

# Becoming The (mini) DX

Operating QRP Portable In Europe

Program For The North Alabama DX Club  
Zach Rozar (K4ZSR) – 13 February 2024



# Program Agenda

- Who am I and where I traveled
- Temporary QTH in Romania
- QRP station equipment
- Liechtenstein POTA expedition
- Interesting operating locations
- Lessons and resources
- Q & A



# Who Is K4ZSR?

- Grew up around electronics and engineering
- General ticket as KO4ZWP, April 2022
- Upgraded to Extra and K4ZSR in November 2022
- Originally interested in EMCOM, but found interest in portable field ops and building antennas
- First POTA activation in October 2022
- Active duty Army engineer officer, deployed to Europe for most of 2023





# Where In The World



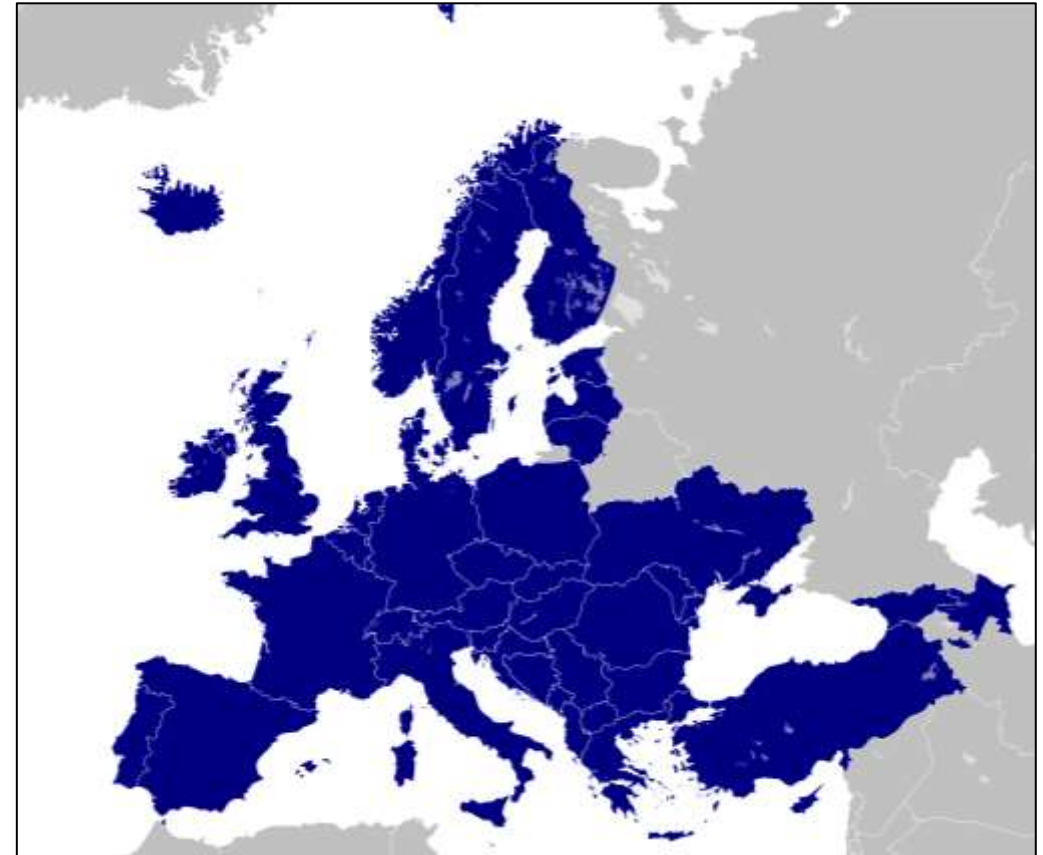
# Requirements To Operate Abroad

- Reciprocal licensing agreement
- The USA participates in CEPT recommendation T/R 61-01
- Need Amateur Extra license for full privileges
- Follow regulations of country you are operating in
- Three items on your person:
  - 1) official FCC license 2) proof of citizenship 3) CEPT Public Notice document



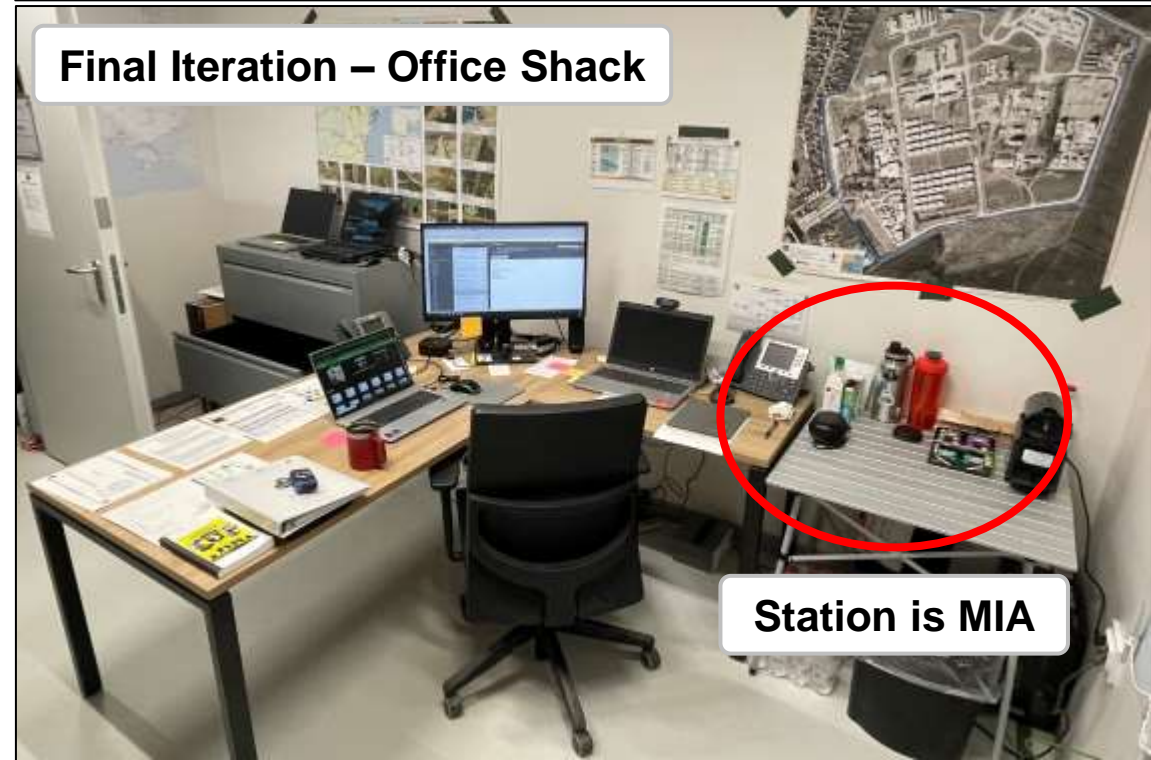
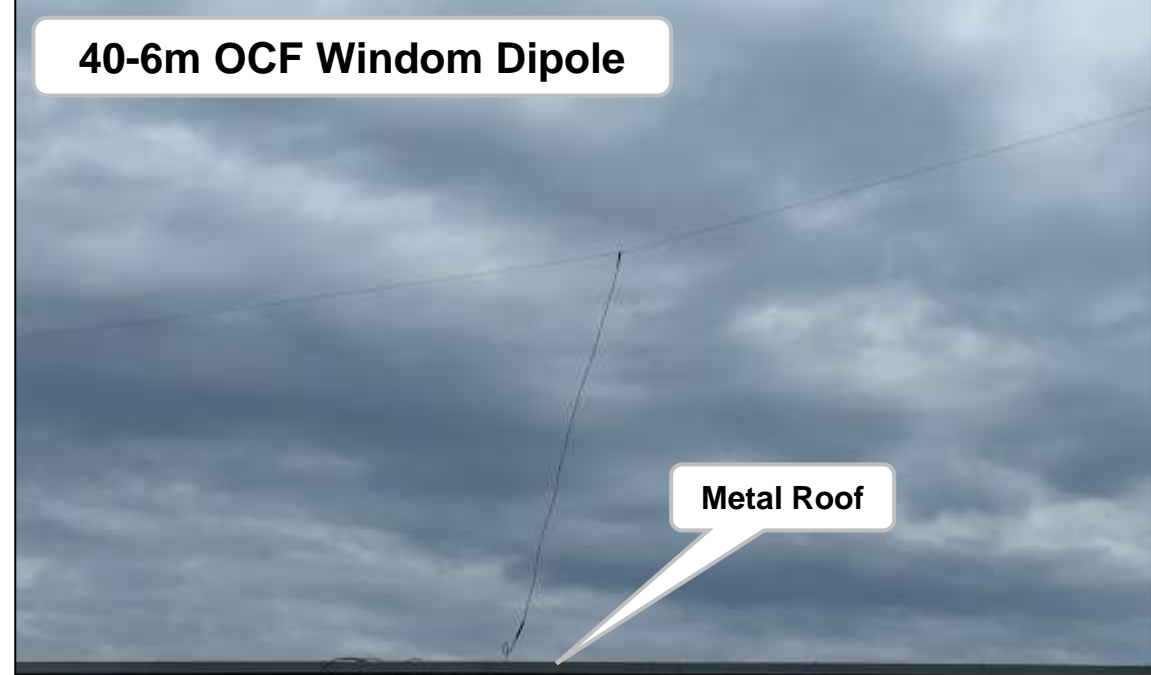
**European Conference of Postal and Telecommunications Administrations**

– 46 European countries cooperating to regulate posts, radio spectrum and communications networks



# Temporary QTH

- First there was a picnic table
- Compromised antenna installation
- No shore power (240v system)





# Digital QSOs From Romania





# What Does A QRP Station Look Like?

Self Contained Xiegu X6100 QRP Station



Portable Mast and Antenna Kit









# Antennas For Portable Ops

- In the field, wire is king (usually)
- QRP antennas can be really small
- Design for durability / flexibility



K6ARK EFRW, custom winder



K4ZSR EFHW

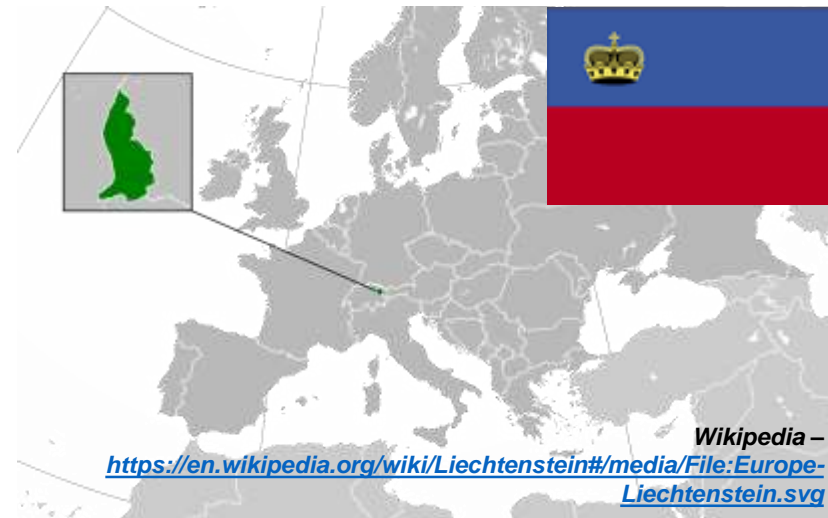


QRP Guys Tri-Band Vertical



# Lets Activate Liechtenstein

- Small country with ~~44~~ ~~45~~ **16** POTA parks and 9 SOTA summits
- Doubly landlocked – 6th smallest country (62 square miles) – pop. < 39,000
- Results: 15/16 parks, 1/9 summits – 304 QSOs.  
Several ATNOs





# Liechtenstein QSOs







**Elevated deer blind “shack”**



**Different operating positions**



**AFVL club remote contest station**





Looking NW at the Rhine river valley



Naafkopf  
HB0/LI-002 – 8432ft



Augstenberg  
HB0/LI-004 – 7740ft



# Čerchov, Czechia

- Highest point in the Upper Palatine Forest of Czechia (1042m, OK/PL-088)
- Summit was used by the Wehrmacht and the Warsaw Pact for surveillance (2km from German border)
- Two towers, built in 1904 and 1987, among other structures
- Home to the OL3Y contest station (VHF)



Google – <https://peakvisor.com/photo/Upper-Palatine-Forest-Cerchov.jpg>



QRZ – [https://cdn-bio.qrz.com/y/ol3y/anteny\\_strrecha.jpg?p=ce57e38738af655fce5d04255b2fb01a](https://cdn-bio.qrz.com/y/ol3y/anteny_strrecha.jpg?p=ce57e38738af655fce5d04255b2fb01a)



# Naxos, Greece

- Largest island is the Cyclades
- Hiked & activated Mt Zas, highest point in the Cyclades islands (SV/AG-001)
- Midnight activation of Sagkriou Naxou National Wildlife Refuge (SV-0191)





# Shumen, Bulgaria

- Shumen dates to ancient times
- Founders of the Bulgarian State monument – 1300 year history of Bulgaria, can be seen for 30km
- Activated two POTA parks on the Shumen Plateau (LZ-0014 / LZ-0025)









# Lessons From My European Vacation

- Simple kit is better, practice to become familiar
- FT8 is not faster than SSB
- Being spotted = pileups (SOTAmāt)
- Research your planned operating sites in advance
- Be flexible – conditions change
- 10 watts is enough
- Utilize good resources:
  - DARC CEPT Guide (English version)
  - POTA/SOTA web sites
  - AllTrails, Earth, Protected Planet





# Every Day Is Field Day





# Backup Slides / Notes



# Links To Resources

- DARC Guide – <https://files.darc.de/index.php/s/CKT38kZP6miK7xf>
- CEPT Info – <http://www.arrl.org/cept>
- Parks On The Air – <https://parksontheair.com/>
- Summits On The Air – <https://www.sota.org.uk/>
- QRPer.com – <https://qrper.com/>
- SOTAmāt – <https://sotamat.com/>
- SOTABeams – <https://www.sotabeams.co.uk/>
- AllTrails – <https://www.alltrails.com/>
- Protected Planet – <https://www.protectedplanet.net/en>



# QRP Station Details

## Self Contained Xiegu X6100 QRP Station



- ① Semi-hard side zippered case
- ② SP4 POTA/SOTA paddles
- ③ Xiegu X6100 QRP transceiver
- ④ Earbuds / Moleskine notebook
- ⑤ K6ARK EFRW antenna, custom winder
- ⑥ GPS dongle and USB cable
- ⑦ Bioenno 3Ah LiFePO4 battery
- ⑧ Arborist throwline kit
- ⑨ RG316 feedline with choke / band plan



# QRP Station Details

## Portable Mast and Antenna Kit



- ① Stakes and DIY mast base spike
- ② K4ZSR “Credit Card” EFHW antenna
- ③ SOTABeams Carbon 6 mast
- ④ Decathlon storage pouch
- ⑤ Miscellaneous antenna kit items
- ⑥ 80m extension coil (tuned ~3.6mHz)
- ⑦ K4ZSR 40-10m EFHW, links for 17m and 30m

+ Microsoft Surface Go 2 tablet  
+ RigExpert Stick 500 analyzer