

SPOTTER NEWSLETTER

NWS PHOENIX SKYWARN NEWSLETTER

SEPTEMBER 2023



WHAT'S INSIDE

Summer Climate
Stats

Key Storm Events

Storm Report Review

Update your contact
information

Summer Climate Stats

Though the Monsoon season doesn't end until September 30th, meteorological summer ended August 31st (spans June - August). This is different than the astronomical definition of summer solstice (usually June 21st) through autumnal equinox (usually September 21st). We'll look at some individual station data as well as regional maps. Some of the rankings may be a surprise.

Summer Climate Stats - Continued

How did summer temperatures stack up? Below are the June-August averages for a few sites with long records.

Phoenix, AZ

(Downtown 1896-1953; Sky Harbor Airport 1953-present)

97.0°F*

Average Temperature

*Hottest Summer All Time

109.2°F*

Average High

*Hottest All Time

84.8°F*

Average Low

*Tied with 2020 for
Hottest All Time

Yuma, AZ

(Army/Weather Bureau 1878-1949; Yuma Airport/MCAS 1949-present)

92.4°F

Average Temperature

Tied for 36th hottest with
2003 and 1978

105.5°F

Average High

Tied for 54 hottest with 2009
and 1933

79.3°F

Average Low

29th Hottest

Blythe, CA

(Blythe Airport, 1948-present)

93.4°F

Average Temperature

23rd Hottest

107.7°F

Average High

Tied for 19th Hottest with 1987

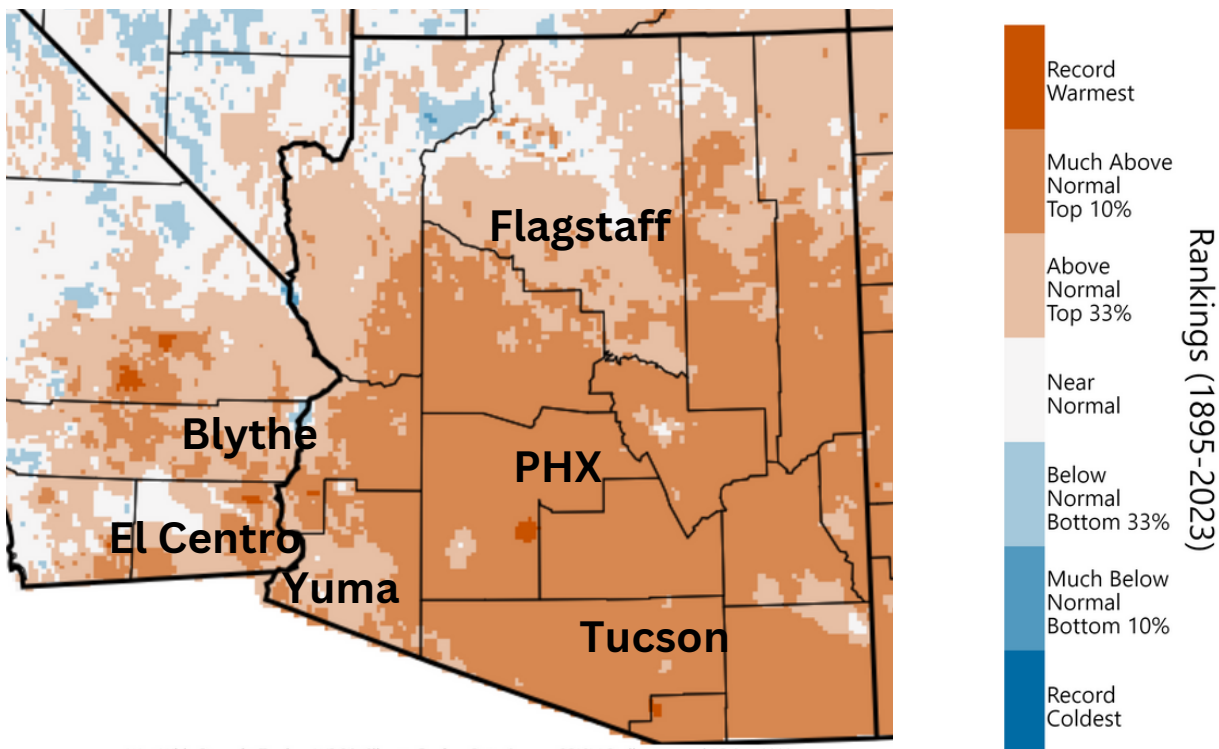
79.0°F

Average Low

Tied for 25th Hottest with
1973 and 1966

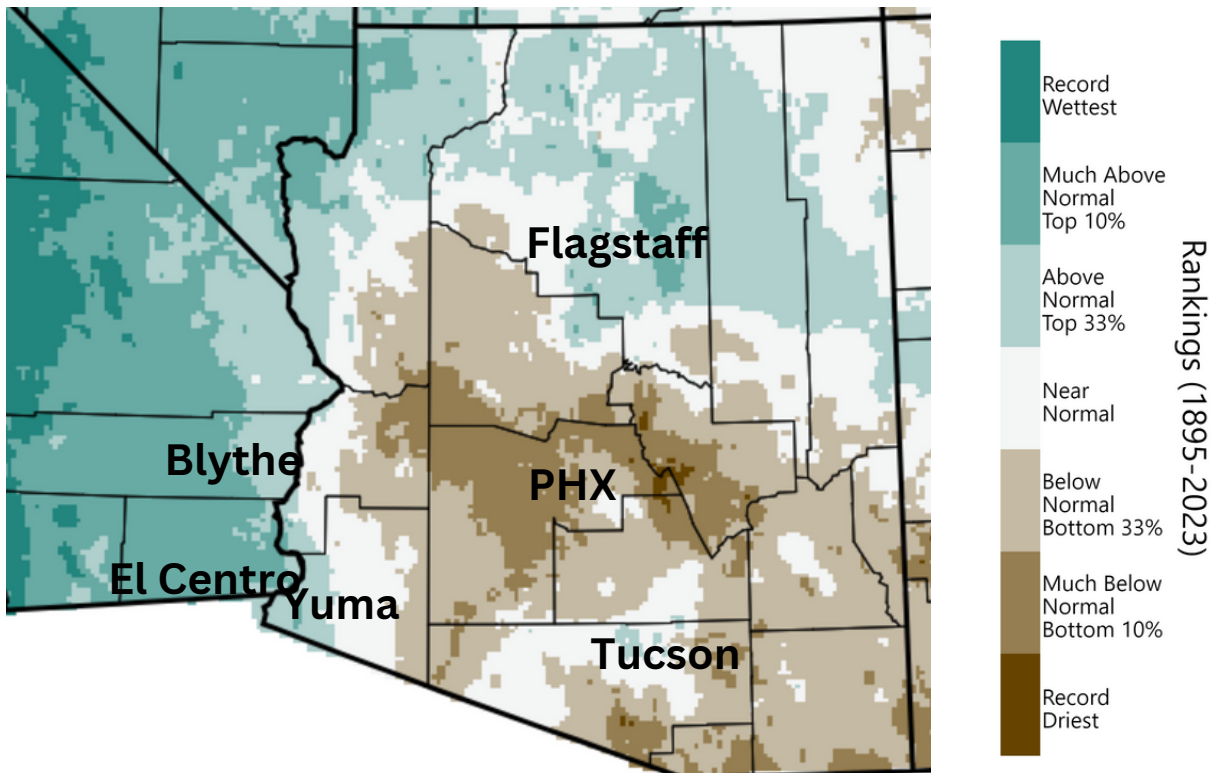
Summer Climate Stats - Continued

The map below shows the percentile ranking for temperature. It uses interpolation to bridge the gap between data points. You can see most areas were above normal if not much above normal (top 10%) which isn't surprising given how hot July and August were. But, very little area is shaded as Record Warmest. This was due in large part to June temperatures being much cooler than July and August. For instance, the average temperature for June at Yuma was the 108th hottest June. Whereas this July was tied with 2009 for hottest July.



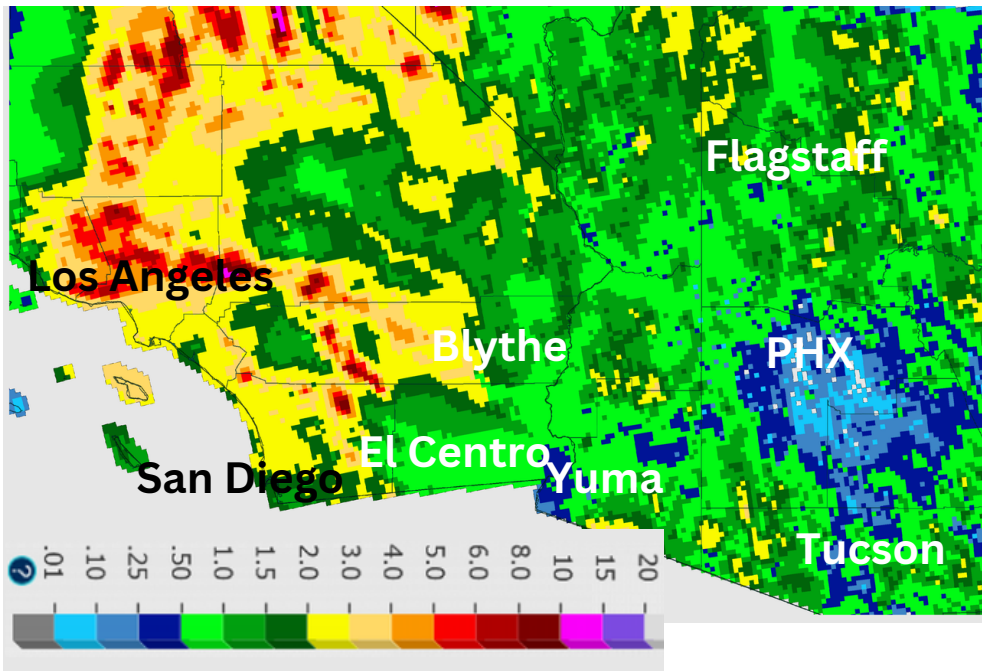
Summer Climate Stats - Continued

The map below shows the percentile ranking for precipitation. Many folks east of the Lower Colorado River Valley (in particular Greater Phoenix) have probably considered this summer to be disappointingly dry. Whereas west of there, it has been a different story. The map reflects this pretty well. For those western areas, nearly all of that can be explained by Tropical Storm Hilary (more on that in the next section).

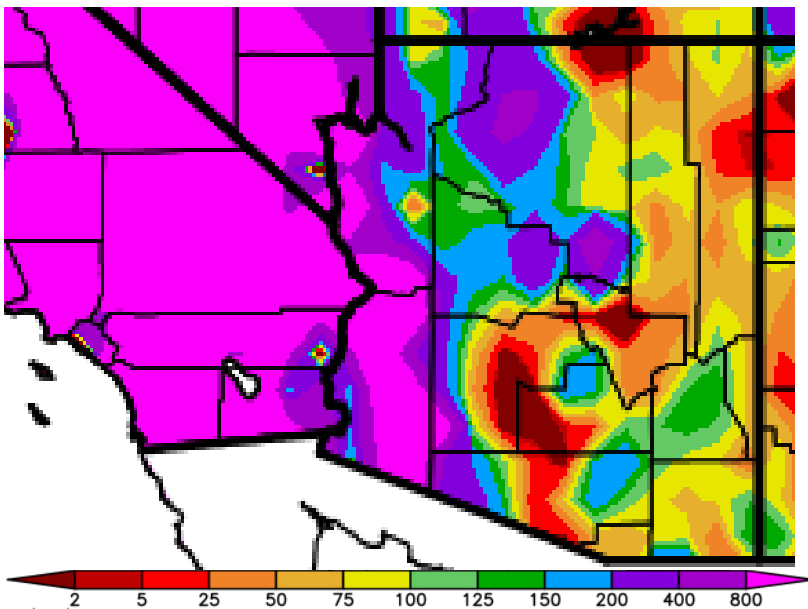


Key Storm Events

For the June through August time frame within our forecast area, there are two storm events that stand out: Tropical Storm Hilary (main impacts on August 20th) and the night of August 31st. The former had its impact over California and southwest Arizona and the latter on south-central Arizona.



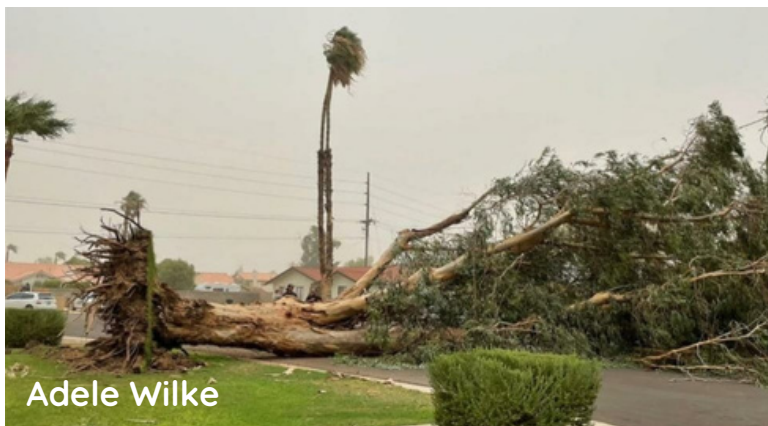
The map at left shows a 7 day accumulation ending 5 am on August 22nd. The large majority of that came on Aug 20 with the passage of Tropical Storm Hilary. It was the first known tropical storm to make landfall in San Diego County.



The precipitation map at left is for the period of 8/15 - 8/21. It shows how this year compares to average for those dates. For a large portion of California, southern Nevada and western Arizona, this year was 800% above average for that 7 day period (most of it on 8/20).

Key Storm Events - Continued

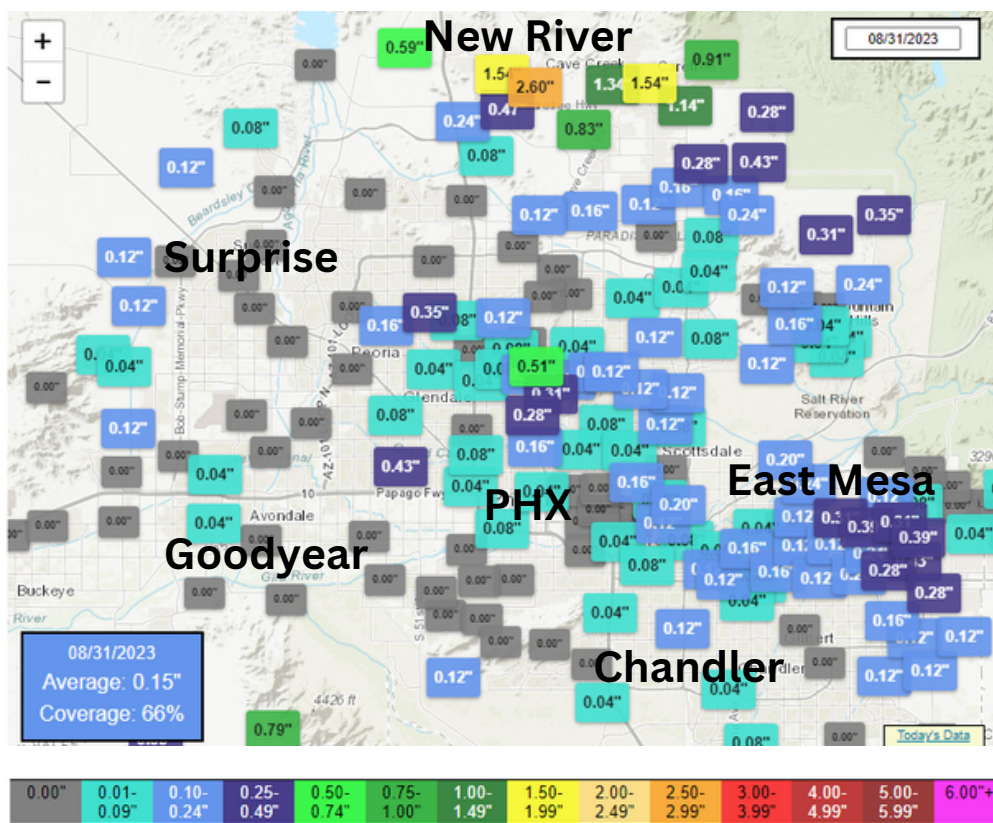
The passage of Hilary produced wind gusts up to 60-70 mph across southeastern CA and southwest AZ, including Imperial County, CA and Yuma County, AZ. The wind caused downed trees, powerlines, and property damage (awnings and roofs). As many as 14,000 were without power at the height of the storm. Interstate 8 across southeast CA had several impacts, including huge boulders on the road west of Ocotillo (due to heavy rain) and several semis blown over between El Centro, CA and Yuma, AZ. Significant blowing dust and sand was also an issue.



Key Storm Events - Continued

For many in south-central Arizona, the night of August 31st had the most noteworthy storm. A large, powerful dust storm was accompanied by widespread rain along with locally severe strength winds. In fact, Sky Harbor Airport had a 73 mph peak gust. Within the Phoenix area, most did not see a deluge. However, far northern portions had very heavy rain with flash flooding.

The map at right shows rainfall amounts across Greater Phoenix on August 31st from Maricopa County Flood Control District gauges. Values ranged from less than 1/10" to well over 2". Most places were less than 1/2". The areal average (Phoenix Rainfall Index) was 0.15".



Spotter Reports

Though we are nearing the end of Monsoon season, we want to keep an eye to the sky year round. See below for reporting criteria and methods.

Reporting Criteria:

- Tornado
- Funnel Cloud
- Storm Damage (broken tree limbs, shingles off roofs, etc.)
- Flooding (streets, running washes, etc.)
- Low Visibility
 - less than 1 mile due to dust, sand, fog, etc. (not rain though)
- Rotating Wall Cloud
- Heavy Rainfall
 - measured ½ inch or more accumulation in 30 min. or less
- Hail (diameter of largest stone - any size)
- Snow (accumulating or not)

Reporting Methods (for Spotters only):

- Web: <https://inws.ncep.noaa.gov/report/>
- Email: psr.spotters@noaa.gov
- Voice Hotline (unlisted - just for Spotters): 1-800-697-0655
- HAM Radio NET

Sector 2 - Maricopa and Pinal Counties: 443.050 MHz (PL 100.0)

Sector 6 - Southern Gila County: 147.200 MHz (PL 162.2)

Sector 7 - Yuma County: 146.780 MHz (PL 103.5)

Sector 8 - Imperial County: 146.670 MHz (PL 103.5)

Sector 9 - La Paz County and Blythe: 145.310 (PL 107.2)

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SOCIAL MEDIA

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