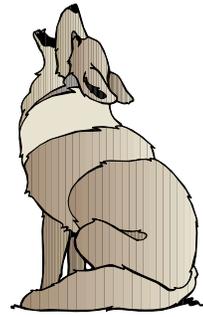




# Coyote Crier



National Weather Service

Tucson, Arizona

## Monsoon 2008 Rainfall Totals

Volume 13, Issue 1

Fall / Winter  
2008-2009

It was another wet and active monsoon, the 4th in a row for southeast Arizona, with most locations recording above normal rainfall.

Location	2008 monsoon	Normal	Location	2008 monsoon	Normal
Tucson airport	5.52"	6.06"	Safford Ag. Cen-	6.60"	4.60"
Green Valley	9.93"	8.68"	Duncan	8.13"	5.88"
Vail	7.63"	6.86"	Clifton	6.00"	6.13"
Redington	9.14"	7.03"	Cascabel	6.49"	6.98"
Arivaca	14.62"	10.27"	Pearce-Sunsites	7.97"	8.06"
Kitt Peak	17.69"	12.00"	Willcox	5.90"	6.62"
Sells	5.71"	7.71"	Bisbee	12.29"	11.44"
Ajo	2.36"	3.25"	Coronado N.M.	17.51"	10.66"
Organ Pipe N.M.	8.55"	4.42"	Sierra Vista	7.73"	8.53"
Oracle	M	M	Tombstone	12.06"	8.05"
Picacho Peak	4.03"	3.65"	Y Lighting	15.16"	8.85"
San Manuel	8.11"	6.88"	Bowie	9.89"	5.77"
Kearny	M	M	Portal	16.64"	11.50"
Nogales	10.67"	10.73"	San Simon	7.30"	5.37"
Patagonia	14.96"	10.11"	Douglas	7.86"	8.28"
Tumacacori N.M.	14.45"	9.94"	McNeal	7.27"	7.06"
Ft. Thomas	6.99"	3.94"	Rucker Canyon	19.95"	11.05"

### Inside this issue:

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*Helpful Spotter Reports (Continued)* 3

*What to Expect for Temperatures this Winter* 4

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## Cooperative Observer Needed in the City of Eloy

Hans Hanson, HydroMeteorological Technician

Do you know anyone in Eloy, who is as interested in the weather and public service as you are? We need to re-establish a Cooperative weather station in Eloy to record temperature and rainfall daily. This information is vital to determine the climate of the area. The Eloy station would be an important part of the national climate network. If you know someone that may be interested, please contact me at (520) 670-5161 or 5162 or via e-mail : [hans.hanson@noaa.gov](mailto:hans.hanson@noaa.gov)

## Two of our Recently Trained Spotters Provided Very Helpful Information During July of 2008

Greg Mollere, Senior Forecaster and Spotter Program Leader

During the early evening of July 12th I was working with fellow Lead Forecaster Jim Meyer and Hydrometeorological Technician Hans Hanson. There were several strong to severe thunderstorms within my forecast area. Hans took a call from one of our recently trained spotters that lives in the Nogales Area. The spotter calling was Mary Ann Jackson. She had recently taken one of our spotter training classes during early June. Ms. Jackson lives close to the international border, and was calling to inform us that she was watching a funnel cloud just south of the border. She could see rotation within the funnel, and she also told us that she had taken photographs. We asked her if she could e-mail those photos to us, which she did.

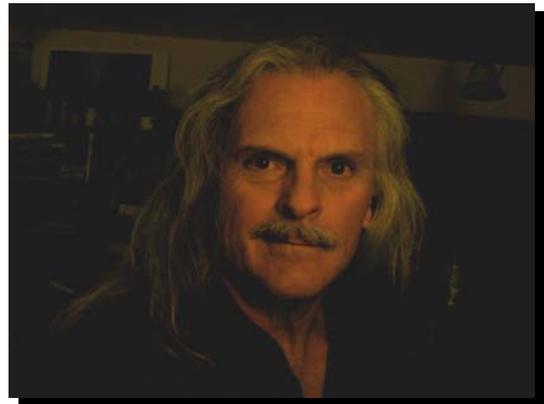
In the meantime, I took a call from another recently trained spotter Ben Audia. He also lives near the Mexican border, and was calling to also let us know that he was watching a funnel cloud to his south as well. Within a couple of minutes Hans had received the pictures. They were rather impressive for this part of the country. I immediately called Ben back and asked him if he could still see the funnel. However, he indicated that the funnel was no longer visible, and had either dissipated or moved west.

Radar images of this particular storm were not very impressive, especially when compared to other much stronger storms around southeast Arizona. It is important to note that the radar near portions of the Nogales area and south into Mexico has limitations due to beam blockage from some of the mountains in the area. This is why spotters are so important to us. Both Mary Ann and Ben provided us with "ground truth" information that evening. We never issued a warning for this storm since their information let us know that the funnel neither touched the ground, nor moved into Arizona. (Story continued on Page 3)



Mary Ann Jackson

One of our trained spotters that live in the Nogales area.



Ben Audia also lives near Nogales and was also helpful on this particular summer evening.

## National Weather Service Tucson Office Staff

*Meteorologist in Charge.....Glen Sampson*  
*Administrative Support Assistant.....Krist'l Palacio*  
*Warning Coordination Meteorologist.....Kenneth Drozd*  
*Science and Operations Officer.....Erik Pytlak*  
*Service Hydrologist.....Chad Kahler*  
*Electronic Systems Analyst.....Dennis Baron*  
*IT Specialist.....Evelyn Bersack*  
*Electronic Technician.....Joseph Lockridge*  
*Senior Forecasters.....Jeff Davis, Brian Francis, John Glueck, Jim Meyer, Greg Mollere*  
*Forecasters.....Glenn Lader, Chris Rasmussen, Steve Reedy, Craig Shoemaker, Gary Zell*  
*Meteorologist Intern.....Bill Turner*  
*Observation Program Leader.....Mic Sherwood*  
*Hydrometeorological Technician.....Hans Hanson*  
*Student Career Experience Program (SCEP).....Vacant*

## Two of our Recently Trained Spotters Provided Very Helpful Information During July of 2008

Greg Mollere, Senior Forecaster and Spotter Program Leader

### Pictures of the funnel cloud taken by Mary Ann Jackson



Ben also posted video of the funnel on YouTube. You can watch his video of the funnel as well as other weather videos that he has taken by going to [www.youtube.com](http://www.youtube.com) and doing a search for "edgeofnation".

*During the past monsoon we received numerous reports from our spotters which helped to either make the decision to warn easier, or aided in verifying a warning that had already been issued. Keep up the good work spotters.*

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*Please keep your personal information up-to-date. Do we have your correct mailing address, location, phone number and e-mail address? If not, please update us so that our database is as current as possible. The best way to update your information is by e-mail, or to call and speak with Greg Mollere. Thanks!*

Greg.Mollere@noaa.gov



# What to Expect For Temperatures This Winter

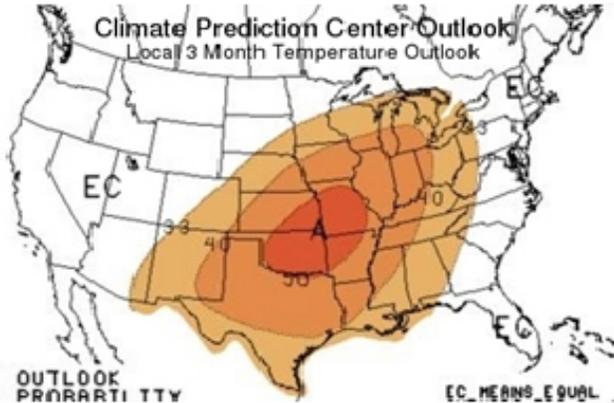
John Glueck, Senior Forecaster and Climate Focal Point

## Southeast Arizona Local 3-month temperature outlooks (L3MTO) Winter 2008-09 (December thru February)

The Climate Prediction Center Winter 2008-2009 temperature outlook for all of southeast Arizona calls for near normal temperatures.

But what does this mean for individual locations? What has been the temperature trend over the past 10 years?

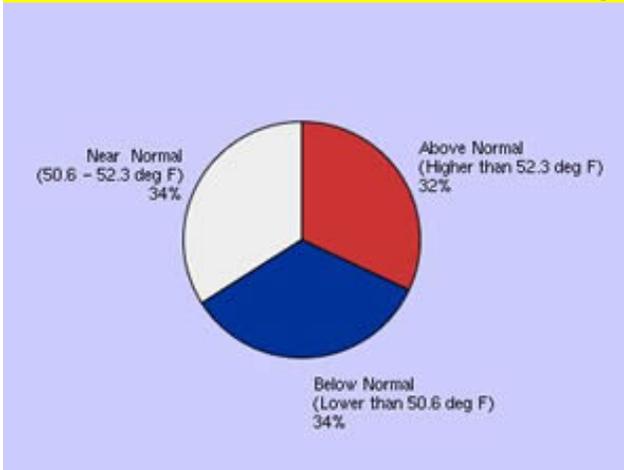
Spring 2009 outlook coming in February.



The full suite of 3-month temperature outlooks for southeast Arizona are available at the following URL:  
[http://www.weather.gov/climate/calendar\\_outlook.php?wfo=twc](http://www.weather.gov/climate/calendar_outlook.php?wfo=twc)

This page will give a summary of the Winter 2008-09 forecast for selected sites across southeast Arizona along with past data to compare the with current forecast. **Select a site below:**  
Tucson | Douglas | Safford | Willcox | Nogales | Oracle | Clifton | Organ Pipe | Kitt Peak  
**Pie chart HELP!**

### Winter 2008-09 temperature outlook for Tucson, Arizona



There is a (49.0%) chance that the temperature will be higher than the climatological median\* of 51.4 Deg F, and a (51.0%) chance that the temperature will be lower than the climatological median\*.

Average Winter temperatures since 1998-99

2007-08	52.0	2002-03	54.5
2006-07	51.8	2001-02	52.5
2005-06	55.7	2000-01	52.2
2004-05	54.3	1999-00	54.5
2003-04	52.2	1998-99	54.1

10 year average = 53.3 F  
1971-2000 normal = 52.9 F

If you would like to see the outlook for additional cities across southeast Arizona, or to get some help in the interpretation of the pie charts, go to our web site at <http://www.weather.gov/tucson>. Near the top of the page click on the link that says "Winter 2008-09 outlook for Southeast Arizona."

*For all your weather Information needs,*

*Visit us on the web at:*

*[weather.gov/tucson](http://www.weather.gov/tucson)*

# Winter Weather Products Now Simplified

Greg Mollere, Senior Forecaster

In the past our winter weather products were very specific in nature, meaning that a Hazardous Winter Weather Product could be issued for a multitude of weather elements. For example, a Blizzard Warning, Heavy Sleet Warning, Wind Chill Warning or Heavy Snow Warning could be issued if a storm was expected to meet or exceed established criteria. In addition, Winter Weather Advisories could also be issued for the accumulation of snow and/or for blowing and drifting snow if the snow amounts or wind speeds were expected to cause significant inconveniences, but remain below the criteria established for warnings. These products consisted of Snow Advisories and Blowing and/or Drifting Snow Advisories.

At times this situation could cause some confusion among our users. Therefore, this will be the first Winter season in which simplified Watch/Warning and Advisory products will be used. This winter the products issued will be Winter Storm Watches, Winter Storm Warnings or Winter Weather Advisories.

Winter Storm Watches will be issued if conditions are favorable for the development of hazardous winter weather, but the occurrence, location and/or timing is still uncertain. Watches are usually issued between 24 to 72 hours in advance of an approaching Winter storm.

Winter Storm Warnings will be issued when hazardous winter weather is occurring, imminent or has a high probability of occurrence. Winter Storm Warnings are usually issued up to 24 hours in advance, and 36 hours in advance if the forecaster's confidence is high that warning criteria will be met or exceeded.

The types of Winter Storm Warnings issued this Winter will consists of:

Warnings for Heavy Snow (See Chart), Blowing Snow, and Sleet.

Keep in mind that all of the Warnings will be issued as "Winter Storm Warnings", but emphasis will be placed on the element(s) that will cause the greatest impact.

Winter Weather Advisories will be issued when hazardous winter weather is expected to occur and meet advisory criteria, but is not expected to meet warning criteria.

Winter Weather Advisories will be issued up to 24 hours in advance, and 36 hours if forecaster confidence is high.

Winter Weather Advisories will be issued for the following:

Snow (See Chart)

Blowing and/or Drifting Snow

Sleet

We will continue to issue Blizzard warnings, Wind Chill warnings, Ice Storm warnings and Freezing Rain Advisories.

Products that will NO LONGER be issued, but will fall under Winter Storm Warnings/Advisories will be:

- Heavy Snow Warnings
- Heavy Snow and Blowing Snow Warnings
- Heavy Sleet Warnings
- Snow Advisories
- Blowing Snow Advisories
- Snow and Blowing Snow Advisories
- Sleet Advisories

Elevation	Hours	Winter Storm Warning for Heavy Snow
> 7,000 FT	12	8 inches or more
> 7,000 FT	24	12 inches or more
5,000-7,000 FT	12	6 inches or more
5,000-7,000 FT	24	10 inches or more
< 5,000 FT	12	2 inches or more
< 5,000 FT	24	4 inches or more

Elevation	Hours	Winter Weather Advisory for Snow
> 7,000 FT	12	4 - 8 inches or more
> 7,000 FT	24	8 - 12 inches or more
5,000-7,000 FT	12	3 - 6 inches or more
5,000-7,000 FT	24	5 - 10 inches or more
< 5,000 FT	12	1 - 2 inches or more
< 5,000 FT	24	2 - 4 inches or more

## 2008 Tucson Weather Review

John Glueck, Senior Forecaster and Climate Focal Point

...HIGHLIGHTS...

...14TH WARMEST AND 23RD DRIEST YEAR ON RECORD...

...10TH STRAIGHT YEAR OF ABOVE NORMAL TEMPERATURES...

...8TH STRAIGHT YEAR OF BELOW NORMAL RAINFALL...

...1ST RECORD LOW TEMPERATURE SET IN OCTOBER SINCE 1971...

THE RESIDENTS OF THE TUCSON METRO AREA EXPERIENCED YET ANOTHER WARM AND DRY YEAR...ALTHOUGH IT WAS SOMEWHAT COOLER THAN THE PAST THREE YEARS. LA NINA CONDITIONS...WHICH STARTED THE YEAR IN MODERATE STATUS...WEAKENED DURING APRIL...THEN TRANSITIONED TO ENSO NEUTRAL STATUS IN JUNE AND REMAINED IN THIS STATUS AT THE END OF THE YEAR.

TEMPERATURE...

THE AVERAGE YEARLY TEMPERATURE FOR 2008 OF 70.0 DEGREES WAS 1.3 DEGREES ABOVE NORMAL AND RANKS AS THE 14TH WARMEST YEAR (TIED WITH 2002 AND 2000) ON RECORD. THIS MARKS THE 10TH STRAIGHT YEAR THAT THE AVERAGE TEMPERATURE HAS BEEN ABOVE NORMAL. IN FACT...DATING BACK TO 1984 ONLY ONE YEAR (1998 68.1 DEGREES) HAS BEEN BELOW NORMAL.

LAST 10 YEARLY AVERAGE TEMPERATURES / ALL-TIME RANKING...

YEAR	TEMP	RANKING	YEAR	TEMP	RANKING
2008	70.0 F	14TH WARMEST	2003	70.7 F	4TH WARMEST
2007	70.5 F	8TH WARMEST	2002	70.0 F	14TH WARMEST
2006	70.2 F	11TH WARMEST	2001	69.7 F	20TH WARMEST
2005	70.8 F	3RD WARMEST	2000	70.0 F	14TH WARMEST
2004	69.3 F	26TH WARMEST	1999	69.6 F	21ST WARMEST
1971-2000 NORMAL ..... 68.7 F					
5 YEAR AVERAGE ..... 70.2 F					
10 YEAR AVERAGE ..... 70.1 F					
20 YEAR AVERAGE ..... 70.0 F					

THE AVERAGE YEARLY HIGH TEMPERATURE FOR 2008 OF 83.7 DEGREES WAS 1.2 DEGREES ABOVE NORMAL.

LAST 10 YEARLY AVERAGE HIGH TEMPERATURES / ALL-TIME RANKING...

YEAR	TEMP	RANKING	YEAR	TEMP	RANKING
2008	83.7 F	29TH WARMEST	2003	84.4 F	12TH WARMEST
2007	84.1 F	17TH WARMEST	2002	84.2 F	16TH WARMEST
2006	83.9 F	21ST WARMEST	2001	83.5 F	32ND WARMEST
2005	84.0 F	19TH WARMEST	2000	84.0 F	19TH WARMEST
2004	82.3 F	42ND COLDEST	1999	84.4 F	12TH WARMEST
1971-2000 NORMAL ..... 82.5 F					
5 YEAR AVERAGE ..... 83.6 F					
10 YEAR AVERAGE ..... 83.9 F					
20 YEAR AVERAGE ..... 84.1 F					

THE MOST CONSECUTIVE DAYS THAT TUCSON HAD A HIGH OF 100 DEGREES OR BETTER IN 2008 WAS 14 DAYS (JUNE 13 TO JUNE 26). THIS IS THE LOWEST YEARLY NUMBER OF CONSECUTIVE DAYS SINCE 2004.

# 2008 Tucson Weather Review

John Glueck, Senior Forecaster and Climate Focal Point

## YEARLY LONGEST CONSECUTIVE DAYS WITH HIGH OF 100 DEGREES OR BETTER

2008.... 14 DAYS  
 2007.... 37 DAYS 3RD LONGEST  
 2006.... 17 DAYS 38TH LONGEST (TIED WITH 1960 AND 1953)  
 2005.... 39 DAYS ALL-TIME RECORD LONGEST (TIED WITH 1987)  
 2004.... 7 DAYS  
 2003.... 22 DAYS 16TH LONGEST  
 2002.... 33 DAYS 4TH LONGEST  
 2001.... 8 DAYS  
 2000.... 22 DAYS 16TH LONGEST  
 1999.... 10 DAYS

ALTHOUGH 2008 WAS NEAR THE HISTORICAL AVERAGE (1895-2007) OF 15 CONSECUTIVE DAYS...IT IS WELL BELOW THE LATEST 10 YEAR CONSECUTIVE AVERAGE OF 21 DAYS AND 5 YEAR CONSECUTIVE AVERAGE OF 24 DAYS.

THE AVERAGE YEARLY LOW TEMPERATURE FOR 2008 OF 56.2 DEGREES WAS 1.4 DEGREES ABOVE NORMAL AND RANKS AS THE 10TH WARMEST ON RECORD.

## LAST 10 YEARLY AVERAGE LOW TEMPERATURES / ALL-TIME RANKING...

YEAR	TEMP	RANKING	YEAR	TEMP	RANKING
2008	56.2 F	10TH WARMEST	2003	57.0 F	2ND WARMEST
2007	56.9 F	3RD WARMEST	2002	55.9 F	17TH WARMEST
2006	56.6 F	5TH WARMEST	2001	56.0 F	14TH WARMEST
2005	57.5 F	WARMEST	2000	56.0 F	14TH WARMEST
2004	56.2 F	10TH WARMEST	1999	54.9 F	30TH WARMEST
1971-2000 NORMAL	54.8 F				
5 YEAR AVERAGE	56.7 F				
10 YEAR AVERAGE	56.3 F				
20 YEAR AVERAGE	56.0 F				

TEMPERATURE EXTREMES FOR 2008 RANGED FROM A HIGH OF 111 DEGREES ON JUNE 21ST TO A LOW OF 26 DEGREES ON DECEMBER 28TH. THE MERCURY REACHED OR EXCEEDED 100 DEGREES ON 50 DAYS WITH THE 1971-2000 AVERAGE BEING 55 DAYS. THE MERCURY HIT OR DIPPED BELOW FREEZING ON 12 DAYS WITH THE 1971-2000 AVERAGE BEING 11 DAYS. THE DAILY LOW TEMPERATURE WAS IN THE 20S ON 6 DAYS...WHICH IS RIGHT AT THE 1971-2000 AVERAGE. THE DAILY LOW TEMPERATURE WAS 80 DEGREES OR WARMER ON 2 DAYS WITH THE 1971-2000 AVERAGE BEING 4 DAYS. THIS IS THE LEAST YEARLY TOTAL SINCE ZERO WAS RECORDED IN 1999. IN THE PREVIOUS THREE YEARS THE AIRPORT HAD RECORDED 36 DAYS FOR AN AVERAGE OF 12 PER YEAR.

10 DAILY TEMPERATURE RECORDS WERE SET OR TIED IN 2008 (1 HIGH...1 LOW...3 LOW MAXIMUMS AND 5 HIGH MINIMUMS).

TYPE	DATE	NEW RECORD	OLD RECORD
HIGH MIN	JANUARY 6	55	54 / 2006
HIGH MIN	APRIL 14	65	62 / 2006
HIGH	JUNE 17	109 (TIED)	109 / 1989   1985   1917
LOW HIGH	JULY 10	86 (TIED)	86 / 1930
LOW HIGH	JULY 11	89 (TIED)	89 / 1992   1949   1919
LOW	OCTOBER 13	38	43 / 1931
LOW HIGH	OCTOBER 13	72	73 / 1957
HIGH MIN	OCTOBER 28	65 (TIED)	65 / 1943
HIGH MIN	NOVEMBER 21	55 (TIED)	55 / 1936
HIGH MIN	NOVEMBER 25	55	54 / 1990

# 2008 Tucson Weather Review

John Glueck, Senior Forecaster and Climate Focal Point

THE ONE RECORD HIGH TEMPERATURE THAT WAS TIED IN 2008 IS THE LEAST AMOUNT SINCE ZERO WERE SET IN 1973.

LEAST AMOUNT OF DAILY RECORD HIGHS SET/TIED IN A CALENDAR YEAR:

- 1) 0 DAYS - 1973 | 1966 | 1964 | 1961 | 1941
- 2) 1 DAY - 2008 | 1977 | 1976 | 1975 | 1974

THE RECORD LOW TEMPERATURE OF 38 DEGREES ON OCTOBER 13TH IS THE FIRST RECORD LOW SET/TIED IN OCTOBER SINCE 1971. ALSO IT WAS THE FIRST TIME A DAILY OCTOBER LOW WAS IN THE 30S SINCE OCTOBER 26 1996 (38F).

THE COMBINED TOTAL OF ONLY 10 DAILY RECORDS BEING SET OR TIED IN 2008 IS THE LOWEST SINCE 9 WERE SET IN 1983 (3 HIGHS...0 LOWS...2 LOW MAXIMUMS AND 4 HIGH MINIMUMS).

LEAST AMOUNT OF COMBINED TOTAL OF DAILY RECORDS SET/TIED IN A YEAR:

- 1) 6 IN 1982 (2 HIGHS...0 LOWS...3 LOW MAXS...1 HIGH MINS)
- 2) 9 IN 1983 (3 HIGHS...0 LOWS...2 LOW MAXS...4 HIGH MINS)
- 9 IN 1973 (0 HIGHS...1 LOWS...7 LOW MAXS...1 HIGH MINS)
- 3) 10 IN 2008 (1 HIGHS...1 LOWS...3 LOW MAXS...5 HIGH MINS)
- 10 IN 1975 (1 HIGHS...1 LOWS...8 LOW MAXS...0 HIGH MINS)

RAINFALL...

RAINFALL ACROSS THE METRO AREA FOR 2008 VARIED WIDELY AND RANGED FROM 6 TO 16 INCHES ON THE VALLEY FLOOR WITH 25 TO 40 INCHES IN THE CATALINA AND RINCON MOUNTAINS. FOR THE 8TH STRAIGHT YEAR...THE INTERNATIONAL AIRPORT RECORDED BELOW NORMAL RAINFALL WITH ONLY 8.67" BEING RECORDED.

THREE DAILY RAINFALL RECORDS WERE SET DURING 2008...

DATE	RECORD	OLD RECORD/YEAR	MONTHLY RANK
FEB. 15	0.94"	0.49"/1931	8TH WETTEST DAY
JUL. 11	1.73"	0.90"/1919	11TH WETTEST DAY
DEC. 23	0.64"	0.58"/1914	

LAST 10 YEARLY RAINFALL TOTALS / ALL-TIME RANKING...

YEAR	.....	RAINFALL	RANKING	YEAR	.....	RAINFALL	RANKING
2008	.....	8.67"	23RD DRIEST	2003	.....	10.05"	46TH DRIEST
2007	.....	9.78"	39TH DRIEST	2002	.....	7.83"	15TH DRIEST
2006	.....	11.81"	44TH WETTEST	2001	.....	7.81"	14TH DRIEST
2005	.....	9.57"	34TH DRIEST	2000	.....	12.44"	36TH WETTEST
2004	.....	7.60"	11TH DRIEST	1999	.....	9.68"	36TH DRIEST
1971-2000 NORMAL ..... 12.17"							
5 YEAR AVERAGE ..... 9.49"							
10 YEAR AVERAGE ..... 9.53" OR A TEN YEAR DEFICIT OF 26.46"							
20 YEAR AVERAGE ..... 10.82"							

THE 2008 MONSOON WAS ANOTHER ACTIVE ONE...THE FOURTH IN A ROW...AS RAINFALL TOTAL VARIED WIDELY ACROSS THE METRO AREA. TOTALS RANGED FROM TWO TO TWELVE INCHES AT/NEAR THE VALLEY FLOOR WITH 12 TO 24 INCHES OF RAIN BEING RECORDED IN THE CATALINA AND RINCON MOUNTAINS.

# 2008 Tucson Weather Review

John Glueck, Senior Forecaster and Climate Focal Point

PAST 10 MONSOON RAINFALL TOTALS / ALL-TIME TOP 50 RANKING...

YEAR ...	RAINFALL	RANKING	YEAR ...	RAINFALL	RANKING
2008 ...	5.52"		2003 ...	6.70"	41ST WETTEST
2007 ...	6.57"	42ND WETTEST	2002 ...	5.78"	
2006 ...	10.20"	6TH WETTEST	2001 ...	2.81"	10TH DRIEST
2005 ...	5.30"	47TH DRIEST	2000 ...	4.87"	41ST DRIEST
2004 ...	2.42"	4TH DRIEST	1999 ...	8.33"	13TH WETTEST
1971-2000 NORMAL .....	6.06"				
5 YEAR AVERAGE .....	6.00"				
10 YEAR AVERAGE .....	5.85"				
20 YEAR AVERAGE .....	5.71"				

THE 2007-2008 WATER YEAR (OCTOBER 1ST THRU SEPTEMBER 30TH) CONTINUED THE TREND OF BELOW NORMAL RAINFALL THAT STARTED BACK IN 2001. THE INTERNATIONAL AIRPORT RECORDED ONLY 8.93" WHICH IS OVER THREE INCHES BELOW NORMAL AND RANKS AS THE 27TH DRIEST WATER YEAR ON RECORD.

LAST 10 WATER YEAR RAINFALL TOTALS / ALL-TIME TOP 50 RANKING...

SEASON	RAINFALL	RANKING	SEASON	RAINFALL	RANKING
2007-2008 ...	8.93"	27TH DRIEST	2002-2003 ...	9.85"	41ST DRIEST
2006-2007 ...	9.09"	29TH DRIEST	2001-2002 ...	7.80"	17TH DRIEST
2005-2006 ...	11.24"		2000-2001 ...	12.82"	35TH WETTEST
2004-2005 ...	11.02"		1999-2000 ...	6.09"	5TH DRIEST
2003-2004 ...	7.42"	13TH DRIEST	1998-1999 ...	11.04"	
1971-2000 NORMAL .....	12.17"				
5 YEAR AVERAGE .....	9.54"				
10 YEAR AVERAGE .....	9.53"				
20 YEAR AVERAGE .....	10.90"				

DROUGHT CONDITIONS...

CONDITIONS FLUCTUATED BETWEEN NO SHORT TERM DROUGHT AND ABNORMALLY DRY DURING 2008. AS THE YEAR CLOSED...THE AREA WAS CLASSIFIED AS BEING IN NO SHORT TERM DROUGHT. HOWEVER...LONG TERM DROUGHT CONDITIONS STILL REMAIN WITH THE AREA OVER 2 FEET BELOW NORMAL IN THE PAST 10 YEARS.

DETAILED INDIVIDUAL MONTHLY REPORTS FOR 2008 ARE AVAILABLE ON OUR WEBSITE AT: <http://www.wrh.noaa.gov/twc/climate/reports.php>

...MONTHLY STATISTICS FOR 2008...

	AVG HIGH	DEP	AVG LOW	DEP	AVG TEMP	DEP	PRECIP	DEP
JANUARY	63.6	-0.9	39.8	+0.9	51.7	0.0	0.17"	-0.82"
FEBRUARY	69.3	+0.9	41.2	-0.4	55.3	+0.3	1.22"	+0.34"
MARCH	76.0	+2.7	45.7	+0.6	60.9	+1.7	0.37"	-0.44"
APRIL	84.4	+2.9	52.2	+1.7	68.3	+2.3	0.05"	-0.23"
MAY	88.5	-1.9	58.0	-0.6	73.3	-1.2	0.02"	-0.22"
JUNE	102.5	+2.3	71.5	+3.5	87.0	+2.9	0.16"	-0.08"
JULY	96.9	-2.7	74.3	+0.9	85.6	-0.9	3.42"	+1.35"
AUGUST	96.8	-0.6	74.0	+1.6	85.4	+0.5	1.70"	-0.60"
SEPTEMBER	95.0	+1.0	69.7	+2.0	82.4	+1.5	0.24"	-1.21"
OCTOBER	88.3	+4.3	57.5	+0.5	72.9	+2.4	TRACE	-1.21"
NOVEMBER	77.0	+4.7	48.9	+3.0	63.0	+4.3	0.27"	-0.40"
DECEMBER	66.5	+1.9	41.0	+1.8	53.7	+1.8	1.03"	0.00"
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2008	83.7	+1.2	56.2	+1.4	70.0	+1.3	8.67"	-3.50"

# 2008 Tucson Weather Review

John Glueck, Senior Forecaster and Climate Focal Point

...SEASON BY SEASON HIGHLIGHTS OF 2008...

WINTER 2007-2008...2ND STRAIGHT COOLER THAN NORMAL WINTER.

SPRING 2008.....27TH WARMEST AND 24TH DRIEST ON RECORD.

SUMMER 2008.....16TH WARMEST AND 40TH WETTEST ON RECORD.

FALL 2008.....6TH WARMEST AND 6TH DRIEST ON RECORD.

MONSOON 2008....17TH WARMEST AND 53RD DRIEST ON RECORD.

WATER YEAR (OCT. 2007 - SEP. 2008)...27TH DRIEST ON RECORD.

OUTLOOK FOR 2009...

THE CLIMATE PREDICTION CENTER FORECAST FOR 2009 IS FOR YET ANOTHER YEAR OF ABOVE NORMAL TEMPERATURES. ENSO NEUTRAL OR LA NINA LIKE CONDITIONS WILL PERSIST DURING THE FIRST HALF OF 2009. ON THE RAINFALL SIDE...EACH MONTH HAS AN EQUAL CHANCE OF EITHER BEING BELOW OR ABOVE NORMAL. BASED ON PAST HISTORY...BELOW NORMAL RAINFALL IS PROBABLY THE BETTER FORECAST.

AVERAGE YEARLY HIGH TEMPERATURE .... 82.5 DEGREES

AVERAGE YEARLY LOW TEMPERATURE..... 54.8 DEGREES

AVERAGE YEARLY TEMPERATURE ..... 68.7 DEGREES

RECORD HIGH TEMPERATURE ..... 117 DEGREES ON JUNE 26 1990

RECORD LOW TEMPERATURE ..... 6 DEGREES ON JANUARY 7 1913

WARMEST YEAR (AVG) ..... 71.4 DEGREES IN 1989

COLDEST YEAR (AVG) .....65.0 DEGREES IN 1912

NORMAL RAINFALL ..... 12.17 INCHES

WETTEST DAY ..... 3.93 INCHES ON JULY 29 1958

WETTEST YEAR ..... 24.17 INCHES IN 1905

DRIEST YEAR ..... 5.07 INCHES IN 1924

THIS YEARLY REPORT IS ALSO AVAILABLE ON OUR WEBSITE AT:

<http://www.wrh.noaa.gov/twc/climate/monthly/2008.php>

## National Weather Service

520 N. Park Avenue  
Suite 304  
Tucson, AZ 85719

Phone: 520-670-5162  
Fax: 520-670-5167  
E-mail:



Phone Numbers to call for  
spotter  
reports:

1-800-238-3747