



Arizona Climate Summary

February 2014

Summary of conditions for January 2014

January 2014 Temperature and Precipitation Summary

January 1st – 16th: For the first half of January, Arizona, along with other states in the southwest, began to experience drought-like conditions. Arizona recorded no precipitation during these first two weeks. A large, high pressure ridge in the jet stream contributed to this dry spell. The ridge has been dubbed the “ridiculously resilient ridge” as it has persisted much longer than ridges typically remain in place. Above-average temperatures also persisted throughout this time frame. No records were set or tied until after the 17th.

January 17th – 31st: The dry conditions continued in through the remainder of the month. Typically, the winter months bring more rain, but unfortunately it is not the case this year. As a result, we could experience an intensified wildfire season this year and it is likely that it may start a little sooner. Despite the dry conditions, Tucson recorded a trace of rainfall on the 25th of the month. Flagstaff recorded a trace of precipitation on the 30th and reported receiving 0.17” the following day. On the 17th, Tucson set a new HiMax temperature at 83 degrees beating the previous record of 82 degrees set in 1939. On the 21st, Phoenix set a new HiMax temperature of 81 degrees beating the previous record of 80 degrees set in 2009, and tied with the HiMin record of 58 degrees on the 24th which was first set in 2006. Flagstaff and Phoenix both set a new HiMin record, 56 degrees in Flagstaff and 58 degrees in Phoenix; the previous record in Flagstaff was 53 degrees which was set in 1999, and the previous record in Phoenix was 56 degrees which was set in 2013. On the 31st, Flagstaff set a new HiMin record of 58 degrees beating the previous record of 54 degrees which was first set in 1980.

In This Issue: Overview of January, graphs of the January daily maximum and minimum temperatures, precipitation, mean daily dew points for Flagstaff, Phoenix, and Tucson; January climate statistics, maps of mean monthly maximum and minimum temperatures, precipitation, dew points, wind speeds for January; and graphs of the mean January 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.

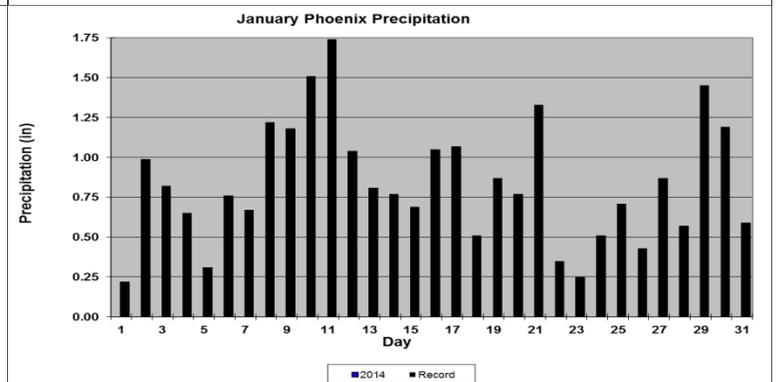
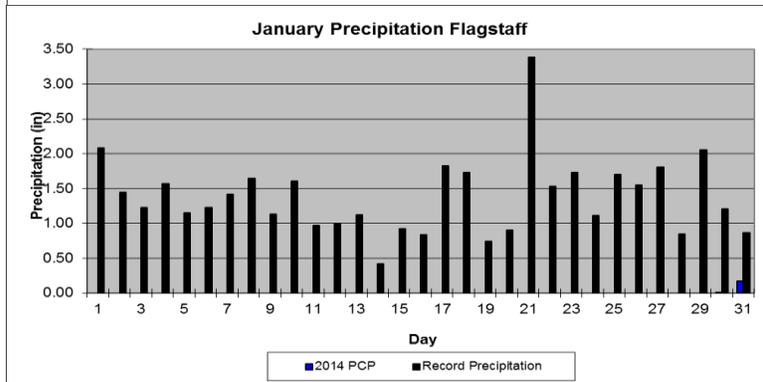
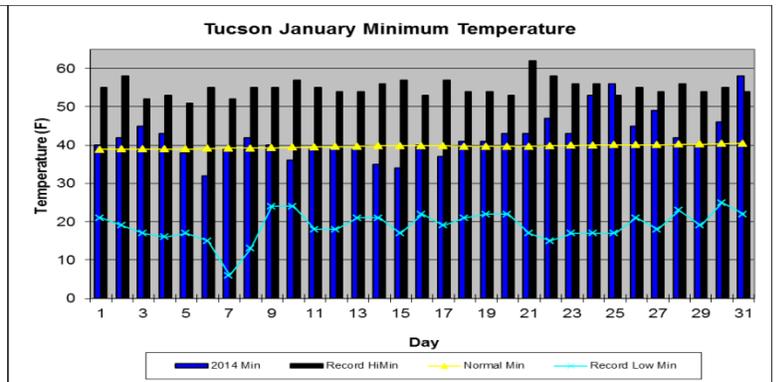
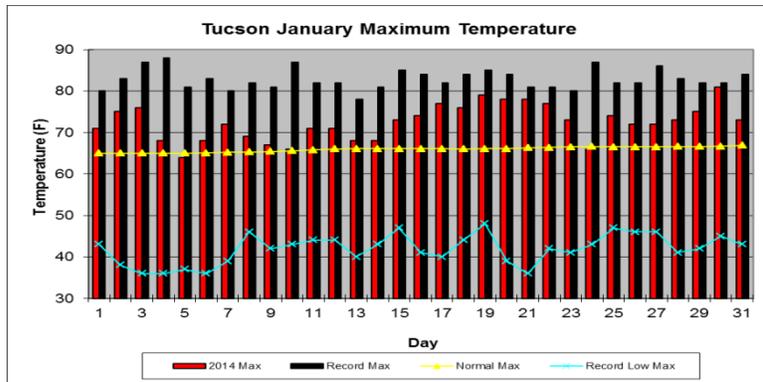
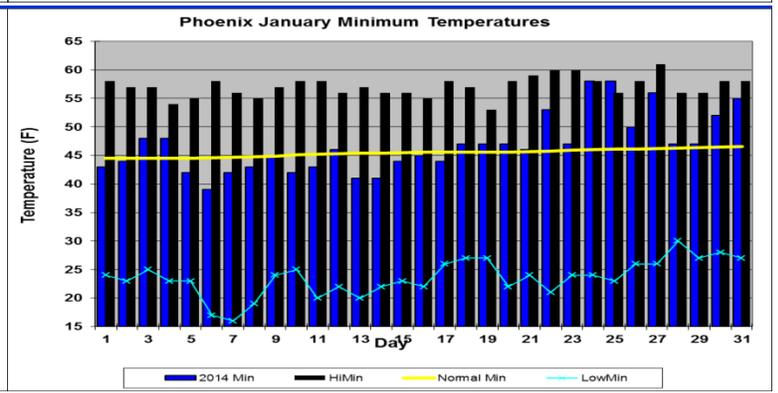
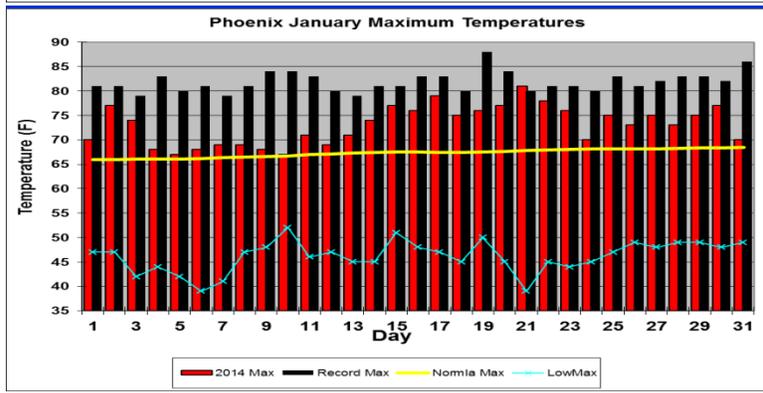
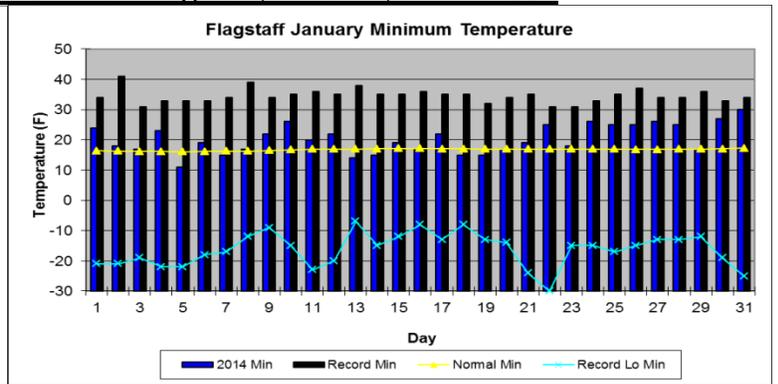
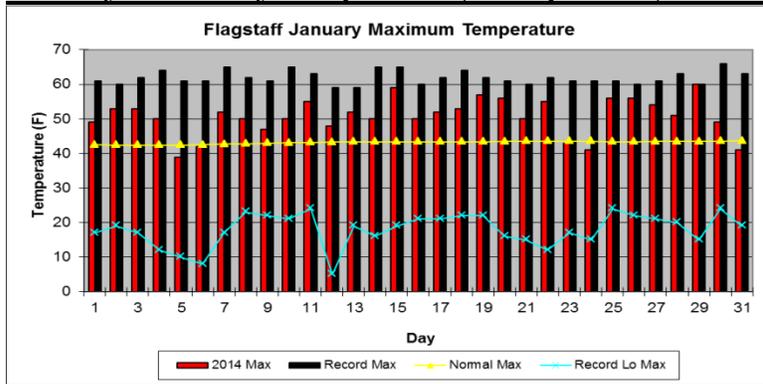
****Note:** The discrepancy between the Statewide Temperature and Precipitation values for Phoenix, Flagstaff and Tucson and the daily values in their graphs are due to the reporting times. Statewide Temperature and Precipitation values are taken at 5pm, while official daily records at the airports are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

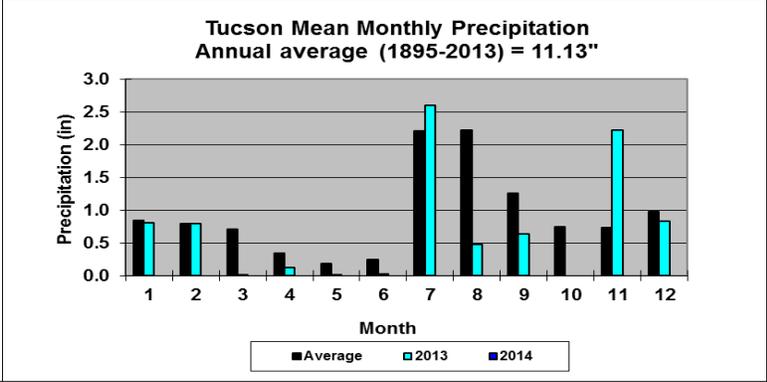
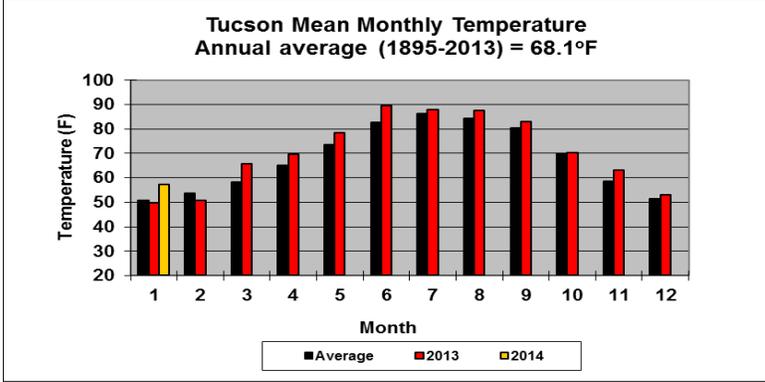
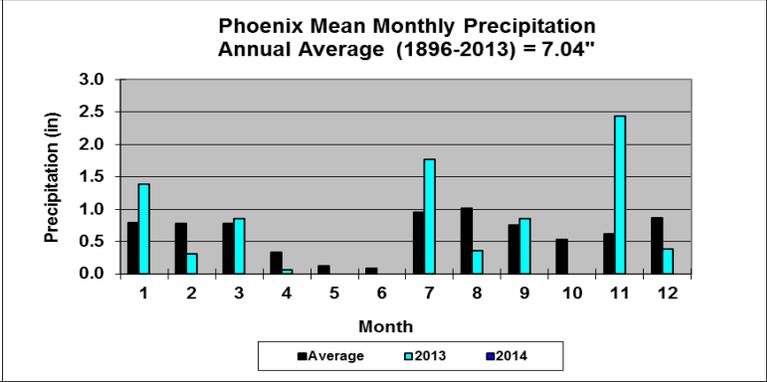
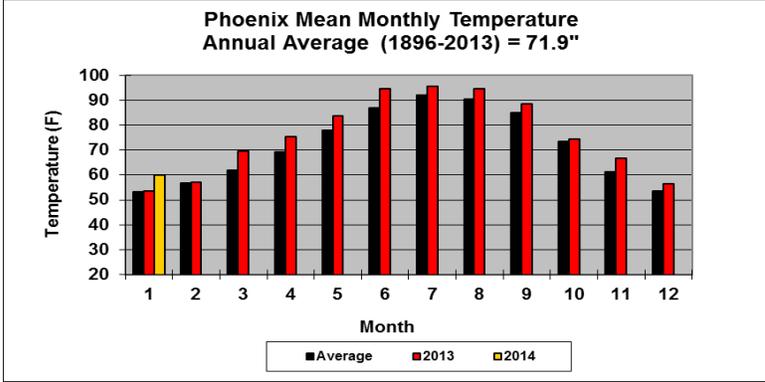
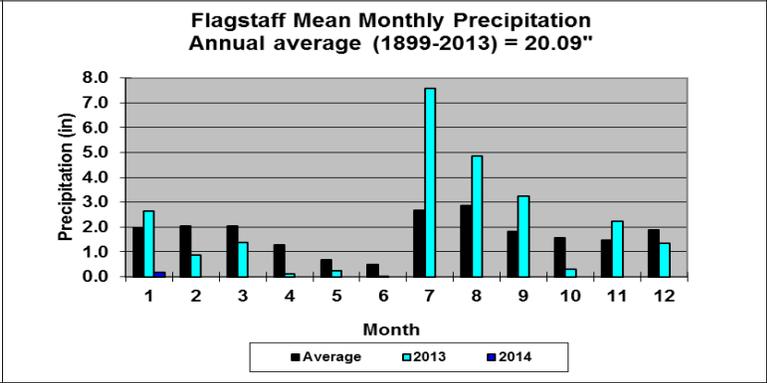
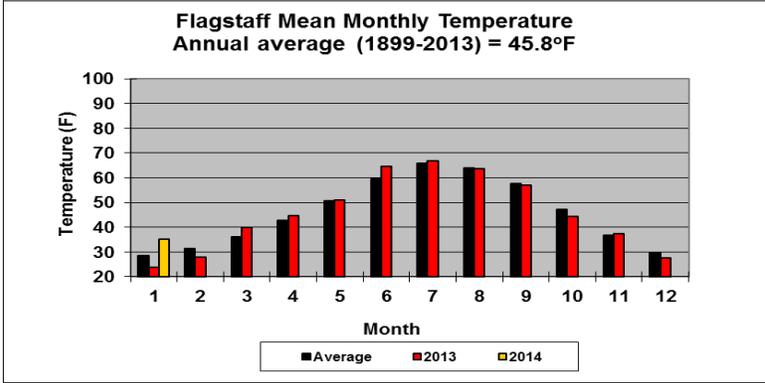
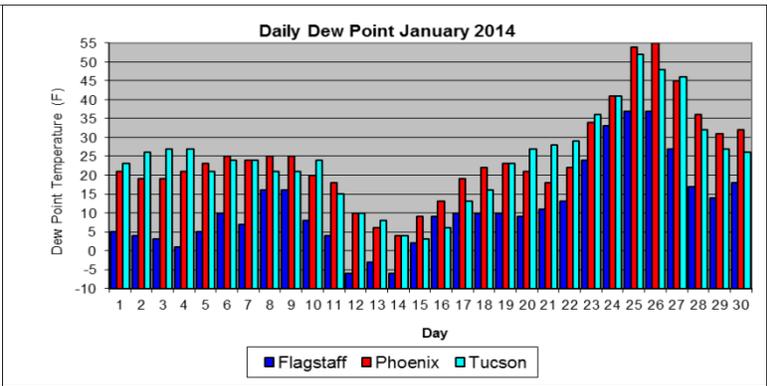
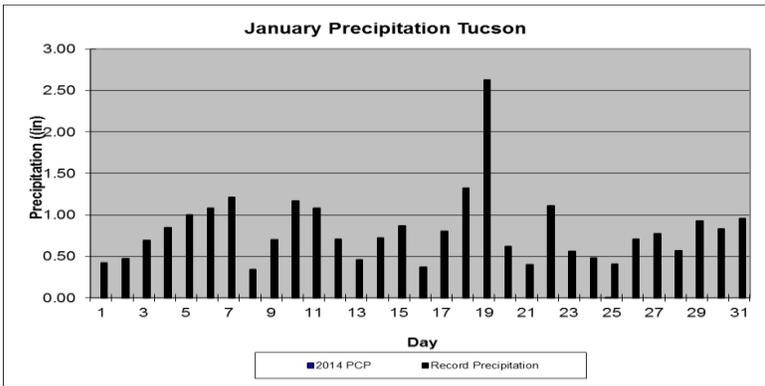
State Climate Office
Dr. Nancy J. Selover, State Climatologist
<http://azclimate.asu.edu> Tel: 480-965-6265
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School of Geographical Sciences & Urban Planning
Arizona State University
Tempe, AZ 85287-1508
Edited by Nancy J. Selover & Richard Ames

January 2014 Daily Temperature, Precipitation, & Dew Point for Flagstaff, Phoenix, and Tucson





FLAGSTAFF CLIMATE STATISTICS

January 2014

This January was the 4th warmest on record, but did not make any significant ranking in precipitation.

Avg Max Temp (F)	50.7	Normal	42.5
Avg Min Temp (F)	20.2	Normal	17.3
Avg Mean Temp (F)	35.5	Normal	29.9
Departure from Normal (F)	5.6		

Highest Monthly Avg Temp (F)	37.1 in 2003
Lowest Monthly Avg Temp (F)	12.7 in 1937

Highest Temp this month (F): 60 on 29th
 Lowest Temp this month (F): 11 on 5th

Record High (F): 66 on 01/30/1971

Record Low (F): -30 on 01/22/1937

Temperature or precipitation records this month:
 25th HiMin 56 set, previous record 53 set in 1999
 31st HiMin 58 set, previous record 54 set in 1980

Flagstaff Number of Days of:
 Minimum Temp 30°F or higher 1

Minimum Temp 15°F or lower	6
Maximum Temp 60°F or higher	1
Maximum Temp 40°F or lower	1

Heating Degree Days	906	Normal	1088
Cooling Degree Days	0	Normal	0
Degree base 65°F			

Total January Precipitation	0.17"
Normal January Precipitation	2.05"
Departure from normal	-1.88"
Greatest 24-Hr Precipitation	0.17" on 01/31-31
Total Precipitation Year-to-Date	0.17"
Departure from Normal	-1.88"

Number of Days:
 Clear 29
 Partly Cloudy 1
 Cloudy 1

Greatest January Precipitation	9.55" in 1993
Least January Precipitation	0.00" in 1972

Average Wind Speed	6.2 mph
Highest Peak Gust	44 mph from 40° on 14 th

PHOENIX CLIMATE STATISTICS

January 2014

This January was the 3rd warmest on record, but did not make any significant ranking in precipitation.

Avg Max Temp(F)	73.1	Normal	67.2
Avg Min Temp(F)	46.7	Normal	45.6
Avg Mean Temp (F)	59.9	Normal	56.4
Departure from Normal (F)	3.5		

Highest Monthly Avg Temp (F)	62.0 in 2003
Lowest Monthly Avg Temp (F)	43.1 in 1937

Highest Temp this month (F): 81 on 21st
 Lowest Temp this month (F): 39 on 6th

Record High (F): 88 on 01/19/1971

Record Low (F): 16 on 01/07/1913

Temperature or precipitation records this month:
 21st HiMax 81 set, previous record 80 set in 2009
 24th HiMin 58 tied, first set in 2006
 25th HiMin 58 set, previous record 56 set in 2013

Phoenix Number of Days of:
 Minimum Temp 40°F or lower 1
 Minimum Temp 55°F or higher 4
 Maximum Temp 70°F or lower 9
 Maximum Temp 80°F or higher 1

Heating Degree Days 152 Normal 269
 Cooling Degree Days 4 Normal 2
 Degree base 65°F

Total January Precipitation 0.00"
 Normal January Precipitation 0.91"
 Departure from normal -0.91"
 Greatest 24-Hr Precipitation 0.00 on --
 Total Precipitation Year-to-Date 0.00"
 Departure from Normal -0.91"

Number of Days:

Clear 14
 Partly Cloudy 16
 Cloudy 1

Greatest January Precipitation 5.22" in 1993
 Least January Precipitation 0.00" in 2014 and 10 other years

Average Wind Speed 4.1 mph
 Highest Peak Gust 29 mph from 80° on 24th

TUCSON CLIMATE STATISTICS

January 2014

This January was the 3rd warmest on record, but did not make any significant ranking in precipitation.

Avg Max Temp(F) 72.4 Normal 65.5
 Avg Min Temp(F) 42.2 Normal 39.8
 Avg Mean Temp(F) 57.3 Normal 52.6
 Departure from Normal (F) 4.7

Highest Monthly Avg Temp (F) 58.6 in 1986
 Lowest Monthly Avg Temp (F) 41.2 in 1937

Highest Temp this month (F): 81 on 30th
 Lowest Temp this month (F): 32 on 6th

Record High (F): 88 on 01/04/1927

Record Low (F): 6 on 01/07/1913

Temperature or precipitation records this month.
 17th HiMax 83 set, previous record 82 in 1939

Tucson Number of Days of:

Minimum Temp 35°F or lower 3
 Minimum Temp 55°F or higher 2
 Maximum Temp 65°F or lower 1
 Maximum Temp 80°F or higher 1

Heating Degree Days 230 Normal 383
 Cooling Degree Days 1 Normal 1
 Degree base 65°F

Total January Precipitation T
 Normal January Precipitation 0.94"
 Departure from normal -0.94"
 Greatest 24-Hr Precipitation T on 01/24–25
 Total Precipitation Year-to-Date T
 Departure from Normal -0.94"

Greatest January Precipitation 4.81" in 1993
 Least January Precipitation 0.00" in 2014 and 9 other years

Number of Days:

Clear 24
 Partly Cloudy 3
 Cloudy 0

Average Wind Speed 6.1 mph
 Highest Peak Gust 36 mph from 120° on 24th

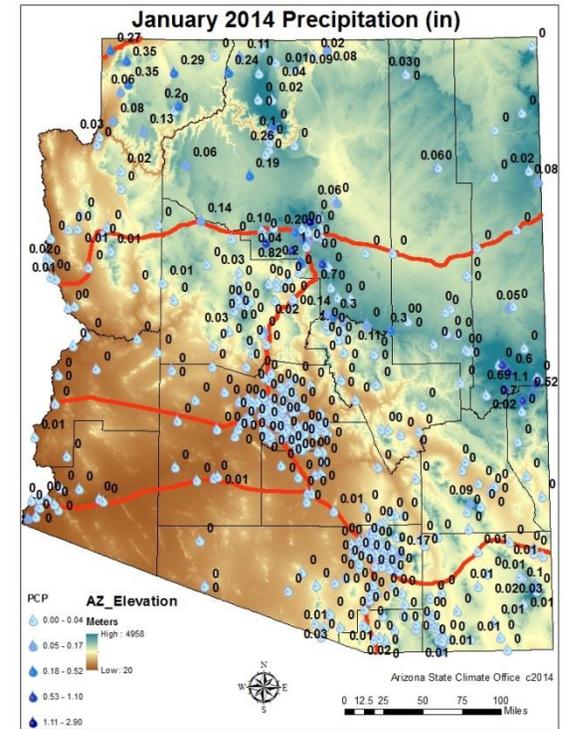
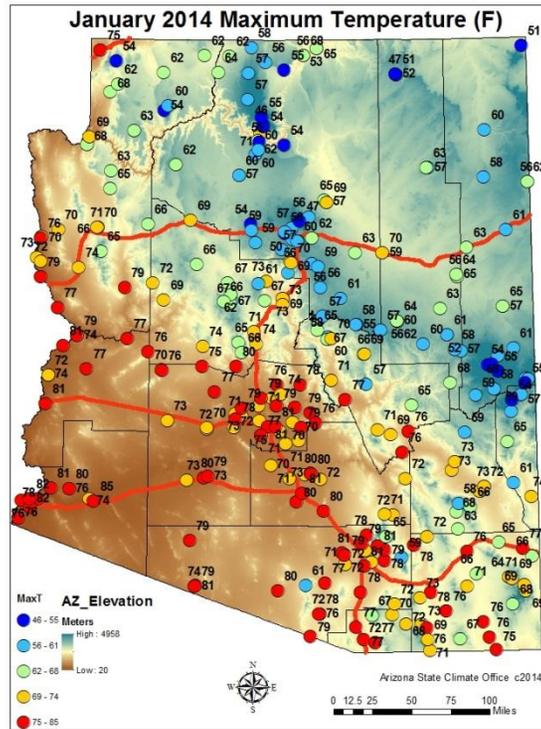
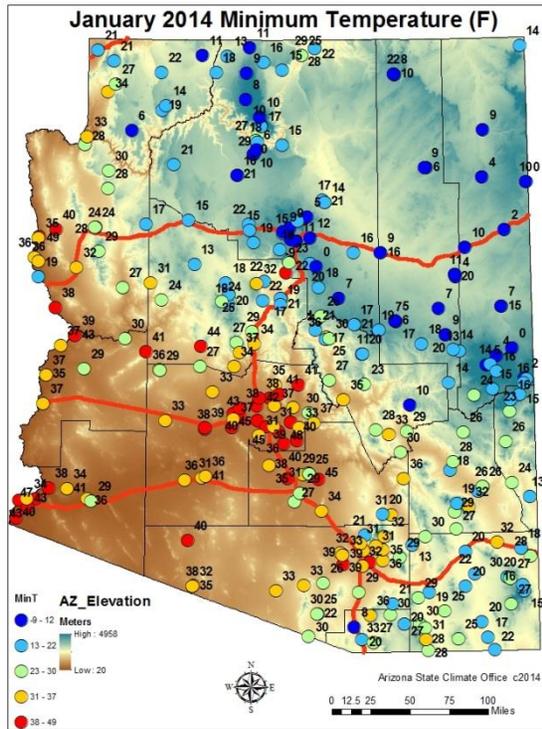
Data are from the National Weather Service and the National Climatic Data Center and are **preliminary**.

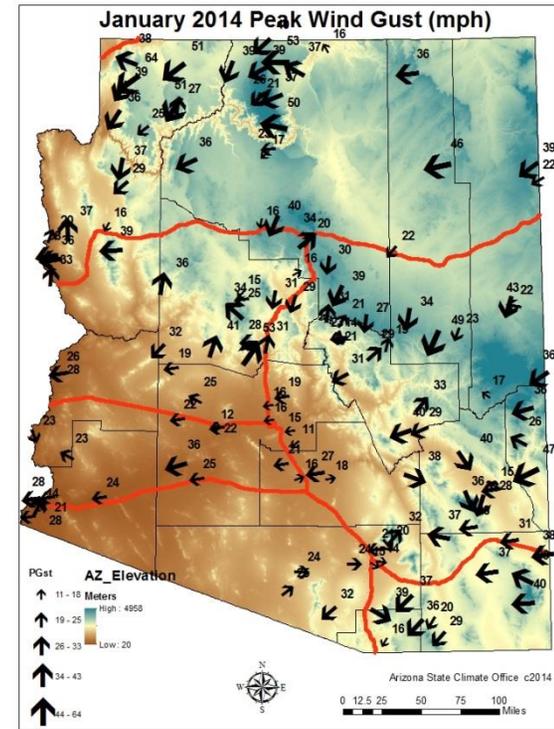
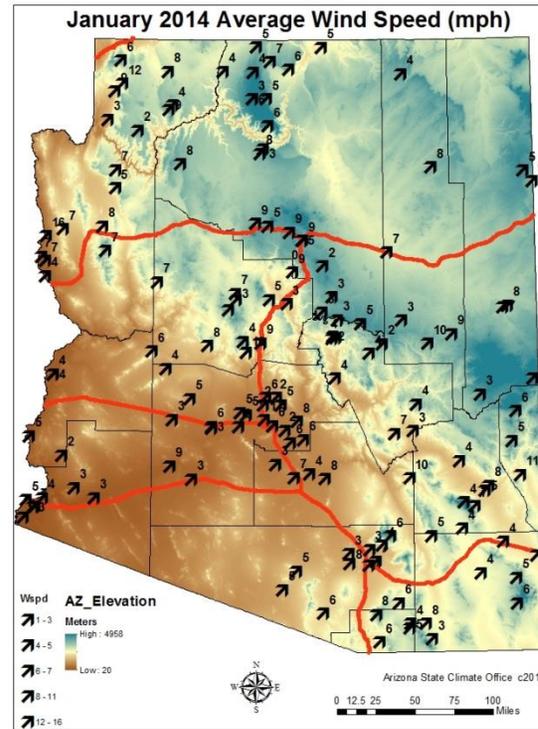
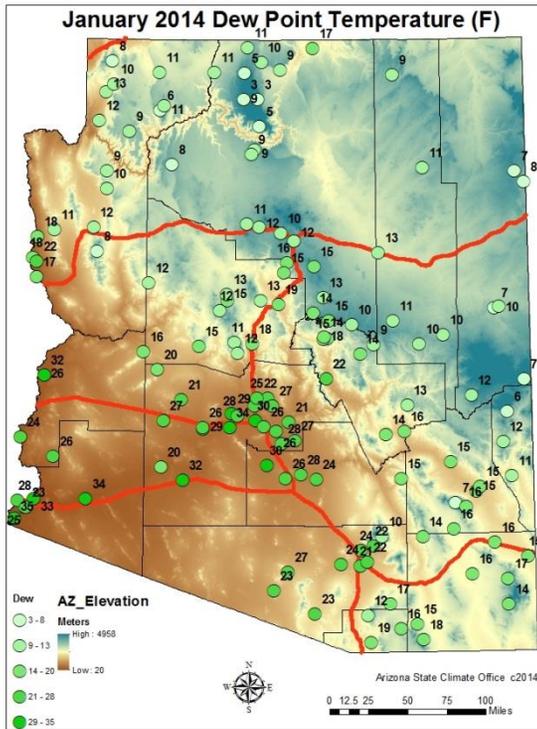
Winds for January:

Day	Phoenix		Flagstaff		Tucson	
	Avg	Max	Avg	Max	Avg	Max
1	3.2	11	8.1	28	5.4	13
2	3.3	16	3.1	16	10.3	29
3	2.6	14	4.5	22	7.2	19
4	3.9	12	8.5	30	3.2	11
5	2.6	13	5.5	19	4	16
6	3.9	18	7.8	21	5.2	23
7	2.9	15	4	23	5.8	19
8	3.8	11	5.2	24	4.9	16
9	3.9	13	6.7	25	7.6	18
10	3.8	12	5.7	22	5	14
11	3.9	13	4.9	22	4.4	16
12	4.8	14	5.4	26	5.5	17
13	3.1	14	2.3	16	5.4	18
14	3.7	12	12.5	55	5.2	17
15	2.3	14	2.4	18	3.9	12
16	4.4	13	10.6	32	6.8	17
17	3.5	16	7.6	25	4.9	14
18	5	14	2.7	19	6.1	17
19	3.8	14	3	19	5.8	18
20	3.3	13	3.1	18	6.8	17
21	4.6	16	4.2	18	11.1	34
22	3.4	14	3.7	23	3.6	16
23	4.3	14	8.1	32	4.5	14
24	10.2	29	8.3	21	14.2	36
25	3.7	15	2.7	20	4.6	20
26	4.4	13	7	21	5	16
27	5.6	19	4.9	21	4.3	20
28	4.3	15	3.3	23	6.3	16
29	4.5	14	5.7	21	5.7	16
30	5.6	13	14.5	34	8.4	23
31	6	25	15.9	37	9.3	31

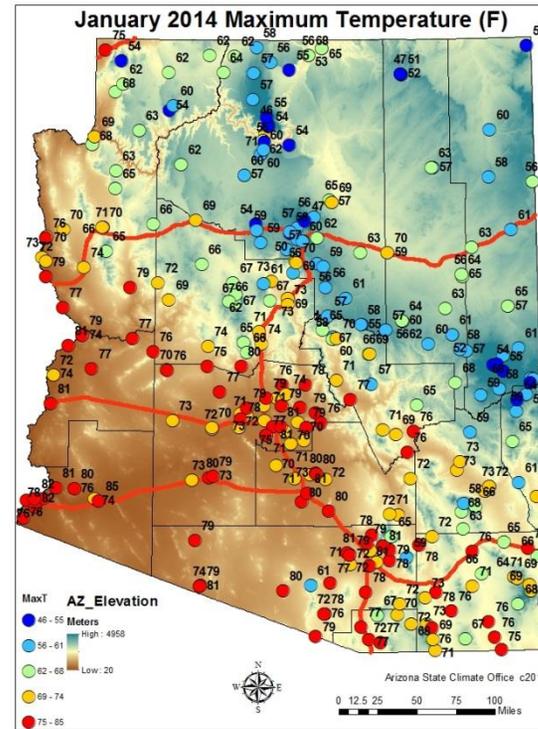
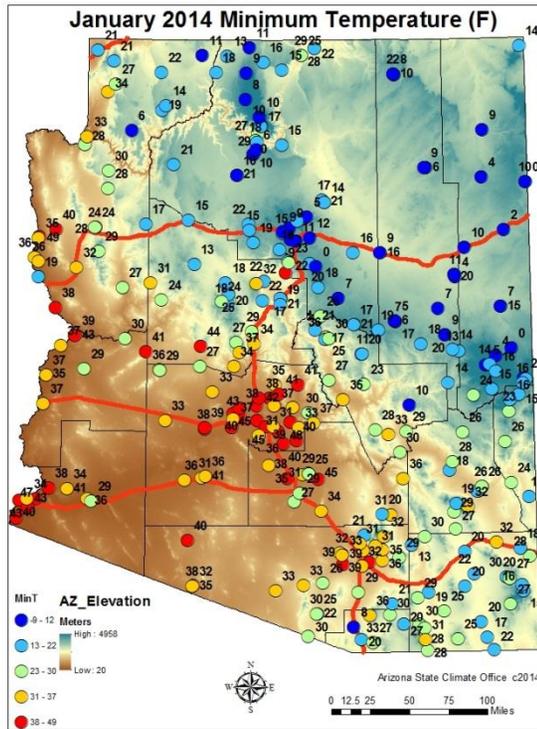
Dew Points for January:**Daily Average Dew Point (°F):**

Day	Phx	Tuc	Flg
1	21	23	5
2	19	26	4
3	19	27	3
4	21	27	1
5	23	21	5
6	25	24	10
7	24	24	7
8	25	21	16
9	25	21	16
10	20	24	8
11	18	15	4
12	10	10	-6
13	6	8	-3
14	4	4	-6
15	9	3	2
16	13	6	9
17	19	13	10
18	22	16	10
19	23	23	10
20	21	27	9
21	18	28	11
22	22	29	13
23	34	36	24
24	41	41	33
25	54	52	37
26	55	48	37
27	45	46	27
28	36	32	17
29	31	27	14
30	32	26	18
31	31	22	21





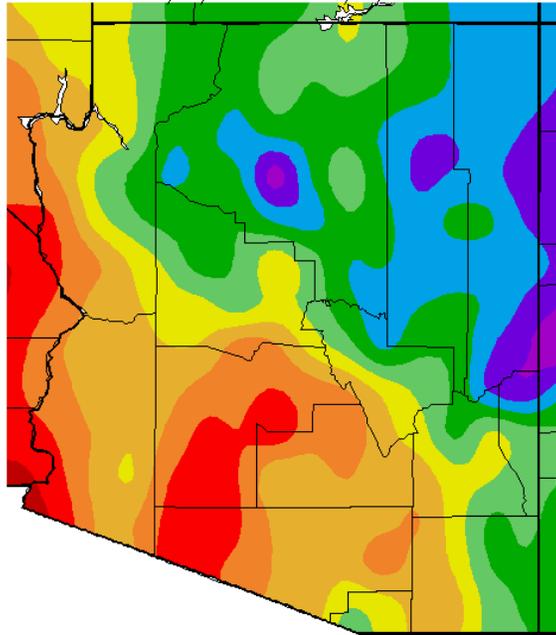
The lowest minimum temperature was -9°F at Flagstaff, and the highest minimum was 49°F at Laughlin. The lowest maximum temperature of 46°F was recorded at Bright Angel, while the highest maximum temperature of 85°F was reported at Tacna. The lowest rainfall amount was $0.00''$ at most stations in Arizona and the highest was $2.90''$ at Snowslide. The lowest dew point was 3°F at Lindbergh Hill and the highest was 35°F at Yuma. The highest peak wind gust was 64 mph at Tweed's Point.



January 2014

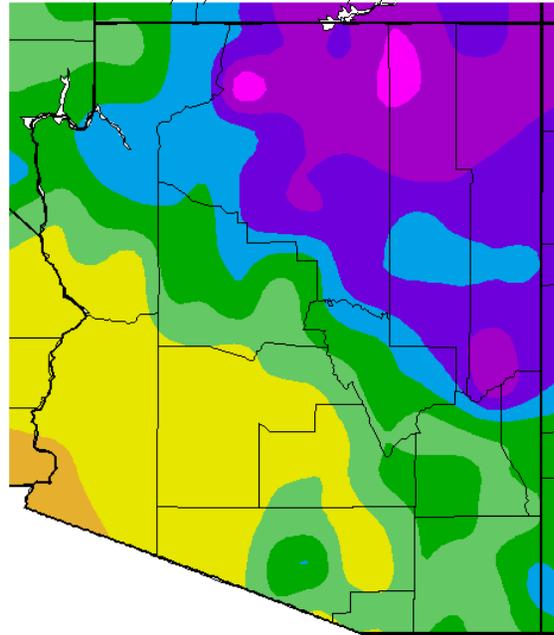
The highest average minimum temperature was 54°F at Oatman, and the lowest average minimum temperature was 8°F at Flagstaff. The highest average maximum temperature was 83°F at Yuma and lowest average maximum temperature was 40°F at Snowslide.

Av. Min. Temperature (deg. F)
1/1/2014 - 2/1/2014



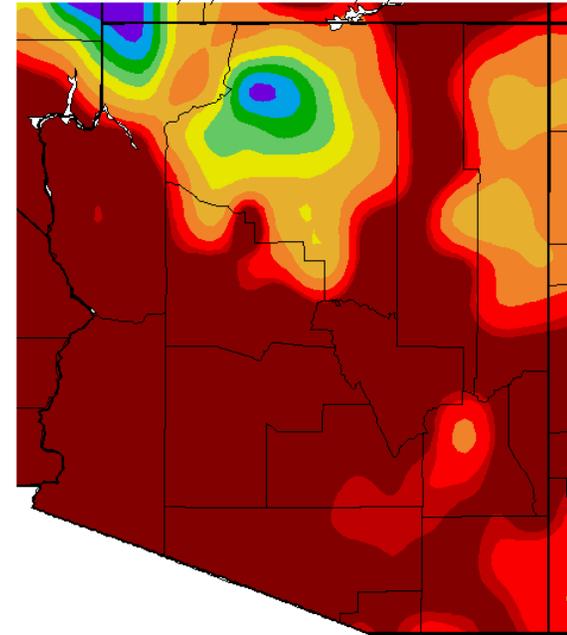
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Av. Max. Temperature (deg. F)
1/1/2014 - 2/1/2014



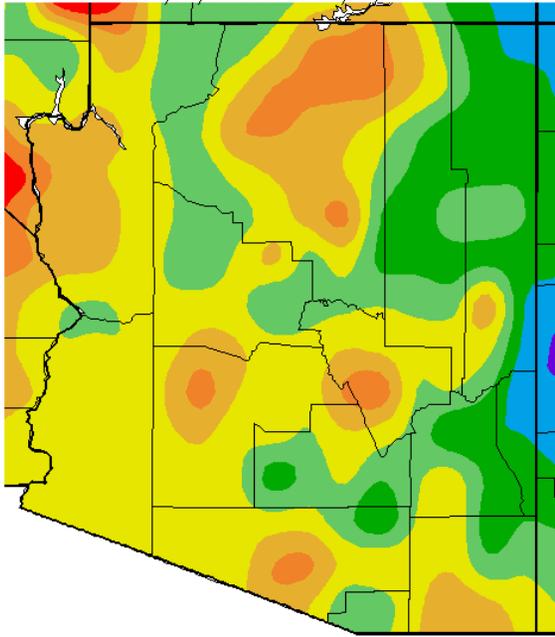
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Total Precipitation (in.)
1/1/2014 - 2/1/2014



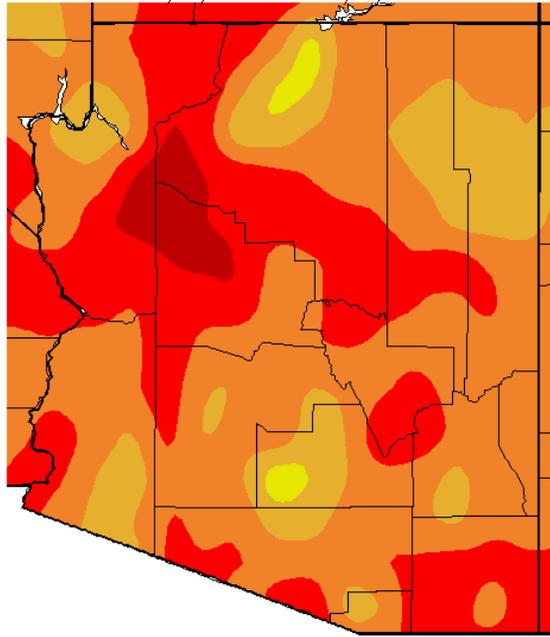
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Av. Min. Temperature dep from Ave (deg. F)
1/1/2014 - 2/1/2014



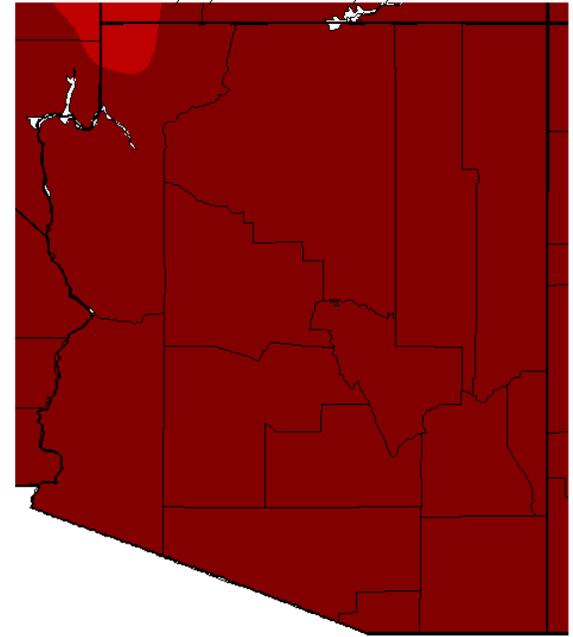
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NOAA Regional Climate Centers

Av. Max. Temperature dep from Ave (deg F)
1/1/2014 - 2/1/2014



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NOAA Regional Climate Centers

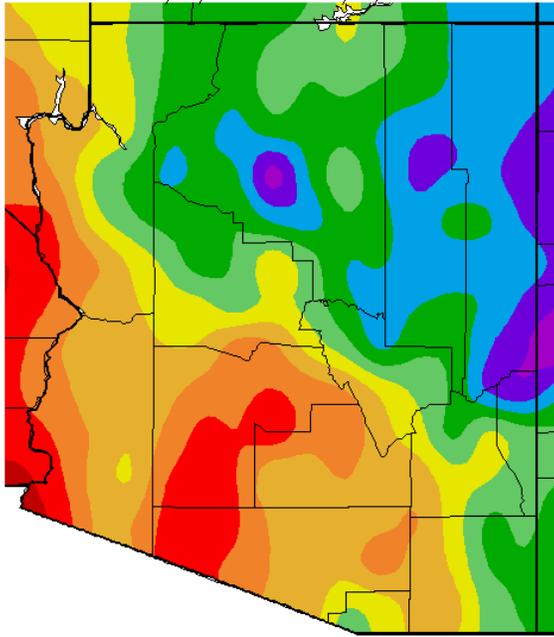
Percent of Average Precipitation (%)
1/1/2014 - 2/1/2014



25 50 70 80 90 100 110 120 130 150 175
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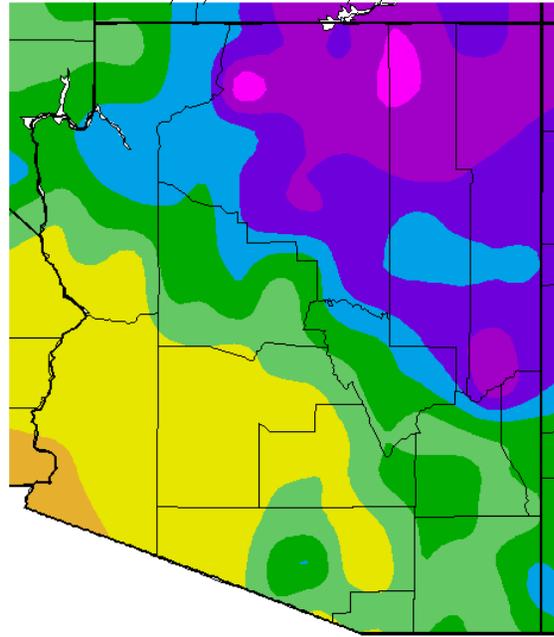
January minimum temperatures were 2 to 4°F warmer than normal in southwestern, western, and central Arizona and 0 to 4°F cooler than normal in eastern Arizona along the New Mexico border. Northern Coconino County has been 2 to 6°F warmer than normal in the past month. Precipitation was less than 25% across the state with most stations receiving no precipitation at all.

Av. Min. Temperature (deg. F)
1/1/2014 - 2/1/2014



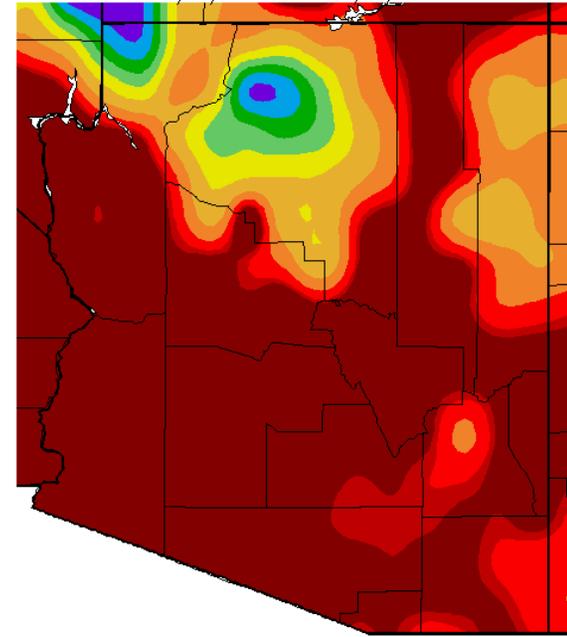
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Av. Max. Temperature (deg. F)
1/1/2014 - 2/1/2014



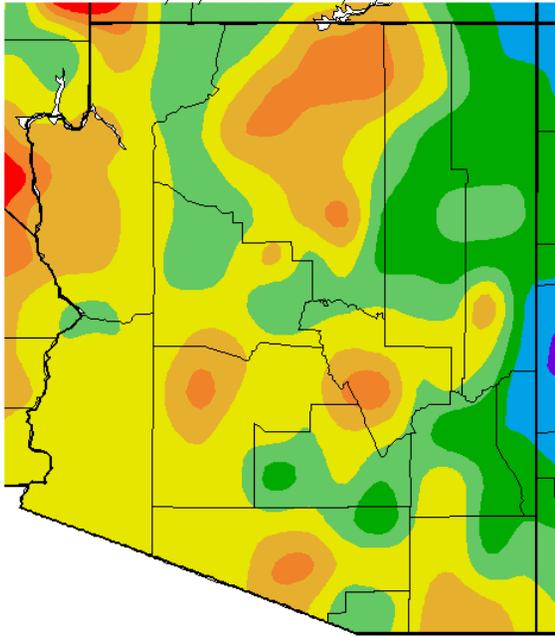
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Total Precipitation (in.)
1/1/2014 - 2/1/2014



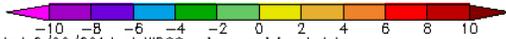
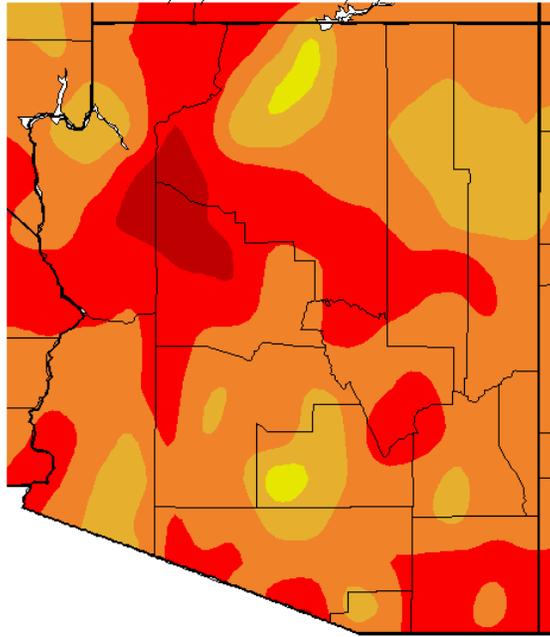
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Av. Min. Temperature dep from Ave (deg. F)
1/1/2014 - 2/1/2014



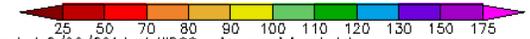
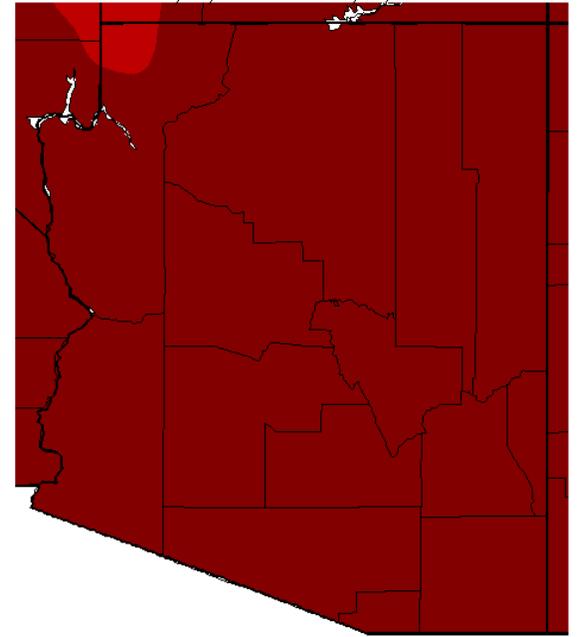
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Av. Max. Temperature dep from Ave (deg F)
1/1/2014 - 2/1/2014



Generated 2/02/2014 at WRCC using provisional data.
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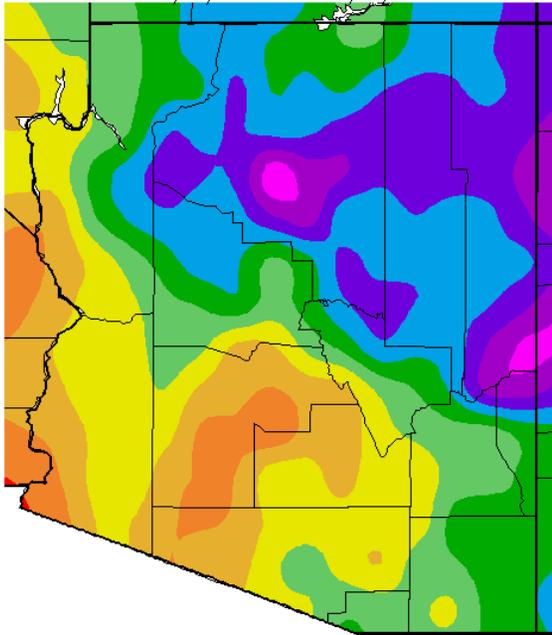
Percent of Average Precipitation (%)
1/1/2014 - 2/1/2014



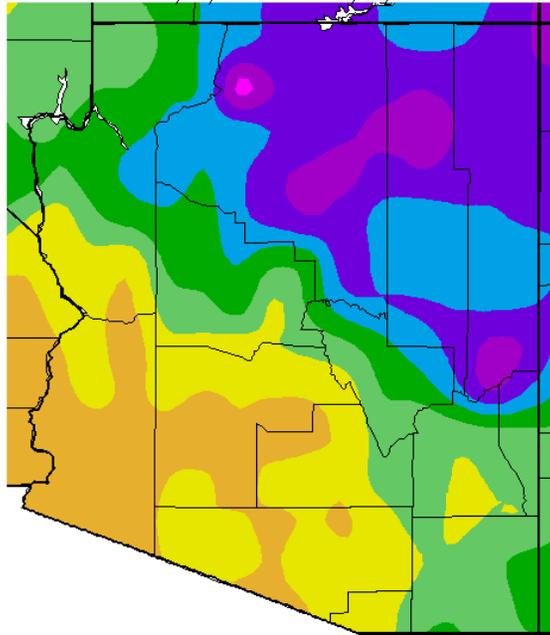
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Calendar Year 2014
Same summary as for January.

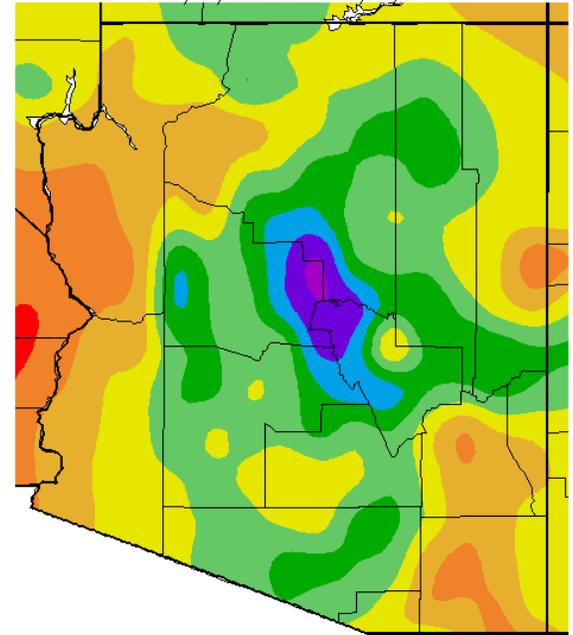
Av. Min. Temperature (deg. F)
10/1/2013 – 2/1/2014



Av. Max. Temperature (deg. F)
10/1/2013 – 2/1/2014



Total Precipitation (in.)
10/1/2013 – 2/1/2014

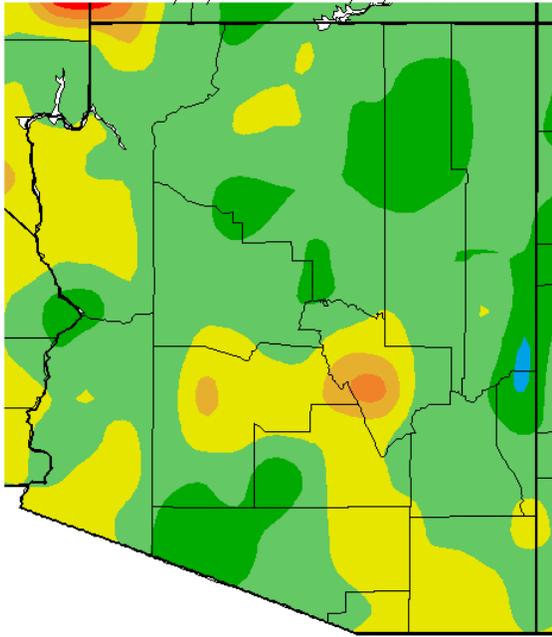


15 20 25 30 35 40 45 50 55 60 65
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45 50 55 60 65 70 75 80 85 90 95
Generated 2/02/2014 at WRCC using provisional data.
NOAA Regional Climate Centers

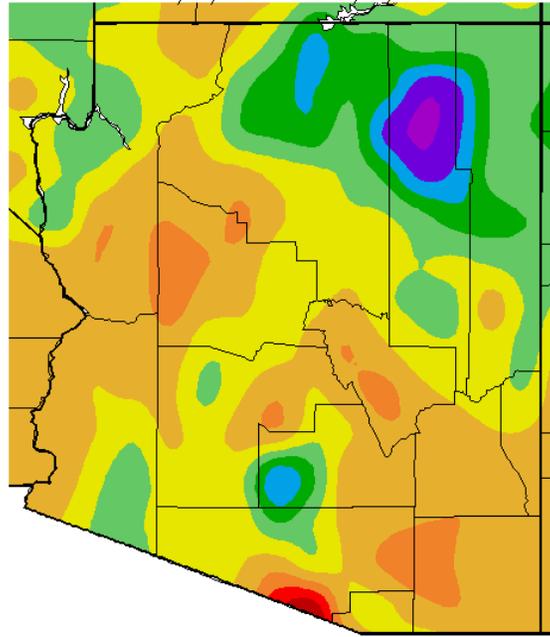
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Av. Min. Temperature dep from Ave (deg. F)
10/1/2013 – 2/1/2014



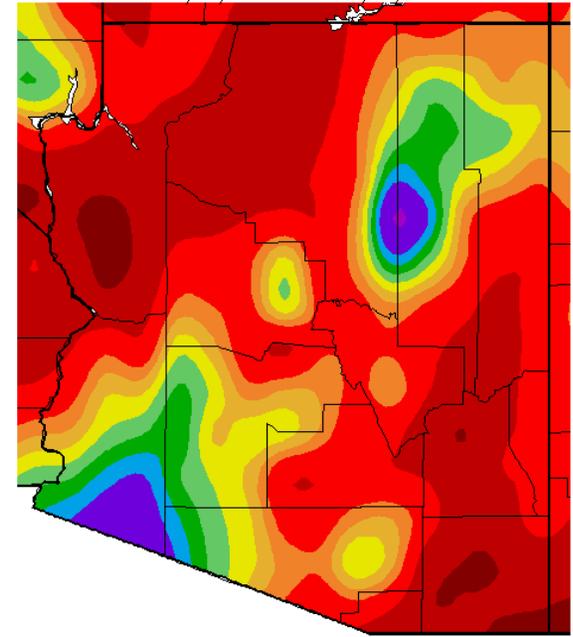
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Av. Max. Temperature dep from Ave (deg F)
10/1/2013 – 2/1/2014



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Percent of Average Precipitation (%)
10/1/2013 – 2/1/2014

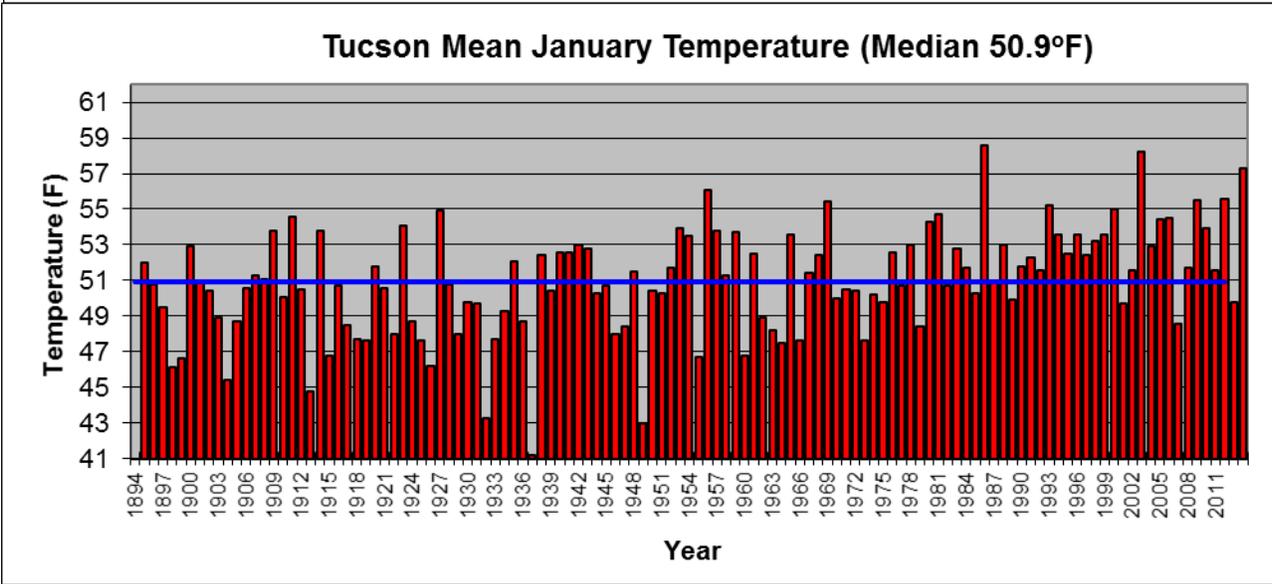
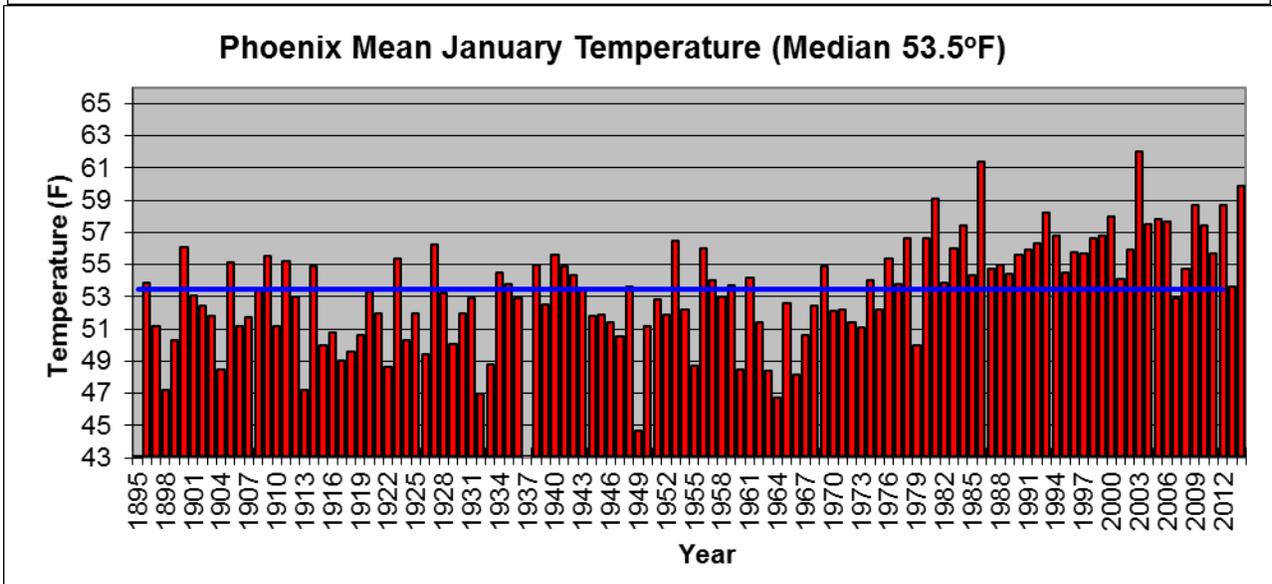
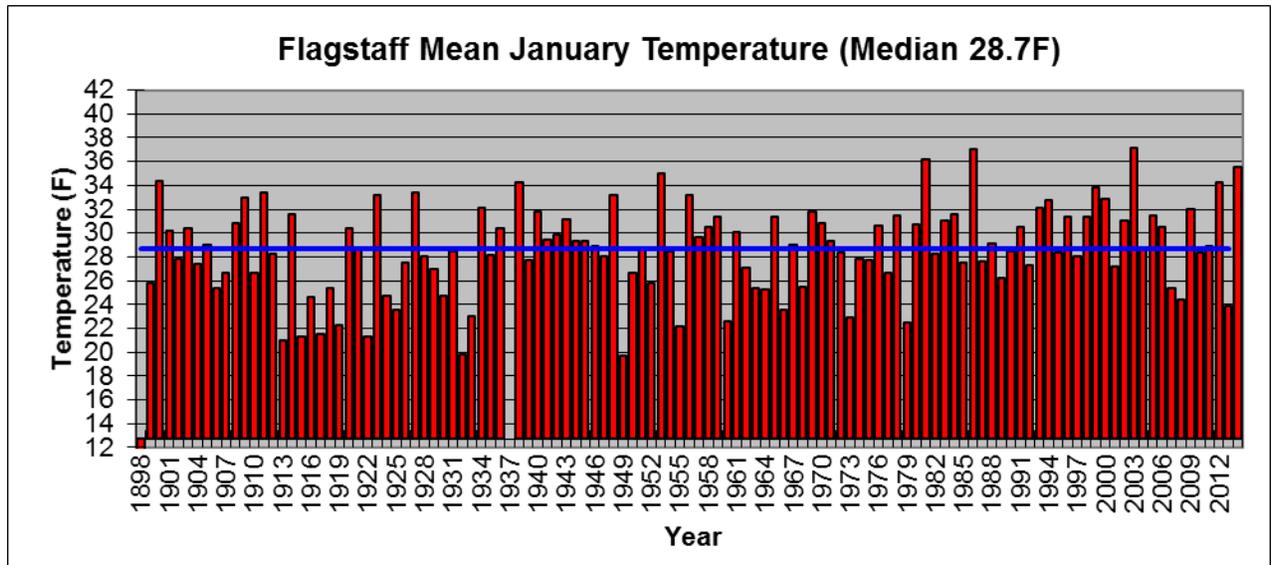


Generated 2/02/2014 at WRCC using provisional data.
NOAA Regional Climate Centers

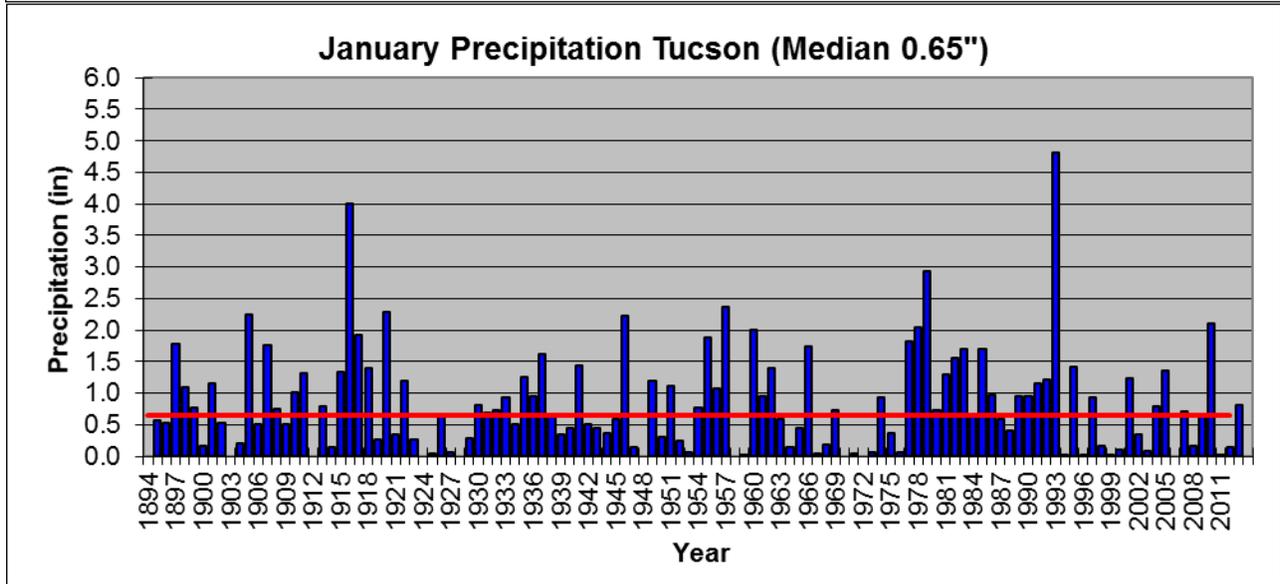
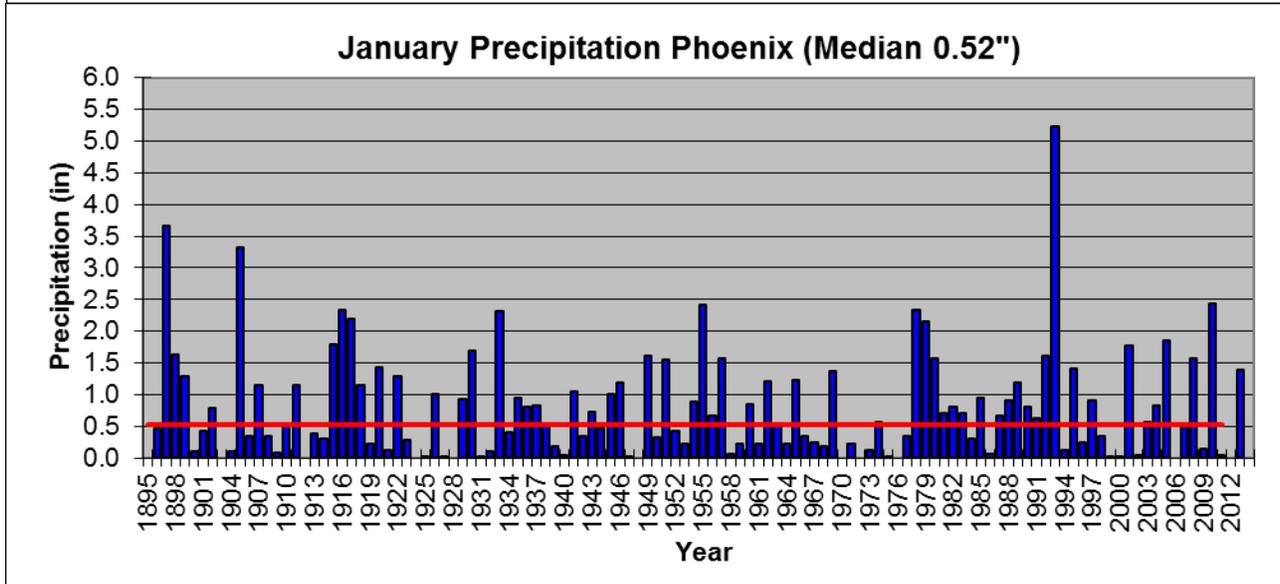
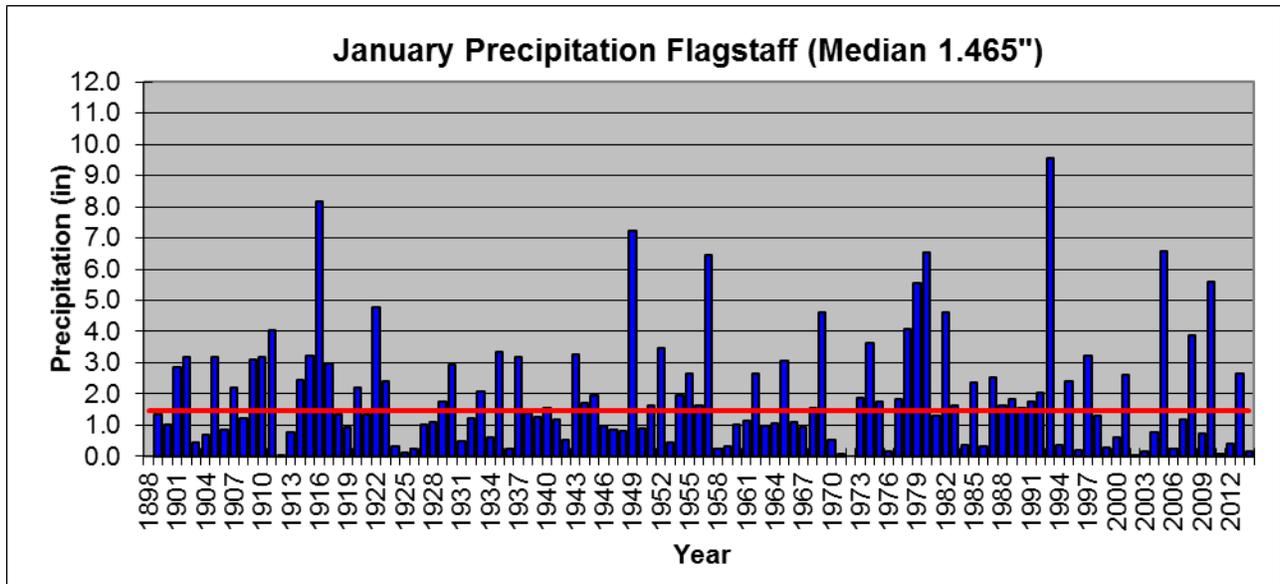
2014 Water Year

Minimum temperatures have been 2° to 4°F cooler than normal across most of the state, but warmer than normal conditions were felt in central Arizona, primarily in Gila, Maricopa, eastern Pinal and Pima counties and western Cochise County. Daytime temperatures have been 0 to 3°F warmer than normal statewide except in western Pinal County and the northeast quarter of the state where temperatures have been 0 to 4°F degrees colder than normal. The dry conditions in January have not changed the pattern of precipitation, but most of the state has fallen further behind our normal precipitation. The only areas with above average precipitation are Yuma County and eastern Coconino and west central Navajo counties.

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

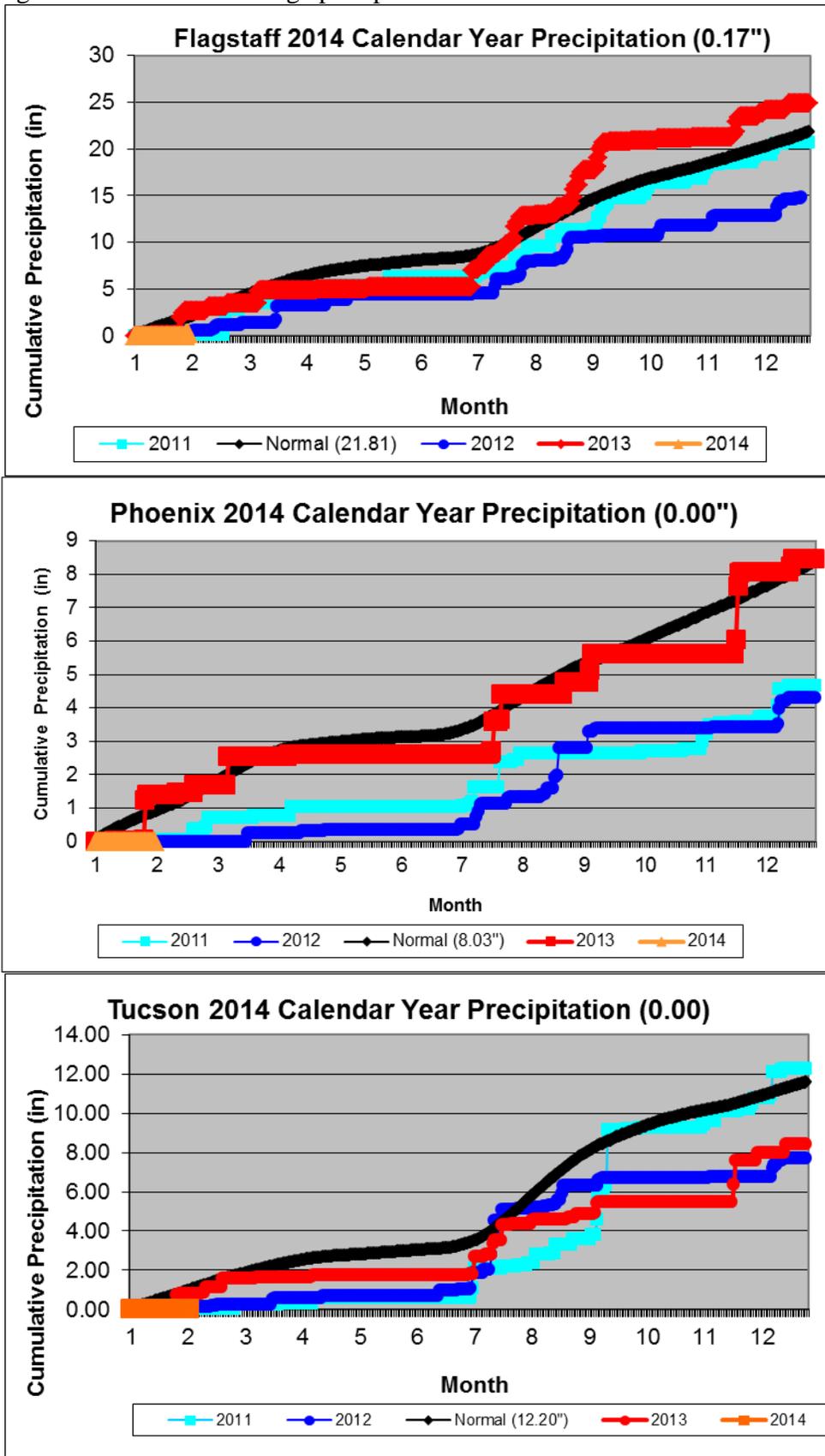


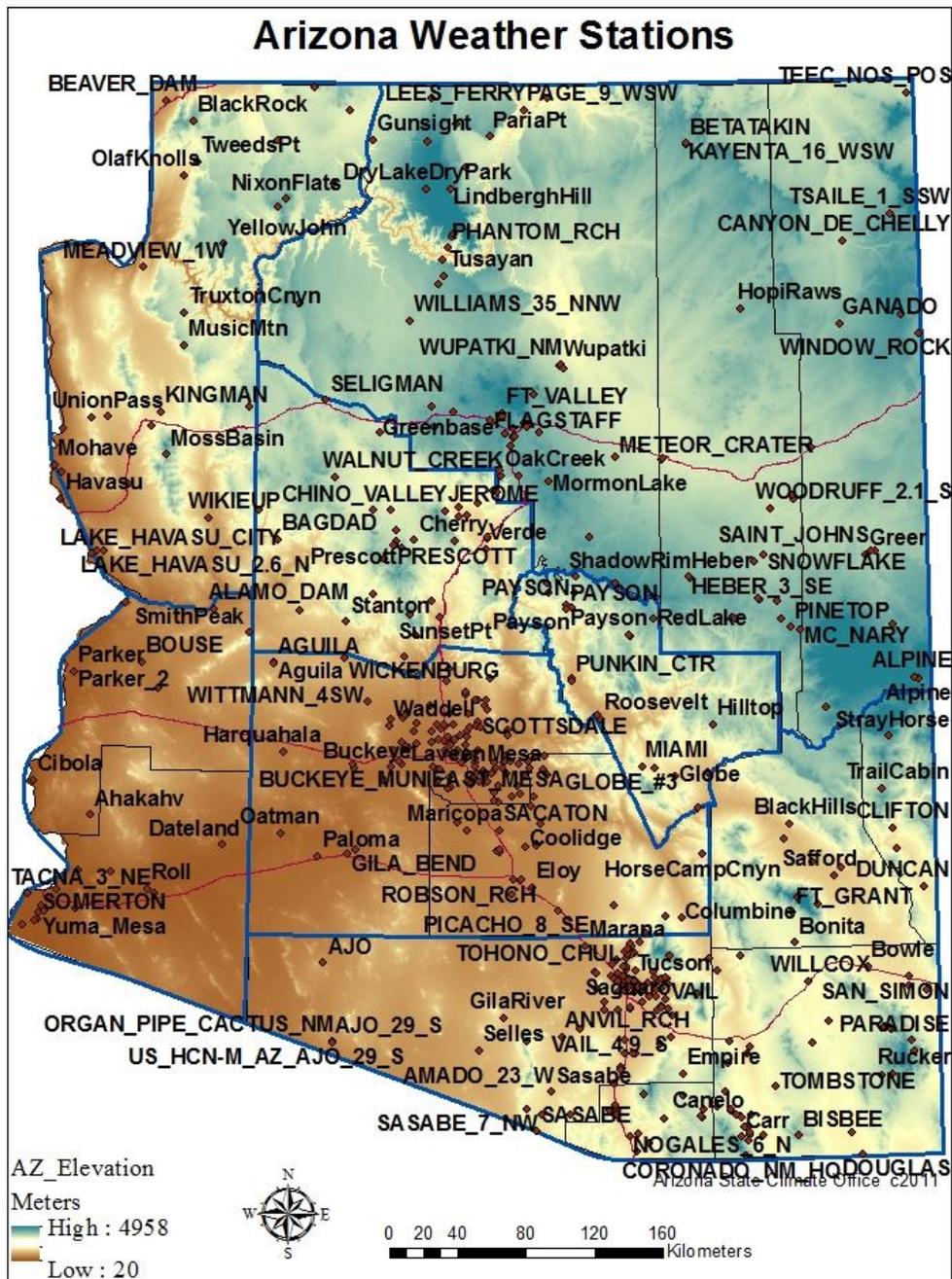
January Mean Precipitation Graphs – Flagstaff, Phoenix, and Tucson 1895-2014:



2014 Cumulative Precipitation Graphs – Flagstaff, Phoenix and Tucson:

All of Arizona is starting 2014 with below average precipitation..





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)