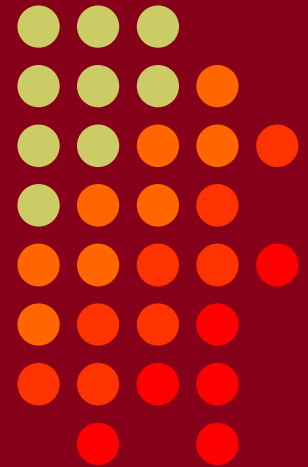


Teamwork and Multi-Operator Innovations

CTU Presents



• CTU •
CONTEST
UNIVERSITY

ICOM®

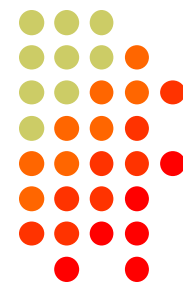
Who is ND7K?



- A brand-new station in Central Arizona built to push the limits of Western United States contesting

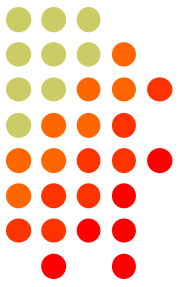


Accomplishments



- CQ WW SSB 2020 M2 #1 North America
- SS CW 2020 MS #1 (Missed record by 1 Qso)
- SS Phone 2020 MS #1
- CQ WPX SSB 2021 M/M #1 North America
- CQ WPX CW 2021 M/M #1 North America
- IARU SO CW HP 2021 #1 US/Canada
- CQ WPX SSB 2022 M2 #1 North America (claimed)

Questions you might have:



- Who the heck are you?
- How did you do this?
- ***Wait, you're not in Maine?!***

About me:



- Tim Coker, N6WIN
- Licensed in 1989
- Had a modest station on 1/8 acre in a Los Angeles suburb
- Retired Firearms Instructor (not an engineer)
- ***Didn't initially plan on building a superstation***
- ***Definitely didn't think these results were even possible from Arizona***



This guy:



- Dan Craig, N6MJ / ZF2MJ (when he's not at TI7W)
- Occasionally wins contests
- Manages to convince me that perhaps I could “go big” and build a competitive station at my new QTH
- “People would travel from all over the place to operate your station...” he says
- “... you just need the following 50 antennas, radios, amplifiers, and a bunch of other stuff.” Recruits several others to cheer me on.



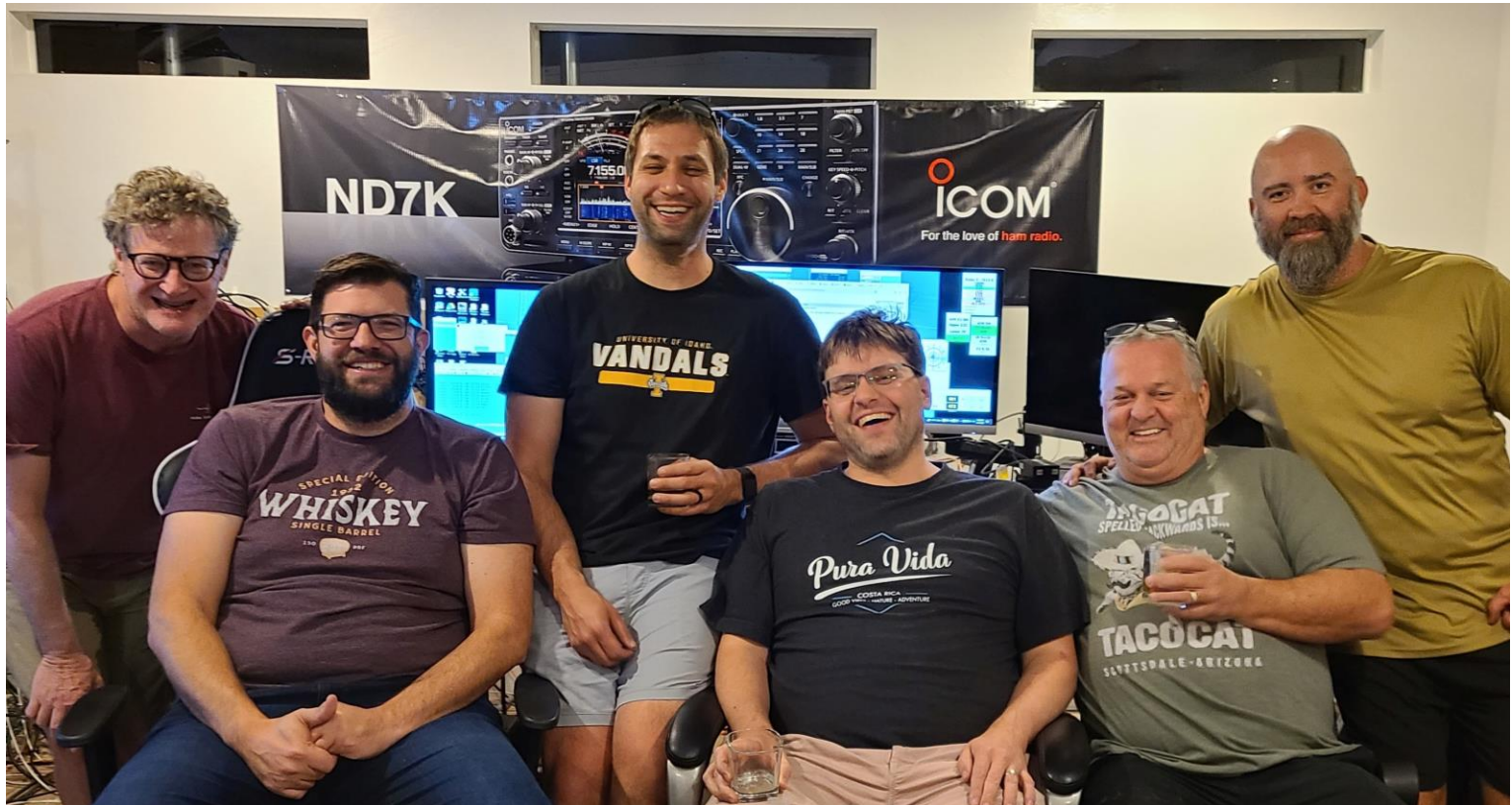


Today's Talk

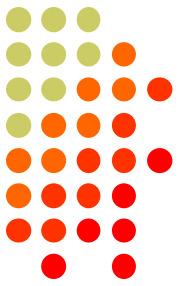
- We could spend hours on how the station came to be, the antennas, the design decisions, the construction, the neighbors, the permits.
 - *All very important, great topics for another talk*
- *But what can I tell you in 30 minutes about*
 - *Teamwork?*
 - *Operator Scheduling?*
 - *Shack Technology?*



Teamwork



Recruiting



- **N6MJ solicits team members**
- **Each contest in mind**
- **Desired category**
- **Teamwork abilities**
- **Personal traits**

Schedule



- **Based on category**
- **Operator strengths & weaknesses**
- **Run and inband listed**
- **Previous logs studied**
- **Expected conditions considered**
- *** on inband slots that are ok to miss (rest)**

Station Boot Camp



- Friday morning start
- Antenna walk
- Team Captain briefing
- Try to break stuff
- Train inband





Technology



K6AM Skunkworkz



- **Small, simple, purpose-built black boxes perfected by K6AM at W6YI, ZF1A, and other locations**
 - **Audio sharing**
 - **Interlocked radios**
 - **Transfer switches**
- **No microcontrollers or software (completely reliable)**
- **Works with almost any radio**



K6AM Skunkworkz Audio Box

- **2BSIQ Mode**
 - Both
 - Left
 - Right
- **Manual Mode**
 - Multi's
 - Weak signals
 - One radio



K6AM Skunkworkz Lockout Box



- **PTT Lockout**
 - 3 Radio
 - Partner Mode



K6AM Skunkworkz Xfer Switch



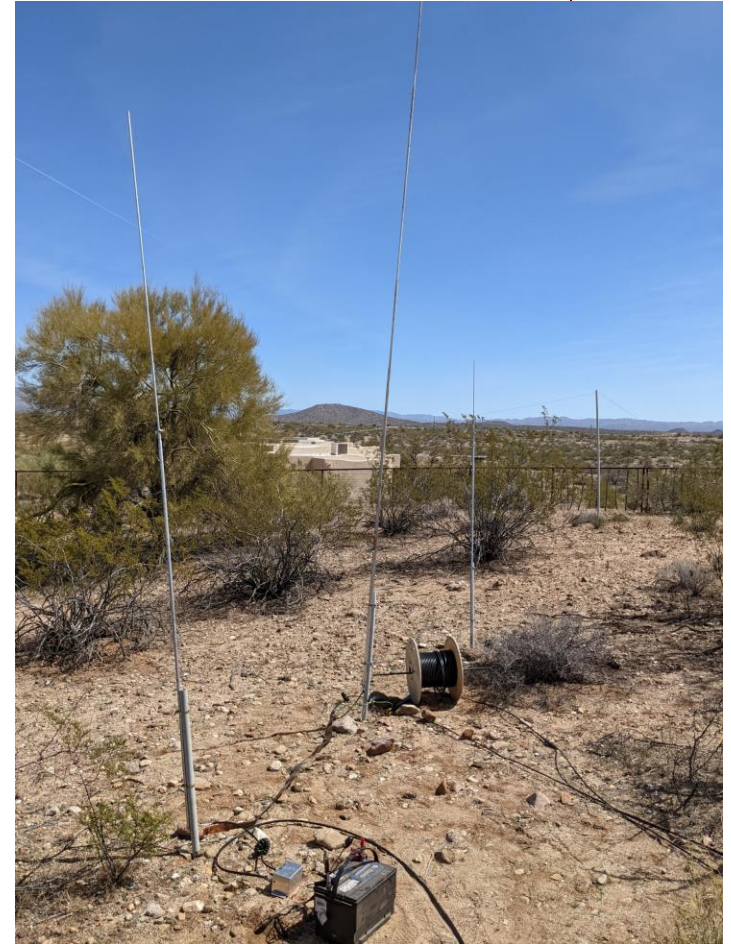
- **Transfer Switch**
 - Run
 - Mult (out of band)





Inband RX Antennas

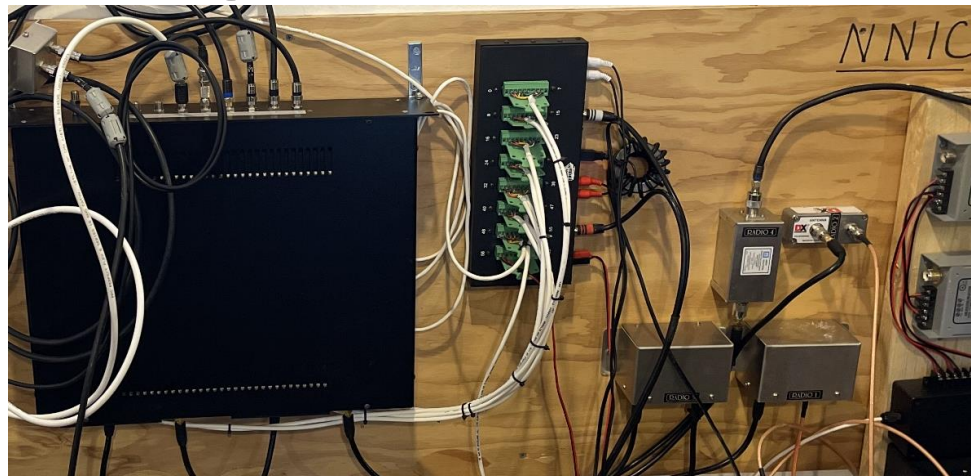
- **RX Verticals 600' East**
- **Beverages 580' length**
- **Coax buried & choked**
- **Preamps only if needed**



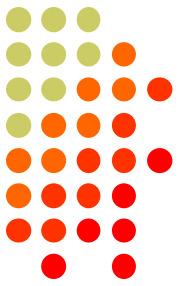
MOAS / K9AY Receive Switching



- **Mother Of All Switches (K1XM)**
- **RX antenna selection at every operating position**
- **Band-Pass Filters for 40/80/160M**
- **DX Engineering RX Guards**



Green Heron Engineering



- **GH Everywhere**
- **Per-band menu selection of TX antennas**
- **Available at every operating position**
- **With so many antennas, very intimidating to new operators**



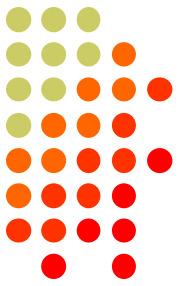
What's Next? Simplification



- Streamdecks
- MOAS for TX & RX



Post Contest Dinner



Comaraderie
Relive the contest
Tradition

