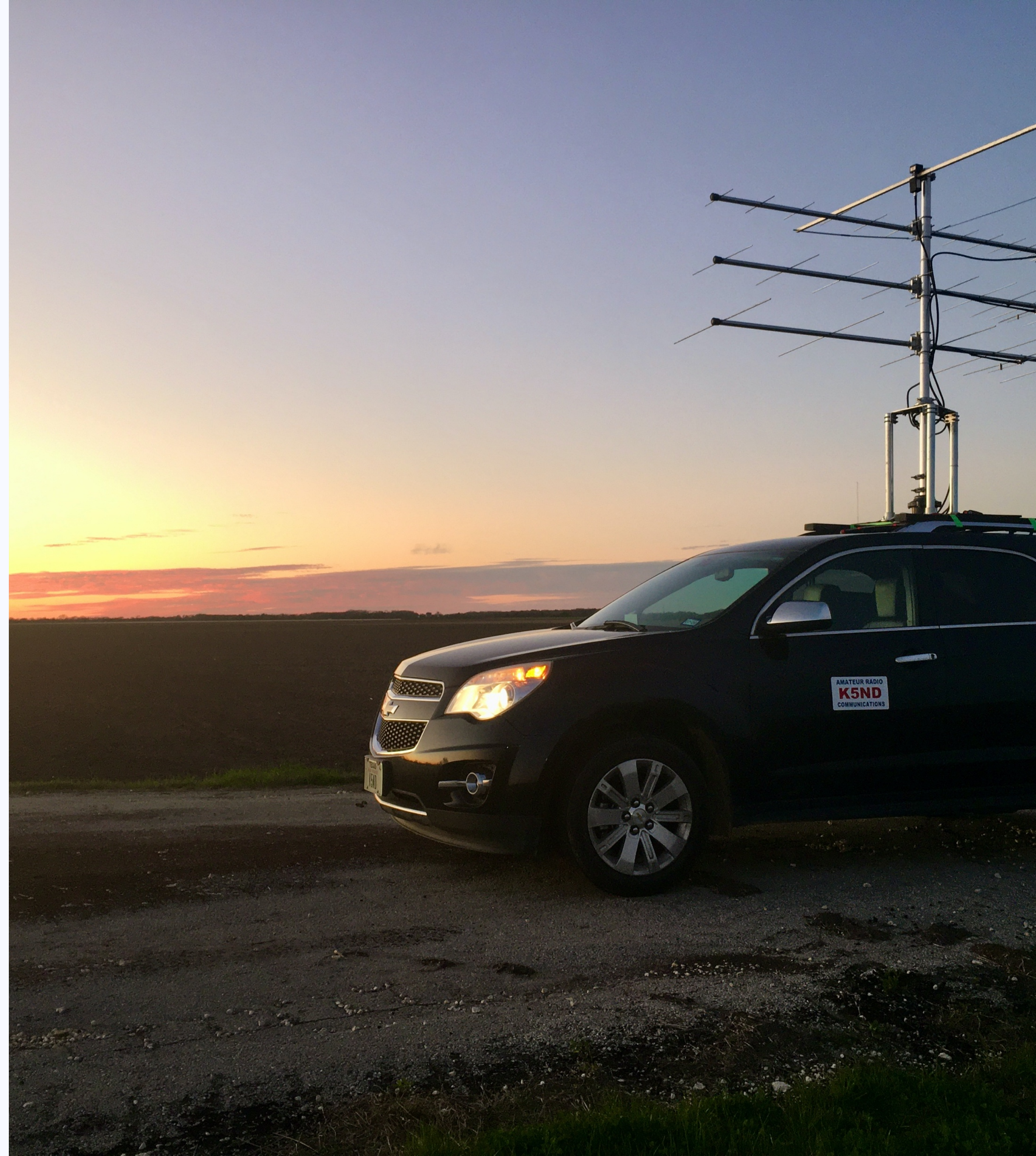


VHF Contesting K5ND

*Magic Bands with Super Results
from Average Stations
— Joel Harrison, W5ZN*

www.k5nd.radio



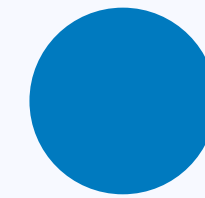


About K5ND

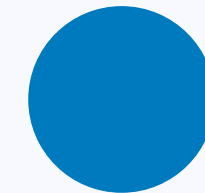
- Writer Heathkit Home Study Courses
National Contest Journal
QST and 73 Magazines
- Blogger www.K5ND.radio
Icom America and FB News
LinkedIn Career Topics
- Scouter K2BSA Past President/Trustee
National and World Jamboree Team Lead
Member World Jamboree on the Air Team

Joys of Contesting aka Radiosport

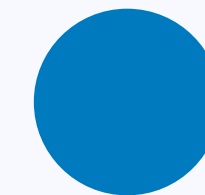
High Levels of Activity
DXCC in a Weekend
Without the Pileups



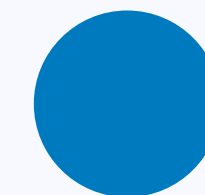
More Stations, More Activity



Pick up DXCC and VUCC



Competition in Categories



Measured Improvement Over Time

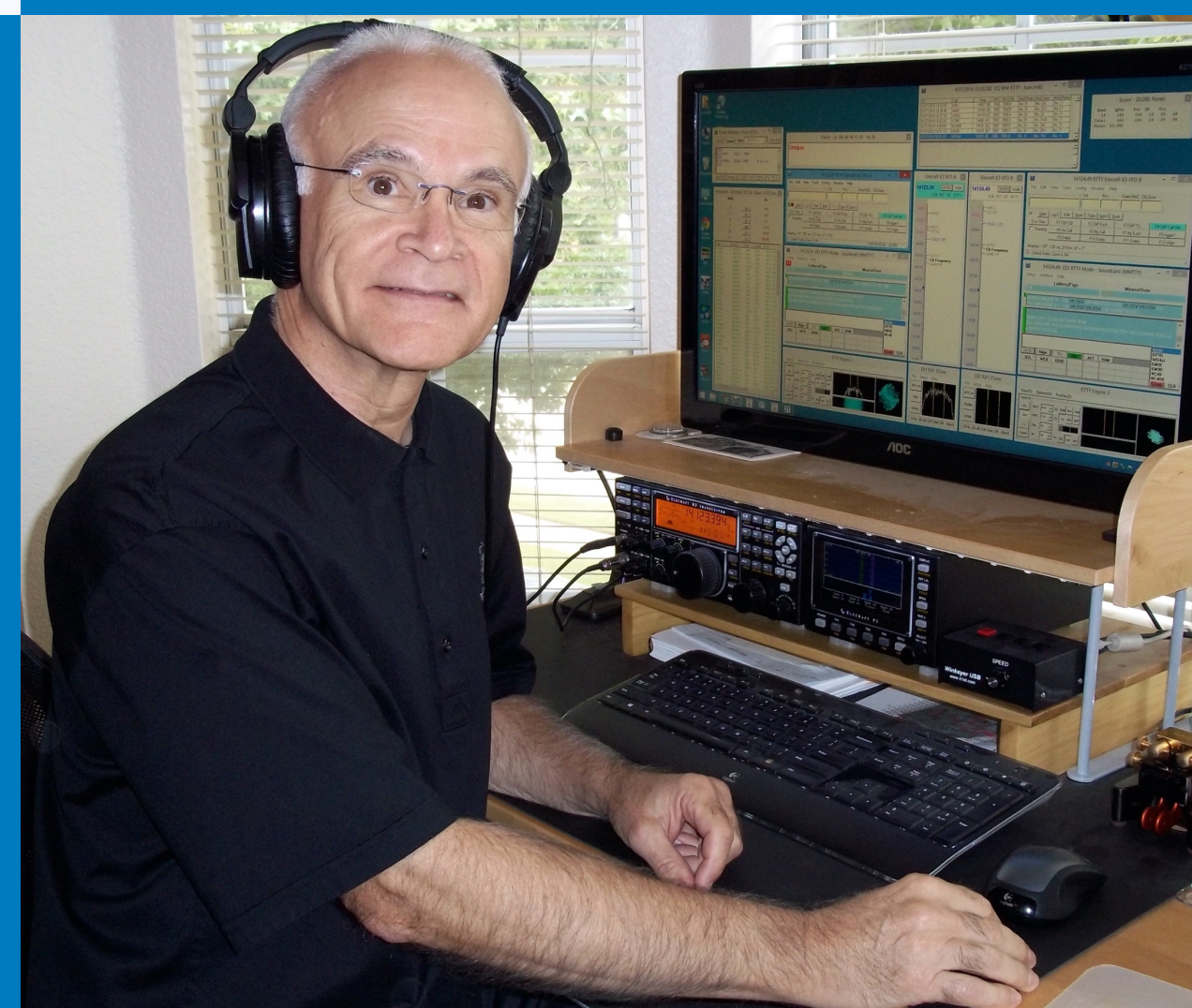
My Contesting Journey

VHF
VUCC
SO3B - Roving



CW & RTTY

DXCC
Score Improvement
Category Search



VHF Contesting



Small Antennas

Lots of options for antennas with high gain and low height



Power Levels Not Overly Critical

Primarily places you in the low- or high-power category



Small Group of Competitors

CQ WW SSB Contest 38,000+ entries

CQ WW VHF Contest 750+ entries



Modes Don't Matter

Any mode works for a QSO — SSB, CW, WSJT-X, FM

No separate category for mode of operation

Contest Listing



ARRL January, June, and September

June is the big contest with the most chance of 6 meter openings



CQ WW VHF July

Only 6 and 2 meters. Different rules.



Saturday afternoon to Sunday Evening

ARRL 33 hours, CQ 27 hours, rather than the typical 48 hour HF contests



Central States VHF Sprints — Spring and Fall

4-hour sprints by band

ARRL Contest Entry Categories

Single Operator

- Low Power (200/100/50 watts)
- High Power (exceeds low power)
- Portable (10 watts)
- 3-Band (50-144-432 – 100/50 watts)
- FM Only (low 4 bands, 100 watts)

Rover

- Classic Rover (two ops)
- Limited Rover (low 4 bands — 200/100 watts)
- Unlimited Rover (all bands, high power, multiple ops)

Multi-Operator

- Limited (4 bands maximum)
- Unlimited

Exchange is 4-digit Grid. Multipliers are total number of grids per band. QSO points 1 for 50/144, 2 for 222/432, 3 for 902/1296, 4 for 2.3 GHz and up.

Rovers also get 1 multiplier for each grid activated.

CQ WW VHF Contest

Entry Categories

- Single Op – All Band
- Single Op – Single Band
- Single Op – All Band QRP, 10 watts
- Hilltopper – QRP and 6 hours only
- Rover
- Multi Op

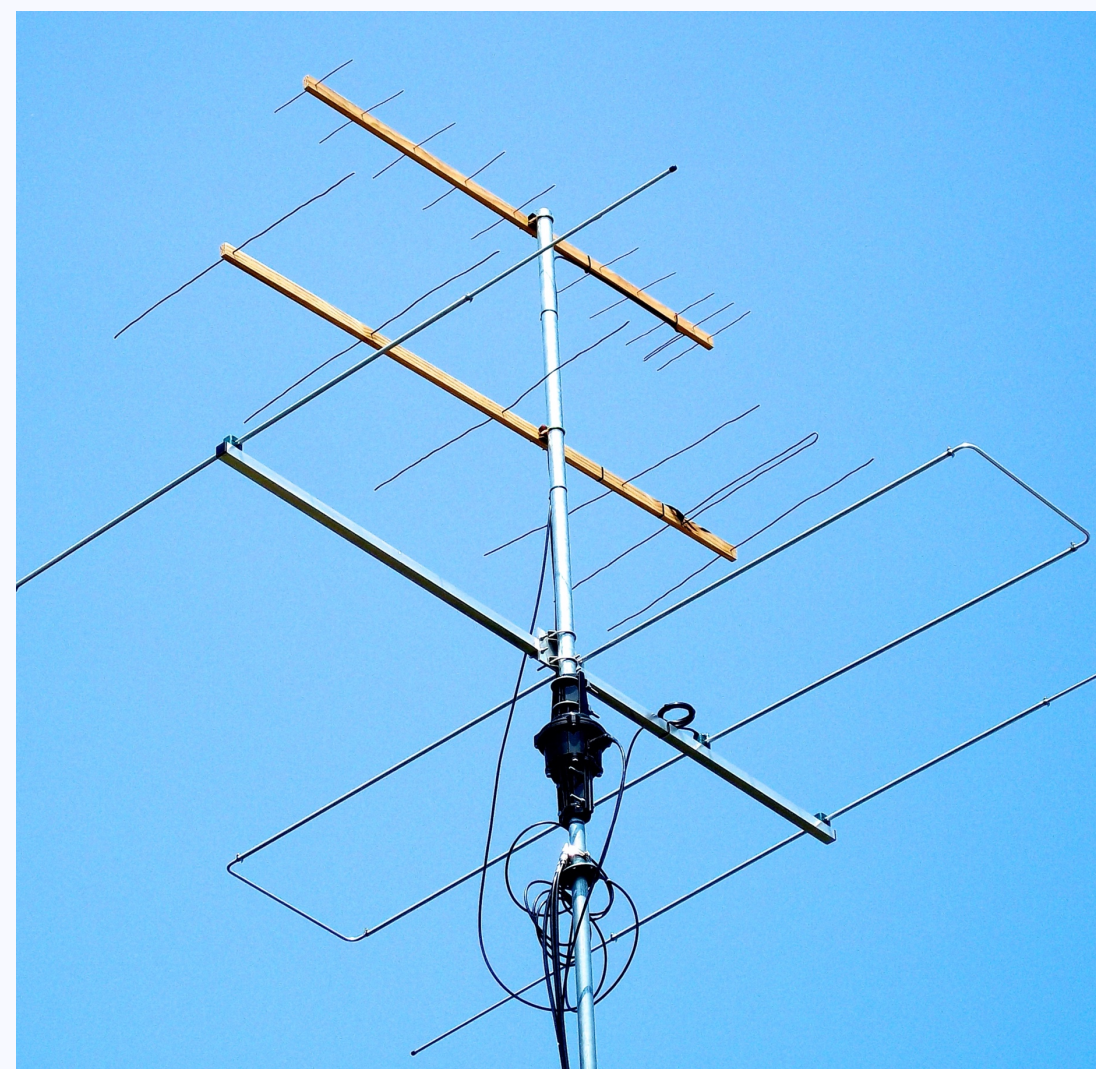
Assistance

- No self-spotting.
- EME and MS can spot frequency and sequence, only.
- Rovers can use APRS.
- No telephone or text.

Power and Bands

- No power categories other than QRP
- 6 and 2 meters only

Exchange is 4-digit Grid. Multipliers are total number of grids per band. QSO points 1 for 50 and 2 for 144.



Cheap Yagis
3-Element LFA



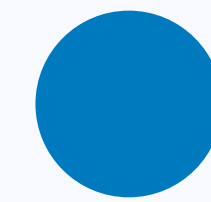
Stressed Moxon
6 meters



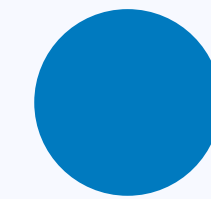
Simple Stations
Small Antennas

Average Stations Per W5ZN

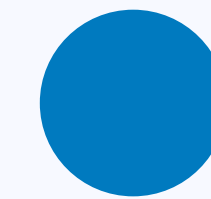
Insight provided by Joel W5ZN
at Contest University



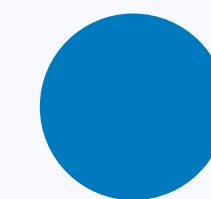
HF - 6 meter rig at 100 watts
3-element Yagi at 30 feet



2 meters greater than 50 watts
Yagi at 50 feet is outstanding



222 and 432 greater than 50 watts
Yagi at 50 feet and more elements



Preamps helpful at 6 and 2 meters
Essential on the higher bands

Propagation



Sporadic E

Primarily on 6 meters with spectacular results

Pray for Es during the Contest



Tropospheric Ducting

Can bring great results at 2 meters and above

Watch for this on Sunday mornings



Meteor Scatter

Can greatly extend your range on 6 and 2 meters

Early morning is best but can work at all times



Moon Bounce

Not for average stations but is used during the contest

Contest Strategy



Pick the Category that Fits You and Your Station

My first purpose is to have fun. The second is to generate a reasonable score and then compare from one contest to another.



More Bands — More Modes

The way to score points is to move stations to your higher bands with more points. More modes can help you find more stations.



WSJT-X is Now a Must Have Mode

SSB and CW are the mode for running stations when the bands are open. Most are in FT8 and some MSK144.



Butt in Chair is Critical in All Contesting

If you're not in front of your station, you're not working QSOs and multipliers. Even so, nights on VHF contests are generally dead.

Operating Practices

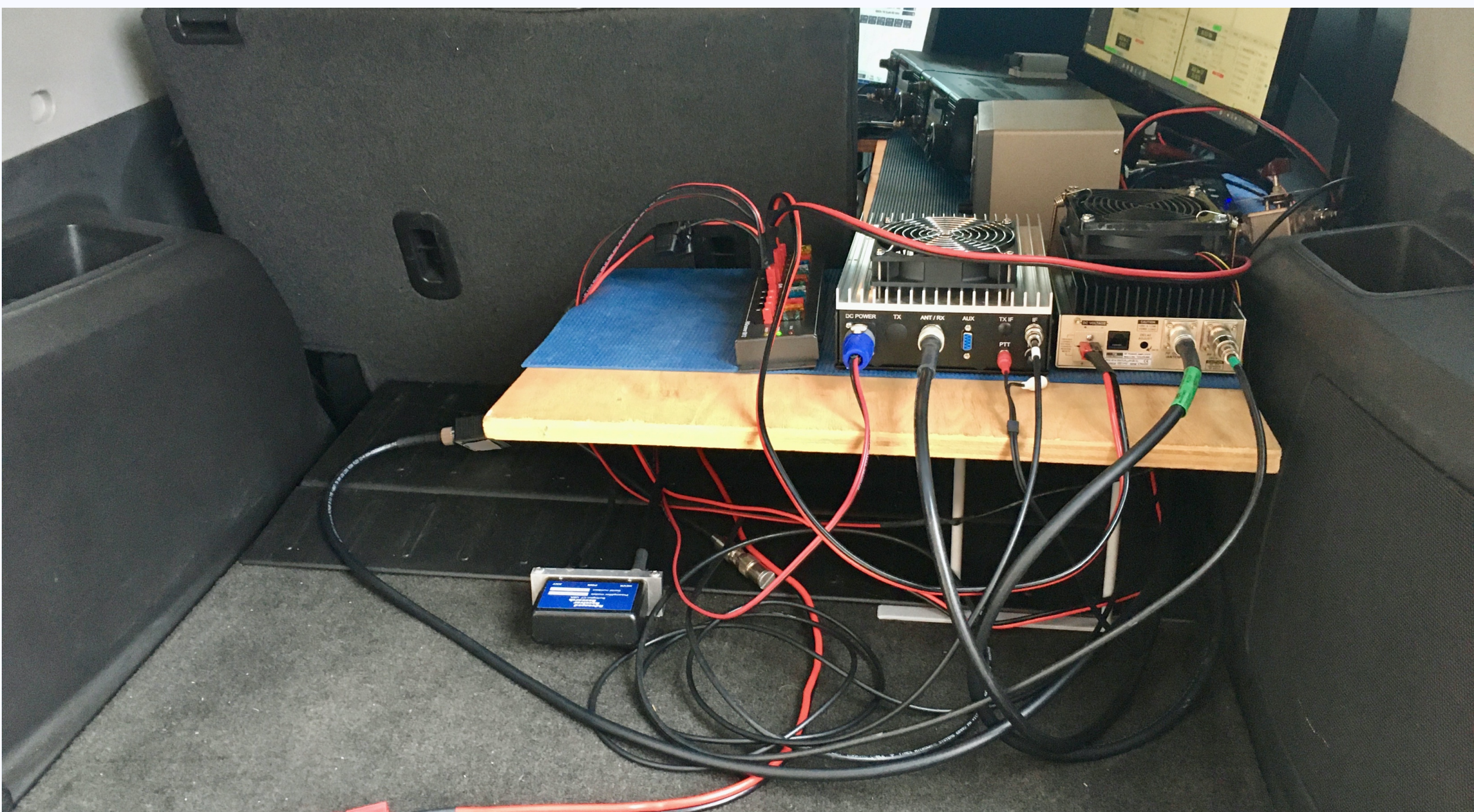
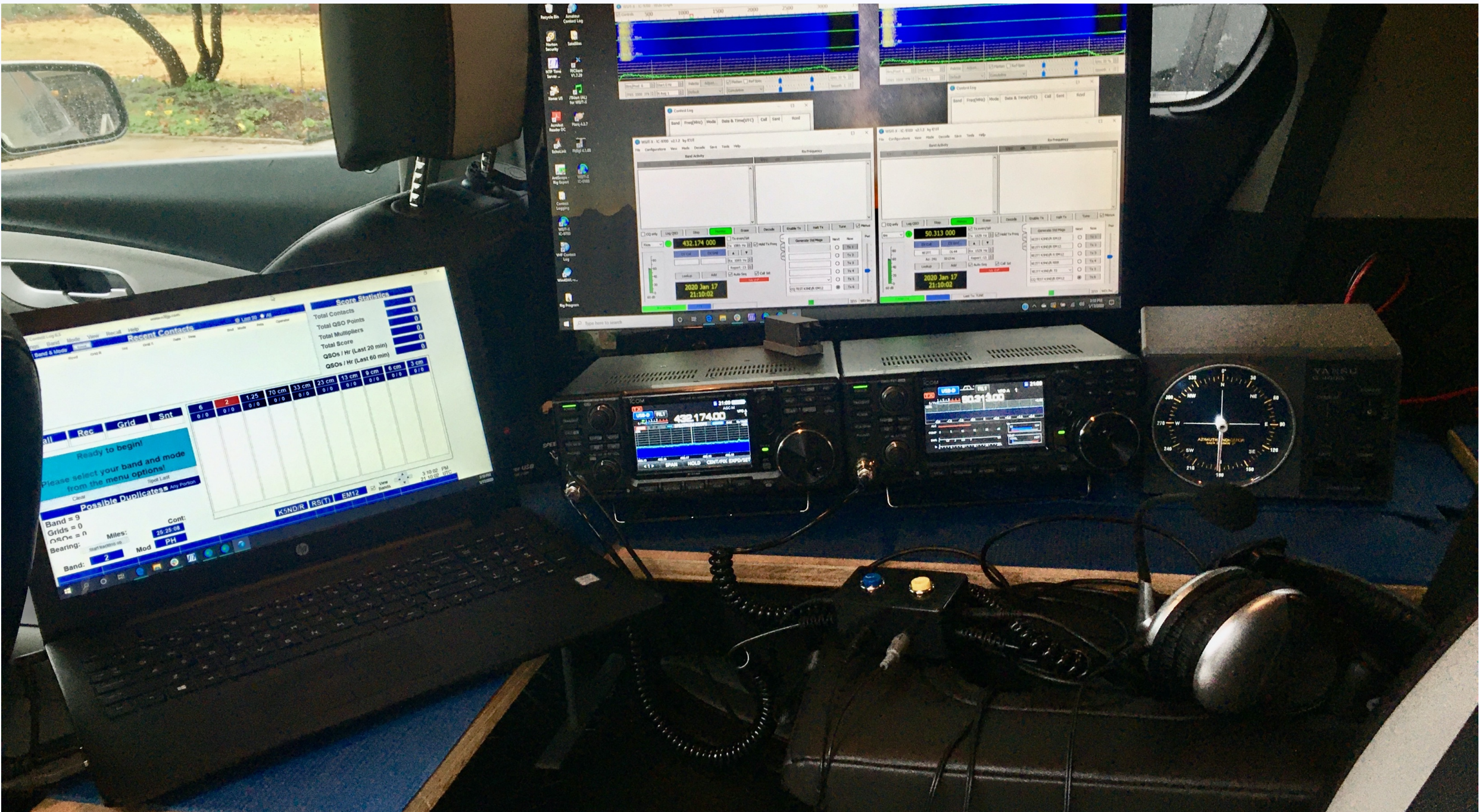
- ✓ 2 meters is the go-to meeting place. If 6 meters is open, work as many stations as possible there.

✓ Move Stations to Other Bands for points.

- ✓ Accurately pointing your antennas is critical at VHF-UHF.

- ✓ Sunday Morning Tropo and Meteor Scatter can add multipliers.





Current Version
K5ND / R

There's More!
There's Always More.

Contest University

Tomorrow Online

All Past Presentations

<https://www.contestuniversity.com/files/>

<https://www.contestuniversity.com/videos/>

Central States VHF Society

Organizes Sprints

Annual Conference

<https://www.csvhfs.org>

VHF Super Conference

Held Every Two Years

Next is April 2021

<https://vhfsuperconference.com>

Email Lists

VHF Contesting

WSJT-X

ARRL Contest Update



Further Reading

- ✓ National Contest Journal
 - VHF-UHF Contesting! Column by NØJK
 - K5ND's VHF Limited Rover Experience, Jan/Feb 2020
 - Magic Band. Magic Contesting, May/June 2020
 - VHF Contest Rover Experience, K5GJ, May/June and July/August 2019
 - K5ND's VHF Rover Setup – In Depth Review, late 2020

- ✓ QST Magazine
 - World Above 50 MHz Column by NØJK
 - Introduction to VHF+ Roving, May 2019

- ✓ K5ND Blog Posts
 - VHF Topics and Contest Plans / Reports



Watch for K5ND / R During the Contests