North Texas NTMS Microwave Society

A year of rovering - 2023

Feb 3 New Wavelab 24 GHz tests – High Hawk proving ground

March 18-19 NTMS MAD very cold & windy

May 21 NTMS MAD

June 3 ad-hoc RS rove

July 24-27 On the way to CSVHFS (N Little Rock) rove.

Aug 9 ad-hoc testing at High Hawk proving ground 24 GHz LNA

Aug 10 GHz contest

Aug 13 ad-hoc tests for thermal control on 24 GHz

Sept 10 GHz contest

Dec 10 47 GHz NTMS MAD

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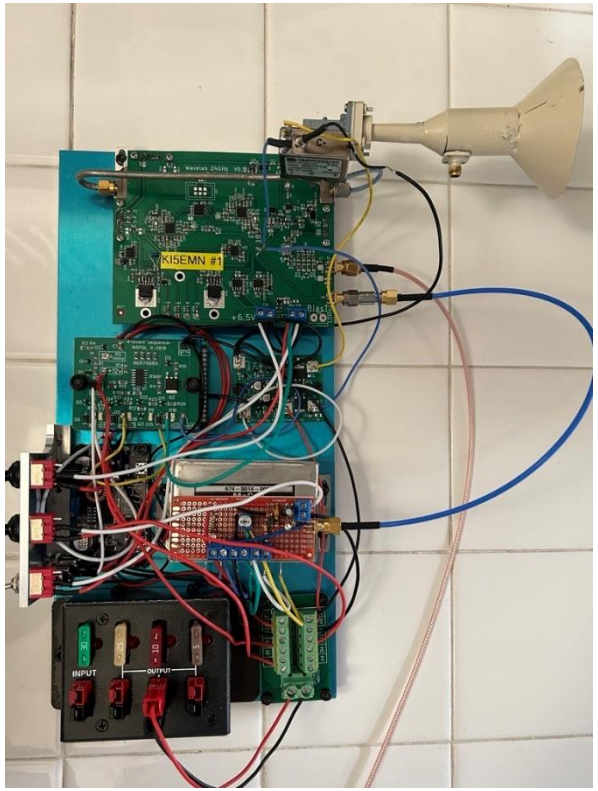
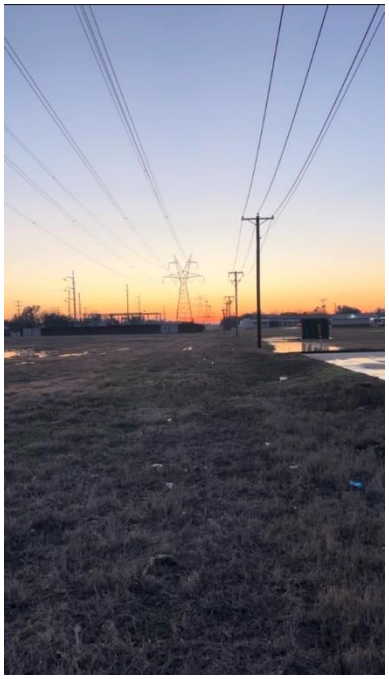
Feb 3 – 2 New Wavelab 24 GHz rover units



High Hawk proving ground – 1 mile DX



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March NTMS MAD

very cold & windy
WQ5S Brad was at W5FKN EM13jh

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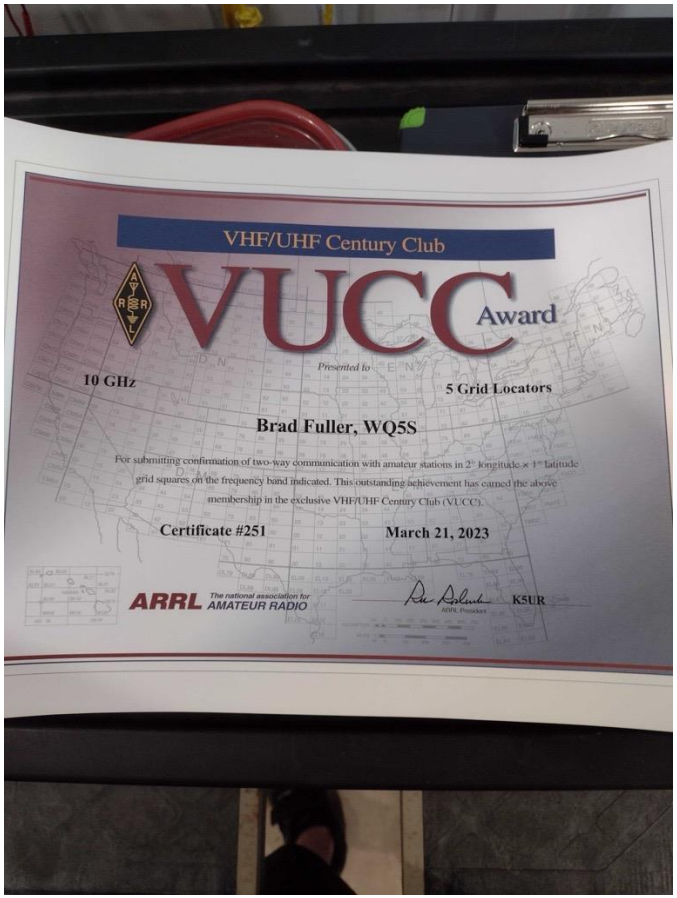
March NTMS MAD

WQ5S earned VUCC on 10 GHz!



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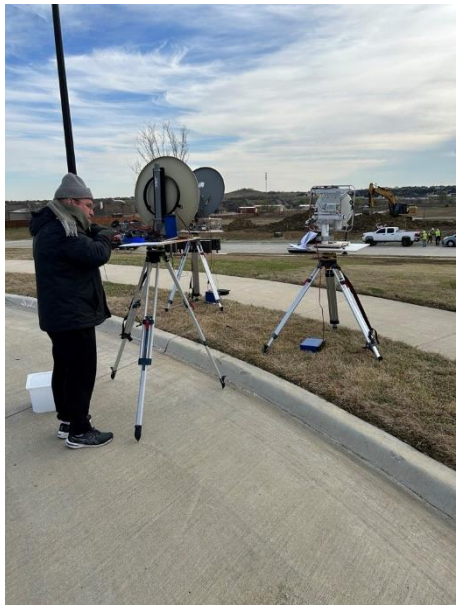
March NTMS MAD

very cold & windy



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March NTMS MAD

AA5AM Scott's 10/24/47 GHz setup

March NTMS MAD

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Paul at EM12MQ near I-20/408

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March NTMS MAD

First contact for two new 47 GHz systems

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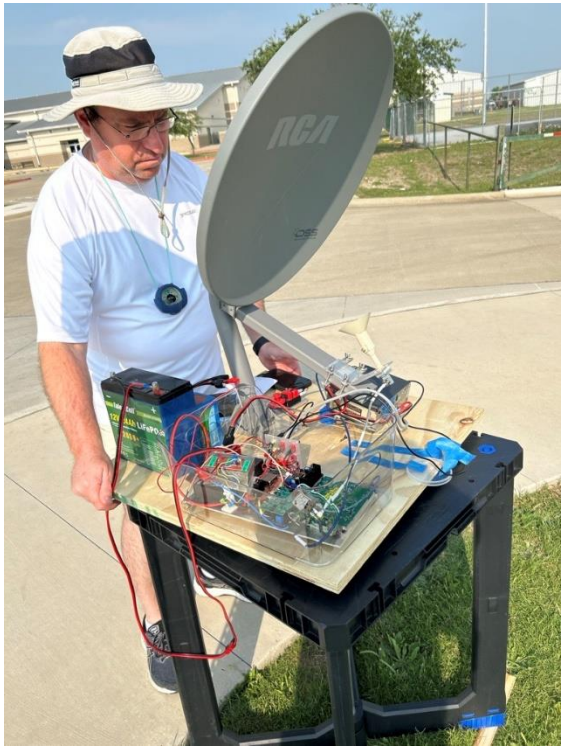
May NTMS MAD

First DX for new 24 GHz system



New good location in EM01vx17

May NTMS MAD

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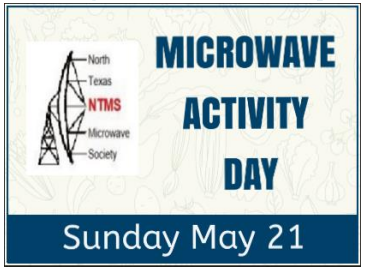
EM01vx17 location – 200 km on 24 GHz w/W5LUA

May NTMS MAD results

- May 21 – spring NTMS activity event



WQ5S was at W5FKN/EM13

KM5PO & KI5EMN
EM04xs52ta Warika,OK
EM03vg85qd Jacksboro, TX
EM02wl37 Hwy 281 Lipan, TX nil
EM01vx17 Hwy 219 Dublin, TX KI5EMN 10 GHz, KM5PO/W5LUA ~200km 24GHz
EM11kx88 Hillsboro, TX nil

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On the way to CSVHFS

- 7/24-7/30
- AC0RA Wyatt

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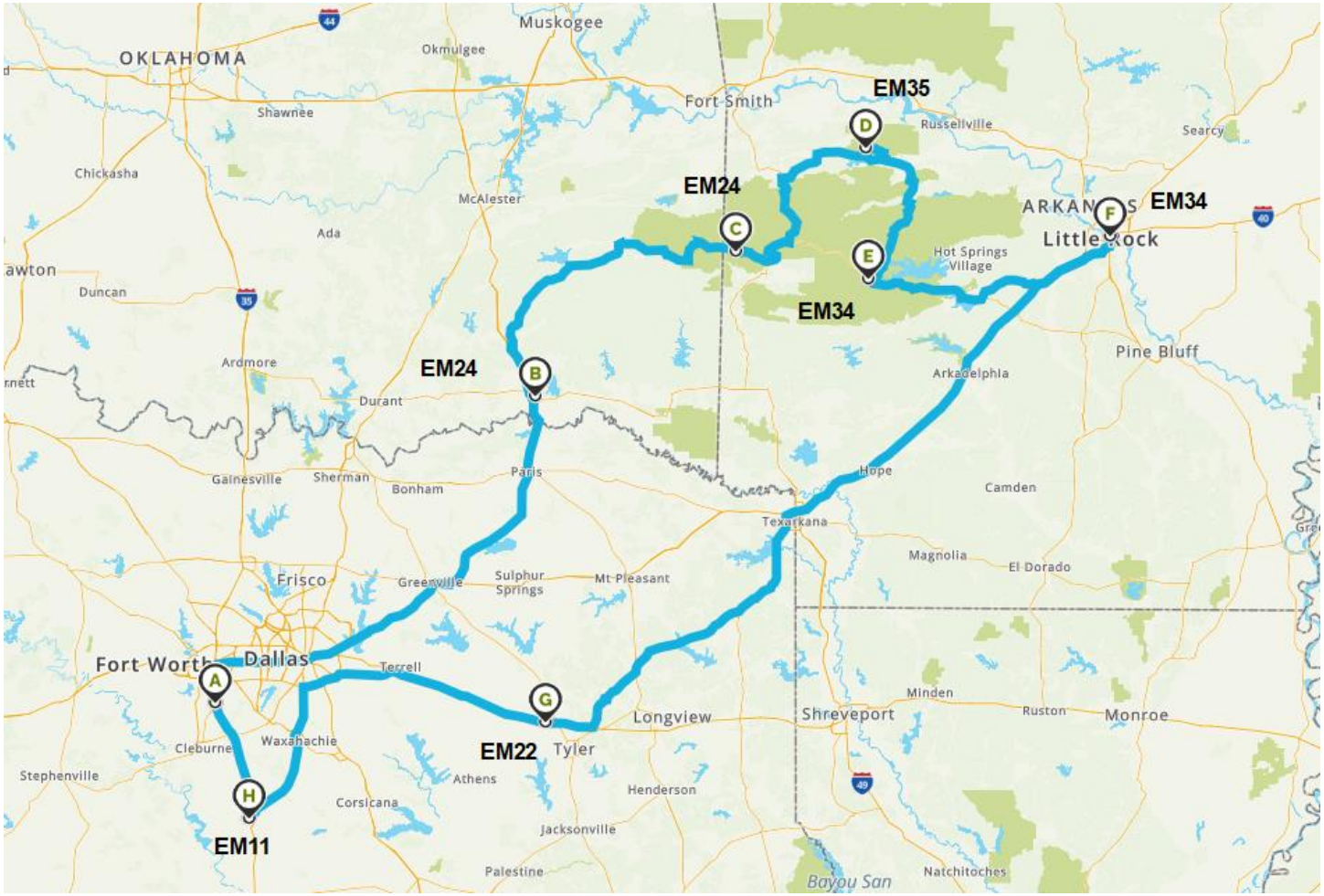
On the way to CSVHFS



On the way to CSVHFS

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EM24ea near Soper, OK

Pre 10 GHz contest check out

- Umbrella works well
- Tried WSJT with equipment outside
- Established that KX-3 was drifting on 144 MHz in phone call with Al after the stop.
- Good success on 10 GHz
- Strong WSJT sig from Al

On the way to CSVHFS

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EM24 overlooking Kiamichi Valley. 599 10 GHz to DFW 255 km

On the way to CSVHFS

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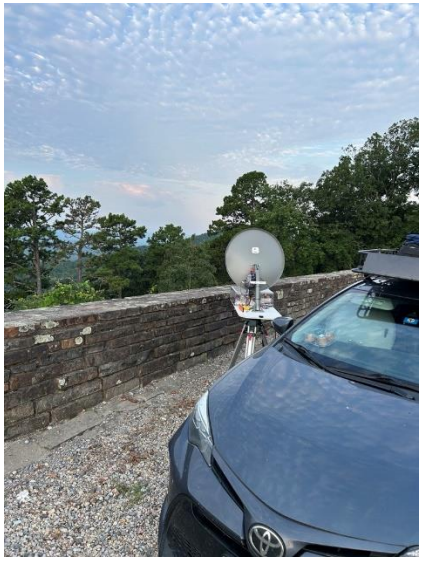
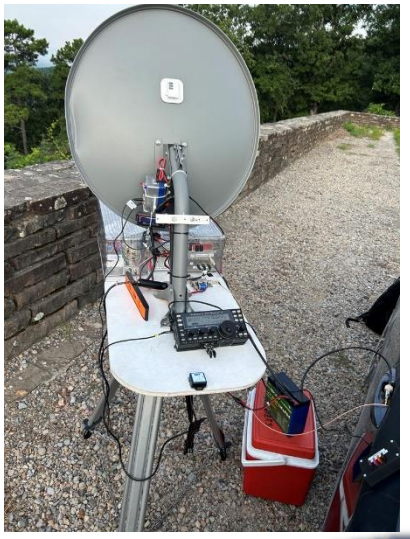
Typical cheap motel – Mt IDA, AR

Mount IDA overlook





On the way to CSVHFS

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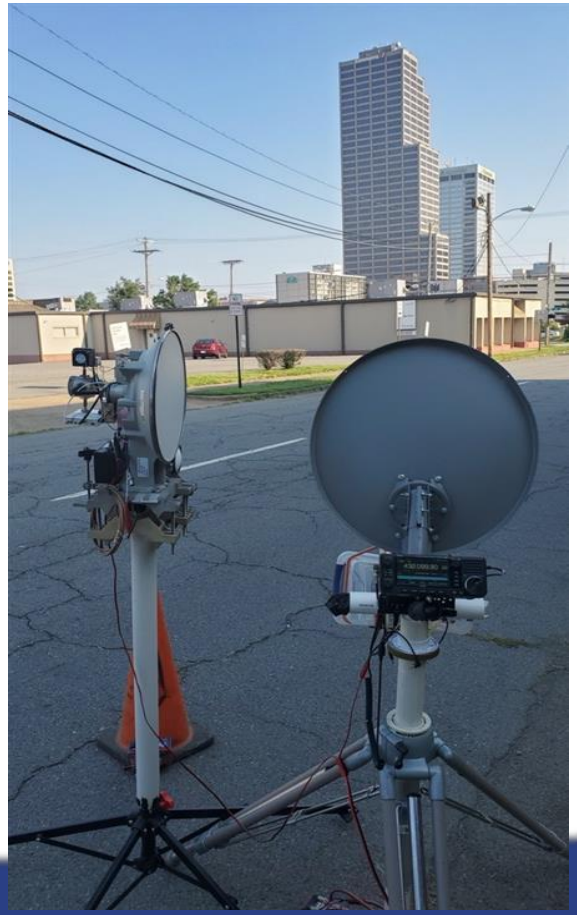
CSVHFS North Little Rock

The two rigs that hold the Texas 47 GHz DX record!

K9PW worked via building scatter on 47 GHz



CSVHFS North Little Rock

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On the way home from CSVHFS

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- Worked: AA5C on 24 GHz, WB5ZDP, AA5AM & AA5C on 10 GHz

On the way home from CSVHFS

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Aug 9 ad-hoc testing

Testing Wavelab 24 GHz with DB6NT LNA prior to contest
DigiLO was heard over 1 mile DX at High Hawk proving ground

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10 Ghz contest part 1

122 GHz attempt failed at sunrise first stop

Ending day 1 at Blue Ridge school (shaded)

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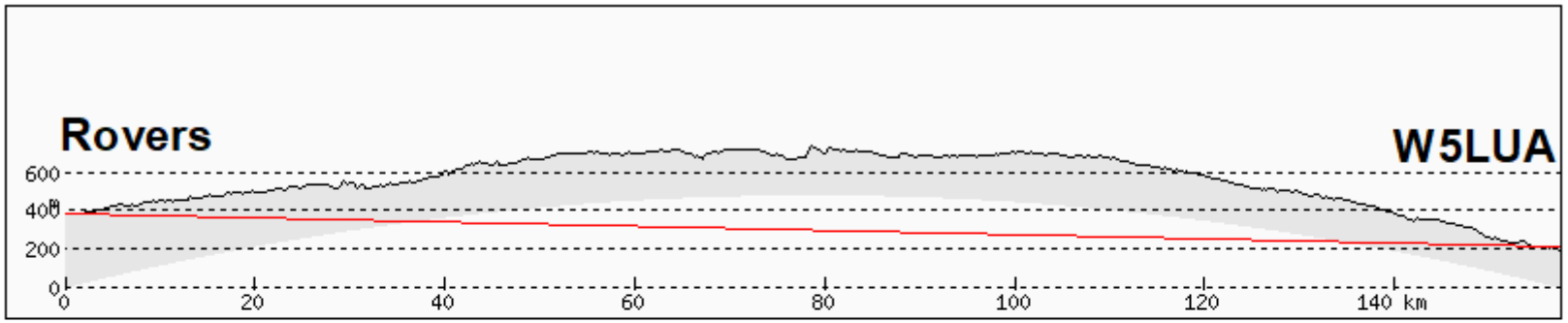
10 Ghz contest part 1

Day 2 Sunday started with a long 24 GHz contact from Sulphur OK to W5LUA – 157 km



Parameters

☑ show scale ☑ show lines	◉ straight line ○ true line of sight	fixed exaggeration (e.g. 2) 20
○ flat Earth ◉ curved Earth	frequency (MHz, e.g. 5800)	y range (e.g. -20,100)
○ plate carée ◉ great circle	refraction (e.g. .14)	Reset

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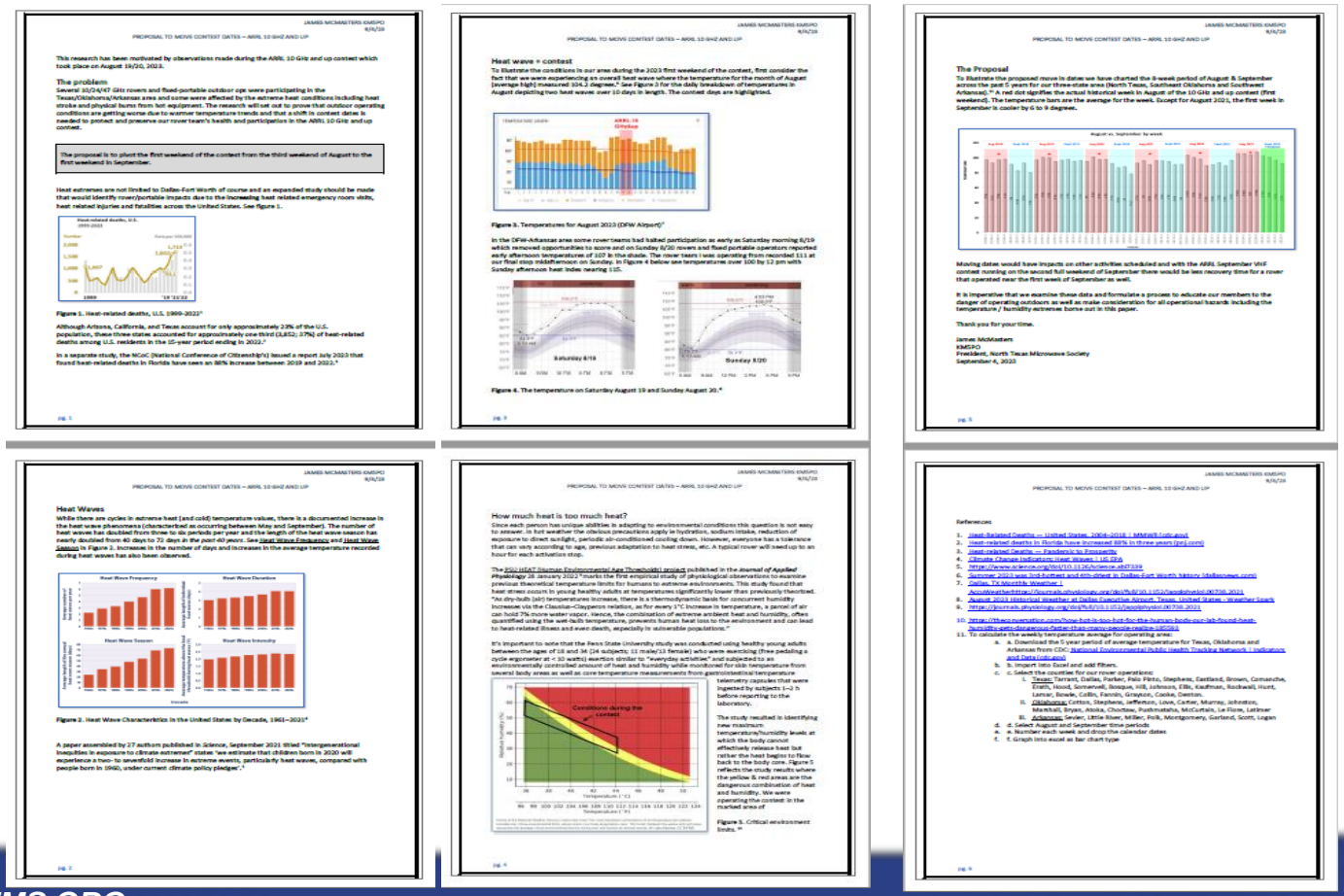
10 Ghz contest part 1

Day 2 Sunday ended the day with heat stroke/burns
Scott AA5AM wrote email. I wrote a paper.



10 Ghz contest part 1

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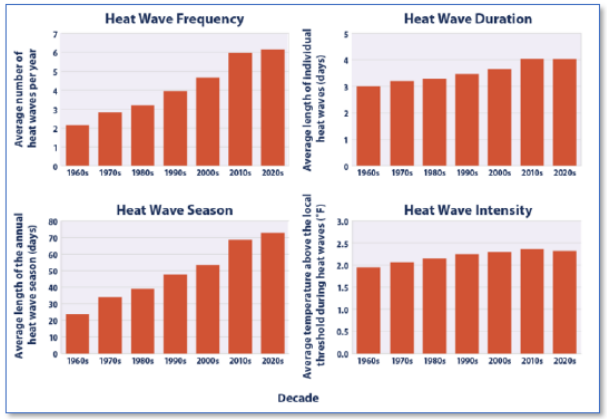


Figure 2. Heat Wave Characteristics in the United States by Decade, 1961–2021[4]

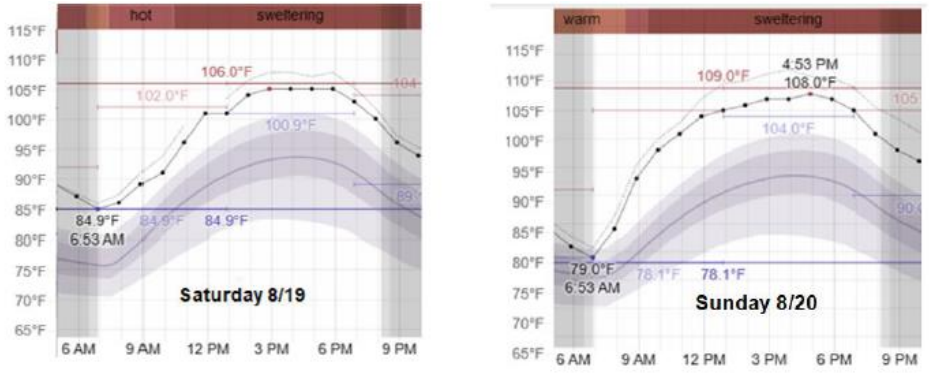
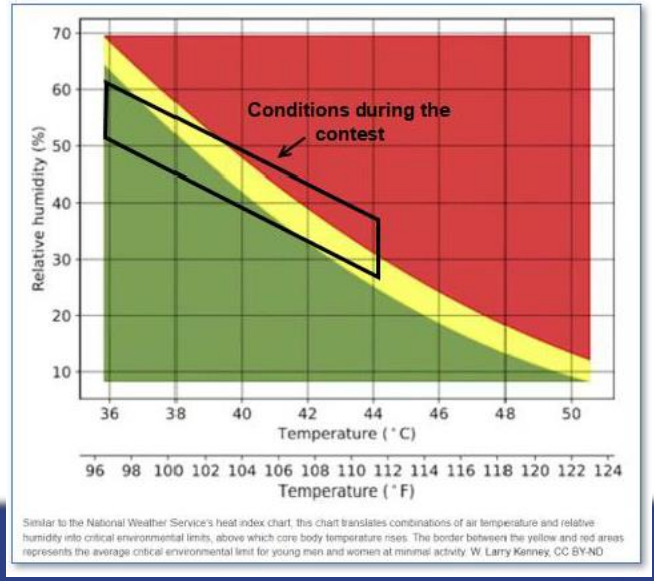


Figure 4. The temperature on Saturday August 19 and Sunday August 20.[8]



Ad-hoc testing – thermal control

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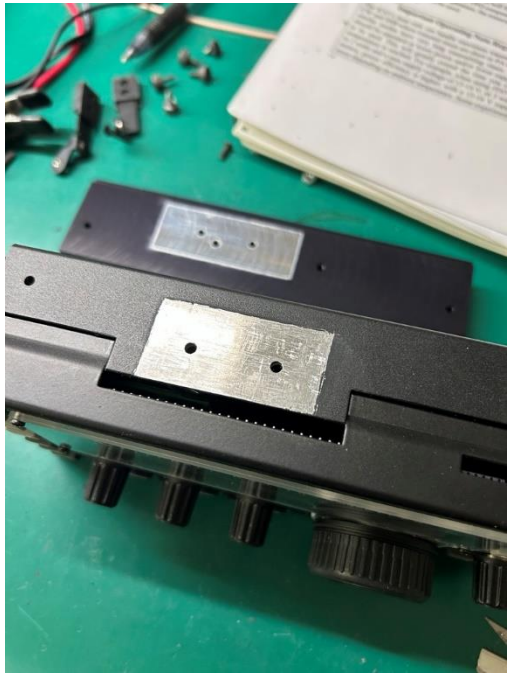
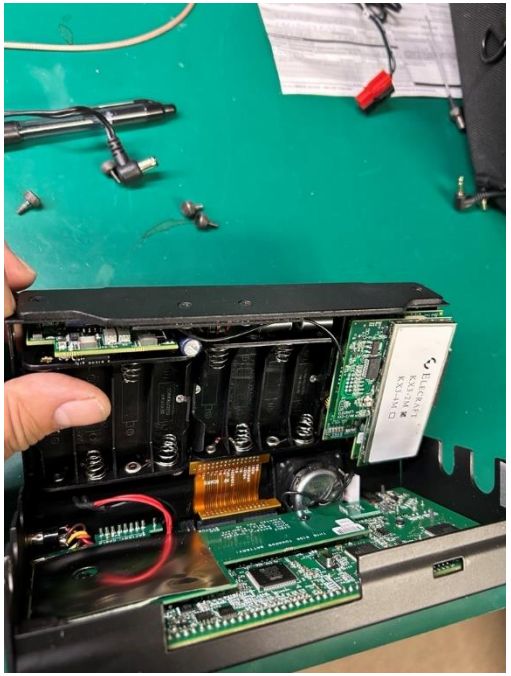
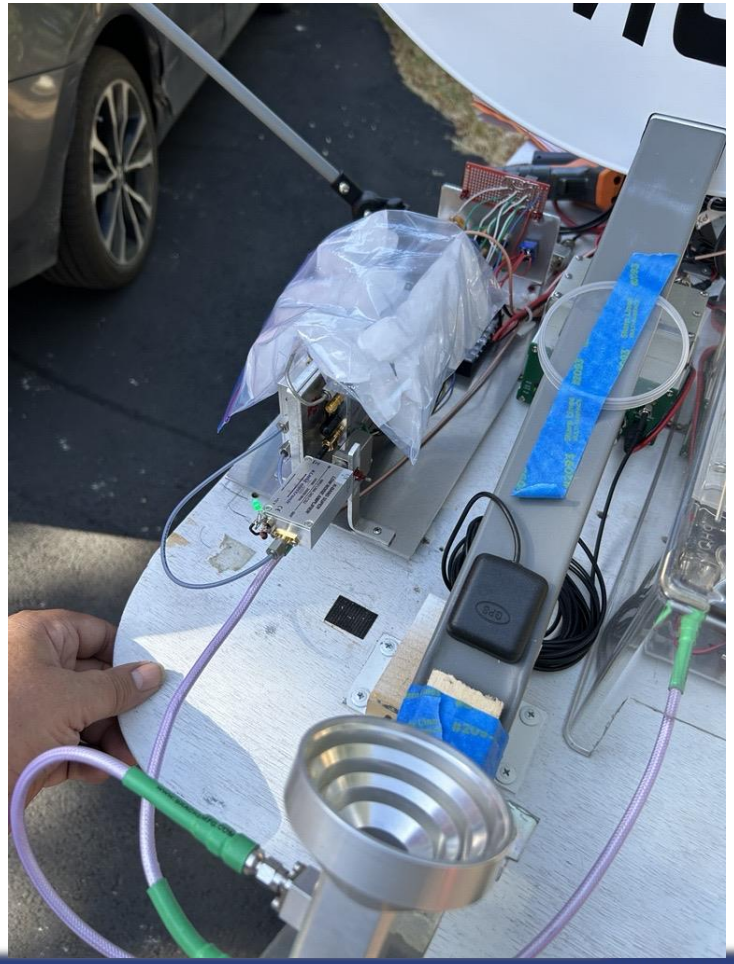




Ad-hoc testing – thermal control

North Texas NTMS Microwave Society



Ad-hoc testing – thermal control

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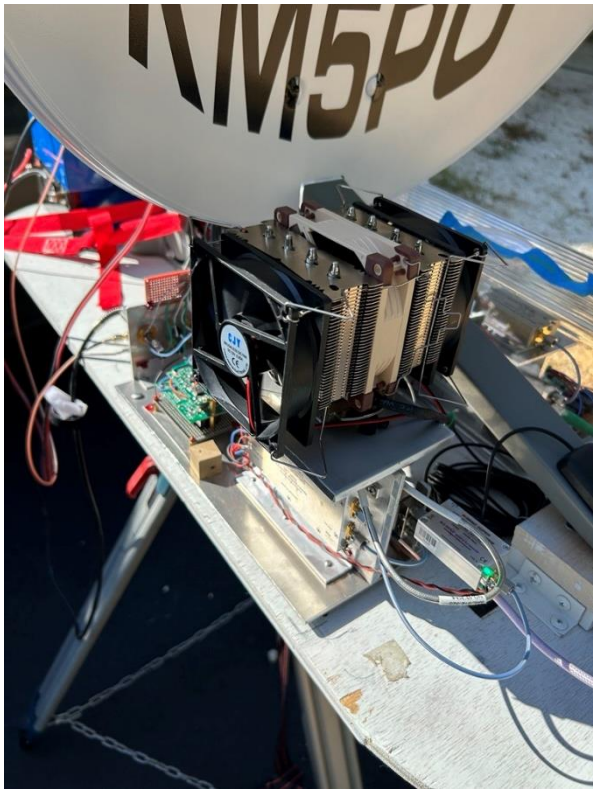

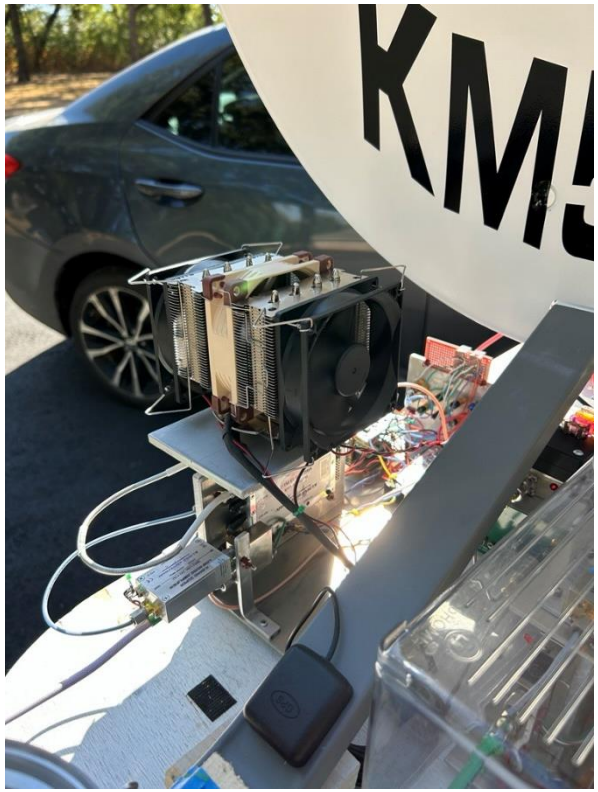

Ad-hoc testing – thermal control

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KI5EMN
on 24 GHz
FM 5x9

W5LUA
strong on
24 GHz
WSJT @
96 km

Ad-hoc testing – thermal control

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Ad-hoc testing – 122 GHz

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10 GHz contest part 2

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Rain preparation

Working Al on WSJT – 10 GHz from EM03vw N of Henrietta TX

10 GHz contest part 2

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10 & 24 GHz success from EM23ao near Honey Grove TX

10 GHz contest part 2

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- Ladonia Texas EM23, Digital and Analog contacts on 10 & 24 GHz.

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10 GHz contest part 2

122 GHz contact in the log!

Dec 10 NTMS MAD
Focus on 47 GHz

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- W5LUA has rotor improvements
- Two rovers on 47 GHz now – who is next?

Site				W5LUA EM13qc68			AA5C EM13se55			AA5AM EM13sg53		
			Alt	DX	DX AZ	AZ	DX	DX AZ	AZ	DX	DX AZ	AZ
Sunday 12-10-23 KM5PO/KI5EMN												
EM12mw51ga	Macarthur ranch	Mythri's 8350 N. MacArthur Irving	499	39	56	236	35	58	238	38	51	231
EM13od56ch	Frisco School	10330 Red Cedar Dr. Frisco	801	17	102	282	32	82	262	34	68	248
KM5PO/Jim												
EM13tl30wt	Whitewright	E Line Rd Whiteright	797	44	209	29	31	192	12	23	197	17
EM23aj09ja	Ladonia #2	15493 SH-34 Ladonia	689	66	240	60	31	240	60	46	249	69
EM23ad19ig	Campbell	1301 CR 4109 Campbell	623	58	265	85	43	274	94	48	284	104
KI5EMN/Paul												
EM13th13ix	Blue Ridge High School	425 N Church St Blue Ridge	635	29	223	43	14	198	18	7	224	44
EM13td37bv	Farmersville/Brookshires	1803 W Audie Murphy Pkwy	605	21	78	258	7	122	302	13	151	331
EM13vd48al	Floyd	2615-2721 FM 903 Greenville	604	37	262.7	83	22	278	98	25	298	118

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Questions?