

2018 FIELD DAY PLANNING PLANS

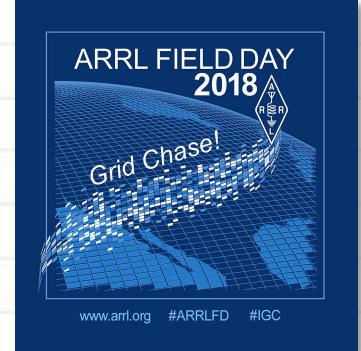
JUNE 5TH, 2018



Field Day 2018

Topics for Tonight

- Overall Plans – Fred, AB1OC
 - Goals
 - Team Leaders
 - Site and Layout
 - Target Alpha
 - Overall Schedule
- Antenna Plans – Hamilton, K1HMS & Jamey, AC1DC
 - Towers and Beams
 - Wire Antennas
- SSB/Satellite Plans – Fred, AB1OC
 - Basic Station and Logger
- CW/6m Plans – Mike, K1WVO
- Digital Plans – Anita, AB1QB
- GOTA/SDR/Networking Plans/Power – Dave, K1DLM
- Food Plans – Valerie or Dave, K1DLM
- Other Elements – Safety, Messaging, Public Info, Foxes, Training
 - KC1HDN, AK1K, AB1QB, AB1BY, AC1EN
- Sign-Up for Field Day – Fred, AB1OC



Goals (in no particular order...)



- Have fun!
- Provide learning experience for newer and prospective Hams
- Open House for HAB-3 Schools
- Create a “high tech” field day experience
- Engage the public and increase public exposure
- Build on new elements and experience from 2017 & perfect operation/logistics of 2017 antenna farm
- Add more digital stations, take advantage of FT8
- Grow skills and experience via new site
- Place top of our category, exceed score of 10,000

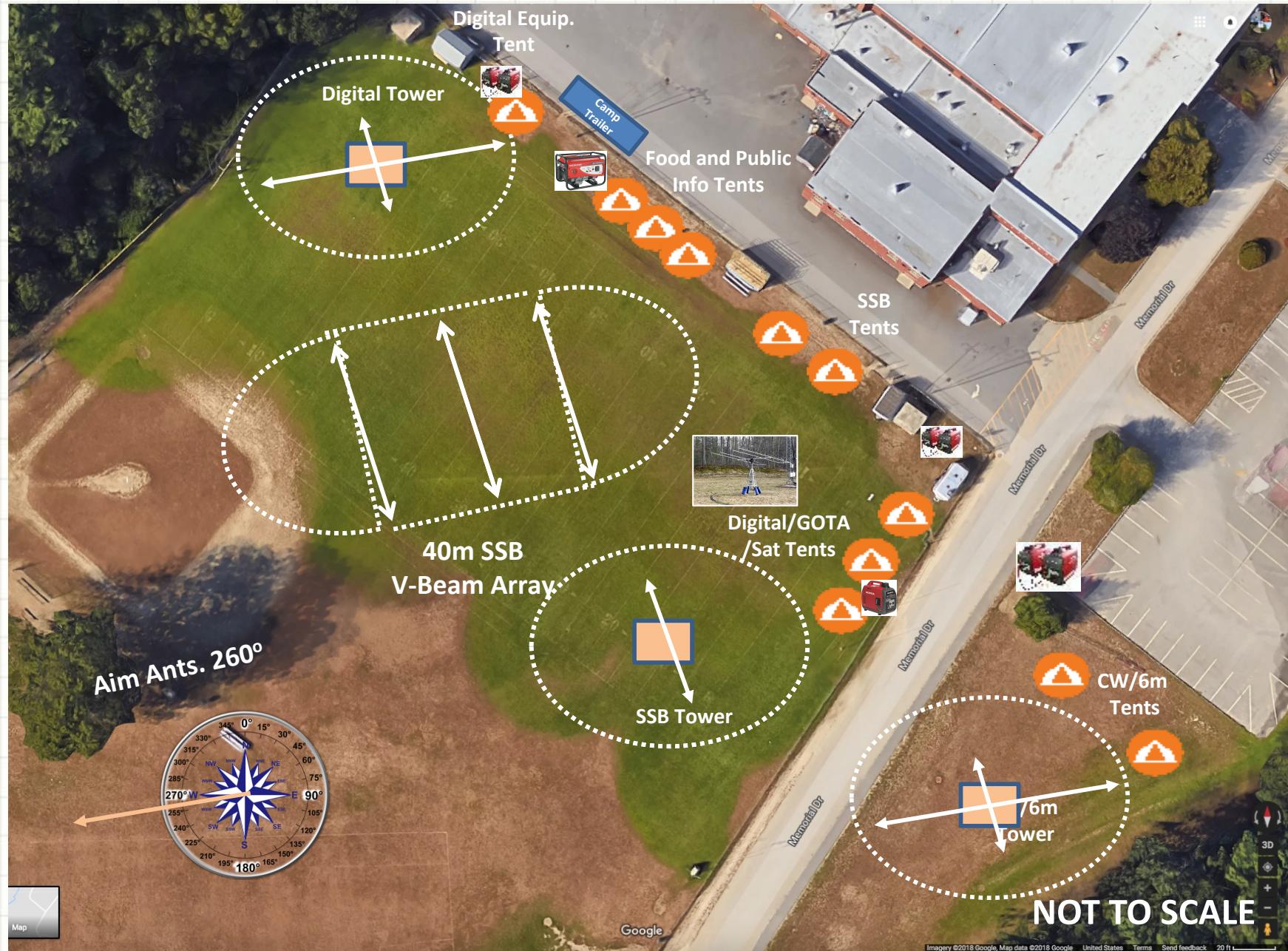
2018 Field Day Team Leads



Member	Call	Leading
Fred Kemmerer, David Merchant, Hamilton Stewart	AB1OC, K1DLM, K1HMS	Field Day Planning Team
Fred Kemmerer	AB1OC	Station Master (SSB Stations)/Solar Bonus
Mike Ryan	K1WVO	Station Master (CW Stations)
Anita Kemmerer, Dave Merchant	AB1QB, K1DLM	Station Master (Digital/GOTA Stations)
Mike Ryan	K1WVO	Station Master (6m)
Fred Kemmerer, Curtis Dude	AB1OC, N1CMD	Station Master (Satellite)
Hamilton Stewart	K1HMS	Tower/Beam Chairperson
Jamey Finchum	AC1DC	Wire Antenna Chairperson
Dave Merchant	K1DLM	Network Chairperson
Anita Kemmerer	AB1QB	Scoring Chairperson
Valerie Merchant		Food Chairperson
Anita Kemmerer	AB1QB	Youth Outreach/Public Info Chairperson
Craig Bailey	N1SFT	Transportation Team Chairperson
Sterling Eanes	AK1K	Emergency Message Bonus
Patrick Morrison	KC1HDN	Safety Officer
John Halbert	W1SMN	PR Chairman
Desmond Johnson	WK1V	Video and Digital Media Production Chairperson
Anthony Rizzolo	KC1DXL	On-site Signage Chairperson
Anita Kemmerer	AB1QB	Social Media PR Chairperson
Dan Pooler	AC1EN	Technical Training Chairperson
Abby Finchum	AB1BY	RDF Chairperson

Field Day 2018 Site Layout

Hudson Memorial School



Field Day Station Entry Classes

- A: *Club or non-club group portable (3 or more persons)*
- AB: Class A using Battery Power
- B: 1 or 2 person non-club group portable
- C: Mobile
- D: Home station commercial power
- E: Home station emergency power
- F: Emergency Operation Center (EOC) station

Station Scope Plans

11A – 17,056 in 2016. Also big score in 11AB in 2015.

- Previous Year Score Analysis (Alpha/100W)

Year - Place	<u>6A</u>	<u>7A</u>	<u>8A</u>	<u>9A</u>	<u>10A</u>
2017 - 1st	15,446	18,154	15,298	13,494	2,572
2nd	11,720	9,832	14,058	7,870	2,116
3rd	11,592	6,946	11,636	2,436	1,346
2016 - 1st	17,484	9,292	13,886	12,728	None
2nd	15,006	5,610	9,388	11,908	None
3rd	13,816	1,537	7,564	1,610	None
2015 - 1st	16,466	12,528	17,638	13,576	8,718
2nd	15,182	7,596	17,526	9,650	2,670
3rd	13,742	6,850	11,854	7,032	None
5th			7,210		

- 10A – How do we get there?
 - ✓ 4 SSB Stations – 40m, 20m, 15m, 10m/80m
 - ✓ 3 Digital Stations – 40m, 20m, 15m/10m/80m – GOTA Shares
 - Antennas and Radios (SDR Rack: 15m/10m/80m)
 - ✓ 3 CW Stations – 40m, 20m, 15m/10m/80m
 - ✓ **Free Satellite** - 3.1 Station Station (Linear Satellites + 1 FM)
 - ✓ **Free VHF** – 6m Station (SSB, CW, and Digital)

Key Dates

We are holding weekly FD planning meetings at the Library each Monday @ 7 pm

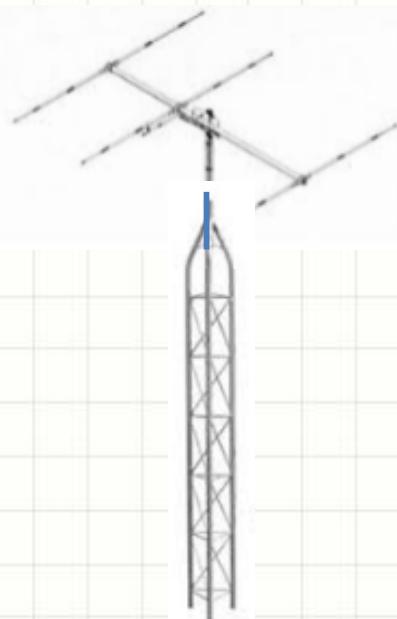
- NARS Membership Meeting – Tue, June 5th
- ***Tower Setup Test – Thursday, June 7th at 1 pm (BoB)***
- ***Computer, Networking, and Radio Setup Party – Sun, June 10th (K1DLM QTH) at 9:30 am***
- FD Tech Night – Tue, June 12th
 - ***Inputs to AB1OC by June 6th***
- Setup Onsite for FD Begins – Thu, June 21st at 8 pm
 - Setup complete, Fri June 22nd pm
- Final Setup/Testing, Technical Training – Sat. June 23rd am
- FD Operations – Sat/Sun – June 23rd and 24th (2 pm – 2 pm)
- HAB-3 Open House – Sat pm, Jun 23rd and Sun am, June 24th
 - Schools – HMS, World Academy scheduled; MHS and BGHS also invited
- Site Takedown and Store – Sun, June 24th (2 pm until done)

Site Transport and Setup Plans



- Thu, June 21st
 - Meet at BoB in at 4 pm to load and transport antenna
 - 8 pm – dark: Unload and layout gear onsite
- Fri, June 22nd
 - 8 am: Meet at AB1OC/K1DLM to load and transport remaining gear
 - Setup: Digital Tower, V-Beam, SSB Tower, CW/6m Tower
 - Setup Tents, Furnishings, Grounds, & Generators
 - Setup and Test Stations
- Take Down and Store (BoB, AB1OC, K1DLM) – Sun, June 25th
- Vehicles:
 - Craig, N1SFT – Full Size w/trailer
 - Fred, AB1OC – Short Bed
 - Mike, K1WVO – Short Bed
 - Charlie, AB1ZN – Full Size
 - Charlie, W1CBD – Full Size

Towers and Beams



T1 40' TOWER - CW

TRI-BAND BEAM (20, 15, 10m)
6m BEAM WITH ROTATOR
40m & 75m WIRE ANTENNAS

T2 40' TOWER - SSB

TRI-BAND BEAM (20, 15, 10m)
40M & 75M WIRE ANTENNAS

T3 60' TOWER - DIGITAL & GOTA

TRI-BAND BEAM (20, 15, 10m)
40M & 75M WIRE ANTENNAS

LEARN NEW SKILLS

TOWER and STAKE PLACEMENT

TOWER ASSEMBLY

BEAM ASSEMBLY / CABLE HANDLING

ROTATOR SET-UP

GUY ROPES AND KNOTS

SAFETY

TOWER RAISING AND LOWERING

ANTENNA ANALYZER / SWR SWEEPS

WHEN

STAGE TOWERS WED 6/6 1 PM AT BOB

FIELD DAY 6/21 – 6/24

LOAD AT BOB THURS 3:45 PM – 6 PM

UNLOAD AT HMS THURS 8 PM – 10PM

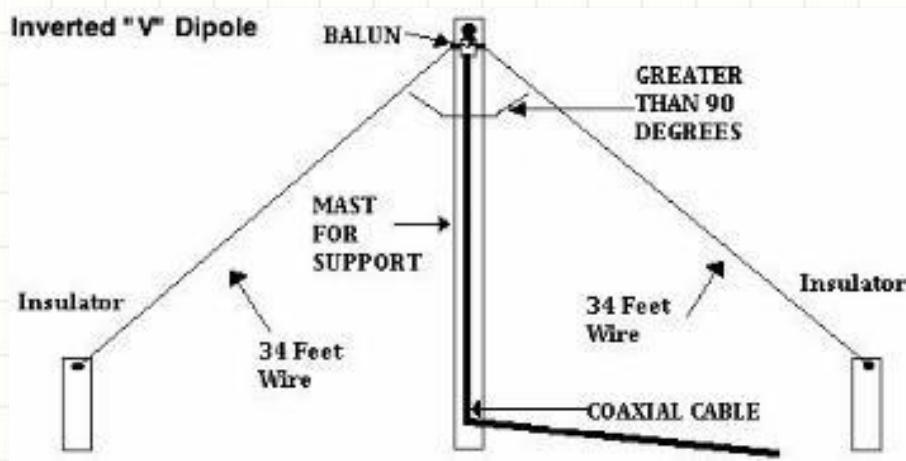
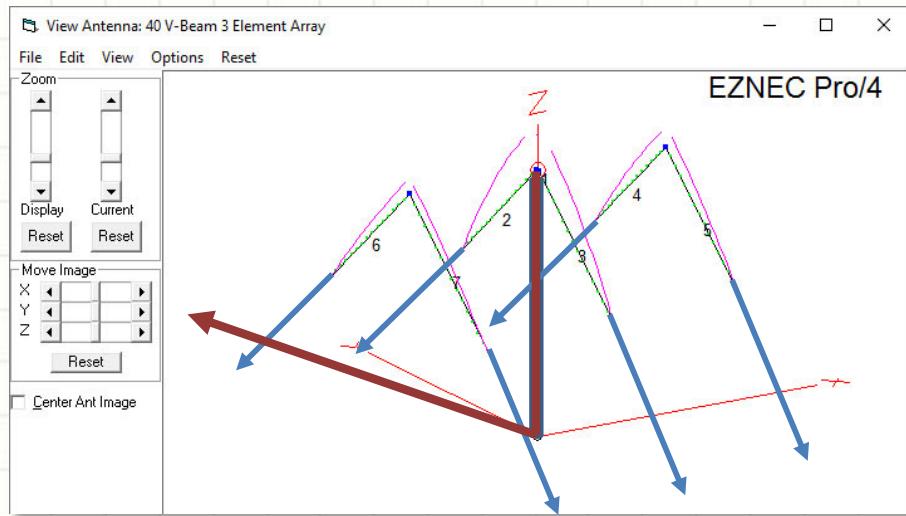
ASSEMBLE

FRIDAY 8 AM – 3 PM

TAKE DOWN/LOAD SUNDAY 2 PM – 6 PM

SIGN UPS NEEDED Hamilton (K1HMS) hms-llc@macstewart.net

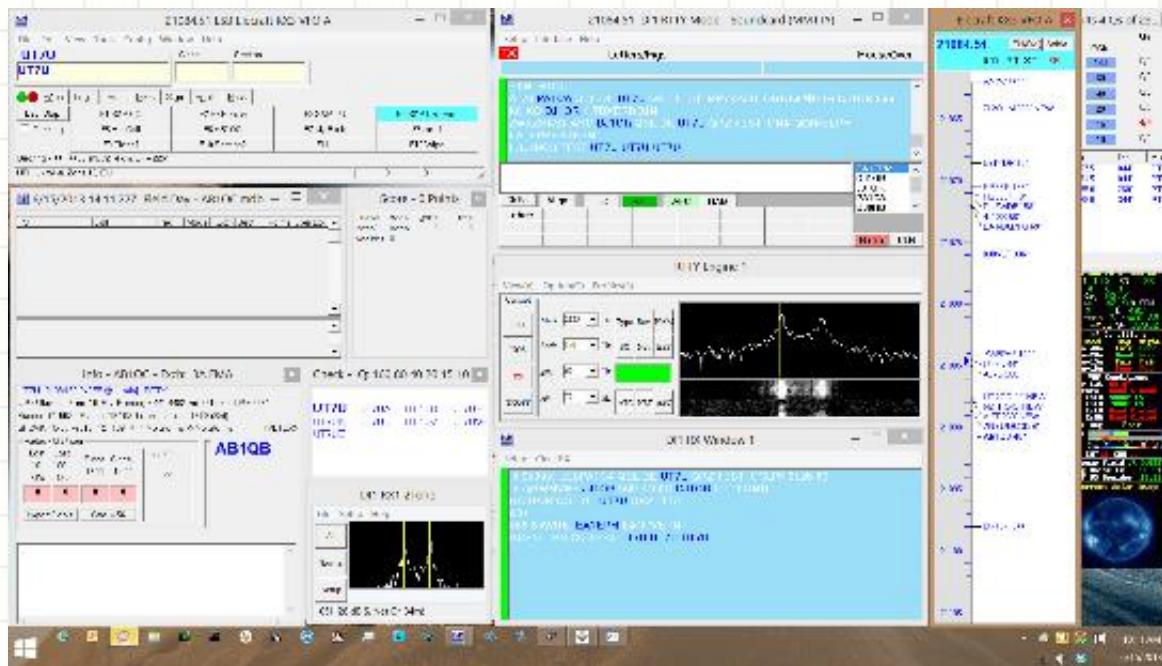
Wire Antenna Plans, Setup and Tuning



- 40m V-Beam is back and has been optimized!
- We have built and tuned 5 inverted-V antennas for 40m/80m
- Forming team to put these antennas up and tune them
- ***Need two more members to sign-up***

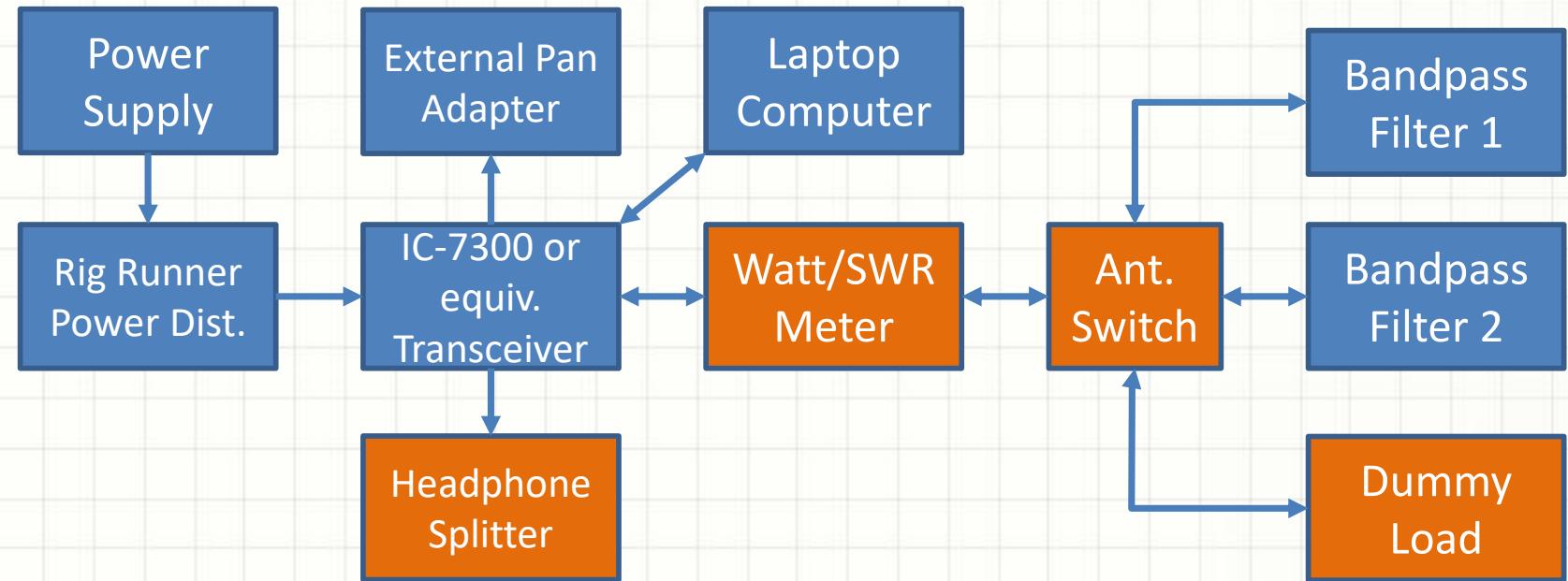
Typical Field Day Station - SSB

- Large, 2+ Person Tents
- 100W Stations on 40m, 20m, 15m, and 10m/75m
- Using IC-7300 Radios on most HF stations
- All the comforts of Home
 - Fans, Lights, Tables, Chairs



- Some stations will be equipped for folks to “listen in”
- Using N1MM+ Logger
- All stations networked
 - Feeds site scoreboard in all tents including Public Info Tent

Typical SSB Station Diagram



- Stations typically have a heads/boom mic & trigger or footswitch for keying
- Antenna switch included for multi—band stations
 - ***Must set logger/radio and antenna switch to change bands***
- Orange components are optional (but may be very useful)
- Laptop runs N1MM+
 - Use Super Check Partial and common log window to help get calls and for exchange "fills"
 - Scoreboard and shared logs visible at all stations and in Public Info tent
- Will use on SSB station to earn solar/battery bonus at start of Field Day

Satellite Station for Field Day



- Can work linear and FM satellites during field day using voice (SSB or FM) modes
- Computer control handle antenna pointing and radio frequency adjustment for doppler shift correction
- Curtis, N1CMD; Burns, WB1FJ; or Fred, AB1OC will be on station to help you
- ***Sign-up and give satellites a try (timeslots are color coded to show best passes. There are lots of great times this year!***

CW/6M Station Plans

Mike, K1WVO

TWO operating shelters:

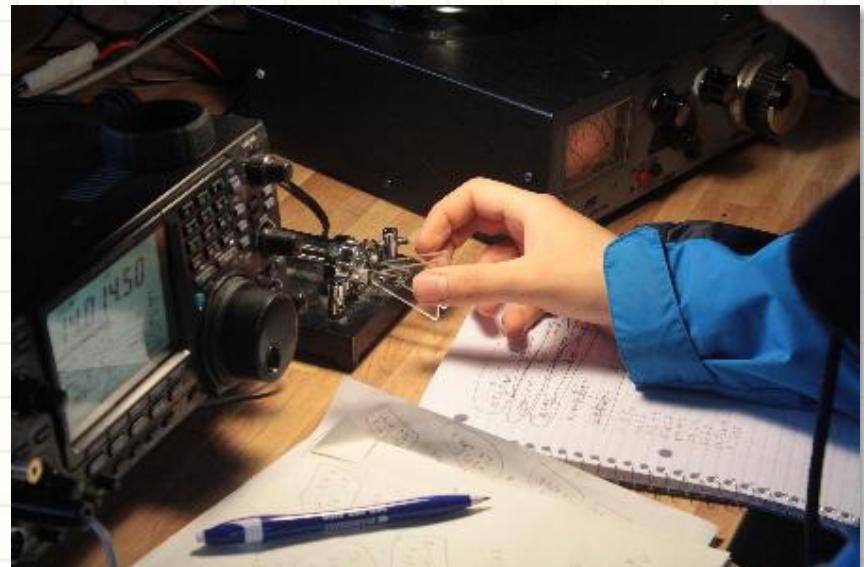
- Tent #1: Independent **40M** and **20M** CW stations
- Tent #2: Single **10M / 15M / 80M** CW station and Dedicated **6M SSB/FT8 XCSR + Beam Rotor**
 - CW Setup includes Antenna switch for 10M / 15M / 80M bands

Stations Logging and Control:

- Networked PC w/ N1MM+ Logger software
 - Message Memories simplify QSO exchanges
 - Spot Dups, log contact, freq, operator ID
- Winkeyer under PC control or use ext. Key
- NARS onsite Skimmer shares spot Data

6M SSB setup:

- Networked PC w/ N1MM+ Logger software
- Setup may be expanded to include FT8 SW



Antennas:

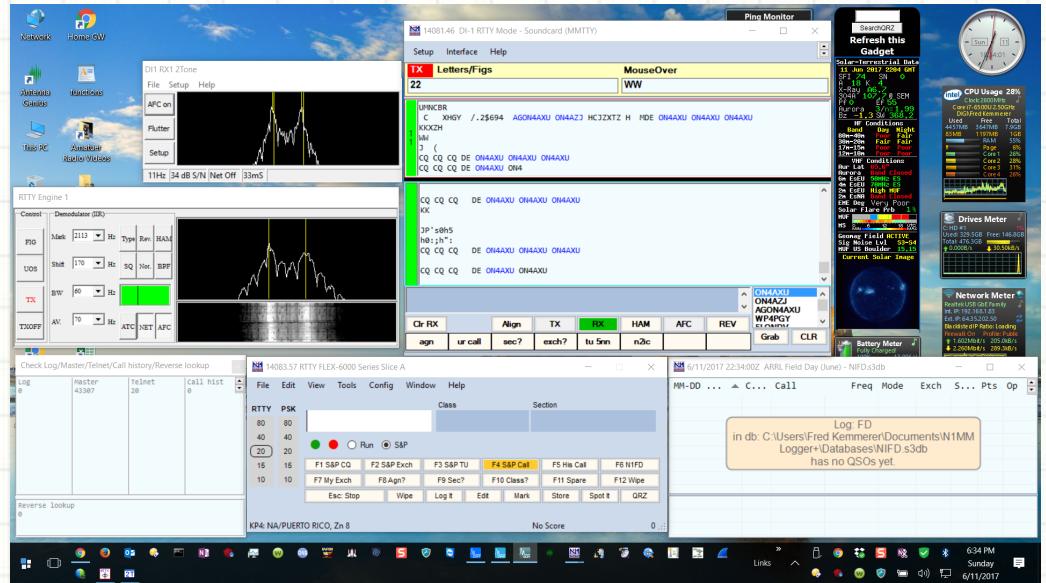
- 80M and 40M Inv-V wire antennas
- 3 Element Triband Yagi
 - Triplexer & Bandpass Filters used to **share** Yagi antenna.
- 5 element 6M Yagi mounted on tower Rotor

CW Skimmers:

- On the CW PCs
- Shared Skimmer provides CW spots

Digital Station Plans

- Bands: 40m, 20m, 15m/10m/80m
- Modes: PSK 31/63/125, RTTY, and FT8
- Uses Flex Radio SDR and Software running on PC
- N1MM Logger with MMVARI for PSK, MMTTY/2Tone for RTTY, WSJT-X for FT8
- Digital QSOs are 2 pts each, like CW
- ***Super Antennas*** – tri-bander plus wire Inverted-V antennas on 60' tower
- More digital training at Tech Night
- ***Sign-up now!***



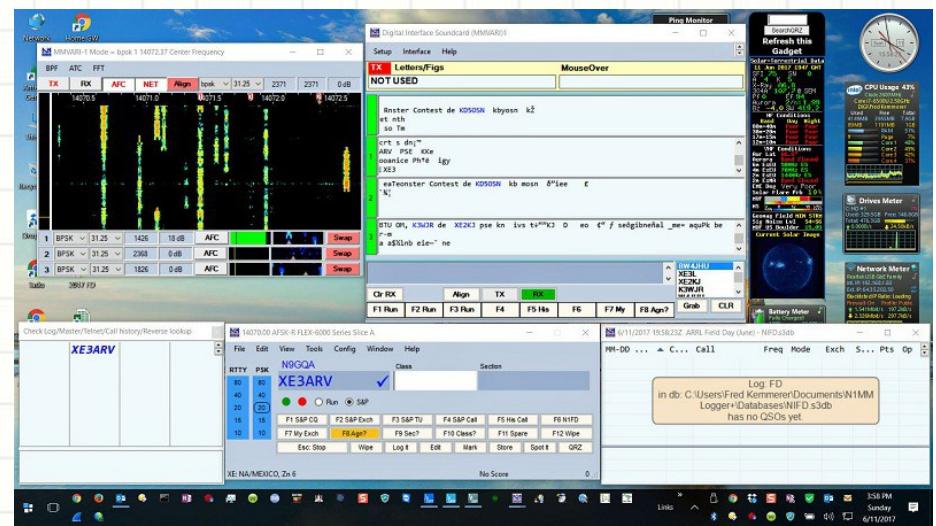
GOTA Station Plans

- Flex-6700 SDR & Ant.
at remote tower
- Remote Operation via
Maestro & Network
- 10m, 15m, and 80m SSB
- Attached Windows PC runs N1MM+ for logging
- Try to focus on youth operators and getting new folks to make
at least 20 QSOs; Anita working on a plan
- Locating 10m/15m/80m digital station in same tent to enable
antenna sharing



SDR / Networking

- Entire Field Day site will be networked with Ethernet & Wi-Fi
- Facilitates Network-based logging and centralized scoreboard in public info tent (N1MM)
- Internet access via Verizon Wireless 4G Bridge
- Used to network SDR's to centralized operator positions
- (4) Flex SDR Radio's planned for this year for Digital Modes (FT8, RTTY, PSK) and GOTA



Field Day Cafe



- **Buy a meal ticket for \$30**
 - Good for meals all weekend
 - Unlimited drinks all day (water, juice, gatorade, soda)
- **Meals can also be purchased a-la-carte**
 - **Friday Lunch:** Sandwiches, Deli Platter, Chips, Dessert
 - **Friday Supper:** Grilled Chicken, Homemade Mac & Cheese, Salad, Desserts
 - **Saturday Breakfast:** Donuts, juices
 - **Saturday Lunch:** Hamburgers and hot dogs, chips, desserts
 - **Saturday Supper:** Chicken Pasta Alfredo, Meatballs & Pasta in Sauce, Salad, Rolls, Desserts
 - **Sunday Breakfast:** Cereal, Bagels, Muffins, Danish, donuts, fruit, juices
 - **Sunday Lunch:** Deli sandwiches, chips, desserts

Contact Valerie Merchant to signup (XYL to K1DLM)
Send Check to 18 Burnham Rd, Windham, NH 03087

Power Distribution Plan

- Plan to use (6) distributed Honda EU-2000 generators with external tanks
- “Twins” for redundancy, greater capacity
- Safer refueling – tank separated from Genset
- Will also have a 32' camp trailer (thanks Craig – N1SFT) with Air Conditioning powered by a Honda EU6500is.



Field Day 2018

Tech Night Topics



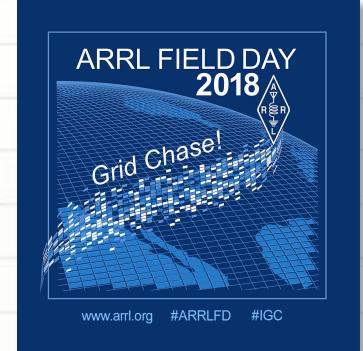
- Brief Recap of overall plans - Fred, AB1OC
 - Team Leaders
 - Site and Layout
 - Overall Schedule
- Where we need help!
- Tower and Beam Setup – Hamilton, K1HMS
- Wire Antenna Setup – Jamey, AC1DC
- Operating SSB and using N1MM+ - Fred, AB1OC
- Operating Digital & GOTA – Anita, AB1QB & Dave, K1DLM
- Operating CW and 6m – Mike, K1WVO
- Messaging – Sterling, AK1K
- Power Systems – Dave, K1DLM
- Safety – Patrick, KC1HDN
- Scoring – Anita, AB1QB

Goal: Training on most important skills members need to have fun at Field Day. **Tuesday, June 12th 7 pm at First Church.**

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- ***Other Elements – Safety, Messaging, Public Info, Foxes, Training – KC1HDN, AK1K, AB1QB, AB1BY, AC1EN***
- Sign-Up for Field Day – Fred, AB1OC



Sign Up for Field Day Tonight

2018 NARS FD Time Sign up.xlsx

File Edit View Insert Format Data Tools Add-ons Help All changes saved in Drive

100% \$.00 123 Calibri 12 B I A E H I J K L M N O P Q R

Start a capture with the selected settings.

Operators fill in your operate time with your call, ask / contact station master to rearrange times if needed. More bands-->

Loggers fill Call or name after "/"

Station Master Public Info./Tours 40 CW 20 CW 15/10/80 CW 40 Digital 20 Digital 15/10/80 Digi GOTA 40 SSB 20 SSB 15 SSB 10/75 SSB 6 SSB Satellite

Email Anita Kemmerer, AB1QB Mike Ryan, K1WVO Anita Kemmerer, AB1QB Dave Merchant, K1DLM Fred Kemmerer, AB1OC Mike Ryan, K1WVO Curtis Dude, N1CMD

Cell for Text / VM ab1qb@arrl.net mike-73@myfairpoint.net merchdl@gmail.com / ab1qb@arrl.net ab1oc@arrl.net mike-73@myfairpoint.net curtis@curtis.org (603) 547-7942

Log Received Saturday 6/23/18 Operator Coach Pass Rating Sign-Up Sat Coach

18:00 UTC / 2 PM W1SMN K1LGQ K1LGQ AB1BY/KC1GGX NE1RD W1CBD AB1OC

19:00 UTC / 3 PM KC1HDN K1LGQ W1BJ/W1BP K1DLM K1RMS AB1OC N1CEO NE1RD W1CBD N1CMD

20:00 UTC / 4 PM AB1QB K1LGQ K1HMS W1CBD AB1OC KC1RMS AB1OC N1CEO NE1RD N1CMD

21:00 UTC / 5 PM K1LGQ K1HMS W1CBD AB1OC AB1BY/KC1GGX NE1RD AB1OC N1CEO N1CMD

22:00 UTC / 6 PM K1LGQ K1HMS N1CEO W1CBD AB1OC AB1BY/KC1GGX NE1RD AB1OC N1CMD

23:00 UTC / 7 PM K1LGQ K1HMS AB1QB K1LGQ W1SMN W1SMN W1CBD AB1OC

00:00 UTC / 8 PM KM3T K1HMS AB1QB KC1RMS AB1BY/KC1GGX W1CBD AB1OC

01:00 UTC / 9 PM /W1BP logger KM3T W1CBD KC1RMS AB1BY/KC1GGX K1BRM

02:00 UTC / 10 PM W1BP KM3T W1CBD K1BRM W1SMN KC1HDN AB1OC

03:00 UTC / 11 PM KM3T W1CBD K1BRM AB1BY/KC1GGX KB1EEU N1SFT W1CBD AB1OC

Sunday 6/24/18 Operator Coach Pass Rating

04:00 UTC / 12 AM KM3T W1CBD W1BP AB1BY/KC1GGX N1SFT KB1EEU W1CBD

05:00 UTC / 01:00 AM KM3T W1CBD KC1RMS W1BP W1SMN N1SFT W1CBD

07:00 UTC / 03:00 AM KM3T W1CBD KB1EEU W1SMN W1CBD

09:00 UTC / 05:00 AM KM3T W1CBD W1SMN W1CBD

11:00 UTC / 07:00 AM K1LGQ K1HMS AB1OC K1DLM W1SMN NE1RD W1CBD

13:00 UTC / 09:00 AM KC1HDN K1HMS AB1OC KC1RMS AB1OC K1DLM W1SMN NE1RD N1CMD

14:00 UTC / 10:00 AM N1SFT K1HMS AB1OC KC1RMS AB1OC K1DLM NE1RD W1CBD N1CMD

15:00 UTC / 11:00 AM AB1OC K1HMS AB1OC KC1HDN W1CBD

16:00 UTC / 12:00 PM AB1OC AB1OC KC1HDN W1CBD

17:00 UTC / 01:00 PM KC1HDN W1CBD AB1OC

18:00 UTC / 02:00 PM END END

END 2:00 PM

Great Passes

Decent Passes

Chance at ISS Crew Cont.

No Passes

Operate Sign-Up Volunteer for Setup/Takedown Purchase Meals Bring Food Radios/Filters Antennas/Coax Tents/Gear Generators/Gndns Station Master Check List

- Field Day Signup Sheet - *Signup here tonight!*
 - *Operating, meals, site setup/takedown/transport*
- Also link in Members Forum on www.n1fd.org
 - *Setup – Wire Ant., Towers, & Stations*
 - *CW operators - 20 m; also on Sunday*
 - *Digital operators*
 - *Staffing Public Info Tent*
 - *GOTA Coaches*
 - *6m and Satellite operators*

