

443.300 – Plus offset (5 MHz), tone 67 Hz
145.430 – Minus offset (600 kHz), tone 67 Hz
146.460 – Plus offset (1 MHz), tone 67 Hz
146.685 – Minus offset (600 kHz) DMR



VE Testing Policies; test sessions begin at 6PM – just prior to the 7PM monthly meeting on the 3rd Tuesday of each month.



SMRA AMATEUR RADIO CLUB WWW.N3TWT.ORG ED OTTO, W3ETO - PRESIDENT'S MESSAGE

TUESDAY 21 JUL 2026 AT 7:00 PM
GENERAL SMRA MONTHLY MEMBERSHIP MEETING
ALSO STREAMED ON ZOOM

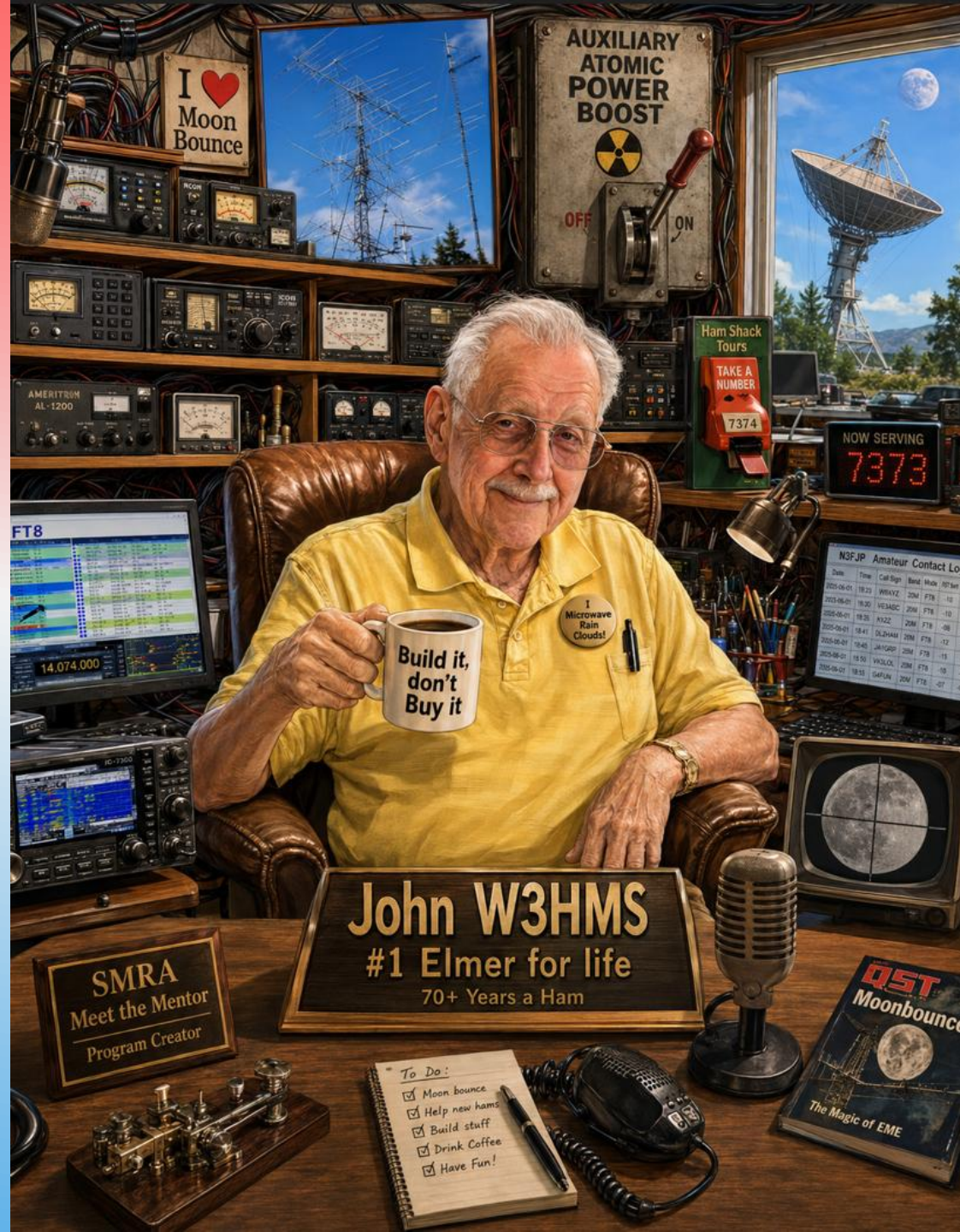
CALL TO ORDER

- ▶ Recognition of guests
- ▶ New member applications
- ▶ Acceptance of new members
- ▶ New Members: We use the message system Groups.io for communicating to members. You will see a request to join SMRA.Groups.io



FUN WITH AI

Thank you, John
W3HMS



TONIGHT:

- ▶ Presentation: Antenna Modeling
- ▶ SMRA Project Updates
- ▶ Shack-of-the-Month & Gadget of the Month
- ▶ MTM & Emcomm & QRP
- ▶ AAR of Summer engagements
- ▶ Upgrades and Moves
- ▶ Officer's report
- ▶ Nets
- ▶ Announcements, Contests and Events
- ▶ Around the Room – as time permits



PRESENTATION:

Antenna Modeling Software

Rick Stoner – KC3DRU

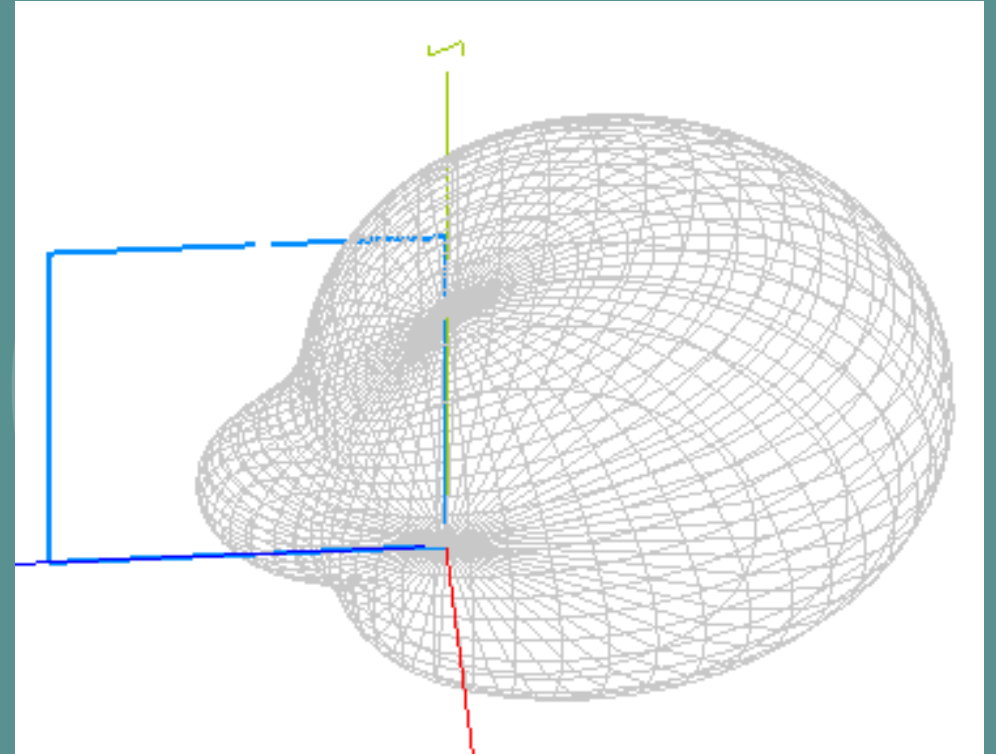
Find Many of SMRA's Past Presentations on our website at:
Monthly Presentations - SMRA - South Mountain Radio Amateurs
<https://n3twr.org/monthly-presentations>



Antenna Modeling Software

Rick Stoner
KC3DRU @ Gmail.com

July 2026
January 2020



Link to this presentation:
<https://bit.ly/DRU202001>

Released under:
CC-BY-NC

The background is a solid orange color. In the upper right corner, there are several decorative elements: a small circle with a pie chart, a larger circle with a pie chart, and another small circle with a pie chart. These circles are semi-transparent and overlap each other.

**“Amateur radio is about
experimentation... We are
specifically granted RF
spectrum so that we can play
with radio and create new
things.”**

**Mark Smith KR6YZ a/k/a “Smitty Halibut”
Ham Radio Workbench episode #93**



Software that Allows you to...

Design / Draw an antenna

Change the height above the ground

Change the feed point location and impedance

Add elements like loading coils, reflectors, directors

Estimate the $vSWR$ at the given frequency

Do a frequency sweep to find the resonance frequency or lowest SWR

View the radiation pattern (far field plot)



Benefits...

Allows you to run calculations and tests on a possible antenna design before you invest MONEY and TIME into building a real one.

See what would happen if you add a second (third/fourth) antenna to your lot. - Would it interfere with the existing antenna?

Allows you to share designs, or start with someone else's design and go on from there.

Learning to use MMANA-GAL

Instead of trying to review the software here tonight, I recommend watching Callum's (M0MCX) video series on YouTube. You can run the software and follow along with his videos.



Quick Summary: Define Start/End Points for each wire on x/y/z axis

MMANA-GAL basic C:\Data\80m_OCFD.maa

File Edit Tools Setup Help MMANA-GALpro

Geometry View Calculate Far field plots

Name Freq 3.800 MHz ☐ lambda

Wires 4 Auto segmentation: DM1 800 DM2 80 SC 2.0 EC 2 ☐ Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	0.0	13.7	-4.0	-10.0	15.7	0.8	-1
2	0.0	0.0	13.7	0.0	22.0	17.7	0.8	-1
3	0.0	22.0	17.7	0.0	22.0	13.7	0.8	-1
4	-4.0	-10.0	13.7	-4.0	-10.0	15.7	0.8	-1
next								

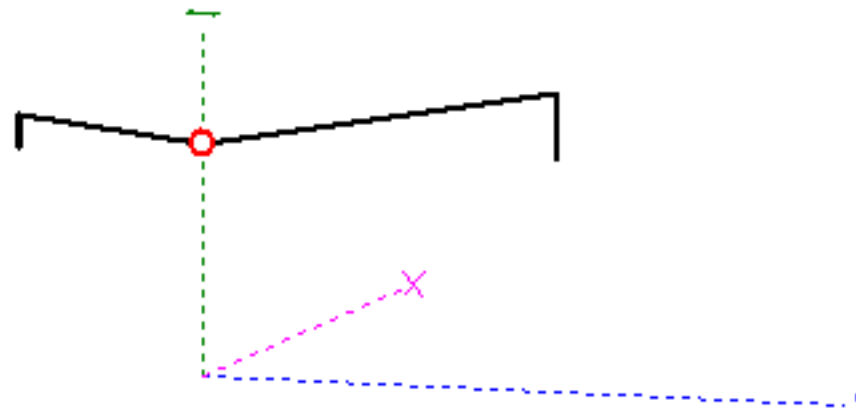
Sources 1

No.	PULSE	Volt. V	Phase dg
1	w2b	1.0	0.0
next			

Loads 0 (L - uH; C - pF; R/X - Ohm) ☐ Use loads

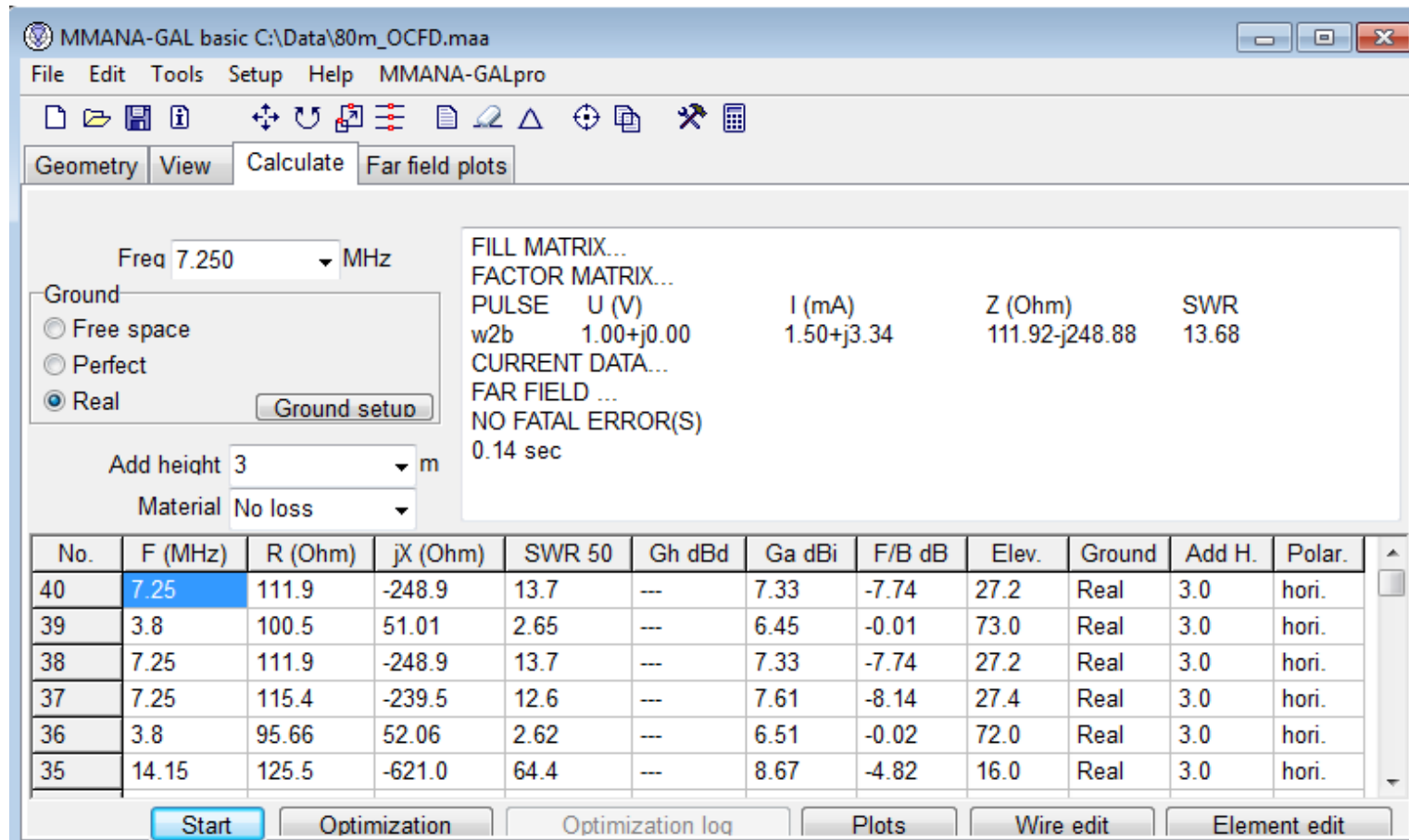
No.	PULSE	Type	L/R/A0	C/jX/B0	Q/A1	F/B1
next						

Quick Summary: View the Design (My 80m OCF Dipole)



Wire No.4
X1 : -4.0 m
Y1 : -10.0 m
Z1 : 13.7 m
X2 : -4.0 m
Y2 : -10.0 m
Z2 : 15.7 m
R : 0.8 mm
Length : 2.0 m
Azim. : 0.0 deg
Zenith : 90.0 deg

Quick Summary: Pick a Frequency / Run Calculations



MMANA-GAL basic C:\Data\80m_OCFD.maa

File Edit Tools Setup Help MMANA-GALpro

Geometry View **Calculate** Far field plots

Freq 7.250 MHz

Ground

- ☐ Free space
- ☐ Perfect
- ☒ Real

Ground setup

Add height 3 m

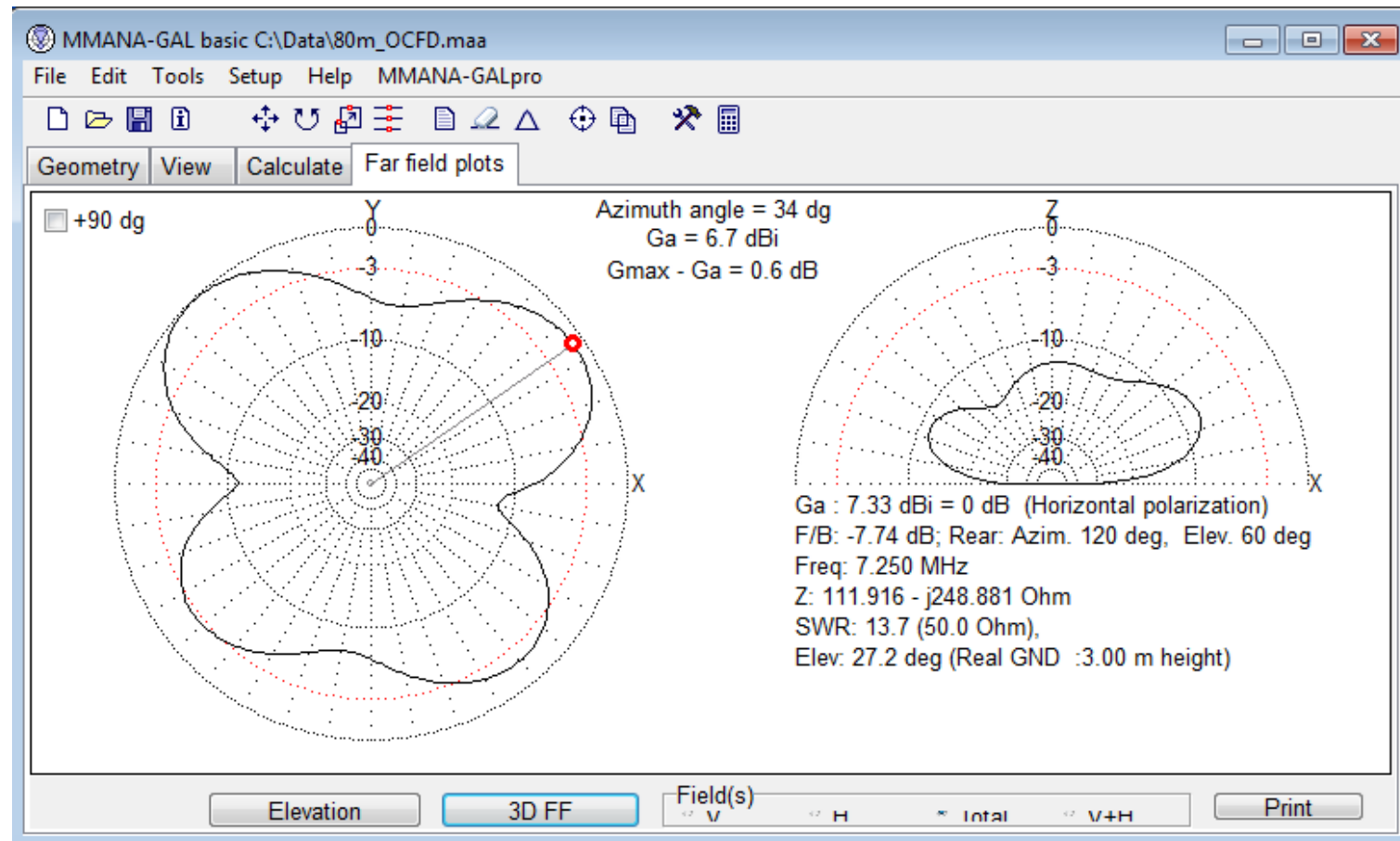
Material No loss

FILL MATRIX...
FACTOR MATRIX...
PULSE U (V) 1.00+j0.00 I (mA) 1.50+j3.34 Z (Ohm) 111.92-j248.88 SWR 13.68
CURRENT DATA...
FAR FIELD ...
NO FATAL ERROR(S)
0.14 sec

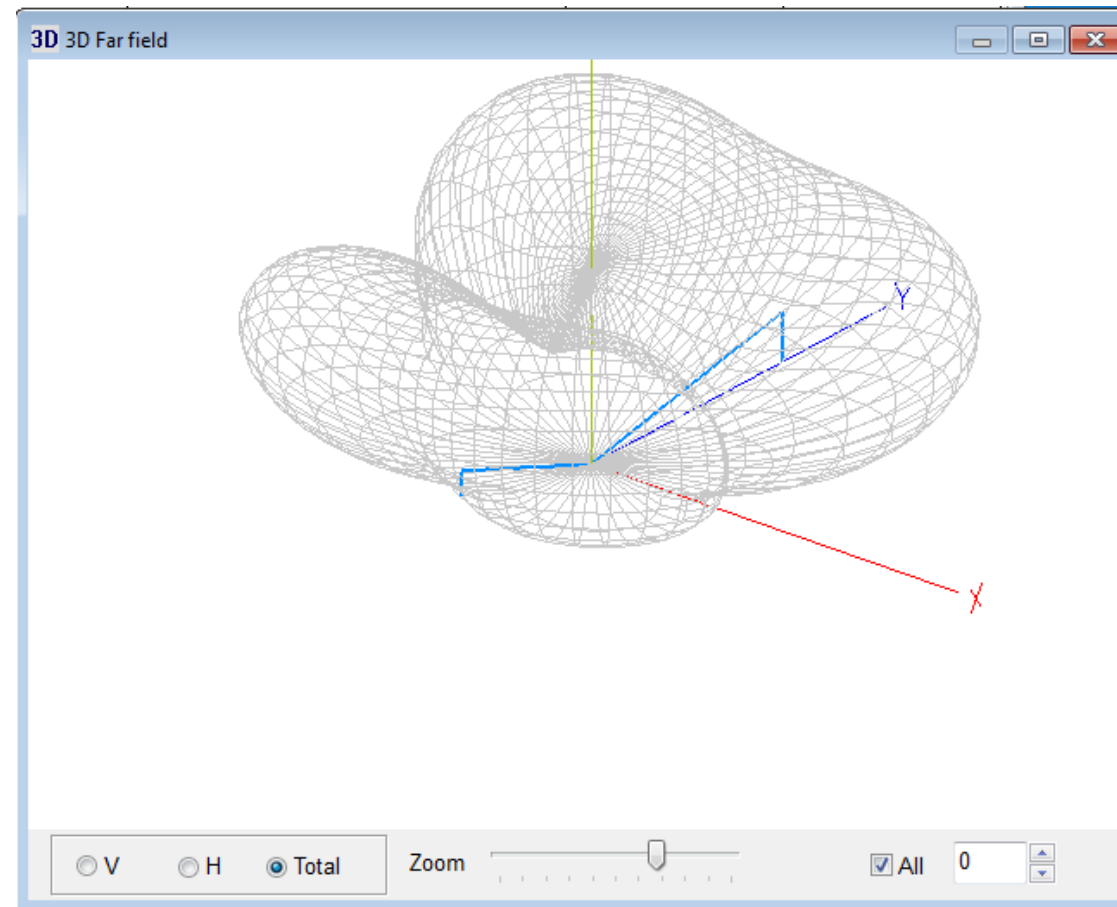
No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.
40	7.25	111.9	-248.9	13.7	---	7.33	-7.74	27.2	Real	3.0	hori.
39	3.8	100.5	51.01	2.65	---	6.45	-0.01	73.0	Real	3.0	hori.
38	7.25	111.9	-248.9	13.7	---	7.33	-7.74	27.2	Real	3.0	hori.
37	7.25	115.4	-239.5	12.6	---	7.61	-8.14	27.4	Real	3.0	hori.
36	3.8	95.66	52.06	2.62	---	6.51	-0.02	72.0	Real	3.0	hori.
35	14.15	125.5	-621.0	64.4	---	8.67	-4.82	16.0	Real	3.0	hori.

Start Optimization Optimization log Plots Wire edit Element edit

Quick Summary: View the Far Field Results



Quick Summary: View the Far Field Results (3D View)





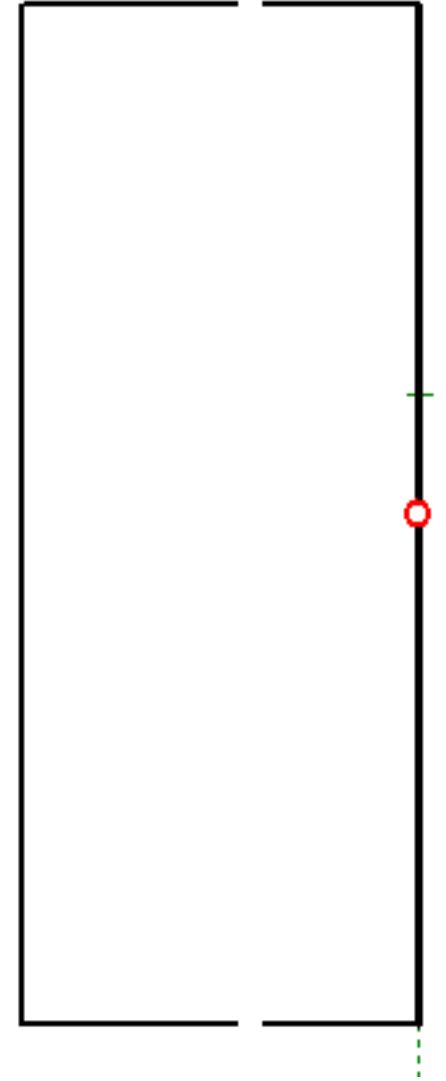
Using it to Solve a Problem...

I want to build a 20 meter directional antenna to be used for field operations.

The style that I've picked is a vertical Moxon antenna. It's similar to a 2-element Yagi but the "tips" of the elements are folded towards each other and are separated with an air gap.

I want to use it around 14.250 MHz in the SSB (voice) segment of the 20 meter band

The vertical parts of the reflector (left) and the driven elements (right) should be 23.5 feet.





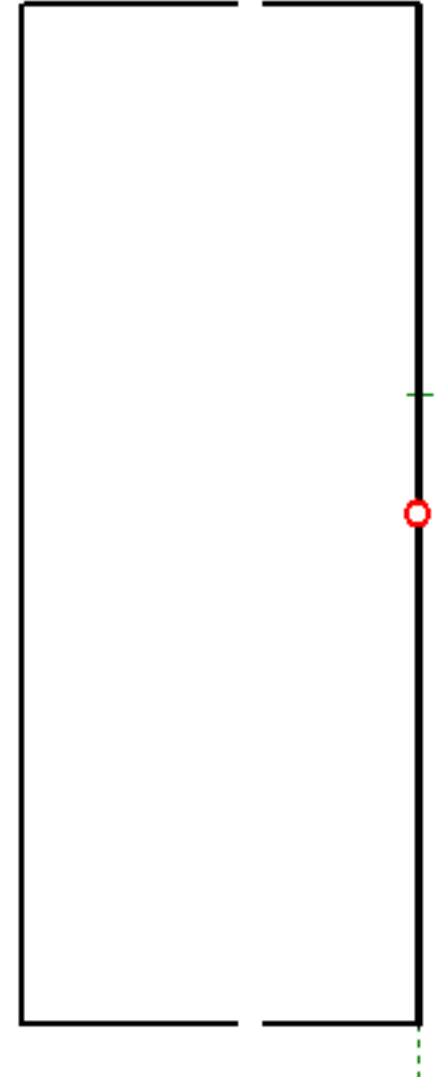
Today's Problem... (continued)

For lightweight field work, I want to use 2 carbon fiber Tenkara fly fishing rods for the vertical support.

My Tenkara rods are 22 ft long but the bottom elements of the antenna need to be elevated off the ground. (2 feet)

The top elements of the fly rod are too weak to keep the wire vertical so they are not really usable. (4 feet).

I'm left with 16 feet of usable vertical support - what will that do to the antenna's performance?

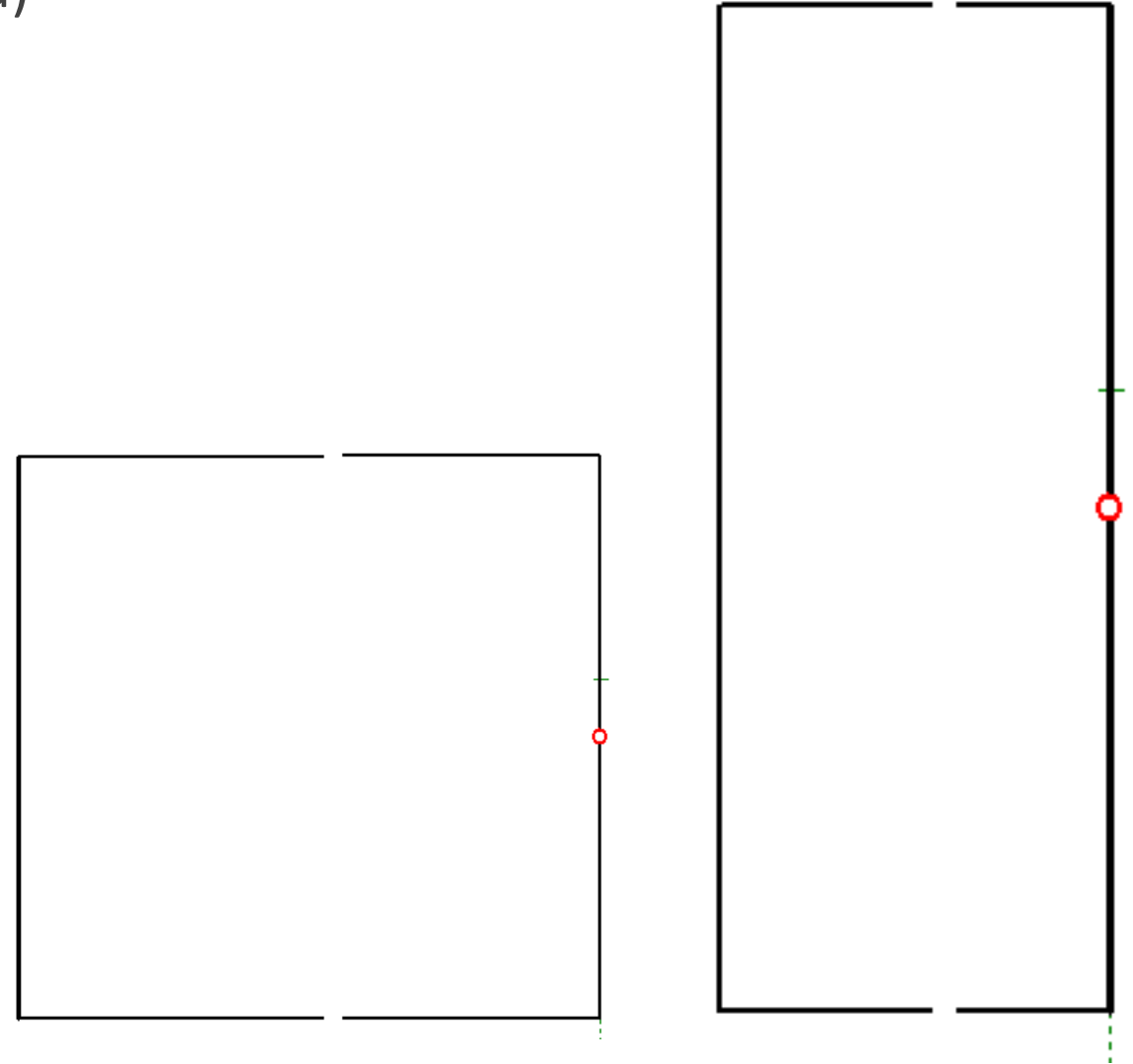




Today's Problem... (continued)

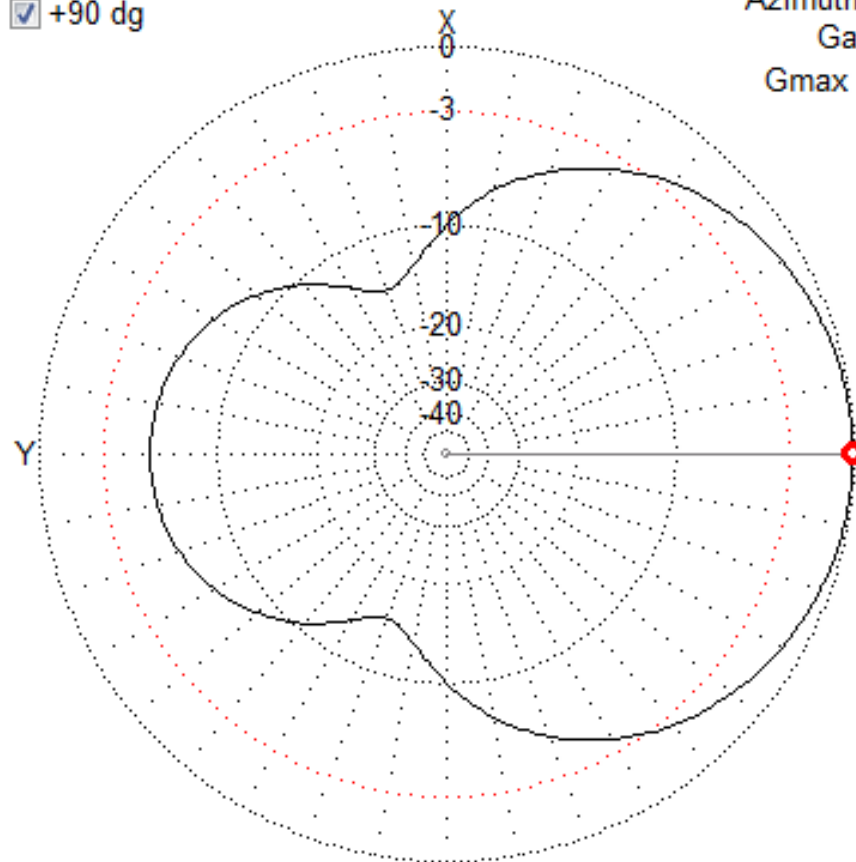
The height removed from the vertical section was added evenly to the horizontal segments so that the reflector and driven wire length remains the same as the original design.

The “air gap” between the top elements and bottom elements remained the same (it's one of the measurements that is computed by the Moxon Design website.)

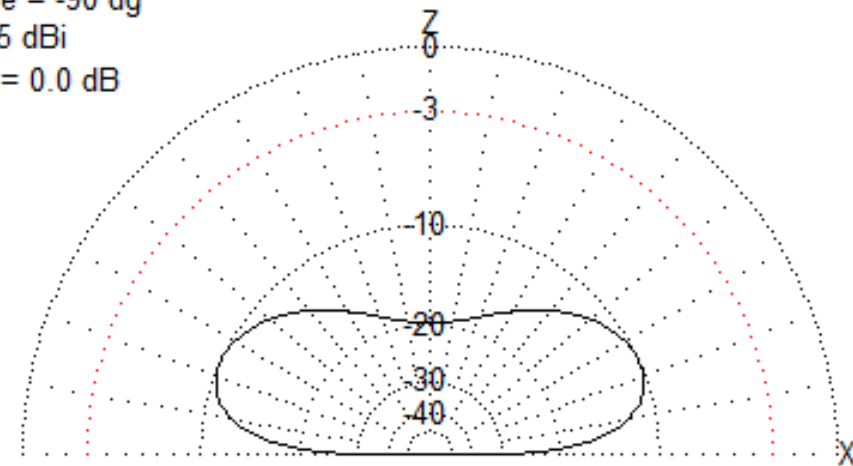


Original Design's Far Field Plot

☒ +90 dg

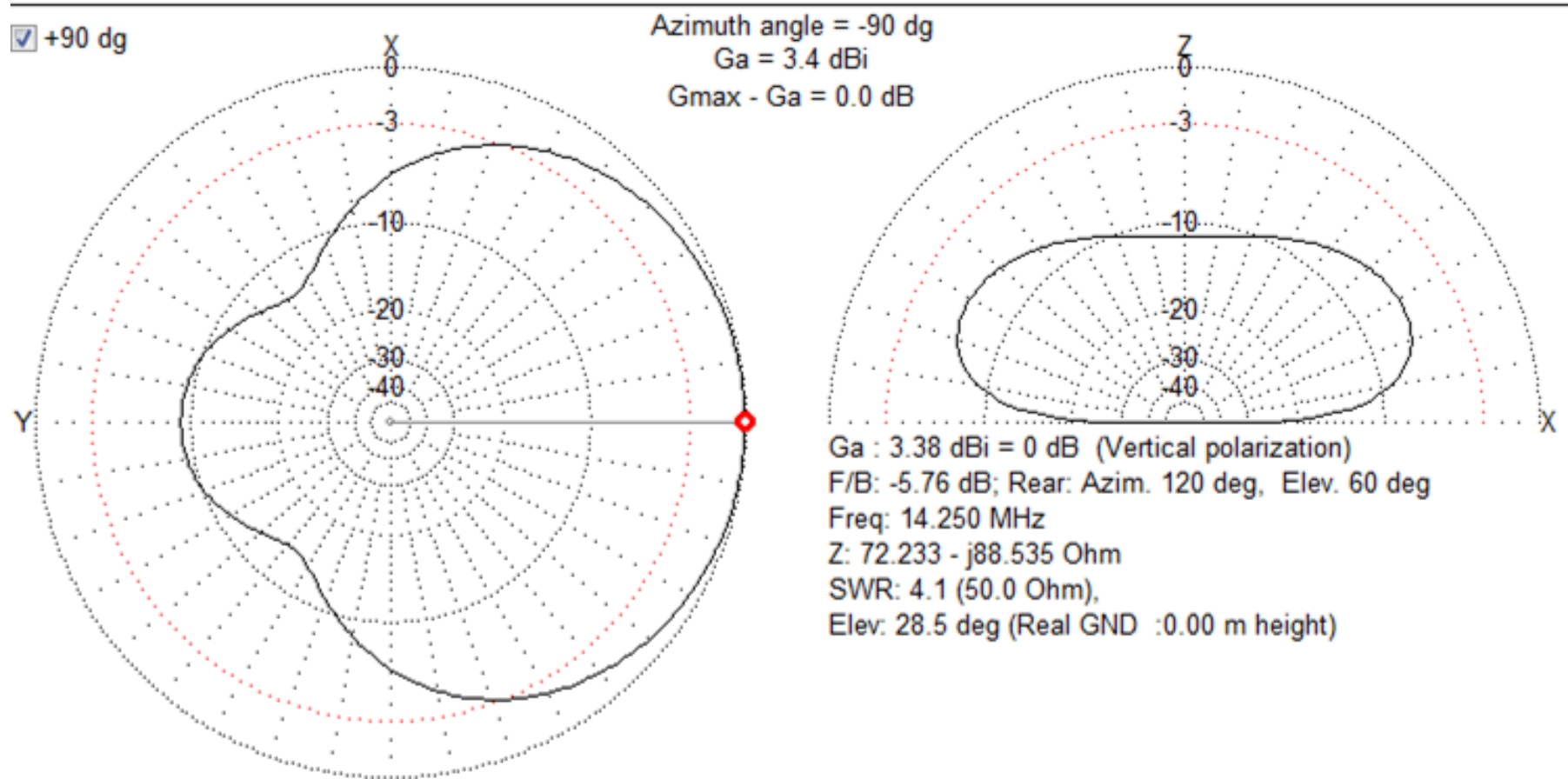


Azimuth angle = -90 dg
 $G_a = 3.5$ dBi
 $G_{max} - G_a = 0.0$ dB



$G_a : 3.55$ dBi = 0 dB (Vertical polarization)
F/B: -9.08 dB; Rear: Azim. 120 deg, Elev. 60 deg
Freq: 14.250 MHz
 $Z : 28.500 - j96.881$ Ohm
SWR: 8.8 (50.0 Ohm),
Elev: 23.9 deg (Real GND :0.00 m height)

Stouter Design's Far Field Plot





Testing the Theory

Equipment: Xiegu G90 20 Watt radio. Raspberry Pi 3B+ to run the rig. USB GPS for time/clock synch. Bioenno LiFePO4 battery. Chromebook to remote control the Pi.

Mode: FT8... Rationale, remove the human factor reports where everyone gets “59”. Use signal reports sent by other operators using WSJT-X and uploaded to PskReporter.info

Data: Export the signal spot reports from PSKReporter as an ADIF file for review and processing.

Antenna Orientation: N-S axis with beam pointing North. I wanted to keep all contacts in the same “time zone” and not worry about sunset in the East (into Europe.)



Initial Results: Disappointing

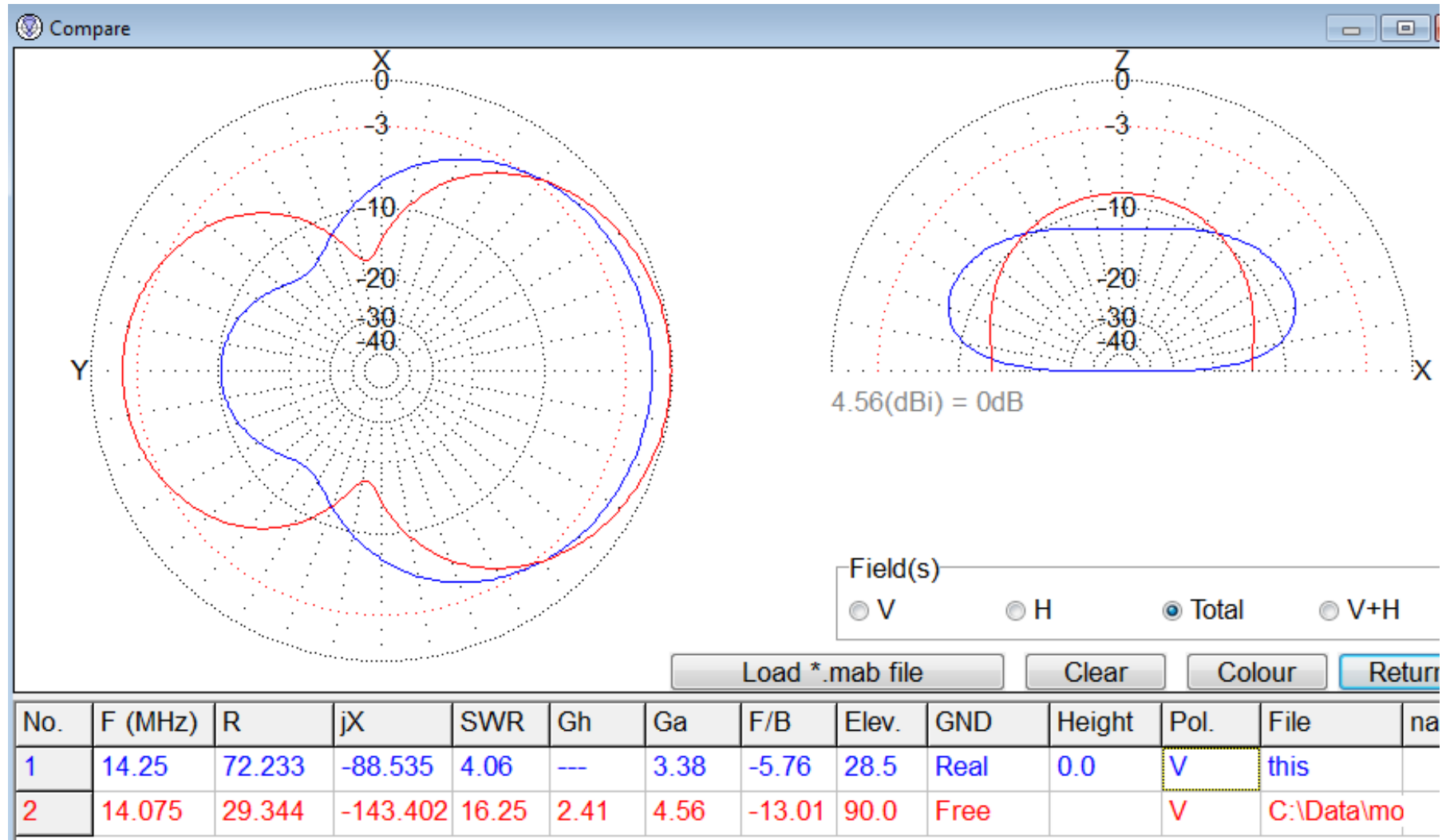
I was seeing my “spots” show up on PSKReporter with about as many coming from the South as were coming from the North.

If the design was working as predicted by the model, there would be more spots from the North and fewer from the South

I took down the antenna and reversed the direction to beam to the South. Spots continued to come in from both North and South.

Frustrated, I disassembled the setup and returned to the modeling software. The antenna was designed for 14.250 MHz but FT8 runs on 14.074 MHz does that make a difference?

Tx 14.075 **Red** on a 14.25 Design **Blue**





So Now What?

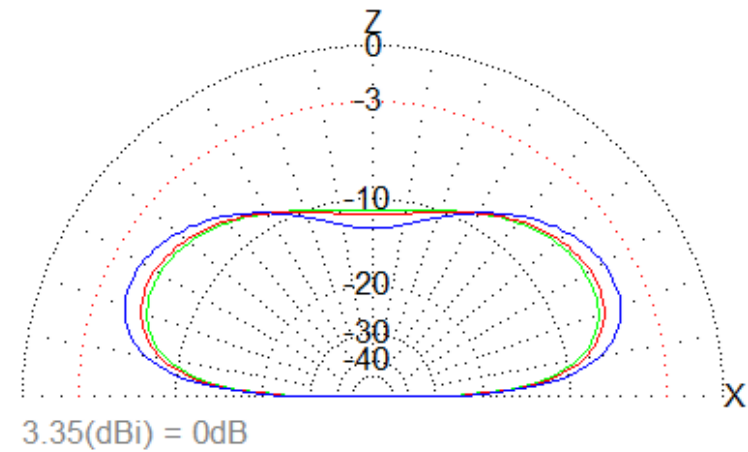
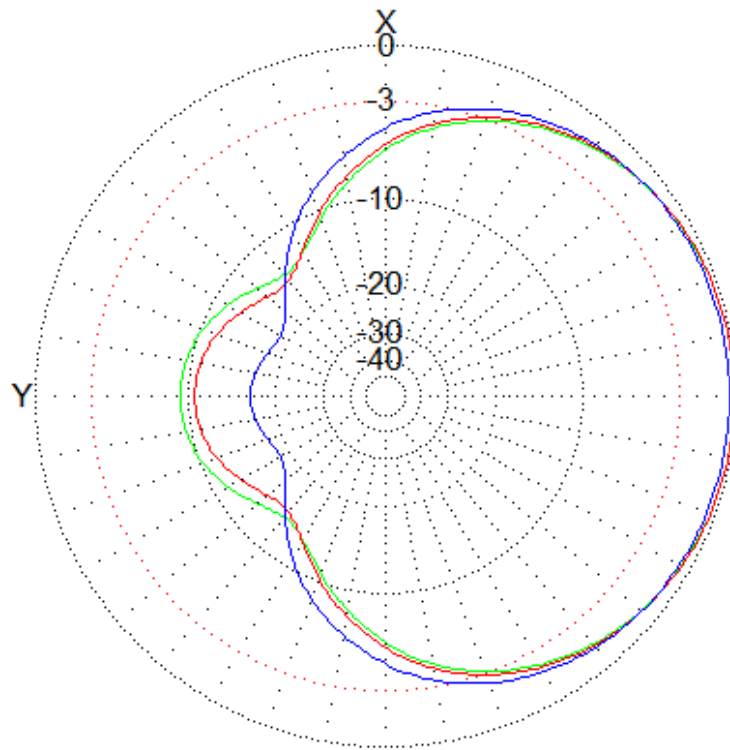
I just started hacking at the design with the software.

As I ran the frequency lower, it became more omnidirectional. The “left node” opened up even more...

Increasing the frequency higher than the design, the “left node” shrank becoming more “D” shaped or clamshell shaped pattern...

So, what if I modeled it for CW 14.025, would it work on FT8 and SSB too?

CW (Green) FT8 (Red) SSB (Blue)



Field(s)

☐ V ☐ H ☒ Total ☐ V+H

Load *.mab file

Clear

Colour

Return

No.	F (MHz)	R	jX	SWR	Gh	Ga	F/B	Elev.	GND	Height	Pol.	File	na
1	14.025	72.982	-93.704	4.32	---	3.35	-5.62	28.6	Real	0.0	V	this	Me
2	14.075	77.756	-90.049	4.04	---	3.34	-5.27	27.8	Real	0.0	V	C:\Data\mo:	
3	14.25	91.84	-82.347	3.58	---	3.09	-4.09	26.1	Real	0.0	V	C:\Data\mo:	



New Design (Cut for CW) - First Test

Gifford Pinchot Conewago Day Use Area.

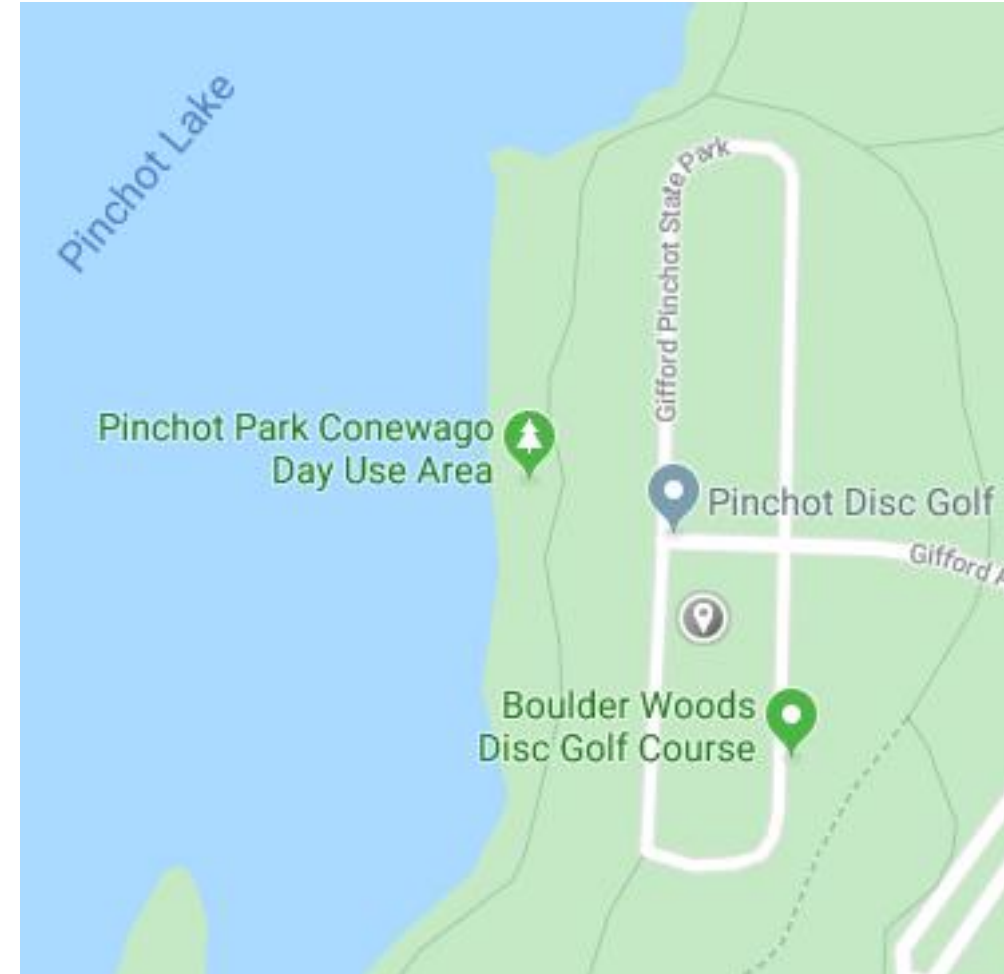
Antenna oriented N/S beaming South

FT8 on the Raspberry Pi, Xiegu G90 & Chromebook, ran for about 30 minutes.

Switched to SSB to “Active the Park” for POTA.

Made 31 voice QSOs in 40 minutes on 14.244!

Florida, Texas, Louisiana, Mississippi, Utah but also California, North Dakota, and Washington



New Design, First Test - FT8 Results

Lots of spots in the South FL, LA, MI

Surprised by the Westward contacts?

Few to the North and North East.

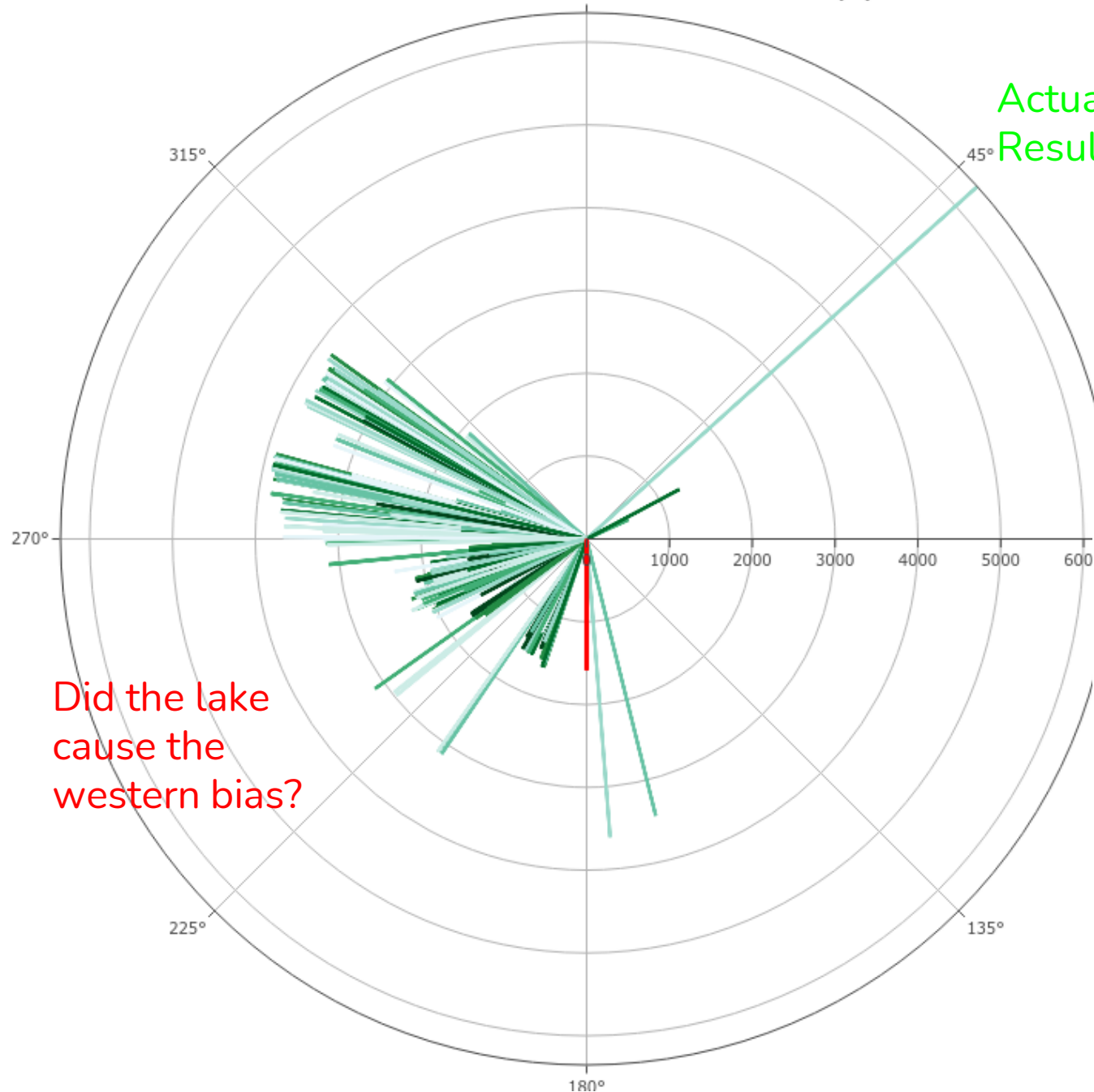
Was lack of N/NE due to antenna direction or is it because they are in my “skip zone”?

Look at open area between PA and first “ring” of westerly contacts.
That distance would skip all of the New England states...
Hmmm???



New Design FT8 Results - Polar Plot

KC3DRU 20m Moxon v2 - Results 2019-11-30 (S)



Key:

Red = Antenna direction

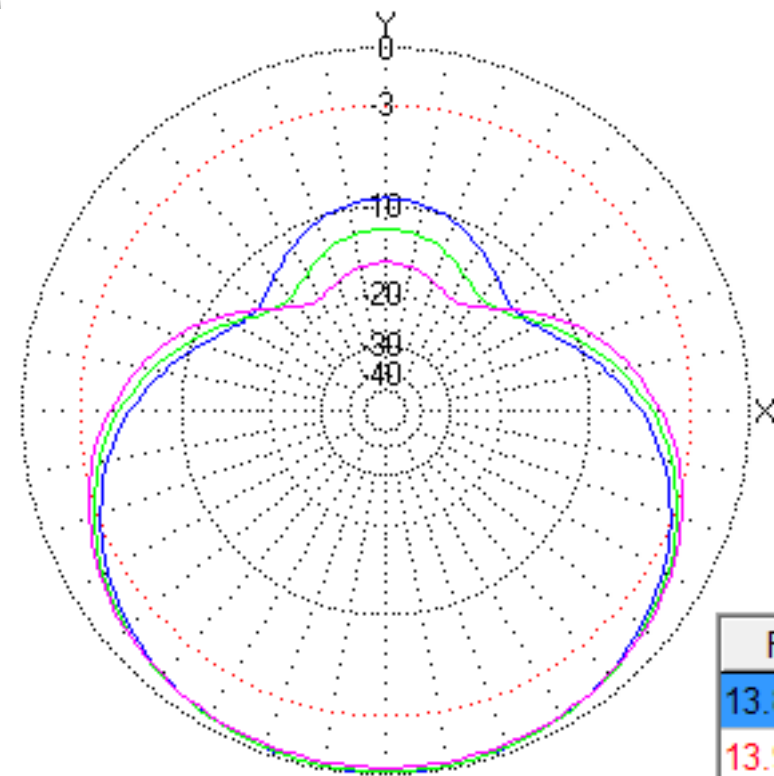
Green = Signal reports

Length = Distance from site

Direction = Direction from site

Shading = Signal strength

Predicted Results



13.
13.

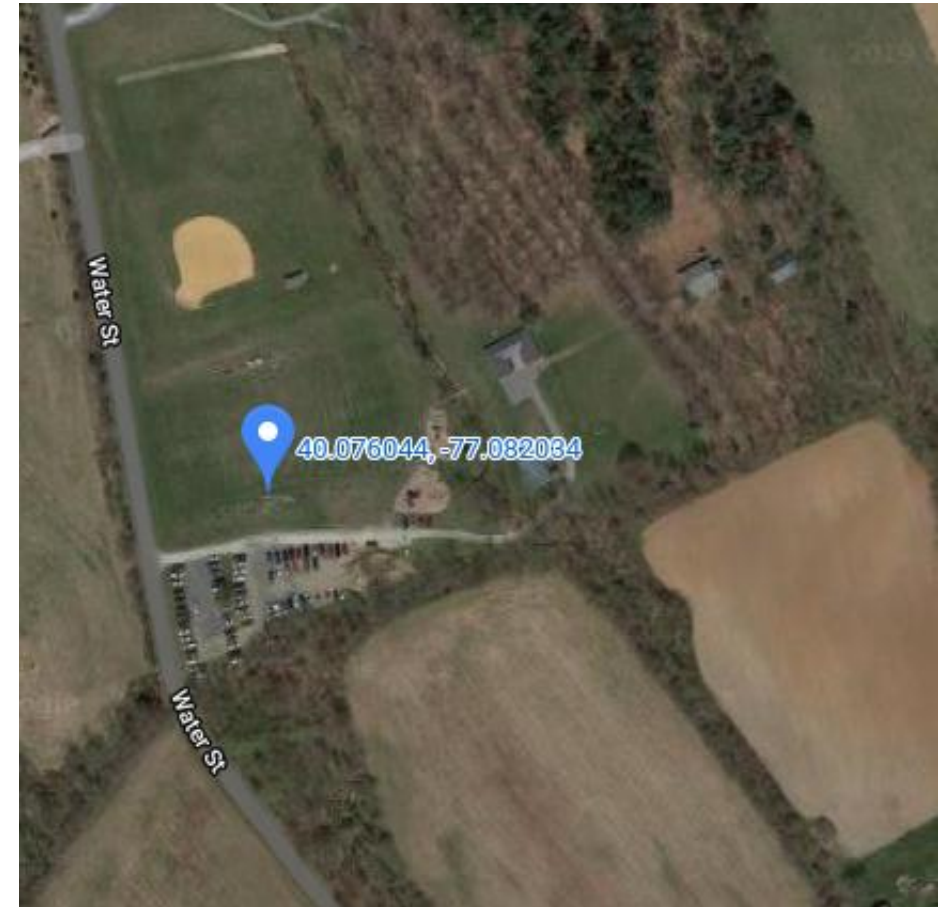
Second Test - Away from Water

Move to Ponderosa Park Franklin Township.

It was windy with wind chills around 25° so no one else was around.

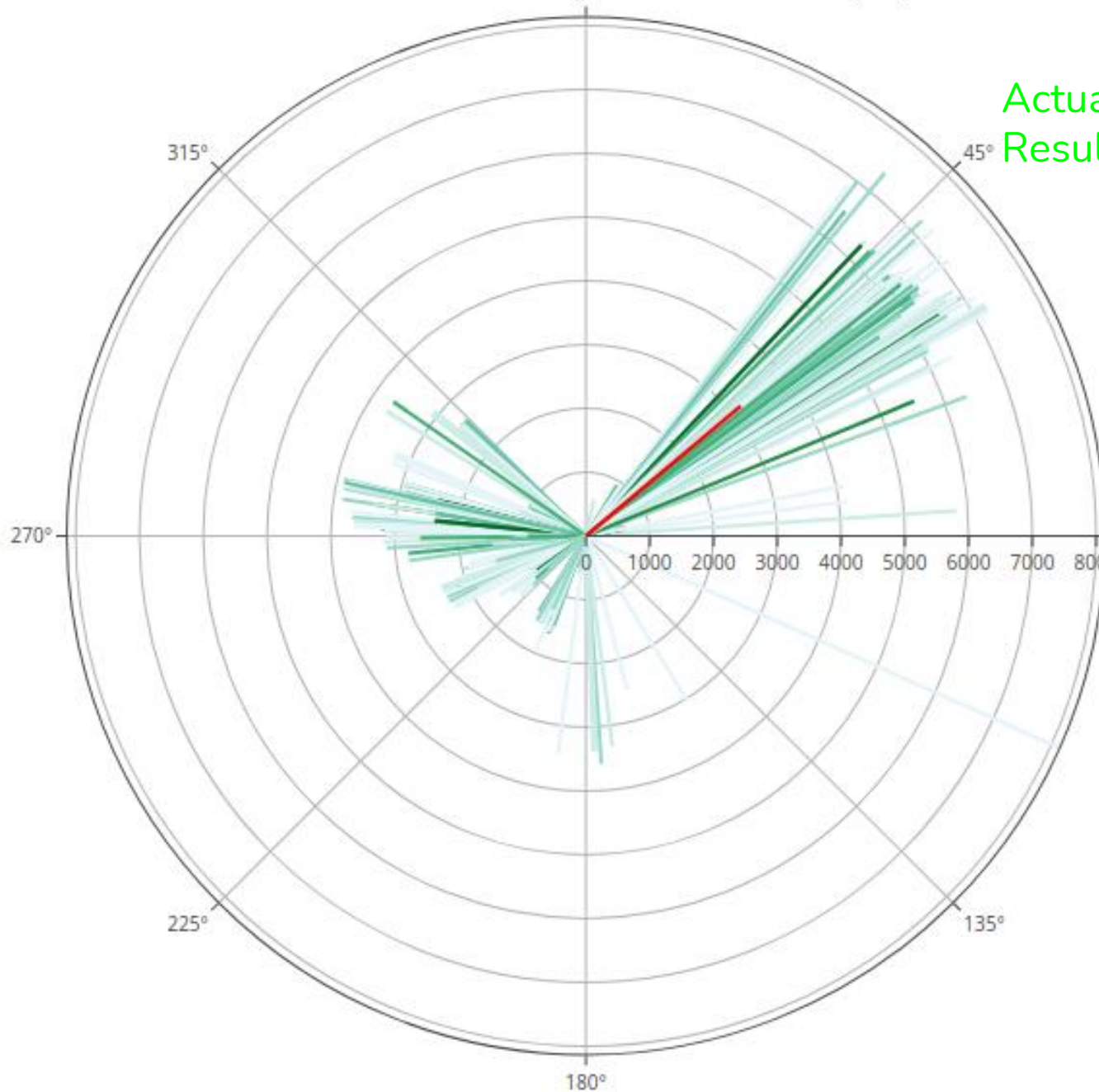
Same equipment as prior tests. Also same mode FT8.

Antenna oriented pointing NE (50°) for 30 minutes and then rotated to SW (230°) for 30 minutes



New Design FT8 Results - Polar Plot

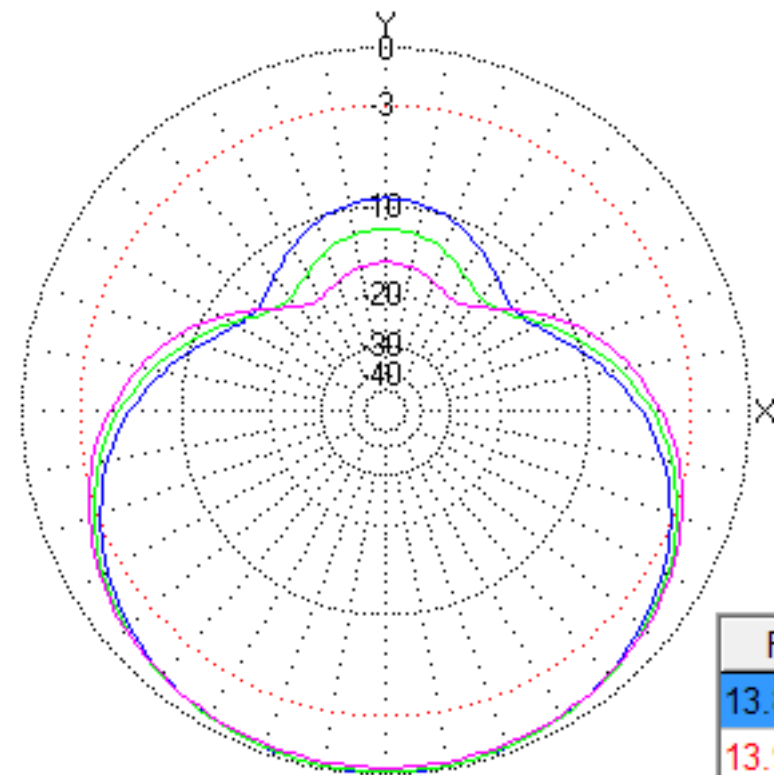
KC3DRU 20m Moxon v2 - Results 2020-01-05 (NE)



Actual
Results

Key:
Red = Antenna direction
Green = Signal reports
Length = Distance from site
Direction = Direction from site
Shading = Signal strength

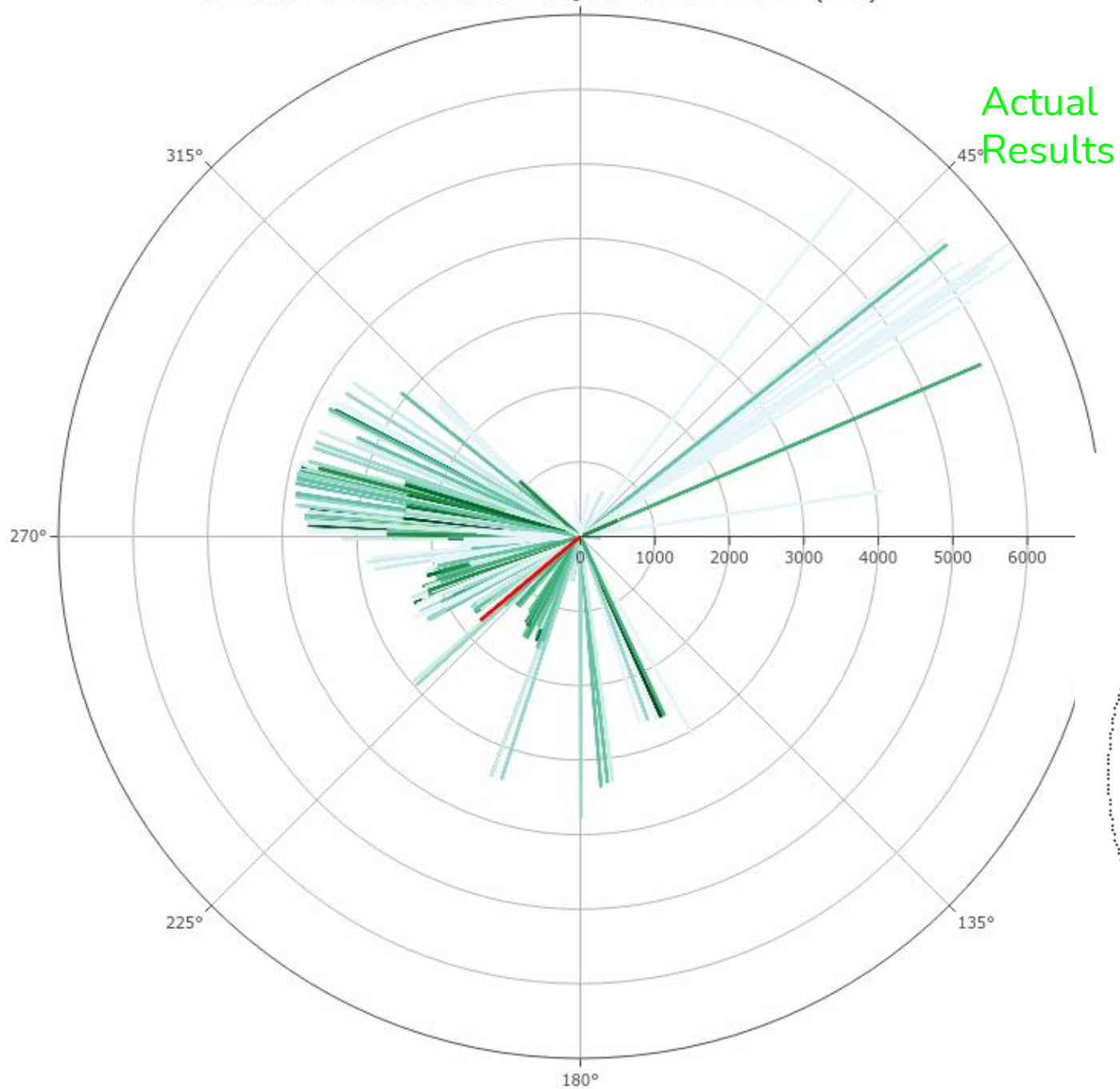
Predicted Results



13.
13.

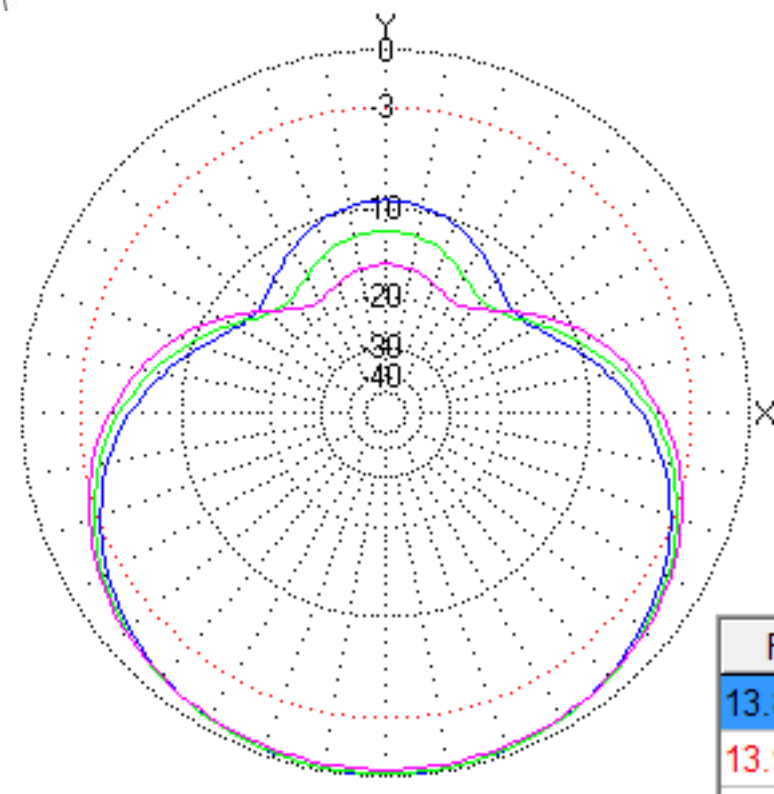
New Design FT8 Results - Polar Plot

KC3DRU 20m Moxon v2 - Results 2020-01-05 (SW)



Key:
Red = Antenna direction
Green = Signal reports
Length = Distance from site
Direction = Direction from site
Shading = Signal strength

Predicted Results



13.
13.



Final Summary: Happier with these Results

The PSKReporter spots appeared to move with the direction of the antenna.

There are still signals coming off the back side but the plot for FT8 still has a bulb coming out the back of the antenns.

Nulls appear to be in the right spots “5 and 7 o’clock”.

Will be anxious to try it on SSB (voice modes) for Winter Field Day and maybe a winter Parks On The Air activation later in the month.

Challenge to test due to shorter days - try again in June?

I want to do more experiments with the “Lake Effect”...

Testing Gear



lay (k)



The Final Build

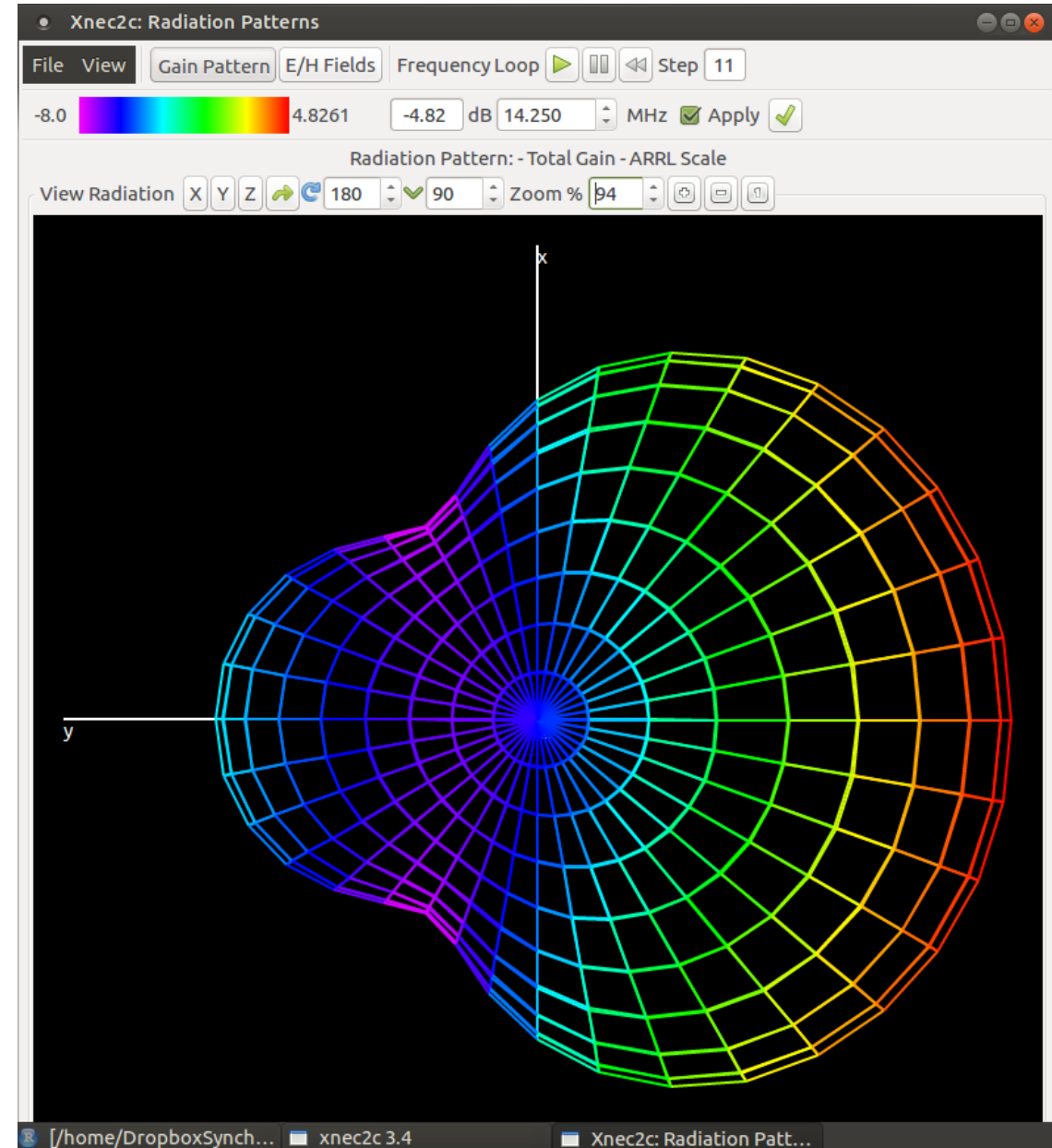




Linux Options...

MMANA-GAL will run on Linux in **WINE**.

You can also use the application **XNEC2C**. The screenshot to the right is the same Moxon antenna's far field plot in XNEC2C.





Apple Option?

CoCoaNEC for Apple? Can't vouch for it though...

W7AY Home	cocoaNEC	Introduction	Tutorials	Ref. Manual	Ref. Manual II	Ref. Manual III	Examples	Index
-----------	----------	--------------	-----------	-------------	----------------	-----------------	----------	-------



cocoaNEC 2.0 Manuals

Kok Chen, W7AY [w7ay (at) arrl (dot) net]
Last edited: May 3, 2018

Introduction

cocoaNEC 2.0 is a [Mac OS X](#) application intended primarily for the design and modeling of antennas. cocoaNEC uses the Mac OS X [Cocoa](#) framework and is a Universal Binary application.

Both the cocoaNEC 2.0 application and the Xcode project and sources are free.



Future Tech

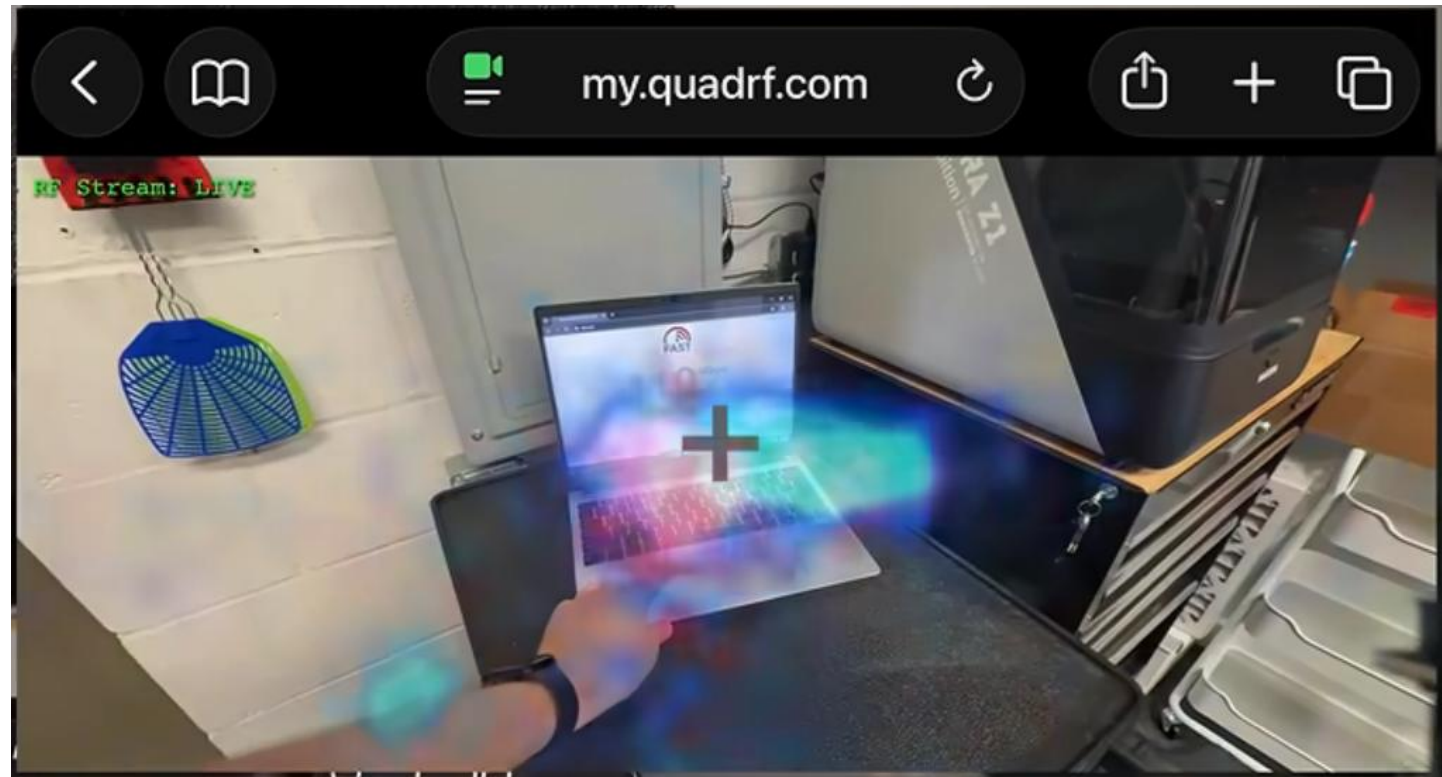
July 10, 2026 - Jeff Geerling is demonstrating a device that allows you to “see” WiFi signals coming from a device - laptop, phone, access point.

https://www.youtube.com/watch?v=QSEvE2c_cc

This would be cool if it worked on the Ham frequencies!!

It uses a Raspberry Pi 5
4 Phased array antennas
FPGA board
Measures in the picoseconds

<https://scalerf.com/>



Bonus Content - Keeping A Dark House - A House without MS Windows



Virtualbox is a software package that allows you to run another operating system inside your main operating system.

For this presentation I ran Windows 7 Professional inside a Virtualbox virtual machine on my Ubuntu Mate laptop.

July 2026 - Now I use Virtual Machine Manager instead of Virtualbox - same concept but now part of Linux





Reference Links

MMANA-GAL Software Site: <https://hamsoft.ca/pages/mmana-gal.php>

MMANA-GAL Download: <http://gal-ana.de/basicmm/en/#18>

DX Commander on YouTube by Callum M0MCX - <https://www.youtube.com/watch?v=dgBcYy6kwWs>

DX Commander's channel for Antenna Modeling series - <https://www.youtube.com/playlist?list=PLcC64tNkZB7zL-6HKJ5ihuSH3-22IX6kq>

Moxon Design Calculator: <http://www.tippete.net/cgi-bin/moxgen.pl>

cocoaNEC - modeler for Apples: <http://www.w7ay.net/site/Applications/cocoaNEC/index.html>



Reference Links... (continued)

Xnec2c user manual: <https://www.qsl.net/5b4az/pkg/nec2/xnec2c/doc/xnec2c.html>

Xnec2c from Linux Journal: <https://www.linuxjournal.com/content/antennas-linux>

Tenkara fly fishing rod:

https://www.amazon.com/gp/product/B074M4Y4KV/ref=ppx_yo_dt_b_search_asin_title?ie=UTF8&psc=1

Tenkara fly fishing information: https://en.wikipedia.org/wiki/Tenkara_fishing

Virt Manager (VM Manager for Linux) <https://virt-manager.org/>

My source code (ADIF log conversion, Polar plots) <https://github.com/KC3DRU/Antenna-Reception-Testing>

2026 PRESENTATIONS:

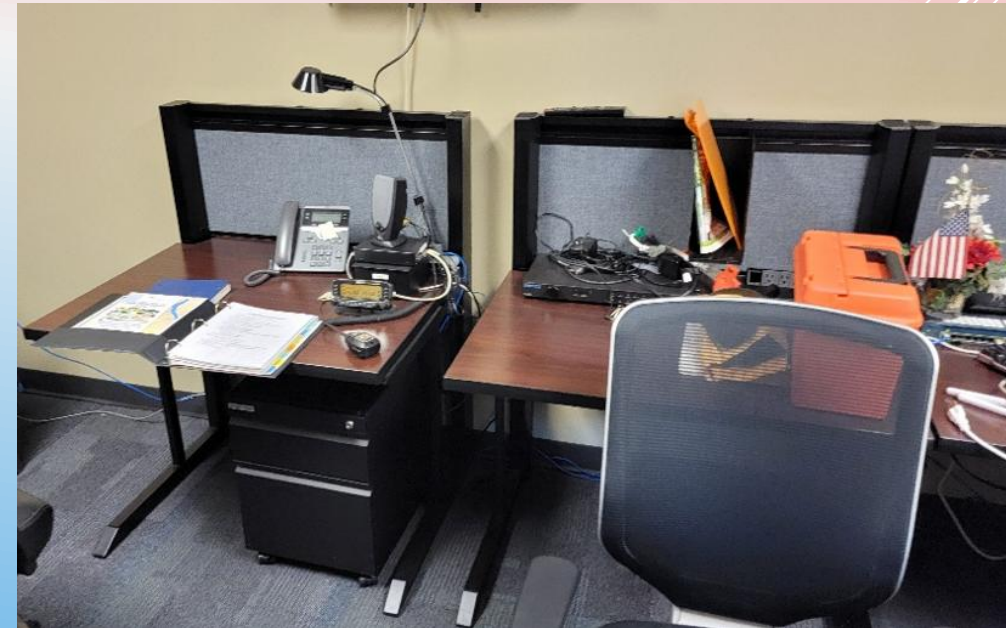
As of 15 Jun

SMRA 2026 Meeting Presentations				
Table2 				
 Meeting Date	Presentation Topic / Title	Name	Call Sign	Presentation Link
1/20/2026	Surface Mount Components	Jeff Orner	W3JKO	
2/17/2026	Pillars of Radio	Hugh Irwin	K3ECT	
3/17/2026	Hexbeam Antennas	Jerry Sodus	KM3K	
4/21/2026	Balloon Launching	Dick Goodman	WA3USG	
5/19/2026	Winlink Part 1	Andrew Mummert	W3AND	
6/16/2026	Winlink Part 2	Andrew Mummert	W3AND	
7/21/2026	Testing a Yagi/directional Antenna	Hugh Irwin	K3ECT	
8/18/2026	Intro to Fox Hunting	Rick Stoner	KC3DRU	
9/15/2026	EME Moon Bouce	John Jaminet	W3HMS	
10/20/2026	Getting Started with CW	Emily Saldaña	WC3R	
11/17/2026	Making a Go-Box / Go-Bag	Sean Schulze	KC3YWX	
12/15/2026	Restoring a used radio from Ebay	Chaz Smith	KB3ZPB	
1/19/2027	Setting up Ham Dashboard (VA3HDL)	Jeff Kisner	W3JWK	

INFO:

EOC Upgrades

- All Installation Parts are ordered
 - Install after 4 July
 - Working on ordering new equipment
- This will greatly improve our capabilities in the county.
 - **AND---Be able to Demo Radios in the Conference room!**
- BL: Join EMCOMM We continue to need to have a crew ready to go if the county calls. It is never too late to get involved!

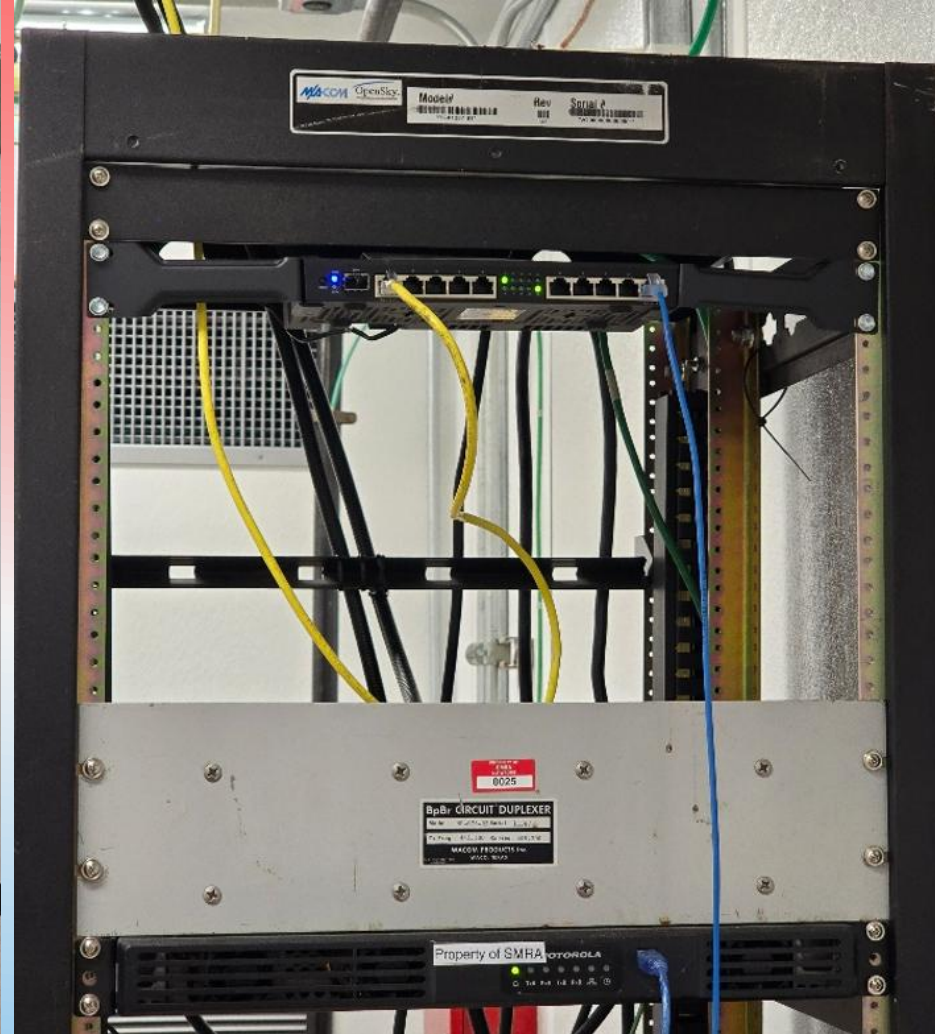


REPEATER INFO: Tower Migration

- All 3 Repeaters Migrated – complete!!
- Added 2 additional DMR Repeaters in South Mountain, Three Square, and converted Lambs Gap to DMR only.
- IP Routers installed in all three locations and All 3 DMRs repeaters are now connected together as 1 very wide communication network on the County Maintained isolated Microwave Network.
 - In Testing Phase
 - Future Presentation on DMR and Training



REPEATER INFO: Tower Migration

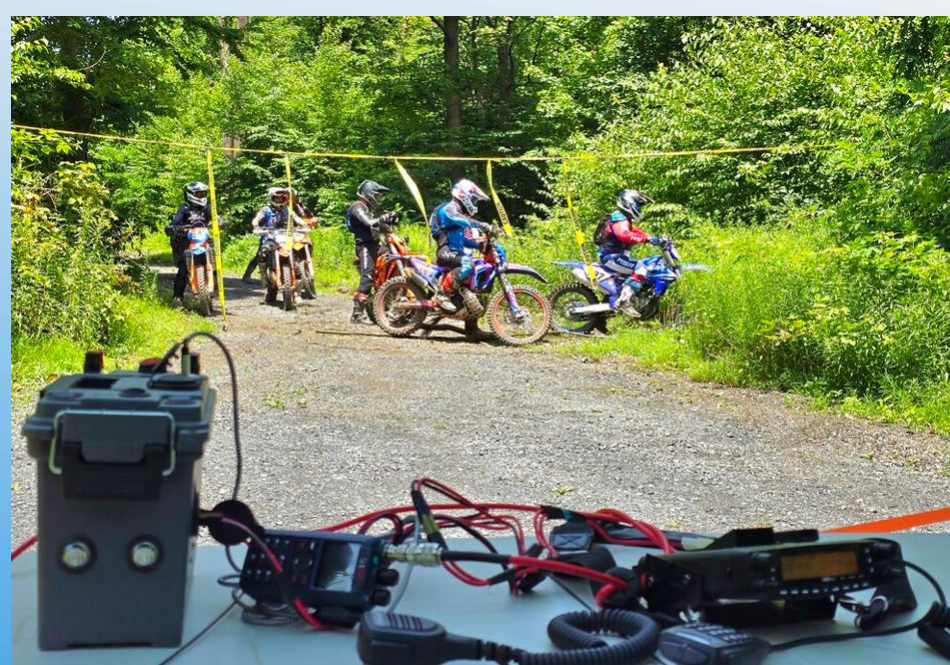
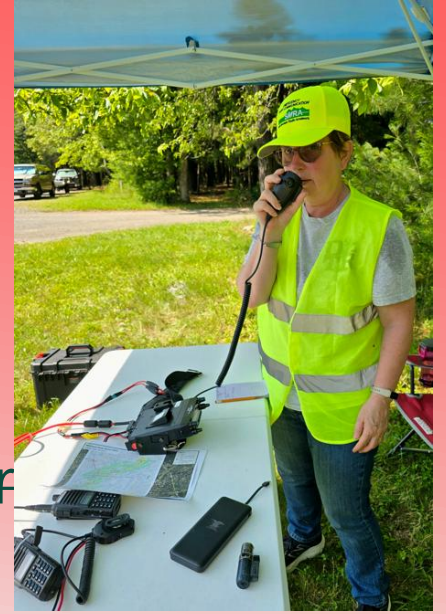


50

7/23/2026

COMMS: Motorcycle Events 2026

- **June 20 - DelVal Michaux Dual sport**
- ~~June 27 - 28 - Oxbo Haresramble (SMRA Not Needed)~~
- ~~July 19 - DelVal Foggy Mountain Enduro - Uses 46 Repeater~~
 - How did it go Andrea or Keith?
- **Sept 13 - SPER Michaux Enduro**



DATES TO REMEMBER:

- ~~26 June~~ — ~~Carlisle Summer Fair and SMRA booth setup at the EOC 0845—Event 1000—1400 Sign up—Thank You!~~

- ~~27 – 28 June~~ — ~~SMRA Field Day!!! Bring Friends — Learn — Have Fun~~

- **4 AUG** — National Night Out — In Carlisle this year!
Need Someone to run or will cancel

- **12-13 SEP** - Special Event Station (AHEC)

- **26 SEP /10 OCT Rain date-** FOX Hunt



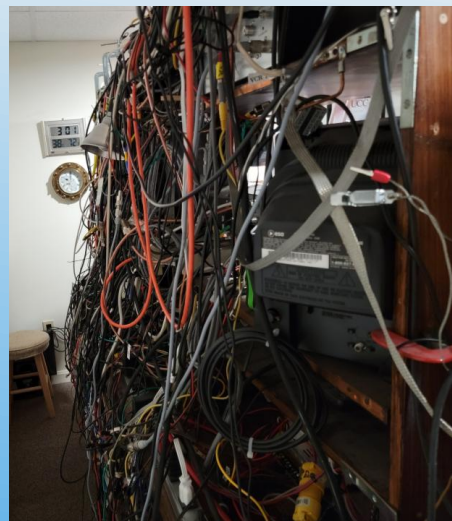
NEW SMRA NETS:

- ▶ 1) **Monday Night Net** – Test your Radio, Get Club info
- ▶ 2) **The Elmer TechNet** on Monday Nights following our Net
 - ▶ Ask Questions and discuss radio
 - ▶ Everyone has something to contribute!
- ▶ **Wednesday Morning Humpday RagChew 0900**
 - ▶ Just talk and make friends- make conversation
 - ▶ No net control – Enjoy Radio!
 - ▶ **South Mountain Repeater 145.430MHz, Tone 67**
- ▶ 3) **Digital Net on Sunday Nights 1900-2000**
 - ▶ On Summer Break - SMRA .43 Repeater
 - ▶ We will pause until late fall
 - ▶ Anyone can do this! Even a PC and HT will work – Try it. Excellent free experimental training.



The Shack of the Month

- ▶ Can be **simple** or **complex**
- ▶ Gives members ideas on building or modifying their shack
- ▶ Volunteer!!
- ▶ Just send me a few photos to put into the monthly presentation.
- ▶ Discuss it at the meeting.



SHACK OF THE MONTH – SAWYER - KD3CCL





MYSTERY GADGET OF THE MONTH – TRACEY WE3H



59

7/23/2026

SMRA COMMITTEES:

- Grant & Education Committee: Sean KC3YWX, Ed W3ETO
- Cumberland County Relations (Technical) Ed W3ETO
- Cumberland County Relations (Operations) Sean KC3YWX, Jeff W3JWK, Ed W3ETO
- Lower Allen Twp liaisons: John W3HMS, Bob N3ACP
- New Cumberland Borough liaison: Andrew W3AND
- Repeater Technical: Rick K2RBT, Chris KB3TWW, Ed W3ETO
- Programs: Rick KC3DRU
- Audit: Gary K3MGB, Bob N3ACP, Ed W3ETO, Mike K3ESQ

SMRA COMMITTEES:

- Nominating: Ed W3ETO, JEFF W3JWK
- Bike Events: Andrew W3AND, Keith KC3FVN
- Membership recruiting **All members
- SMRA Net Mgr: Bob Single N3ACP
- W5YI - VE testing Don Evans K3ZR
- Webmaster Brendan KC3VEB
- Newsletter **Vacant ??**
- Social Media Brendan KC3VEB, ??
- Historian **Vacant**
- Equipment Manager Jeff W3JWK
- Special Event Committee Jeff W3KWK
- Public Information Officer (PIO) Brendan KC3VEB
- QRP Manager John W3HMS, Looking for new leader

MTM – COAX AND LOSS:

Why
doesn't
my very
efficient
antenn
a work?

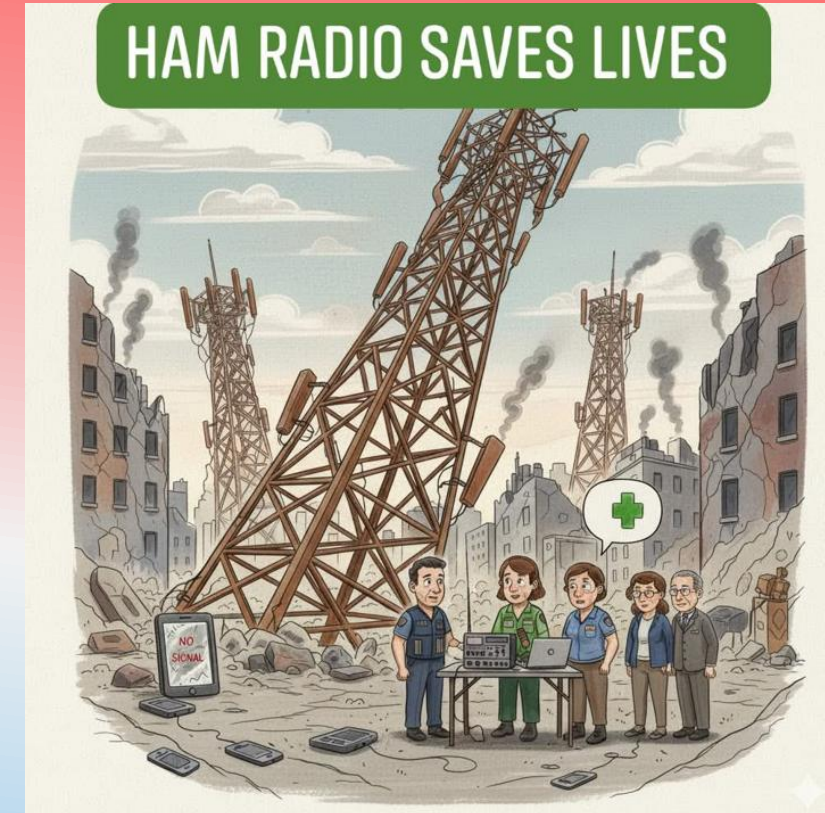


After Action Report:
Chaz – KC3ZPB



EMERGENCY COMMUNICATIONS

➤ Communications Drill AAR



SUMMER FIELD DAY AAR 2026

- Some Rain, but workable
- Cool and fun
- Gathered to socialize
- 54 Visitors!
- Education Builds – 10 Antennas
- Demos of FT8, MESH, SSB
- We ate Very Well!
 - Thanks Tracey for that awesome Smoked Pork!
- Less Stress, more Interaction with Visitors
- = Success!

**AMATEUR RADIO**
FD★26
A NATIONAL RESOURCE

**PARTICIPATE IN YOUR LOCAL
ARRL FIELD DAY
JUNE 27-28**

Be a part of the **most popular on-the-air operating event** in amateur radio. Join your local community and get in on the action!

SOUTH MOUNTAIN RADIO AMATEURS
Discover the World of Amateur Radio in 2026!

Ever wondered what Amateur Radio is all about?
Come see it LIVE, hear it, try it, and experience the excitement!



SMRA
Talk-in Frequency
145.430MHz, -600kHz
Tone 67Hz

- ✓ Hands-on demos
- ✓ Live contacts around the world
- ✓ Emergency communications displays
- ✓ Meet local operators & ask anything
- ✓ Fun for all ages — totally FREE!

Visit us:
Emergency Services Training Academy
180 Army Heritage Drive, Carlisle, PA 17015
Learn more at WWW.N3TWT.ORG

FIELD DAY 26:







OFFICER/COMMITTEE REPORTS

- **Secretary** – Sean KC3YWX
- **Treasurer** – Mike K3ESQ
- **VP** – Jeff W3JWK
- **Membership** – Tracey WE3H
- **PAIO** – Brendan KC3VEB
- **Committee (if not covered):**
 - EMCOMM
 - MTM
 - Breakfasts
 - QRP

Ham Antennas on the ISS

The ARISS antennas on the Columbus Module support 2M, 70 cm, L-band and S-band operations.

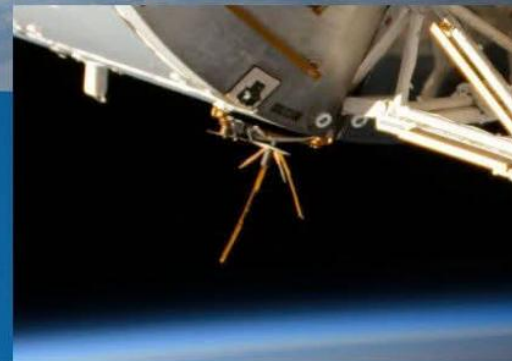


Image shows one of the 3 Columbus module antennas. A group of 4 are on the Service module

NASA Photo



SMRA TECHNICIAN CLASS:

- 1 OCT – Newville Fire Company
- 3 OCT – Saturday - EOC
- Some new content with ARRL Changes

What Changed?

You can find a graphical “diff” of the changes here: https://hamstudy.org/diff/E2_2022/E2_2026

Here is a more text-oriented output from the same system:

<https://gist.github.com/taxilian/c6fca675a58fd4b165e97b3334fc8f66>

Here's a quick breakdown:

- **26 new questions** added
- **29 questions** removed
- **69 questions** with changed wording
- **8 questions** moved to different IDs (same content, new number)



QRP SCHEDULE FOR THE WINTER:

► Previous: Kings Gap → Chaz's magazine cover! →

► Next Up:

- PA 230 State Game Land
- Wednesday, July 22nd
- 1100 - ~1400
- POTA – US-4556
- Visit and Learn
- No need to operate if you cannot

THE OFFICIAL MAGAZINE OF THE POTA COMMUNITY

SUMMER 2025
VOL. 11 • ISSUE 2

POTA

ADVENTURE. RADIO. COMMUNITY.

CONNECT ANYWHERE WITH OLDER FIXABLE RADIOS

Join the POTA community and explore the joy of ham radio in the great outdoors.

THE BENEFITS OF POTA

- PARKS**
Explore and activate beautiful national & state parks.
- RELAXING**
Enjoy the peace and tranquility of the outdoors.
- OUTDOOR**
Get outside, stay active, and enjoy nature.
- RADIO ACTIVATIONS**
Connect with ham radio operators worldwide.

OPERATOR SPOTLIGHT
Chaz, KC3ZPB, of South Mountain Radio Amateurs (SMRA) club enjoying a combined POTA/QRP event at Kings Gap Park US-4361, in Cumberland county PA.

NEW TO POTA?
Tips for getting started on your first activation
PAGE 24

GEAR THAT LASTS
Repair, restore & keep those radios on the air
PAGE 32

POTA ADVENTURES
Stories from activators across North America
PAGE 40

JOIN TODAY!
BE PART OF THE FASTEST GROWING HAM RADIO MOVEMENT!

WWW.POTA.APP

\$6.99 US \$8.99 CANADA

52

7 25274 29735 0

▲ ▲ ▲ GET OUT. GET ON THE AIR. GET POTA! ▲ ▲ ▲

QRP SCHEDULE FOR 2026:

July					
	06 - Opossum Lake, 1100 None				
	13 - Opossum Lake, 1100 GA		15 - PA 230 State Game, 1100 POTA US-4556 IN/UT/PA		
			22 - PA 230 State Game, 1100 POTA US-4556 RI/SC		
August					
	03 - Gettysburg, 1100 POTA US-0027 MN/WY				
			19 - Pine Grove Furnace, 1100 POTA US-8927 AL/HI/OR		
September					
		08 - Pinchot, 1100 POTA US-1356 AK/NY/OK			
			16 - Kings Gap, 1100 POTA US-4361 IL/TN		
October					
	05 - Bkft at Brothers 0900 then Fisher Road Park VT				
			21 - Lower Allen Park, 1100 AR/WI		

QRP Dinner Schedule

27-Jan-26	1730	Hoss, Mechanicsburg
24-Feb-26	1730	Hoss, Mechanicsburg
31-Mar-26	1730	CC's, Mechanicsburg
28-Apr-26	1730	CC's, Mechanicsburg
11/24/2026 ??	1730	CC's, Mechanicsburg
12/29/2026 ??	1730	CC's, Mechanicsburg

Responsibility

EM=Event Manager=Deb, KC3RTP
Attendance=John, W3HMS
Calendar Updates=Rick, K3RTK

	POTA Outings
	Change to Calendar

Calendar focuses on good WX events. As last year, in the event of bad weather for a scheduled outing, the Event Manager will postpone that event to the following week at the same location, time, and weekday.

CONTEST CALENDAR:

- **ARRL EME Contest** 0000Z, Aug 8 to 2359Z, Aug 9
- **North American QSO Party**, SSB 1800Z, Aug 15 to 0559Z, Aug 16

• The Annual 13 Colonies Special Event
<https://13colonies.us/>

- Who Worked It?? Experience?



www.contestcalendar.com –
<https://www.arrl.org/contest-calendar>
CQ World Wide DX Contest - Home (cqww.com)

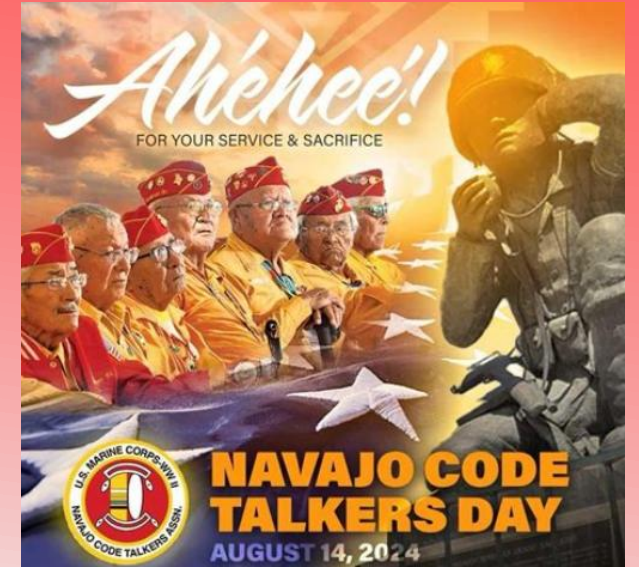
SPECIAL EVENT STATIONS OR RARE DX:

•08/08/2026 | Navajo Code Talkers Day

•Aug 8-Aug 14, 0024Z-0004Z, N7HG, Chinle, AZ. N7HG.
14.265 7.265. Certificate. Herbert Website HRO Goodluck, PO
Box 06, Chinle, AZ 86503. Celebrating Navajo Code Talkers
day,

•08/15/2026 | 50th Anniversary of the Middletown & Hummelstown Railroad

•Aug 15, 0800Z-1300Z, W3R, Middletown, PA. Central
Pennsylvania Repeater Asso. 7.050 7.190 14.025 14.260.
QSL. Richard Lenker, 3809 Griffin Lane, Harrisburg, PA 17110.
We request you apply on the W3nd.org Web site for your card.
We will check it agents the logs. We will be sitting in a 1920's
dinning car making contacts. I will be on the IRLP link 7060
from Harrisburg. Look for us on Voice, CW, and FT-8 Richard
KB3YRC [W3nd.org](https://www.w3nd.org)



**FIRECRACKER ELECTRONICS
EXPO & HAMFEST**

HARRISBURG RADIO AMATEUR'S CLUB

COMMEMORATING THE 250TH ANNIVERSARY OF THE BIRTH OF THE UNITED STATES
1776 - 2026

DATE/TIME:
Saturday, July 4, 2026
FROM 7 A.M. - 1 P.M.

ADMISSION:
\$10 PER PERSON
(with tail gating)
NO ADVANCE SALES TICKETS

LOCATION:
1500 Roberts Valley Road,
Harrisburg, PA
Latitude 40.26360, Longitude -76.890739

PRIZES ★ FOOD ★ FUN

PAVILION TABLE BY SPECIAL RESERVATION:
CONTACT TERRY SNYDER, WB3BKN
PO BOX 355, HALIFAX, PA 17032
PH. 717-979-9515
EMAIL: WB3BKN1@GMAIL.COM
(Dealer Setup is Friday, July 3rd, after 3 p.m.)

Hagerstown TailgateFest

HAMFEST/CONVENTION

10/10/2026

Start Date: 10/10/2026

End Date: 10/10/2026

Location: Maugansville Church

17904 Binkley Ave.

Maugansville, MD 21767

Website: <https://antietamradio.org/>

Sponsor: Antietam Radio Association

Type: ARRL Hamfest

Talk-In: 147.09 + (100 Hz)

Public Contact: Joseph Maguire , WA1ZZQ

18711 Fountain Ter. Hagerstown, MD 21742

Phone: 972-965-9486

Email: maguirejb@gmail.com



[HTTPS://WWW.ARRL.ORG/HAMFESTS/SEARCH](https://www.arrl.org/hamfests/search)

ANNOUNCEMENTS & DATES:



- ▶ **Monthly Meet the Mentors**
 - ▶ 1st Tuesday – 4 AUG 26 @ 1900
- ▶ **Monthly SMRA EMCOMM Training**
 - ▶ 3rd Thursday – 20 AUG 26 @1900 - EOC
- ▶ **Monthly HAM Breakfast**
 - ▶ 2nd Saturday – 8 AUG @ 0830 - Location: Brothers Restaurant
- ▶ **Monthly General Meeting**
 - ▶ 3rd Tuesday – 18 AUG 26 @ 1900 - Location: EOC
- ▶ **Monthly QRP Dinners and Outings**
 - ▶ See Schedule

EXECUTIVE BOARD MEETINGS

- Next Executive Board (EB) Meetings: **Open to all members** - second Tuesday of even months – or as specified. 5:30 PM dinner, 6:30 PM meeting, Hoss's, 61 Gettysburg Pike, Mechanicsburg.
- Calendar
 - ~~20 Jan 26 – After the Meeting~~
 - ~~10 Feb~~
 - ~~14 Apr~~
 - ~~9 Jun~~
 - ~~11 Aug – Cancelled~~
 - 13 Oct
 - 8 Dec



AROUND THE ROOM?

- ▶ Hamfest
- ▶ Contests
- ▶ Technical Accomplishments
- ▶ Awards
- ▶ Activities – Rare DX
- ▶ New Antenna/Radio

RAG CHEWER VS DXER

A rag chewer loves long, casual conversations
Talking about the weather, voice audio quality
and building on-air friendships.

WELL, THE WEATHER HERE IS GREAT TODAY! HOW'S THE WEATHER AT YOUR END?
...AND BY THE WAY, NICE AUDIO!...

CONVERSATION LIST
1. WEATHER
2. AUDIO QUALITY
3. ANTENNAS
4. FAMILY
5. VACATIONS
6. OLD TIMES!

RAG CHEWER CHECKLIST
☒ LONG QSO
☒ NICE CHAT
☒ NEW FRIEND
☒ GOOD TIME

LONG QSO
GOOD COFFEE
GREAT FRIENDS

EAT SLEEP
DX
REPEAT

✓ Long, friendly conversations
 ✓ Talks about weather, family, antennas, and more
 ✓ Enjoys building on-air friendships
 ✓ QSO time is the reward
 ✓ 73 and maybe talk again soon!

A DXer is always chasing rare and distant stations
across continents, quick exchanges,
and DXCC awards.

GOT IT CONFIRM!
5 NEW COUNTRIES
GRENADA, HAITI, JAMAICA,
SAINT KITTS AND NEVIS,
SAINT LUCIA!

NEXT ONE!

DX LOG
 ENTITY DATE
 ZS1ANF 04/15
 VK9X 04/16
 3Y0J 04/18
 5R8IC 04/18
 CEOX 04/19
 KH7K 04/19
 JD1BHM 04/20
 FTS2M 04/20
 PY0F 04/20

DXCC COUNT
387 / 400

DXCC
Mixed
387 Entities
Worked
4F1EBD

DXCC AWARD
LOADING.

DISTANCE IS THE THRILL!

DXER CHECKLIST
☒ RARE STATION
☒ CONFIRM CONTACT
☒ LOG IT
☒ MOVE ON
 NEXT DX! →

21.295.00

✓ Focuses on rare and distant stations
 ✓ Quick exchanges, signal reports, and QSLs
 ✓ Chases DXCC awards and new entities
 ✓ The hunt is the reward
 ✓ 73 and good luck on the next one!

Ham Radio Operator Humor

FINAL THOUGHTS:

Motion to Adjourn?



Ham Radio Operator Humor