



JPL Amateur Radio Club
W6VIO

Field Day 2016

Operations Introduction & Station Configurations

Jim Marr, AA6QI

June, 2016



FD2016 Schedule

- Friday, June 24th: Teams pack up gear for transport to FD site the next day.
- Saturday, June 25th:
 - 7 a.m. Setup begins at the Art Center south parking lot to unpack vehicles and commence setup.
 - 11 a.m. Field Day contest operations begin.
 - Lunch, BYO or buy at the Art Center cafeteria.
 - 6 p.m. Pot luck dinner at the FD site. Sign up to bring something!
 - <http://www.signupgenius.com/go/30e0f4baba72da64-field1>
- Sunday, June 26th:
 - 8 a.m. Pancake breakfast at the FD site.
 - 11 a.m. Field Day contest ends and takedown begins.
 - Lunch, BYO.



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PRC FD Site (2016)





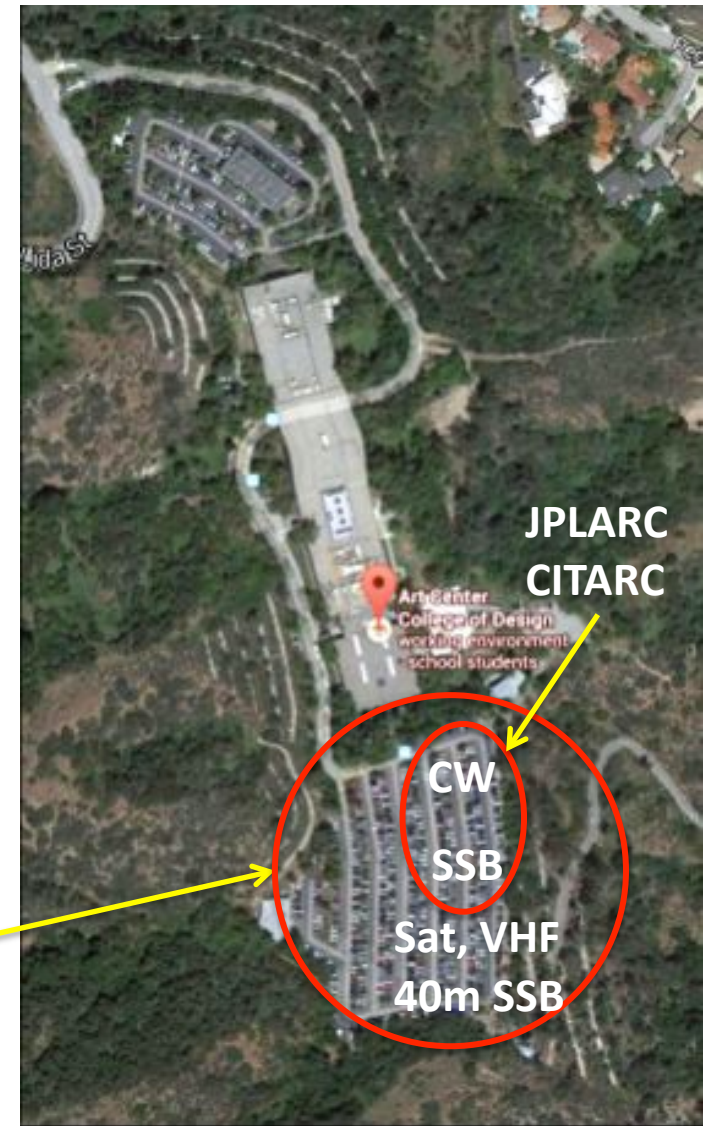
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PRC FD Site (2016)

Tom Mikkelsen WA0POD, PRC Field Day Chair

- FD event in the Art Center parking lot.
- 2016 rigs (TBD):
 - 1-CW (JPL/CIT)
 - 2-SSB (JPL/CIT)
 - 1-SSB (PRC)
 - 1-Satellite (PRC)
 - 1-VHF (PRC)
- Meals:
 - Saturday Lunch at the Art Center Cafeteria
 - Pot luck dinner 6pm Sat
 - Pancake breakfast 8am Sun

June 2016

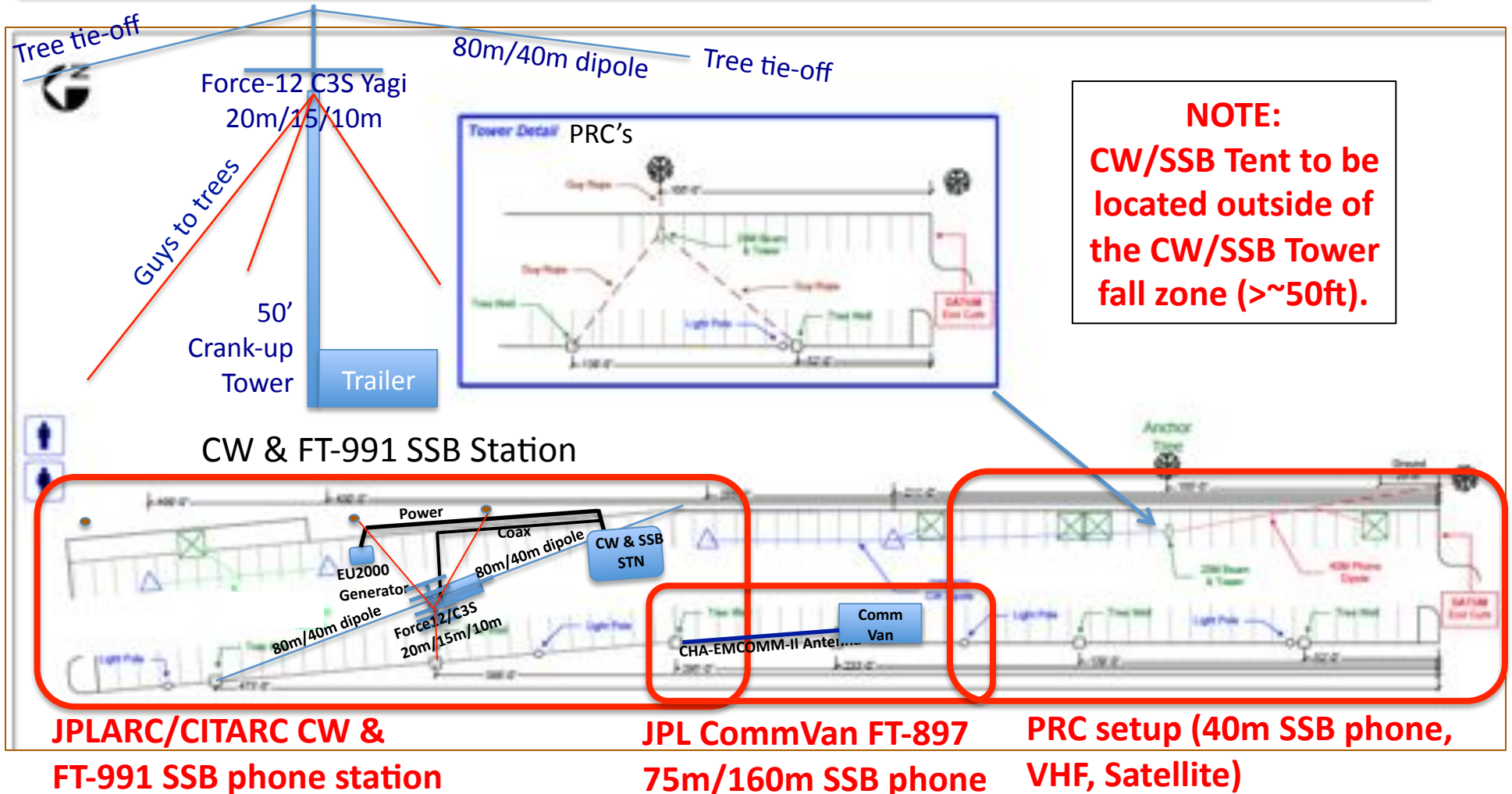


FD2016 Ops Intro & Stn Configs



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Field Day 2016 Site Layout





Field Day Exchange

- Stations exchange:
 - Call Sign: **W6KA** (Whisky Six Kilo Alpha)
 - Operating Class: **4A** (Four Alpha)
 - ARRL Section: **LAX** (Lima Alpha X-ray)
- Operating techniques:
 - Search & Pounce:
 - Tune around to find stations to call
 - Camp & Call
 - Select an open frequency and call CQ Field Day
 - E.g. “Whisky Six Kilo Alpha, Field Day”



- Watch the quick-start video (1/2 way down the page) at:
 - <http://www.n3fjp.com/fieldday.html>
- Key Operating Points:
 - When first starting your operations, enter your Call and Initials (see next slide).
 - Enter Call, Class & Section in the field at left center (see slide after next)
 - Look for Duplicates in the lower left corner (see slide after next).
 - Note: PRC is allowing duplicates.



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PRC Logging S/W (1 of 2)

- Entering Operator Information

The screenshot shows the PRC Logging S/W interface. A red arrow points to the 'Operator' dialog box, which is open. The dialog box contains the following fields:

- Operator: AA5QI
- Initials: JCM
- Done button

The main window displays the following information:

- Recent Contacts:** A table with columns: Rec, Call, Class, Sec, Date / Time, Band, Mode, Country, Initials.
- Score Statistics:** A table with the following data:

Score Statistics	Value
Total CW Contacts	0
Total Phone Contacts	0
Total DIG Contacts	0
Total QSO Points	0
QSOs / Hr (Last 20 min)	0
QSOs / Hr (Last 60 min)	0
- Ready to begin!** Please select your band and mode from the menu options!
- Possible Duplicates:** Maryland-DC Total = 0
- Band:** 15 **Mode:** CW
- W6KA** **6A** **LAX**
- 4:58:54 PM 23:58:54 UTC**



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PRC Logging S/W (2 of 2)

See <http://www.n3fjp.com>

- PRC uses N3FJP's FD logging s/w in standalone mode.

The screenshot shows the N3FJP FD logging software interface. At the top, there's a menu bar (File, Settings, Band, Mode, View, Network, Operator, Help) and a toolbar. Below the toolbar is a 'Recent Contacts' table with columns: Rec, Call, Class, Sec, Date / Time, Bnd Mode, Country, Initials. The first entry is: 1, AA6Q, 1A, LAX, 0608 23:59, 20 CW, USA, JCM. To the right of this table is a 'Score Statistics' section with various metrics and their values.

Below the 'Recent Contacts' table is a large grid of 'ARRL Sections' (US states and territories). The sections are arranged in a grid with numbers 1 through 9. The 'LAX' section is highlighted in blue, indicating it has been worked. An arrow points from the 'LAX' entry in the 'Recent Contacts' table to the 'LAX' section in the grid.

On the left side of the grid, there are three red-outlined boxes with blue text annotations:

- Data Entry Area**: Points to the 'Call' column header.
- Message Area**: Points to the 'Class' column header.
- Possible Dups listed as call is entered above**: Points to the 'Section' column header.

At the bottom of the interface, there's a status bar showing 'June 2016', 'Mode: CW', and 'FD2016 Ops Intro & Settings'. The 'LAX' section is also highlighted in the status bar.

Score Statistics

Metric	Value
Total CW Contacts	1
Total Phone Contacts	0
Total DIG Contacts	0
Total QSO Points	2
QSOs / Hr (Last 20 min)	3
QSOs / Hr (Last 60 min)	1

ARRL Sections (below) turn blue when first worked

All ARRL Sections

Possible Duplicates (Any Portals)

West Pennsylvania Total = 0



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CW Station N3FJP

Winkeyer Function Keys

(any key stops) (\$ is CALL from main page)											(ESC exits)
CQ FD DE W6KA (rpts)	\$ 6A LAX	\$ TU QRZ FD	W6KA	\$ TU 6A LAX	\$ SRI DUP FD W6KA	AGN	?	CALL?	CLAS?	SEC?	KEYBOARD
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12
Typical Exchanges:											
Calling CQ: F1; enter responding station in CALL FIELD; F2; receive Class & Section from other station; F3; F4; if no calls, then back to start.											
Call is a DUPE as shown on the main page: F6											
Answering CQ: F4 (as often as needed); record other stations call, class & section on main page; F5											
Repeat something: F7 AGN; F8 ?; F9 CALL; F10 CLASS; F11 SECTION; F12 for keyboard entry - ESC to exit.											
Set keyer speed using WKUSB_SMT pot.											
Set speaker frequency to 666 Hz (NOT 800 Hz, which drives me crazy)											
N3FJP KEYBOARD Shortcuts:											
:	KN				\$	Other stations call from the CALL field on the main page					
<	AR				[QRZ					
=	BT]	QSL					
>	SK										
@	AS										



Signing Up to Operate

- Select and schedule your operating time on this station via the SignUpGenius link distributed separately.
- Station is set up so that one person can conveniently both operate and log (that's why we have the Heil ProSet and foot switch).
- Two signups are provided for each one-hour time slot.
 - It's up to the two operators as to how they want to operate (i.e. one operate while one logs OR take turns operating/logging during that time slot).
 - Just make sure that each operator enters their call and first name into the N3FJP software before beginning their turn at operating.



Station Configurations

FT-1000D – CW (80m/40m/20m/15/10m)

FT-991 – 20m/15m SSB phone

FT-897 – 75m/10m SSB phone

IC-7410 – 40m SSB phone



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FT-1000D CW Station

Located in CW/SSB Tent

- Need to operate FT-1000D under 150W to stay within PRC's field day category.
- Need to properly adjust ALC to minimize key clicks (next page)!



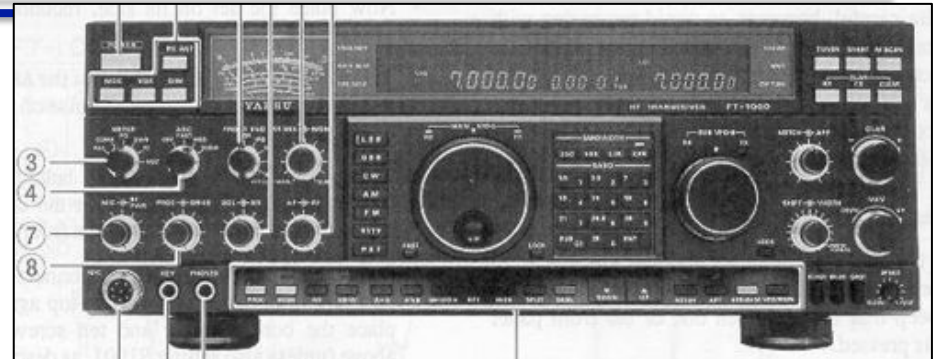


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FT-1000D CW Station

Setting the ALC for CW

Figure 1: Yaesu FT-1000D front panel. Proper adjustment of the Drive (8) and RF-PWR (7) controls are needed for minimum key clicks.



The FT-1000D manual procedure for adjusting these controls for CW operation is as follows:

- Set RF-PWR (the outer ring on control 7 in Figure-1) to about 12 o'clock.
- Switch the meter control (knob 3 in Figure-1) to the ALC position and adjust the Drive control (the outer ring on control 8 in Figure-1) to set the ALC to about mid scale (roughly 12 o'clock, right at the top of the blue bar on the meter ALC scale – the bottom scale on the meter).
- Switch the meter control to the PO position and adjust RF-PWR to set the desired power (0 to 200W) and, if the RF-PWR control was changed very much from the 12 o'clock position set above, go back and readjust the Drive to set the ALC back to near the top of the blue ALC band.

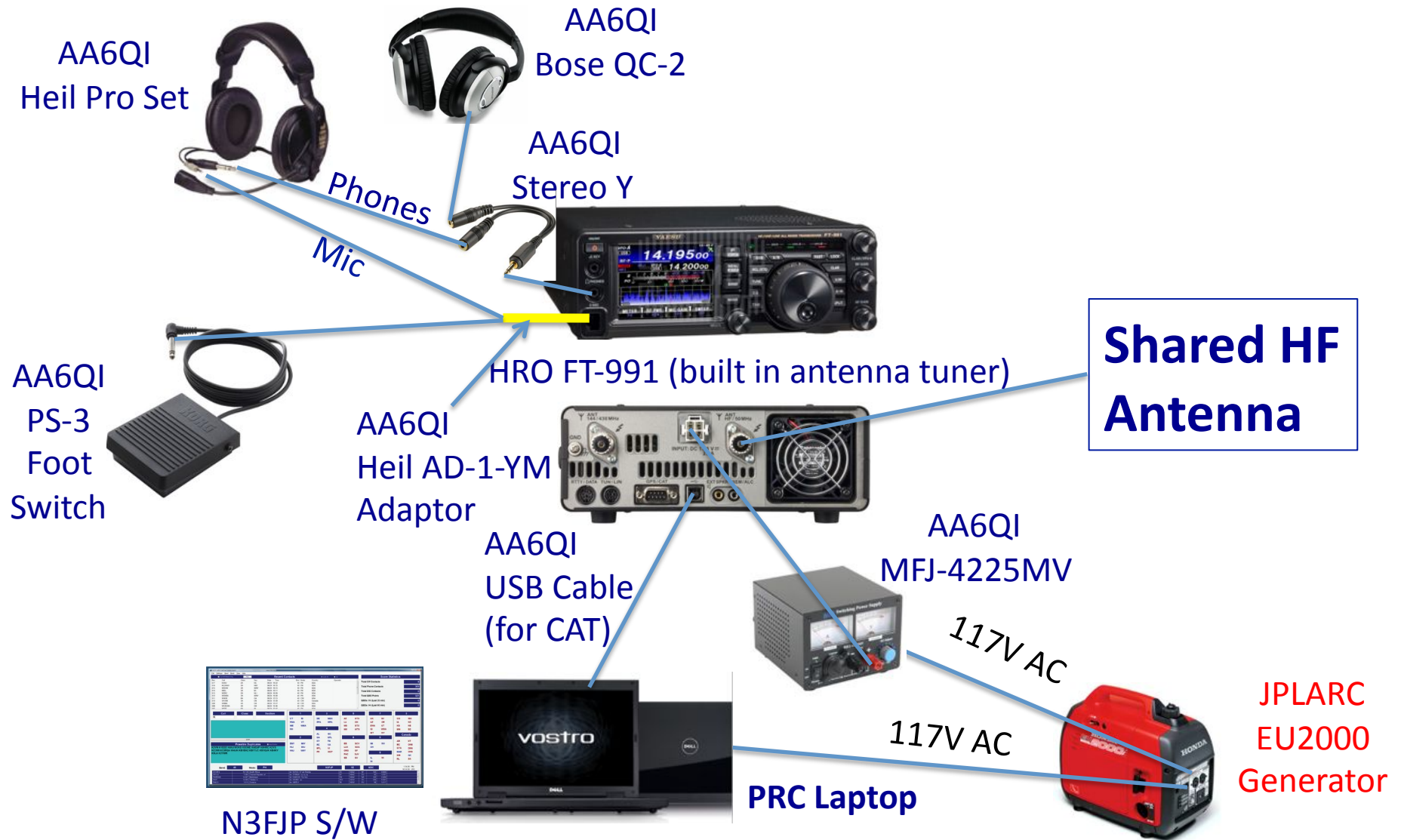
The notes with the W8JI mod suggest reducing the DRIVE to soften key clicks. W8JI's advice is: *"Anything from ½ scale to full scale [ed.- of the blue band on the ALC] is a normal [ed.- CW] waveform. For lowest clicks, adjust DRIVE until ALC registers ¼ scale on the blue area of the meter ALC scale. More ALC creates harder waveform, less ALC creates a softer waveform."*

Thus, with the W8JI key click mod, adjust DRIVE and RF-PWR as per the manual and then back off the DRIVE to reduce ALC somewhat (even as far as ¼ scale) for minimum key clicks.



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FT-991 (10)/15/20m SSB Station Located in CW/SSB Tent





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Shared HF Antenna System

Requires coordinated band use!

**UP to four
HF
Transceivers
on four
Different
bands**

**FT-1000D CW
(all bands)
and
FT-991 SSB
(10/15/20m)**

**Switchable Band Pass
Filter (CITARC)
On 80m/40m dipole**



**KJ6NO's
Dunestar M333-P
HF Diplexer plus
Bandpass filters**

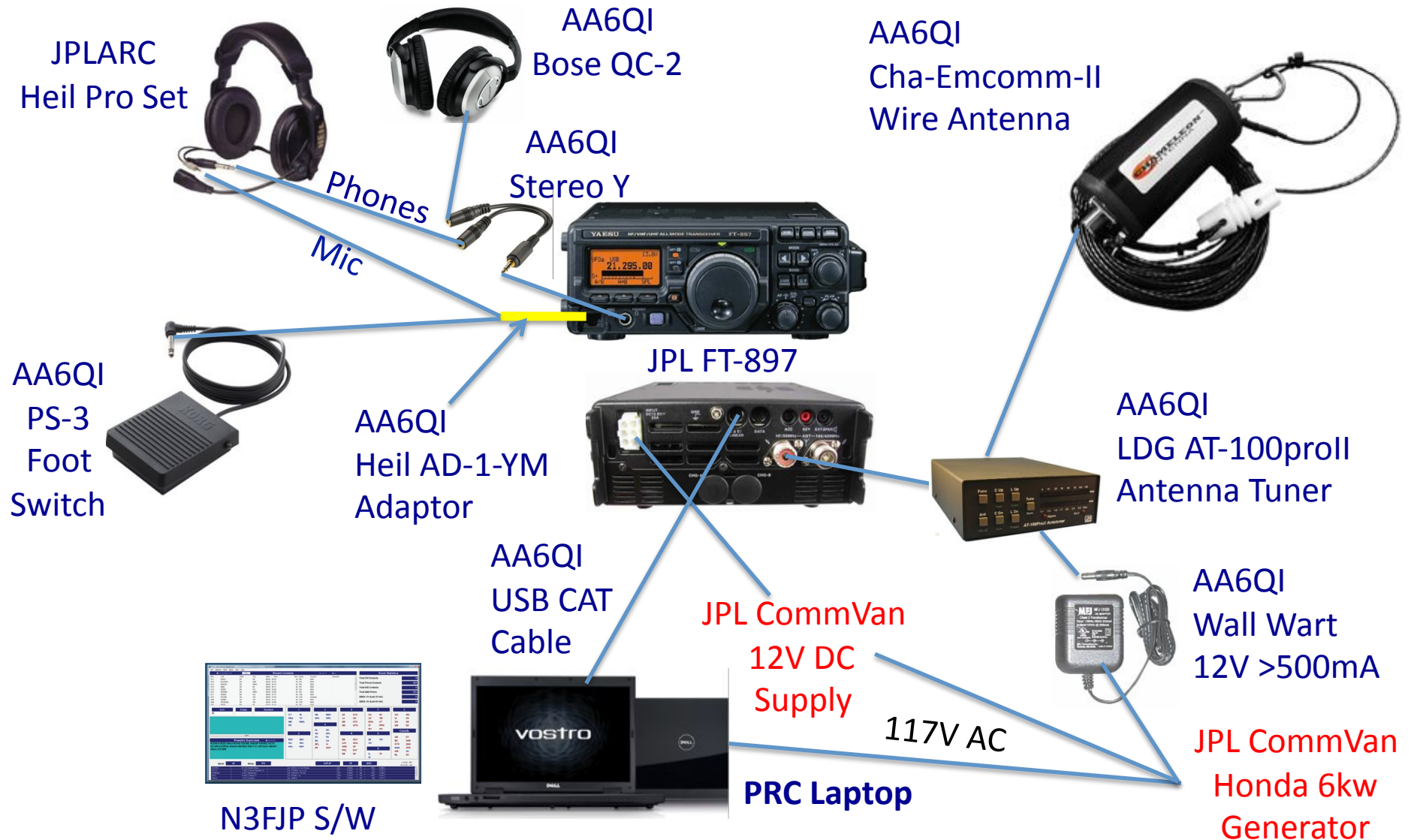


**CITARC Force-12 C3S Yagi
Plus
JPLARC 80m/40m Dipole**



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FT-897 (10)/80/160m SSB Station Located in the JPL Comm Van



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PRC's IC-7410 40m SSB Station

Located at south end of parking lot



W6TAG's IC-7410 transceiver

40m dipole



USB data
cable

TBD 13.8V
Power Supply



N3FJP S/W



PRC Laptop



117V AC

117V AC



PRC
EU2000
Generator



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WA0POD's Satellite Station

Other station details TBD



WA0POD FT-847 transceiver





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Questions Before Field Day?

Send me (Jim Marr AA6QI) an email at:
aa6qi@arrrl.net