

Getting Ready for Tech Field Day

Bob Witte KØNR

15 June 2015



Tri-Lakes Monument Radio Association

Objective

Provide ham radio training in a fun environment
and

Promote emergency communications and
preparedness

During Tech Field Day:

- Learn from informative presentations on amateur radio topics
- Operate a high frequency (HF) radio station with the helpful guidance of an experienced radio ham
- Learn about emergency communications and public service
- Have a bunch of fun messing around with ham radio stuff!

Venue

Black Forest, Colorado
Sat June 27th, 2015
8:00 AM to 5 PM

Black Forest Fire Station 1
11445 Teachout Road,
Colorado Springs



Layout of the site



Schedule

Time	Activity	Owner	Comments
8:00	Setup starts		
8:30	FM Simplex and Repeaters	Bob KØNR	Also do radio programming informally throughout the day
9:30	Operating SSB on the HF Bands	Stu WØSTU	
10:30	Construction of Dipole Antennas	Larry NØAMP	Actually build an antenna for use outside
11:30	Summits On The Air (SOTA)	Steve WGØAT	Goats outside
12:00	Start Field Day Operating		
13:30	Copper pipe antennas	Al WBØTGE	Presentation inside, followed by solder demo outside
14:30	Emergency Power for Ham Radio	Mike WØMJH	
15:30	Ask an Elmer	Bob KØNR and crew	
17:00	End of operations - tear down		

Food Service

*Provided by
Pikes Peak Regional Fire
Rehab Services*

Donations accepted.



Food Service Schedule

Lunch 11 AM to 1 PM

Drinks and snacks all day

Special Cameo Appearance

**WGØAT
and
The
Goats**



ARRL Field Day

Two day event (27 hours): June 27-28
Operating event and radio contest
Most popular ham radio event in North America!

Emphasis on setting up portable “in the field” with emergency power

Score is determined by:

- 1 point per phone contact
- 2 points per CW or digital contact
- Power multiplier
- Bonus points



The purpose of Field Day is to demonstrate the communications ability of the amateur radio community in simulated emergency situations

<http://www.arrl.org/field-day>

Field Day Radio Operating

WØTLM Call sign

Contest Exchange

Operating Class + ARRL Section

Operating Class is

<Number of Transmitters> plus <Entry Category>

Our Operating Class will be 2F

Our Exchange will be 2F CO

Entry Categories:

A: Club portable

B: One or Two Person Portable

C: Mobile

D: Home

E: Home (Emergency power)

F: Emergency Operations Center

ARRL Sections

Our section is Colorado,
abbreviated CO

Or “Charlie Oscar”

But not all sections are
states.

Some examples shown on
the right

Arkansas	AR
Louisiana	LA
Mississippi	MS
New Mexico	NM
North Texas	NTX
Oklahoma	OK
South Texas	STX
West Texas	WTX

East Bay	EB
Los Angeles	LAX
Orange	ORG
Santa Barbara	SB
Santa Clara Valley	SCV
San Diego	SDG
San Francisco	SF
San Joaquin Valley	SJV
Sacramento Valley	SV
Pacific	PAC

ITU Phonetics

A – Alpha

B – Bravo

C – Charlie

D – Delta

E – Echo

F – Foxtrot

G – Golf

H – Hotel

I – India

J – Juliet

K – Kilo

L – Lima

M – Mike

N – November

O – Oscar

P – Papa

Q – Quebec

R – Romeo

S – Sierra

T – Tango

U – Uniform

V – Victor

W – Whiskey

X – X-Ray

Y – Yankee

Z – Zulu

The International Telecommunications Union
Standard Phonetic Alphabet

Actual Field Day Operating

Video from 2014 Field Day

Station operating is: WR5P

Exchange: 2E AR

Example contact:

WR5P: "CQ Field Day Whiskey Radio 5 Papa"

W1BRS: "Whiskey 1 Bravo Romeo Sierra"

WR5P: "Whiskey 1 Bravo Romeo Sierra...Thanks...2 Echo Alpha Romeo"

W1BRS: "QSL Please Copy 9 Foxtrot Charlie Tango"

WR5P: "Got it thanks. QRZ? Whiskey Romeo 5 Papa"

Station Setup

Station 1:

HF/VHF/UHF SSB & FM Phone Station

Hosted by Stu WØSTU

Station 2:

PSK31 Digital Station

Hosted by Larry NØAMP

Yaesu FT-897D

Frequency Display

PTT Switch



Frequency Tuning

Audio gain

N1MM Logging Software

The screenshot displays the N1MM logging software interface. The main window, titled "6/5/2015 02:56:02Z Field Day - K0NR database.s3db", contains a table of log entries. The table has columns for date and time (MM-DD HH:MM), call sign (Call), frequency (Freq), mode (M...), emission type (E...), section (Sect), points (Pts), and operator (Op). Four entries are visible, all from 06-05 02:55. The second entry, W1AW at 28400.00 SSB 12A CT, is highlighted. An inset window titled "14250.00 USB Manual - VFO A" is overlaid on the bottom right. It features a menu bar (File, Edit, View, Tools, Config, Window, Help), a call sign field (WG0AT), and fields for Class and Section. A vertical scale on the left shows CW and PH values from 10 to 160, with 20 circled. Below the scale are control buttons for Run and S&P, and a grid of function keys (F1-F12). At the bottom, it displays "Hdg 44° LP 224° 58mi 94km" and "K: NA/UNITED STATES, Zn 4".

MM-DD HH:MM	Call	Freq	M...	E...	Sect	Pts	Op
06-05 02:55	K0JJW	28400.00	SSB	1B	CO	1	K0NR
06-05 02:55	W1AW	28400.00	SSB	12A	CT	1	K0NR
06-05 02:55	W0STU	14250.00	USB	1E	CO	1	K0NR
06-05 02:55	WG0AT	14250.00	USB	1B	CO	1	K0NR

14250.00 USB Manual - VFO A

File Edit View Tools Config Window Help

WG0AT Class Section

CW PH 160 160
80 80
40 40
20 20
15 15
10 10

Run S&P

F1 S&P F2 Exch F3 F4 F5 His F6
F7 Rpt F8 F9 F10 F11 F12

Esc: Stop Wip Log Edit Mar Stor Spo QRZ

Hdg 44° LP 224° 58mi 94km

K: NA/UNITED STATES, Zn 4 4 4

Digital Operating – PSK31

The screenshot displays a Windows desktop environment with several software windows open for digital operating on PSK31. The desktop background is blue with icons for Recycle Bin, Norton InstallShield, Google Chrome, and various Ham Radio software applications.

The main software window is titled "14071.18 D11 Fldigi - BPSK31". It features a "Setup" menu, an "Interface" section, and a "MouseOver" area. The "MouseOver" area shows "NOT USED" for TX and "CQ" for MouseOver. Below this, a text area displays the following text:

```

e e i o ee r0ee:
CQ Ce teal CQ DE KA0IG5B KTHGCB KAetGCB KN CQ CQ CQ DE KASGCB KASGCB KA???ndB KN
tr a gov-Teor e e
    
```

At the bottom of the window, there is a table with columns for "Clr RX", "Align", "TX", "RX", "Lock", and "Flow". The "RX" column is highlighted in green. The table contains the following data:

Clr RX	Align	TX	RX	Lock	Flow
agn	sr call	nm	4	tu 5m	n2c

Other windows include a log window titled "Field Day - W0TLM:3db" with a message "This Log has no QSOs", a VFO window titled "14070.15 USB IC-706MKII VFO 2", and a waterfall display window titled "Fldigi Engine 1 - waterfall-only mode" showing a frequency spectrum around 14071.18 MHz.

Education

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Summary

Educational Presentations
Field Day radio operating
Great Food
Great People
Great Fun!!!

The Universal Purpose of Amateur Radio:
To Have Fun Messing Around with Radios.

Questions?