http://www.canada.ca/en/environment-climate)



Needing to know your risk in the next 10 minutes?

- The Canadian Lightning Danger Map is found at: https://weather.gc.ca/lightning/index_e.html.
- In the image below: Lightning is striking in the red areas; you are in immediate danger if outdoors
- Go to a safe location, either a building with plumbing and wiring or an all metal vehicle
- Stay there for 30 minutes, following the last Rumble of Thunder