

# ICARC FOX Hunt

What is a *FOX HUNT* and how do we do it?

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January 7, 2026

Job: fox\present\18

File: fox\present\18.tex

# Outline



Introduction

The FOX Transmitter

Equipment

FOX Operation

The Hunter

Solon Map



## ICARC Fox Hunts



I am your *Fox Transmitter* ↑

I am here to make your life interesting (probably miserable).



This is the inside of the *FOX* you will be looking for.  
With the cover on, it's just a black box sitting on the ground

# What do we need for the FOX Hunt



## FCC Requirement for *transmitter* operation

on the 2M *Ham Band*

Station operator **must be licensed**

Station Identification: Send **Callsign** every 10 minutes  
Identification may be sent using Morse Code

Receiving (listening) does **not** require a license

License needed only to **talk**

So you guys get to hunt right away!!!

## Ease of operation Requirements

Station identification spoken (don't need to know code!)

Station nickname is also spoken (like FOX21 or FOX22)

Starting out, we will keep the FOX Transmitters close to the library

# What Equipment will we use?



## FOX Transmitters

We will have Five Fox Transmitters.

KC0JFQ takes care of that (that's the old guy)!

## Receivers for the hunters

2M Handheld tranceiver (walkie-talkie).

Operates around 144MHz, in the 2M ham band.

Short Antenna on radio (rubber duckie)

use your body to block signal (look at radio *S-meter*).

Directional Antenna (Yagi)

AGC issues with FM radio (look at radio *S-meter*)

Switched Antenna array (TDOA antenna switch)

Radio *squeals* when **not** pointing at transmitter

# Five radios, operating all at once!



## All Fox Transmitters operate on the same frequency

The transmitters *time-share*, only **one** is talking at a time..

The transmitters have a built-in clock to keep track of **when**.

Each transmitter gets to talk for about one minute (out of five).

## What you will hear

SIGNON message in code CQ(*dah-dit-dah-dit dah-dah-dit-dah*).

Station callsign: "CQ CQ CQ DE W0JV".

Spoken (voice) callsign and nickname.

When you hear morse code, listen for the nickname that's coming up

Housekeeping (voice) report: battery condition report.

Message Traffic: Voice or Code

This takes most of the one minute allocated to the Fox Transmitter

If the message traffic is code, you don't need to be able to read it

SIGNOFF message in code SK(*dit-dit-dit- dah-dit-dah*).

Station callsign: "SK SK SK DE W0JV" (to satisfy the rules).

Then the Fox Transmitter stops transmitting.

# How to look for the transmitters



## DISCIPLINE!

You get less than a minute to establish a **line of position**

Use a map (record the transmitters Nickname!.

Determine your **line-of-position** and mark it on the map.

You probably can't tell front from back, so the LOP runs both ways!

Beware **multipath**.

Signal can bounce off metal and give strange indications

Fence by the ball diamond, Overhead electric wires, Cars.

Once you get a LOP, move to another spot and get a 2nd. one!

It will take 5 or 6 minutes to cycle through all the transmitters.

Try to be in a different location for the second pass, get better LOP!

With good position lines, you can get pretty close.

Within EYEBALL range, look for the bright orange antenna!

Once you find the FOX, take one of the small cards to verify your find!

A stack of business cards are rubber-banded to the Fox Transmitter

If you manage to bump the switch, just turn it back on

Switch pushed toward the antenna

Once you find all five, come back to the start!

Congrats!!!

## Solon Library Parking Lot



## Take a fix in the Library Lot

Take another fix over on Elm

Take a third fix over by the *Freedom Rock*

Mark them all on a map from Google

