

Arizona Climate Summary

June 2014

Summary of conditions for May 2014

May 2014 Temperature and Precipitation Summary

May 1st – 16th: Typical of May in Arizona, the state experienced dry conditions with very little precipitation reported. Average monthly temperatures for May were relatively normal, within 1.3 degrees of the average. A ridge of high pressure provided warm and dry conditions during the first week. On the 7th, a well-defined trough extended across northern Arizona, setting the stage for some slight rainfall at higher elevations. Flagstaff received 0.01" of rain and even reported a trace of snow on the 7th. The following day proved to be slightly wetter, with 0.04" of rain and 0.4" of snow reported on the 8th for Flagstaff. Williams reported 0.10" of rain and Bellemont reported 0.14" of rain and 0.5" of snow on the 8th. Another low pressure center from the Northwest followed, bringing another trough over the state. Once again, there was not quite enough moisture to really create significant rainfall. Flagstaff reported a trace of precipitation and snow on the 11th. One record was set this month among the three main cities. On the 5th, Flagstaff set a new high minimum temperature record of 48 degrees F, beating the previous record of 45 degrees F, originally set in 1992.

May 17th – 31st: On the 20th, the beginning of a low pressure cutoff began to slowly make its way through the Southwest creating increased wind speeds aloft but eventually decreasing in intensity. This system dropped 0.10" frain on Navajo National Monument in northeastern Arizona, and 0.19" at Lee's Ferry on the 23rd. The system moved slowly dropping an additional 0.16" at Navajo National Monument and 0.13" at Window Rock on the 24th, and 0.18" at Canyon de Chelly on the 25th. Petrified Forest received 0.09" on the 26th and Alpine had 0.15" on the 27th. The last storm system of the month moved through on the 29th when divergence aloft generated enough uplift to lead to light showers mostly over northern Arizona, though Tucson reported a trace of rainfall, while Flagstaff and Bellemont recorded 0.07" of rain on the 29th. Despite the relatively normal monthly mean temperature, this May was the 15th warmest on record for Phoenix and Tucson, mostly due to high nighttime temperatures; however, no records in temperature and precipitation were set or tied in Phoenix and Tucson this month

<u>In This Issue:</u> Overview of May, graphs of the May daily maximum and minimum temperatures, precipitation, mean daily dew points for Flagstaff, Phoenix, and Tucson; May climate statistics, maps of mean monthly maximum and minimum temperatures, precipitation, dew points, wind speeds for May; and graphs of the mean May temperature and precipitation for the period of record for Tucson, Phoenix, and Flagstaff, graphs of the cumulative precipitation for the calendar year for Flagstaff, Phoenix, and Tucson. Climate calendars for Flagstaff, Phoenix, Tucson, Prescott, Winslow and Yuma, including daily and monthly normals and extremes, for each month of the year, can be downloaded directly from the State Climate website. See p. 19 of this report for calendar abbreviations.

Data are preliminary and are from the National Weather Service Forecast Offices in Flagstaff, Phoenix and Tucson. **Note: The discrepancy between the Statewide Temperature and Precipitation values for Phoenix, Flagstaff and Tucson and the daily values in their graphs are due to the reporting times. Statewide Temperature and Precipitation values are taken at 5pm, while official daily records at the airports are taken from Midnight to Midnight.

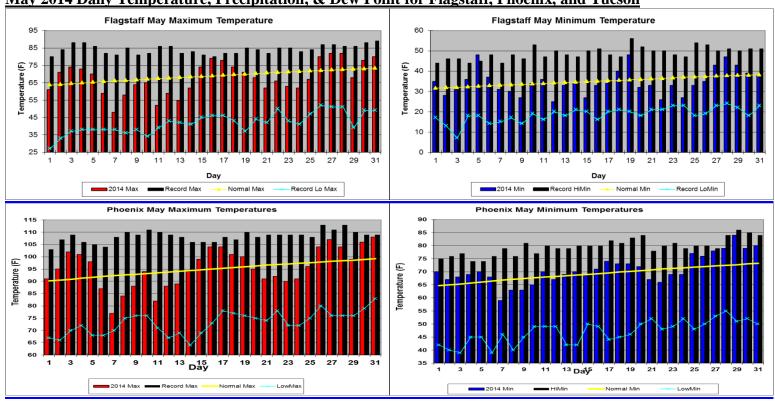
State Climate Office **Dr. Nancy J. Selover, State Climatologist**http://azclimate.asu.edu Tel: 480-965-6265

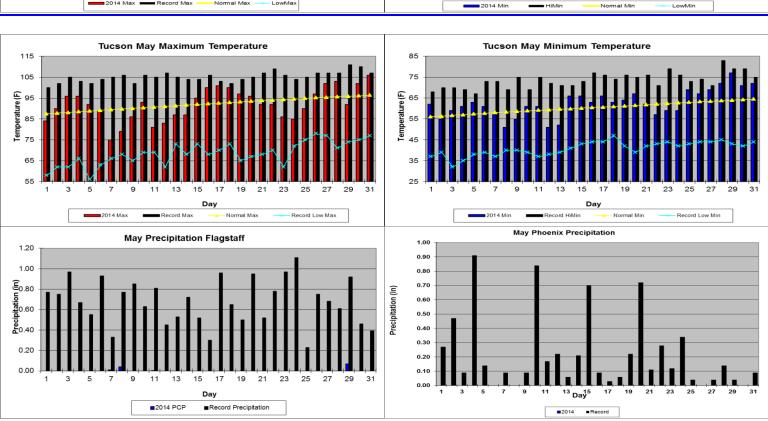
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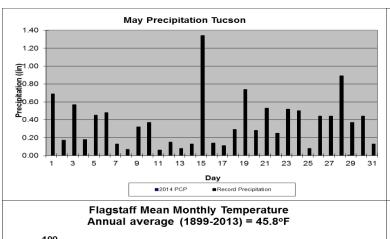


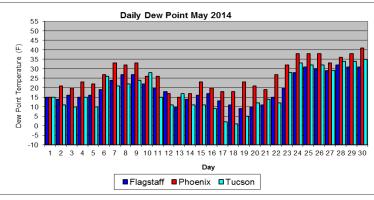
School of Geographical Sciences & Urban Planning Arizona State University Tempe, AZ 85287-1508 Edited by Nancy J. Selover & Richard Ames

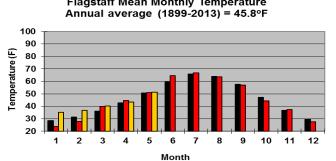


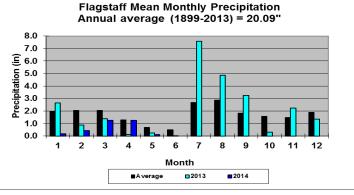


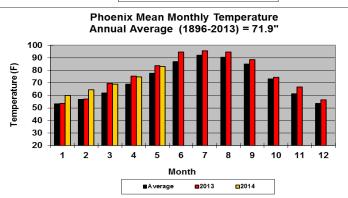




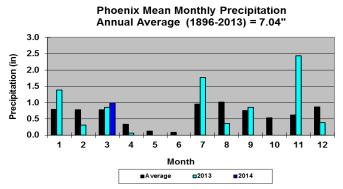


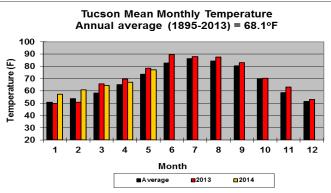


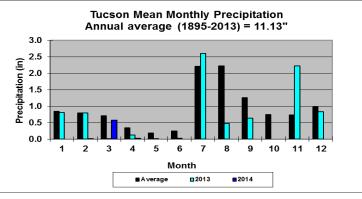




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FLAGSTAFF CLIMATE STATISTICS May 2014

This May had no significant ranking in temperature or precipitation.	Maximum Temp 50°F or lower 1						
	Heating Degree Days 418 Normal 417						
Avg Max Temp (F) 67.9 Normal 68.1	Cooling Degree Days 0 Normal 0						
Avg Min Temp (F) 34.7 Normal 35.0	Degree base 65°F						
Avg Mean Temp (F) 51.3 Normal 51.6							
Departure from Normal (F) -0.3	Total May Precipitation 0.12"						
	Normal May Precipitation 0.63"						
Highest Monthly Avg Temp (F) 56.8 in 1984	Departure from normal -0.51"						
Lowest Monthly Avg Temp (F) 44.6 in 1917	Greatest 24-Hr Precipitation 0.07" on 05/29-29						
	Total Precipitation Year-to-Date 3.21"						
Highest Temp this month (F): 82 on 27 th , 28 th	Departure from Normal -4.90"						
Lowest Temp this month (F): 25 on 12 th							
	Number of Days:						
Record High (F): 89 on 05/31/2002	Clear 24						
Record Low (F): 7 on 05/03/1915	Partly Cloudy 7						
	Cloudy 0						
Temperature or precipitation records this month:							
5 th HiMin of 48 set, previous record 45 set in 1992.	Greatest May Precipitation 4.17" in 1917						
	Least May Precipitation 0.00" in 2012 and						
Flagstaff Number of Days of:	10 other years						
Minimum Temp 45°F or higher 3							
Minimum Temp 25°F or lower 1	Average Wind Speed 10.1 mph						
Maximum Temp 80°F or higher 4	Highest Peak Gust 53 mph from 230° on 6						
PHOENIX CLIMATE STATISTICS May 2014							

May 2014

st on reco	d, but had							
no significant ranking in precipitation.				Phoenix Number of Days of:				
		Minimum Temp 60°F or lo	ower		1			
Avg Max Temp(F) 95.5 Normal 94.8					2			
Normal	69.4	Maximum Temp 80°F or le		1				
Normal	82.1	Maximum Temp 105°F or higher			3			
1.0		•	C					
		Heating Degree Days	0	Normal	1			
Highest Monthly Avg Temp (F) 87.0 in 1987			570	Normal	531			
F) 69.0	in 1967	Degree base 65°F						
Highest Temp this month (F): 108 on 31 st			Total May Precipitation					
Lowest Temp this month (F): 59 on 7 th			Normal May Precipitation					
		Departure from normal		-0.11	"			
Record High (F): 114 on 05/30/1910			on	T on 5/30-31,				
05/03/189	99	5/29-30						
				0.99"				
No temperature or precipitation records this month.				-2.22"				
	Normal Normal Normal 1.0 (F) 87.0 (F) 69.0 108 or 59 on n 05/30/19	Normal 94.8 Normal 69.4 Normal 82.1 1.0 (F) 87.0 in 1987 F) 69.0 in 1967 108 on 31 st 59 on 7 th n 05/30/1910 105/03/1899	Phoenix Number of Days of Minimum Temp 60°F or low Minimum Temp 80°F or low Minimum Temp 80°F or low Maximum Temp 80°F or low Maximum Temp 80°F or low Maximum Temp 105°F or l	Phoenix Number of Days of: Minimum Temp 60°F or lower Normal 94.8 Minimum Temp 80°F or higher Normal 69.4 Maximum Temp 80°F or lower Normal 82.1 Maximum Temp 105°F or higher 1.0 Heating Degree Days 0 (F) 87.0 in 1987 Cooling Degree Days 570 F) 69.0 in 1967 Degree base 65°F Total May Precipitation Normal May Precipitation Normal May Precipitation Departure from normal Greatest 24-Hr Precipitation 5/29-30 Total Precipitation Year-to-Date	Phoenix Number of Days of: Minimum Temp 60°F or lower Normal 94.8 Minimum Temp 80°F or higher Normal 69.4 Maximum Temp 80°F or lower Normal 82.1 Maximum Temp 105°F or higher 1.0 Heating Degree Days 0 Normal (F) 87.0 in 1987 Cooling Degree Days 570 Normal F) 69.0 in 1967 Degree base 65°F Total May Precipitation Tous Normal May Precipitation 0.11° Departure from normal -0.11° Departure from normal -0.11° O5/30/1910 Greatest 24-Hr Precipitation Tous 5/30° 105/03/1899 5/29-30 Total Precipitation Year-to-Date 0.99			

Number of Days:

Clear 16 Partly Cloudy 15 Cloudy 0 Average Wind Speed 8.3 mph

Highest Peak Gust 40 mph from 230° on 5th

Greatest May Precipitation 1.31" in 1930

Least May Precipitation 0.00" in 2014 and 59

other years

TUCSON CLIMATE STATISTICS May 2014

This May was the 15th warmest on record, but had no significant ranking in precipitation.

Avg Max Temp(F) 92.1 Normal 91.6 Avg Min Temp(F) 62.5 Normal 60.5 Avg Mean Temp(F) 77.3 Normal 76.0 Departure from Normal (F) 1.3

Highest Monthly Avg Temp (F) 80.2 in 2000 Lowest Monthly Avg Temp (F) 64.6 in 1905

Highest Temp this month (F): 106 on 31st Lowest Temp this month (F): 51 on 8th, 12th

Record High (F): 111 on 05/29/1910 Record Low (F): 32 on 05/03/1899

No temperature or precipitation records this month.

Tucson Number of Days of:

Minimum Temp 55°F or lower 5
Minimum Temp 75°F or higher 1
Maximum Temp 75°F or lower 1
Maximum Temp 105°F or higher 1

Heating Degree Days 0 Normal 5 Cooling Degree Days 391 Normal 348

Degree base 65°F

Total May Precipitation T
Normal May Precipitation 0.23"
Departure from normal -0.23"
Greatest 24-Hr Precipitation T on 05/28–29
Total Precipitation Year-to-Date 0.61"
Departure from Normal -2.46"

Greatest May Precipitation 1.34" in 1905 Least May Precipitation 0.00" in 2014 and 48

other years

Number of Days:

Clear 26
Partly Cloudy 1
Cloudy 0

Average Wind Speed 8.3 mph

Highest Peak Gust 43 mph from 220° on 22nd

Data are from the National Weather Service and the National Climatic Data Center and are **preliminary**.

Wind Speeds:					Dew Poir	nts for Ma	ıy:			
Day	Phoei		Flags	taff	Tucso	n		Daily Average Dew Point (°F):		
(mph) Avg	Max	Avg	Max	Avg	Max	Day	<u>Phx</u>	Tuc	<u>Flg</u>
1	10.4	34	15.1	38	10.7	39	1	15	15	15
2	4.8	17	3	17	6.8	18	2	21	11	14
3	6.5	32	6.4	24	5.9	22	3	20	10	16
4	9	26	11.3	38	7.2	27	4	23	15	15
5	8.9	40	15.1	42	10.5	31	5	22	10	16
6	12.1	38	20.4	53	12.8	37	6	27	26	19
7	7.6	27	12.9	35	8.1	30	7	33	21	24
8	4.8	21	8.1	29	5.6	18	8	32	22	27
9	3.7	20	10.5	37	6.4	23	9	33	24	27
10	9.1	21	15.4	44	10	30	10	26	28	22
11	16.7	37	12	41	12.1	34	11	26	15	20
12	8.4	26	9.1	32	5.8	22	12	17	11	18
13	15	35	22.1	46	5.3	18	13	15	17	10
14	10.3	31	12.3	37	15	42	14	17	11	14
15	7.4	23	5	31	7.1	27	15	23	11	16
16	6.7	22	6.9	32	7.2	23	16	20	9	17
17	8.3	26	8.6	34	5.8	23	17	18	2	13
18	9.1	23	14.6	44	8.4	26	18	18	1	11
19	9.6	23	17.7	44	10.4	29	19	23	5	9
20	9.2	27	15.8	49	11.4	36	20	21	12	10
21	7.1	26	13.3	37	9.8	42	21	19	14	11
22	6.7	26	7.6	39	10.4	43	22	27	12	15
23	9.2	28	6.3	35	9.6	35	23	32	28	20
24	7.5	27	4.2	23	5.7	23	24	38	33	28
25	6.7	22	3.5	37	6.3	28	25	38	32	31
26	6.5	26	3.6	22	7.6	26	26	38	32	30

7.9

7.4

8.9

6.4

6.8

5.6

8.8

3.7

4.9

10.4

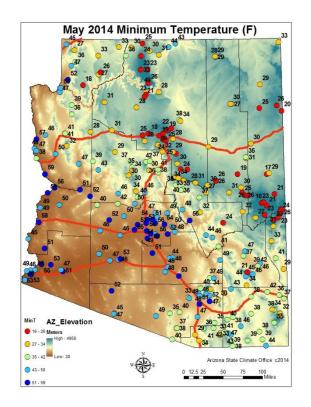
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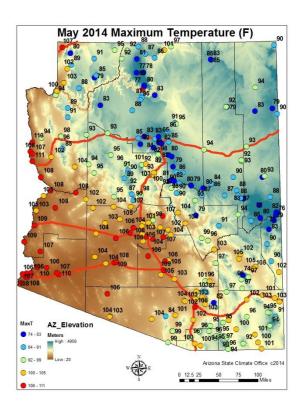
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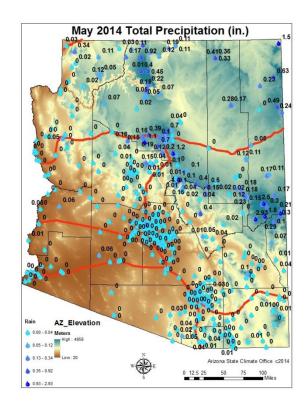
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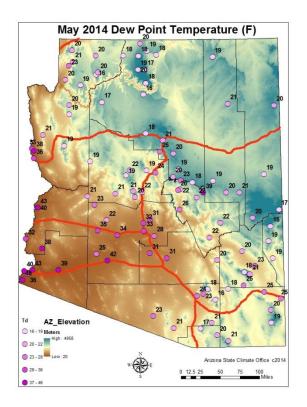
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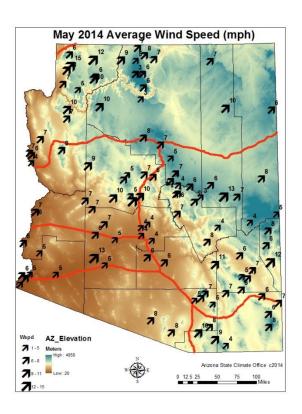
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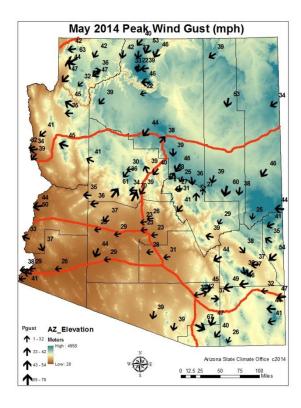




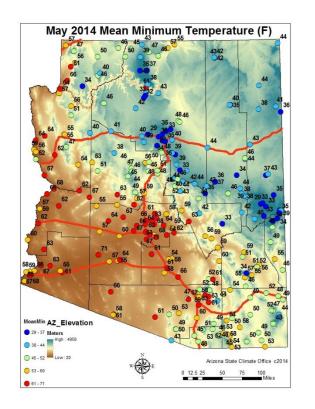


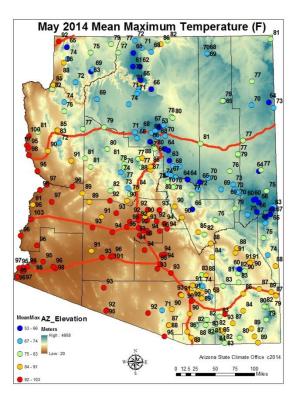






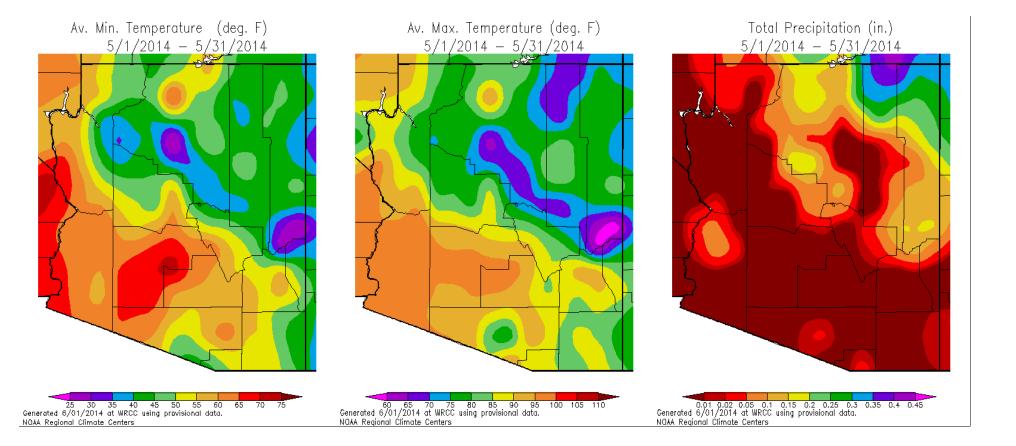
The lowest minimum temperature was 16°F at Sunrise Mountain, and the highest minimum was 59°F at Phoenix, Parker, and Lake Havasu. The lowest maximum temperature of 65°F was recorded at Snowslide Canyon, while the highest maximum temperature of 111°F was reported at Havasu, with Bullhead City and Tacna reporting 110°F. The lowest rainfall amount was 0.00" at most stations in Arizona and the highest was 2.93" at Mountain Lion in the White Mountains. The lowest dew point was 16°F at Tucson, Rincon, Stray Horse, and Mt. Logan and the highest was 46°F at Yuma. The highest peak wind gust was 70 mph at Humbug Creek.

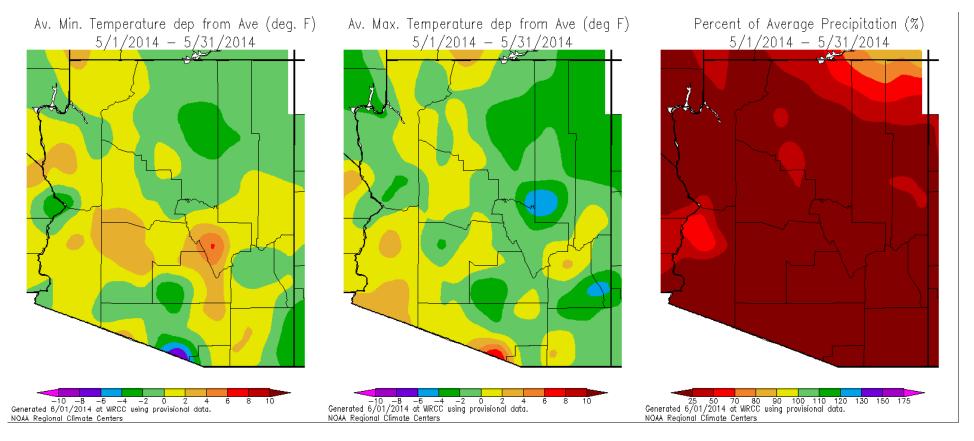




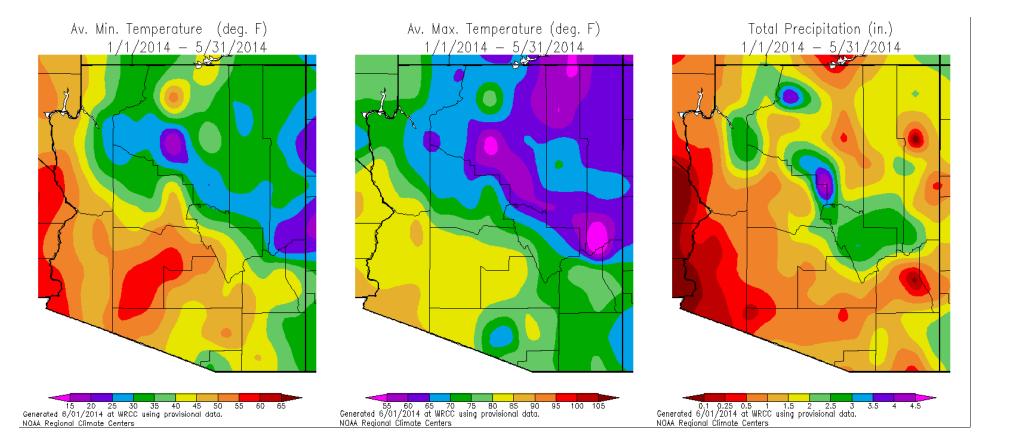
May 2014

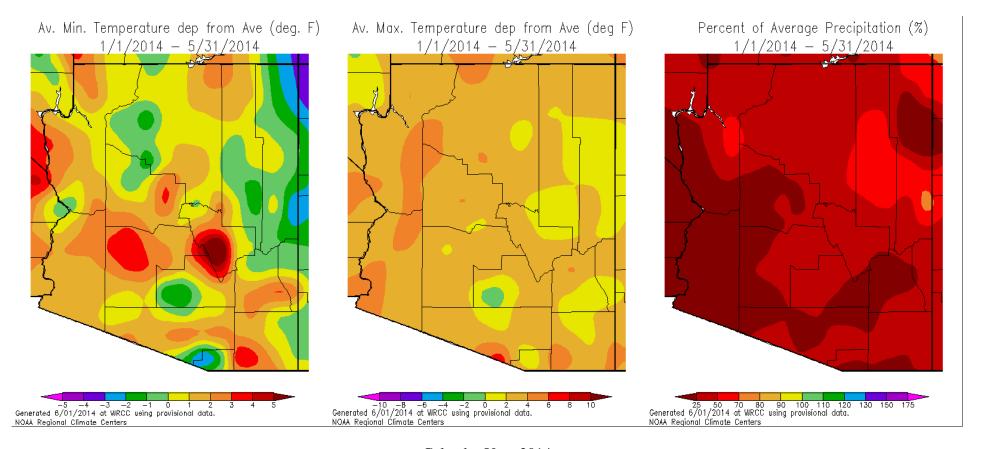
The highest average minimum temperature was 71°F at Phoenix Sky Harbor AP and Oatman, and the lowest average minimum temperature was 29°F at Greenbase and Sunrise Mountain. The highest average maximum temperature was 103°F at Ehrenburg and lowest average maximum temperature was 53°F at Snowslide Canyon.





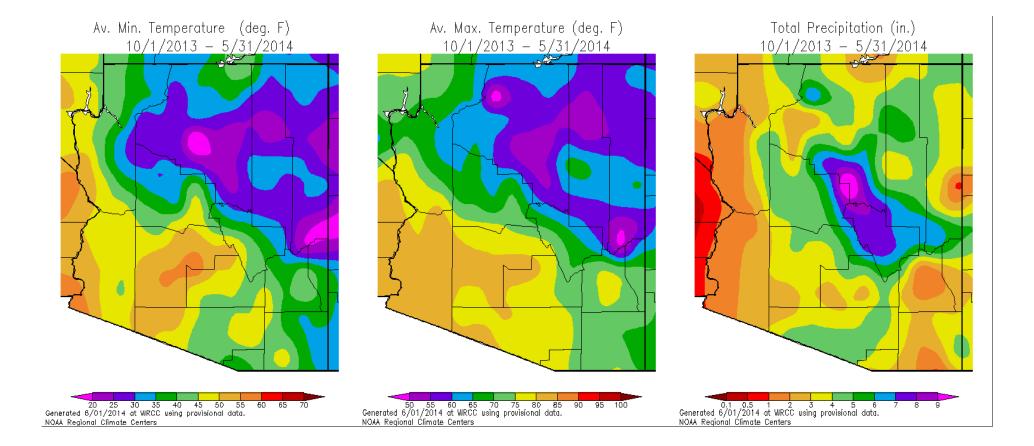
May minimum temperatures were 2°F cooler than normal on the Colorado Plateau, in south central and southeastern Arizona. Warmer than normal low temperatures were reported in central and western Arizona. Daytime temperatures were also 2 to 6°F cooler than normal on the Colorado Plateau and along the eastern half of the state. Slightly warmer than normal highs were reported in southwestern Arizona. May precipitation was less than 25% of normal statewide with only the northeast corner and La Paz County receiving 25 to 50% of normal rainfall.

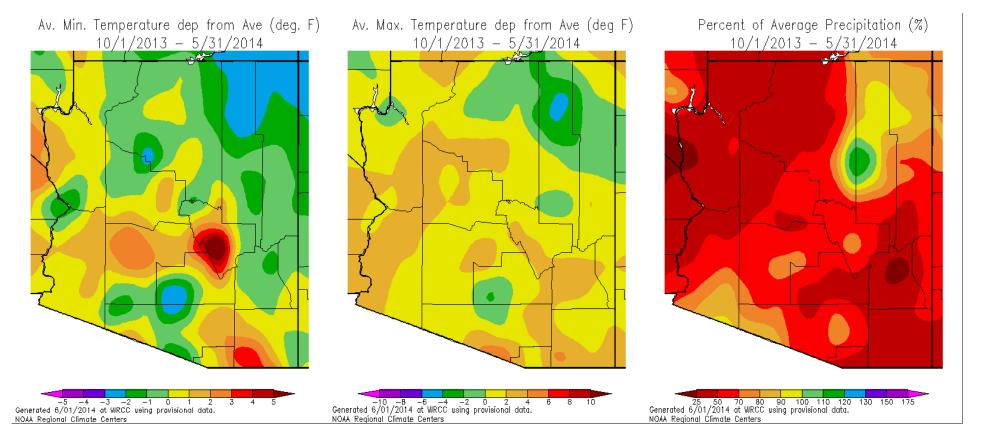




Calendar Year 2014

Calendar year minimum temperatures ranged from 2°F cooler along the eastern border to 4 to 6°F warmer than average in Gila County. Daytime highs have been 0 to 4°F warmer than normal statewide. Precipitation so far this year has been less than 50% of normal statewide, with central Navajo and Apache counties at 70% of normal and the southwestern quarter of the state has received less than 25% of normal precipitation.

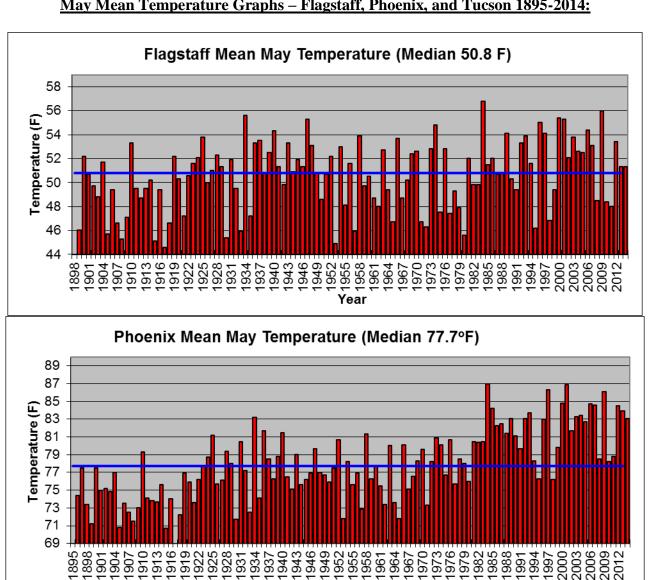


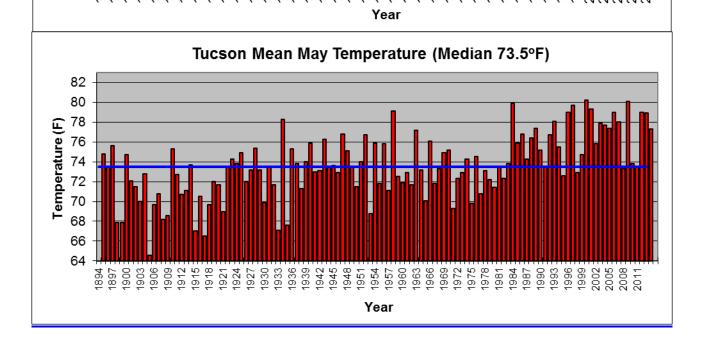


2014 Water Year

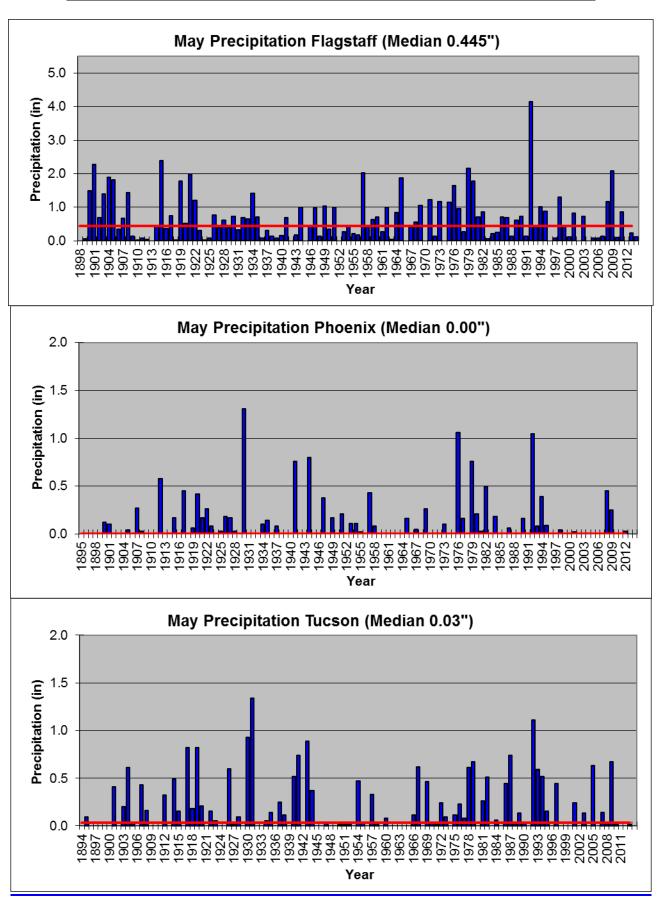
Minimum temperatures on the Colorado Plateau are 0 to 3°F cooler than normal, while the southwestern half of the state has been 0 to 3°F warmer than normal. Gila County has been 3 to 6°F warmer than normal. Daytime temperatures have been 0 to 4°F warmer than normal across most of the state, with the northeastern corner 0 to 4°F cooler than normal. Dry conditions continue across the state with a swath form the southwest to the northeast at 70% of average precipitation, and the northwest and southeast quarters at 50% of average. The northeastern area of the state has received near or greater than average precipitation.

May Mean Temperature Graphs – Flagstaff, Phoenix, and Tucson 1895-2014:



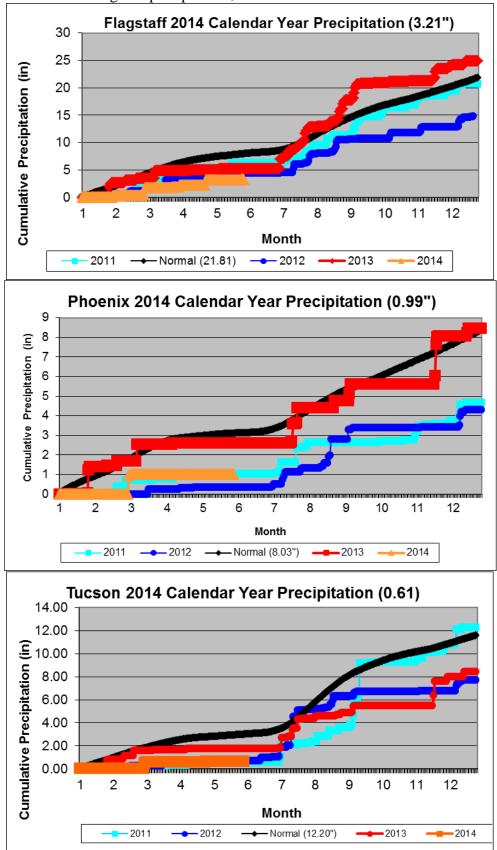


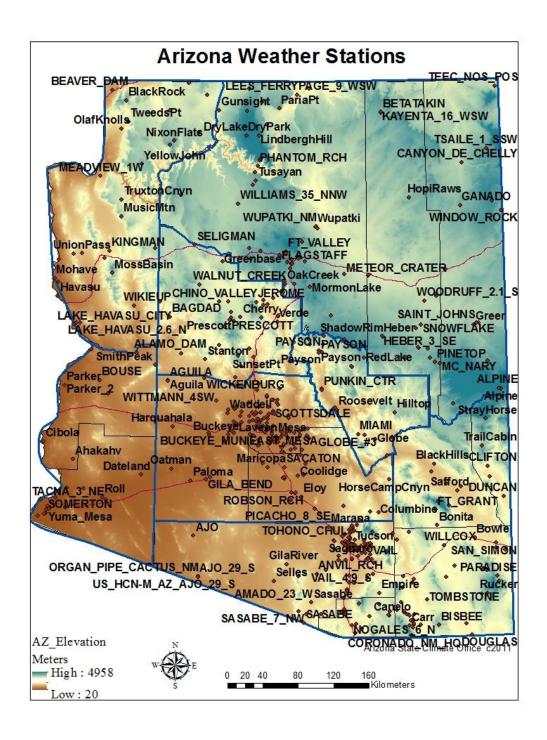
May Mean Precipitation Graphs - Flagstaff, Phoenix, and Tucson 1895-2014:



2014 Cumulative Precipitation Graphs – Flagstaff, Phoenix and Tucson:

All of Arizona is still well below average on precipitation, with southern Arizona the farthest behind.





The downloadable normals and extremes calendars use the following abbreviations:

NORM = 30 year (1971-2000) average value (degrees Fahrenheit (F))

OBS = The temperature observation for that day this year

AVG = Average daily temperature

HI MAX = Highest maximum temperature for that day (F)

LO MAX = Lowest maximum temperature for that day (F)

LO MIN = Lowest minimum temperature for that day (F)

HI MIN = Highest minimum temperature for that day (F)

Mx PCP = Maximum precipitation for that day (inches)

Mx SNO = Maximum snowfall for that day (inches)