



#### November 2014 Temperature and Precipitation Summary

**November 1<sup>st</sup> – 16<sup>th</sup>:** A strong low pressure center was moving south along the California coast as November began. The system moved across northern Arizona on the 2<sup>nd</sup> and 3<sup>rd</sup>, bringing 0.52” of rain to Flagstaff, 0.42” to Bellemont, and 0.26” to Sedona on the 2<sup>nd</sup> and 0.57” of rain at Douglas on the 3<sup>rd</sup>. High temperatures were in the upper 80s on the 2<sup>nd</sup> throughout central and southern Arizona, but dropped to the upper 70s on the 3<sup>rd</sup> as the core of the low pressure system passed through. Low temperatures dropped from near 30°F on the 2<sup>nd</sup> to the upper teens on the 3<sup>rd</sup>. By the 5<sup>th</sup>, high pressure returned to the southwestern U.S. and remained until the 15<sup>th</sup>. During that time, high temperatures reached the upper 80s and lower 90s in the warmest areas of the southwest deserts, and low temperatures were in the upper teens and lower 20s at the highest elevations. On the 15<sup>th</sup> and 16<sup>th</sup> another low pressure system moved through Nevada and Utah, brushing across northern Arizona, but bringing light rainfall to Saint Johns, Show Low, Safford, Window Rock, Springerville, Petrified Forest, and Grand Canyon, and snow at Bellemont and Navajo National Monument.

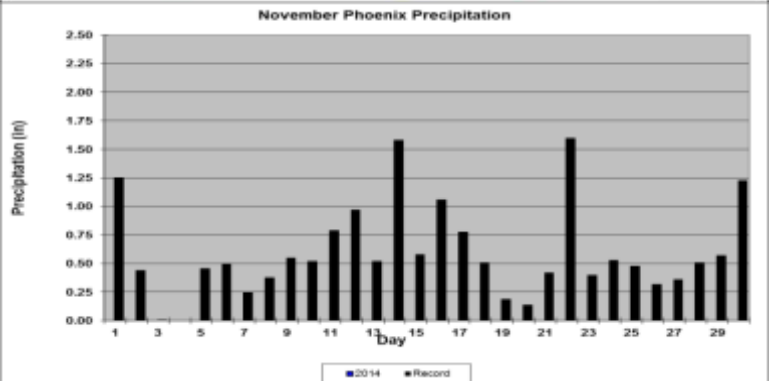
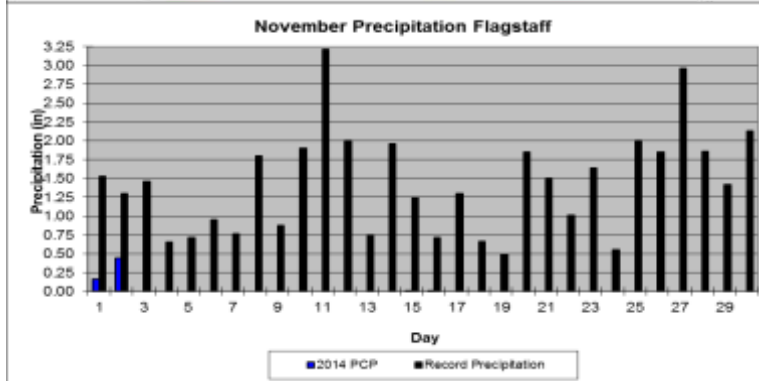
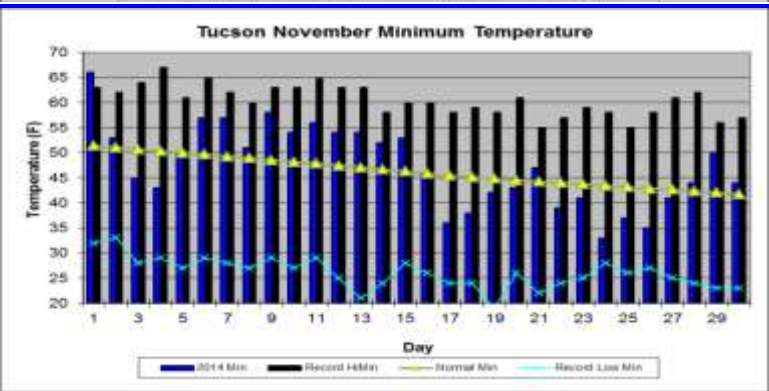
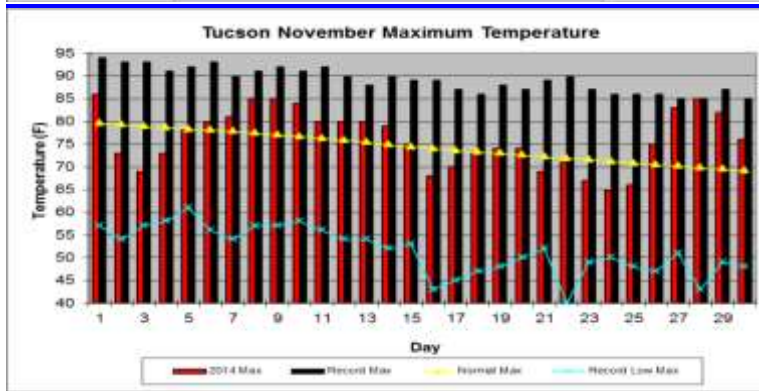
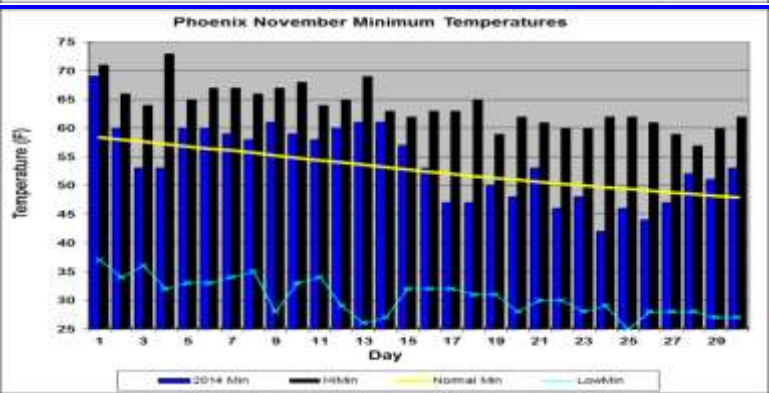
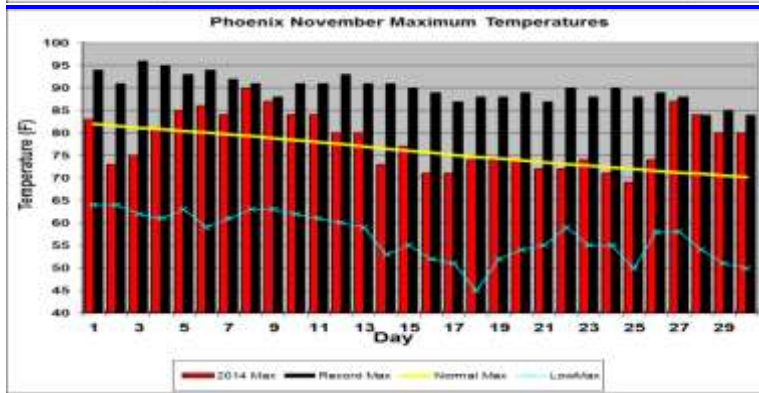
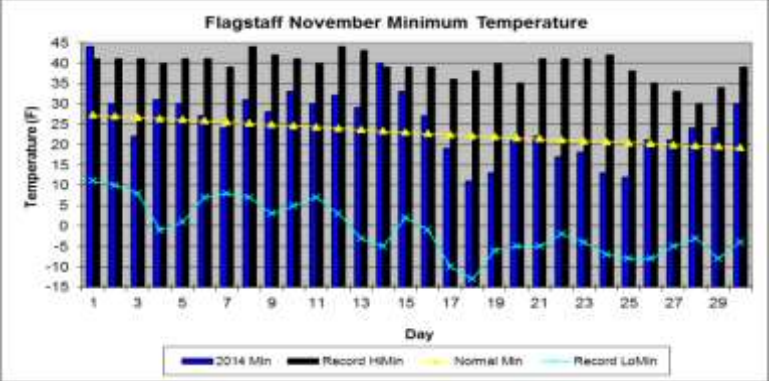
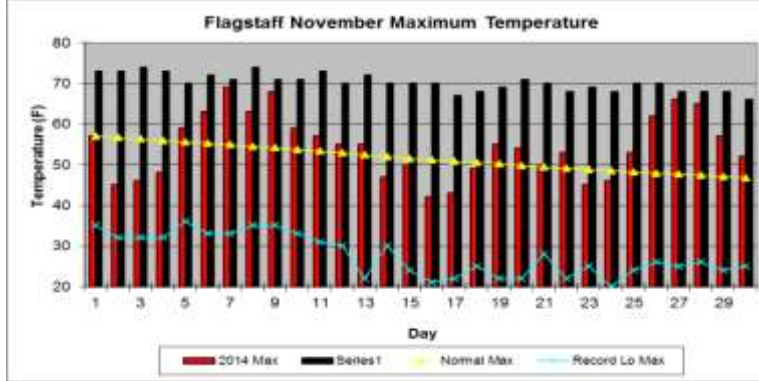
**November 17<sup>th</sup> – 30<sup>th</sup>:** High pressure returned on the 17<sup>th</sup> and remained until the 21<sup>st</sup>. However, temperatures did not return to their previous warmer than normal condition. Daytime highs remained in the mid to upper 70s along the lower Colorado River and the southwestern deserts. Nighttime temperatures dipped into the single digits and lower teens at the highest elevations. On the 22<sup>nd</sup> and 23<sup>rd</sup> very light rain fell with 0.04” at Nogales on the 22<sup>nd</sup> and 0.03” at Navajo National Monument on the 23<sup>rd</sup>. The system did not have much moisture, but cold air followed, dropping nighttime temperatures to 2°F on the 24<sup>th</sup> and 25<sup>th</sup> at Grand Canyon Airport, 6°F at Bellemont, 3°F at Springerville, and 4°F at Window Rock. Daytime temperatures remained in the mid-70s in the warmer desert locations, and started to rebound by the 26<sup>th</sup>. The rest of the month remained dry statewide, with daytime temperatures warming into the mid to upper 80s in the deserts and nighttime temperatures getting into the mid-teens.

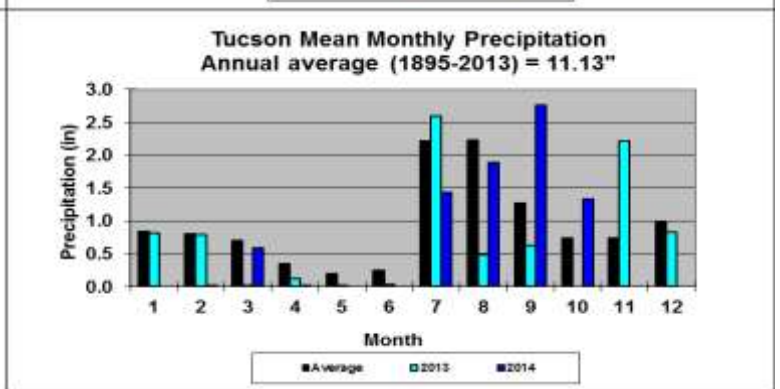
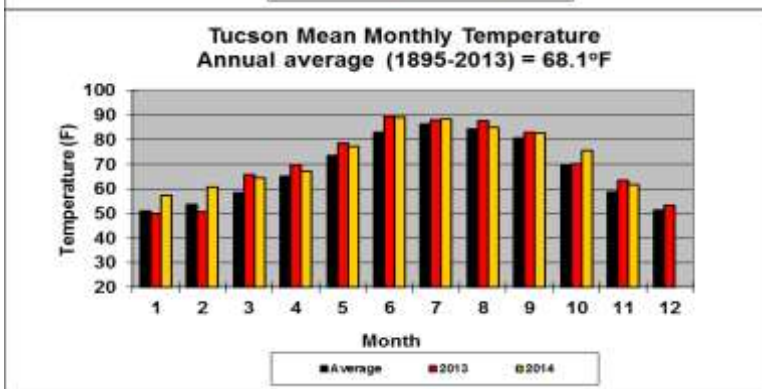
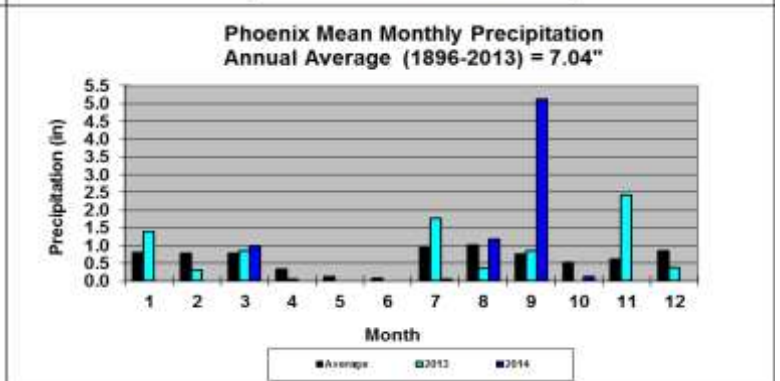
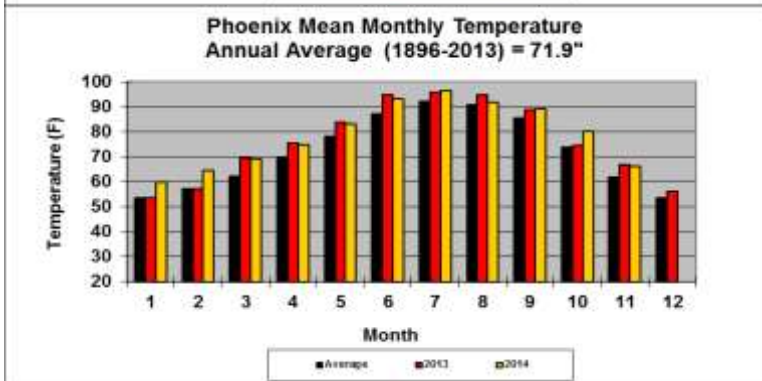
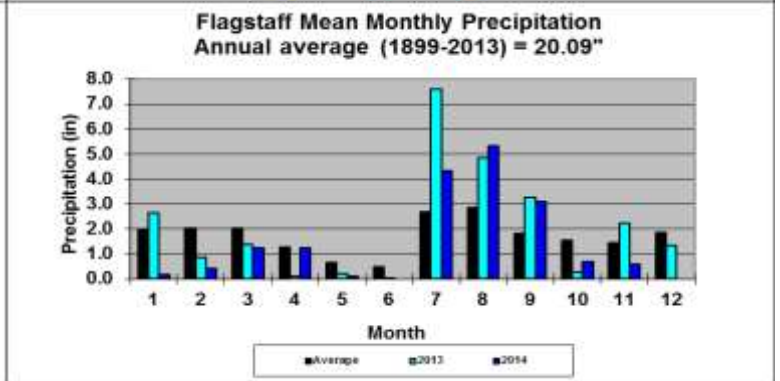
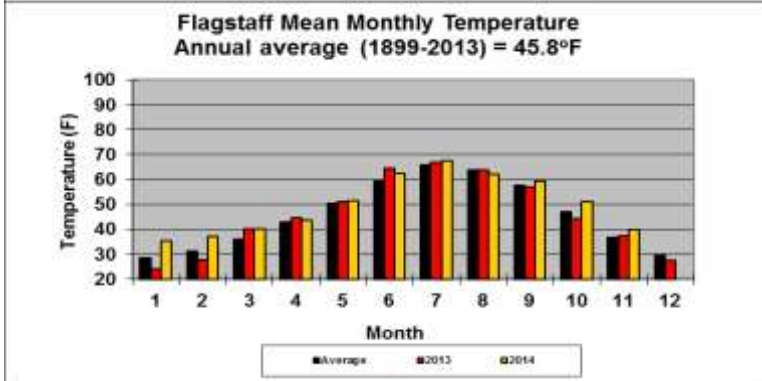
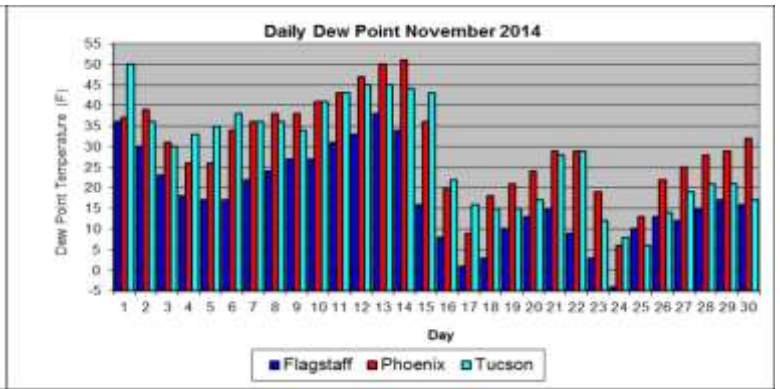
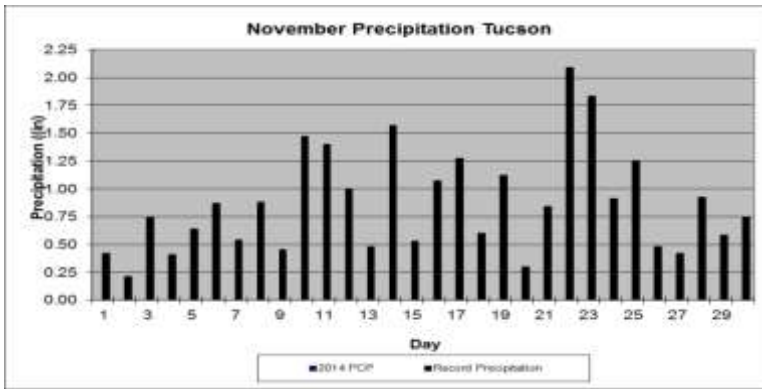
**In This Issue:** Overview of November, graphs of the November daily maximum and minimum temperatures, precipitation, mean daily dew points for Flagstaff, Phoenix, and Tucson; November climate statistics, maps of mean monthly maximum and minimum temperatures, precipitation, dew points, wind speeds for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

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





## FLAGSTAFF CLIMATE STATISTICS

November 2014

This November was the 12<sup>st</sup> warmest and had no significant ranking for precipitation.

Avg Max Temp (F) 54.4 Normal 50.5  
 Avg Min Temp (F) 25.2 Normal 22.9  
 Avg Mean Temp (F) 39.8 Normal 36.7  
 Departure from Normal (F) +3.1

Highest Monthly Avg Temp (F) 44.9 in 1949  
 Lowest Monthly Avg Temp (F) 29.6 in 1972

Highest Temp this month (F): 69 on 7<sup>th</sup>  
 Lowest Temp this month (F): 11 on 18<sup>th</sup>

Record High (F): 74 on 11/03/1977, 11/08/1973  
 Record Low (F): -13 on 11/18/1958

Temperature or precipitation records this month:  
 1<sup>st</sup> HiMin 44 set, previous record 41 in 2003  
 14<sup>th</sup> HiMin 40 set, previous record 39 in 1962

Flagstaff Number of Days of:

Minimum Temp 30°F or higher 11  
 Minimum Temp 20°F or lower 7  
 Maximum Temp 60°F or higher 7

Maximum Temp 45°F or lower 4

Heating Degree Days 746 Normal 849  
 Cooling Degree Days 0 Normal 0  
 Degree base 65°F

Total November Precipitation 0.60"  
 Normal November Precipitation 1.76"  
 Departure from normal -1.16"  
 Greatest 24-Hr Precipitation 0.58" on 11/01-02  
 Total Precipitation Year-to-Date 17.23"  
 Departure from Normal -2.76"

Number of Days:

Clear 25  
 Partly Cloudy 4  
 Cloudy 1

Greatest November Precipitation 7.10" in 1905  
 Least November Precipitation 0 1916, 1932 and 6 other years

Average Wind Speed 8.3 mph  
 Highest Peak Gust 47 mph from 40° on 16<sup>th</sup>

## PHOENIX CLIMATE STATISTICS

November 2014

This November was tied for 12<sup>th</sup> warmest with two other years and tied for driest with 24 other years.

Avg Max Temp(F) 78.3 Normal 75.5  
 Avg Min Temp(F) 53.9 Normal 52.7  
 Avg Mean Temp (F) 66.1 Normal 64.1  
 Departure from Normal (F) +2.0

Highest Monthly Avg Temp (F) 70.0 in 2007  
 Lowest Monthly Avg Temp (F) 55.0 in 1922

Highest Temp this month (F): 90 on 8<sup>th</sup>  
 Lowest Temp this month (F): 42 on 24<sup>th</sup>

Record High (F): 96 on 11/03/2009, 11/1-2/1924  
 Record Low (F): 27 on 11/23/1931

Temperature or precipitation records this month:  
 28<sup>th</sup> HiMax 84 tied, first set in 1950

Phoenix Number of Days of:

Minimum Temp 50°F or lower 10  
 Minimum Temp 60°F or higher 8  
 Maximum Temp 75°F or lower 14  
 Maximum Temp 85°F or higher 5

Heating Degree Days 54 Normal 97  
 Cooling Degree Days 92 Normal 70  
 Degree base 65°F

Total November Precipitation 0.00"  
 Normal November Precipitation 0.65"  
 Departure from normal -0.65"

Greatest 24-Hr Precipitation 0.00"  
 Total Precipitation Year-to-Date 7.46"  
 Departure from Normal +0.31"

Greatest November Precipitation 3.61" in 1905  
 Least November Precipitation 0.00" in 2005,  
 1999, 1980 and 22 other years

Number of Days:  
 Clear 22  
 Partly Cloudy 8  
 Cloudy 0

Average Wind Speed 5.6 mph  
 Highest Peak Gust 30 mph from 300° on 23<sup>rd</sup>

TUCSON CLIMATE STATISTICS  
 November 2014

This November was the 20<sup>th</sup> warmest and tied as  
 driest with 22 other years.

Avg Max Temp(F) 76.2 Normal 73.5  
 Avg Min Temp(F) 47.3 Normal 46.1  
 Avg Mean Temp(F) 61.8 Normal 59.8  
 Departure from Normal (F) +2.0

Total November Precipitation 0.00"  
 Normal November Precipitation 0.57"  
 Departure from normal -0.57"  
 Greatest 24-Hr Precipitation 0.00"  
 Total Precipitation Year-to-Date 8.02"  
 Departure from Normal -2.64"

Highest Monthly Avg Temp (F) 65.7 in 2007  
 Lowest Monthly Avg Temp (F) 50.9 in 1911

Greatest November Precipitation 4.61" in 1905  
 Least November Precipitation 0.00" in 2005,  
 1999, 1980, and 20 other years

Highest Temp this month (F): 86 on 1<sup>st</sup>  
 Lowest Temp this month (F): 33 on 24<sup>th</sup>

Number of Days:  
 Clear 26  
 Partly Cloudy 0  
 Cloudy 0

Record High (F): 93 on 11/03/2009, 11/06/1999,  
 and 11/06/1934  
 Record Low (F): 19 on 11/19/1921

Average Wind Speed 7.1 mph  
 Highest Peak Gust 33 mph from 110° on 9<sup>th</sup>

Temperature or precipitation records this month:  
 1<sup>st</sup> HiMin 66 set, previous record 63 in 1990  
 28<sup>th</sup> HiMax 85 tied, first set in 1945

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

Tucson Number of Days of:  
 Minimum Temp 40°F or lower 6  
 Minimum Temp 55°F or higher 5  
 Maximum Temp 70°F or lower 7  
 Maximum Temp 85°F or higher 4

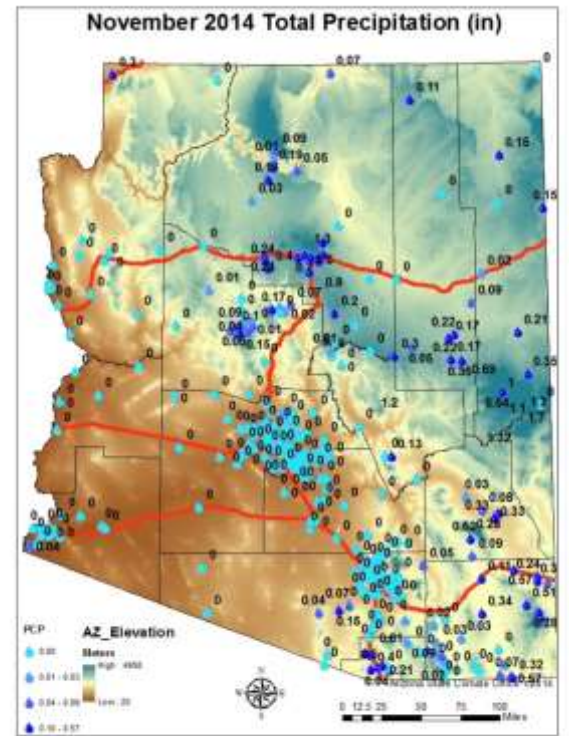
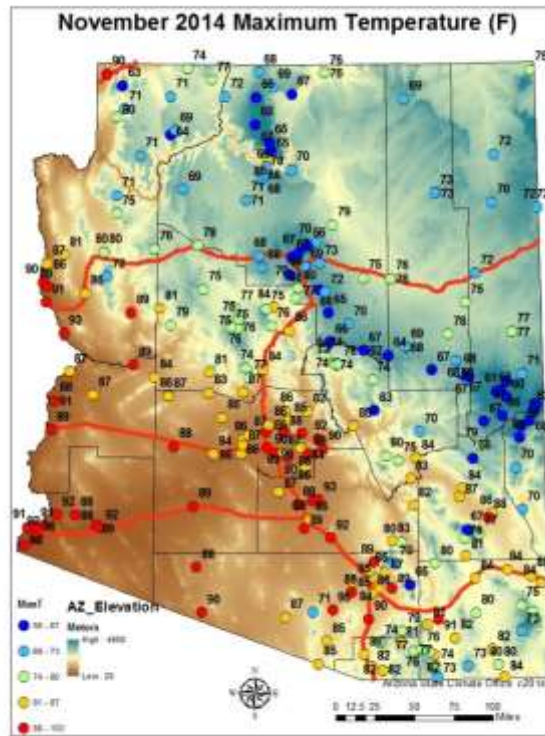
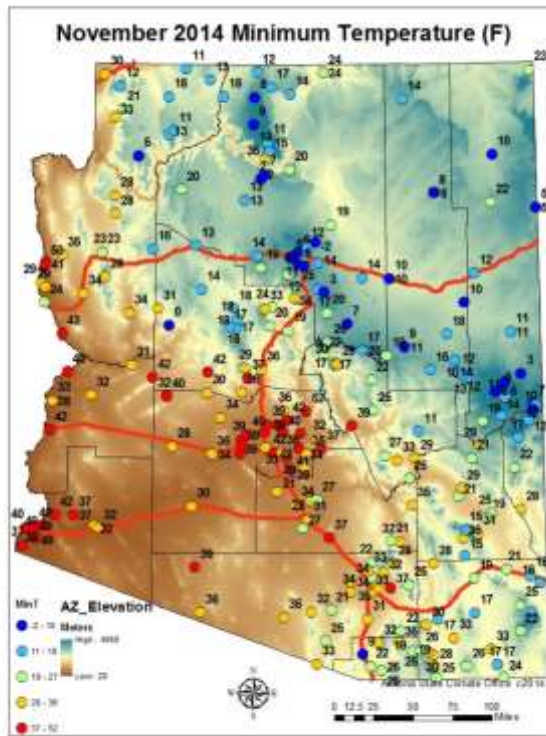
Heating Degree Days 136 Normal 182  
 Cooling Degree Days 0 Normal 0  
 Degree base 65°F

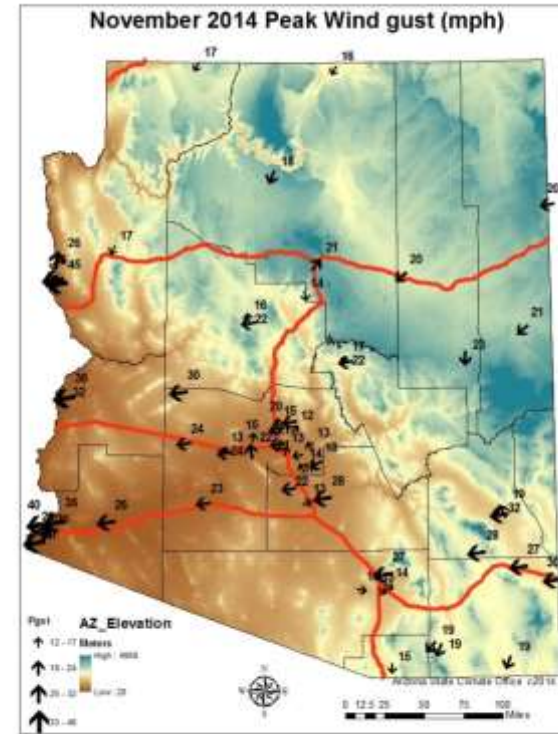
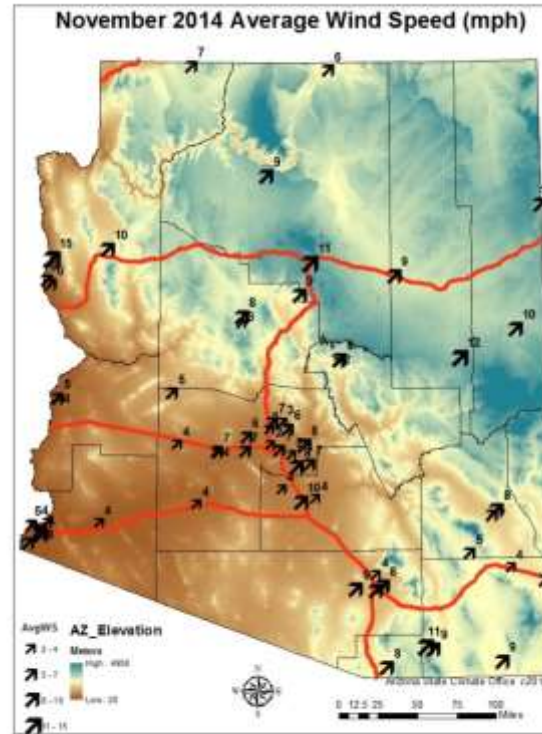
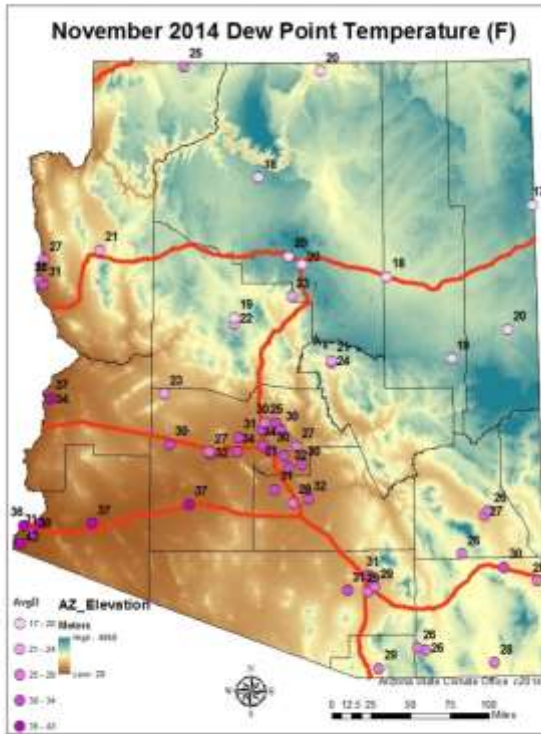
**Wind Speeds:**

Day	Phoenix		Flagstaff		Tucson	
	Avg	Max	Avg	Max	Avg	Max
1	6.7	24	18.8	47	8.6	30
2	8.8	24	11	34	7.4	26
3	6.1	22	6	26	5.3	19
4	6.6	25	14.5	34	6.1	21
5	6.2	25	11	28	7.4	26
6	7.4	21	5.1	19	13.4	31
7	4.8	14	2.7	19	8.8	27
8	3.6	12	6.8	25	11.4	33
9	4	20	5.7	22	8.2	33
10	5.7	18	11.6	55	8	24
11	5.9	15	11.1	32	7.2	21
12	5.3	20	8.5	30	5.5	22
13	5.8	19	9.9	36	4.8	15
14	5.6	21	9.8	25	7.5	22
15	6.1	17	12.6	33	4.9	19
16	8.3	30	16.8	47	7.1	23
17	5.7	24	9.7	29	5.4	25
18	5.4	21	3.5	19	6.8	24
19	3	18	4.2	21	5.5	16
20	5.2	12	3.7	22	6.7	20
21	4.5	22	1.6	15	7.5	27
22	5.4	13	6.8	36	5.7	14
23	6.8	30	8.6	36	6.2	25
24	6.8	29	10.2	39	6	22
25	4.9	17	4.4	25	5	15
26	4.4	11	3.4	19	5.6	24
27	2.8	11	2.3	15	8.9	27
28	3.7	14	6	23	6.1	18
29	5.1	14	10.1	35	7.7	20
30	7.3	22	13.8	40	7.7	21

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

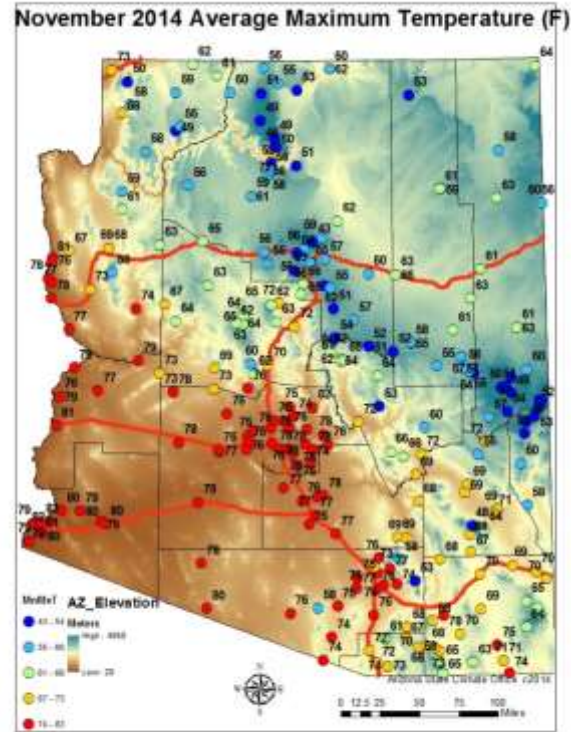
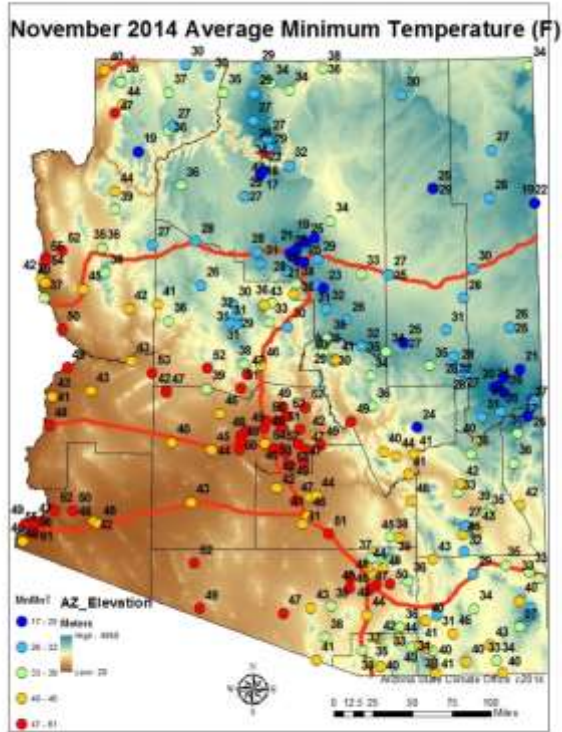
Day	Phx	Tuc	Flg
1	37	50	36
2	39	36	30
3	31	30	23
4	26	33	18
5	26	35	17
6	34	38	17
7	36	36	22
8	38	36	24
9	38	34	27
10	41	41	27
11	43	43	31
12	47	45	33
13	50	45	38
14	51	44	34
15	36	43	16
16	20	22	8
17	9	16	1
18	18	15	3
19	21	15	10
20	24	17	13
21	29	28	15
22	29	29	9
23	19	12	3
24	6	8	-4
25	13	6	10
26	22	14	13
27	25	19	12
28	28	21	15
29	29	21	17
30	32	17	16





The lowest minimum temperature was  $-2^{\circ}\text{F}$  at Sunset Crater and the highest minimum was  $52^{\circ}\text{F}$  at Bartlett Dam. The lowest maximum temperature of  $56^{\circ}\text{F}$  was recorded at Snowslide Canyon, while the highest maximum temperature of  $103^{\circ}\text{F}$  was reported at Yuma. The lowest rainfall amount was  $0.00''$  at many stations in Arizona, especially in the southwest and the highest was  $1.70''$  at Hannagan Meadow. The lowest dew point was  $17^{\circ}\text{F}$  at Window Rock and the highest was  $43^{\circ}\text{F}$  at Yuma. The highest average wind speed was 15 mph at Laughlin. The highest peak wind gust was 46 mph at Mohave Airport.

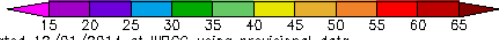
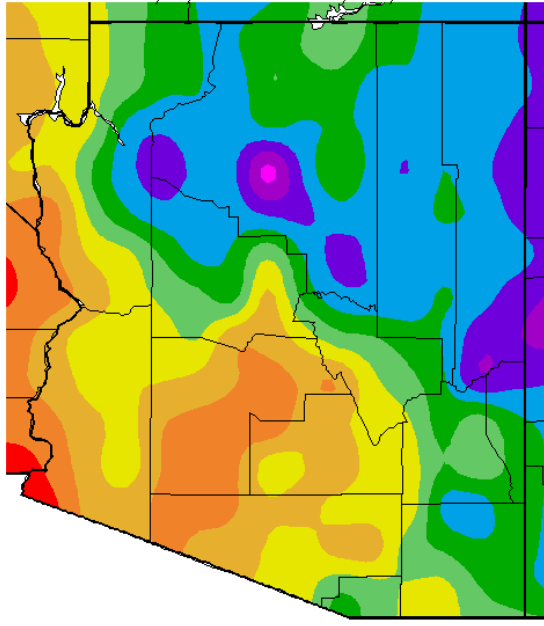




November 2014

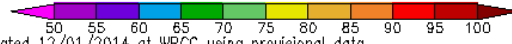
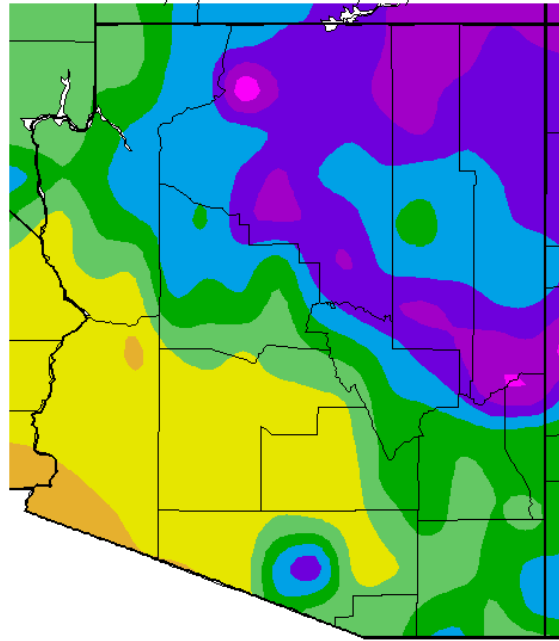
The highest average minimum temperature was 61°F at Yuma and the lowest average minimum temperature was 17°F at Grand Canyon Airport. The highest average maximum temperature was 83°F at Yuma and lowest average maximum temperature was 43°F at Snowslide Canyon.

Av. Min. Temperature (deg. F)  
11/1/2014 - 11/30/2014



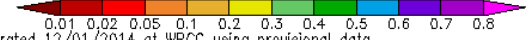
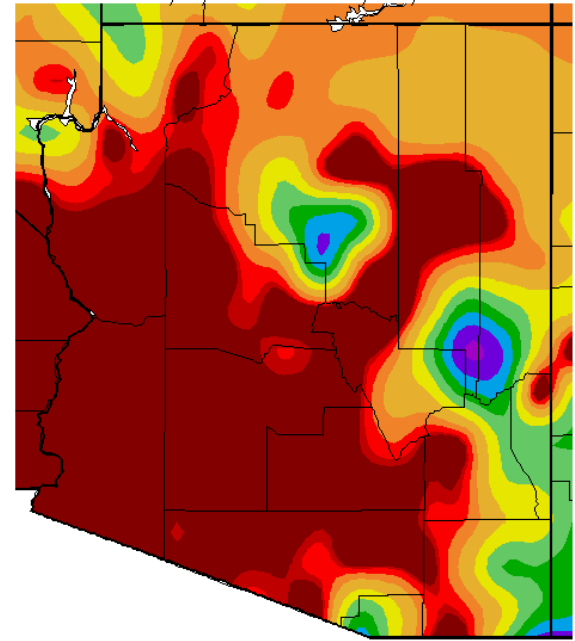
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NOAA Regional Climate Centers

Av. Max. Temperature (deg. F)  
11/1/2014 - 11/30/2014



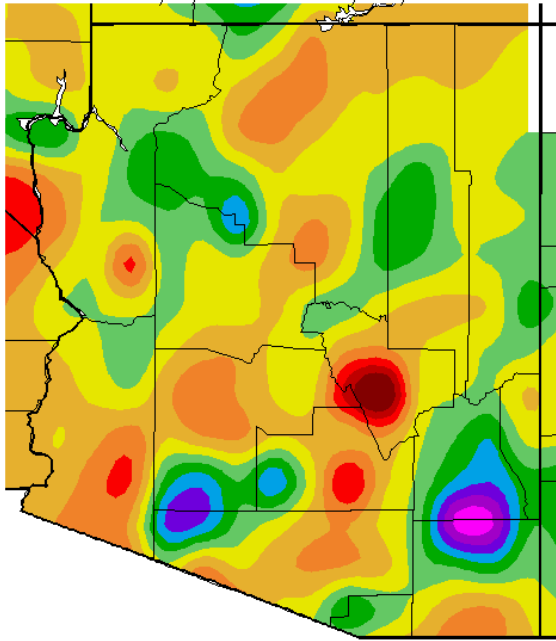
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Total Precipitation (in.)  
11/1/2014 - 11/30/2014



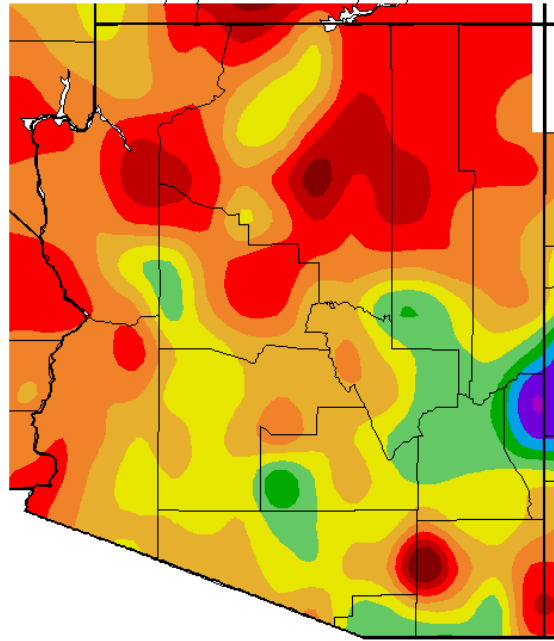
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Av. Min. Temperature dep from Ave (deg. F)  
11/1/2014 – 11/30/2014



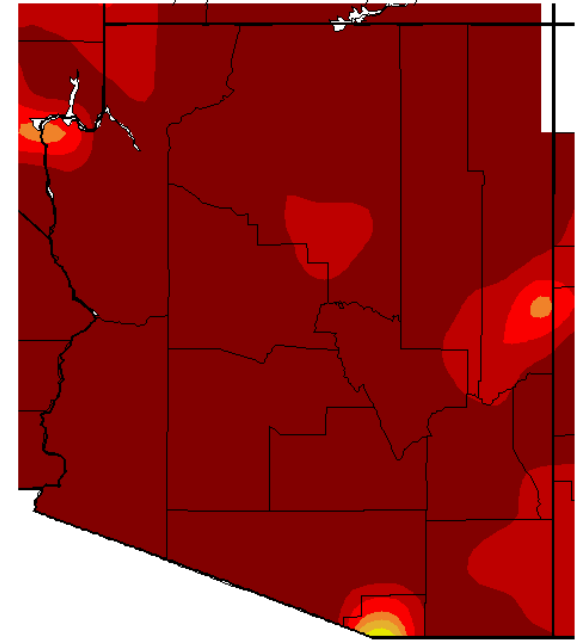
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Av. Max. Temperature dep from Ave (deg F)  
11/1/2014 – 11/30/2014



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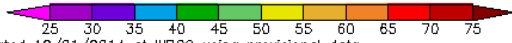
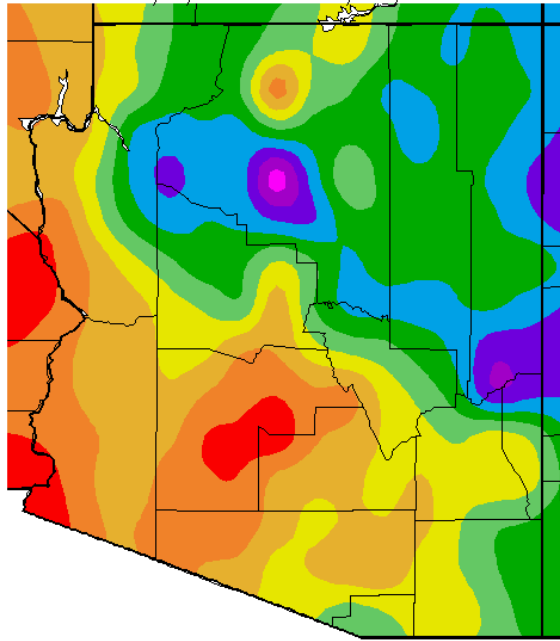
Percent of Average Precipitation (%)  
11/1/2014 – 11/30/2014



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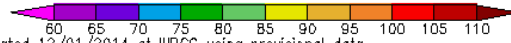
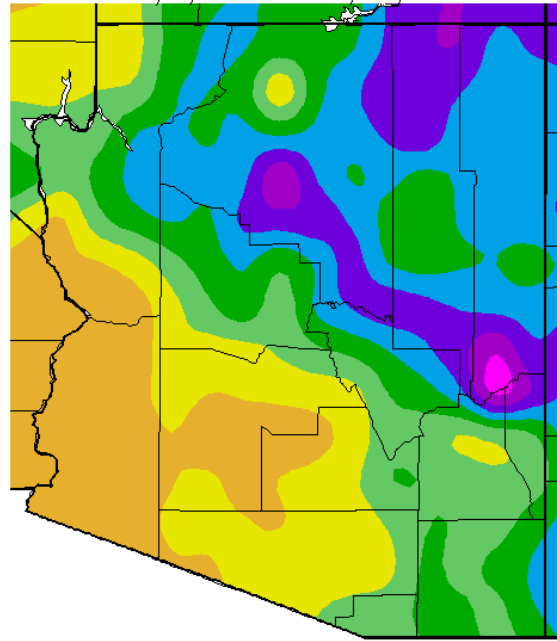
November minimum temperatures ranged from 3 degrees warmer to 3 degrees colder than normal across the state. Exceptions were Gila County, which reached over 5 degrees warmer than normal and southwest Maricopa/northwest Pima counties which was over 4 degrees cooler and southern Graham/northern Cochise counties which was over 5 degrees cooler than normal. Daytime temperatures were 1-5°F warmer than normal across northern Arizona. Southern Arizona was generally 0 to 2 degrees warmer than normal, with a few hot spots and east central Arizona was 2 to 4 degrees colder than normal. November precipitation was generally less than 25% of normal statewide.

Av. Min. Temperature (deg. F)  
1/1/2014 - 11/30/2014



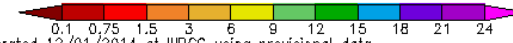
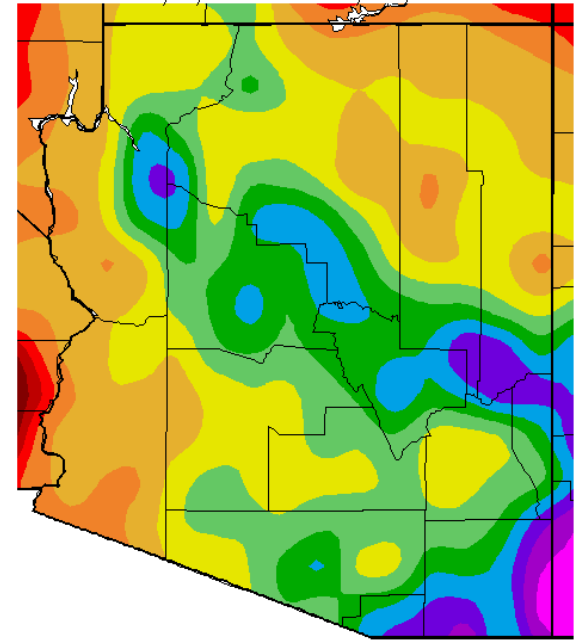
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NOAA Regional Climate Centers

Av. Max. Temperature (deg. F)  
1/1/2014 - 11/30/2014



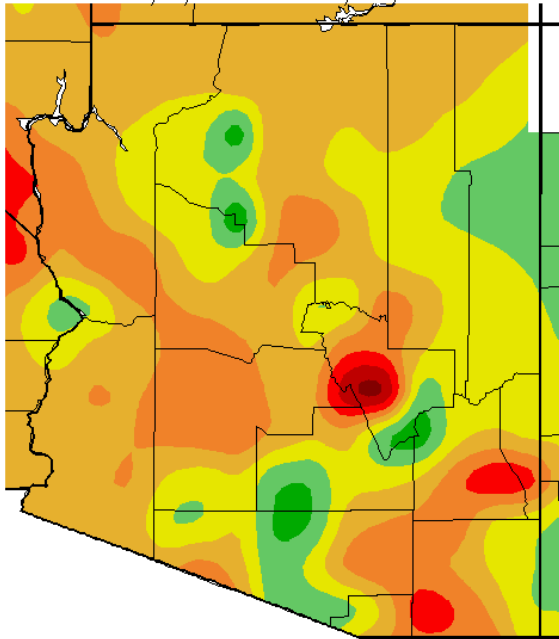
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Total Precipitation (in.)  
1/1/2014 - 11/30/2014



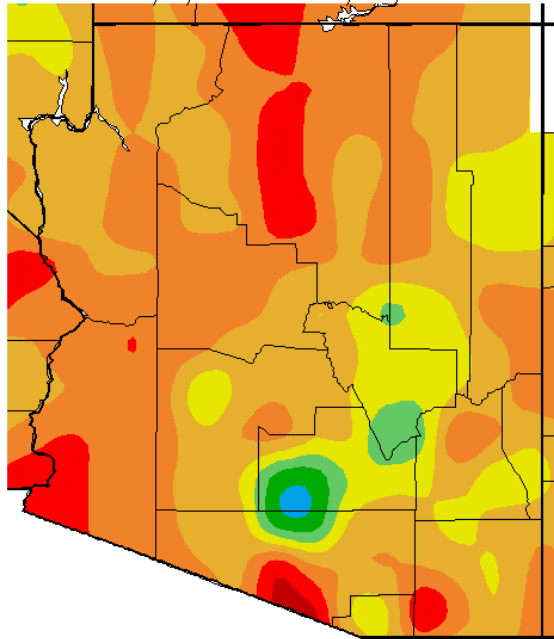
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Av. Min. Temperature dep from Ave (deg. F)  
1/1/2014 - 11/30/2014



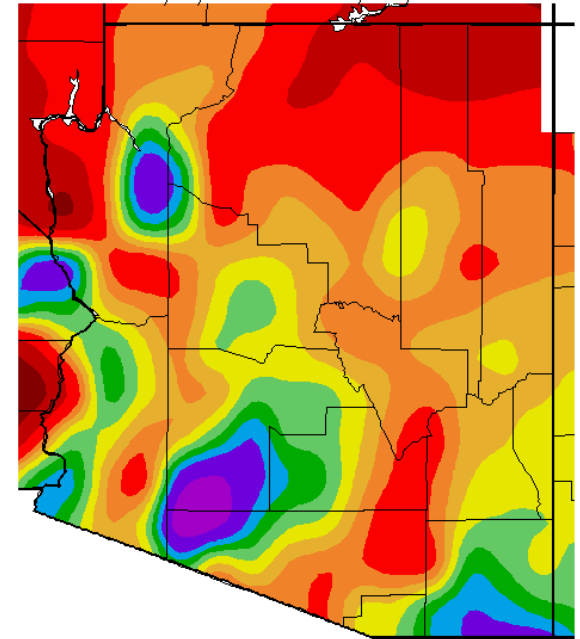
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Av. Max. Temperature dep from Ave (deg F)  
1/1/2014 - 11/30/2014



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NOAA Regional Climate Centers

Percent of Average Precipitation (%)  
1/1/2014 - 11/30/2014

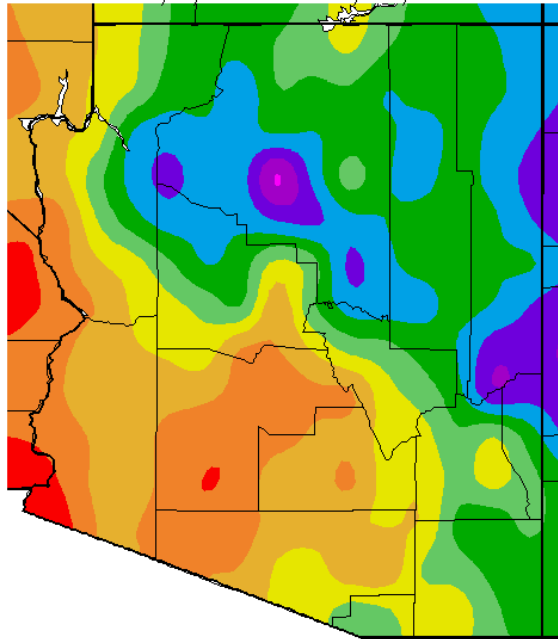


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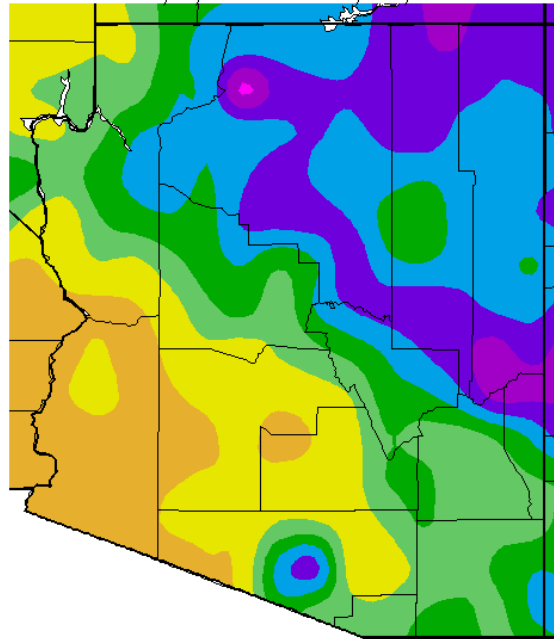
### Calendar Year 2014

Calendar year minimum temperatures have been 0-3°F warmer than normal statewide with a few warmer and cooler pockets. Daytime highs have been 0 to 4°F warmer than normal statewide, though western Pinal County was 0-3 degrees cooler than normal. Precipitation so far this year has been less than 80% of normal in much of northeastern Arizona, and greater than 100% of normal central Mohave, southwestern Maricopa, western Pima and southern Cochise counties.

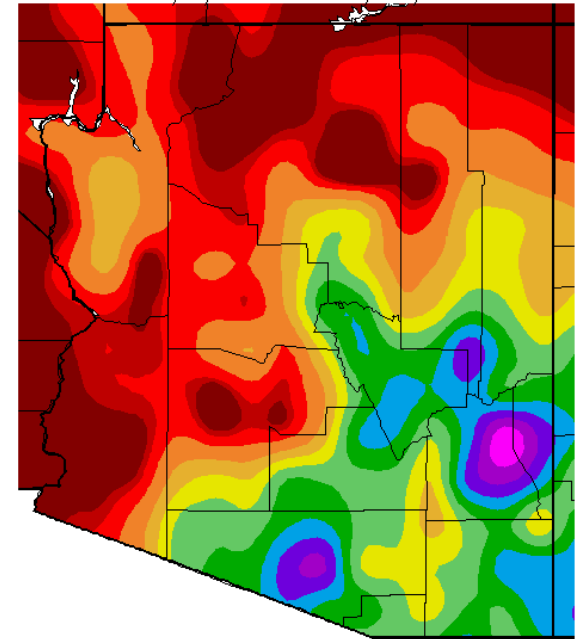
Av. Min. Temperature (deg. F)  
10/1/2014 – 11/30/2014



Av. Max. Temperature (deg. F)  
10/1/2014 – 11/30/2014



Total Precipitation (in.)  
10/1/2014 – 11/30/2014

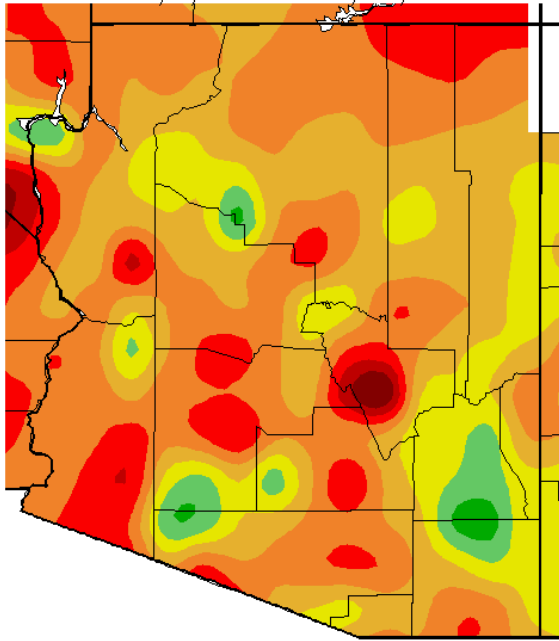


20 25 30 35 40 45 50 55 60 65 70  
Generated 12/01/2014 at WRCC using provisional data.  
NOAA Regional Climate Centers

55 60 65 70 75 80 85 90 95 100 105  
Generated 12/01/2014 at WRCC using provisional data.  
NOAA Regional Climate Centers

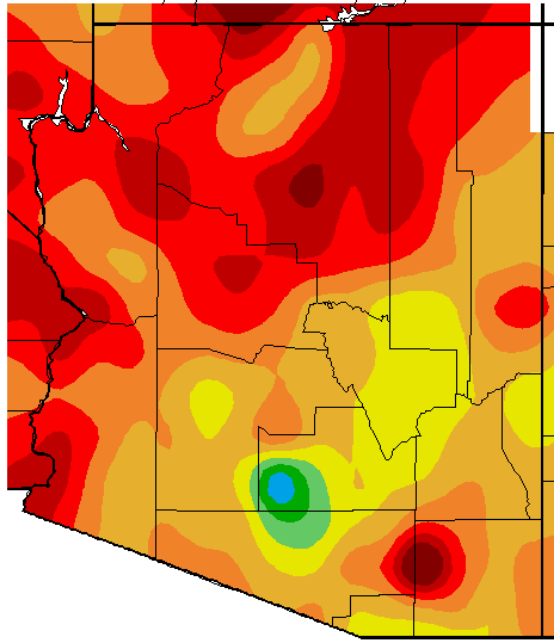
0.1 0.15 0.3 0.6 0.9 1.2 1.5 1.8 2.1 2.4 2.7  
Generated 12/01/2014 at WRCC using provisional data.  
NOAA Regional Climate Centers

Av. Min. Temperature dep from Ave (deg. F)  
10/1/2014 – 11/30/2014



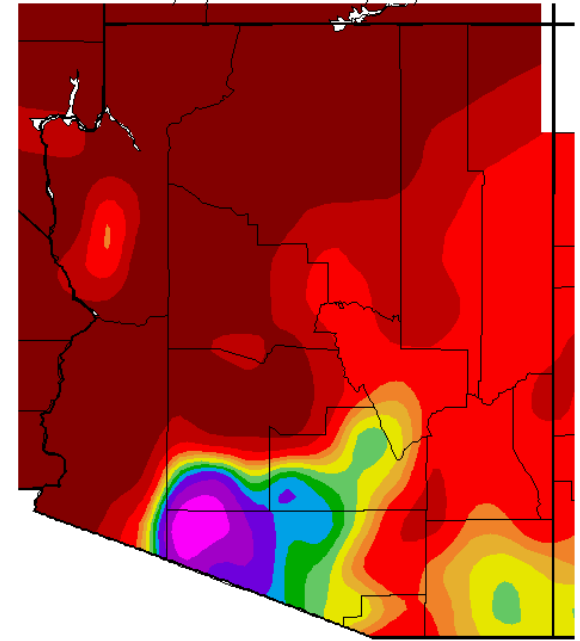
Generated 12/01/2014 at WRCC using provisional data.  
NOAA Regional Climate Centers

Av. Max. Temperature dep from Ave (deg F)  
10/1/2014 – 11/30/2014



Generated 12/01/2014 at WRCC using provisional data.  
NOAA Regional Climate Centers

Percent of Average Precipitation (%)  
10/1/2014 – 11/30/2014

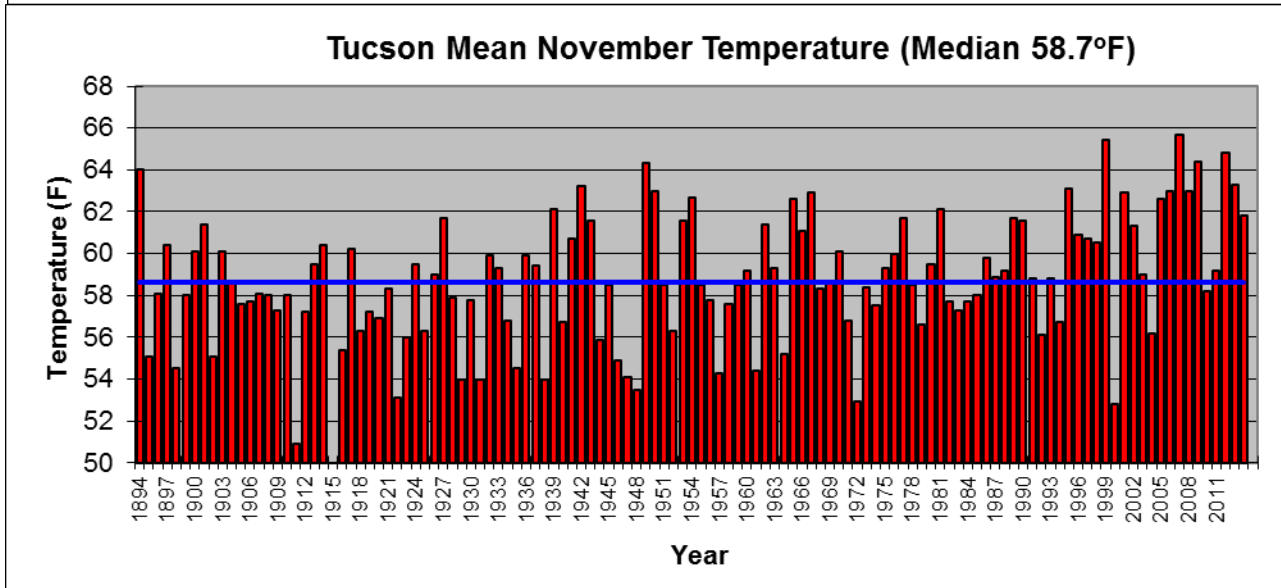
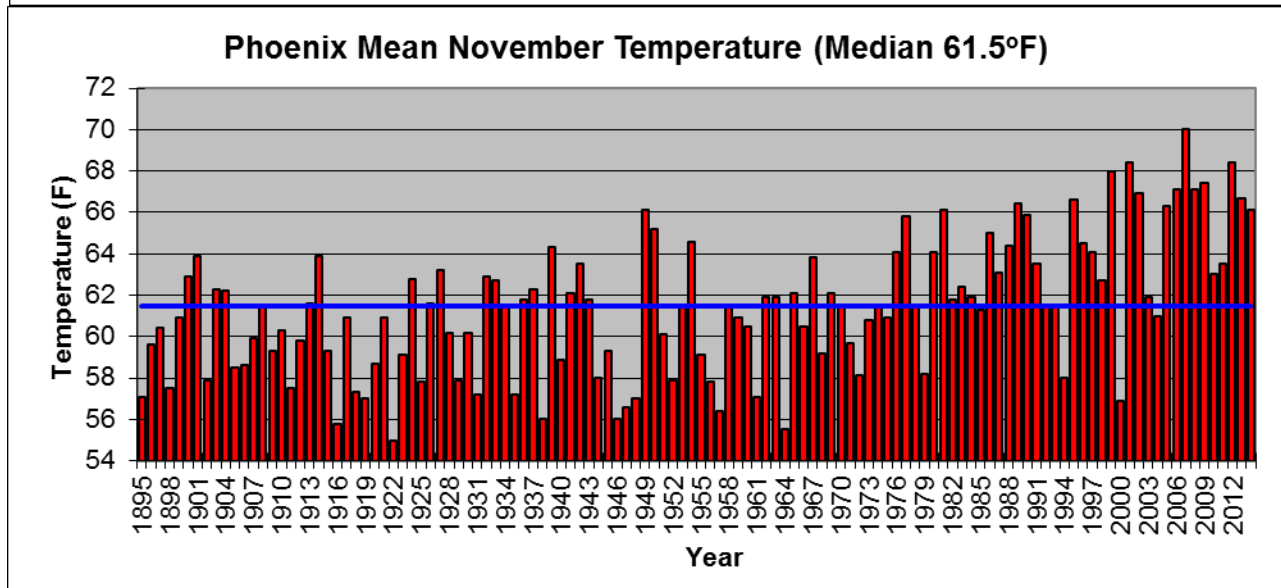
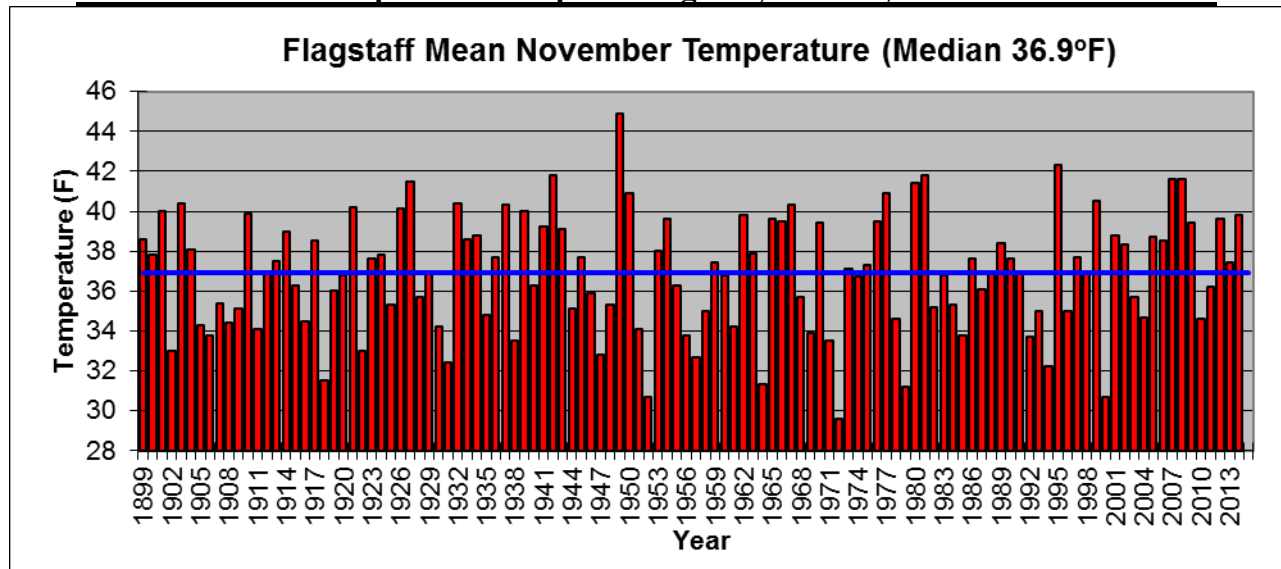


Generated 12/01/2014 at WRCC using provisional data.  
NOAA Regional Climate Centers

### 2015 Water Year

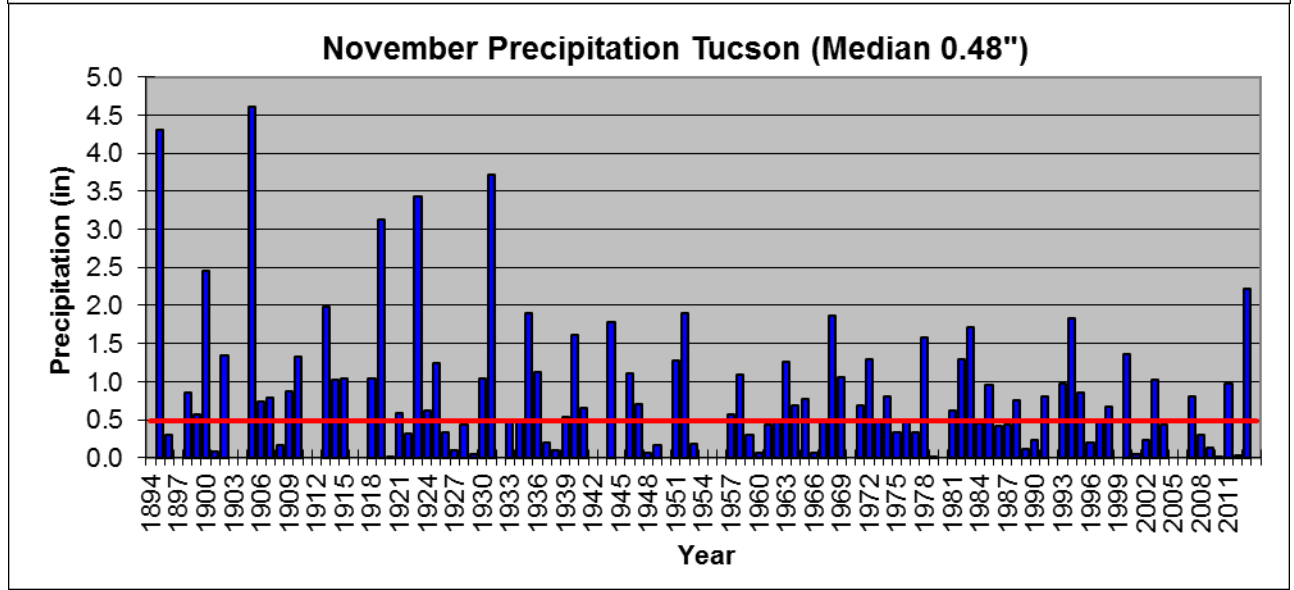
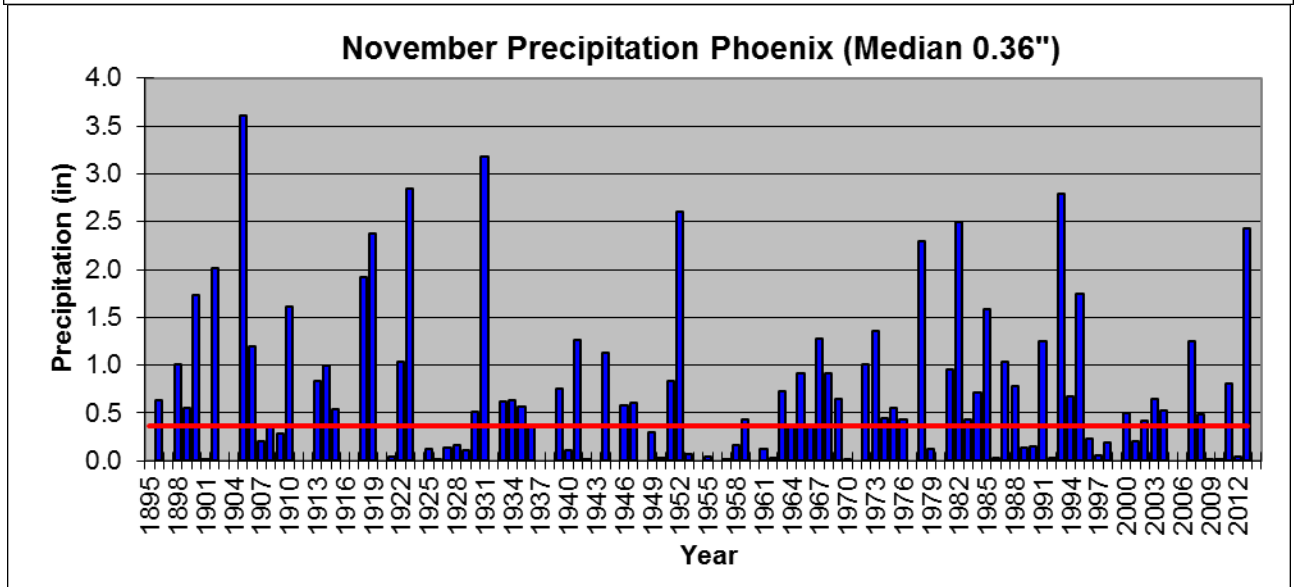
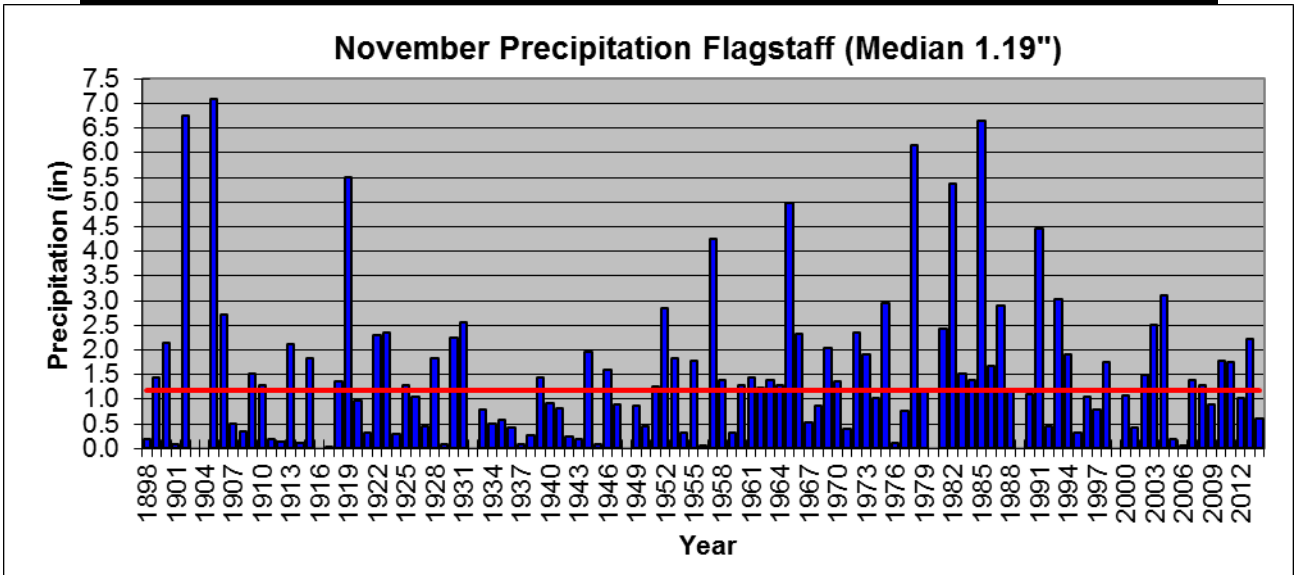
The new water year minimum temperatures have been 0-4°F warmer than normal statewide. Southern Graham/northern Cochise counties were up to 2 degrees colder than normal. Daytime temperatures were 2-5°F warmer than normal in northern Arizona, and 0-3°F warmer than normal in most of southern Arizona. Western Pinal County was 1-3 degrees cooler than normal. Precipitation was much higher than normal in western Pima County. The northwestern half of the state has received less than 25% of normal precipitation, while eastern Arizona has received less than 70% of normal precipitation.

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



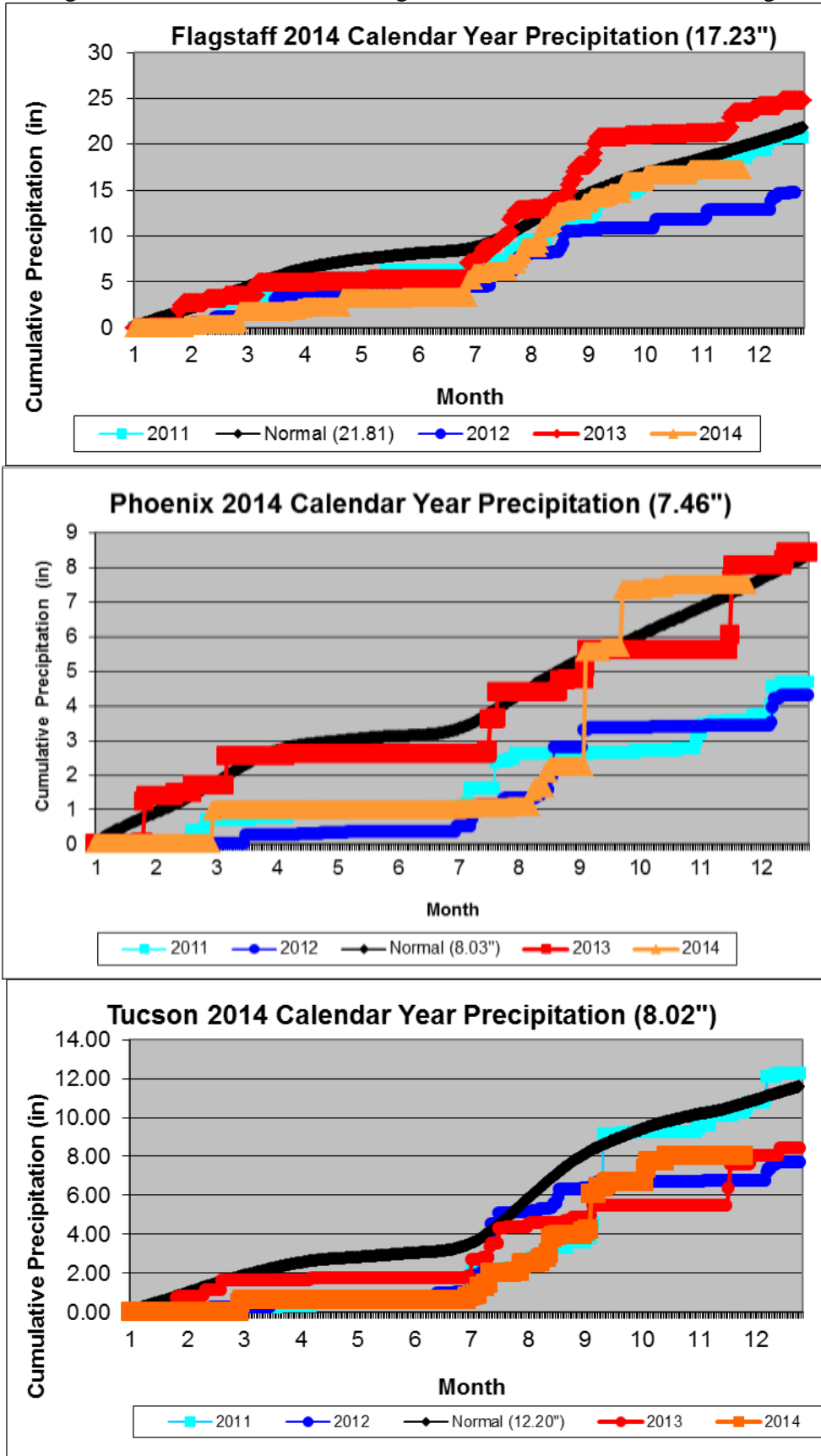


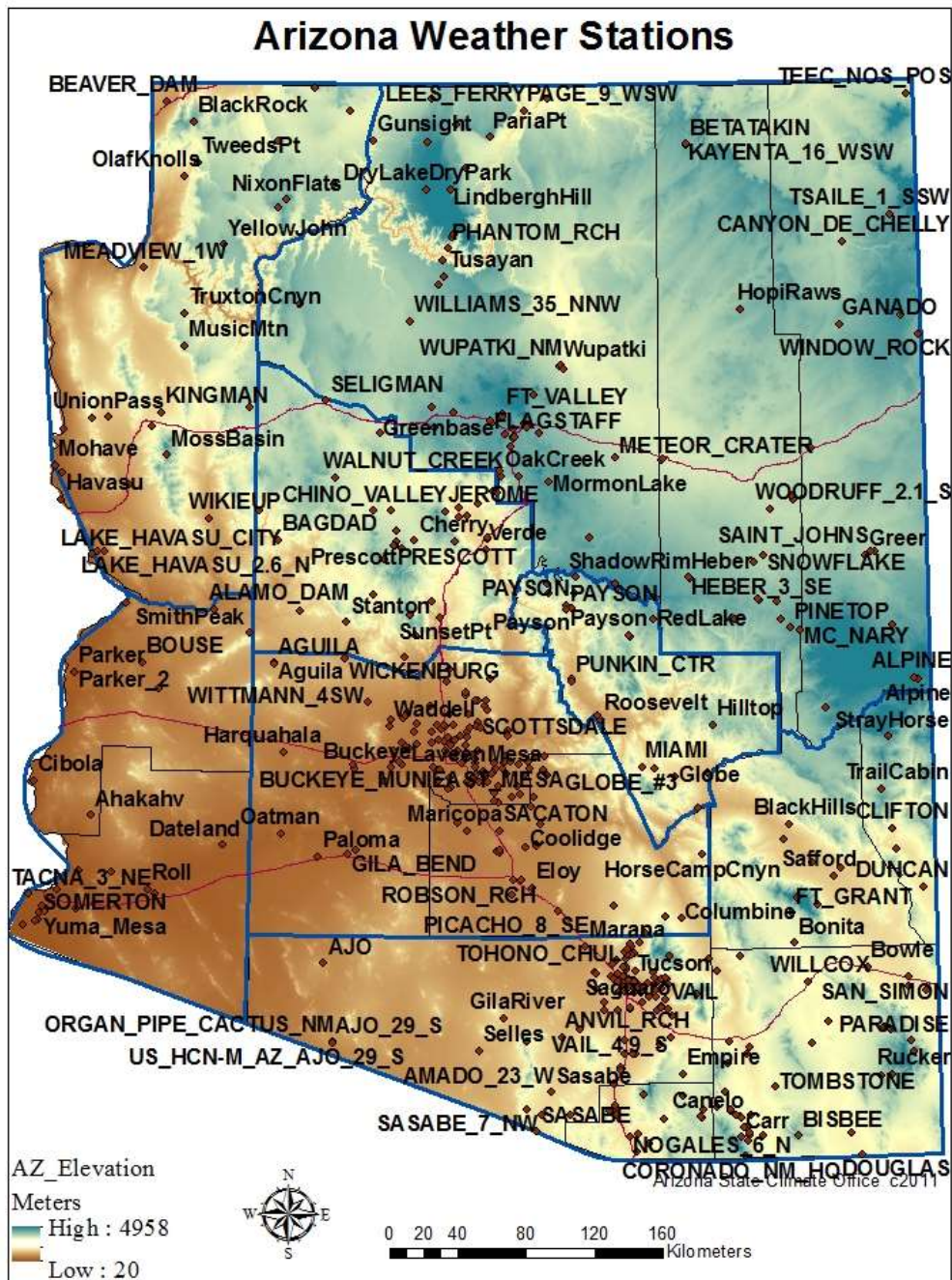
**November Mean Precipitation Graphs – Flagstaff, Phoenix, and Tucson 1895-2014:**



**2014 Cumulative Precipitation Graphs – Flagstaff, Phoenix and Tucson:**

Flagstaff is just below average while Phoenix is near average and Tucson is still below average.





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)