



# WINTER FIELD DAY 2024

# Winter Field Day 2025

- Save the date **January 25<sup>th</sup> & 26<sup>th</sup> 2025**
  - **Saturday 10AM to Sunday 5PM** (30Hours)
- Fred and Anita have opened their station for our use this WFD.
- **As a reminder Winter Field Day Does not allow FT-4 or FT-8**
- **Limited to 100 watts PEP max**

# Objectives & Multipliers

- 100% Alternative power
    - Generator, Batteries, solar, wind
  - Operate away from home
  - Deploy multiple antennas
  - Make an FM satellite contact
  - Make a SSB or CW Satellite Contact
  - Send and receive at least one Winlink email
  - Copy the Winter Field Day Special Bulletin
  - Operate on at least six different bands
    - **160M, 80M, 40M, 20M, 15M, 10M, 6M, 2M,**
  - Use multiple modes
  - Operate the event QRP
    - CW& digital 5W / Phone 10W
  - Operate six continuous hours during the event
- OMx1**  
**OMx3**  
**OMx1**  
**OMx2**  
**OMx3**  
**OMx1**  
**OMx1**  
**OMx6**  
  
**OMx2**  
  
**OMx4**  
**OMx2**

# QSO Points

- CW & Digital count as 2 points for each contact.
- Phone is only 1 point each
- QSO points times the sum of your multipliers
- Exchange call sign, category #, Class, State
  - N1FD 3H NH (example)



# Winter Field Day Meetings

- First planning meeting 11 Dec 2024 7PM
  - Discuss Objections & Multipliers
  - Operator signup sheet
- Next planning meeting 8 Jan 2024 7PM
- Site visit working meeting 11 Jan 2025 9AM
  - Training to operate radios
- Winter Field Day “Day 1” 25 Jan 2025 10AM
- Winter Field Day “Day 2” 26 Jan 2025 5PM



# **AB1OC-AB1QB**

## **CONTEST/DX STATION**

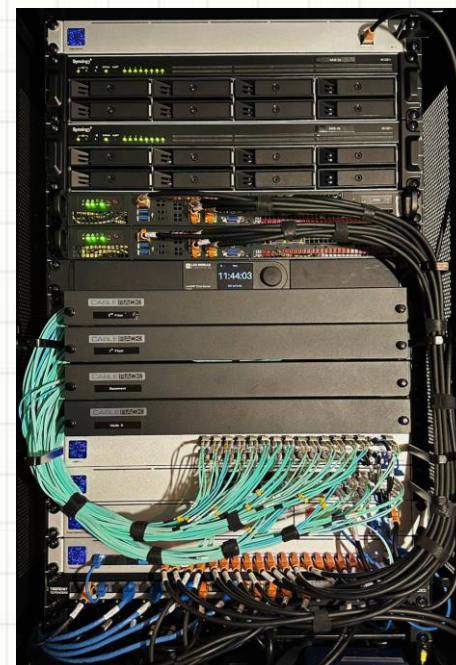
Anita & Fred Kemmerer, AB1QB/AB1OC  
December 2024



# AB1OC-AB1QB Station Tour



- Two Operators, two radios each
- QRV all bands 160m – 23cm
- All Modes – Phone, CW, and Digital
- QRP to QRO 160m – 2m
- Satellite Ground Station
- APRS iGate, ATV on 70cm, 2m EME
- Remote Operation via Internet
- Optical Network, GDSO Clock and Frequency Reference





# Towers and Related Equipment

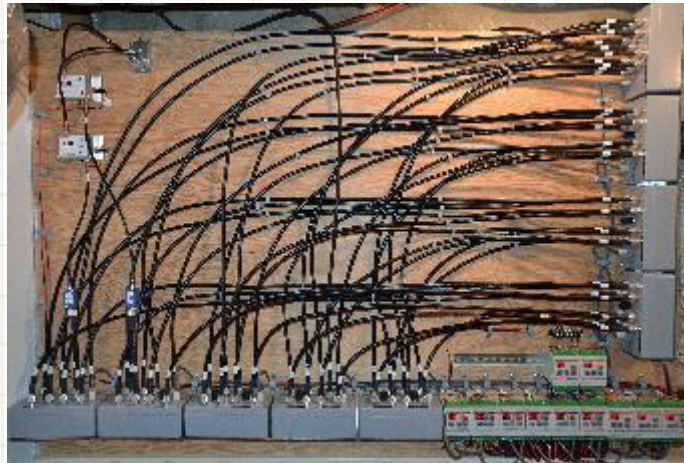


- Main Tower – 100 ft Rohn 55G
  - 2 x SteppIR DB36 Yagi Stack
  - 4 x 3 el 6m Yagi Stacks, 7 el. 6m Yagi
  - 160m Inv-L., 80m Loop
  - 2m and 70cm Yagis at 120 ft+
- Satellite Tower – 40 ft Rohn 45G
  - 2m/70cm/23cm Satellite Array
  - 7 el. 6m Yagi
- EME Tower – 112 Elements on 2m
- Preamps and Remote Switching on Towers





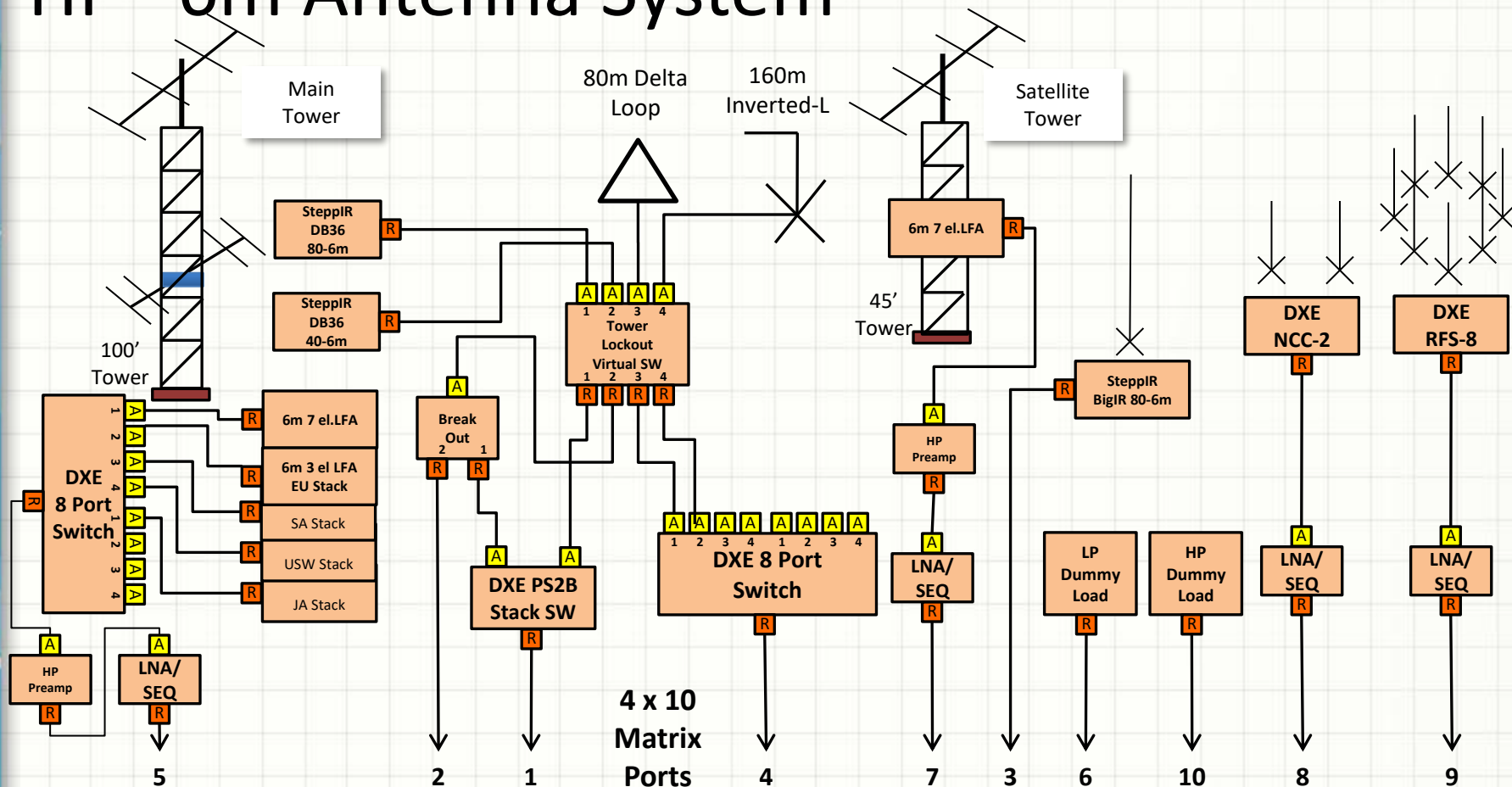
# Additional Antennas & Equipment



- SteppIR BigIR Vertical – 80m – 6m
- 8-Circle Directional Recv. Antenna – 160m/80m
- 2 Element Phased Recv. Antenna – 160m/80m
- 10 x 4 Antenna Switching Matrix
- microHam Station Control System



# HF - 6m Antenna System



Matrix Port8	Antenna	Tx/Rx
1	SteppIR DB36+0/6m Beam on Tower	Both
2	SteppIR DB36+40/6m Beam on Tower	Both
3	SteppIR Vertical (80m-6m)	Both
4	Wire Antennas on Tower (80m Delta Loop + 160m Inverted-L)	Both

Matrix Port	Antenna	Tx/Rx
5	6m Yagis Main Tower, 7 el LFA, 14 x 3 el. LFAs in 4 stacks	Both
7	6m Yagi Satellite Tower, 7 el LFA	Both
8	160m – 80m Phased Recv. System	Rx
9	160m – 80m Recv. Ant, 8-circle	Rx
6, 10	Low and High Power Dummy Load	Both



# Outline for tonight

- Get Team Approval of Location
- Review Objective
- Review the rules and note changes from last year
- Decide # Stations and Class
- Insurance for activity?
- Use of Fred's computers or club laptops
- N1MM+ setup for WFD
- Getting more club members involved
- Food for the group
- Record action items

# Considerations

- Fred and Anita okay for overnight operations? (6 hours bonus)
- Use of Fred's generators... cost to club...
  - Or use commercial power
- Bring your own headsets/CW Key/etc
- Get the recent graduates involved
- Live stream the operations?



# Winter Field Day Objectives

- Primary
  - Developing skills to meet the challenges of emergency preparedness
  - Send WinLink email via RF
  - To give newly licensed members experience in operating.
- Education of new capabilities
  - Satellite, SSB, messaging
  - Making contacts in a target rich environment
- Secondary
  - Making points

- **Operational Period:** Winter Field Day is held the last full weekend in January. For 2025, it will be held on **January 25th and 26th. The 30-hour operational period starts at 1600 UTC on Saturday (11 am EST), the 25th, and ends at 21:59 UTC on Sunday, the 26th (4:59 pm EST).** Stations may begin setting up no earlier than 16:00 UTC (11 pm EST) on the Friday before. However, cumulative set-up time shall not exceed 12 hours.
- **Location Restraints:** A multi-station WFD operation must ensure all stations **operating under a single call sign are located in the same physical area.** All station equipment, including antennas, feed lines, and accessories used, must be located within a circular area whose diameter does not exceed 1,000 feet (300m). This 1,000 ft area does not have to remain constant throughout the event<sup>1</sup>.



- **Category:** A number designated by the **number of transceivers (stations)** at your location that are capable of transmitting simultaneously. 1, 2, 3, etc. This means you have the people needed to operate the number of transmitters you choose. Include all HF, VHF, and UHF transceivers. Don't count a station if it must be left unattended while you make contacts on another. If you decide to operate a satellite station, the **satellite station does not increase your category number.**
- **Class:** You must choose which class you will operate in. If you are operating as a group under one call sign, choose the class that applies to the majority of the stations at your field day site.

- **Class Options:**
- **H** - Home station: is defined as any station participating from inside their permanent livable residence.
- **I** - Indoor station: is defined as any station operating away from Home but from inside an insulated, weather protected building or structure on a permanent foundation. Indoor stations typically have plumbing, heating/cooling, and running water. Church, EOCs, a club shack, a cabin, and community centers are all examples of an Indoor station.
- **O** - Outdoor station: Outdoor stations operate from a partly or fully exposed building or shelter that does not typically have plumbing, heating/cooling, or running water available. Operating from a picnic table, park pavilion, tents, or under pop-up canopies are all places that could be considered Outdoor. These are locations where you may have to provide your own heat source and/or protection from the elements.
- **M** - Mobile / Mobile Stationary: These stations are defined as operations from a mobile or potentially mobile structure like an RV, car, van, sailboat, cargo trailer, mobile EOC, ETC. These are operating positions that may offer some sort of built-in heating/cooling. Mobile Stations do not have to be mobile during the event. They are defined as having the ability to be mobile should it be necessary to move during the event. RVs and Cargo trailers with external antennas set up are still considered Mobile.

- **Location Identifier:** US and Canadian stations will use the ARRL / RAC Section as designated by those organizations. **Mexico stations will use MX**, and all other **stations outside of the US will use DX**.
- **Additional Information:** The goal is to accurately copy and record the full exchange. Your Category, Class, and Location Identifiers must remain the same throughout the whole event. If your location changes sections during the event, such as a long-haul trucker, your section is the first section you made a contact from. For example, if you are operating with two people using two transmitters from an RV in Arizona, your exchange would be 2M Arizona. Signal reports and other additional information are not a required part of the exchange; however, it is encouraged to practice exchanging additional information, which may include-signal reports, county location, grid square, temperature, weather conditions, antenna configurations, etc. In an emergency, you may be asked to relay anything from a list of supplies to GPS coordinates. Collecting and correctly copying down this information is an important skill that should be practiced during Winter Field Day.



- Bands: All Amateur bands may be used except 12, 17, 30, and 60 meters.
- To qualify as a band worked, **at least one valid, two-way QSO** must have taken place on the said band during the contest.
- Modes: All modes, CW, Phone, and Digital, may be used. Phone includes SSB, AM, FM, DMR, C4FM, etc. If the end result is voice, it's Phone. Digital includes PSK, RTTY, Olivia, Packet, SSTV, ATV, JS8Call, and other soundcard modes **except for FT4 & FT8**. If the end result is text or a picture, it's digital.
- QSO Points: Phone contacts count as one point each, and all CW and digital modes count as two points each.
  - You may only contact other field day stations a maximum of **three times per band but only once per mode**.
    - So K4FUN may be contacted on 20m using Phone, CW, and digital for a total of five Points (one point for Phone, two points for CW, and two points for digital).

- **Objective & Multipliers:** More than points, achieving objectives should be your primary goal during WFD, these objectives, combined with your own, should be your main focus during the exercise. As an incentive to focus on objectives, an Objective Multiplier (OM) has been assigned to each objective. To calculate an overall score, we will take your QSO Points and times them by your total OM. We will also record and track the percentage of objectives completed. A great way to see overall how you did from year to year.
- **Operate 100% on alternative power:** Operate exclusively on alternative power, defined as any power source not connected to the commercial power grid. You may use generators, batteries, solar power, wind power, or anything else. All batteries, whether in use or charging, should only be recharged using alternative power. WFD stations should run all station equipment, accessories, or heaters from an alternate power source. Logging-only computers or lights are the exception, and they may be connected to the power grid or any power source available. If you use a laptop for digital modes, it should not be connected to the power grid but also be plugged into an alternative power source.  
OM x1

- **Operate away from home:** Operating away from home is one of the main reasons of “Field Day”. Do you have the ability to walk into any shelter, parking garage, hospital, or community center and set up a portable Amateur radio station? Now is the time to start planning what you will do if your home location is destroyed during an emergency. For this objective, set up your field station more than a ½ mile from your home. OM x3
- **Deploy multiple antennas:** Deploy two or more antennas that have not been previously installed. Pre-installed antennas are defined as any antenna attached to anything that could be used day to day or was set up before the WFD set-up time. This includes home antennas, antennas installed on vehicles, cargo trailers, and RVs, or any other antenna that would be considered permanently installed. Pre-installed antennas do not count. You must deploy field antennas. This could be a dipole and a hex beam or an EFHW and a 2-meter J-pole. Any combination of antennas works. Multi-band antennas do not count as separate antennas. OM x1



- **Make an FM satellite contact<sup>2</sup>** : Make at least 1 FM satellite contact during the operating period. Dedicated **satellite transmitters do not count toward your Category number**. **Satellite contacts do not count towards your total QSO points. Only the multiplier applies**. See the appendix below for more information on satellite contacts. OM x2
- **Make a SSB or CW Satellite Contact:** Make at least one contact using SSB or CW. OM x3
- **Send and receive at least one Winlink email:** Winlink has proven useful during emergencies and considered a digital mode. Because time stamps may be hours apart on emails, Winlink contacts do not count for total QSO points. Only the Multiplier applies. Successfully send and receive at least one Winlink email to achieve this objective. ON x1

- **Copy the Winter Field Day Special Bulletin:** This year, in association with K6KPH, the WFDA board will broadcast a short bulletin during the WFD event. Accurately copy the message and submit your copy with your log submission to achieve this objective. The frequencies and times will be published on our website prior to the event. OM x1
- **Operate on at least six different bands:** Conditions may change throughout an event. Operate at least six different bands during the operating period. You should be able to accomplish this objective by utilizing HF, VHF, and UHF frequencies. Don't forget about 1.25 meters (220)? It's an excellent band for local emergencies. OM x6
- **Use multiple modes:** Increase your versatility by using multiple modes during the event, such as phone and CW, CW and digital, or Phone and digital. OM x2

- **Operate the event QRP:** Operating on QRP, means every station in your Winter Field Day operation is using less than 10 watts on Phone or less than 5 watts on CW or Digital for the entire time you choose to operate during the event. OM x4 RUN vs S&P
- **Operate six continuous hours during the event:** Emergencies may last days or even weeks. If you are operating alone or in shifts, you may be expected to man a radio station between 4-12 hours. Are you able to sit and operate for extended periods of time with enough backup power? This does not necessarily mean you are making contacts the whole time, but you are in front of the radio, monitoring and ready to pick up a microphone if you are called. OM x2



# Miscellaneous Statements:

- All stations are limited to a maximum of 100 Watts PEP.
- All rules governing amateur radio at your location must be observed throughout the event.
- All participants submitting a single entry must be using one callsign.
- Entrants may not count for QSO credit any contact with anyone who is or was a participant in their WFD operation or is present at their WFD location.
- During the event, spotting clusters, the RBN, APRS, and Winlink will may be used as long as the originating transmission is sent out via RF.

# Miscellaneous Statements:

- QSOs may be solicited during the event only over RF.
- Cross-band contacts are not permitted (satellite QSOs cross-band contacts are exempted).
- No repeater contacts are allowed, including DMR or YSF-type modes that may be transmitted through a repeater or hotspot on the receiving end.
- Multiple transmitters are not allowed to operate on the same band-mode at the same time.
- Any mode used must be able to fully transmit the exchange intact and must be able to pass additional information.

# Appendix

- 1 Safety, weather, or other elements may require you to relocate during an emergency. We allow this during the WFD activity as well. You could, in theory, operate from one location for a set amount of time, then tear down and move the whole operation to another location, say from a state park to a school parking lot across town. Just note that your exchange must remain the same even if you are located in different ARRL/RAC sections or states. You must use the same exchange throughout the entire event!
- 2 Satellite QSOs do not count as a regular QSOs credit. **Adding a satellite transmitter station does not increase or count toward the number of transmitters used to decide your category.** A simple CQ is sufficient. The designated WFD exchange does not and should not be used. Satellite QSOs follow a different protocol. You should be prepared to give a signal report and your Grid Square to the other station. The other station will likely not be a WFD participant and will want a confirmation of the contact afterward. Please be considerate and comply.



- Call Sign       N1FD
- Category:       2
- Class:       H
- Location ID:       NH
- ☐ 100% Alternative power
- ☐ Operate away from home
- ☐ Deploy multiple antennas
- ☐ Make an FM satellite contact
- ☐ Make a SSB or CW Satellite Contact
- ☐ Send and receive at least one Winlink email
- ☐ Copy the Winter Field Day Special Bulletin
- ☐ Operate on at least six different bands
- ☐ Use multiple modes
- ☐ Operate the event QRP
- ☐ Operate six continuous hours during the event

# Action Items

1. Make up operator Sign Up site (Brian) By Friday
2. Identify a WinLink node (Dave)
3. Need Winter Field Day reference book (Brian)
  1. N1MM Cheat Sheet (CTR-O)
4. Generate satellite pass schedule (Fred)
5. Copy Bulletin (Anita)
6. Score (Brian)
7. Insurance (Anita)
8. Find CW ops (Brian)
9. Personal touch for signups (Dave & Alan)
10. JS8 operations (Fred)