DCARC 2025 Winter Field Day (Jan 25 & 26, 2025)

Operating goals:

1. Operate all 30 hours.
    a. Starts at 11:00AM EST (16:00 UTC) Saturday
    b. Ends at 4:59PM EST (21:59 UTC) Sunday
2. Keep all 3 radios manned and making contacts.
3. Operate on all 6 bands: 160m/80m/40m/20m/15m/10m/6m/2m/70cm√
4. Make at least one contact with each mode (CW/phone/digital) on every band.
5. Achieve every multiplier available (√ means we are doing this)
    a. Operate 100% on alternate power√
    b. Operate away from home√
    c. Deploy multiple antennas√
    d. Make an FM satellite contact ← need someone to do this
    e. Make a SSB or CW satellite contact ← need someone to do this
    f. Send and receive at least one Winlink email (WB3ISP)
    g. Copy the special bulletin (W6BXQ)
    h. Operate on at least on at least 6 bands√
    ~~i. Operate QRP~~
    j. Operate six continuous hours√
    k. Make at least one contact via each of the 3 modes on every band

Operating modes:

1. Phone: The end result is voice (1 point for each contact):
    a. SSB
    b. FM
    c. AM
    d. DMR, …
2. CW: End result is text (2 points for each contact)
3. Digital: End result is text or a picture (2 points for each contact):
    a. JS8CALL ← is there someone who will learn how to use this?
    b. RTTY: The ic-7300 has a built in RTTY decoder and keyer
        i. The ic-7300 has a built in RTTY decoder and keyer. EHG made 167 RTTY contacts last weekend using the built-in ability of the IC-7610 so we can do it for the IC-7300.
        ii. The IC-7100 has some RTTY ability, EHG has details on how his personal 7100 is configured we can try duplicating
    c. PSK: needs software on the laptop.
    d. FT4/FT8 are not allowed for this event

WFD Category:

1. We will operate as a **3M** station:
    a. The **3** means we will have 3 stations which allows our multiplier station in the building to operate without disturbing the two stations in the trailer
    b. The **M** means we are in a potentially mobile structure like a cargo trailer (as defined in the WFD SOP)
        i. We will consider the station in the building as simulating a "tent" outside the trailer. It will be powered by either our generator or the borrowed inverter.
            1. If Jeff gets the solar panels and controller on his mobile station we can use that.

Current status (2025-01-06):

1. Only two people have scheduled operating time
2. The trailer is ready to have radios and laptops put in place
3. The beam is on the tower but not complete and not in the air
    a. Move the rotator rope to the north end of the beam
4. Neil is splitting the 80m/40m Vees into 2 separate antennas
    a. They get mounted to the Percolator
        i. The Percolator needs to be repaired
5. Tony (W6TNY) has started mounting a pushup mast to a fence post and putting up a 160m Vee
6. To be done:
    a. Install radios and check for RFI – we had a problem at the last event. May have to run ground from the radios to the ground rod system
    b. Pull coax & CAT 5 cables through the buried PVC, cut and install PL-259 connectors
        i. All outside coax will enter the trailer via the hole in the floor and will connect directly to the filter input for that band.
            1. The thru-wall barrel connectors will not be used because water seeped into the coax that was previously connected to them, ruining part of the coax.
    c. Put up the 2m/70cm vertical on the tower (multipliers)
        i. Fed by RG-213 or Belden 9913 for lower loss
        ii. We'd
    d. Put up the 1.25m ground plane somewhere (multipliers)

         i. Fed by RG-213 or Belden 9913 for lower loss
         ii.
   e. Put up the 6m Ringo, on Jeff's mobile station?
   f. Put the antennas in the air
   g. Terminate coax as needed for the new lengths
   h. Network the laptops and desktop
   i. Install and configure n1mm+ on 3 laptops and the desktop
   j. N1mm+ training via Zoom (Jeff) [When? Tuesday Jan 13 at 7PM?]
   k. Exchange the trailer's solar panels and their controller for the higher powered ones if there is time

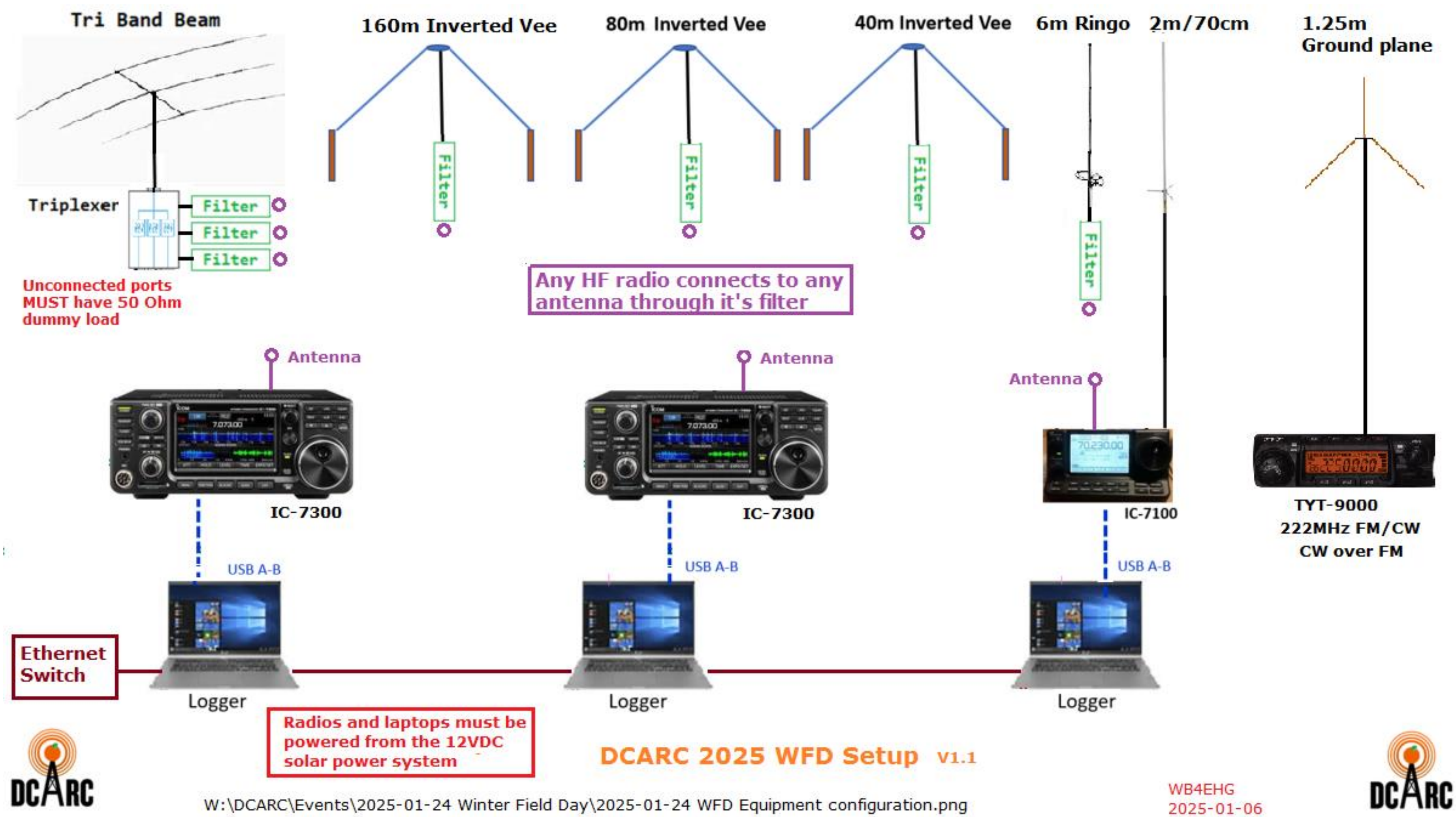
Stations:

1. Two stations in the trailer for operators and loggers ONLY
   a. Both IC-7300 transceivers
2. One station in the building to be used for multipliers, demos, training and if nothing else to operate as a 3rd station. It will make the VHF/UHF contacts
3. All HF and the 6m antenna have filters mounted on the trailer wall, they must be used!
4. There are Heil headsets and foot operated PTT switches for all stations

Social goals:

1. Member participation and education.
2. The picnic aspect to encourage participation and encourage families to attend.
3. Give away's? Prize drawings?
4. Fun!

Station block diagram:


Tri Band Beam
160m Inverted Vee
80m Inverted Vee
40m Inverted Vee
6m Ringo
2m/70cm
1.25m
Ground plane
Triplexer
Filter
Filter
Filter
Filter
Filter
Filter
Filter
Unconnected ports
MUST have 50 Ohm
dummy load
Any HF radio connects to any
antenna through it's filter
Antenna
Antenna
Antenna
IC-7300
IC-7300
IC-7100
TYT-9000
222MHz FM/CW
CW over FM
USB A-B
USB A-B
USB A-B
Ethernet
Switch
Logger
Logger
Logger
Radios and laptops must be
powered from the 12VDC
solar power system
DCARC 2025 WFD Setup v1.1
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WB4EHG
2025-01-06