Parks on the Air (POTA) Program Overview

KEVIN CULP, KZ3L AND JACK KIBELBEK, N8EU

WARREN COUNTY AMATEUR RADIO ASSOCIATION

APRIL 5, 2022

INTRODUCTION

- Presenters
  - Kevin Culp, KZ3L
    - Licensed since 1983 – Amateur Extra Class since 1986
    - Primarily a CW & portable op
    - Currently the Ohio POTA Mapping Coordinator
    - 32-year active duty Air Force career + civil service – Engineering / Occupational Health
  - Jack Kibelbek, N8EU
    - Licensed since 1969 – Amateur Extra Class since 2018
    - Primarily a CW op + portable QRP
    - Retired pediatrician

INTRODUCTION

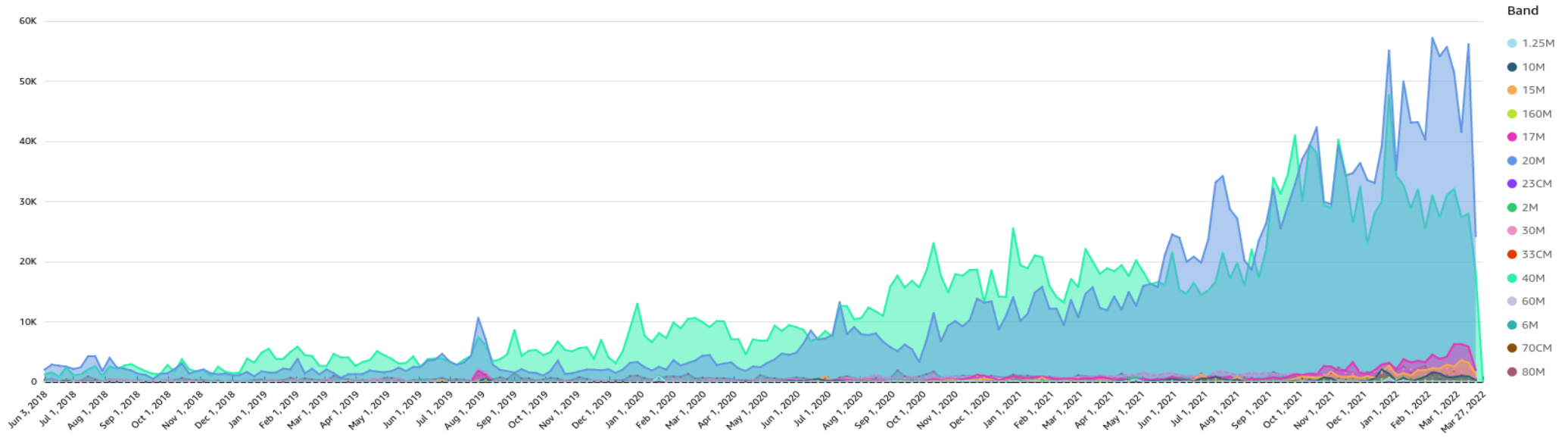
- What is Parks on the Air (POTA)?
  - A FUN, FUN activity! ← NOT a contest
  - Promotes portable amateur radio operations & enjoyment of our parks
  - An awards program
  - Encourages communications "readiness"
  - Enjoy "field day" any day of the year!
  - No HOA restrictions or local electrical noise – HUGE DIFFERENCE!
  - Combine with other hobbies—disc golf, fishing, camping, hiking, boating, etc.

INTRODUCTION

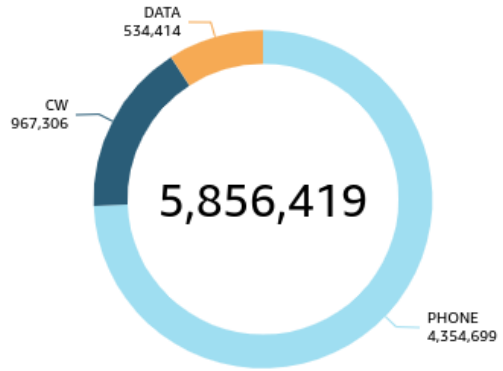
- Origin: ARRL's National Parks on the Air (NPOTA) – 2016
  - Celebration of USA's 100 year National Park history
  - POTA program began shortly thereafter
- Started in US, now International
  - >9,000 parks in the U.S.
  - Numerous countries being added
  - Activators often feel like rare DX, even CONUS!

National Parks
ON THE AIR
2016

QSOs by Week and Band

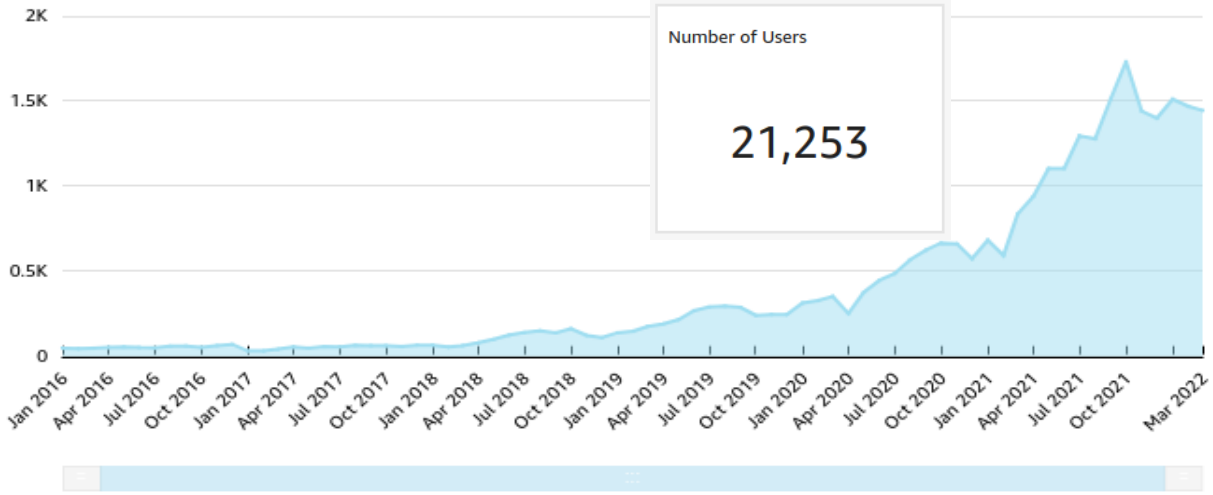


QSOs by Mode Group



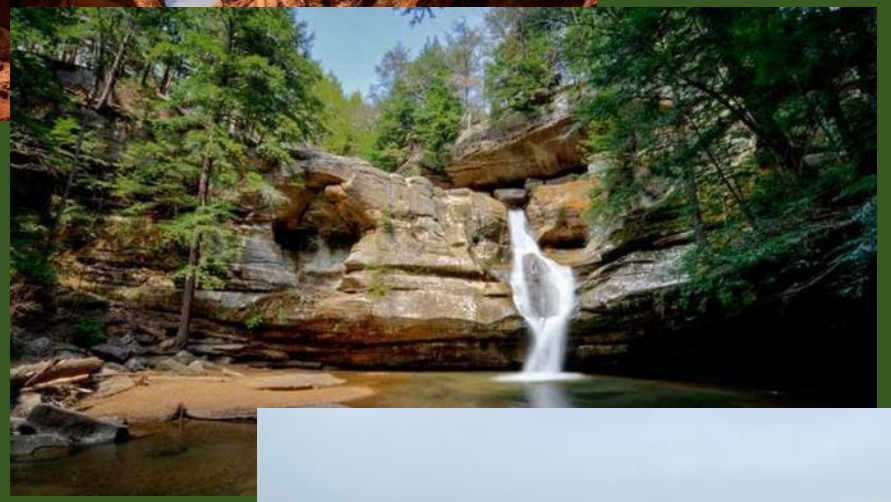
Group By: mode
Size: qsoId (Count distinct)

Number of Users Activating Per Month



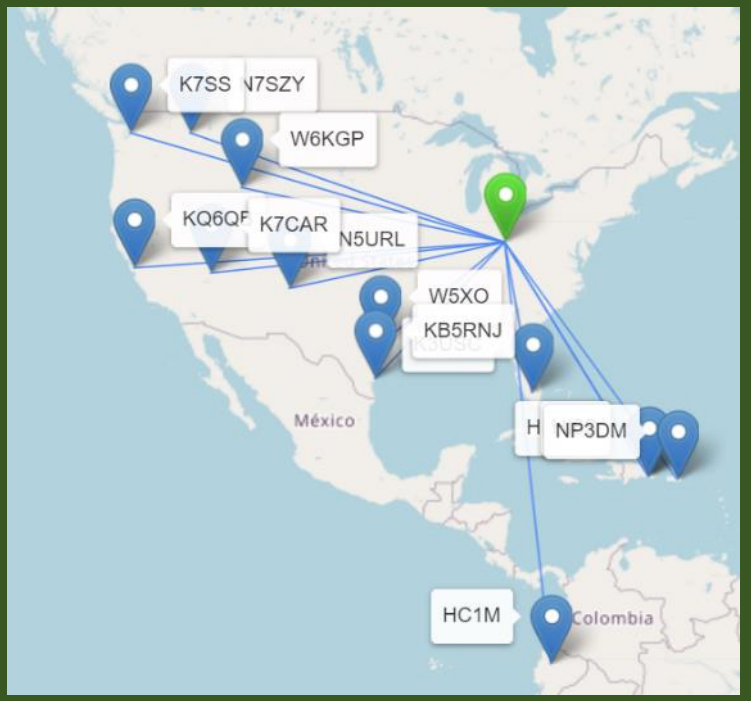
TERMINOLOGY

- Park (a.k.a. “reference area”)
  - Federal- or State-owned and operated entity
  - Parks, sites, forests, preserves, refuges, wildlife areas, trails, etc.
  - MUST be listed in the POTA database to count (e.g. K-1940)



TERMINOLOGY

- Activation
  - Station completes 10+ QSOs in any 24-hour UTC day from the park
  - Distinct QSO = band + mode + call
  - No specified exchange! ANY QSO counts (even contest QSOs)
  - Simplex only (except satellite)
  - No limit on # activations at a park
- Activator
  - A station which activates a park
  - Must be located in the park (duh!)
  - Trail: within 100’, on <u>public land</u>

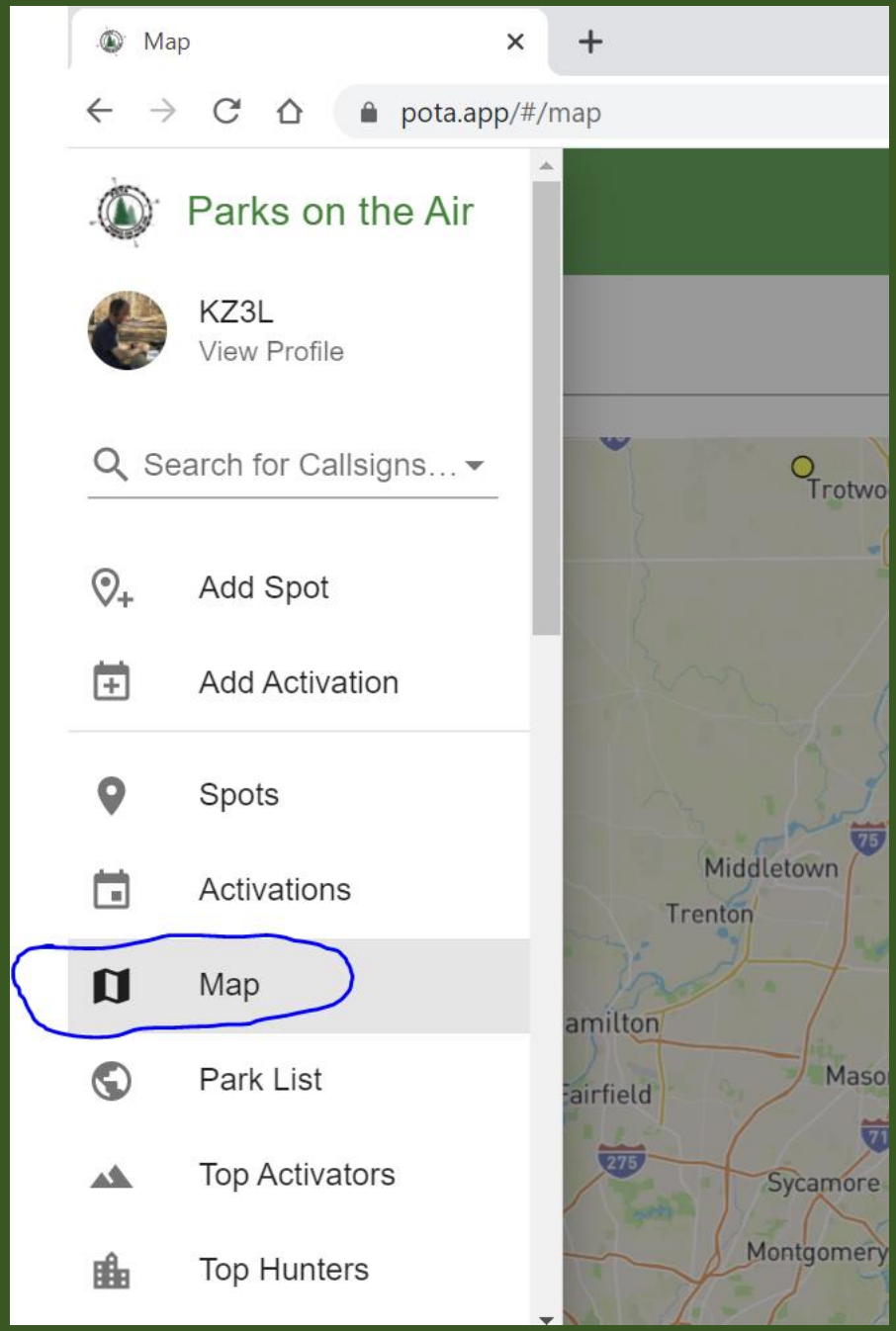


TERMINOLOGY

- Hunter
  - A station which calls an activator
  - An activator can ALSO be a hunter; see below
- Park-to-Park
  - QSO between two parks
- Late Shift
  - Between the hours of 0000 and 1200 UTC

ACTIVATING A PARK

- Selecting a park
  - Look on http://pota.app
  - Research geographic boundaries
    - Ohio: DNR GIS or Park Web Site https://gis.ohiodnr.gov/MapViewer/?config=ODNRLands
  - Know park rules (hours, limitations, access, parking, trails, etc.)
    - Check the official park web site https://ohiodnr.gov/go-and-do/plan-a-visit/find-a-property/find-a-property-search



Park Information

pota.app/#/park/K-1945

Deer Creek State Park

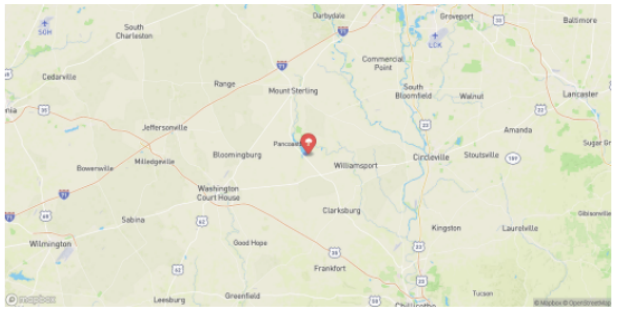
KZ3L

Deer Creek State Park

EDIT

Reference:	K-1945
DXCC Entity:	United States Of America
Location(s):	US-OH
Latitude / Longitude:	39.6037, -83.2312 (EM89jo)
Website:	https://ohiodnr.gov/go-and-do/plan-a-visit/find-a…
Access Methods:	Automobile, Foot
Activation Methods:	Automobile, Cabin, Campground, Pedestrian, Shelter
Is Active?	ACTIVE
First Activation:	KC3RW on 2017-05-19
Stats:	38 activations / 38 attempts (1610 QSOs)

OH GIS maps: https://gis.ohiodnr.gov/MapViewer/?config=ODNRLands



Activations

Date	Callsign	CW	Data	Phone	Total QSOs
2022-03-27	WG8X	14	0	0	14
2022-02-22	AA9OM	48	0	0	48
2021-09-19	KB8SSH	0	0	18	18
2021-09-18	KB8SSH	0	0	29	29
2021-08-08	KI0EB	0	0	42	42
2021-08-07	KN4COE	0	0	143	143
2021-					

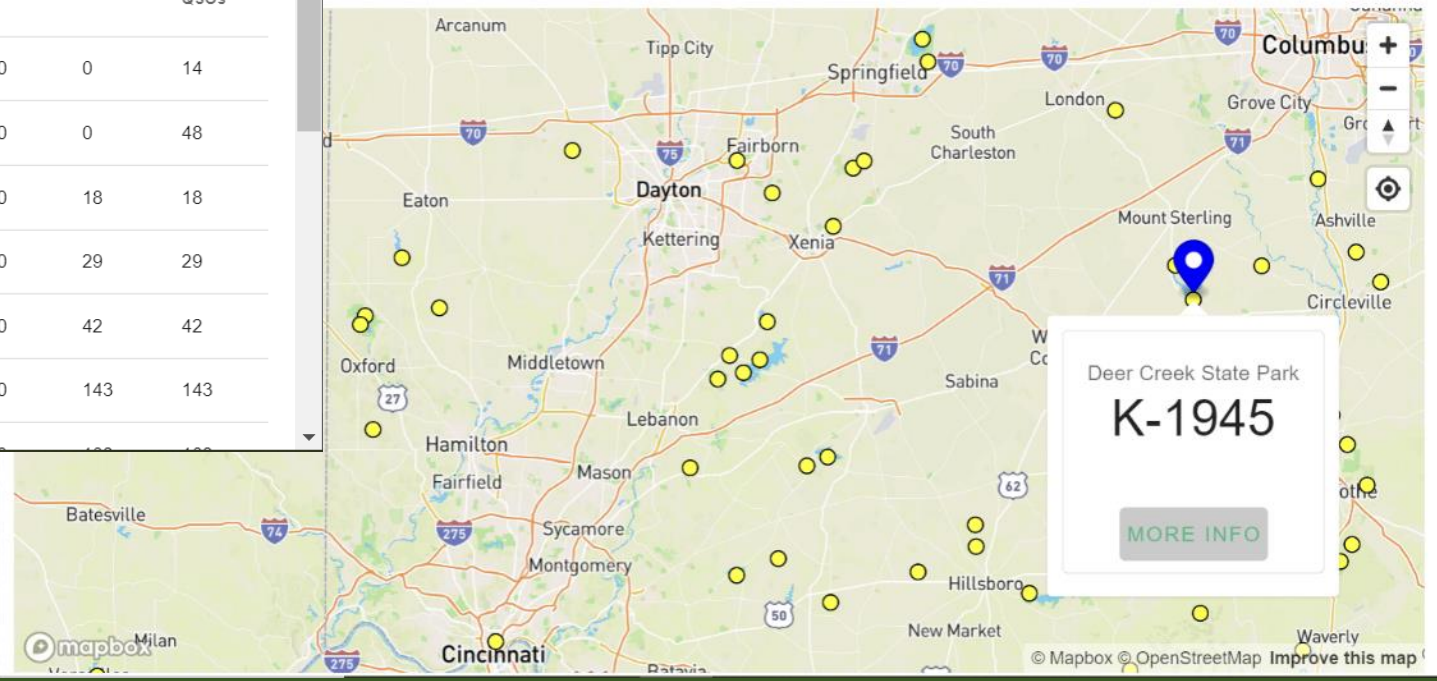
Park Leaders

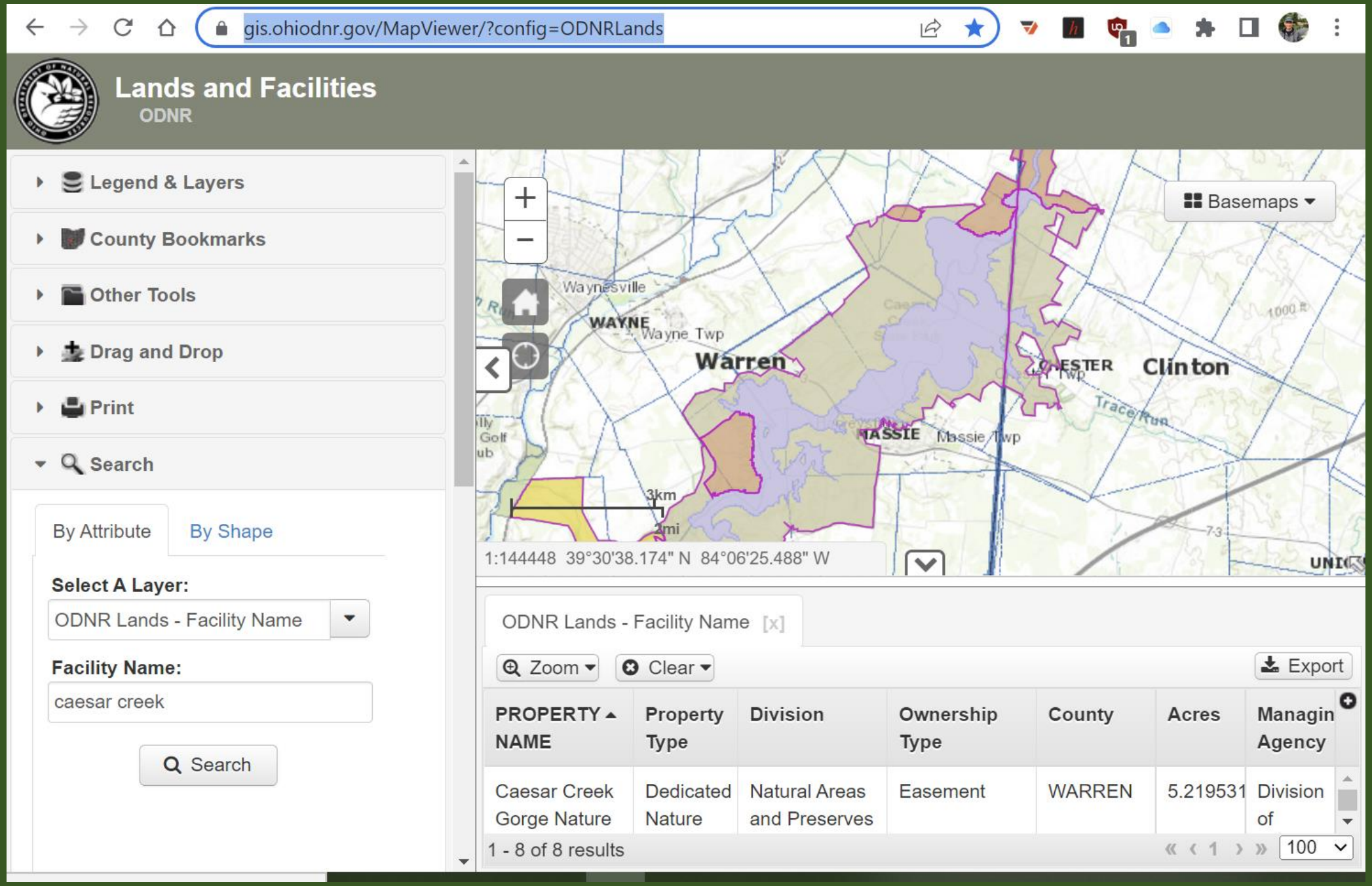
Activations Activator QSOs Hunter QS

p/#/map

KZ3L

Location (State / Province / Region / Area)




gis.ohiodnr.gov/MapViewer/?config=ODNRLands
Lands and Facilities
ODNR
Legend & Layers
County Bookmarks
Other Tools
Drag and Drop
Print
Search
By Attribute
By Shape
Select A Layer:
ODNR Lands - Facility Name
Facility Name:
caesar creek
Search
Basemaps
Waynesville
WAYNE
Wayne Twp
Warren
CHESTER
Twp
Clinton
Massie Twp
Trace Run
3km
2mi
1:144448 39°30'38.174" N 84°06'25.488" W
ODNR Lands - Facility Name [x]
Zoom
Clear
Export
PROPERTY NAME
Property Type
Division
Ownership Type
County
Acres
Managin Agency
Caesar Creek Gorge Nature
Dedicated Nature
Natural Areas and Preserves
Easement
WARREN
5.219531
Division of
1 - 8 of 8 results
100

ohiodnr.gov/go-and-do/plan-a-visit/find-a-property/hueston-woods-state-...

Plan a Visit

Find a Property

Events Calendar

Campgrounds

Cabins

Resort Lodges

Primitive Camping

Bridle Camps

Unique Getaways

Group Facilities

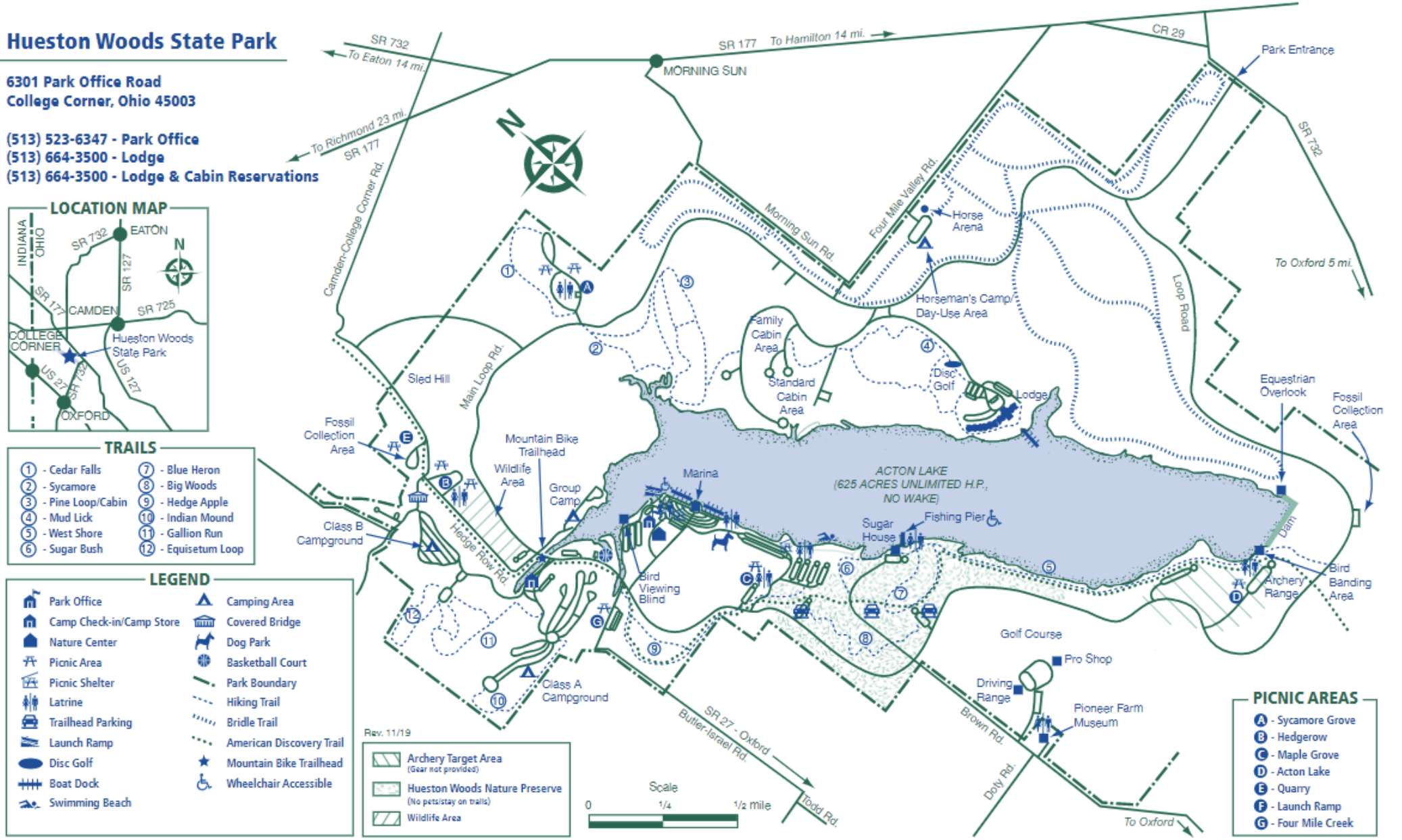
HUESTON WOODS STATE PARK

The limestone and shale bedrock of the Hueston Woods region provides evidence of the ancient shallow sea that once covered Ohio. Fossilized remnants of ancient marine

Hueston Woods State Park

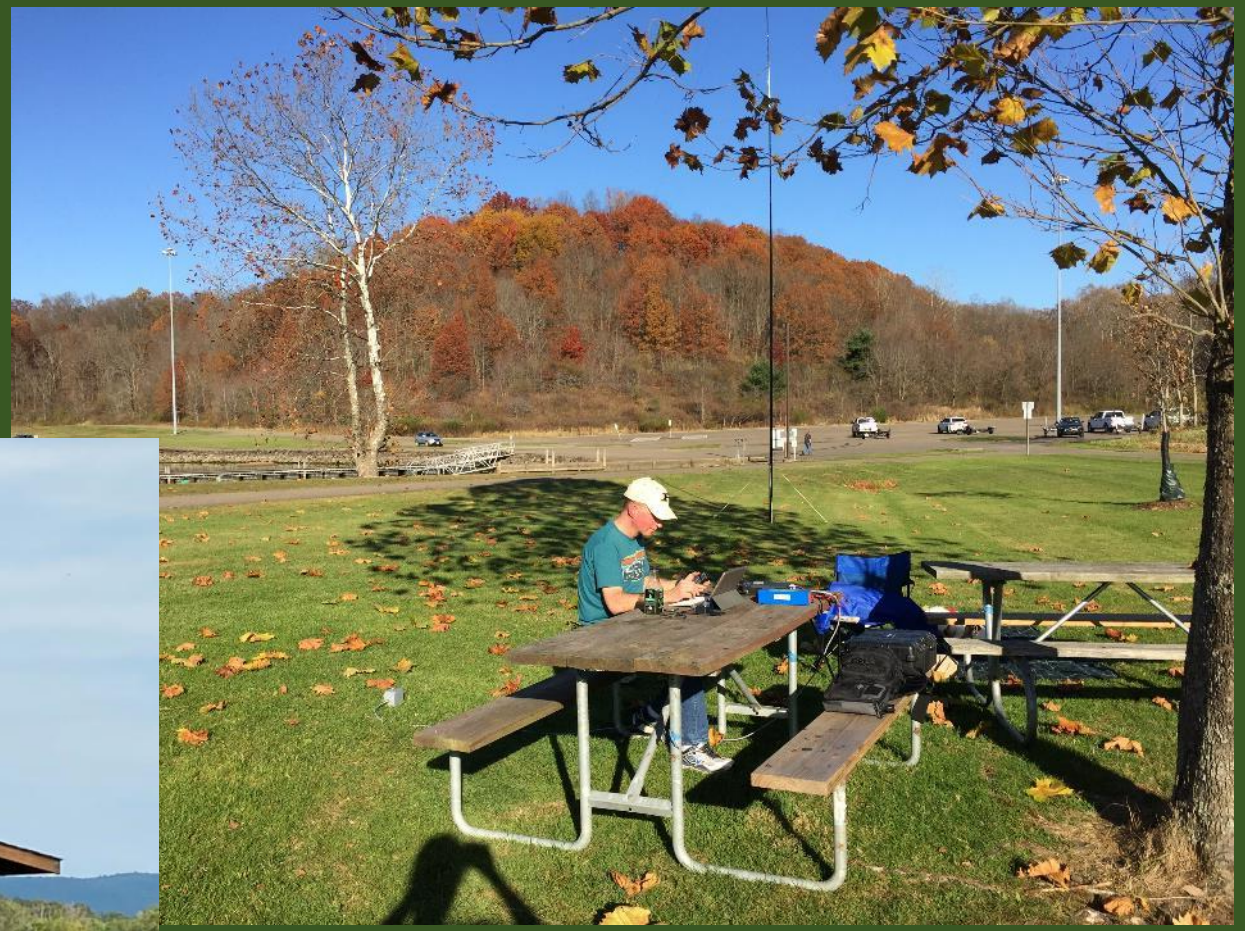
6301 Park Office Road
College Corner, Ohio 45003

(513) 523-6347 - Park Office
(513) 664-3500 - Lodge
(513) 664-3500 - Lodge & Cabin Reservations



ACTIVATING A PARK

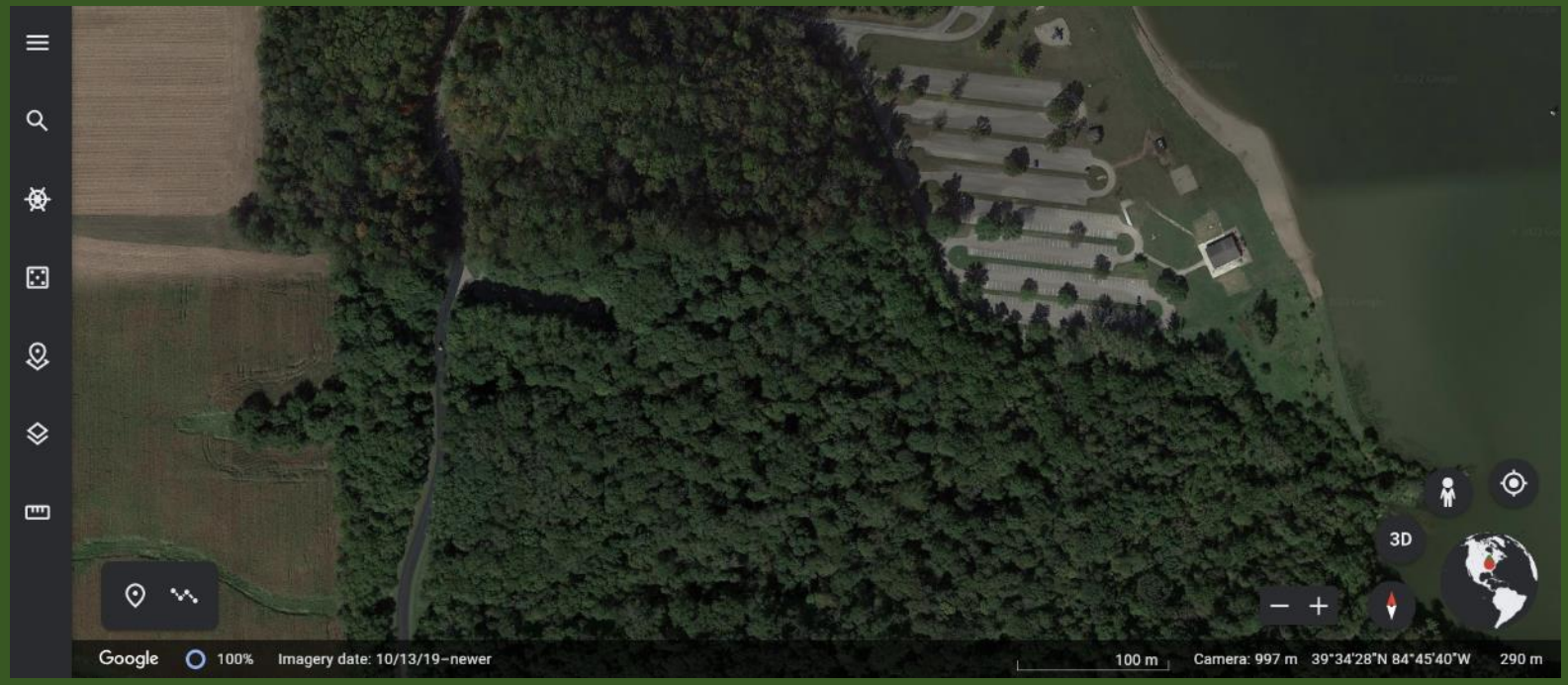
- What's your style?
  - Extremes:
    - All the comforts of home – lodge/cabin?
    - Hike-in activation
  - Very common:
    - Bring your own shelter, tent, or canopy
    - Use existing infrastructure
    - Set up your own table & chair
    - Activate from inside the car



DEGLAU PICNIC
GROVE

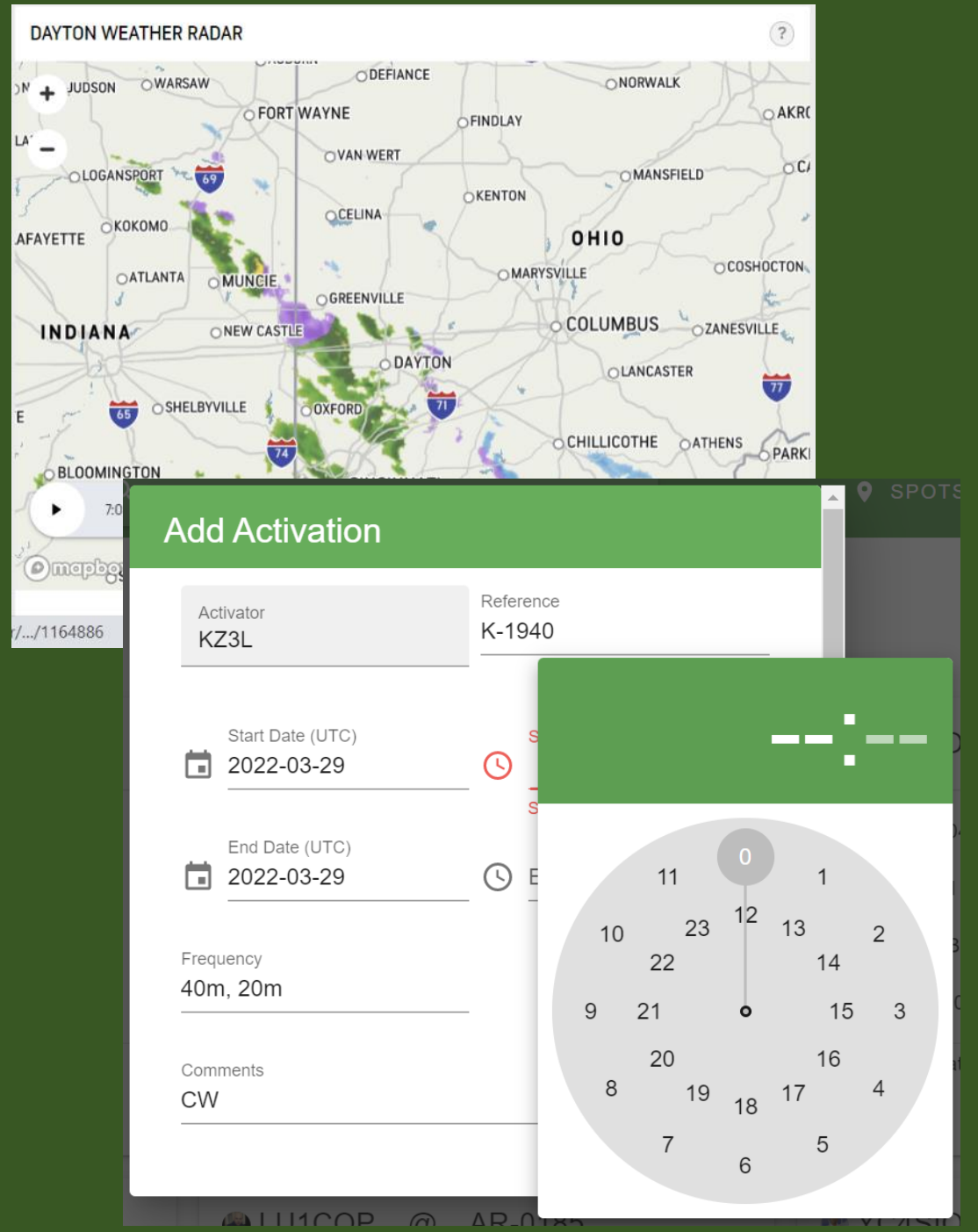
ACTIVATING A PARK

- Where in the park?
  - Use maps, Google Earth, etc.
  - Trees vs. open field vs. parking lot
  - Facilities (you know what we mean)
  - Other park users
  - Elevation
  - The view



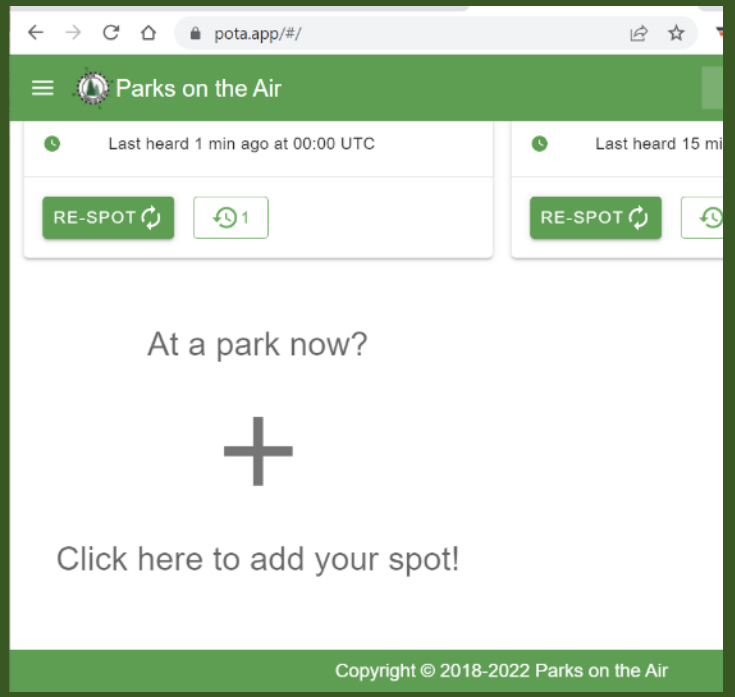
ACTIVATING A PARK

- Before you go
  - Do your planning!
  - Check weather, prop forecast, etc.
  - Document Park # and County
  - Inventory and triple-check equipment
    - Dead battery? Missing coax?
  - Schedule your activation on *http://pota.app* (optional)
    - Reverse Beacon Network can help to spot you – CW or Digital
    - Hunters can look for you



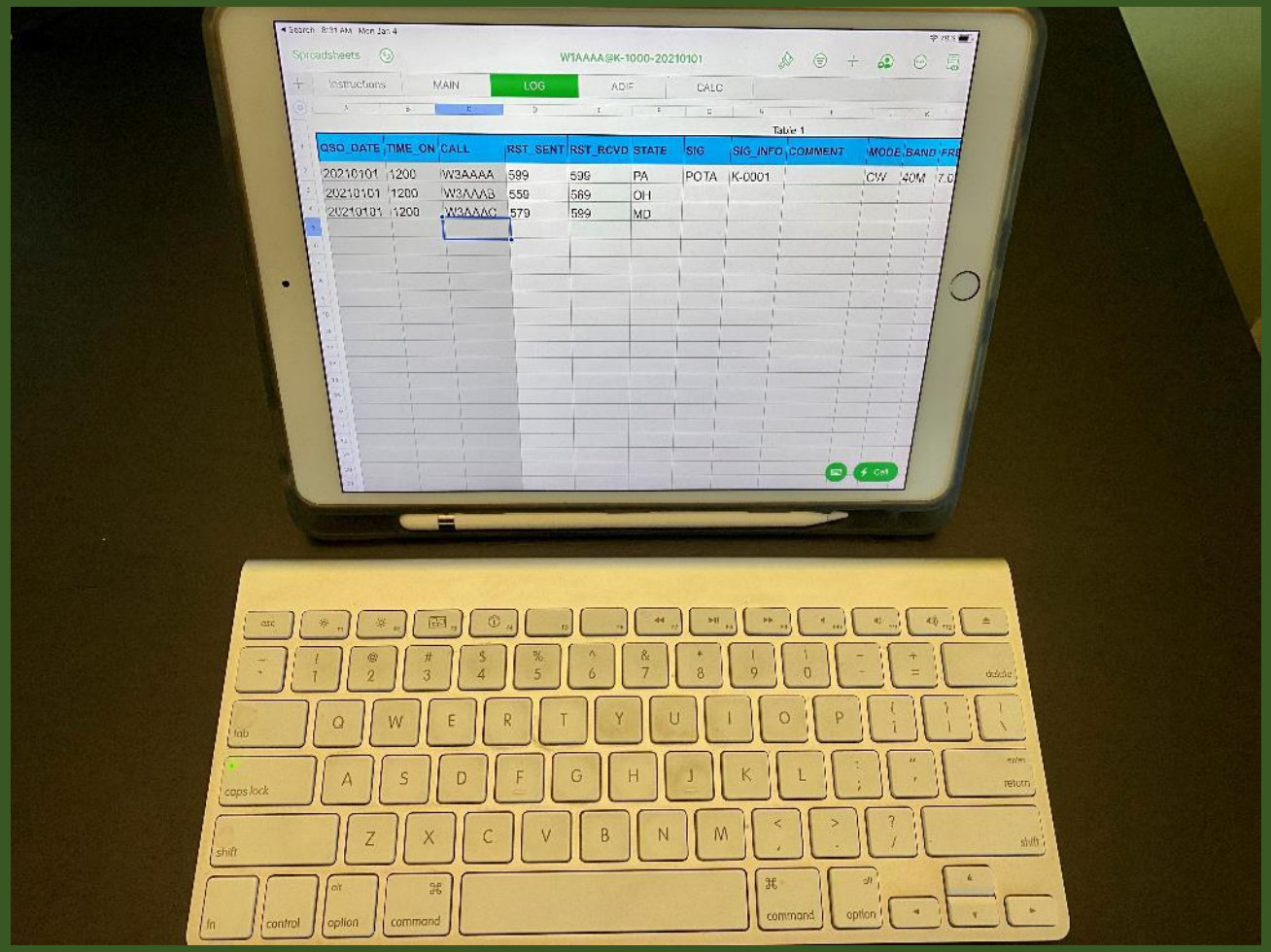
ACTIVATING A PARK

- Select a band: All bands are fair game (incl WARC)
- Spot Yourself on *http://pota.app*
- Calling CQ
  - Listen, then QRL? Is this freq in use?
  - "CQ POTA… from [call] at Park K-####"
- Typical Exchange
  - Call, state, and RS(T) report
  - There is no required exchange
- Tradition: Give priority to "Park to Park" (or "P2P" on CW), "QRP", and "Mobile"
- CALL OTHER PARKS! (P2P)



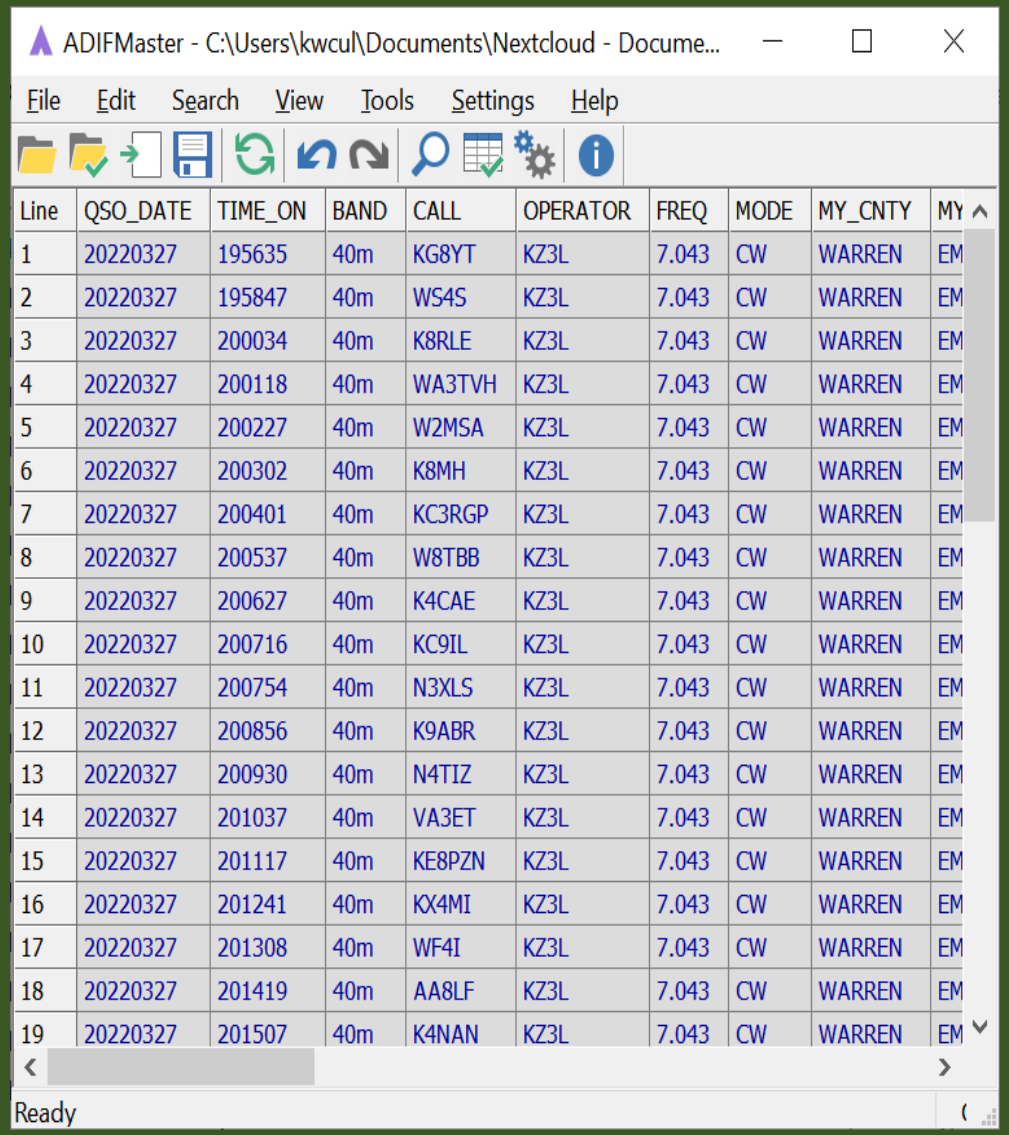
ACTIVATING A PARK

- Logging
  - Date & Time (UTC)
  - Your call
  - Their call
  - Band (freq not req’d for POTA, but helpful for other logs like QRZ and LoTW)
  - Mode
  - Their park # (optional)
    - Avoid dupes if activating multiple parks



AFTER ACTIVATION

- Repack/refresh/recharge
- Leave park better than you found it
- Finalize log & submit to POTA
  - Triple check logs before sending
  - ADI File (ADIF) format ONLY
  - File name = call@K-####-*yyyymmdd*
    - Add state if park spans multiple
  - Send to K#@parksontheair.com
    (# = <u>your</u> call sign #)
  - Coordinators are <u>volunteers</u> – might take 3-4 wks for log to appear in stats



Line	QSO_DATE	TIME_ON	BAND	CALL	OPERATOR	FREQ	MODE	MY_CNTY	MY
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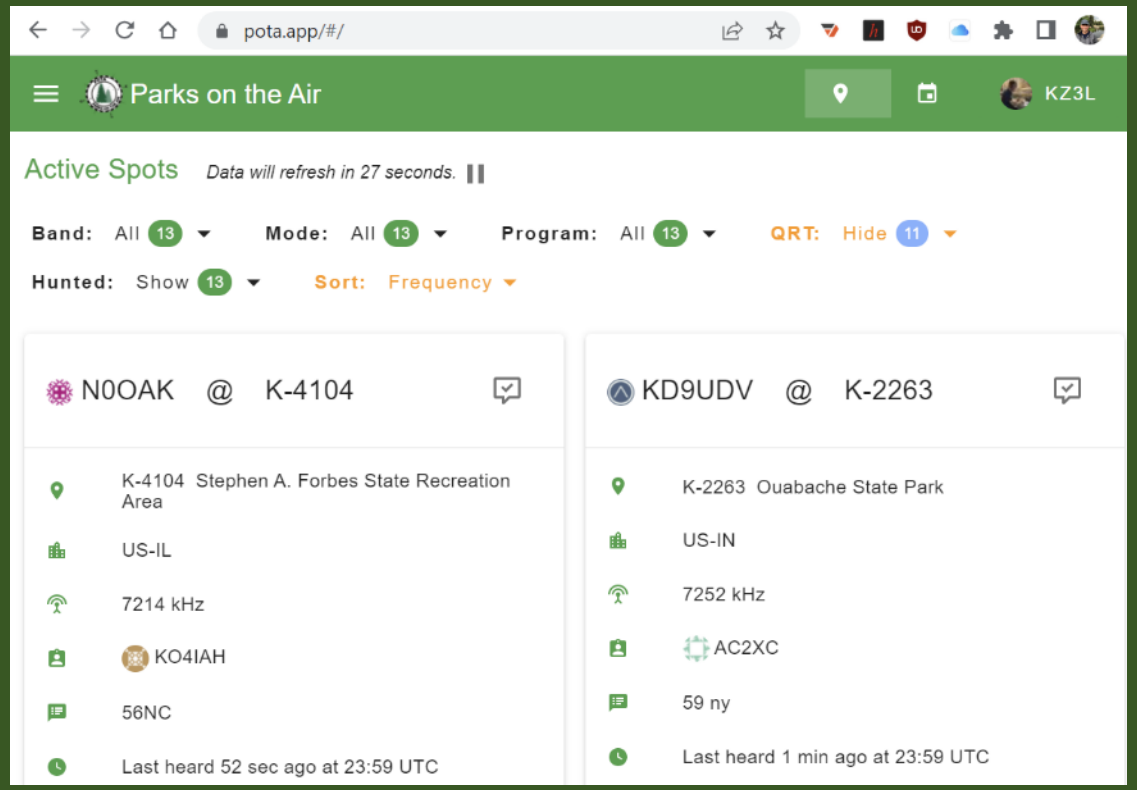
6	20220327	200302	40m	K8MH	KZ3L	7.043	CW	WARREN	EM
7	20220327	200401	40m	KC3RGP	KZ3L	7.043	CW	WARREN	EM
8	20220327	200537	40m	W8TBB	KZ3L	7.043	CW	WARREN	EM
9	20220327	200627	40m	K4CAE	KZ3L	7.043	CW	WARREN	EM
10	20220327	200716	40m	KC9IL	KZ3L	7.043	CW	WARREN	EM
11	20220327	200754	40m	N3XLS	KZ3L	7.043	CW	WARREN	EM
12	20220327	200856	40m	K9ABR	KZ3L	7.043	CW	WARREN	EM
13	20220327	200930	40m	N4TIZ	KZ3L	7.043	CW	WARREN	EM
14	20220327	201037	40m	VA3ET	KZ3L	7.043	CW	WARREN	EM
15	20220327	201117	40m	KE8PZN	KZ3L	7.043	CW	WARREN	EM
16	20220327	201241	40m	KX4MI	KZ3L	7.043	CW	WARREN	EM
17	20220327	201308	40m	WF4I	KZ3L	7.043	CW	WARREN	EM
18	20220327	201419	40m	AA8LF	KZ3L	7.043	CW	WARREN	EM
19	20220327	201507	40m	K4NAN	KZ3L	7.043	CW	WARREN	EM

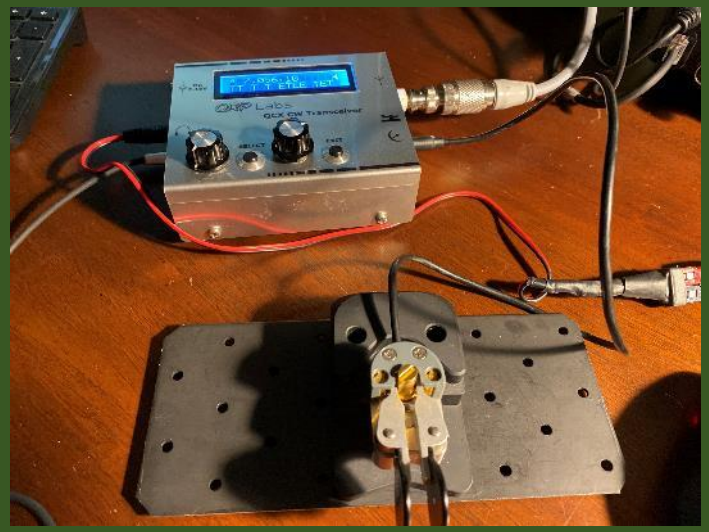
HUNTING A PARK

- Tune up on empty frequency
- Check spots page--Best way to find activators (pota.app)
- Listen for QSO style & cadence
- Announce your call after CQ, QRZ?
- Spot the activator (pota.app)
- Breaking through pile-ups:
  - On CW, never zero-beat! TX slightly off freq (0.05-0.1 kHz)
  - On SSB, it's tough… tail-ending is discouraged. Compression helps
- Do not submit hunter log to POTA



PORTABLE EQUIPMENT

- Radio
  - HF most common
  - May use VHF/UHF if desired
    - No repeaters
    - Satellite/ISS allowed
  - Adjust to your operating style
    - Hiking in? Go lite!

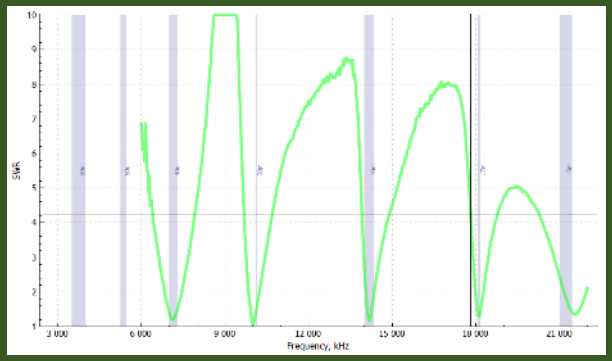


PORTABLE EQUIPMENT

- Power
  - Anything goes, even available 110AC
  - Gas generator probably excessive
  - Batteries most common
    - LiFePO4 light w/~80% usable capacity
    - Rough rule of thumb: 5Ah/hr/100W power setting
    - 12 Ah LiFePO4 good for ~1:45 - 2 hrs
  - Cut power in half = only 0.5 S-unit loss
  - Measure use w/in-line power meter
  - Anderson PowerPoles a good choice

PORTABLE EQUIPMENT

- Antennas
  - NUMEROUS options!
  - Adapt to location and style
  - Consider support structure (self-supporting, trees, in car)
  - Low power? Resonant is best choice
  - Common choices:
    - End-Fed Halfwave or “Random”
    - Dipole / inverted vee
    - Multiband vertical



PORTABLE EQUIPMENT

- Antennas
  - Common choices (cont.):
    - Coil-loaded, such as the Wolf River Coil products
    - Hamsticks (don’t underestimate!)
- Feedline
  - Coax most convenient
  - Short runs (<50’) = low loss
  - Feedline choke may help w/stray RF
  - Not always needed (feed directly from radio)

PORTABLE EQUIPMENT

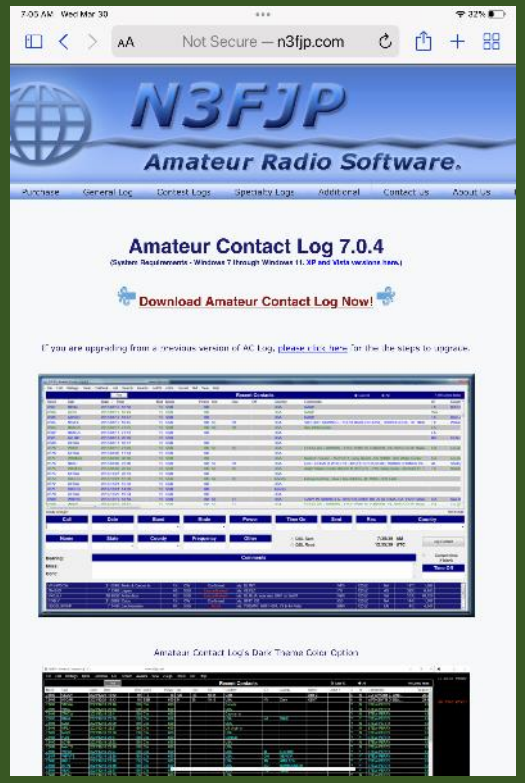
- Cases / transportation
  - Hard case
  - Soft case / backpack
  - Economize!
  - Hiking? Small kit can fit in a fanny pack!
- All other accessories
  - Cables, connectors, spare cables, tools, tape, zip ties, head mic, key
- Personal care items
  - 1st aid kit, bug spray, sun screen, gloves/hat, food, water, towels

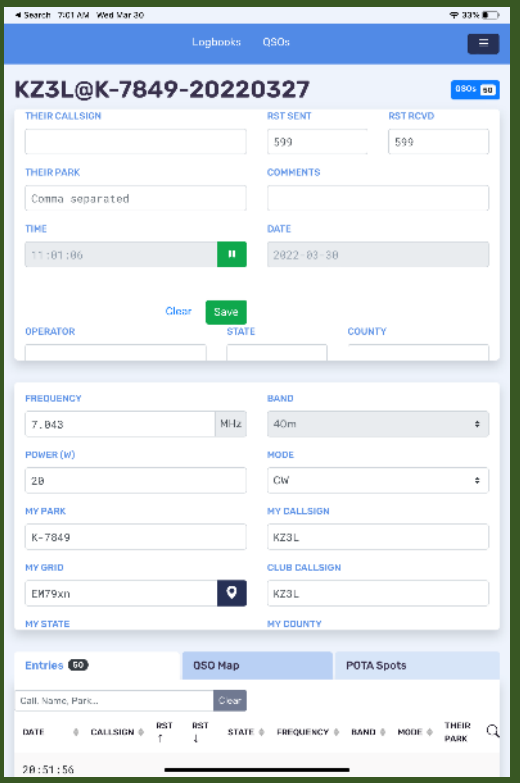
PORTABLE EQUIPMENT

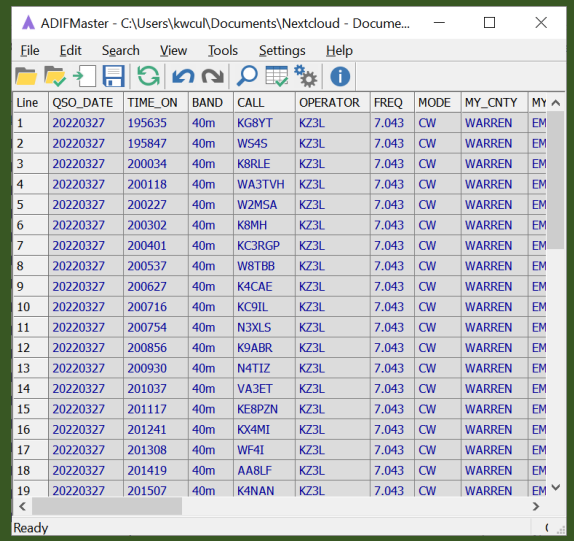
- Pro tips
  - Arborist throw line, rope, and weight – great way to get antenna in a tree (50-70’)
  - Use kite winders (“figure 8”) to store wire antennas
  - “Over-under” method for coax, bundles of radials, etc.

LOGGING SOFTWARE

- Your choice!
- Be sure it generates ADI file with needed fields
- Common Options:
  - N3FJP's AC Log (Windows)
  - HAMRS (All platforms)
  - N1MM Plus (Windows)
  - RUMLog (Mac/iOS)
  - Custom spreadsheets
  - FLE - Fast Log Entry
  - ADIF Master (great to check ADIFs)







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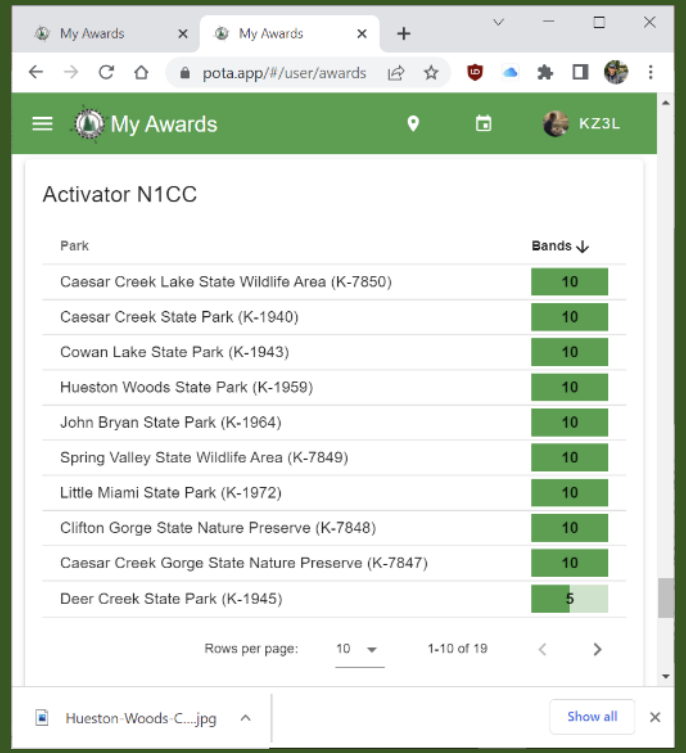
AWARDS

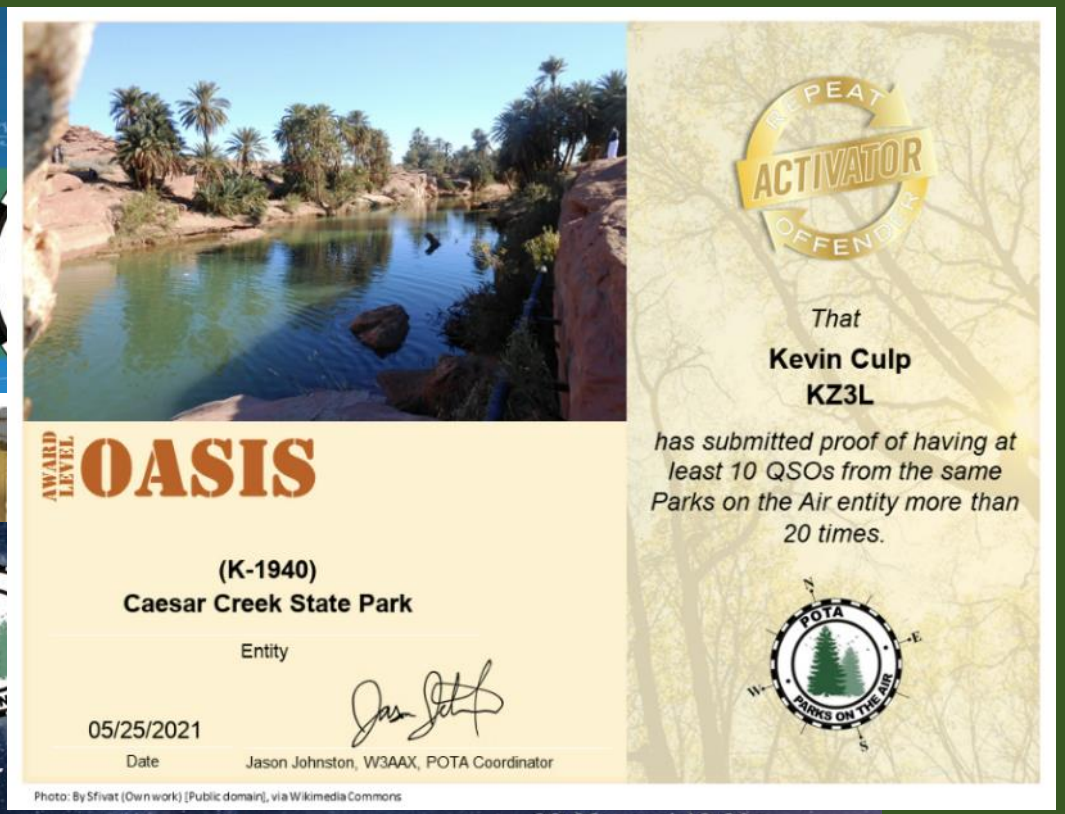
- Automated – based on activator log
- Numerous – for activators & hunters
  - # parks, # activations, # park-to-parks, repeat activations/hunted, “kilo,” multiple parks/day, 10-band, etc.
  - Thresholds start early and build (10, 20, 30, 40, 50, 75, 100, 500, 1000…)
- Download from pota.app
- May take 1-4 weeks to appear
- Excellent progress tracker

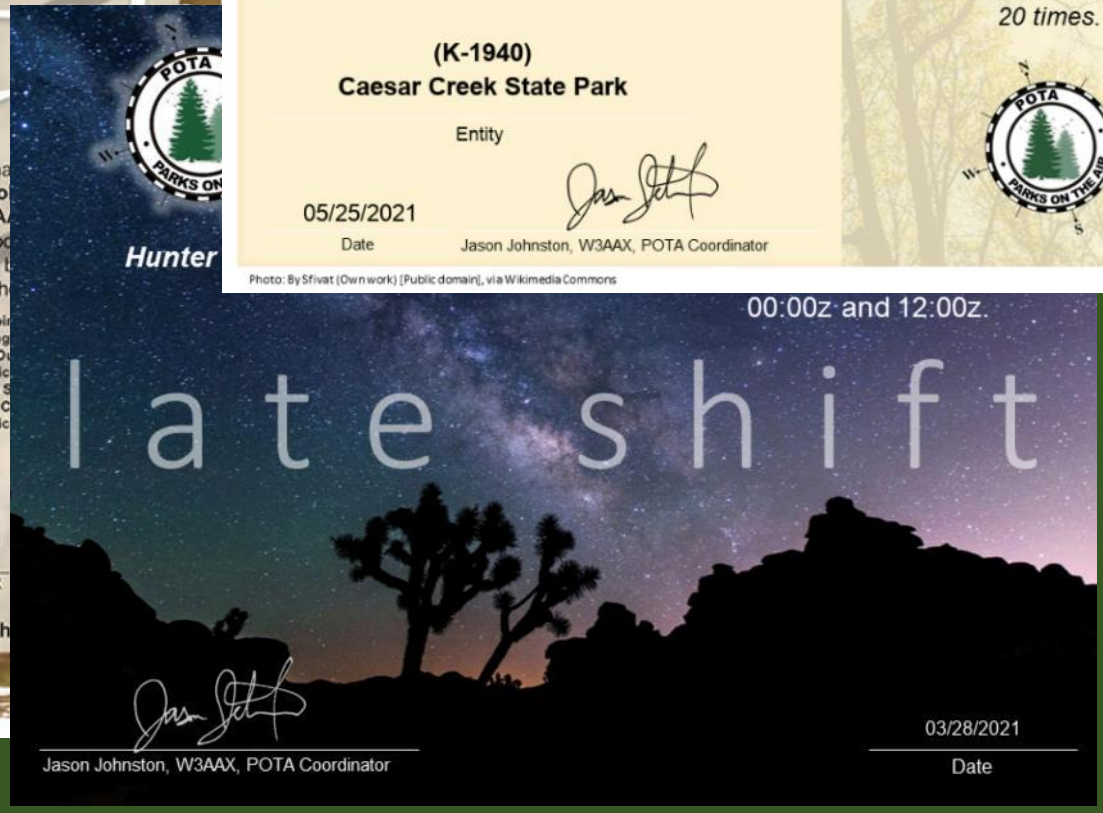


Howard's Spectacular Thelypody
500
Activator Awa
Photo: U.S. Fish and Wildlife Services via Wiki Commons

ALL STATES
HUNTER AWARD

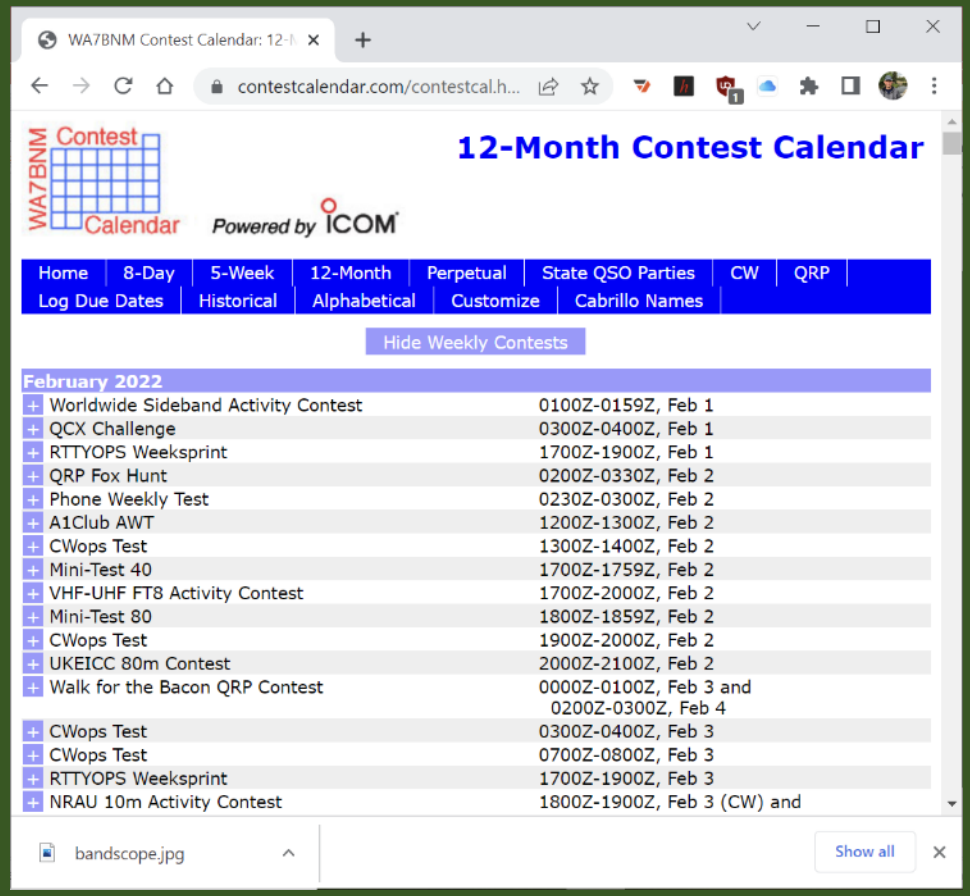
RaDAR
Created by
Eddie Leighton,
ZS6BNE
Chee
POTA
PARKS ON THE AIR
Photo: Dalton Jackson via Wikimedia Commons


AWARD LEVEL
OASIS
(K-1940)
Caesar Creek State Park
Entity
05/25/2021
Date
Jason Johnston, W3AAX, POTA Coordinator
Photo: By Sfivat (Own work) [Public domain], via Wikimedia Commons
REPEAT
ACTIVATOR
OFFENDER
That
Kevin Culp
KZ3L
has submitted proof of having at least 10 QSOs from the same Parks on the Air entity more than 20 times.
POTA
PARKS ON THE AIR


POTA
PARKS ON THE AIR
Hunter
00:00z and 12:00z.
late shift
Jason Johnston, W3AAX, POTA Coordinator
03/28/2021
Date

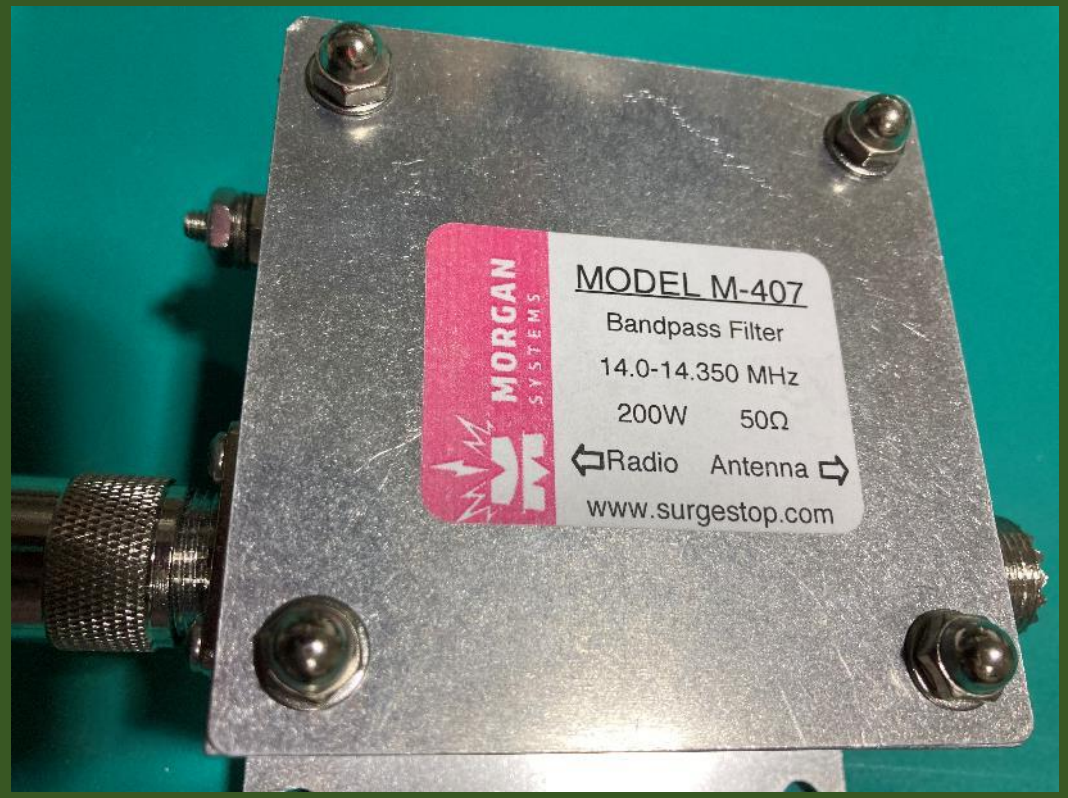
SPECIAL TOPICS

- Handling Nets and QRM
  - Always take the high road!
  - No one “owns” a freq, but be a good ambassador for the program
  - Deliberate QRM does happen
- Contests: Can’t beat ‘em? Join ‘em!
  - Or go to WARC bands or other modes
  - *http://contestcalendar.com*
- Always submit logs! Hunters want parks



SPECIAL TOPICS

- Multi-Op activations
  - Share the mic or key
    - Ops all get POTA credit
    - Follow FCC ID rules
    - Submit separate logs
  - Simultaneous
    - Operate on different bands
    - Separate antennas from each other as far as practical
    - Use band-pass filters



Special Topics

- Multi-Park activations
  - “two-fer,” “three-fer,”…
  - Park-within-a-park
  - In a park and w/in 100’ of trail
  - Any combination of above
  - Every QSO counts for each park
  - Submit <u>separate</u> logs for each park

GETTING STARTED

- Register at *http://pota.app*
- Visit *http://parksontheair.com*
  - Read FAQs and guides
  - Watch videos
- Practice hunting & listen to other activators
- Join POTA Facebook Group and Slack channel – great communities!
  - See info on *http://parksontheair.com*
- HAVE A HAM GOOD TIME!!!

Questions?

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