



Ottawa Valley Mobile Radio Club

MOBILE FOX HUNTING EXERCISE

MAY 2020

REVISED 21MAY2020

SEE SLIDE 9 - 10KM RADIUS NOT 20KM



OVMRC Spring Fox Hunting Event

- What is Fox Hunting?
- Who can participate?
- What Equipment do you need?
- Technical Skills?
- When is this Fox Hunt?
- Rules
- What to do if you think you have found the Fox?
- What can I win?

What is Fox Hunting?

- Also described as Radio Direction Finding, Transmitter Hunting, T-Hunting, Bunny Hunting; for science, security, surveillance, sport or just plain fun
- In Fox Hunting, participants use a combination of equipment, strategy and skills to locate one or more hidden radio transmitters called foxes
- Practical applications include: Search & Rescue, Wildlife Tracking, Commercial asset tracking, retrieving stolen vehicles or locating RF interference from a natural or malicious source

Who can participate?

- Anyone can participate however in light of the current pandemic, we are limiting this activity to what can be done safely while physically distancing
- We anticipate participants will be using a vehicle to drive around town looking for the hidden fox, and since you should only be in a vehicle with immediate family, please don't Fox Hunt in groups, maintain physical distancing (2M) and please don't drive while you are operating your radio gear.

What equipment do you need?

- You definitely need some sort of **directional antenna** such as:
 - Arrow - <https://www.radioworld.ca/handheld-antennas/z-ar-antvhf-ha>
 - Homebrew – Tape Measure Antenna - <https://www.jpole-antenna.com/2017/02/07/build-it-2-meter-tape-measure-yagi-beam-antenna/>
- You definitely need a **portable 2M HT Radio**
- Optionally, an **offset attenuator** will help you to reduce RX signal strength as you get close to the transmitter (fox) so you can still sweep for a null or maximum strength.
<https://kc9on.com/product/fox-hunt-v6-smd/>



Some Fox Hunting Info Videos

- Hiding the Fox - <https://www.youtube.com/watch?v=8p4kXqtmKP0>
- 2020 Ham Radio Fox Hunt and Radio Direction Finding Exercise Jan2020 - <https://www.youtube.com/watch?v=PCWCIAgf2nA>
- Mount Gambier Foxhunting 2014 - <https://www.youtube.com/watch?v=miqspaRC4Zo>
- Sniffer4 Demo - <https://www.youtube.com/watch?v=KDN8w7awAkQ>

Mobile Fox Hunting Techniques

Some experienced Fox Hunters may have very elaborate set-ups. Here we will just offer some basics.

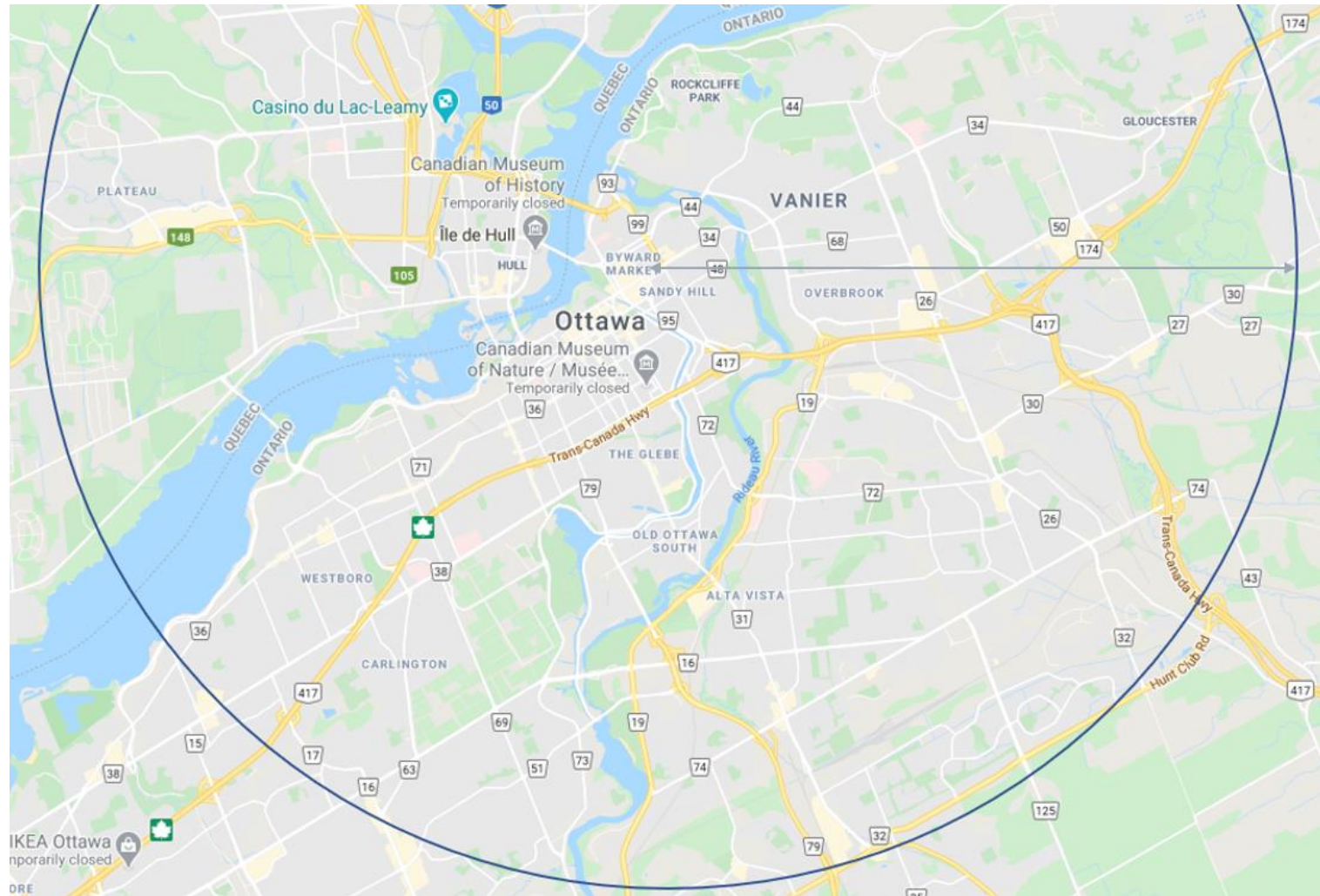
- If you have a magnetic mount antenna for your vehicle you can place this outside your vehicle and still use your Handheld or a mobile radio to listen for the Fox while you drive around
- Once you can hear the Fox, then it's time to switch to a directional antenna and use your S-meter to get a bearing on the direction of the Fox from your current location
- Use a compass or app on your smartphone and a map to draw a line in the direction of the fox from your current location
- Now drive to another location where you can still hear the Fox and again use your directional antenna to get a fix and bearing; draw another line on your map. This should give you a good hint as to where you need to drive to get a third fix and draw a third line to "triangulate on the approx. location of the Fox.
- Now drive to that location and see how close you can get (without trespassing on private property)
- A street address or cross streets will be considered good enough

When is this Fox Hunt?

- Start Date: Sunday May 24, 2020
- Start Time: 10:00 AM
- End Date: Sunday May 31, 2020
- End Time: 5:00PM

Where will this Fox be Hiding?

- Somewhere in the Ottawa area
- On the Ontario side
- **Within 10 km radius of Byward Market**
- Transmitting on 147.585 MHz FM analog at 15 mW power output
- Transmission will be a musical series of tones, followed by a CW identification and pause before repeating continuously
- **Please note, circle on map is only approximate**



Rules

- Please be mindful that everybody is a little bit on edge these days
- If somebody asks what you are doing – take a minute to politely explain and encourage them to check out Amateur Radio Fox Hunting on the Internet
- Please don't trespass on private property

What to do if you think you found the Fox

- Send an email to egan.roger@yahoo.ca with your Name and Callsign and either the closest cross street or a civic address if you think the Fox is located on a property with an address.
- Roger will confirm back within 4 hours (or overnight if after 8:00PM) if you have found it.

What can I win?

- A Certificate
- Bragging Rights!





Questions
?

Beyond Fox Hunting Technical Details

A detailed explanation of Direction Finding Techniques by Rohde & Schwarz

<https://www.youtube.com/watch?v=N8rZIAHxAH4>

Modern Direction Finding Theories, Techniques and Hardware

<https://www.youtube.com/watch?v=tDVQrogmBCE>