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7-1-2024

2024 July - Tennessee Monthly Climate Report

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July 2024 Tennessee State Climate Summary

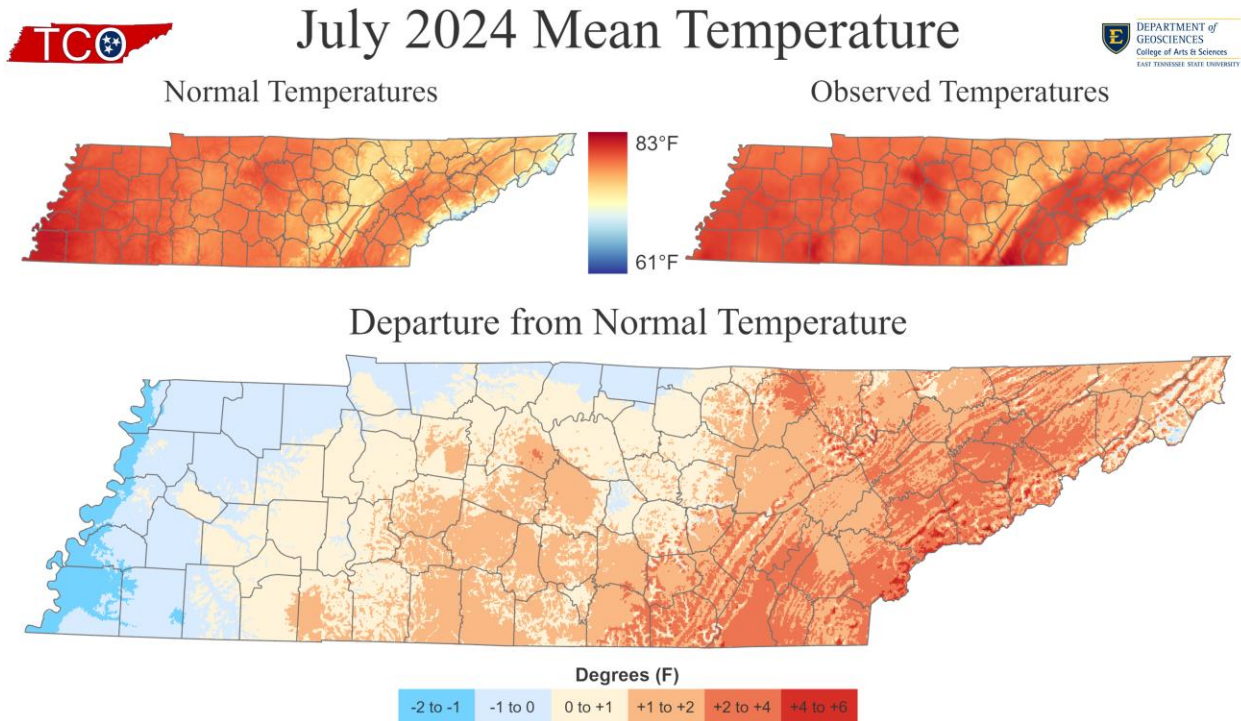
Tennessee Climate Office * East Tennessee State University

Prepared by William Tollefson and Dr. Andrew Joyner

With contributions by [Climate Data Representatives](#) across the state

Monthly Temperature Summary:

Over the month of July 2024 mean temperatures showed a trend of cooler than normal to warmer than normal moving from west to east across Tennessee. Right along the Mississippi River in West Tennessee, mean temperatures were 1-2°F cooler than normal, while in the rest of West Tennessee and northern portions of Middle Tennessee temperatures were within $\pm 1^\circ\text{F}$ of normal. Southern Middle Tennessee saw temperatures 1-2°F warmer than normal and most of East Tennessee saw temperatures of 2-4°F warmer than normal. Chattanooga, with a 146-year weather history, and Oak Ridge, with a 78-year weather history, both recorded their 7th warmest July on record based on mean temperatures, and Chattanooga recorded the 2nd warmest average low temperature on record for the month of July. Across the state, at weather stations with at least a 30-year history, there were 20 broken and 11 tied daily high temperature records this month, with an additional 43 broken and 44 tied daily records for warmest low temperatures. Of those record warm low temperatures, the Tazewell station tied its all-time record for warmest low temperature, with a low of 73°F on July 10, tying the record last set on June 30th of this year and August 1, 1999. On the cool side of the record books, there were 2 broken daily low temperature records set this month, and an additional 14 broken and 17 tied daily records for cool high temperatures.



Stations with the highest mean temperature

Station Name	Station Type	Mean Temperature (F)
CHATTANOOGA AP	WBAN	83.2
NASHVILLE INTL AP	WBAN	82.2
NASHVILLE BERRY FIELD	COOP	81.8
SHILOH NMP TENNESSEE	RAWS	81.8
MEMPHIS INTERNATIONAL AP	WBAN	81.8

Map Data from PRISM Climate Group, Oregon State University, 1991-2020 Climate Normals Used. Station Data Retrieved From xmACIS2.

Stations with the lowest mean temperature

Station Name	Station Type	Mean Temperature (F)
MT LECONTE	COOP	59.3
NEWFOUND GAP	COOP	67.4
ROAN MOUNTAIN 3SW	COOP	69.5
CHEROKEE TENNESSEE	RAWS	71.9
MOUNTAIN CITY 2	COOP	73

Monthly Precipitation Summary:

Precipitation this month was very hit or miss, with large areas of the state recording much below normal rainfall for the first half of the month, and then flooding rains later in the month. Overall, most areas of the state averaged out to be within 25% of normal, but a few areas recorded over 200% of their normal rainfall for July while others recorded less than 40% of theirs. Coming on the heels of a drier than normal June, most areas of the state also recorded below normal precipitation in the first week of July. Middle and East Tennessee continued that dry pattern into the second week of the month, but most areas of West Tennessee recorded widespread rains from the remnants of Hurricane Beryl. In the third week of July spotty storms brought heavy rains mostly to the eastern half of the state, before more widespread storms brought heavy rains to most areas of the state in the fourth week of July, with some areas recording over 5" of rain. These heavy rains and accompanying severe storms continued in the final days of July. Dry conditions in the first half of the month combined with high and record-setting heat in the eastern half of the state resulted in extensive drought degradation. As rains returned to these parts of the state later in the month there were corresponding improvements in the U.S. Drought Monitor. For more detailed information on the evolving drought situation see the Drought Monitor section of this report. Overall, no long-term climate stations in the state had a top-10 wettest or driest July on record. However, 21 stations/rain gauges with at least a 30-year reporting history did record daily records for highest precipitation totals this month.

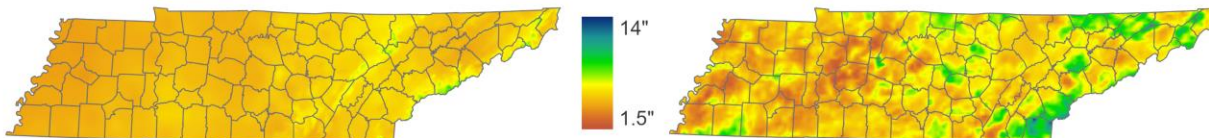


July 2024 Total Precipitation

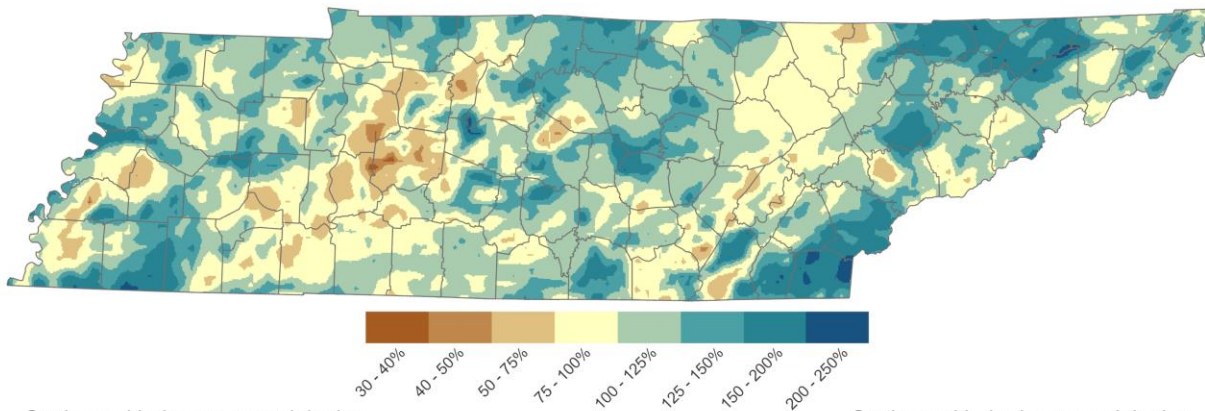


Normal Precipitation

Observed Precipitation



Percent of Normal Precipitation



Stations with the most precipitation

Station Name	Station Type	Total Precipitation (in)
BENTON 2.3 ESE	CoCoRaHS	14.2
SHELBYVILLE MUNI. AIRPORT	COOP	11.13
OCOEE 3.3 ESE	CoCoRaHS	10.55
OOLTEWAH 3.0 SW	CoCoRaHS	9.9
CLEVELAND 5.2 SE	CoCoRaHS	9.78

Map Data from PRISM Climate Group, Oregon State University, 1991-2020 Climate Normals Used. Station Data Retrieved From xmACIS2

Stations with the least precipitation

Station Name	Station Type	Total Precipitation (in)
OLD HICKORY DAM	COOP	1.01
DICKSON 9.1 WSW	CoCoRaHS	1.2
MONTGOMERY BELL STATE PARK	COOP	1.55
ALTAMONT 3.9 NW	CoCoRaHS	1.58
DICKSON 12.7 NW	CoCoRaHS	1.73

Note: Data for the infographic below ends at 7am July 31, parts of Overton and Fentress counties recorded 3-4" of rain later in the day on July 31.

Station Data and Top Tenn. (warmest/wettest, coldest/driest stations of the month):

Station data for airports across the state using WBAN weather stations, compared to 1991-2020 30-year climate normals for departure from mean temperature and total precipitation:

Station Name	Temperatures (°F)								Precipitation (inches)		
	Averages				Extremes				Totals		
	Max	Min	Mean	Depart	High	Date	Low	Date	Obs	Depart	%Norm
Memphis	89.8	73.8	81.8	-1.0	98	7/3	67	7/10	4.89	0.07	101%
Jackson	89.8	71.6	80.7	+1.2	98	7/3	62	7/2	4.60	0.23	105%
Clarksville	89.0	69.7	79.3	+1.1	96	7/4	61	7/19	3.38	-0.36	90%
Nashville	92.3	72.1	82.2	+1.5	100	7/14	63	7/2	3.03	-1.13	73%
Chattanooga	93.0	73.4	83.2	+2.5	101	7/13	66	7/11	3.68	-1.40	72%
Crossville*	85.9	65.8	75.8	+2.0	95	7/14	58	7/11	2.33	-3.13	43%
Knoxville	90.2	70.4	80.3	+1.8	98	7/14	64	7/11	5.00	-0.25	95%
Bristol	88.9	66.2	77.6	+2.0	96	7/14	58	7/11	4.26	-0.74	85%

Departures and %Norm Key: **Warmer than Normal**, **Cooler than Normal**; **Wetter than Normal**, **Drier than Normal**

*Crossville Airport weather station was missing temperature and precipitation data from July 26-31

Hottest Stations (highest maximum temperature)

Station Name	Station Type	Highest Temperature (F)	Date
MERIWETHER LEWIS TENNESSEE	RAWS	101	4
CHATTANOOGA AP	WBAN	101	13
MURFREESBORO 5 N	COOP	100	15
LEBANON 7 N	COOP	100	16
NASHVILLE BERRY FIELD	COOP	100	15
GLADEVILLE	COOP	100	5
SHILOH NMP TENNESSEE	RAWS	100	14
LENOIR CITY TENNESSEE	RAWS	100	14
MEMPHIS WFO	WBAN	100	4
OAK RIDGE ASOS	WBAN	100	14
NASHVILLE INTL AP	WBAN	100	14

Nine stations tied for the 2nd hottest temperature (100°F)

Coldest Stations (lowest minimum temperature)

Station Name	Station Type	Lowest Temperature (F)	Date
MT LECONTE	COOP	47	15
MOUNTAIN CITY 2	COOP	54	2
PICKETT STATE PARK	COOP	55	19
ROAN MOUNTAIN 3SW	COOP	55	15
NEWFOUND GAP	COOP	55	12
COALMONT	COOP	56	11
BLEDSON SF TENNESSEE	RAWS	56	11
CHEROKEE TENNESSEE	RAWS	56	3
CROSSVILLE AREA OFFICE	RAWS	56	19
CROSSVILLE 7 NW	WBAN	56	11

Warmest Stations (highest mean temperatures)

Station Name	Station Type	Mean Temperature (F)
CHATTANOOGA AP	WBAN	83.2
NASHVILLE INTL AP	WBAN	82.2
NASHVILLE BERRY FIELD	COOP	81.8
SHILOH NMP TENNESSEE	RAWS	81.8
MEMPHIS INTERNATIONAL AP	WBAN	81.8
SAVANNAH 6 SW	COOP	80.9
FRANKLIN SEWAGE PLANT	COOP	80.9
OAK RIDGE ASOS	WBAN	80.8
JACKSON MCKELLAR- SIPES AP	WBAN	80.7
CLARKSVILLE WWTP	COOP	80.6
MEMPHIS WFO	WBAN	80.6

Two stations tied for the 10th warmest mean temperature (80.6°F)

Coollest Stations (lowest mean temperatures)

Station Name	Station Type	Mean Temperature (F)
MT LECONTE	COOP	59.3
NEWFOUND GAP	COOP	67.4
ROAN MOUNTAIN 3SW	COOP	69.5
CHEROKEE TENNESSEE	RAWS	71.9
MOUNTAIN CITY 2	COOP	73
GATLINBURG 2 SW	COOP	73.1
TOWNSEND 5S	COOP	73.3
CROSSVILLE 7 NW	WBAN	74.2
NORRIS	COOP	75
BYRDSTOWN	COOP	75

Wettest Stations (highest precipitation totals):

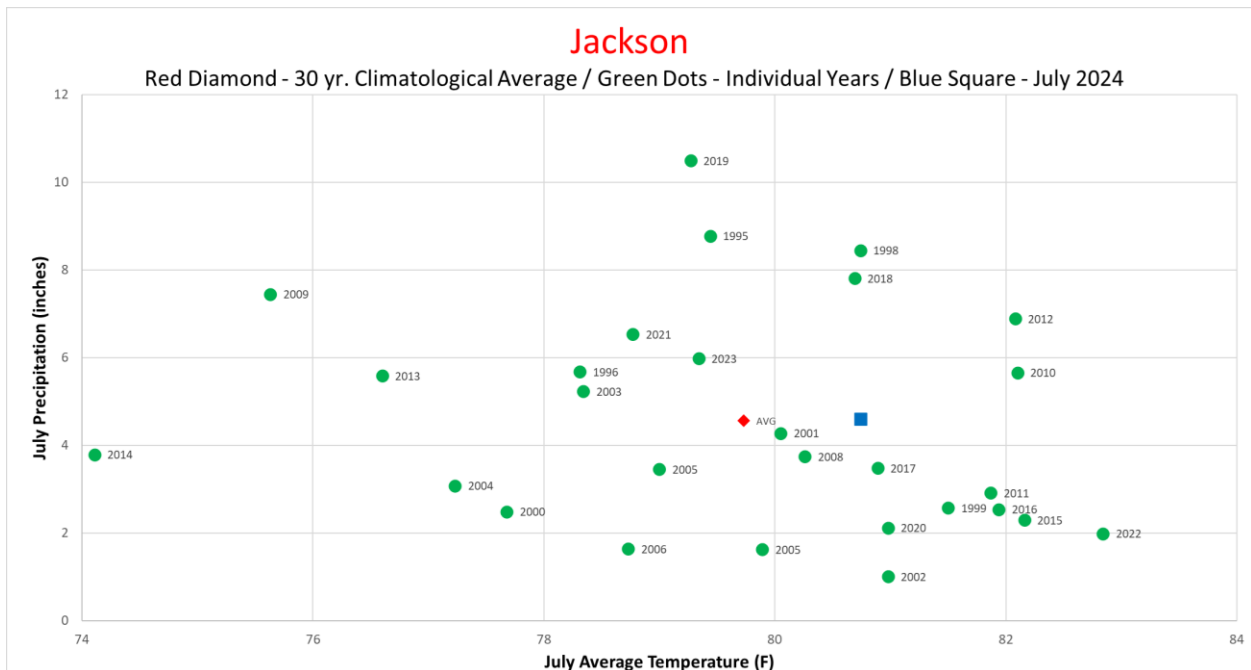
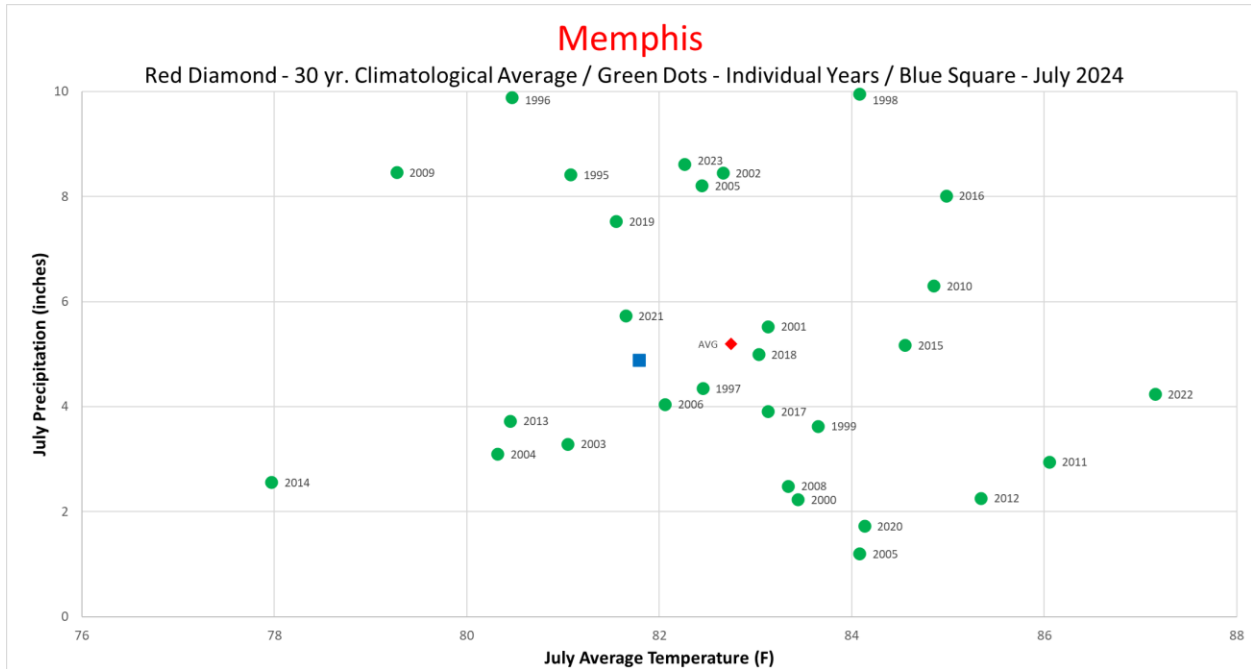
Station Name	Station Type	Total Precipitation (in)
BENTON 2.3 ESE	CoCoRaHS	14.2
SHELBYVILLE MUNI. AIRPORT	COOP	11.13
OCOEE 3.3 ESE	CoCoRaHS	10.55
OOLTEWAH 3.0 SW	CoCoRaHS	9.9
CLEVELAND 5.2 SE	CoCoRaHS	9.78
MT LECONTE	COOP	9.53
CLEVELAND 1.2 W	CoCoRaHS	9.43
PICKETT STATE PARK	COOP	8.84
CLEVELAND 3.0 ESE	CoCoRaHS	8.78
ATOKA 3.2 ESE	CoCoRaHS	8.68

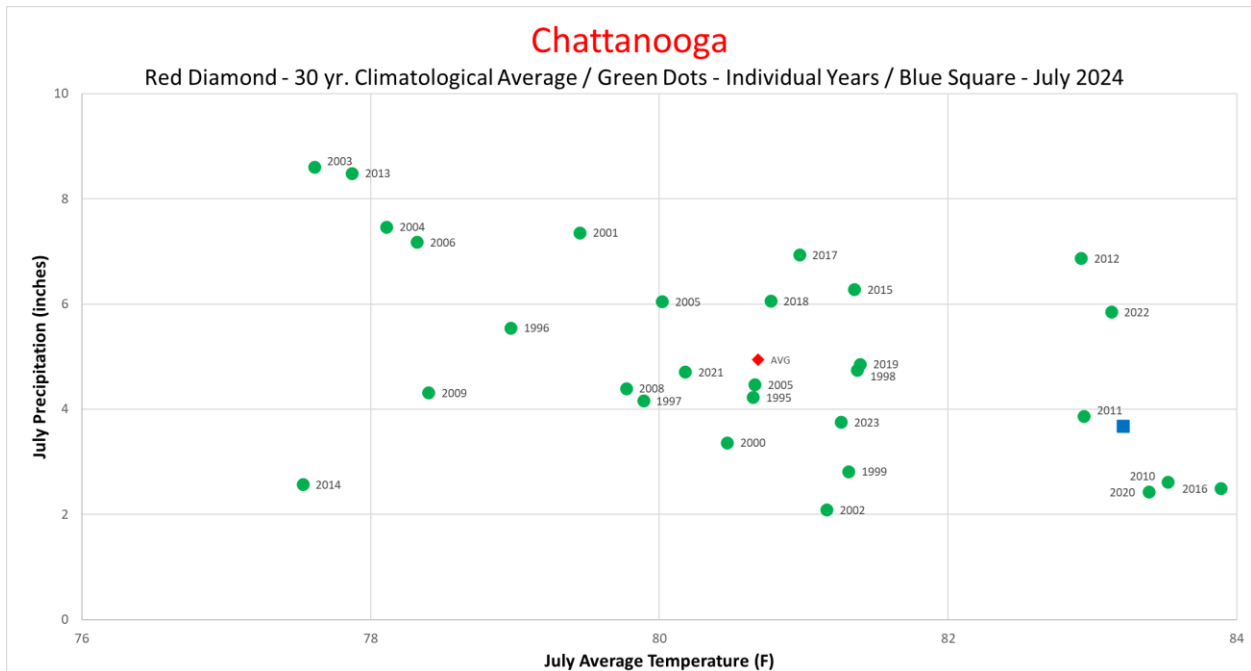
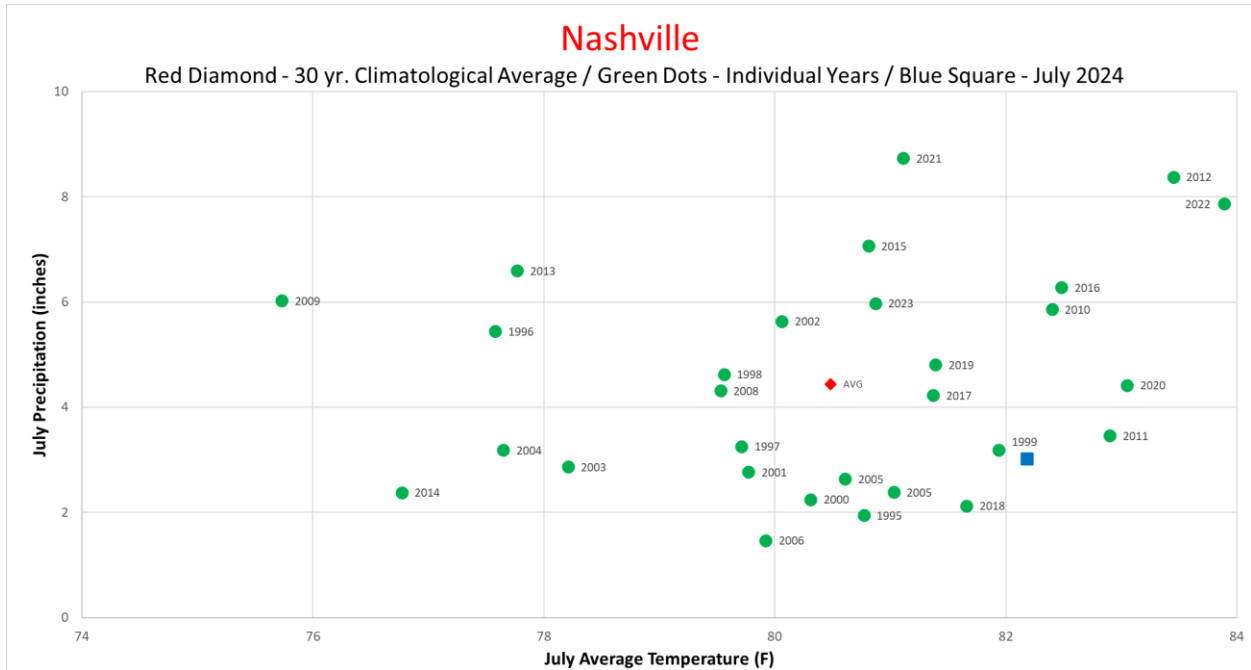
Driest Stations (lowest precipitation totals):

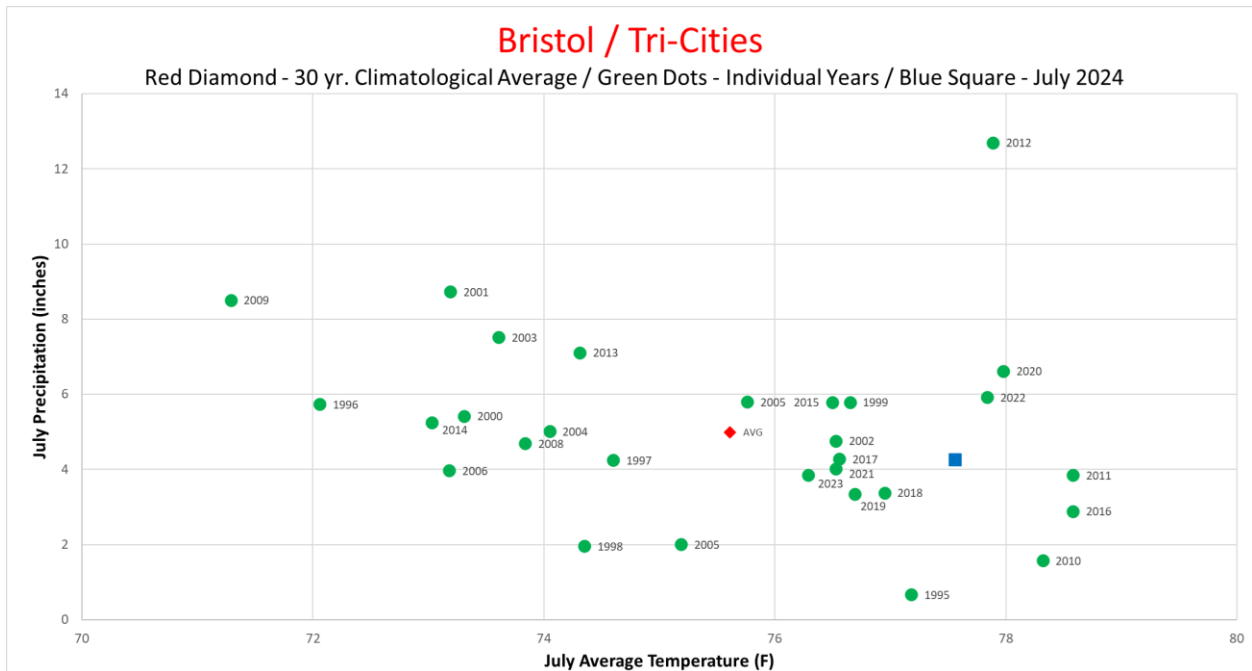
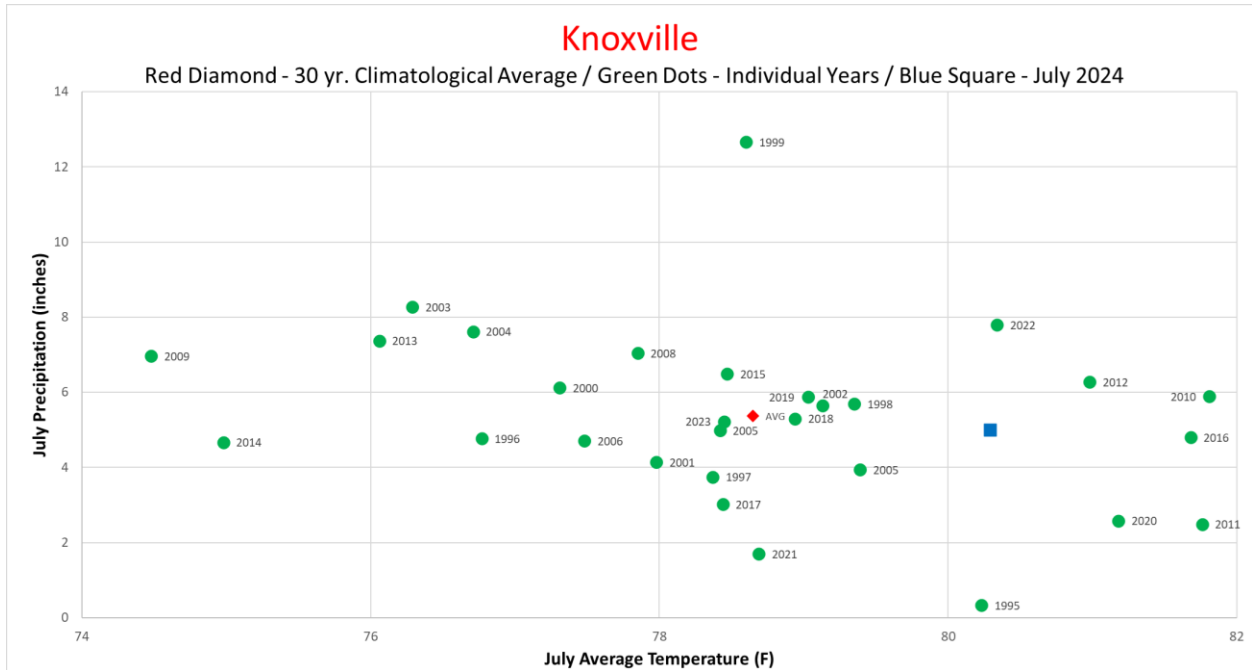
Station Name	Station Type	Total Precipitation (in)
OLD HICKORY DAM	COOP	1.01
DICKSON 9.1 WSW	CoCoRaHS	1.2
MONTGOMERY BELL STATE PARK	COOP	1.55
ALTAMONT 3.9 NW	CoCoRaHS	1.58
DICKSON 12.7 NW	CoCoRaHS	1.73
ROCK VALE 4.5S	CoCoRaHS	1.74
MONTEREY	COOP	1.79
BARTLETT 1.0 WNW	CoCoRaHS	1.8
GLADEVILLE	COOP	1.8
FRANKLIN 8.5 SSE	CoCoRaHS	1.82

The Month in Comparison:

Comparing the mean temperature and total precipitation for July 2024 to conditions for July over the past 30 years, Memphis and Jackson recorded near normal precipitation and temperatures, with Memphis being the only climate monitoring station recording a below average temperature this July. Chattanooga was the only station with a top-5 warmest temperature this month compared to the past 30 years, but looking at the full station history, they had their 7th warmest July on record based on mean temperatures. None of these stations had a top-5 wettest or driest July this year.





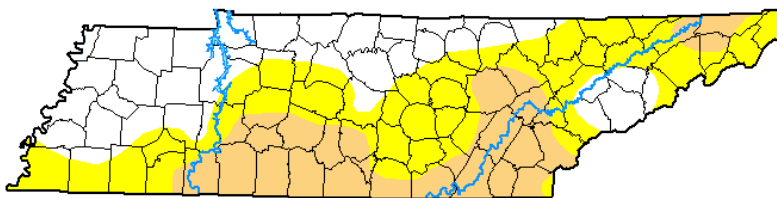


Drought Monitor:

Through the month of July, a rapidly evolving drought impacted Tennessee. At the start of the month, the July 2nd edition of the U.S. Drought Monitor showed that 28% of the state was impacted by Moderate Drought (D1) and an additional 23.48% of the state was impacted by Abnormally Dry (D0) conditions. Hot and dry conditions for Middle and East Tennessee in the first half of the month led to rapid drying, with agricultural impacts and low streamflow levels noted by mid-month. However, the remnants of Hurricane Beryl brought rains to West Tennessee in this time, which cleared some areas of Abnormally Dry conditions. Drought conditions peaked in the July 16th edition of the U.S. Drought Monitor with over 70% of the state in some level of drought or abnormally dry conditions. Some areas of southern Middle Tennessee were shown with Extreme Drought (D3), totaling 1.79% of the state’s area. Severe Drought (D2) covered 24.84% of the state, concentrated in the southeastern quadrant of the state. Other areas in southern Middle Tennessee and most of East Tennessee were shown with Moderate Drought conditions, totaling 27.16% of the state’s area. Scattered storms produced some areas of heavy rains shortly after that edition of the U.S. Drought Monitor, and more wide-spread heavy rains towards the end of the month led to improvements by the July 30th edition of the U.S. Drought Monitor. At the end of the month 50.49% of the state was shown in some level of drought or moderately dry conditions (a drop of almost 15% of the state’s area compared to the beginning of the month).

U.S. Drought Monitor Tennessee

July 2, 2024
(Released Wednesday, Jul. 3, 2024)
Valid 8 a.m. EDT



Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

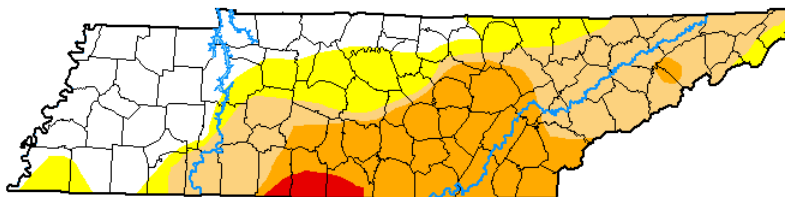
Author:
Adam Hartman
NOAA/NWS/NCEP/CPC

droughtmonitor.unl.edu

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

U.S. Drought Monitor Tennessee

July 16, 2024
(Released Thursday, Jul. 18, 2024)
Valid 8 a.m. EDT



Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

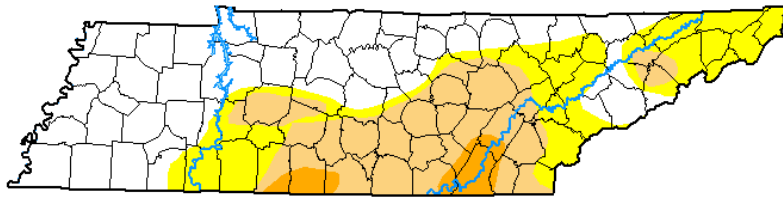
Author:
Brian Fuchs
National Drought Mitigation Center

droughtmonitor.unl.edu

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

U.S. Drought Monitor Tennessee

July 30, 2024
(Released Thursday, Aug. 1, 2024)
Valid 8 a.m. EDT



Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

Author:

Lindsay Johnson
National Drought Mitigation Center

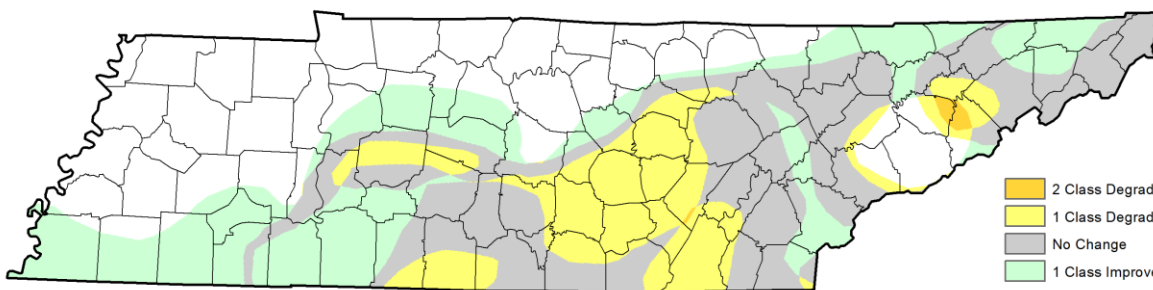


droughtmonitor.unl.edu

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

July 30, 2024
compared to
July 2, 2024

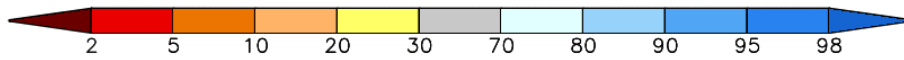
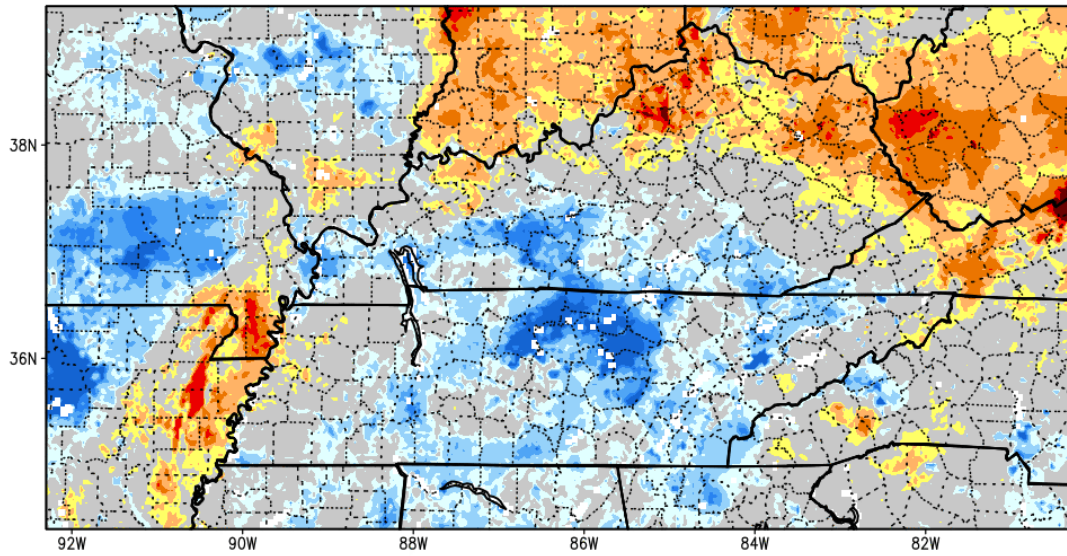
U.S. Drought Monitor Class Change - Tennessee 4 Week



Soil Moisture:

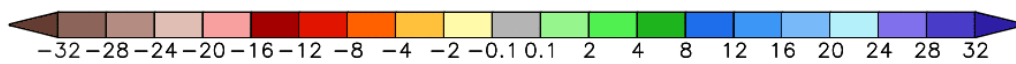
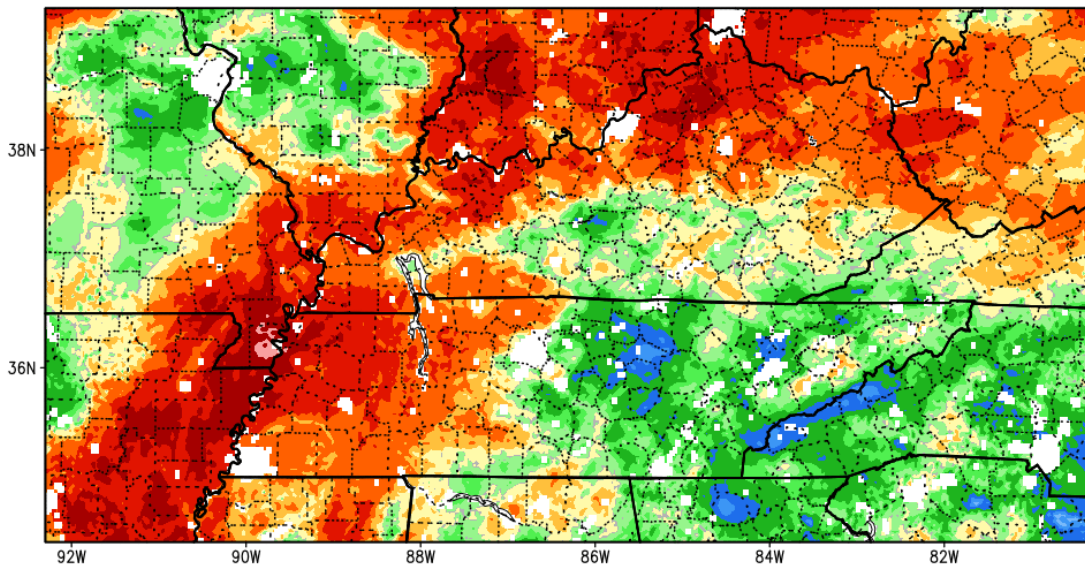
After a week and a half of heavy rainfall in many areas of Middle and East Tennessee at the end of July, the NASA SPoRT Land Information System shows many areas in Middle and East Tennessee with above normal soil moisture percentiles (>70th percentile) by the end of July. Other areas were within the normal range (30th-70th percentile). The month started out with mostly normal soil moisture levels, with rapid drops in soil moisture percentiles through the first half of the month. Soil moisture percentiles reached a minimum around July 19th when most areas of East Tennessee, southern Middle Tennessee, and western West Tennessee all had lower than normal soil moisture levels. Then spotty rains began to raise soil moisture before more wide-spread rains in the last week of July led to large-scale recovery of soil moisture levels. Over the course of the month, the eastern half of the state saw overall increasing soil moisture levels in the range of 1-12 percentile points, while the western half of the state saw decreasing soil moisture levels in the range of 1-16 percentile points. On July 28, the USDA reported that across the state topsoil moisture was 4% very short, 25% short, 63% adequate, and 8% surplus; while subsoil moisture was rated 11% very short, 24% short, 62% adequate, and 3% surplus.

SPoRT-LIS 0-200 cm Soil Moisture percentile valid 31 Jul 2024



NOTE
Experimental

1-Month Difference in Column Relative Soil Moisture (%) valid 12z 31 Jul 2024



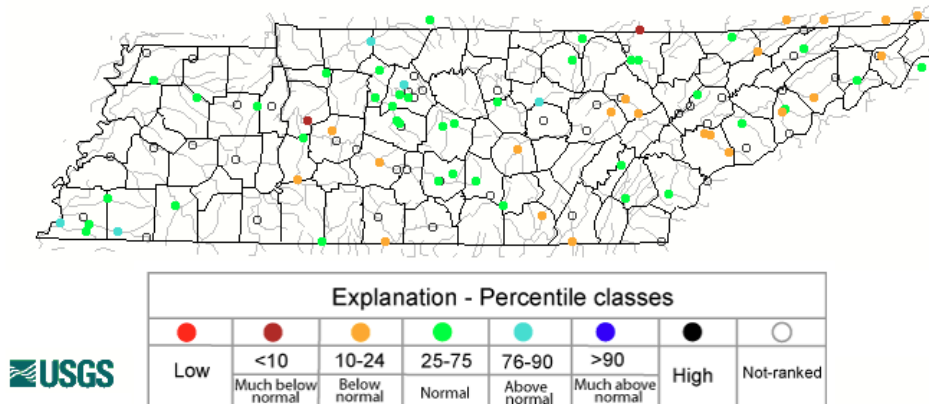
NOTE
Experimental

Streamflow:

Averaged over the month of July several USGS stream gauges reported below normal flow, mostly in East Tennessee and southern Middle Tennessee where drought conditions were the worst. A few gauges in northern Middle Tennessee and in the Memphis area of West Tennessee reported above normal streamflow levels for the month. However, with heavy rains coming at the end of the month, only two stream gauges (in western Middle Tennessee) were reporting below normal flow by August 1.

Map of monthly streamflow compared to historical streamflow for the month of the year (Tennessee)

July 2024

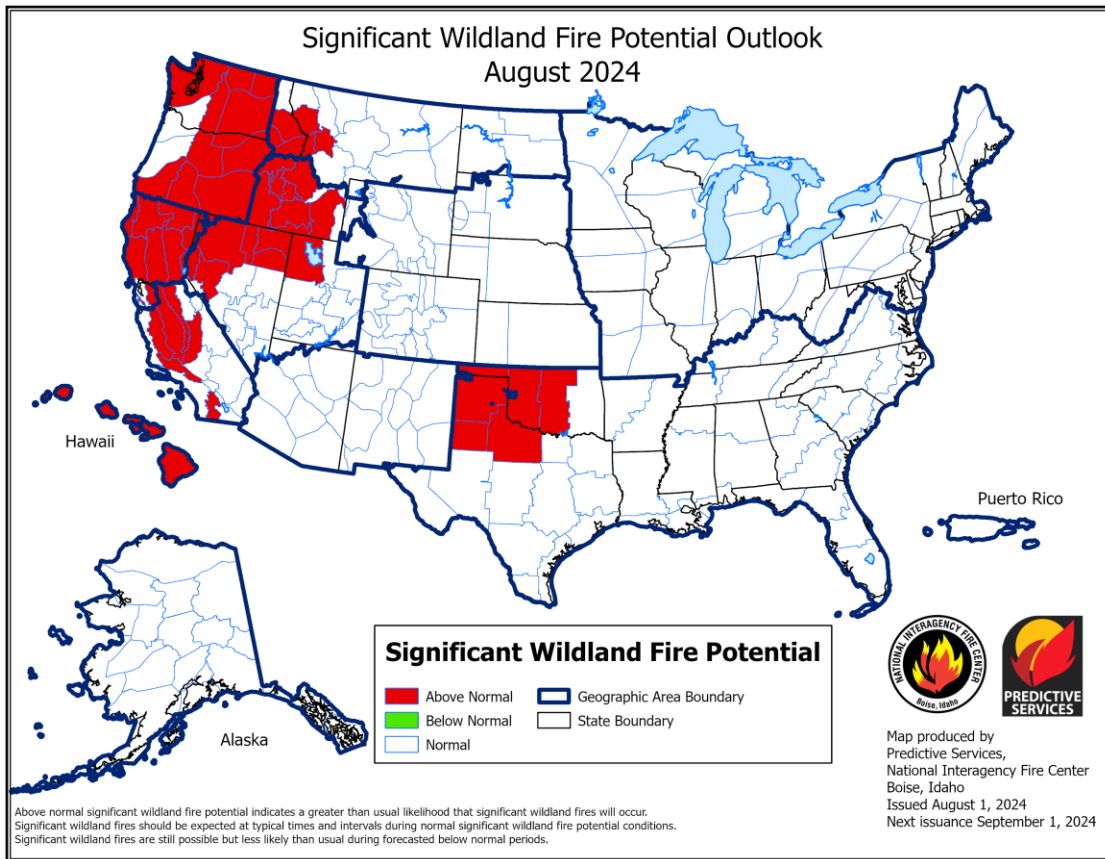


Miscellaneous:

Crop Conditions from USDA: Rapidly deteriorating drought conditions in the first half of July negatively impacted pastures, cattle, and corn in Tennessee, however rains at the end of the month started to show improvement for these products. The warm and dry weather was beneficial for cotton, tobacco and early planted soybeans as each crop maintained at least 50% in good or excellent condition through the month. Pastures were the most impacted by the drought with the percentage of pastures across the state reported in poor or very poor condition rising from a low of 22% in the first week of July to 42% by July 21, but then improving slightly, down to 33% by the end of the month. Cattle producers reported having to feed hay, and some sold off cows to reduce pasture stresses. Corn crops followed a similar pattern but not as severe, with the percentage reported in poor or very poor increasing from 15% in the first week of July to 22% by July 21, then falling to 19% by the end of the month.

CROP PROGRESS					CONDITION					
Item	This Week	Last Week	2023	5 Year Avg.	Item	Very Poor	Poor	Fair	Good	Excellent
	Percent					Percent				
Corn – Silking	92	87	94	93	Corn	9	10	26	40	15
Corn – Dough	61	48	66	59	Cotton	6	16	25	42	11
Corn – Dented	11	-	7	4	Soybeans	6	9	25	44	16
Cotton – Squaring	94	87	92	88	Pasture	12	21	33	31	3
Cotton – Setting Bolls	64	52	58	51	Tobacco	3	9	23	44	21
Cotton – Bolls Opening	1	-	1	0	Cattle	1	3	26	59	11
Soybeans – Blooming	78	70	75	71	Hay	5	9	31	48	7
Soybeans – Setting Pods	57	41	52	43						
Tobacco – Topped	38	24	45	55						

Fire Danger: The Interagency Fire Center’s significant wildland fire potential outlook for August shows that all areas of Tennessee and surrounding regions should have a normal potential for significant fires in August 2024.



Story of the Month:

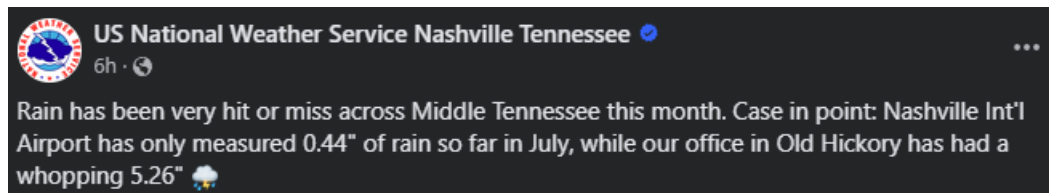
July was an active month for weather- and-climate related stories in Tennessee with drought, floods, heat waves, and severe weather. The first half of the month was mostly hot and dry with only spotty rains and record-setting heat impacting Middle and East Tennessee. These conditions were a continuation of a warm and dry June, with the first half of the summer season (June-August) being among some of the warmest and driest on record for East Tennessee. West Tennessee was largely spared due to some widespread rain connected to the remnants of Hurricane Beryl and normal to slightly cooler than normal temperatures.



- Meteorological Summer began on June 1st and goes through August
- For the period of June 1 - July 9:
 - Chattanooga
 - Average Temperature of 81.4° → Tied for 2nd warmest on record
 - 1.35" of Rainfall → 4th driest on record; driest start to Summer since 1988
 - Knoxville
 - Average Temperature of 78.4° → Tied for 11th warmest on record
 - Tri-Cities
 - Average Temperature of 75.6° → Tied with 1943 as the 4th warmest start to Summer on record
 - 2.08" of Rainfall → 4th driest on record; driest start to Summer since 1993



Drought conditions worsened rapidly with lower-than-normal stream flows and agricultural impacts being reported in the first weeks of July. Cattle and corn were the most affected due to the rapid onset and timing of the drought. Scattered storms that moved very slowly produced heavy rains starting after the middle of the month. In many cases a distance of only a few miles made the difference between several inches of rain and no rain. A good example came from the National Weather Service in Nashville, who recorded over 5" of rain by July 22 at their office, while the Nashville International Airport, about 10 miles away, recorded less than half an inch in the same time.




More widespread rains came later in the month, but they were also accompanied by severe weather and caused flash flooding in some areas of Middle and East Tennessee. The a slow-moving storm dropped several inches of rain on Sevier County on June 28; flash flooding impacted Dollywood and forced the closure of several roads in the county. A strong storm produced an EFO tornado that impacted Middle Tennessee State University's campus, and a downburst that caused even stronger straight-line winds hit areas near downtown Murfreesboro on June 29. These were among 78 reports of severe wind damage

that occurred in Tennessee from June 28-30. More storms produced flooding in and around Knoxville on June 30th with some lanes blocked on I-640 in addition to flooding on some local streets.

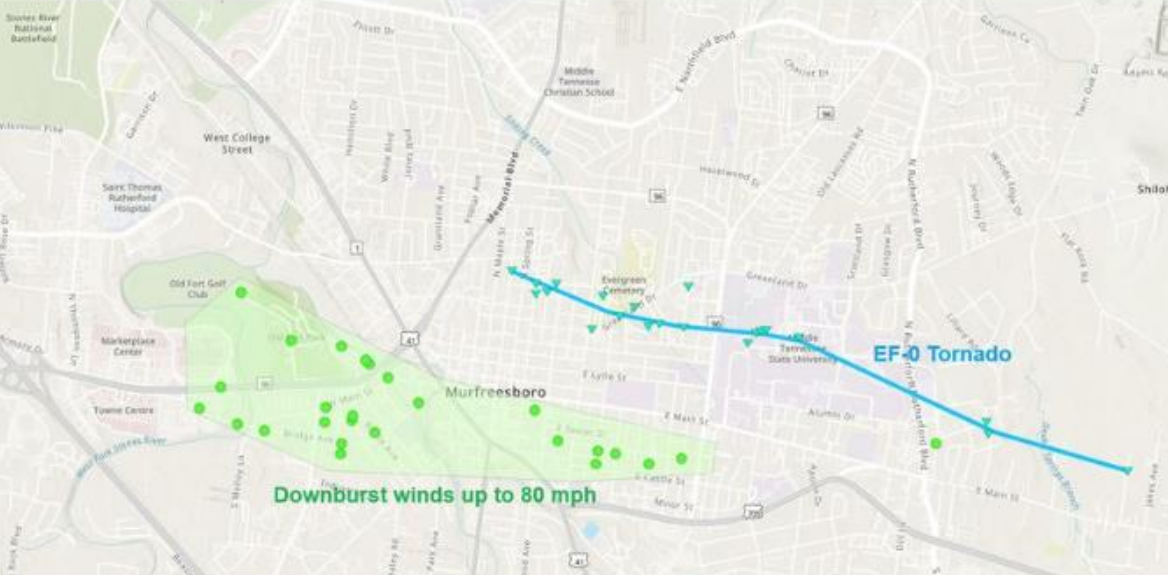


Flash flooding at Dollywood, June 28, 2024. Photo via Sophie Elkins-Valenti.

 **US National Weather Service Nashville Tennessee** a day ago

We've confirmed an EF-0 #tornado occurred in Murfreesboro in and around Middle Tennessee State University (MTSU) yesterday (Monday July 29) with max winds 75 mph, path length 3.38 miles & path width 100 yards. This is the first known tornado during the month of July in Rutherford County on record. Official tornado records began in 1950, and unofficial tornado records go back into the 1800s.

South of the tornado track, downburst winds up to 80 mph caused more significant damage than the tornado did in and around downtown Murfreesboro. Note that other wind damage occurred in other parts of Murfreesboro as well, but this was the worst affected area.



Storm Reports:

*Storm Reports are based on filtered NOAA Storm Prediction Center data or local NWS storm reports. Future quality control checks may change the official record of severe events, please see [spc.noaa.gov](https://www.spc.noaa.gov) for any updates.

During the month of July 2024 there were 8 days with severe storm reports, totaling 1 tornado report, 88 reports of severe winds/severe wind damage, and 3 reports of severe hail (1" or larger).

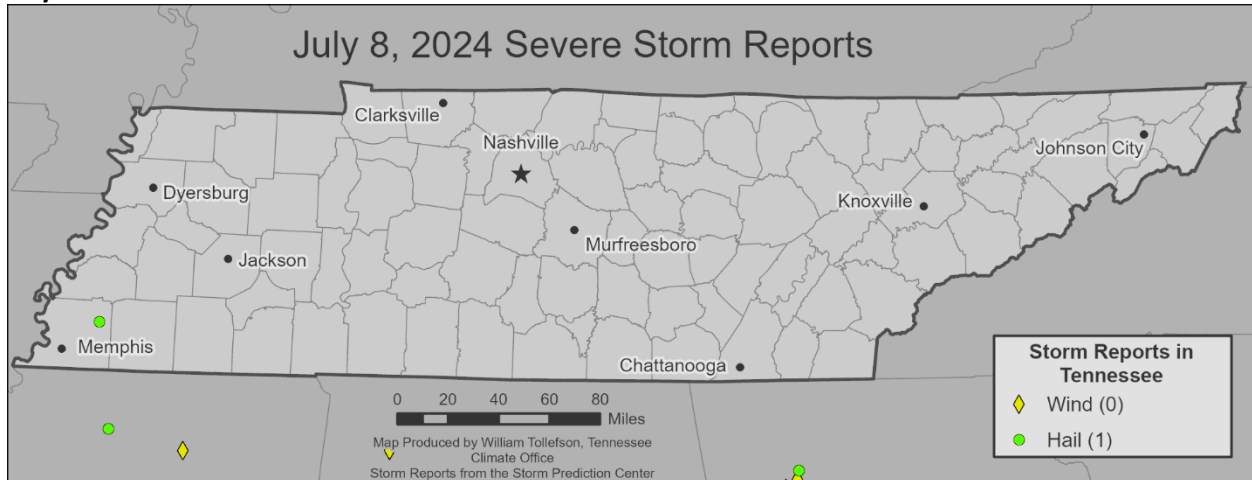
July 4



Wind:

Time (UTC)	Speed (mph)	Location	County	Lat	Lon	Comments
23:07	60	Springfield	Robertson	36.5	-86.88	Tspotter estimated 55 to 60 mph winds in Springfield TN. (OHX)

July 8



Hail:

Time (UTC)	Size (in)	Location	County	Lat	Lon	Comments
18:25	1.50	2 NNE Lakeland	Shelby	35.27	-89.72	Corrects previous hail report from 2 NNE Lakeland. Ping pong ball-sized hail off of Highway 70 near City Hall in Lakeland. (MEG)

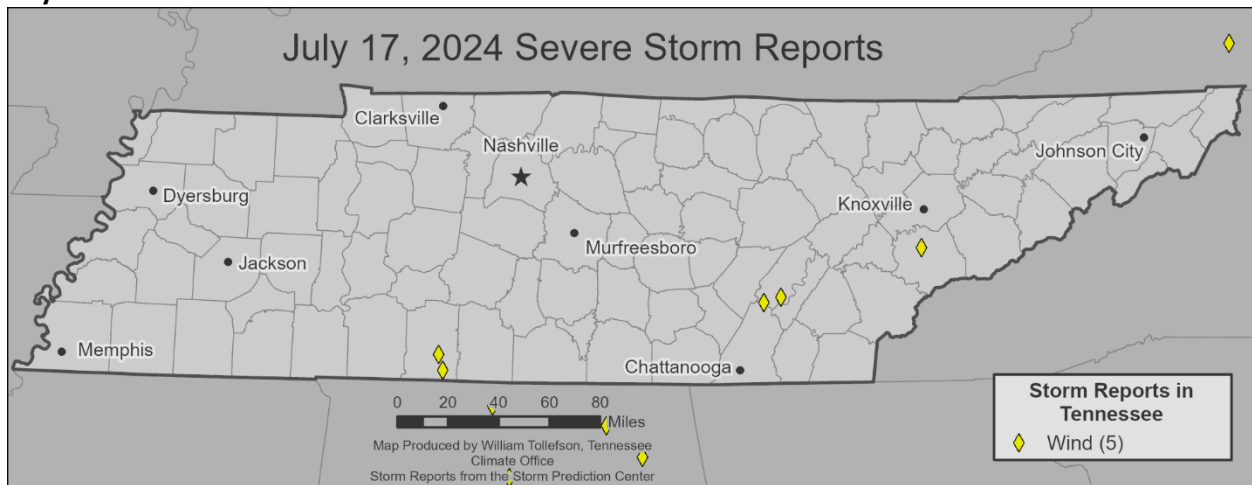
July 16



Wind:

Time (UTC)	Speed (mph)	Location	County	Lat	Lon	Comments
21:05	--	7 SW Chattanooga	Hamilton	35	-85.34	Several large branches down. (MRX)
9:48	--	9 ENE Celina	Clay	36.59	-85.34	Delayed report. A few trees and a 40 foot TV tower were blown down. (OHX)

July 17



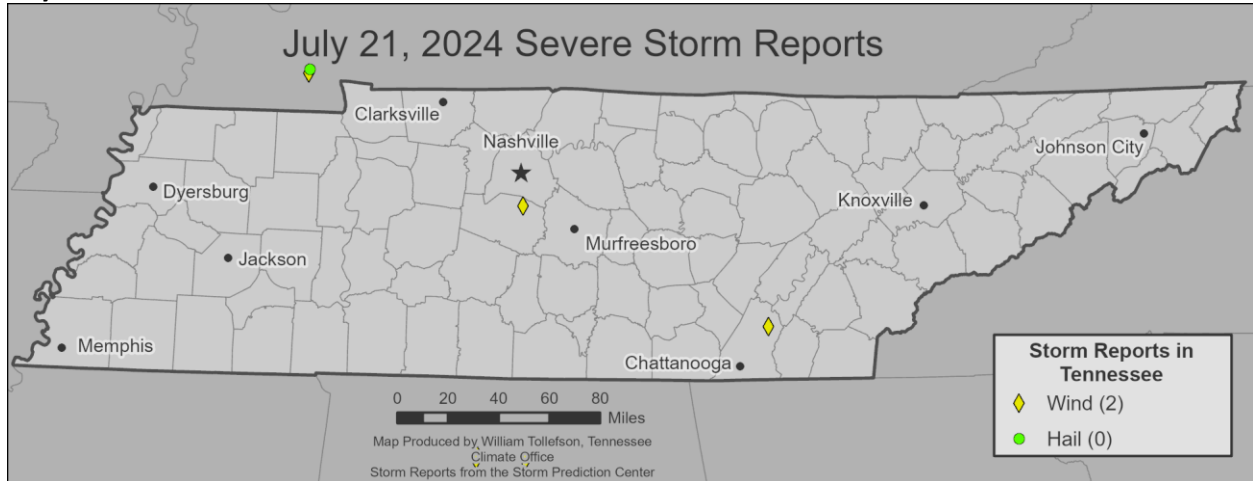
Wind:

Time (UTC)	Speed (mph)	Location	County	Lat	Lon	Comments
18:49	--	7 E Loretto	Lawrence	35.06	-87.32	Several trees down north of Five Points. (OHX)
19:05	--	7 S Lawrenceburg	Lawrence	35.15	-87.35	Corrects previous tstm wnd dmg report from 7 E Loretto. Trees down in Leoma near Rabbit Trail Road at Old Florence Pulaski Road. Time appx and based on radar. (OHX)

July 2024 Tennessee State Climate Summary

21:15	--	Graysville	Rhea	35.45	-85.08	A large tree fell and snapped two power poles in Graysville. (MRX)
21:30	--	3 ESE Dayton	Rhea	35.48	-84.96	Several large trees were blown over near Frazier Park. (MRX)
21:35	--	Maryville	Blount	35.75	-83.97	Multiple trees down. Tree struck an ambulance but no injuries. (MRX)

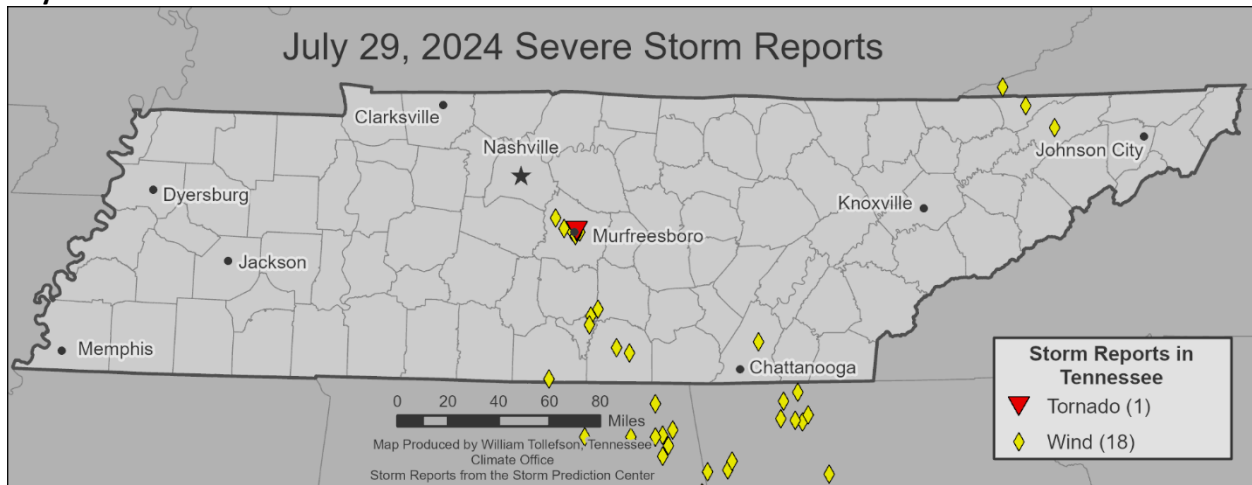
July 21



Wind:

Time (UTC)	Speed (mph)	Location	County	Lat	Lon	Comments
20:52	--	2 SE Brentwood	Williamson	35.98	-86.77	Tspotter reports indicate a few trees were blown down in and around Crockett Park including on Crockett Road. (OHX)
23:15	--	5 NE Shady Grove	Hamilton	35.29	-85.05	Time estimated by radar. Large trees down... fence damaged... and an HF radio antenna is down due to thunderstorm winds. (MRX)

July 29



Tornado:

Time (UTC)	Strength	Location	County	Lat	Lon	Comments
19:24	EF0	Murfreesboro	Rutherford	35.85	-86.39	A small... weak EF-0 tornado moved through Murfreesboro... also impacting Middle Tennessee State University. Main damage was large tree branches down... with some trees (OHX)

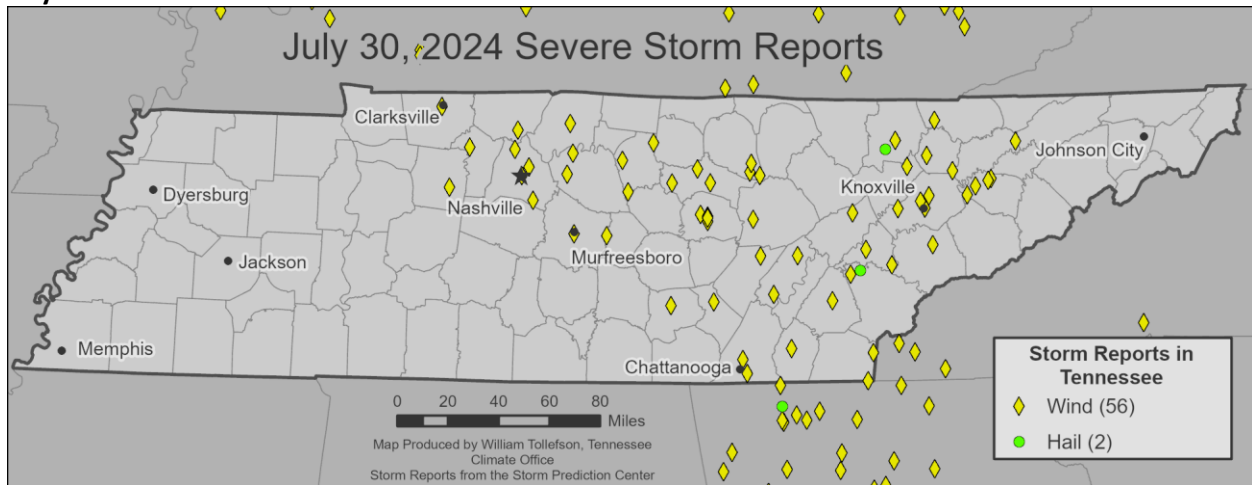
Wind:

Time (UTC)	Speed (mph)	Location	County	Lat	Lon	Comments
19:15	--	4 SSW Smyrna	Rutherford	35.93	-86.54	Trees reported down near I-24 in Smyrna. (OHX)
19:17	--	5 W Murfreesboro	Rutherford	35.87	-86.48	Tspotter photo of part of siding blown off house near I-24 and I-840 in Blackman area. (OHX)
19:25	--	1 WSW Murfreesboro	Rutherford	35.85	-86.42	A swath of intense damaging winds up to 80 mph occurred across central Murfreesboro from around the Stones River to downtown. Damage consisted of many trees down or upr (OHX)
19:25	--	1 ENE Murfreesboro	Rutherford	35.86	-86.38	Tspotter report of trees down around the Oaklands Mansion. (OHX)
19:27	--	2 E Murfreesboro	Rutherford	35.85	-86.37	Tspotter photo showed truck overturned and trees down at MTSU stadium. (OHX)
19:28	--	1 SE Murfreesboro	Rutherford	35.85	-86.39	Tree down on Maney St at Burton St. (OHX)
19:28	--	1 WSW Murfreesboro	Rutherford	35.85	-86.42	Tspotter report of several trees and traffic lights blown down on Old Fort Parkway. (OHX)

July 2024 Tennessee State Climate Summary

Time (UTC)	Speed (mph)	Location	County	Lat	Lon	Comments
19:29	--	1 SSW Murfreesboro	Rutherford	35.83	-86.4	Trees down on Haley Road. (OHX)
19:30	--	Murfreesboro	Rutherford	35.85	-86.39	Trees snapped on Academy St. (OHX)
20:14	--	7 NNE Lynchburg	Moore	35.37	-86.29	A tree was reported across the road at this location on Old Shelbyville Highway. (HUN)
20:15	--	3 NNW Tullahoma	Coffee	35.41	-86.24	Tspotter report of tree down across Hwy 269 just north of Ralph Broadrick Rd. (OHX)
20:18	--	4 NE Lynchburg	Moore	35.32	-86.3	A tree limb was reported down on the road at this location near the intersection of Hurricane Creek road and Cobb Hollow road. (HUN)
20:45	--	10 S Fayetteville	Lincoln	35.01	-86.58	A tree was reported down on Camper Creek Road near Old Huntsville Road. (HUN)
20:52	--	Cowan	Franklin	35.16	-86.02	A large portion of a tree was uprooted at this location. (HUN)
21:07	--	Winchester	Franklin	35.19	-86.11	Several trees and powerlines down across the entire county. (HUN)
21:15	--	2 S Shady Grove	Hamilton	35.22	-85.12	Reports of trees and powerlines down on Hamby Rd and also Mowbray Pike Rd. Water also covering roadway on Thatcher Rd. (MRX)
11:15	--	Sneedville	Hancock	36.54	-83.21	Trees down. (MRX)
11:30	--	Rogersville	Hawkins	36.41	-83.01	Several trees down. (MRX)

July 30



Wind:

Time (UTC)	Speed (mph)	Location	County	Lat	Lon	Comments
18:54	--	3 W Sparta	White	35.95	-85.52	Report from mPING: 1-inch tree limbs broken; Shingles blown off. (OHX)
19:00	--	5 E Harriman	Roane	35.95	-84.45	Couple trees down. (MRX)
19:00	--	1 W Karns	Knox	35.97	-84.13	A large tree fell onto powerlines along Garrison Drive in Karns. (MRX)
19:11	--	2 S Sparta	White	35.91	-85.47	Tree down on Panther Dr. (OHX)
19:15	--	6 NE Monterey	Overton	36.19	-85.17	Tree down on Hwy 164 at Pierce Ln. (OHX)
19:20	--	Knoxville	Knox	35.97	-83.94	Several trees down across the county. (MRX)
20:00	--	4 W Clarkrange	Fentress	36.17	-85.1	Large tree down. (OHX)
20:01	--	2 WSW New Market	Jefferson	36.09	-83.58	Multiple trees down between New Market and Strawberry Plains. (MRX)
20:10	--	9 NE Carthage	Smith	36.36	-85.85	Trees down near and across Little Salt Lick Creek Rd. (OHX)
20:11	--	4 NNW Cookeville	Putnam	36.21	-85.54	Trees and power lines down on several roads across Putnam County per Putnam County Sheriff... including on Gainesboro Rd at Foster Circle... Bunker Hill at Tanasi Trail (OHX)
20:11	--	6 N Gallatin	Sumner	36.47	-86.44	Large tree limb down. (OHX)
20:15	--	Loudon	Loudon	35.74	-84.36	Multiple trees down in and around Loudon. (MRX)

Time (UTC)	Speed (mph)	Location	County	Lat	Lon	Comments
20:15	--	9 NNE Monterey	Overton	36.24	-85.16	Facebook report and photo of 12 trees uprooted in yard of home in Hanging Limb. (OHX)
20:16	--	6 WNW South Carthage	Smith	36.26	-86.07	Tree on Hwy 70 in Rome. (OHX)
20:20	--	1 ENE Jefferson City	Jefferson	36.13	-83.47	Several large trees were broken or down along North Chucky Road in Jefferson City. (MRX)
20:25	--	3 SSW Wildwood	Blount	35.76	-83.89	Powerlines were down across East Lamar Alexander Parkway between Buchanan Road and John Helton Road. (MRX)
20:25	--	3 SE Strawberry Plains	Jefferson	36.04	-83.64	Trees down. (MRX)
20:28	--	1 ENE Belinda City	Wilson	36.18	-86.46	Traffic signals blown down at Golden Bear Pkwy and I-40. (OHX)
20:29	--	5 WSW Baxter	Putnam	36.13	-85.72	Tree on home. Occupant trapped. (OHX)
20:30	--	Greenback	Loudon	35.65	-84.18	Multiple trees down in and around Greenback. (MRX)
20:33	--	Alexandria	De Kalb	36.08	-86.03	Facebook photo of small tree down on house in Temperance Hall area. (OHX)
20:40	--	1 SW La Follette	Campbell	36.36	-84.14	Several large trees down along with multiple powerlines in La Follette TN from multiple social media relayed reports. (MRX)
20:47	--	5 SSE Pleasant Hill	Cumberland	35.92	-85.15	Corrects previous tstm wnd dmg report from 5 SSE Pleasant Hill. Multiple trees down in this area including on Taylors Chapel Rd... POW Camp Rd... Old Hwy 70... and Earl (OHX)
20:50	--	Norris	Anderson	36.21	-84.06	Trees down on Dairy Pond Rd. (MRX)
20:52	--	4 SE Cookeville	Putnam	36.13	-85.45	Report from mPING: Trees uprooted or snapped; Roof blown off. (OHX)
20:54	--	Sparta	White	35.94	-85.47	Tree down at the intersection of N Spring St and Wright Rd. (OHX)
21:00	--	2 S Norris Lake	Union	36.27	-83.92	Trees down in Big Ridge State Park. (MRX)

Time (UTC)	Speed (mph)	Location	County	Lat	Lon	Comments
21:00	--	1 ENE Speedwell	Claiborne	36.47	-83.86	Several trees down. (MRX)
21:05	--	3 SSE Halls	Knox	36.04	-83.91	Several large diameter trees snapped at the trunk along Tazewell Pike... along with a large branch broken on Beverly Road. (MRX)
21:11	--	2 NE Spring City	Rhea	35.71	-84.84	Winds... likely associated with thunderstorm outflow... brought down a large chunk of a tree just north of Spring City. (MRX)
21:15	--	Sweetwater	Monroe	35.6	-84.47	Several trees down east of Sweetwater. (MRX)
21:22	--	Sparta	White	35.93	-85.47	Water over the road in Sparta. (OHX)
21:23	--	3 NNW Knoxville	Knox	36.01	-83.97	Sky Warn reports of standing water and impassable traffic through central Knoxville and Knox County. This included I-75 between exit 108 Merchants Drive and exit 110 Ca (MRX)
21:25	--	2 S Luttrell	Union	36.18	-83.74	Multiple trees down across driveway. (MRX)
21:30	--	Dayton	Rhea	35.49	-85.01	Several trees down. (MRX)
21:30	--	3 SW Melvine	Bledsoe	35.71	-85.1	Multiple trees down in the northern portions of the county. (MRX)
21:33	--	1 SW Murfreesboro	Rutherford	35.84	-86.41	Trees down and power outages. (OHX)
21:34	60	6 NNW Dunlap	Sequatchie	35.45	-85.43	(MRX)
21:40	--	Altamont	Grundy	35.43	-85.73	Facebook posts show much of the Altamont City Hall sheet metal roof was blown off. Time estimated based on radar. (OHX)
21:40	--	Jefferson City	Jefferson	36.12	-83.49	Multiple trees down. 15 roads in the county with downed trees. Large section of Talbott Kansas Rd is closed. (MRX)
21:40	--	1 WNW Bean Station	Grainger	36.34	-83.29	Trees down. (MRX)
21:50	--	Athens	McMinn	35.45	-84.6	Multiple trees and power lines down from Athens to the northern portions of the county. (MRX)

July 2024 Tennessee State Climate Summary

Time (UTC)	Speed (mph)	Location	County	Lat	Lon	Comments
22:02	--	1 WNW Cleveland	Bradley	35.18	-84.89	Tree down. Some home damage. (MRX)
22:05	--	3 E Red Bank	Hamilton	35.12	-85.23	A large tree was felled near Chickamauga Dam. (MRX)
22:16	62	4 SE Chattanooga	Hamilton	35.04	-85.2	ASOS at Chattanooga Airport measured a 62 mph gust. (MRX)
22:23	--	2 NE Turtletown	Polk	35.15	-84.32	Reported by Trained Spotter. Trees down in Farner Tennessee. (MRX)
0:00	--	6 SSW Ridgetop	Davidson	36.32	-86.83	Trees down at Clay Lick Rd and I-24. (OHX)
0:28	--	6 S Gallatin	Wilson	36.3	-86.42	Report from mPING: 1-inch tree limbs broken; Shingles blown off. (OHX)
1:28	--	Readyville	Cannon	35.83	-86.18	A few trees down near Readyville. (OHX)
1:35	--	1 NNE Inglewood	Davidson	36.22	-86.73	Corrects previous tstm wnd dmg report from 1 NNE Inglewood. Significant microburst struck the Inglewood area roughly from Gallatin Pike to Kennedy Drive. Numerous large (OHX)
1:35	--	Greenbrier	Robertson	36.43	-86.81	Brick storage building collapsed at Hwy 41 and E College St. Apparent microburst based on radar. (OHX)
2:15	--	Clarksville	Montgomery	36.56	-87.35	Facebook reports indicate a few trees down across Clarksville with some falling onto mobile homes in New Providence. (OHX)
3:00	--	6 NW Ashland City	Cheatham	36.33	-87.15	Twitter report of trees down all over Chapmansboro. (OHX)
3:07	--	4 NNE Burns	Dickson	36.1	-87.29	Two trees down on Highway 70 about 3 miles east of Hwy 96. (OHX)
3:30	--	Nashville	Davidson	36.17	-86.78	Power lines down with 1300+ customers without power. (OHX)
3:52	--	3 SSW Antioch	Davidson	36.03	-86.7	Tree and power lines down on Barnes Rd. (OHX)

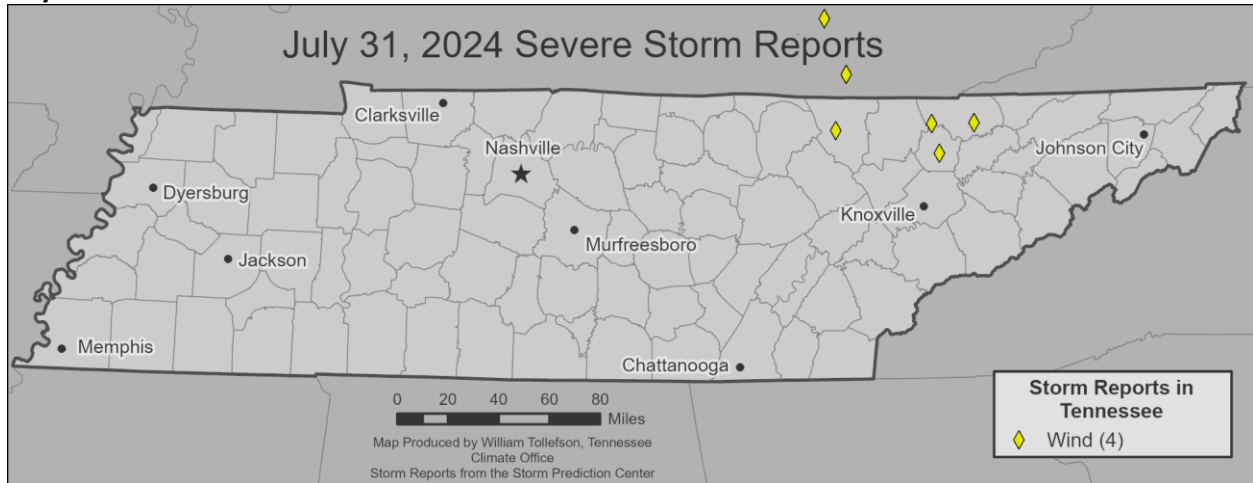
Hail:

Time (UTC)	Size (in)	Location	County	Lat	Lon	Comments
20:38	1.00	1 SSE Caryville	Campbell	36.31	-84.21	Strong winds and hail at Cove Lake State Park... hail was generally dime to nickel sized but the largest were quarter sized. (MRX)

July 2024 Tennessee State Climate Summary

Time (UTC)	Size (in)	Location	County	Lat	Lon	Comments
21:00	1.00	4 S Philadelphia	Monroe	35.62	-84.4	Brief hail shower lasted around 10 minutes with the largest hailstones estimated around quarter sized. (MRX)

July 31



Wind:

Time (UTC)	Speed (mph)	Location	County	Lat	Lon	Comments
23:16	--	4 W Huntsville	Scott	36.41	-84.56	Trees down in the Helenwood Loop area. (MRX)
0:05	--	2 SSW Speedwell	Claiborne	36.44	-83.88	Tree down at Wilson Road and Blue Springs Road. (MRX)
0:17	--	1 SSW Tazewell	Claiborne	36.44	-83.58	Tree down on McMurray Street in New Tazewell. Time estimated from radar. (MRX)
0:20	--	2 NW Maynardville	Union	36.27	-83.83	Tree down near 2080 Hickory Valley Road. Time estimated from radar. (MRX)

CPC Outlooks for the Next Month:

The NOAA Climate Prediction Center outlooks for August show all of Tennessee leaning towards above normal temperatures, with higher confidence for the eastern half of the state. The Precipitation Outlook shows West Tennessee leaning towards a drier than normal pattern, with the remainder of the state having equal chances for normal, wetter than normal, or drier than normal conditions.

