

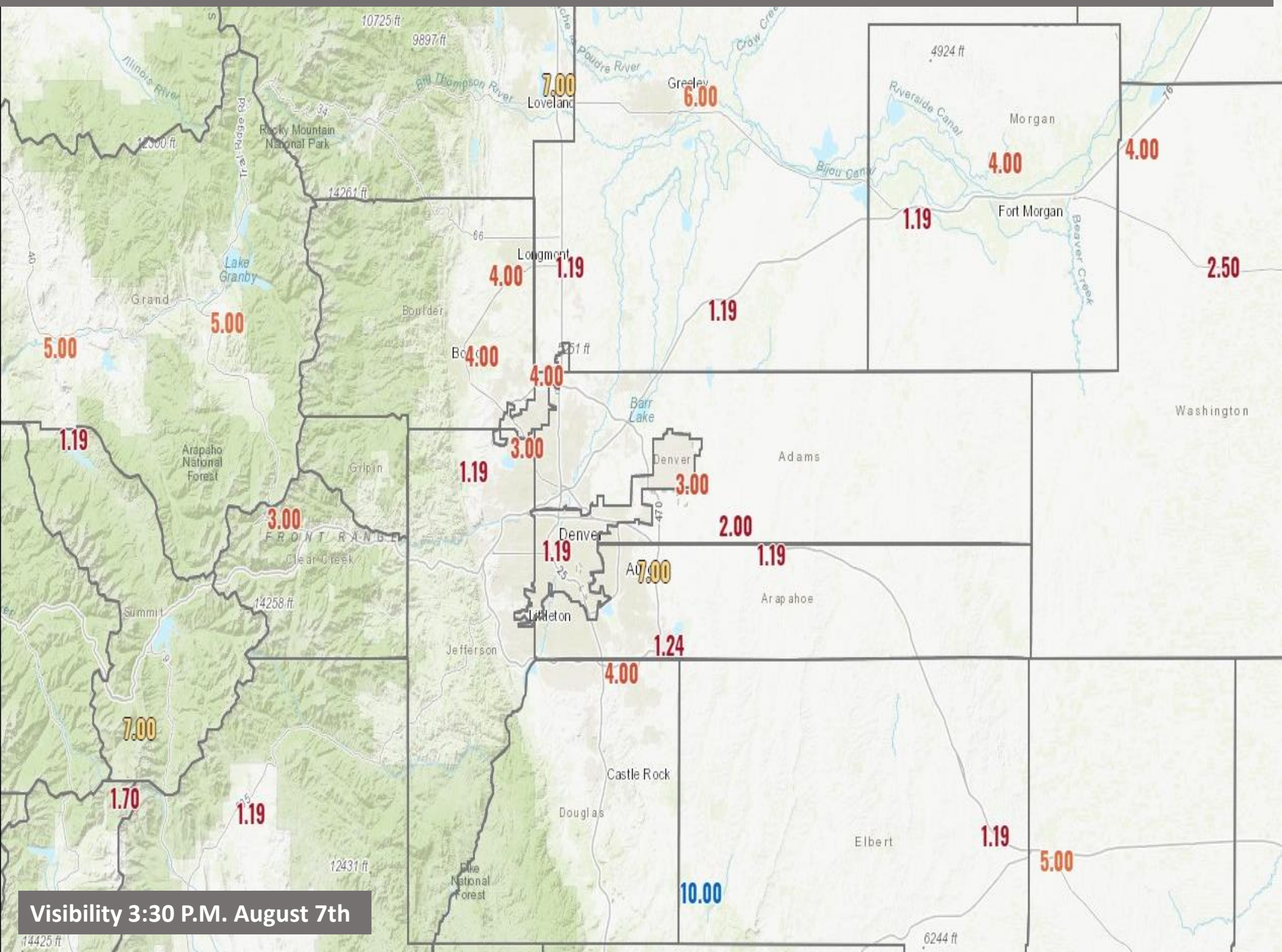
August 2021 Climate Summary for Denver

Hot, Dry and Smoky



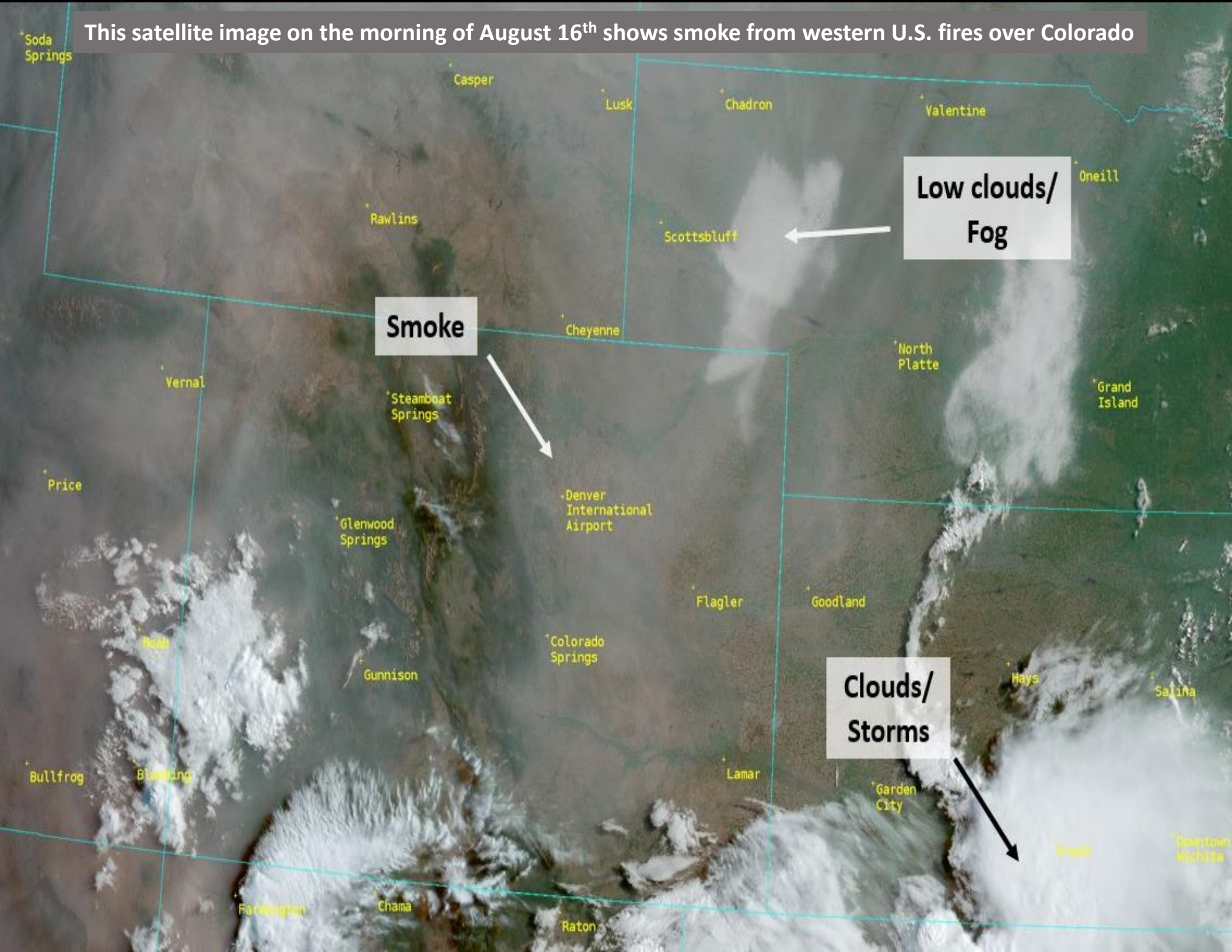
Denver experienced another hot and dry August as an upper level ridge of high pressure dominated the Rocky Mountain Region much of the month. Smoke from large forest fires across the western United States produced smoky and hazy skies across much of the region throughout the month. Monsoonal moisture produced periods of locally heavy rainfall across the region. However, the heavier rains were mainly confined to the high country and the plains northeast and southeast of Denver.

Smoke from western forest fires impacted the visibility across North Central and Northeastern Colorado on August 7th.



Visibility 3:30 P.M. August 7th

This satellite image on the morning of August 16th shows smoke from western U.S. fires over Colorado



PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6)

STATION: DENVER CO
 MONTH: AUGUST
 YEAR: 2021
 LATITUDE: 39 52 N
 LONGITUDE: 104 40 W

TEMPERATURE IN F:					:PCPN:			SNOW:		WIND			:SUNSHINE:			SKY		:PK WND			
1	2	3	4	5	6A	6B	7	8	9	10	11	12	13	14	15	16	17	18			
									12Z	AVG	MX	2MIN									
DY	MAX	MIN	AVG	DEP	HDD	CDD	WTR	SNW	DPTH	SPD	SPD	DIR	MIN	PSBL	S-S	WX	SPD	DR			
1	82	59	71	-4	0	6	0.00	0.0	0	5.8	14	180	M	M	6	18	18	110			
2	89	57	73	-2	0	8	0.00	0.0	0	7.4	15	320	M	M	5	18	21	100			
3	86	65	76	1	0	11	0.00	0.0	0	9.7	20	310	M	M	7		27	320			
4	85	63	74	-1	0	9	T	0.0	0	8.1	22	10	M	M	5	8	33	360			
5	93	57	75	0	0	10	0.00	0.0	0	9.8	20	180	M	M	1	8	27	190			
6	96	66	81	6	0	16	T	0.0	0	10.1	22	340	M	M	4	38	32	190			
7	83	61	72	-2	0	7	0.00	0.0	0	10.8	30	300	M	M	4	8	38	310			
8	94	63	79	5	0	14	0.00	0.0	0	10.3	17	190	M	M	0	8	22	200			
9	98	68	83	9	0	18	T	0.0	0	8.3	22	10	M	M	3	8	29	10			
10	97	59	78	4	0	13	0.00	0.0	0	7.6	25	260	M	M	4	8	45	240			
11	96	58	77	3	0	12	0.00	0.0	0	7.5	16	80	M	M	2	8	20	80			
12	88	66	77	3	0	12	0.00	0.0	0	11.7	20	40	M	M	3		26	330			
13	88	58	73	-1	0	8	0.00	0.0	0	7.7	21	140	M	M	6		27	150			
14	96	62	79	6	0	14	0.02	0.0	0	7.0	14	50	M	M	3	38	19	60			
15	92	60	76	3	0	11	0.00	0.0	0	8.7	18	50	M	M	5		26	40			
16	94	63	79	6	0	14	0.00	0.0	0	7.3	16	170	M	M	1		21	180			
17	97	63	80	7	0	15	T	0.0	0	10.1	39	220	M	M	3	8	49	210			
18	97	62	80	7	0	15	0.00	0.0	0	11.3	32	140	M	M	4	8	41	140			
19	83	61	72	0	0	7	0.18	0.0	0	9.5	28	320	M	M	7	138	34	320			
20	80	53	67	-5	0	2	T	0.0	0	7.2	28	300	M	M	3	13	39	310			
21	85	54	70	-2	0	5	0.01	0.0	0	15.2	33	170	M	M	5		51	160			
22	92	59	76	4	0	11	0.00	0.0	0	9.7	22	190	M	M	2		28	190			
23	94	58	76	4	0	11	0.00	0.0	0	7.2	17	360	M	M	4	8	24	330			
24	94	58	76	4	0	11	0.00	0.0	0	8.7	16	50	M	M	2		22	10			
25	85	57	71	0	0	6	0.06	0.0	0	9.6	28	140	M	M	2	8	33	140			
26	86	61	74	3	0	9	0.00	0.0	0	9.0	26	360	M	M	6	128	39	360			
27	96	60	78	7	0	13	0.00	M	M	10.3	20	200	M	M	4	3	26	190			
28	92	62	77	6	0	12	0.00	0.0	0	9.2	22	50	M	M	3		28	50			
29	82	57	70	0	0	5	0.00	M	M	10.0	21	110	M	M	6		29	130			
30	95	56	76	6	0	11	0.00	0.0	0	8.5	17	190	M	M	3		26	190			
31	95	59	77	7	0	12	0.00	0.0	0	11.0	20	160	M	M	3	8	27	140			
=====																					
SM	2810	1865			0	328	0.27	0.0		284.3			M		116						
=====																					
AV	90.6	60.2								9.2	FASTST		M	M	4		MAX (MPH)				
MISC ---->											39	220						51	160		
=====																					

NOTES:

LAST OF SEVERAL OCCURRENCES

COLUMN 17 PEAK WIND IN M.P.H.

PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6) , PAGE 2

STATION: DENVER CO
 MONTH: AUGUST
 YEAR: 2021
 LATITUDE: 39 52 N
 LONGITUDE: 104 40 W

[TEMPERATURE DATA]

AVERAGE MONTHLY: 75.4
 DPTR FM NORMAL: 2.5
 HIGHEST: 98 ON 9
 LOWEST: 53 ON 20

[PRECIPITATION DATA]

TOTAL FOR MONTH: 0.27
 DPTR FM NORMAL: -1.31
 GRTST 24HR 0.18 ON 19-19

 SNOW, ICE PELLETS, HAIL
 TOTAL MONTH: 0.0 INCH
 GRTST 24HR 0.0
 GRTST DEPTH: 0

SYMBOLS USED IN COLUMN 16

1 = FOG OR MIST
 2 = FOG REDUCING VISIBILITY
 TO 1/4 MILE OR LESS
 3 = THUNDER
 4 = ICE PELLETS
 5 = HAIL
 6 = FREEZING RAIN OR DRIZZLE
 7 = DUSTSTORM OR SANDSTORM:
 VSBY 1/2 MILE OR LESS
 8 = SMOKE OR HAZE
 9 = BLOWING SNOW
 X = TORNADO

[NO. OF DAYS WITH]

MAX 32 OR BELOW: 0
 MAX 90 OR ABOVE: 18
 MIN 32 OR BELOW: 0
 MIN 0 OR BELOW: 0

[WEATHER - DAYS WITH]

0.01 INCH OR MORE: 4
 0.10 INCH OR MORE: 1
 0.50 INCH OR MORE: 0
 1.00 INCH OR MORE: 0

[HDD (BASE 65)]

TOTAL THIS MO. 0
 DPTR FM NORMAL -9
 TOTAL FM JUL 1 0
 DPTR FM NORMAL -8

CLEAR (SCALE 0-3) 12
 PTCLDY (SCALE 4-7) 19
 CLOUDY (SCALE 8-10) 0

[CDD (BASE 65)]

TOTAL THIS MO. 328
 DPTR FM NORMAL 74
 TOTAL FM JAN 1 927
 DPTR FM NORMAL 184

[PRESSURE DATA]

HIGHEST SLP M ON M
 LOWEST SLP 29.57 ON 17

[REMARKS]

#FINAL-08-21#

CLIMATE REPORT
 NATIONAL WEATHER SERVICE
 905 AM MDT WED SEP 01 2021

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...THE DENVER CO CLIMATE SUMMARY FOR THE MONTH OF AUGUST 2021...

CLIMATE NORMAL PERIOD 1991 TO 2020
 CLIMATE RECORD PERIOD 1872 TO 2021

WEATHER	OBSERVED VALUE	DATE (S)	NORMAL VALUE	DEPART FROM NORMAL	LAST YEAR'S VALUE	DATE (S)
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 TEMPERATURE (F)

RECORD

HIGH	105	08/08/1878				
LOW	40	08/26/1910				
		08/25/1910				
		08/24/1910				

HIGHEST	98	08/09	97	-1	100	08/18
LOWEST	53	08/20	49	4	46	08/31
AVG. MAXIMUM	90.6		87.5	3.1	93.5	
AVG. MINIMUM	60.2		58.3	1.9	60.6	
MEAN	75.4		72.9	2.5	77.1	
DAYS MAX >= 90	18		13.8	4.2	26	
DAYS MAX <= 32	0		0.0	0.0	0	
DAYS MIN <= 32	0		0.0	0.0	0	
DAYS MIN <= 0	0		0.0	0.0	0	

PRECIPITATION (INCHES)

RECORD

MAXIMUM	5.85	1979
MINIMUM	0.02	1924

TOTALS	0.27		1.58	-1.31	0.35
DAILY AVG.	0.01		0.05	-0.04	0.01
DAYS >= .01	4		7.5	-3.5	5
DAYS >= .10	1		3.6	-2.6	2
DAYS >= .50	0		1.0	-1.0	0
DAYS >= 1.00	0		0.2	-0.2	0

GREATEST

24 HR. TOTAL	0.18	08/19 TO 08/19		0.15	08/26 TO 08/26
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SNOWFALL (INCHES)

TOTAL	0.0			
RECORD TOTAL	0.0	0.0		
DEGREE DAYS				
HEATING TOTAL	0	9	-9	1
SINCE 7/1	0	8	-8	1
COOLING TOTAL	328	254	74	380
SINCE 1/1	927	743	184	998

FREEZE DATES

RECORD	
EARLIEST	09/08/1962
LATEST	06/08/2007
EARLIEST	MM
LATEST	05/12

.....

WIND (MPH)

AVERAGE WIND SPEED	9.2		
RESULTANT WIND SPEED/DIRECTION	2/190		
HIGHEST WIND SPEED/DIRECTION	39/220	DATE	08/17
HIGHEST GUST SPEED/DIRECTION	51/160	DATE	08/21

SKY COVER

POSSIBLE SUNSHINE (PERCENT)	MM
AVERAGE SKY COVER	0.37
NUMBER OF DAYS FAIR	16
NUMBER OF DAYS PC	15
NUMBER OF DAYS CLOUDY	0

WEATHER CONDITIONS. NUMBER OF DAYS WITH

THUNDERSTORM	5	MIXED PRECIP	0
HEAVY RAIN	0	RAIN	0
LIGHT RAIN	8	FREEZING RAIN	0
LT FREEZING RAIN	0	HAIL	0
HEAVY SNOW	0	SNOW	0
LIGHT SNOW	0	SLEET	0
FOG	5	FOG W/VIS <= 1/4 MILE	1
HAZE	18		

- INDICATES NEGATIVE NUMBERS.
 R INDICATES RECORD WAS SET OR TIED.
 MM INDICATES DATA IS MISSING.
 T INDICATES TRACE AMOUNT.

TEMPERATURES:

The average temperature at Denver International Airport for August 2021 was 75.4 degrees F, which is 2.5 degrees above the normal of 72.9 degrees and tied for the 3rd warmest August on record. During the month, 18 days had temperatures that equaled or exceeded 90 degrees. The warmest temperature of the month was 98 degrees on the 9th which also tied the record high temperature for the date.

TEN WARMEST AUGUST AVERAGE TEMPERATURES IN DENVER WEATHER HISTORY SINCE 1872: DEGREES F

77.0 - 2020, 2011
76.8 - 1937
75.4 - 2021, 2019, 2007
75.3 - 1995
75.0 - 2012, 1994
74.7 - 1938

TEN COLDEST AUGUST AVERAGE TEMPERATURES IN DENVER WEATHER HISTORY SINCE 1872: DEGREES F

66.5 - 1915
66.6 - 1927
67.7 - 1920
67.8 - 1884
68.0 - 1888
68.1 - 1968
68.2 - 2004, 1967
68.4 - 1992, 1917

PRECIPITATION:

Denver Received 0.27 inches of precipitation in August 2021 which is 1.31 inches below the normal of 1.58 inches. There were only 4 days with measurable precipitation during the month, with the highest daily amount of 0.18 on the 19th.

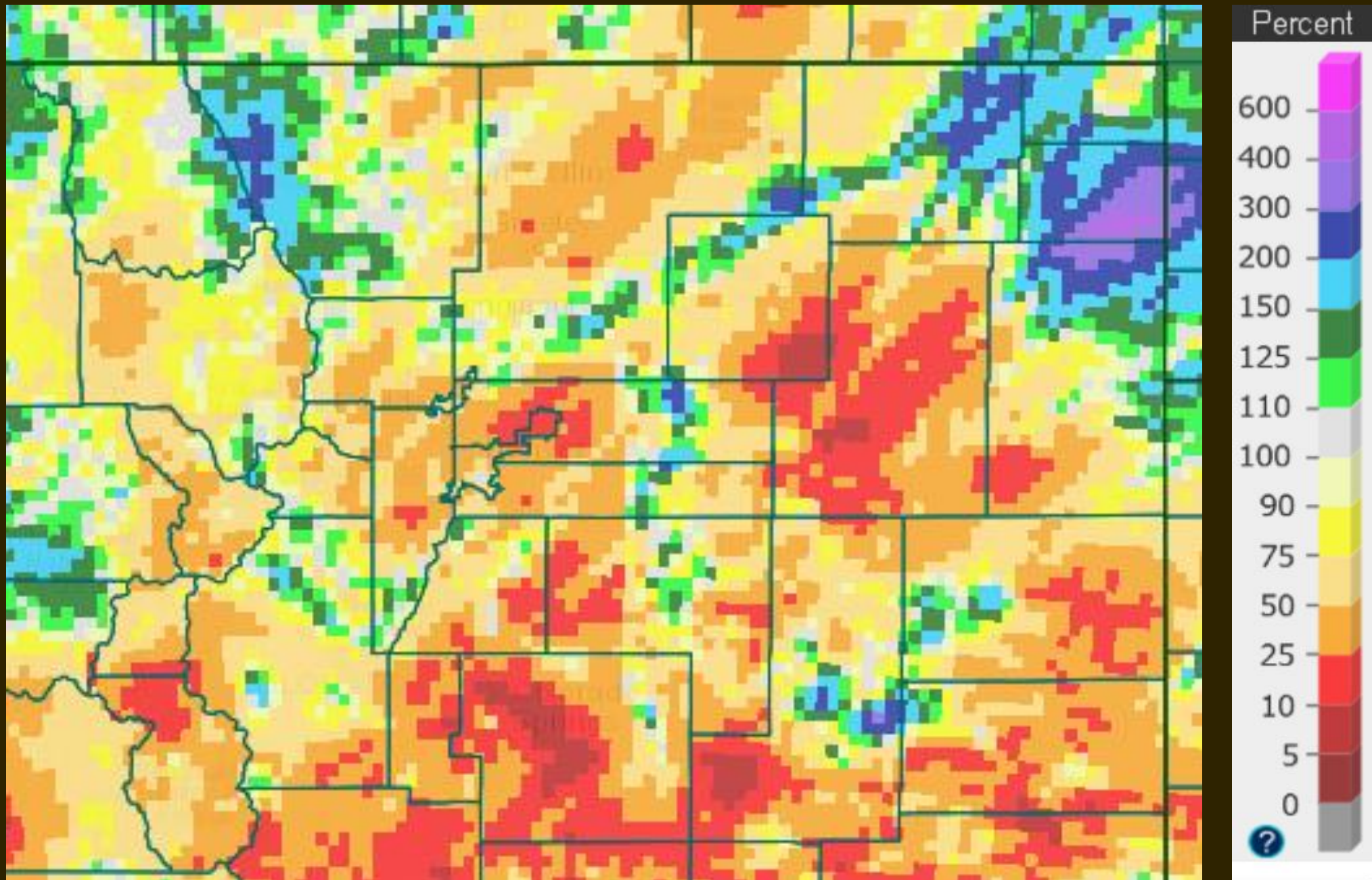
TEN WETTEST AUGUST PRECIPITATION TOTALS IN DENVER WEATHER HISTORY SINCE 1872: INCHES

- 5.85 - 1979
- 4.47 - 1951
- 4.03 - 2008
- 3.87 - 1923
- 3.69 - 1991
- 3.52 - 1997
- 3.49 - 1921
- 3.37 - 1999
- 3.22 - 1936
- 3.20 - 1984

TEN DRIEST AUGUST PRECIPITATION TOTALS IN DENVER WEATHER HISTORY SINCE 1872: INCHES

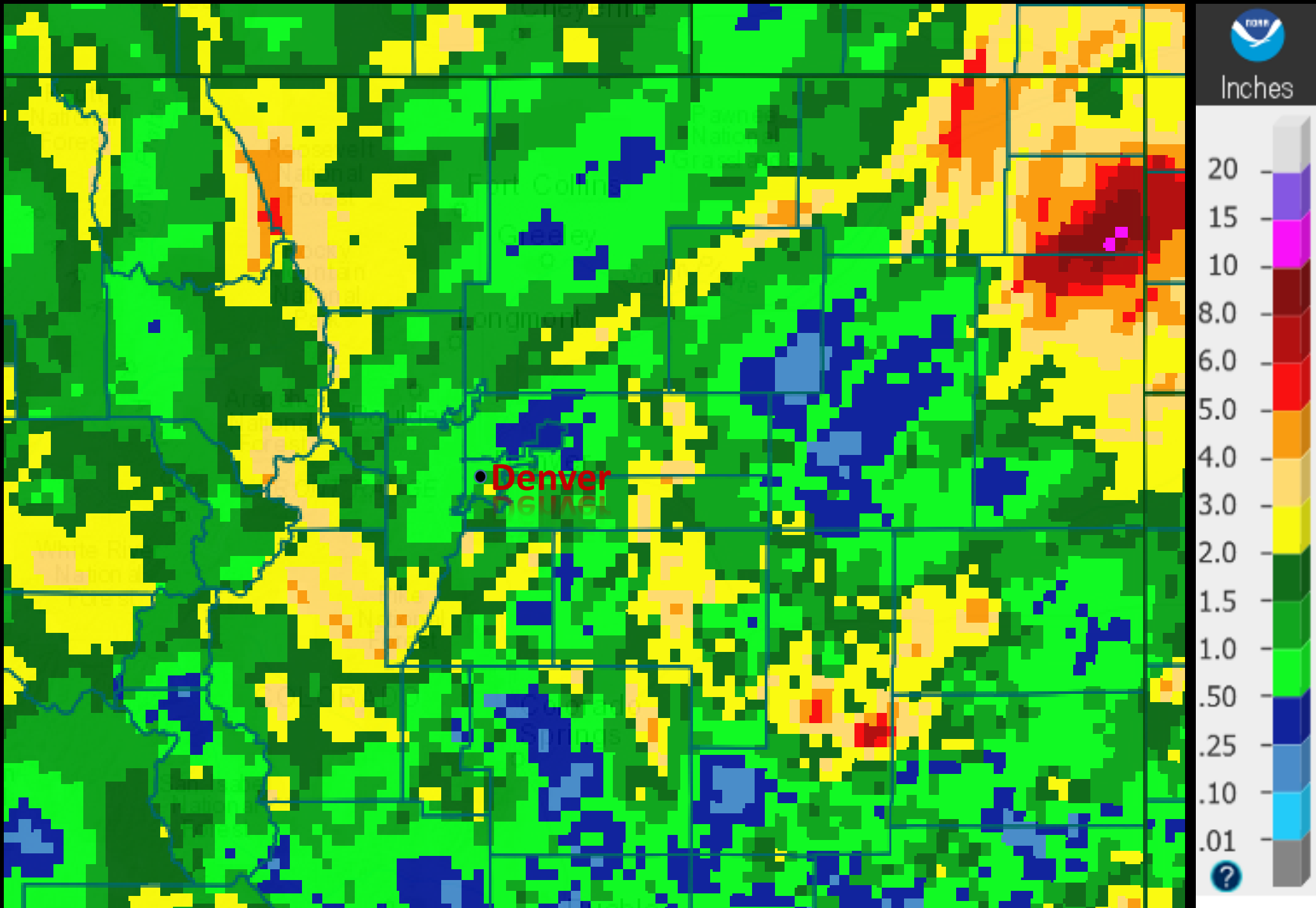
- 0.02 - 1924
- 0.05 - 1917, 1900
- 0.06 - 1960
- 0.11 - 2012
- 0.16 - 1974
- 0.19 - 1948
- 0.22 - 2016
- 0.23 - 1907
- 0.25 - 1959

August, 2021 Monthly Percent of Normal Precipitation



Most of the Front Range Urban Corridor experienced below normal precipitation during the month. Monsoonal moisture produced periods of heavy rain across the high country, especially over the northern mountains of Larimer County. The heavy rain resulted in periods of flash flooding across the burn areas. Numerous thunderstorms produced severe weather and very heavy rain across far northeastern Colorado during the late afternoon and evening of the 19th. Some areas across southeastern Phillips County received between 4 to 9 inches of rainfall from the storms.

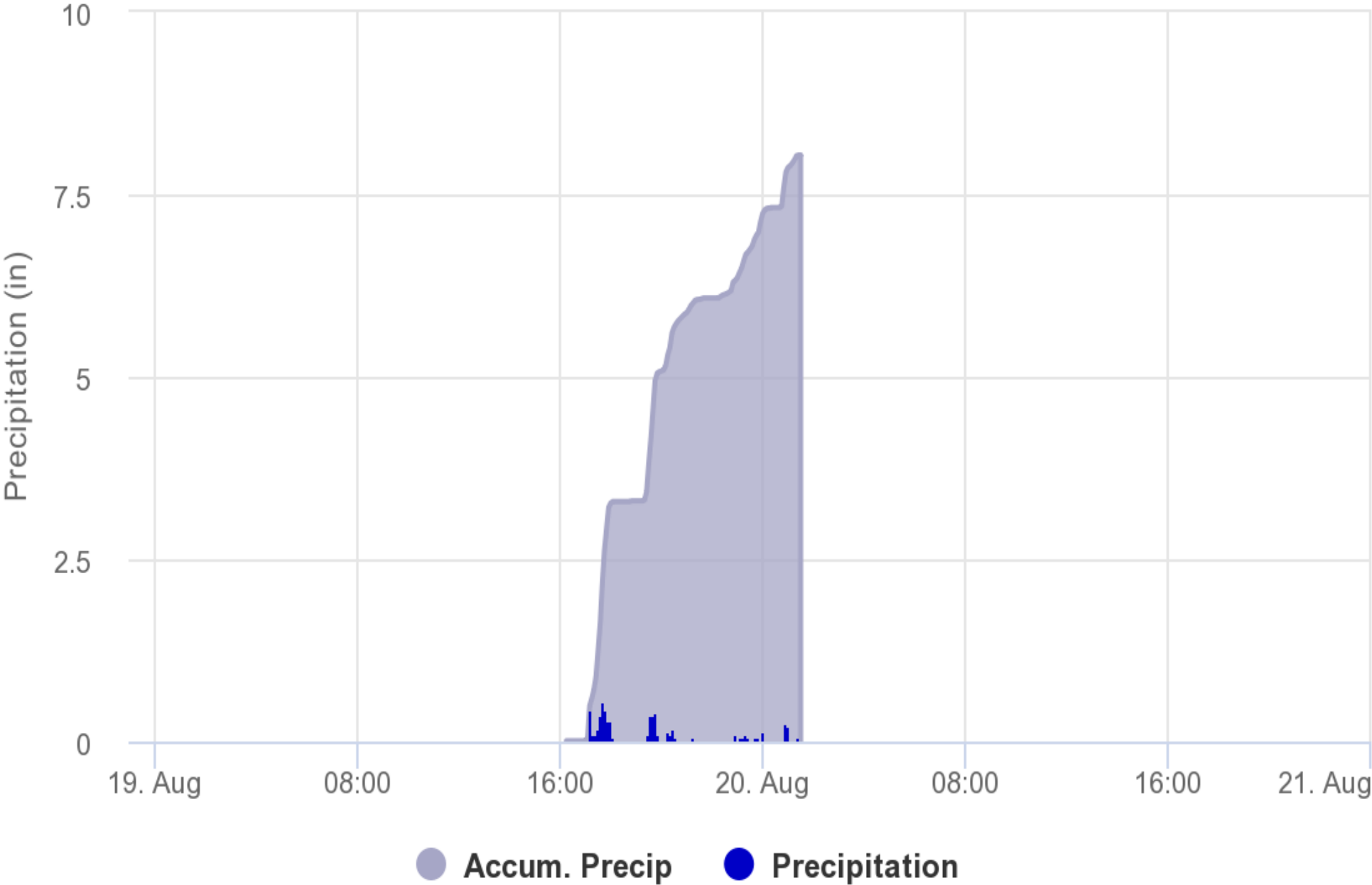
August, 2021 Observed Precipitation



During the evening and overnight hours of August 19th and 20th, thunderstorms with very rainfall moved across Phillips County. A Colorado mesonet station southeast of Holyoke measured 8.04" of rain! The radar was estimated around 9" of rain in spots nearby

Precipitation for Holyoke (HYK02)

Aug 18 - 20, 2021



Miscellaneous Stats for August 2021:

There were 5 days in which thunder was observed at Denver International Airport during the month, as well as 5 days with fog and 18 days with smoke or haze. The peak wind gust of 51 mph from the south-southeast occurred on the 21st.