

This report from Tim Land was posted on the WTFDA Forums and converted to pdf.



MEGA TROPO RESULTS FROM KINGSPORT TN (Aug 19-22, 2023) #1

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AUGUST 19-22, 2023 Major Tropospheric Event



Yellow pins indicate locations confirmed on FM by tropo from Kingsport, Tennessee, USA during the August 19-22 tropo event.

AUG 2023 MAJOR TROPO EVENT RESULTS

Needless to say, the tropo that occurred over the US from August 19 to August 22, 2023 was historic. Here in northeast Tennessee tropo is not common and when it happens it is usually under 300 miles (Nashville, Chattanooga, Lexington, KY). Prior to the mega tropo event just days ago, the largest tropo outbreak last occurred here in 2012 when I confirmed what was at the time my farthest tropo catch (101.1 KXIA Marshalltown, IA at 672 miles). This 2023 event eclipsed that 2012 opening by many orders of

magnitude.

The first indication for me to pay attention was a post (on here I believe?) from a DXer that alerted others about a potential major tropo event due to the "heat dome". I checked out the Hepburn Tropo forecast and thought I'd better prepare. Here is a daily synopsis:

Saturday August 19: (late PM) Nashville, west KY, east AR, east MO stations began making their way in. I left antenna pointed wnw before going to sleep. Recorded eight frequencies overnight.

Sunday August 20: I awoke to see the APRS tropo map showing paths to my north and northeast. I managed to get a couple Ontario stations, Youngstown, OH and Wheeling, WV in the morning while middle TN and w KY was making it in throughout the day.

Monday August 21: A workday. When I went home on lunch I noticed Tr was really taking off to Michigan. By evening time conditions for long-haul tropo really took off towards the northwest. My tropo record fell several times during the evening and into the overnight. By midnight I had Tr to areas I had previously only ID'd by Sporadic E.

Tuesday August 22: I stayed up scanning the dials until 4:00am and woke up at 7:00 to continue DXing. This was historic, after all, so I called in to work. Long-haul stuff kept coming in until close to noon when Tr scaled back to only a few Ohio stations. By evening the FM dial was relatively normal.

Here is a list of confirmed stations by Tr in descending order according to distance:

FREQ	CALL	CITY	STATE	MILES
98.3	KUQL	Ethan	SD	974
105.9	KMIT	Mitchell	SD	965
102.9	KBRX	O'Neill	NE	945
100.5	KIKN	Salem	SD	922
104.7	KKLS	Sioux Falls	SD	914
101.9	KELO	Sioux Falls	SD	906
95.7	KROA	Grand Island	NE	902
93.1	KKYA	Yankton	SD	898
92.7	KUSO	Albion	NE	889
94.7	KNEN	Norfolk	NE	887
105.1	KARL	Tracy	MN	883
98.7	KISD	Pipestone	MN	870
97.9	KSEZ	Sioux City	IA	838
101.3	KKYY	Whiting	IA	829
100.9	KCLY	Clay Center	KS	816

107.3	KBBK	Lincoln	NE	812
93.1	KATO	New Ulm	MN	806
106.5	KFMC	Fairmont	MN	799
94.1	KQCH	Omaha	NE	796
104.5	KSRZ	Omaha	NE	796
100.1	KUYY	Emmetsburg	IA	796
99.5	KGOR	Omaha	NE	796
96.1	KISO	Omaha	NE	796
92.3	KEZO	Omaha	NE	796
103.7	KXKT	Glenwood	IA	796
101.7	KAYL	Storm Lake	IA	793
93.7	KKRL	Carroll	IA	762
94.5	WIBW	Topeka	KS	757
92.7	KSJQ	Savannah	MO	716
104.1	KOEZ	Ames	IA	713
105.1	KCYZ	Ames	IA	706
98.3	KWQW	Boone	IA	702
107.1	KNWI	Osceola	IA	697
102.5	KSTZ	Des Moines	IA	696
105.9	KICP	Patterson	IA	691
101.9	WDEZ	Wausau	WI	690
93.3	KIOA	Des Moines	IA	683
107.5	KKDM	Des Moines	IA	676
98.3	CFLY	Kingston	ON	626
94.1	KRNA	Iowa City	IA	615
100.1	KOMC	Kimberling City	MO	599
91.7	KSUI	Iowa City	IA	593
102.5	WNWC	Madison	WI	582
106.5	KCQQ	Davenport	IA	550
94.5	WCEN	Hemlock	MI	509
95.1	WIIL	Union Grove	WI	505
96.1	WHNN	Bay City	MI	489

96.7	CHYM	Kitchener	ON	485
102.5	WIOG	Bay City	MI	485
106.7	WPPN	Des Plaines	IL	485
94.5	WKLQ	Holland	MI	474
101.3	WBFX	Grand Rapids	MI	474
101.7	KIYS	Walnut Ridge	AR	457
101.3	CKOT	Tillsonburg	ON	457
100.5	KEGI	Trumann	AR	455
103.3	KLOU	St Louis	MO	450
94.7	KSHE	Crestwood	MO	450
102.1	WMUK	Kalamazoo	MI	437
97.1	WHRK	Memphis	TN	430
103.3	WKFR	Batte Creek	MI	430
99.7	WLFP	Germantown	TN	422
94.1	WWDK	Jackson	MI	421
104.5	WRVR	Memphis	TN	419
107.5	WGPR	Detroit	MI	404
102.9	WWWW	Ann Arbor	MI	401
102.9	KEZS	Cape Girardeau	MO	393
96.7	CHYR	Leamington	ON	387
101.3	WCMT	South Fulton	TN	357
94.7	WZYK	Clinton	KY	340
93.3	WKYQ	Paducah	KY	339
98.3	WJLI	Metropolis	IL	331
98.3	WJLI	Metropolis	IL	331
102.9	WYFM	Sharon	PA	329
94.7	WFBQ	Indianapolis	IN	306
104.1	WIKY	Evansville	IN	297
98.7	WHOP	Hopkinsville	KY	279
107.5	WEGW	Wheeling	WV	262
96.7	WKMM	Kingwood	WV	257
103.3	WKDF	Nashville	TN	243

105.9	WNRQ	Nashville	TN	243
97.9	WSIX	Nashville	TN	242
106.7	WNFN	Franklin	TN	242
97.1	WBNS	Columbus	OH	240
94.7	WSNY	Columbus	OH	240
99.1	WHKO	Dayton	OH	240
97.9	WNCI	Columbus	OH	239
107.5	WRVW	Lebanon	TN	238
104.5	WGFX	Gallatin	TN	238
99.7	WDJX	Louisville	KY	222
92.7	WHIZ	S Zanesville	OH	221
107.1	WUHU	Smiths Grove	KY	208
94.7	WGSQ	Cookeville	TN	159
99.9	WVAF	Charleston	WV	132

Here are three sample recordings from the event:

[Aug 22 KQCH-94.1 Omaha NE.mp3](#)

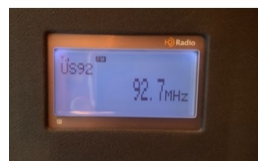
[Aug 20 CFLY-98.3 Kingston ON.mp3](#)

[Aug 22 KUQL-98.3 Ethan SD.mp3](#)

Here are some RDS screen captures:



OMAHA, NE
796 miles



Albion, NE
889 miles



Iowa City, IA
593 miles

*Some RDS captures from
August 21-22*



OMAHA, NE
796 miles



New Ulm, MN
806 miles