

Weather and Climate Review for 2016 in Northern Arizona

Presented by National Weather Service Flagstaff, AZ

2016 Climate Summary

| City | Avg Temp (F) | Departure from Normal | Rank | Precipitation Departure Total from Norma | | Rank |
|----------------------------|-----------------|-----------------------------|---|---|--------|---|
| Flagstaff | 47.4° | 1.2° | 18 th warmest | 25.80" | 3.94" | 19 th wettest |
| Prescott Airport | 58.0° | 2.2° | 2 nd warmest (tied) | 17.51" | 3.54" | 9 th wettest |
| Prescott <i>(Coop)</i> | 56.2° | 1.4° | N/A | 24.25" | 6.30" | 13 th wettest |
| Saint Johns Airport | 55.1° | 0.4° | 10 th warmest (short record) | 8.19" | -3.80" | 6 th wettest (short record) |
| Window Rock Airport | 50.8° | 2.7° | 1 st warmest (short record) | 12.14" | -0.16" | 7 th wettest (short record) |
| Winslow Airport | 57.4° | 1.5° | 5 th warmest | 7.22" | 0.21" | 49 th driest |
| Bellemont | 45.1° | 0.7° | 5 th warmest (short record) | 22.04" | 1.89" | 6 th wettest (short record) |
| Payson Airport | 58.1° | 2.3° | N/A | 21.90" | 0.57" | 30 th wettest |
| Page Airport | 62.1° | 2.9° | 4 th warmest (short record) | 5.74" | -2.59" | 10 th driest (short record) |
| Canyon de Chelly (Coop) | 54.8° | 1.6° | N/A | 10.09" | 0.51" | 29 th wettest |



Flagstaff, AZ

January



The year started on a wet note from the Mogollon Rim southward including Flagstaff. Most of the month's precipitation came during a series of wet Pacific disturbances from January 4th through 8th. Some mountain areas received heavy snowfall during the month, including Flagstaff with 36.4" – the 16th snowiest January since 1899. Another cold storm system started to affect the area on the 31st, with some areas receiving rain, snow and even thunderstorms. January temperatures were near normal.

Photos following the Jan 4-8 Storm



Forest Lakes – Robert Mckeever

Mund's Park – Caroline Haldeman





February

The month of February was characterized by unseasonably warm and dry weather. The only measurable precipitation that fell during the month fell on the 1st of the month. High pressure returned to the region for the remainder of the month resulting in a prolonged period of dry and warm weather, with numerous daily record highs shattered. Winslow set their all-time February record high of 79 on Feb. 17th.

| | Feb. 2016 Avg. Max Temp. | Rank |
|-----------|-----------------------------|-------------------------|
| Seligman | 66.8° | 1 st warmest |
| Prescott | 65.0° | 1 st warmest |
| Flagstaff | 53.5° | 2 nd warmest |
| Winslow | 62.2° | 3 rd warmest |
| Show Low | 57.1° | 4 th warmest |

March

March was much warmer and drier than normal. Most locations received less than 25% of normal precipitation. Daytime high temperatures averaged 5 to 7 degrees warmer than normal. A few cold fronts moved through the region bringing strong wind gusts of 50-65 mph, but most of the rain and snow associated with these fronts remained north of the state.

| | March 2016 Avg. Temperature | Rank |
|-----------|--------------------------------|--------------------------|
| Show Low | 48.4° | 2 nd warmest |
| Prescott | 48.8° | 9 th warmest |
| Winslow | 49.9° | 9 th warmest |
| Flagstaff | 40.2° | 15 th warmest |

April

The month of April saw multiple cold, spring storm systems that brought very beneficial rainfall and even high elevation snowfall to northern Arizona. This caused periods of cold temperatures with quite warm weather in between. When averaged over the month, temperatures were close to normal for the month. Monthly precipitation was near or above normal for most locations.

May

snowfall.

May brought multiple cold spring storm systems resulting in periods of cool and stormy weather. Overall, temperatures were cooler than average and precipitation was well above normal for one of the historically driest months in northern Arizona. The storm systems brought periods of windy conditions along with some high elevation

> Departure from Normal Precipitation (in) 5/1/2016 - 5/31/2016



June

June 2016 was among the warmest on record for most northern Arizona locations. Precipitation was well above normal from Gila County to the Mogollon Rim and Flagstaff regions as unusually moist air invaded the region. It was drier than normal for most other locations, including northeast Arizona where little rain fell.

| | 500 | 1997 B. (349) |
|-----------------------|-------------------------------------|-------------------------|
| | June 2016 Average Temperature | Rank |
| Winslow | 77.7° | 1 st warmest |
| Page | 84.6° | 1 st warmest |
| Prescott (Sundog) | 74.7° | 1 st warmest |
| Prescott (Airport) | 76.4° | 2 nd warmest |
| Navajo Natl Mon | 73.0° | 2 nd warmest |
| Payson | 74.0° | 2 nd warmest |
| Flagstaff | 64.2° | 6 th warmest |

| New Record High Temperatures June 2016 | | | | Location | New Record High | Date |
|---|------------|------|--|------------------|--------------------|------|
| | | | | Flagstaff | 87 | 6/3 |
| Location | New Record | Date | | | 88 | 6/5 |
| Location | High | Date | | | 93 | 6/19 |
| Payson | 99 | 6/4 | | | 95 | 6/20 |
| | 99 | 6/5 | | Winslow | 99 | 6/3 |
| | 93 | 6/19 | | | 99 | 6/4 |
| | 103 | 6/20 | | | 101 | 6/5 |
| | 103 | 6/21 | | | 104 | 6/19 |
| Castle Hot Springs | 112 | 6/3 | | | 108 | 6/20 |
| | 112 | 6/4 | | Prescott Airport | 97 | 6/3 |
| | 111 | 6/5 | | | 99 | 6/4 |
| | 113 | 6/18 | | | 98 | 6/5 |
| | 116 | 6/19 | | | 102 | 6/19 |
| | 113 | 6/20 | | | 105** | 6/20 |
| Phantom Ranch | 113 | 6/5 | | Page | 100 | 6/3 |
| | 114 | 6/20 | | | 103 | 6/5 |
| Jerome | 98 | 6/4 | | | 104 | 6/19 |
| | 100 | 6/5 | | | 106 | 6/20 |
| ** denotes new all-time | 98 | 6/6 | | | 108 | 6/21 |
| record high | 108** | 6/21 | | | 104 | 6/22 |

Monsoon Season (June 15 - September 30)

Monsoon season across northern Arizona was wetter than normal for most areas along and south of the Mogollon Rim. The wettest month of the season was August, which was among the wettest ever recorded in Flagstaff (6.34"), Prescott (8.77"), and Payson (5.11").

| 1200 - | . Seller | |
|--------------------------------|------------------------------------|----------------------------------|
| Location / Period of Record | August Precipitation Ranking | August Temperature Ranking |
| Flagstaff (1898-2016) | 4 th Wettest | 14 th Coolest |
| Winslow (1915-2016) | 37 th Wettest | 18 th Coolest |
| Prescott Airport (1948-2016) | 2 nd Wettest | 14 th Coolest |
| Prescott (1898-2016) | 3 rd Wettest | 52 nd Warmest |
| Payson (1948-2016) | 9 th Wettest | 21 st Coolest |
| Wupatki N.M. (1940-2016) | 1 st Wettest | 4 th Coolest |
| Navajo N.M. (1939-2016) | 11 th Wettest | 5 th Coolest |





Map produced using daily total precipitation estimates from the NOAA National Weather Service Advanced Hydrologic Prediction Service (AHPS). Data information available at http://water.weather.gov/precip/about.php. Date created: 01-Oct-2016 University of Arizona - http://cails.arizona.edu/climate/



Monsoon 2016 Rainfall Summary

Flagstaff, AZ



| Location | Observed Precipitation (in) | Normal Precipitation (in) | Departure From Normal (in) | Percent of Normal | All-Time Ranking (Period of Record) |
|-------------------------------|--------------------------------|------------------------------|-------------------------------|----------------------|--|
| Alpine | 9.80 | 11.58 | -1.78 | 85% | 53 rd Driest (1905-2016) |
| Bagdad | 6.99 | 5.36 | 1.63 | 130% | 19th Wettest (1925-2016) |
| Bellemont | 8.22 | 7.86 | 0.36 | 105% | 6th Wettest (1994-2016) |
| Bright Angel Ranger Station | 9.67 | 6.75 | 2.92 | 143% | 15th Wettest (1925-2016) |
| Canyon de Chelly (Chinle) | 3.98 | 3.75 | 0.23 | 106% | 38th Wettest (1909-2016) |
| Castle Hot Springs | 6.65 | 4.93 | 1.72 | 135% | 17th Wettest (1916-2016) |
| Chino Valley | 6.93 | 6.20 | 0.73 | 112% | 17th Wettest (1941-2016) |
| Cottonwood | 8.05 | 5.37 | 2.68 | 150% | 10th Wettest (1920-2016) |
| Flagstaff Airport | 11.41 | 8.31 | 3.10 | 137% | 12th Wettest (1898-2016) |
| Grand Canyon Airport | 7.36 | 5.93 | 1.43 | 124% | 4th Wettest (1997-2016) |
| Heber (Black Mesa Ranger Stn) | 4.50 | 8.48 | -3.98 | 53% | 11 th Driest (1950-2016) |
| Jerome | 8.09 | 7.33 | 0.76 | 110% | 39th Wettest (1897-2016) |
| McNary | 10.13 | 10.81 | -0.68 | 94% | 46th Driest (1933-2016) |
| Page Airport | 1.12 | 2.18 | -1.06 | 51% | 14 th Driest (1957-2016) |
| Payson | 9.94 | 7.52 | 2.42 | 132% | 20th Wettest (1940-2016) |
| Petrified Forest | 3.64 | 5.11 | -1.47 | 71% | 32nd Driest (1931-2016) |
| Phantom Ranch | 5.27 | 3.54 | 1.73 | 149% | 10th Wettest (1935-2016) |
| Prescott (Sundog Water Plant) | 13.34 | 7.96 | 5.38 | 168% | 8th Wettest (1898-2016) |
| Prescott Airport | 9.27 | 6.51 | 2.76 | 142% | 8th Wettest (1948-2016) |
| Saint Johns Airport | 3.95 | 5.99 | -2.04 | 66% | 8th Driest (1999-2016) |
| Seligman | 6.60 | 5.57 | 1.03 | 118% | 28th Wettest (1904-2016) |
| Show Low Airport | 6.50 | 7.59 | -1.09 | 86% | 13th Driest (1984-2016) |
| Sunset Crater Natl Mon | 8.01 | 7.93 | 0.08 | 101% | 22nd Wettest (1969-2016) |
| Teec Nos Pos | 5.21 | 3.19 | 2.02 | 163% | 4th Wettest (1962-2016) |
| Walnut Canyon Natl Mon | 8.51 | 8.15 | 0.36 | 104% | 22nd Wettest (1910-2016) |
| Williams | 11.38 | 8.32 | 3.06 | 137% | 13th Wettest (1897-2016) |
| Window Rock | 5.63 | 5.73 | -0.10 | 98% | 12th Driest (1998-2016) |
| Winslow | 2.87 | 3.23 | -0.36 | 89% | 34th Driest (1893-2016) |
| Wupatki Natl Monument | 7.93 | 3.89 | 4.04 | 204% | 4th Wettest (1940-2016) |

October,

October 2016 was among the warmest on record across northern Arizona as high pressure controlled the weather pattern across the region for most of the month. Monthly rainfall amounts were less than half of normal for most of northern Arizona, with a small area near 80 percent of normal in central Yavapai County including Prescott.

| | | October 2016 Average Temperature | Rank |
|---|-------------------|-------------------------------------|--------------------------|
| Å | Page | 64.7° | 3 rd warmest |
| X | Winslow | 61.5° | 3 rd warmest |
| 1 | Payson | 61.4° | 5 th warmest |
| | Seligman | 59.8° | 6 th warmest |
| | Prescott Airport | 61.2° | 7 th warmest |
| J | Prescott (City) | 59.2° | 7 th warmest |
| T | Flagstaff Airport | 50.6° | 11 th warmest |

ovember

Overall, much of November experienced well above average temperatures. It wasn't until the last week of the month that colder weather arrived. After a dry October, a few different storm systems brought beneficial rain and high elevation snow to northern Arizona. Nearly all of northern Arizona received above average monthly precipitation.

December

December 2016 was wetter and slightly warmer than normal. Mild and dry conditions affected the region for the first half of the month. The second half of December was wet, with four storm systems affecting Arizona. Much of the precipitation fell as rain, even at the higher elevations. The heaviest snow of the month fell on Christmas Eve causing major travel disruptions, closing Interstates 40 and 17 as well as numerous secondary routes.

Storm total snowfall from the event beginning on December 24th, and ending early on the 25th for most locations.

Munds Park 18.5" Flagstaff (Univ Heights) 16.0" Mountainaire 14.8" Flagstaff Airport 14.7" 4 S Williams 13.5" Kachina Village 12.2" Jerome 8.0" 4 NW Mcnary 8.0" 3 N Prescott 7.5" Wilhoit 7.1" Prescott Valley (area) 5 to 8" Bagdad (area) 5 to 8" Grand Canyon Visitors Center 6.0" Payson 5.4" Star Valley 4.9" Sedona (area) 2 to 4.5" Dewey 3.0" Seligman 2.0" Cordes Lakes 1.0"