

# The Weather Wire

June 2023

Volume 30 Number 6

## Contents

NWS Watch/Warning/Advisory-Summer .....	2
Drought Update .....	4
Temperature Anomaly Forecast .....	5
Precipitation Anomaly Forecast.....	6
May Summary .....	7
May Statistics DIA .....	8
June Preview .....	10
Snowfall .....	12
Rainfall .....	13



## NWS Watch/Warning/Advisory-Summer

It's that time of the year to review the NWS Watch/Warnings and Advisories that are typically issued during the summer months. Below are definitions for common Watch/Warning and Advisory products issued from the NWS:

### **Special Weather Statement**

Issued for hazards that have not yet reached warning or advisory status or that do not have a specific code of their own, such as widespread funnel clouds. Commonly used when radar indicates a strong thunderstorm is producing small hail or high winds whose strength does not reach the criteria to be designated a severe thunderstorm.

### **Severe Thunderstorm Watch**

A Severe Thunderstorm Watch is issued when severe thunderstorms are possible in and near the watch area. It does not mean that they will occur. It only means they are possible.

Severe thunderstorms are defined as follows:

- 1) Winds of 58 mph or higher  
AND/OR
- 2) Hail 1 inch in diameter or larger.

### **Severe Thunderstorm Warning**

A Severe Thunderstorm Warning is issued when severe thunderstorms are occurring or imminent in the warning area.

Severe thunderstorms are defined as follows:

- 1) Winds of 58 mph or higher  
AND/OR
- 2) Hail 1 inch in diameter or larger.

### **Severe Weather Statement**

Provides follow up information on severe weather conditions (severe thunderstorm or tornadoes) which have occurred or are currently occurring.

### **Tornado Watch**

A Tornado Watch is issued when severe thunderstorms and tornadoes are possible in and near the watch area. It does not mean that they will occur. It only means they are possible.

Severe thunderstorms are defined as follows:

- 1) Winds of 58 mph or higher  
AND/OR
- 2) Hail 1 inch in diameter or larger.

### **Tornado Warning**

A Tornado Warning is issued when a tornado is imminent. When a tornado warning is issued, seek safe shelter immediately.



## **Hydrologic Outlook**

Issued when a flood potential exists in a time beyond 48 hours from the start of the event.

## **Flash Flood Watch**

A Flash Flood Watch is issued when conditions are favorable for rapidly rising water to poses an immediate hazard to life and property. It does not mean that flash flooding will occur, but it is possible.

## **Flash Flood Warning**

A Flash Flood Warning is issued when rapidly rising water poses an immediate hazard to life and property.

## **Flood Watch**

A Flood Watch is issued when conditions are favorable for flooding. Issued 6-48 hours before the event. It does not mean flooding will occur, but it is possible.

## **Flood Warning**

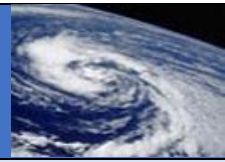
A Flood Warning is issued when flooding is imminent or occurring.

## **Areal Flood Watch**

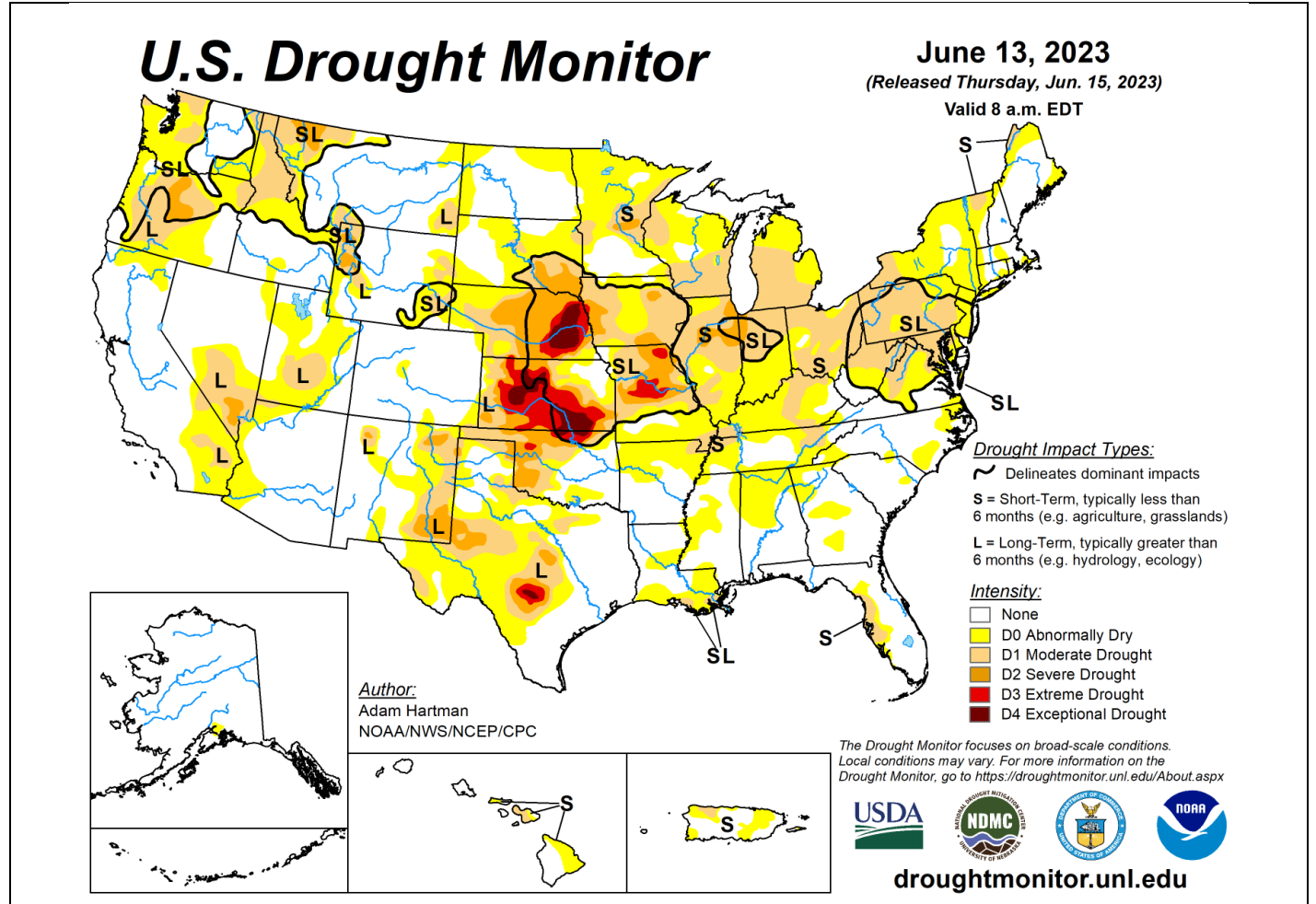
Issued to inform public if general area wide flooding is expected. Issued 6-48 hours ahead of the event.

## **Areal Flood Warning**

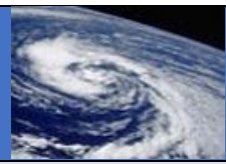
Issued when confidence is high of flooding severe enough to result in significant threat to lives and property.



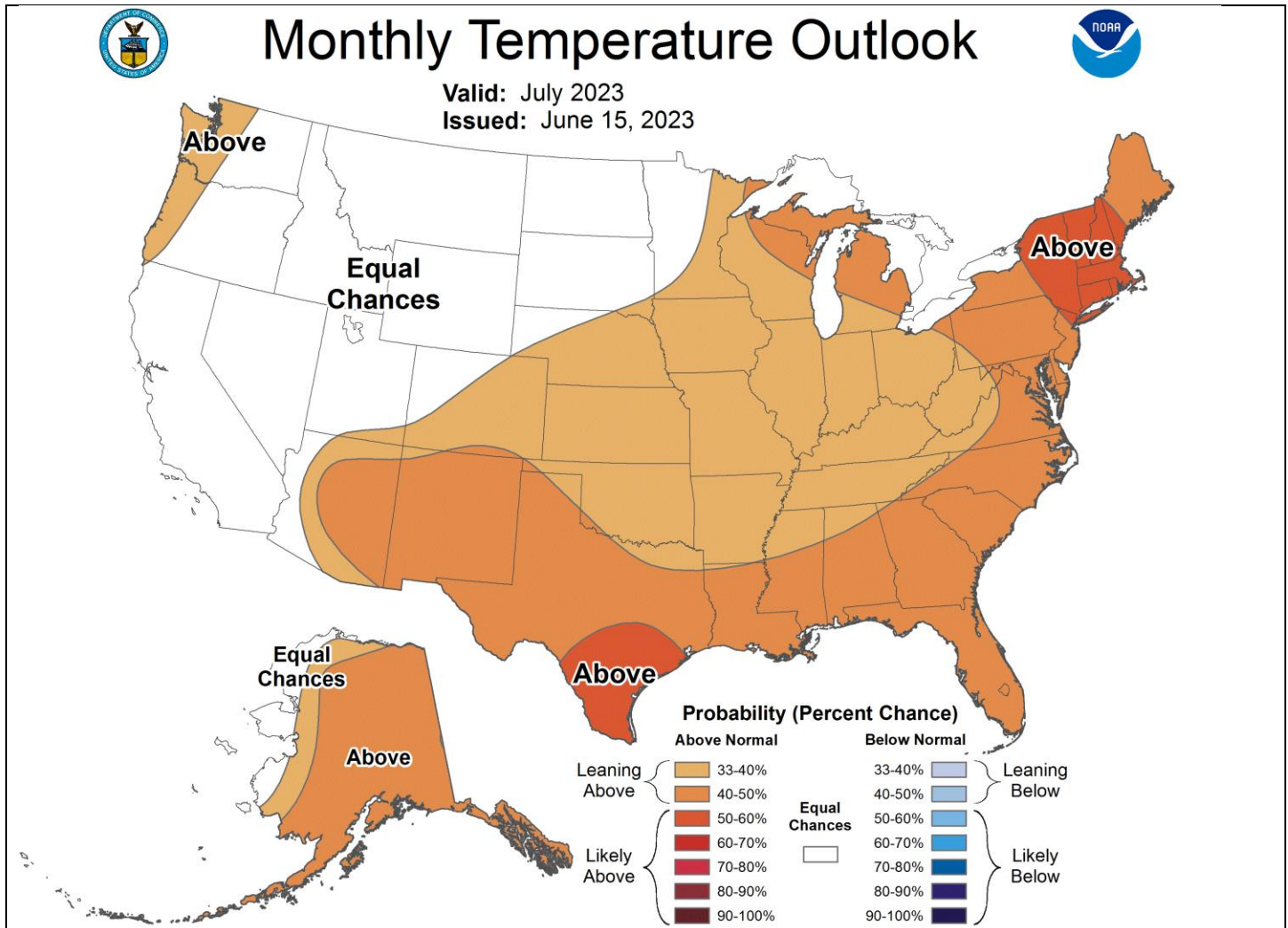
## Drought Update



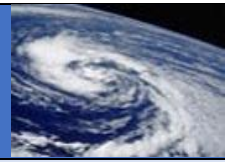
After an active May over most of Colorado, there was enough excess moisture to alleviate the drought concerns over most of the state. The only area of concern is in southwestern areas and into central Colorado where they have had less active weather during spring. Drought conditions have subsided over the western US with minimal drought conditions for California compared to previous seasons. The largest area of drought currently is the central United States, Nebraska, and Kansas specifically. Although drought conditions do extend southward and into Texas, and eastward through the Midwest.



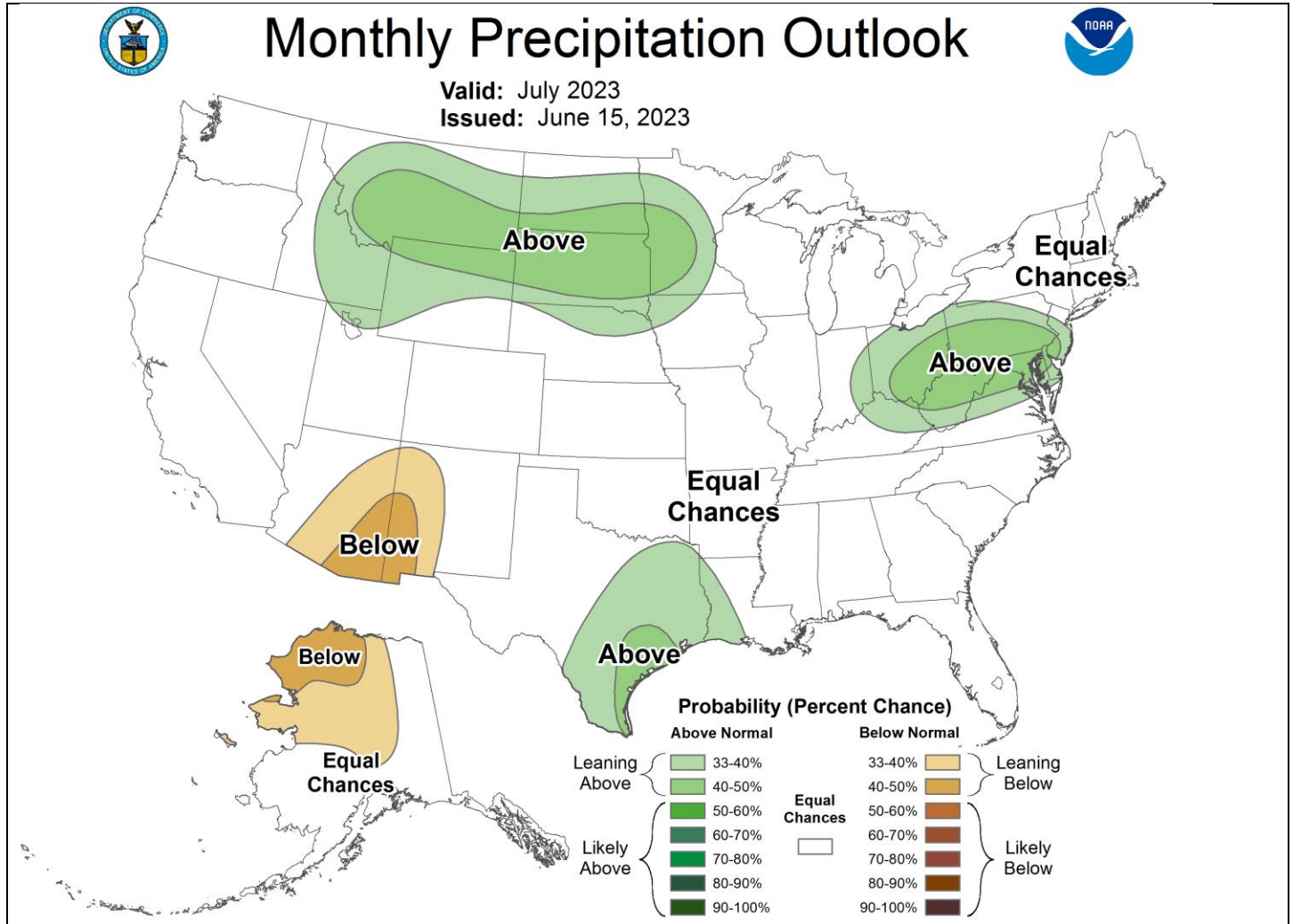
## Temperature Anomaly Forecast

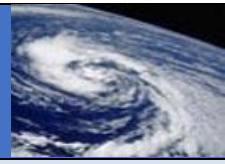


The map above shows forecasted temperature deviances for June 2023. There is a strong bias, especially in southeastern areas of the state for above normal temperatures during the month of June. Normal to above average temperatures are expected to persist over the Pacific northwest. Well above average temperatures are expected for the south, northeast and southeastern portion of the United States.



## Precipitation Anomaly Forecast





## May Summary

After an inactive April for northeastern Colorado, May of 2023 brought much needed moisture with well above average precipitation. The normal precipitation for the month of May is 2.16" and 2023 was a staggering 3.37" above the normal with a whopping 5.53" total precipitation recorded at DIA. The 11<sup>th</sup> alone recorded 2.92" of rainfall! Temperatures ended up being normal to slightly above normal as well over northeastern Colorado. The average daily high temperature reported at DIA was 71.7°F with an average daily low of 47.0°F. Combining the average highs and lows resulted in a monthly mean temperature of 59.4°F, 2.0°F above the normal of 57.4°F. The highest recorded temperature at DIA for the month of May was 82°F set on the 29<sup>th</sup>, with the lowest temperature of 38°F set in the early morning hours of May 1<sup>st</sup>. May was not typically as warm high temperature wise, however, above average overnight lows kept the month above average overall. The month of May featured very few stretches of inactive weather, with several days of active weather throughout the month with some of those days being high flood threat days due to persistent rainfall throughout the month. Especially after the 10-13<sup>th</sup> stretch where areas received between 2-6" of total rainfall during that 3-day stretch. There were 19 days with measurable precipitation, again with most of the moisture observed between the 10-13<sup>th</sup> where DIA recorded 4.4" of total rainfall. Total snow for the month of May was a surprising 0.0" out at DIA which is 1.4" below the average of 1.4" and results in a season total of 48.9".

May of 2023 featured slightly above average temperatures with well above average precipitation and minimal snowfall over southeast Colorado. The airport in Colorado Springs reported the average daily high temperatures for May of 70.3°F and an average low of 46.5°F. Combining the average highs and lows resulted in a monthly mean temperature of 58.4°F which was 1.3°F above the normal May average monthly temperature of 57.1°F. The highest temperature recorded at the Colorado Springs airport during the month of May was 81°F on May 9<sup>th</sup> with the lowest temperature of 38°F set on the morning of May 1<sup>st</sup>. Precipitation recorded at the Colorado Springs airport for May totaled 5.22" which was an astonishing 3.23" above the normal value of 1.99" for May. 3.18" of that occurred on the 11<sup>th</sup>, which broke a daily precipitation record for that day. Total snowfall for May at the Colorado Springs airport was reported as a trace, recorded during the 11<sup>th</sup>. Although the lowest recorded temperature for the day was 43°F, likely making that an error. No other snowfall was recorded for the Colorado Springs area.

Further south into Pueblo temperatures were above average with precipitation below average for the month of May. The average daily high temperatures in Pueblo were 78.4°F with average lows of 49.4°F. Combining the average highs and lows resulted in a monthly mean temperature of 63.9°F which was 2.5°F above the average monthly mean of 61.4°F. The airport, in Pueblo, reported 1.14" of precipitation for the month of May which was 0.43" below the average of 1.57". Total snowfall for the airport was again recorded as a trace for the event on the 11<sup>th</sup>, where the lowest recorded temperatures was 48°F that day, suggesting now snow occurred.



## May Statistics DIA

TEMPERATURE (IN DEGREES F)	OBSERVED VALUE	NORMAL VALUE		DEPARTURE FROM NORMAL
AVERAGE MAX	71.7°F	71.2°F		0.5°F
AVERAGE MIN	47.0°F	43.6°F		-3.4°F
MONTHLY MEAN	59.4°F	57.4°F		2.0°F
DAYS WITH MAX 90 OR ABOVE	0	0.8		0.8
DAYS WITH MAX 32 OR BELOW	0	0.0		0.0
DAYS WITH MIN 32 OR BELOW	0	2.9		2.9
DAYS WITH MIN 0 OR BELOW	0	0.0		0.0
	OBSERVED VALUE	DATE(S)	NORMAL VALUE	DEPARTURE FROM NORMAL
HIGHEST	82°F	5/29		
LOWEST	38°F	5/1		
HEATING DEGREE DAYS				
MONTHLY TOTAL	170		261	-91
SEASONAL TOTAL	6117		5550	567
COOLING DEGREE DAYS				
MONTHLY TOTAL	3		26	-23
YEARLY TOTAL	9		27	-18
PRECIPITATION (IN INCHES)				
MONTHLY TOTAL	5.53"		2.16"	3.37"
YEARLY TOTAL	8.32"		5.49"	2.83"
GREATEST IN 24 HOURS	2.92"	5/11		
DAYS WITH MEASURABLE PRECIP.	19		10.4	8.6
SNOWFALL (IN INCHES)				
MONTHLY TOTAL	0.0"		1.4"	1.4"
SEASONAL TOTAL	48.9"			
GREATEST IN 24 HOURS	0.0"			
GREATEST DEPTH	0.0"			
AVERAGE MAX	43.3°F		45.7°F	-2.4°F
AVERAGE MIN	19.0°F		19.7°F	-0.7°F



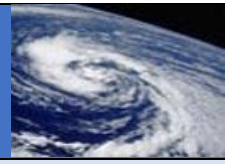


# The Weather Wire

June 2023

Volume 30 Number 6

MONTHLY MEAN	31.1°F		32.7°F	-1.6°F
DAYS WITH MAX 90 OR ABOVE	0.0		0.0	0.0
DAYS WITH MAX 32 OR BELOW	4		5.3	-1.3
DAYS WITH MIN 32 OR BELOW	28		26	2.0
DAYS WITH MIN 0 OR BELOW	3		2	1
	OBSERVED VALUE	DATE(S)	NORMAL VALUE	DEPARTURE FROM NORMAL
HIGHEST	62°F	2/26		
LOWEST	-11°F	2/23		
HEATING DEGREE DAYS				
MONTHLY TOTAL	943		904	39
SEASONAL TOTAL (since 7/1)	4540		4306	234
COOLING DEGREE DAYS				
MONTHLY TOTAL	0		0	0
YEARLY TOTAL (since 1/1)	0		0	0
PRECIPITATION (IN INCHES)				
MONTHLY TOTAL	0.25"		0.41"	-0.16"
YEARLY TOTAL	1.50"		0.79"	0.71"
GREATEST IN 24 HOURS	0.23"	2/15-2/16		
DAYS WITH MEASURABLE PRECIP.	3		5.5	-2.5
SNOWFALL (IN INCHES)				
MONTHLY TOTAL	4.7"		7.6"	-2.9"
SEASONAL TOTAL	41.6"		33.0"	8.6"
GREATEST IN 24 HOURS	3.6"	2/15		
GREATEST DEPTH	4.0"	2/1-2/2		



## June Preview

June is typically the peak of severe weather season for the Denver Metro area and eastern Colorado, with an overall average of 10 thunderstorm days during the month. More tornadoes occur in June in Colorado than any other month of the year, with the greatest threat occurring for areas east of I-25, but occasionally tornadoes can occur across central and western portions of the Metro area. The threat of large hail is also higher during June compared to other months. The Pikes Peak region and portions of the Palmer Divide experience more hail than many areas of the Country. Average temperatures continue their upward trend during June, which is the first month of meteorological summer.

The average high temperature during June is 82.4 degrees, with an average of 9 days exceeding 90 degrees during the month. The average low temperature for the month is 52.3. Freezing temperatures are very rare in Denver during June, but it has occurred in the past with an all-time monthly record low of 30 occurring in 1951. Snow is also extremely rare in June in Denver, but it has occurred before with a record amount of 0.5" occurring in 1953. Average precipitation in June is 1.98", making it the third wettest month on average behind May and July using the 1981 to 2010 climate data set. Often, the bulk of the month's precipitation can occur from just one or two heavy thunderstorms, and precipitation amounts tend to be more variable in June than during other months due to the convective nature of precipitation. Skyview Weather believes that many areas will experience near to above normal precipitation and slightly above normal average temperatures through the month of June.

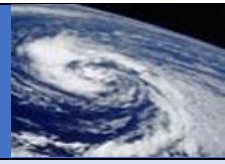


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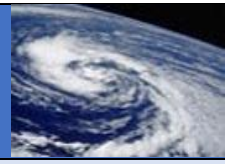
Volume 30 Number 6

DENVER'S JUNE CLIMATOLOGICALLY NORMAL	
(NORMAL PERIOD 1991-2020 DIA Data)	OBSERVED VALUE
TEMPERATURE	
AVERAGE HIGH	82.4°F
AVERAGE LOW	52.3°F
MONTHLY MEAN	67.4°F
DAYS WITH HIGH 90 OR ABOVE	8.0
DAYS WITH HIGH 32 OR BELOW	0.0
DAYS WITH LOW 32 OR BELOW	0.0
DAYS WITH LOWS ZERO OR BELOW	0.0
PRECIPITATION	
MONTHLY MEAN	1.98"
DAYS WITH MEASURABLE PRECIPITATION	8
AVERAGE SNOWFALL IN INCHES	0.0"
DAYS WITH 1.0 INCH OF SNOW OR MORE	0
MISCELLANEOUS AVERAGES	
HEATING DEGREE DAYS	133
COOLING DEGREE DAYS	62
WIND SPEED (MPH)	8.9 mph
WIND DIRECTION	South
DAYS WITH THUNDERSTORMS	10
DAYS WITH DENSE FOG	<1
PERCENT OF SUNSHINE POSSIBLE	70%
EXTREMES	
RECORD HIGH	105 on 6/25/2012, 6/26/2012
RECORD LOW	30 on 6/2/1951
WARMEST	75.0 in 2012
COLDEST	60.6 in 1967
WETTEST	4.96" in 1882
DRIEST	TR in 1890
SNOWIEST	0.5" in 1953
LEAST SNOWY	0.0" in numerous years



## Snowfall

City	Oct	Nov	Dec	Jan	Feb	Mar	Apr/May	Total
Aurora (Central)	TR	8.2"	12.4"	10.5"	5.8"	3.4"	3.2"	43.5"
Boulder	0.1"	24.5"	16.0"	9.3"	17.3"	4.3"	9.9"	81.4"
Brighton	0.0"	9.0"	10.2"	11.6"	5.2"	5.4"	2.9"	44.3"
Broomfield	TR	15.1"	16.1"	10.7"	8.6"	6.2"	4.5"	61.2"
Castle Rock	3.8"	5.6"	11.1"	13.3"	5.2"	6.0"	12.4"	57.4"
Colo Sprgs Airport	TR	7.4"	3.9"	5.3"	12.4"	0.3"	6.6"	35.9"
Denver DIA	TR	10.9"	13.0"	13.0"	4.7"	5.1"	2.2"	48.9"
Denver Downtown	TR	9.1"	9.6"	9.7"	8.0"	2.0"	3.7"	42.1"
Fort Collins	0.2"	9.2"	4.0"	8.8"	4.8"	15.0"	4.7"	46.7"
Golden	2.0"	22.6"	16.2"	10.5"	14.7"	7.2"	17.6"	90.8"
Highlands Ranch	2.5"	10.6"	11.2"	8.6"	5.8"	2.7"	4.0"	45.4"
Lakewood	TR	10.6"	14.2"	9.0"	8.7"	3.3"	5.0"	50.8"
Littleton	1.2"	14.1"	11.0"	8.8"	7.8"	2.7"	5.8"	51.4"
Monument	5.5"	5.8"	13.2"	13.3"	10.0"	4.5"	24.5"	76.8"
Parker	1.0"	6.9"	11.0"	12.6"	5.8"	5.6"	6.7"	49.6"
Sedalia - Hwy 67	5.2"	7.6"	10.6"	15.2"	8.0"	3.2"	14.2"	64.0"
Thornton	TR	12.6"	12.5"	11.8"	6.3"	6.7"	2.5"	52.4"
Westminster	TR	13.3"	15.5"	10.2"	9.6"	6.3"	3.7"	58.6"
Wheat Ridge	TR	15.2"	14.4"	12.0"	9.1"	4.5"	3.8"	59.0"
Windsor	0.0"	8.6"	7.3"	9.9"	6.0"	12.3"	4.2"	48.3"



## Rainfall

City	May	June	July	Aug	Sept	Total
Aurora (Central)	8.07					8.07
Boulder	4.61					4.61
Brighton	5.84					5.84
Broomfield	5.11					5.11
Castle Rock	7.64					7.64
Colorado Springs Airport	5.22					5.22
Denver DIA	5.35					5.35
Denver Downtown	4.97					4.97
Golden	6.10					6.10
Fort Collins	4.41					4.41
Highlands Ranch	5.94					5.94
Lakewood	5.71					5.71
Littleton	5.81					5.81
Monument	8.34					8.34
Parker	6.85					6.85
Sedalia - Hwy 67	6.03					6.03
Thornton	5.40					5.40
Westminster	5.00					5.00
Wheat Ridge	5.18					5.18
Windsor	4.03					4.03