

Uhuru – EmDrill #2 - Report – 2025-02-17 (Draft)

Intent: To prepare a summary of what transpired during EmDrill #2 and what actions should be taken with regard to preparing for and conducting the next Emergency Drill, scheduled for some time in the Spring, with the ultimate objective being to have an effective and efficient emergency comms network in order to survive any major grid-down situation.

Background:

EmDrill #1

Uhuru was started about 1.5 years ago

- conducted eEmDrill #1 on April 8, 2024 (total solar eclipse*) starting around early afternoon
- Message was relayed to Net Controller (HS)
- Net Controller successfully relayed Message to 5 other hams
- Message was then emailed to 20~ others (hams and non-hams) to relay to people in their local community
 - there was only 1 radio relay conducted in this way, in Mississauga.

* it was learned that a government-sponsored emergency drill was going to be conducted on that day, in part to learn more about day-to-night transformation of the ionosphere so we decided we should do one as well.

EmDrill #2

The decision to conduct the second drill was made at a zoom meeting called for that purpose on December 16, 2024. It was also decided to start the drill on Thu Jan 30 2025 to run until the following week (Wed Feb 5 2025).

The timeframe was extended to a full week so that groups could conduct the local relay portion at their convenience.

An information page, containing all related content was established on the uhuru.info website:

<http://www.uhuru.info/emergency.html>

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EmDrill #2 was conducted in much the same way as EmDrill #1 , with some changes

- the timeframe was extended to a full week, for reasons previously noted
- the kick-off was during an SDR/JS8 Workshop on Thu Jan 30
 - the workshop was partially focused on expanding the long distance network by utilizing SDR (software defined radio) and JS8 Call (a digital radio platform).
- the Net Controller selected one of the predetermined Message Statements
 - rather than being created at the start of the Drill, the Message was selected from among 3 predetermined Message Statements, namely
 - Wow. Is it ever HOT!
 - Wow. Is it ever COLD!
 - Wow. is it ever WINDY!
 - the Network Controller (NC) selected one of the Message Statements and sent it out over his radio in SK to be picked up by parties (not all hams), in different parts of South Ontario and beyond
 - Wow. Is it ever HOT!
 - 4-5 operators picked up the message on SDR/JS8 as well as 2 on HF radios (?)
- this writer was one of the SDR/JS8 operators on the call
- this writer then relayed the Message by email to local net controllers (LNCs) across the country (37 individuals)
- between direct receipt and the emails, 28 communities were contacted (see Exhibit 1)
- of the communities reached the following communities successfully relayed the Message locally
 - Burks Falls (see Exhibit 2)
 - Toronto-Scarborough (see Exhibit 3)

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Recommendations:

- work to get more communities actively involved
- work to get an HF connected LNC in each community (SDR/JS8)
- recruit more hams
- help to integrate LoRa operators
- determine how to get other networks involved
 - MAGnet
 - Flipside (CB radios)
 - V4F
 - International Veterans
 - satellite network
 - other networks
- investigate antenna options for extending range
- conduct drills on a quarterly basis
 - next possible dates:
 - Thu Apr 10
 - Thu Apr 17
 - Thu Apr 24
 - Thu May 1

Next Steps:

- Organize a Zoom Call
 - to review Report
 - to discuss Recommendations
 - to determine Dates for EmDrill #3

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Exhibit 1 – List of Local Communities (28)

Barry’s Bay	ON
Brampton	ON
Burks Falls	ON
Caledon	ON
Guelph	ON
Hamilton	ON
Huntsville	ON
Leamington	ON
Maple Ridge BC	BC
Midland	ON
Mississauga	ON
Muskoka	ON
Niagara Region	ON
Norfolk	ON
Ottawa	ON
Owen Sound	ON
Oxford	ON
Regina SK	SK
Sarnia	ON
Sault Ste Marie	ON
Toronto-Downsview	ON
Toronto-Etobicoke	ON
Toronto-Midtown	ON
Toronto-North York	ON
Toronto-Scarborough	ON
Uxbridge	ON
Waterloo Region	ON
York Region	ON

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Exhibit 2 – Burks Falls Results

Emails from the LNC for Burks Falls:

This is just an FYI - we completed our first radio test yesterday in preparation for the National Emergency test next week.

We had an interesting finding: the smaller antenna appears to have a better range than the larger one on the GMRS channels that we tested. (GMRS7, GMRS17, and GMRS1). The other surprise was that channel GMRS1 gave us a larger range - about 10 kms from the highest point in Burk's Falls (water tower) where I was standing (AMAC09) to Albine's (AMAC01).

Also, we had better results in the morning test - probably related to the weather as it was snowing during the evening test.

IP

We had our Emergency Radio Drill this morning. 10 members participated, 8 heard the message. The two that we not able to receive the message were well over 10 kms away from another radio. We all used the handheld radios (Baofeng) and repeated the message, this expanded our range. I think we did well :)

IP

This group has also been experimenting with counterpoise antennas (ie Tiger Tails).



<https://youtu.be/szmQmCn1tH4?feature=shared>

This is the video we watched to learn how to make the counterpoise, we chose the simplest method. Works well

IP

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Exhibit 3 – Toronto-Scarborough Results

The Local Net Controller (LNC) for Toronto-Scarborough conducted the test on the first day only (Thursday) as per the following schedule outlined in the Reminder Email:

Special Note: If you are in the Toronto area you are asked to monitor Channel 11 and 19 between 7-10 pm on Thursday and Monday.

The LNC moved around the City to predetermined public High Spots in order to ensure the Message was effectively relayed.

Approximately 8 people acknowledged receipt of the Message, including this writer.

Other results are pending.

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Exhibit 4 – Reminder Email 2025-01-30

Following is the text of the email sent 2025-01-30 to everyone on the email list as a reminder of the Drill:

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Subject: URGENT: Emergency Drill Instructions

Hello Folks,

As the Emergency Drill starts this evening it seemed it would be a good idea to send out a reminder about how you can participate.

The Message will be one these. Keep your eyes and ears open for that KEY WORD:

Wow!. Is it ever COLD.

Wow!. Is it ever HOT.

Wow!. Is it ever WINDY.

Initiating Message

Rob K, our Net Controller, will send out the Message of his choosing from his HF station in SK using JS8Call at the Weekly Zoom Workshop.

Receiving Message – Long Distance

Everyone who has the ability to receive a JS8Call Message will monitor for a Message at the Weekly Zoom Workshop tonight at 7:00 pm EST (20:00 UTC/Zulu):

<https://us06web.zoom.us/j/86184074471?pwd=PwQB4gqp0T93Dn140v...>

Meeting ID: 861 8407 4471

Passcode: 825129

Everyone who gets the Message on the Zoom call will be noted.

In addition to those with HF Rigs, the Message will be emailed to key individuals in each community. So watch your inbox.

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Relaying Message – Local

All those who received the Long Distance Message are asked to pass it along to members of their community over the air, to anyone you can.

You have a week to get the message out so conduct the drill in your area as you see fit.

Receiving Message – Local

When you get the Message, make a note of the time and send the organizer in your community an email noting when you received it.

If you are not sure where to send it, send it to uhuru-ecn@proton.me

Results

We are hoping that everyone who relayed the Message will send a tally of the number of people reached.

Send that number to uhuru-ecn@proton.me

Special Note: If you are in the Toronto area you are asked to monitor Channel 11 and 19 between 7-10 pm on Thursday and Monday.

Have fun. It'll be a hoot.

73 ("best regards" in radio speak :-)

Tony Bolla
647-850-7085

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Exhibit 5 – Instruction Email to Local Net Controllers 2025-01-30

Following is the email that was sent to those people in each community who were to relay the Message to their constituents:

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Subject: Wow! Is it ever HOT! (Uhuru EmDrill)

Hello Folks,

You are receiving this email as you are a community leader and therefore the first person to receive the Emergency Drill message in your community.

The Message is:

Wow! Is it ever HOT! (keyword HOT)

We ask that you seek to relay the message to as many people in your community as possible using your local radio devices (more often than not Baofengs but you can use whatever devices are available to you).

We also ask that you tally how many received the message, by whatever means available and pass that number along to us.

You have between now and next Wednesday (Feb 5) to relay the message.

Let us know if you have any questions.

Good luck and have fun.

73 ("best regards" in radio speak :-)

Tony Bolla
647-850-7085