North Texas NTMS Microwave Society

May 15, 2025 Tropo Opening across the Gulf

W5LUA

With additional information from WB4OMG, W4ERP & K4VJ

June 14, 2025

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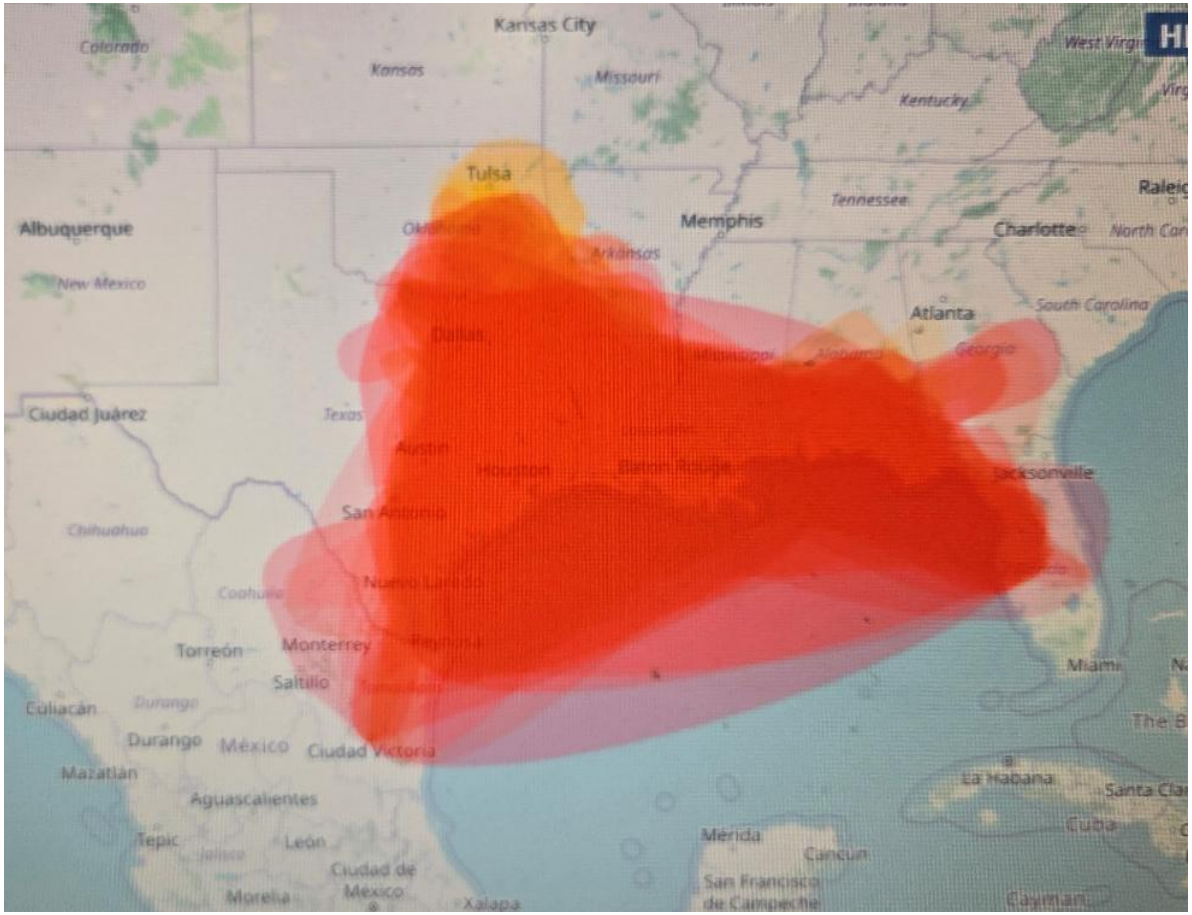
https://vhf.dxview.org/

Morning of May 15, 2025



Aiming at 107 degrees from EM13qc to Buddy WB4OMG

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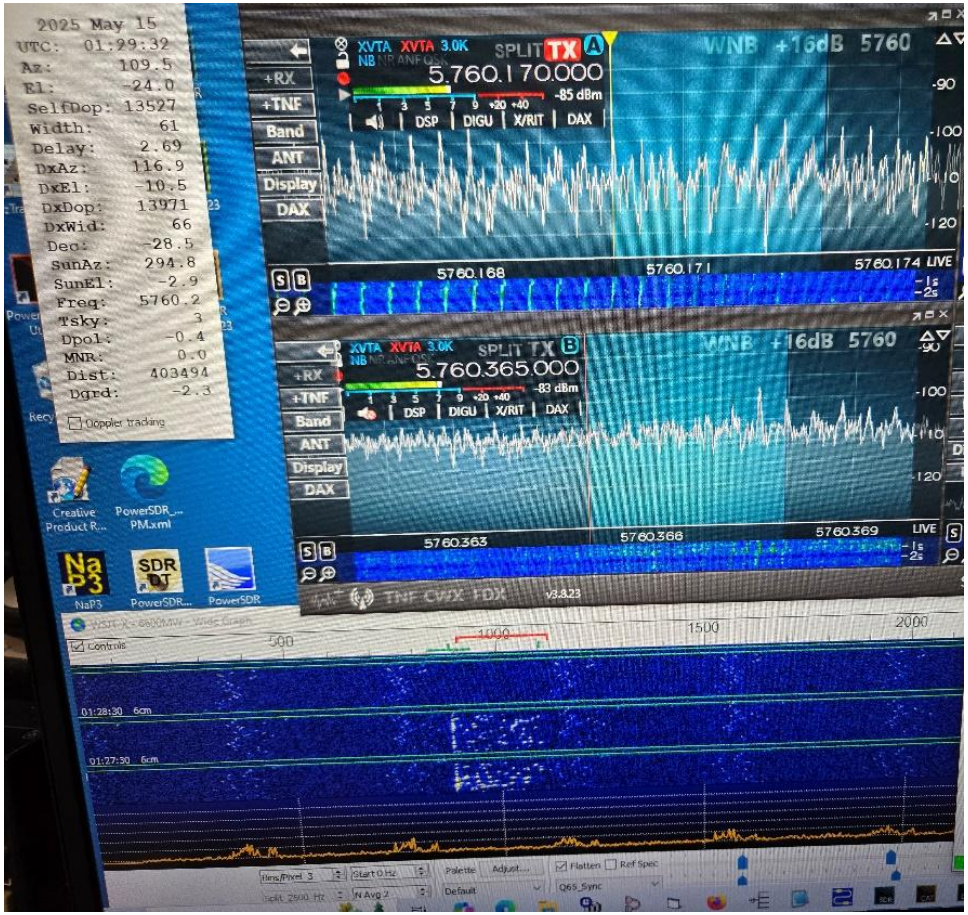

Buddy's station
100 watt Kuhne SSPA
Laird GD 58-22 BBQ Grill Dish
95 ft 5/8" Heliax

My station
150 watt SSPA in shack
~ 35 ft WR-137 rigid and flex waveguide
30 inch dish at 6 ft aimed straight up
to a stop sign flyswatter at 60 ft on side
of a rotating Rohn 45 tower

I chose Q65-30A to fit his signal in
between my spurs on 5760

DX 1509 km (936 miles)

5760 MHz QSO with WB4OMG

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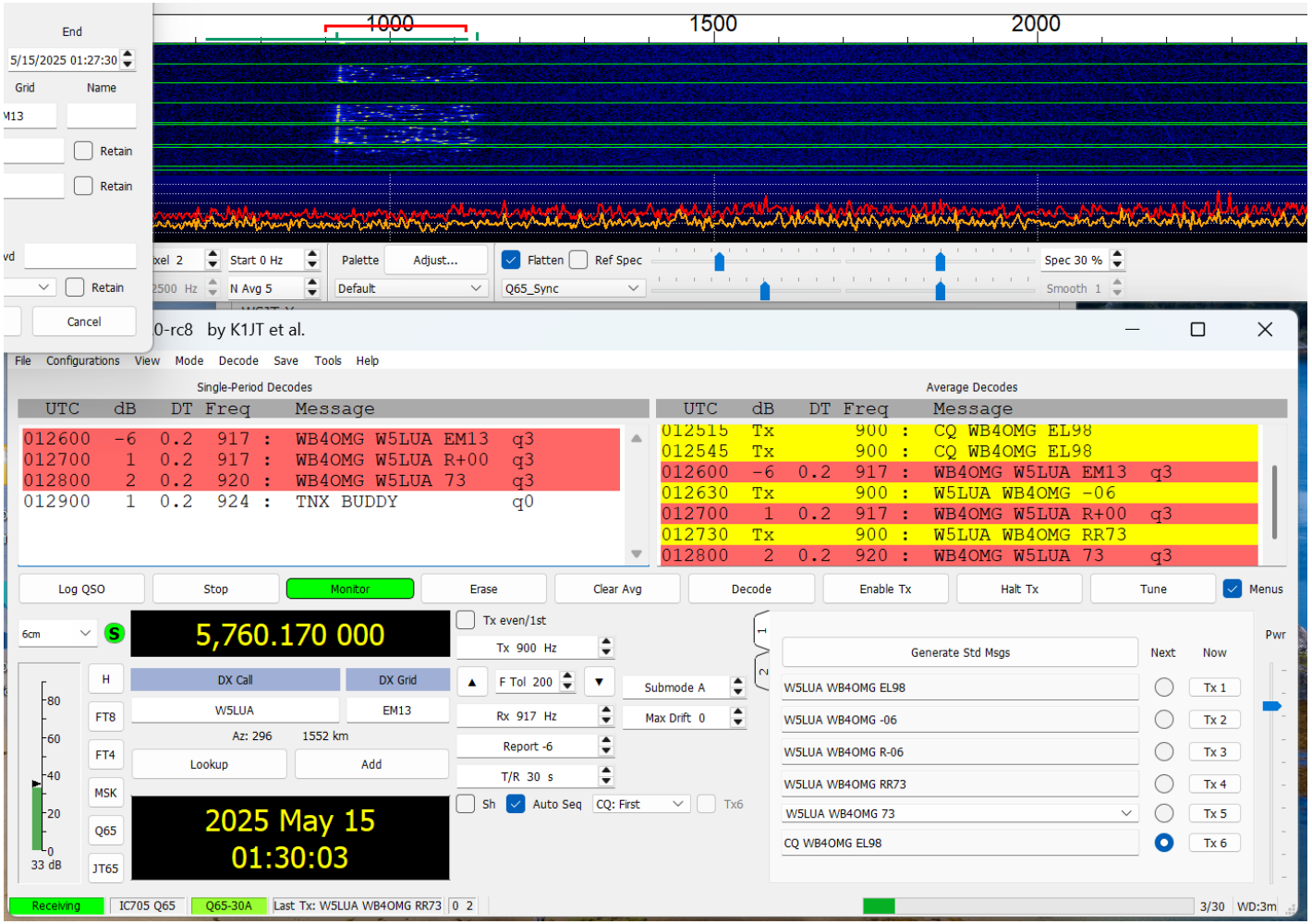

WB4OMG Antennas with Laird GD58-22 Dish for 5760 MHz

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Picture courtesy of WB4OMG

Laird Technologies GD5x

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WB4OMG

SPECIFICATIONS

PARAMETER	GD5x-21	GD58-22	GD5x-25	GD58-26	GD5x-28	GD58-29
Frequency range	GD57-21 5470-5725 MHz GD53-21 5150-5350 MHz	5725-5850 MHz	GD57-25 5470-5725 MHz GD53-25 5150-5350 MHz	5725-5850 MHz	GD57-28 5470-5725 MHz GD53-28 5150-5350 MHz	5725-5850 MHz
Gain	21 dBi	22 dBi	25 dBi	26 dBi	28 dBi	29 dBi
Horizontal beamwidth	10°		6°		4°	
Vertical beamwidth	11°		6°		6°	
Front to back	25 dB		30 dB		25 dB	
VSWR	1.5:1		1.5:1		1.5:1	
Impedance	50 ohm		50 ohm		50 ohm	
Input power	100 watts		100 watts		100 watts	
Operating temperature	-40° to +70°C		-40° to +70°C		-40° to +70°C	
Pole size	1" to 2" (25 to 50 mm))		1" to 2" (25 to 50 mm))		1" to 2" (25 to 50 mm))	
Weight	3 lbs (1.4 kg)		6 lbs (2.7 kg)		11 lbs (5 kg)	
Dimension (W x L)	11.8" x 15.7" (300 x 400mm)		16.8" x 24" (427 x 610mm)		28.5" x 36" (724 x 914mm)	
Bracket tilt	+/- 45°		+/- 45°		+/- 45°	

Flyswatter at W5LUA

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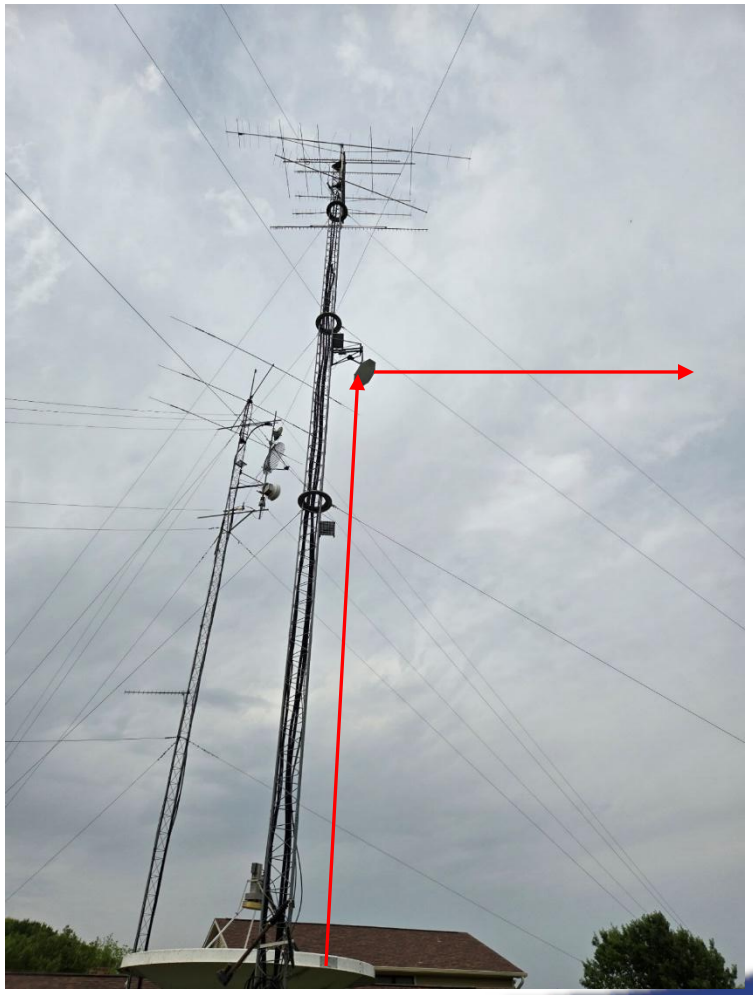

Stop Sign Flyswatter Reflector

Built and originally used by KA5BOU

Small actuator used to optimize tilt from nominal 45 degree. Craig rotated the reflector since he used the reflector on a non-rotating tower. This also meant that he had to rotate the polarity of his source antenna to maintain horizontal polarity with respect to the horizon

W4ERP IC-905 Setup in EL95ww

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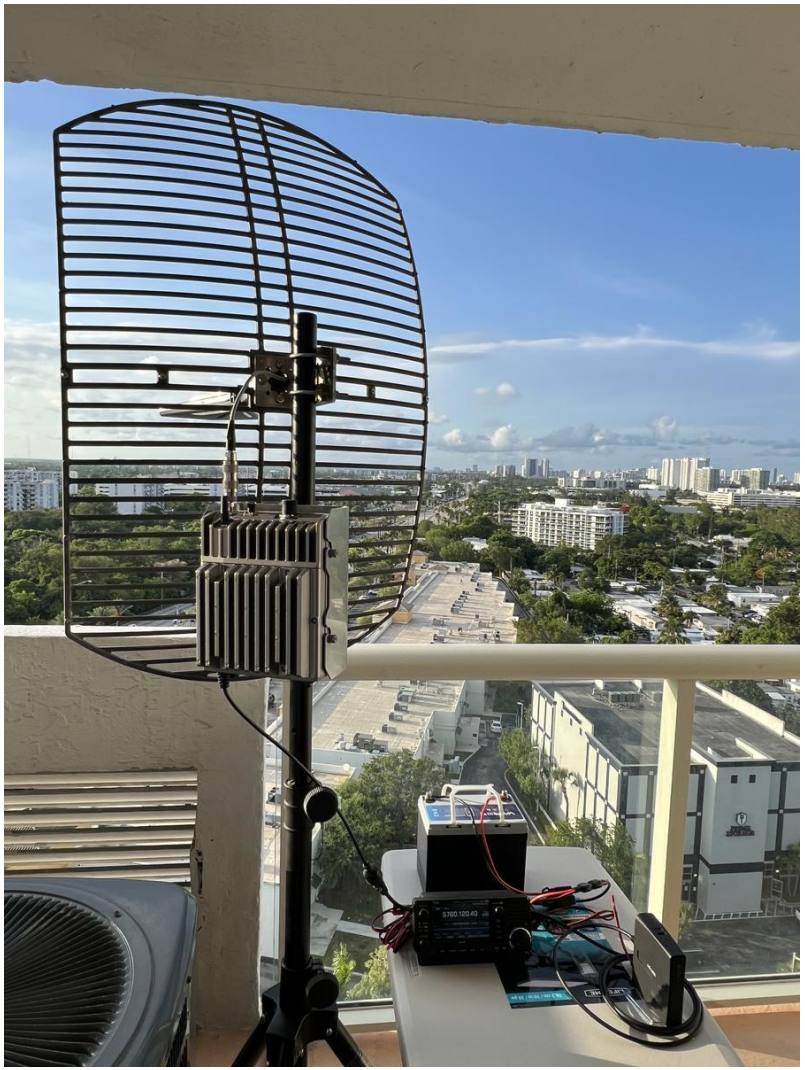

Eloy and I made contact on 13 cm for a new US distance record of 1783 km (1105 miles)

Pictures from www.qrz.com with W4ERP's permission

W4ERP's Antenna

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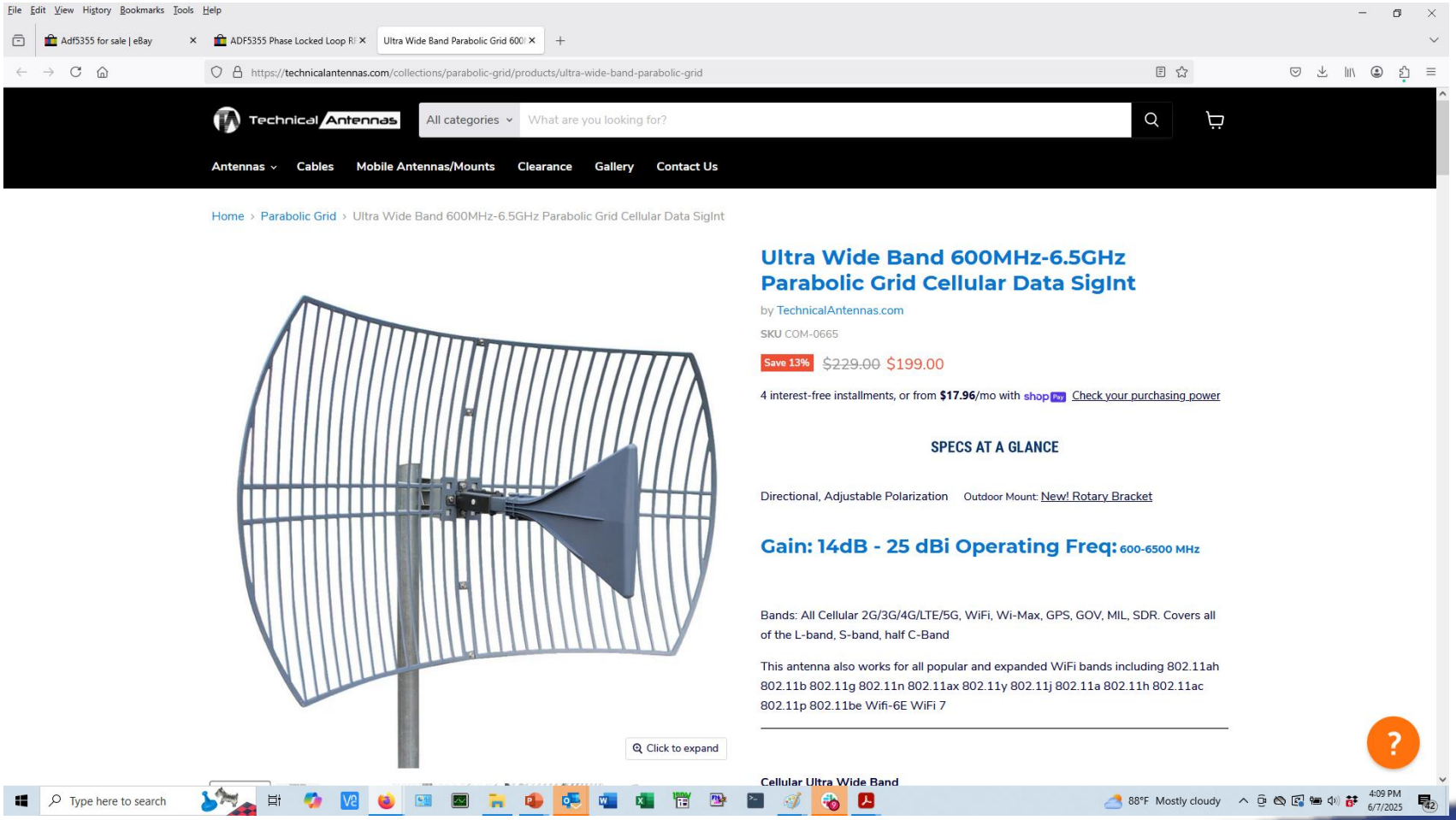
https://technicalantennas.com/collections/parabolic-grid/products/ultra-wide-band-parabolic-grid



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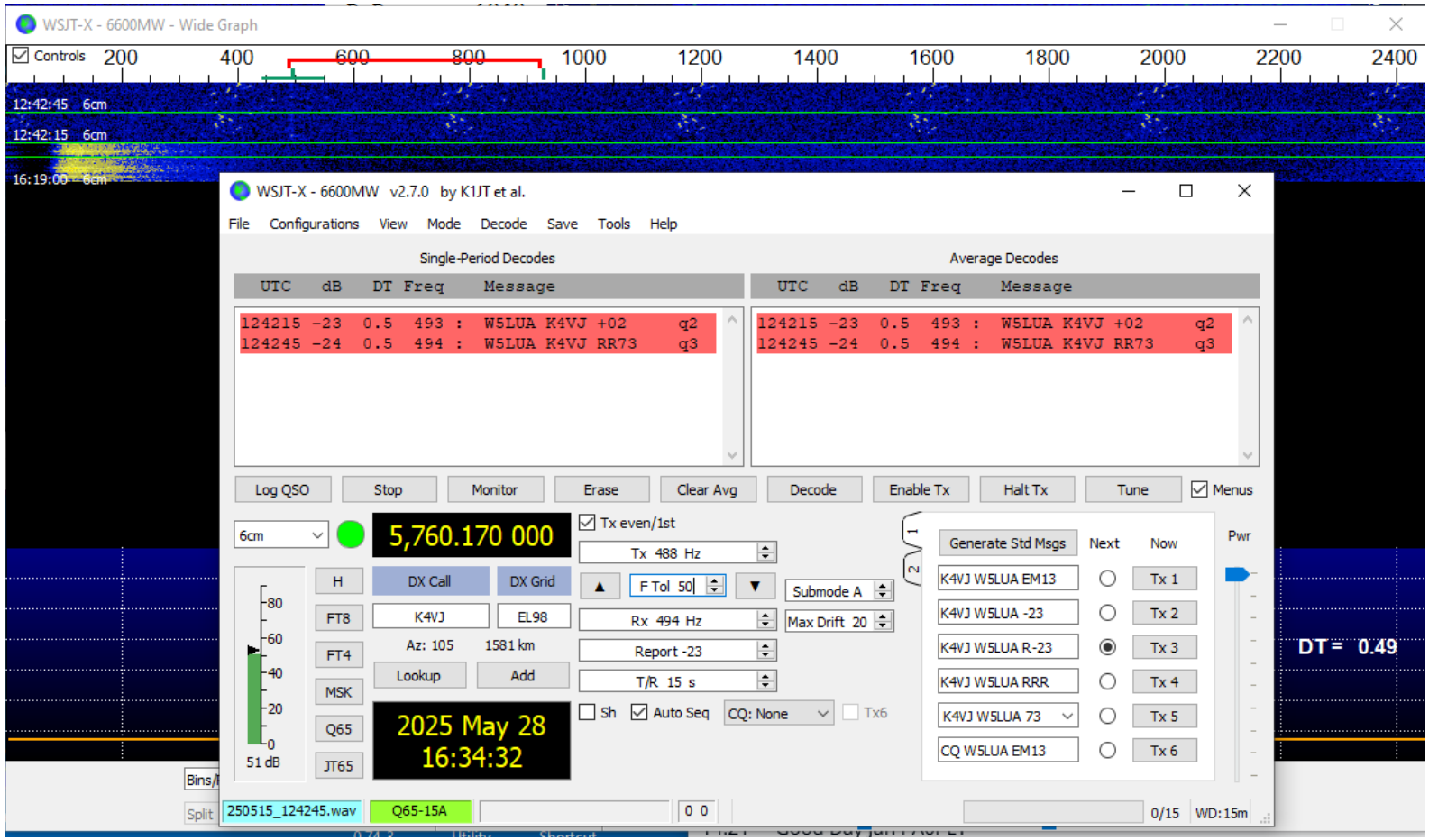
K4VJ Q65-15A



I was able to decode Mike's signal despite my local QRM on 5760

DX 1501 km (931 miles)

Screen Shot at K4VJ

File Configurations View Mode Decode Save Tools Help

Band Activity

UTC	dB	DT	Freq		Message	
123115	5	-0.0	997	:	CQ W5LUA EM13	q3
----------					13cm	
123130	-13	0.0	833	:	W5LUA W4BCX EL98	q0
----------					13cm	
123145	4	-0.0	997	:	CQ W5LUA EM13	q3
----------					13cm	
123200	-14	0.0	833	:	W5LUA W4BCX EL98	q0
----------					13cm	
123230	-8	-0.1	833	:	W5LUA W4BCX EL98	q0
----------					13cm	
123245	6	-0.1	997	:	W4BCX W5LUA -16	q0
----------					13cm	
123300	-9	-0.1	833	:	W5LUA W4BCX R-06	q0
----------					13cm	
123315	6	-0.1	997	:	W4BCX W5LUA RRR	q0
----------					13cm	
123330	-10	-0.1	833	:	W5LUA W4BCX 73	q0
----------					13cm	
123415	6	-0.1	1004	:	W4BCX W5LUA 73	q0
----------					6cm	
124100	2	-0.1	1004	:	K4VJ W5LUA EM13	q3
----------					6cm	
124130	3	-0.1	1004	:	K4VJ W5LUA EM13	q3
----------					6cm	
124200	2	-0.1	1004	:	K4VJ W5LUA EM13	q3
----------					6cm	
124230	4	-0.1	1004	:	K4VJ W5LUA R-23	q3
----------					6cm	
124300	-1	-0.1	1004	:	K4VJ W5LUA 73	q3
----------					6cm	
124330	3	-0.1	1004	:	K4VJ W5LUA 73	q3

Rx Frequency

UTC	dB	DT	Freq		Message	
115900	Tx		500	:	CQ K4VJ EL98	
115930	Tx		500	:	CQ K4VJ EL98	
120000	Tx		500	:	CQ K4VJ EL98	
120030	Tx		500	:	CQ K4VJ EL98	
120100	Tx		500	:	CQ K4VJ EL98	
120445	6	-0.3	793	:	CQ W4BCX EL98	
120700	Tx		500	:	W4BCX K4VJ EL98	
120730	Tx		500	:	W4BCX K4VJ EL98	
120800	Tx		500	:	W4BCX K4VJ EL98	
120830	Tx		500	:	W4BCX K4VJ EL98	
120845	3	-0.2	800	:	K4VJ W4BCX +05	q3
120900	Tx		500	:	W4BCX K4VJ R+03	
120915	5	-0.3	800	:	K4VJ W4BCX RR73	q3
120930	Tx		500	:	W4BCX K4VJ 73	
122045	3	-0.0	1003	:	CQ W5LUA EM13	
122132	Tx		500	:	W5LUA K4VJ EL98	
122145	2	-0.0	1010	:	K4VJ W5LUA -02	q3
122200	Tx		500	:	W5LUA K4VJ R+02	
122215	3	-0.0	997	:	K4VJ W5LUA RRR	q3
122230	Tx		500	:	W5LUA K4VJ 73	
122315	4	0.0	997	:	K4VJ W5LUA 73	q3
124100	2	-0.1	1004	:	K4VJ W5LUA EM13	q3
124115	Tx		500	:	W5LUA K4VJ +02	
124130	3	-0.1	1004	:	K4VJ W5LUA EM13	q3
124145	Tx		500	:	W5LUA K4VJ +02	
124200	2	-0.1	1004	:	K4VJ W5LUA EM13	q3
124215	Tx		500	:	W5LUA K4VJ +02	
124230	4	-0.1	1004	:	K4VJ W5LUA R-23	q3
124245	Tx		500	:	W5LUA K4VJ RR73	
124300	-1	-0.1	1004	:	K4VJ W5LUA 73	q3
124330	3	-0.1	1004	:	K4VJ W5LUA 73	q3

Log QSO | Stop | Monitor | Erase | Clear Avg | Decode | Enable Tx | Halt Tx | Tune | Menus

6cm | 5,760.170 000 | Tx even/1st | Tx 500 Hz | F Tol 50 | Rx 1004 Hz | Submode A | Max Drift 0

H | DX Call | DX Grid | W5LUA | EM13 | FT8 | 80

Generate Std Msgs | Next | Now | Tx 1 | Tx 2

W5LUA K4VJ EL98

W5LUA K4VJ +02

Pwr

K4VJ IC-905 Setup in EL98cp

Picture courtesy of K4VJ

IC-905 RF unit is in shack
18” of RG142 jumper from the RF unit to a Radiall 6 port latching relay
3 feet of 1/2” hardline from Radiall switch to disconnect panel on the outside wall
70’ of lmr600 to
80’ of 7/8 hardline to
2’ pieces 1/2” connecting to the 2nd Radiall relay at the base or the tower
1’ lmr400 from relay to
55’ of 7/8 hardline to top of tower to
15’ of lmr600 up to antenna on the pipe.
Measured loss at 5760 MHz is 17 dB dropping his 2 watts down to 40 mW at antenna!

Aerial view of K4VJ Installation

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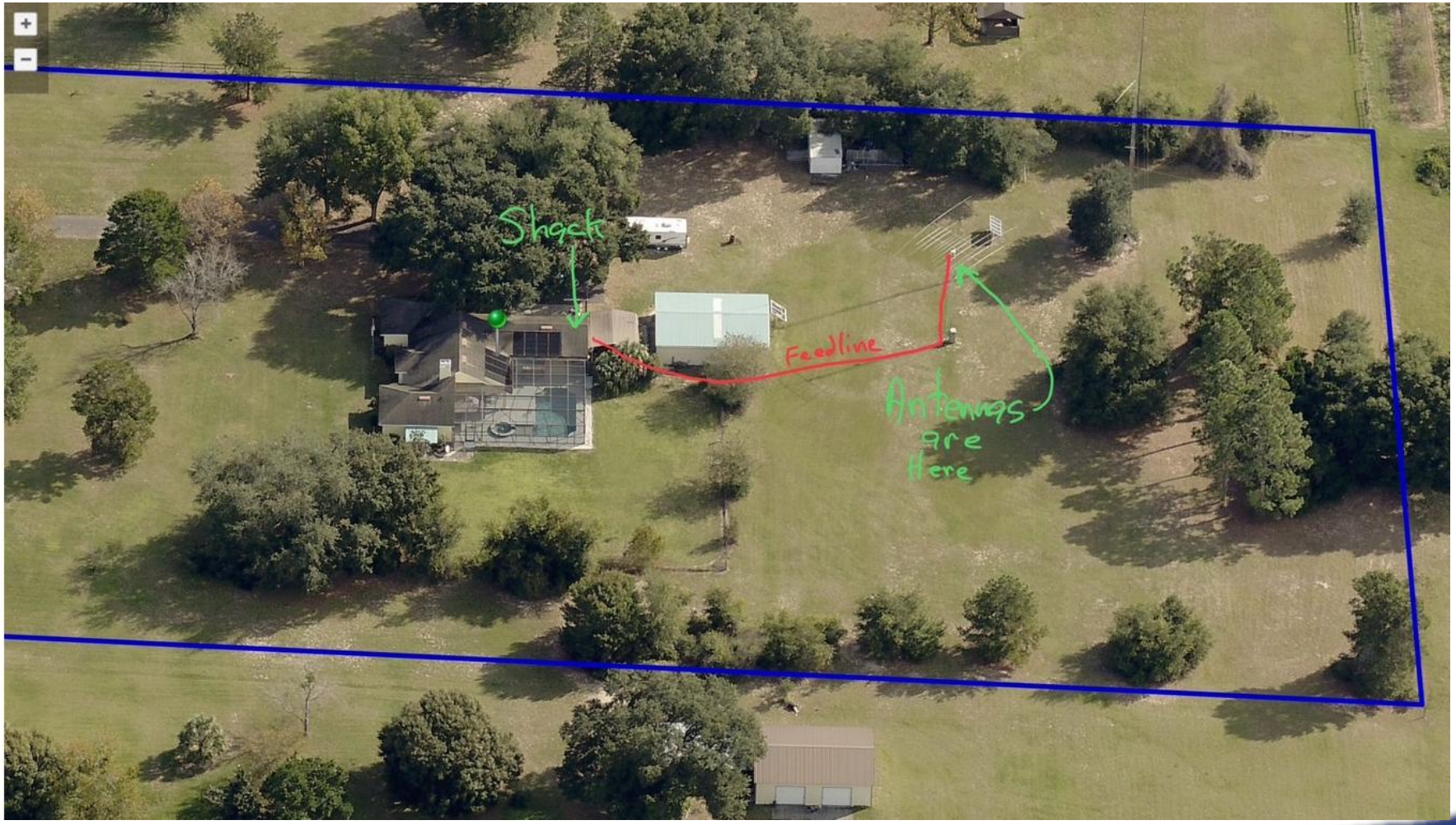

K4VJ 2304 Antenna

eBay item number:363659278617

Antenna World
Model G2424

SPECIFICATIONS:

Frequency Range	2.40-2.49GHz (2.30-2.56Ghz Extended Range)
Gain	24dBi Rated
VSWR	1.2:1 average
Beamwidth, -3dB point	Azimuth 7.5 degrees
Beamwidth, -3dB point	Elevation 8.0 degrees
Cable Length, Type	10" RG-8
Connector	N-type Female
Mounting Bracket,	U-Bolts fit 1" - 1-3/4" mast
Wind Rating	120 MPH
Dimensions	39" x 24" rectangle grid (2 sections bolted together)
Weight	5.5 lbs. (7 Lbs boxed)

K4VJ 5760 Antenna

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5GHz 5.8Ghz 802.11a ac 30dBi Outdoor Parabolic Grid Antenna N-F Mounting Kit

Antenna World (11537)
98.7% positive · Seller's other items · Contact seller

US $69.00

or 4 interest-free payments of $17.25 available with **Klarna.** Learn more

Condition: **New**

Quantity: 1 **Out of Stock** · 36 sold

Add to Watchlist

Pickup: Free local pickup from Miami, Florida, United States 33172

Shipping: **US $23.08** UPS Ground. See details
Located in: Miami, Florida, United States
Save on combined shipping

Delivery: Estimated between **Tue, Jun 10** and **Fri, Jun 13** to 75071

Returns: Seller does not accept returns. See details

eBay item number:363483427639 ANT-5158-30DBI, G5730

K4VJ 5760 Antenna

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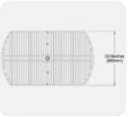
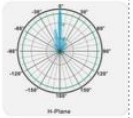
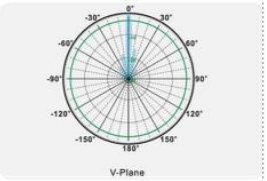
Electrical Data

Frequency:	5725-5850 MHz
Gain:	30 dBi
VSWR:	<1.5:1
Polarization:	Horizontal or Vertical
rizontal Beamwidth :	4°
Vertical Beamwidth:	4°
Nominal Impedance:	50 Ohms
F/B Ratio:	>30
Max Input Power:	100 W
Lightning Protection	DC Ground

Mechanical Data	
Connector :	N Female
Dimensions:	90x60x38cm
(diameter*height)	35.44x23.63x14.96in
Weight:	4.5kg/9.91lb
Reflector Material:	Cast Aluminum
Mounting Method:	Mast
Mast Size:	1.2"-2.0" Ø30-Ø50mm
Rated Wind Velocity:	140MPH 210km/h
Operating temperature:	-40~+65℃







W5LUA Log

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15-May	0011Z	K4VJ	2 m	FT8	-2	-2	EL98cp91cc	1502 km			
	0037Z	K4VJ	13 cm	Q65-15A	-6	-6	EL98cp91cc	1502 km			
	0113Z	WB4OMG	2 m	FT8	24	26	EL98ad	1509 km			
	0120Z	WB4OMG	13 cm	Q65-15A	6	5	EL98ad	1509 km			
	0127Z	WB4OMG	6 cm	Q65-30A	0	-6	EL98ad	1509 km			
	0251Z	WB4OMG	13 cm	FT8	12	8	EL98ad	1509 km			
	0308Z	K4NDZ	2 m	FT8	-9	-3	EL89xe	1456 km			
	0417Z	AC4TO	70 cm	FT8	7	-4	EM70xl	1226 km			
	1222Z	K4VJ	13 cm	Q65-15A	2	2	EL98cp	1501 km			
15-May-25	1227Z	W4ERP	13 cm	Q65-15A	-18	-2	EL95ww	1783 km	New US distance record		
	1233Z	W4BCX	13 cm	Q65-15A	-14	-6	EL98pd	1617 km			
	1242Z	K4VJ	6 cm	Q65-15A	-23	2	EL98cp	1501 km	Note 1		
	1440Z	W9BS	2 m	FT8	-6	-3	EL96bm	1600 km			
	1442Z	KD4VRY	70 cm	FT8	-17	-3	EL96df	1631 km			
	1443Z	WB5FKO	2 m	FT8	10	19	EL89	? On call			
	1451Z	W9BS	70 cm	FT8	-2	-1	EL96bm	1600 km			
	1509Z	W9BS	23 cm	Q65-15A	-22	-8	EL96bm	1600 km			
16-May	0132Z	K4QXX	2 m	FT8	-16	-5	EL87rn	1486 km			
	0221Z	WB4OMG	70 cm	FT8	-1	-2	EL89ad	1509 km			

Crew meeting at Antenna World in Miami, FL

North Texas NTMS Microwave Society

Raul W4AWI is the owner of AWI

Where to Coordinate

North Texas NTMS Microwave Society

- NTMS Slack
- 4 Landers on VHF-Chat Slack
- ON4KST
- K4JMX https://k4jmx.com/chat/account.php
- W4DEX http://w4dex.com/qso
- Other places?
- Other tropo reports and or comments?