

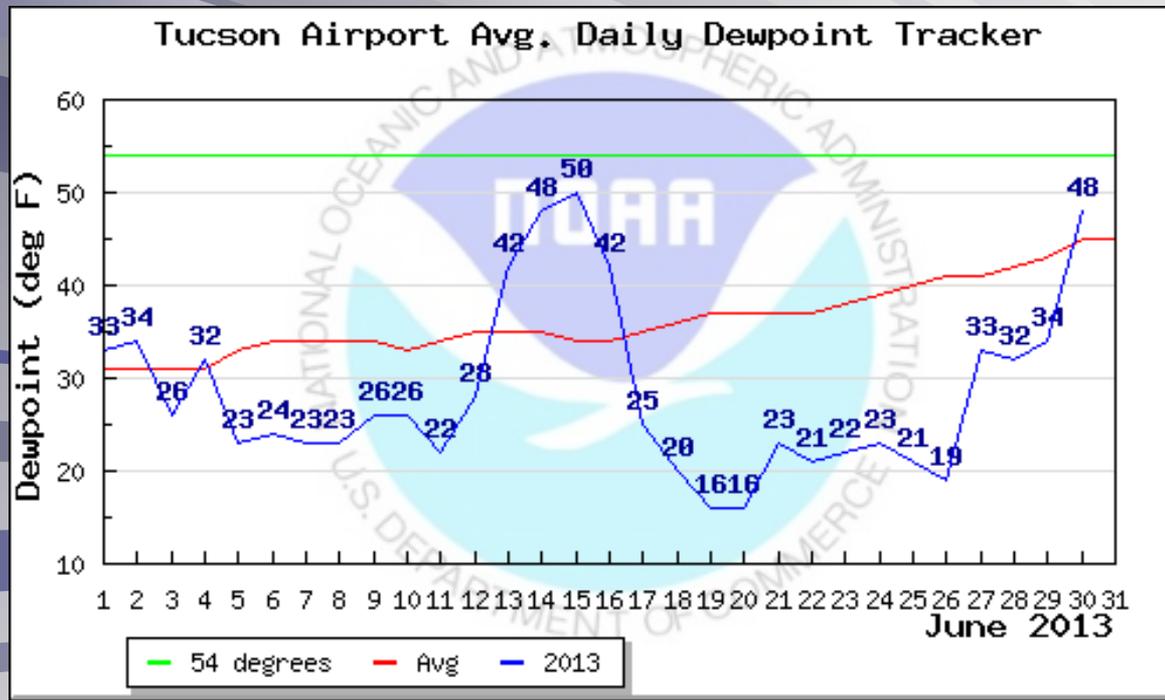


2013 Monsoon

Erin Boyle
Service Hydrologist
NWS Tucson
Pima County LDIG Meeting
September 11, 2013

JUNE

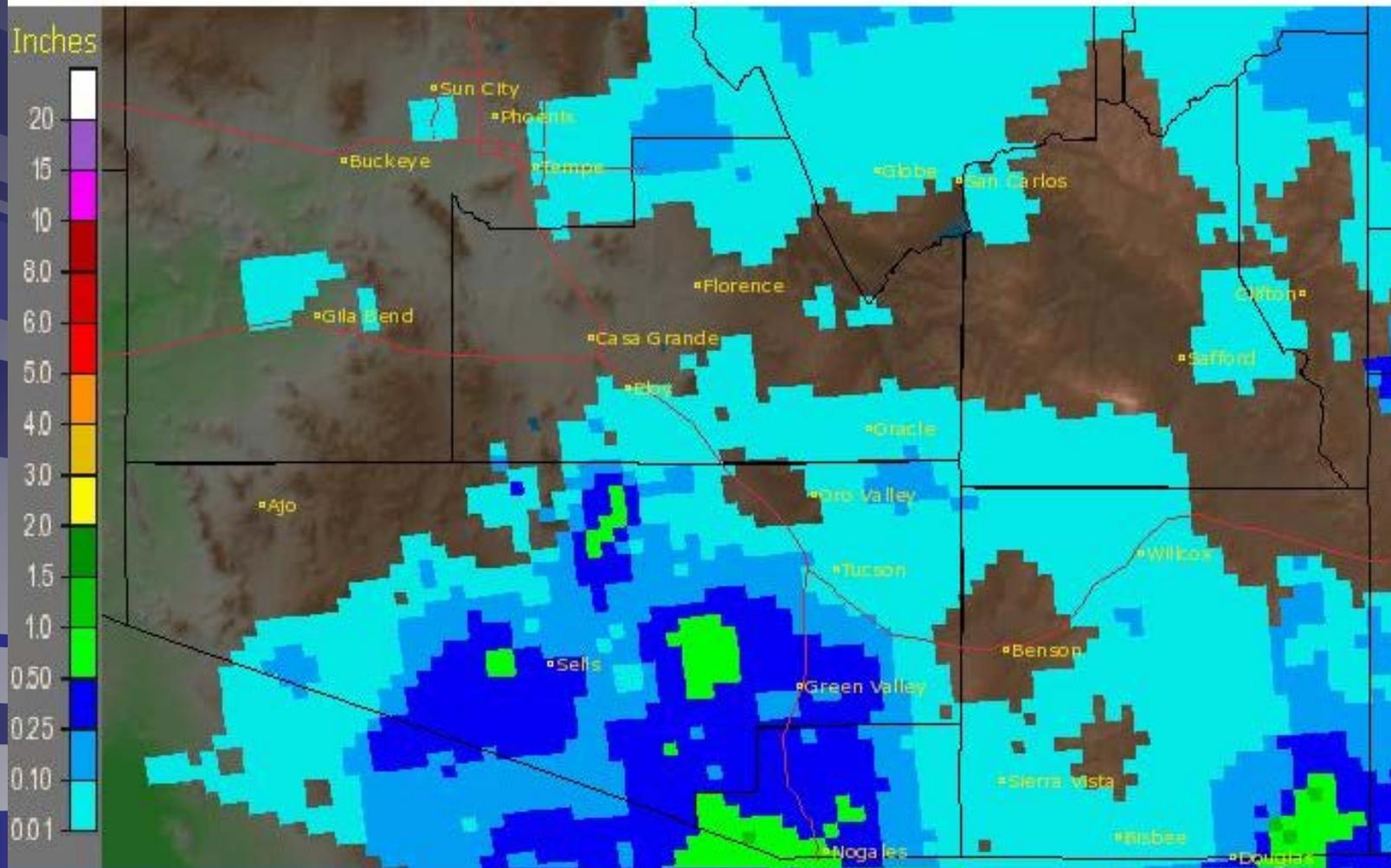
- **HOTTEST** on record
- Everyday 100°F+
- 29th Driest June
- Tucson Airport 0.03” rainfall, normal is 0.24”
- Rainlog.org, CoCoRaHS, & Pima CO ALERT gages recorded zero to 1.0“



Southeast Arizona June Precipitation Source:

<http://water.weather.gov>

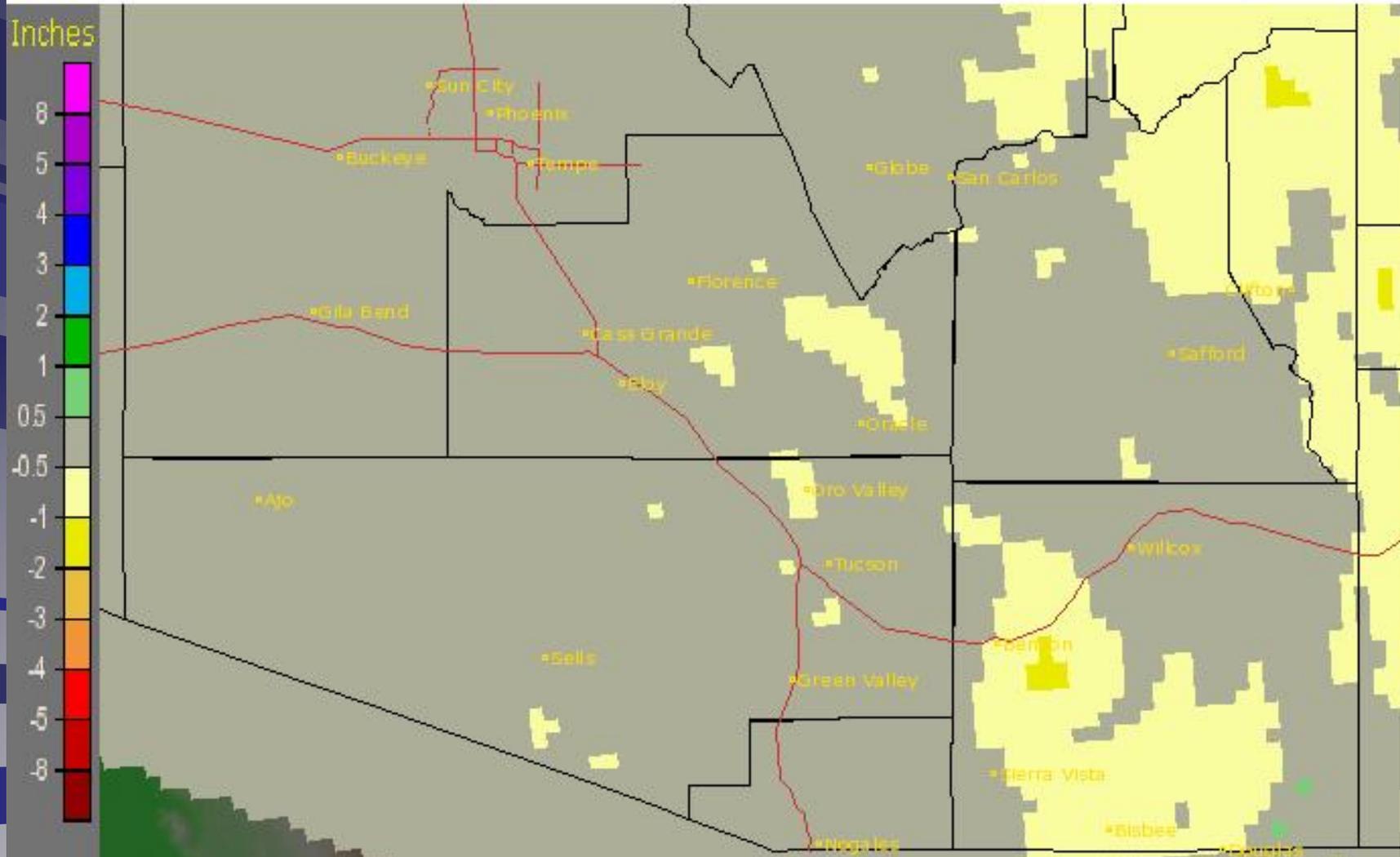
Tucson, AZ (TWC): June, 2013 Monthly Observed Precipitation
Valid at 7/1/2013 1200 UTC- Created 7/3/13 21:39 UTC



June departure from normal precipitation Source:

<http://water.weather.gov>

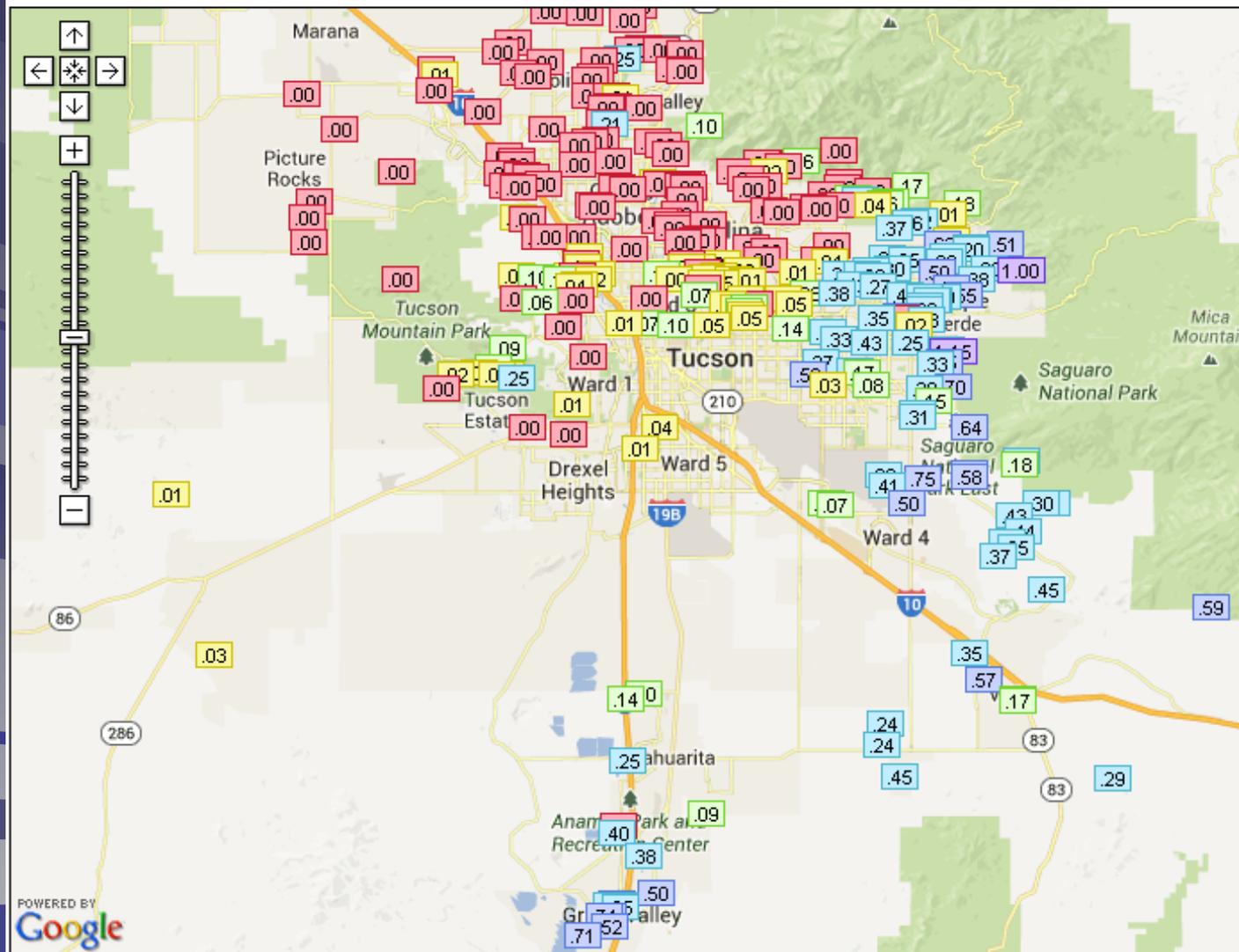
Tucson, AZ (TWC): June, 2013 Monthly Departure from Normal Precipitation
Valid at 7/1/2013 1200 UTC- Created 7/3/13 21:42 UTC



Tucson Area June Precipitation Totals

Source: <http://rainlog.org>

Report of Rainfall Data for 6/2013



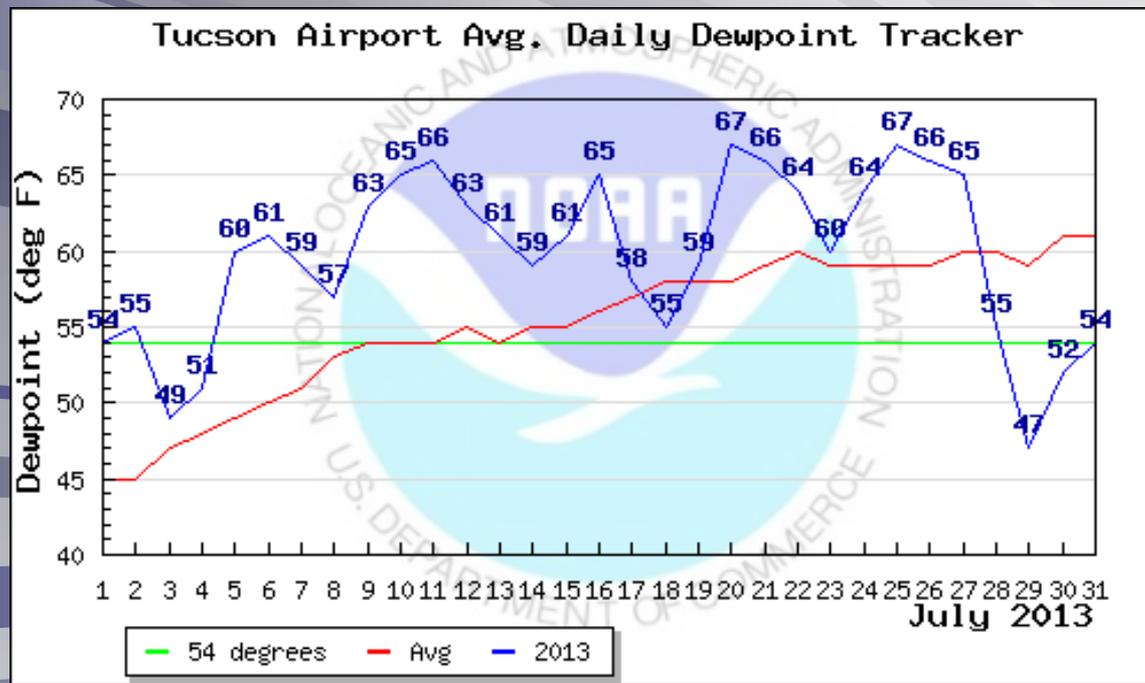
POWERED BY
Google

Map Legend (all amounts in inches)

No rain Trace .01 - .05 .06 - .19 .20 - .49 .50 - .99 1.00+

JULY

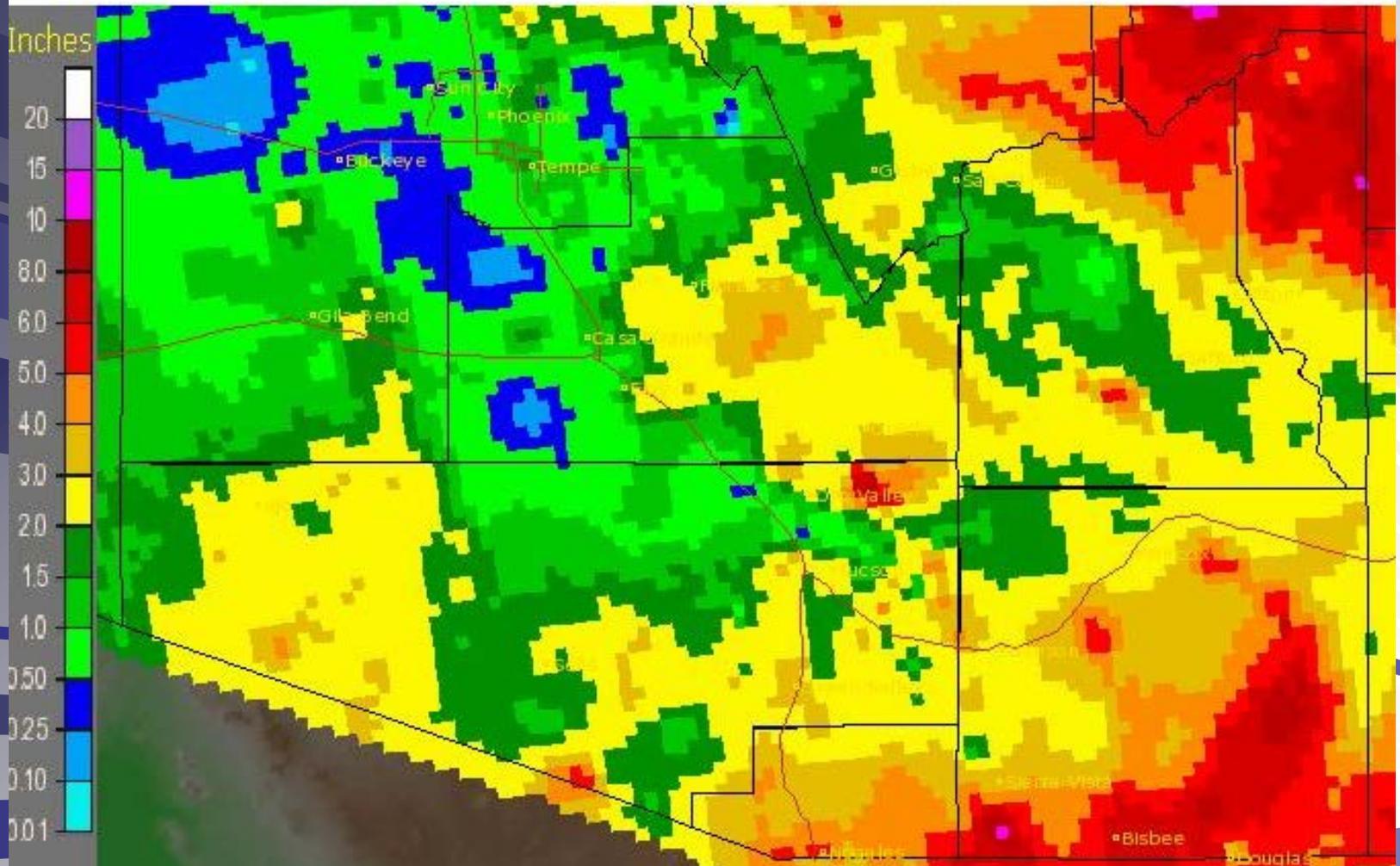
- 2.63" rainfall at Tucson Airport, normal is 2.45"
- 10.12" rainfall at Douglas Airport, well above normal of 2.95"
- Rainlog.org, CoCoRaHS, & Pima County ALERT gages recorded 0.25" to 10"



Southeast Arizona July Precipitation

Source: <http://water.weather.gov>

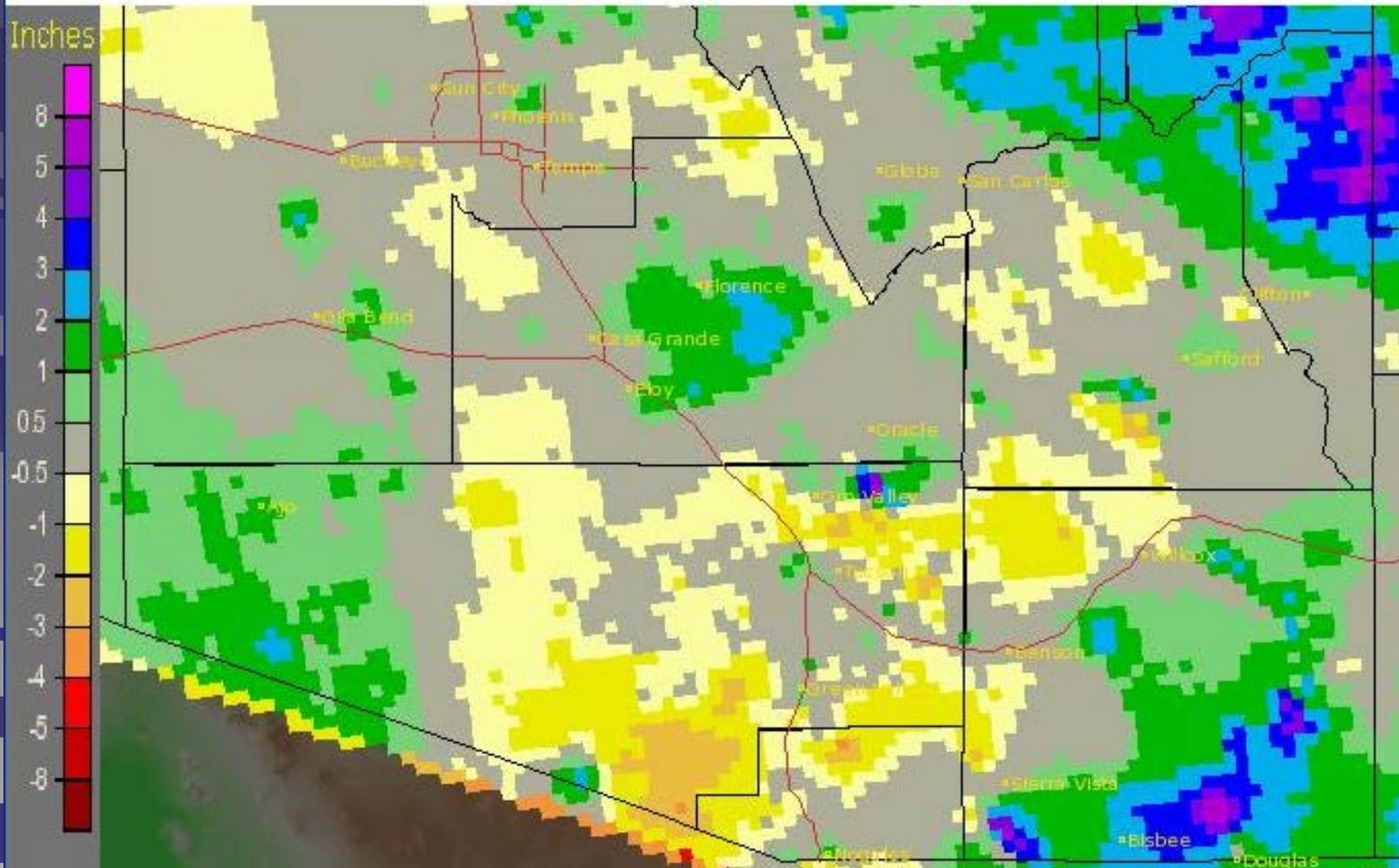
Tucson, AZ (TWC): July, 2013 Monthly Observed Precipitation
Valid at 8/1/2013 1200 UTC- Created 8/16/13 4:32 UTC



July Departure from Normal Precipitation Source:

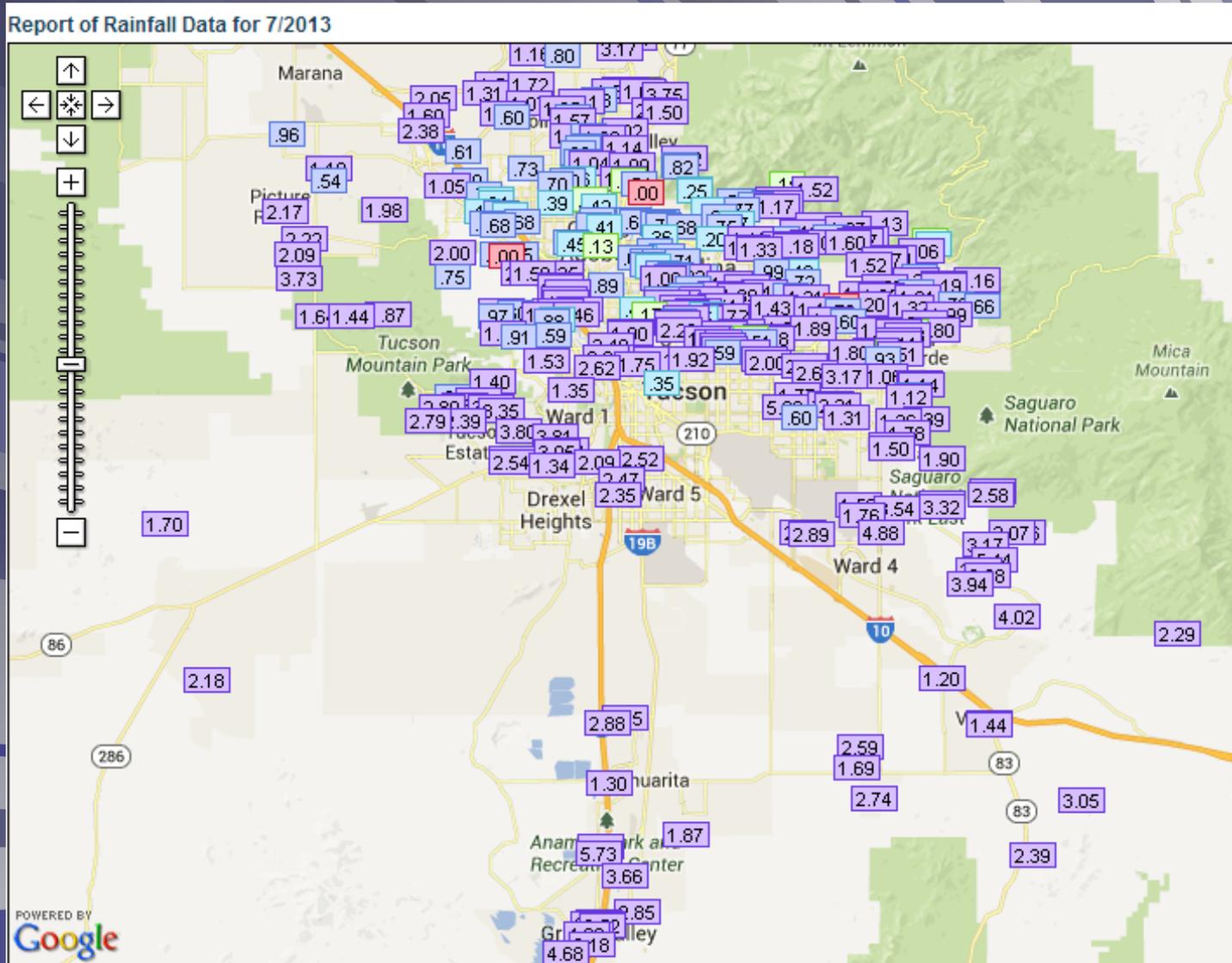
<http://water.weather.gov>

Tucson, AZ (TWC): July, 2013 Monthly Departure from Normal Precipitation
Valid at 8/1/2013 1200 UTC- Created 8/16/13 4:33 UTC



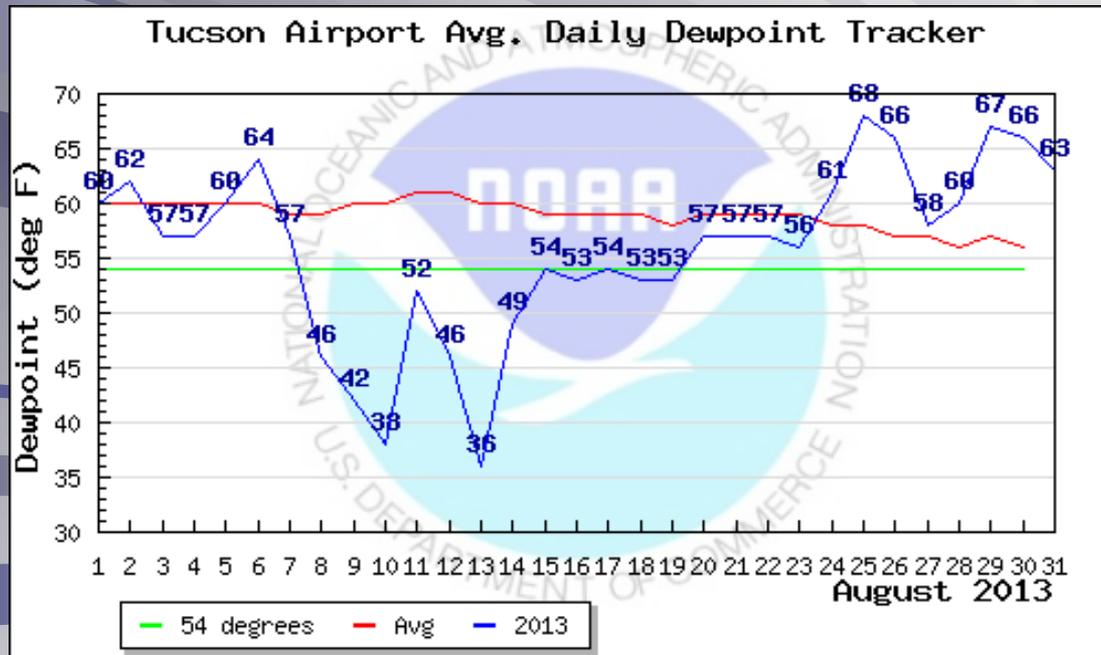
Tucson Area July Precipitation Totals

Source: <http://rainlog.org>



AUGUST

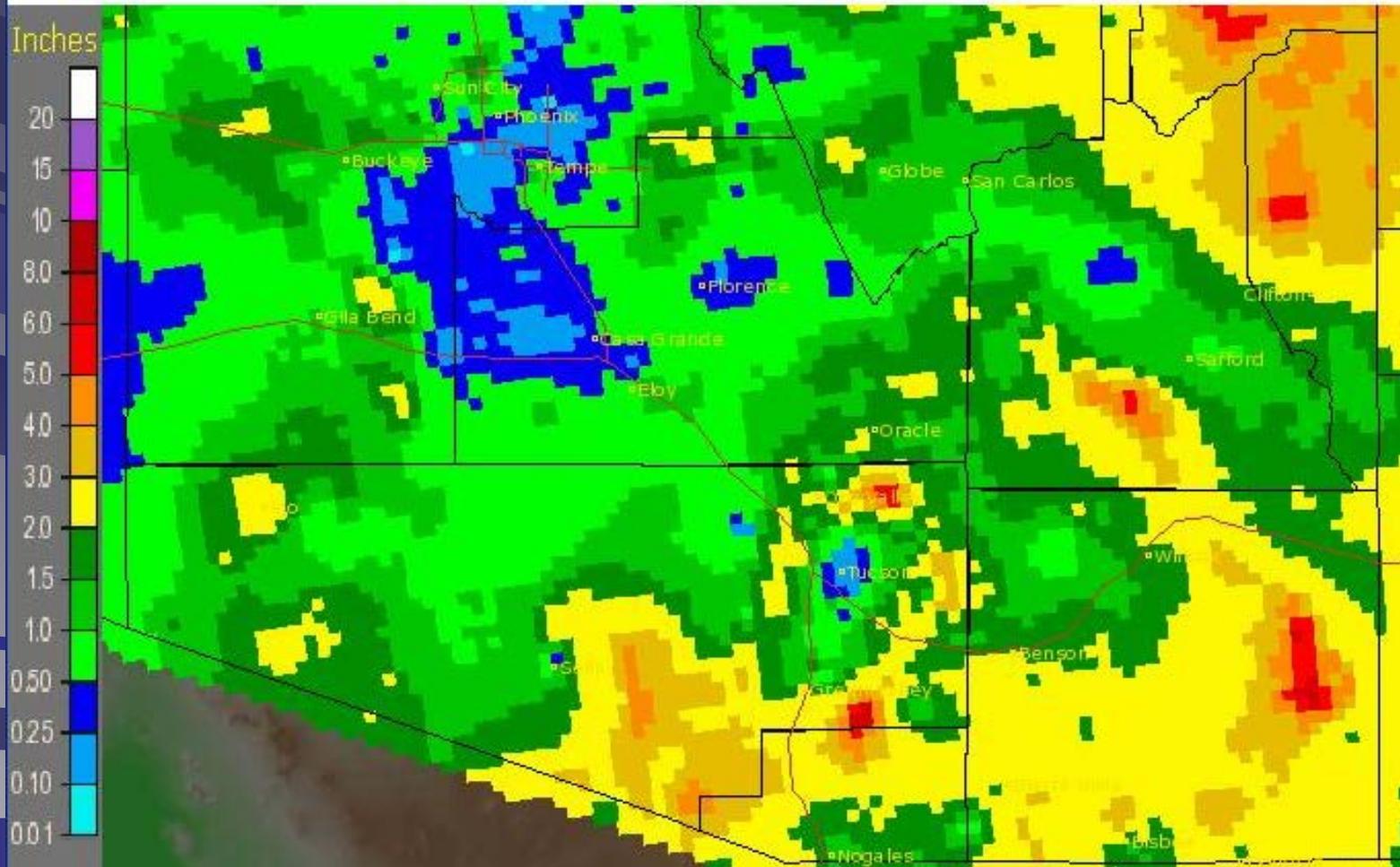
- Hot and Dry
- 0.48" rain at Tucson Airport, normal is 2.39"
- Rainlog.org, CoCoRaHS, and Pima CO ALERT gages recorded 0.30" – 2"
- 13 consecutive days of 100° or hotter



Southeast Arizona precipitation for August

Source: <http://water.weather.gov>

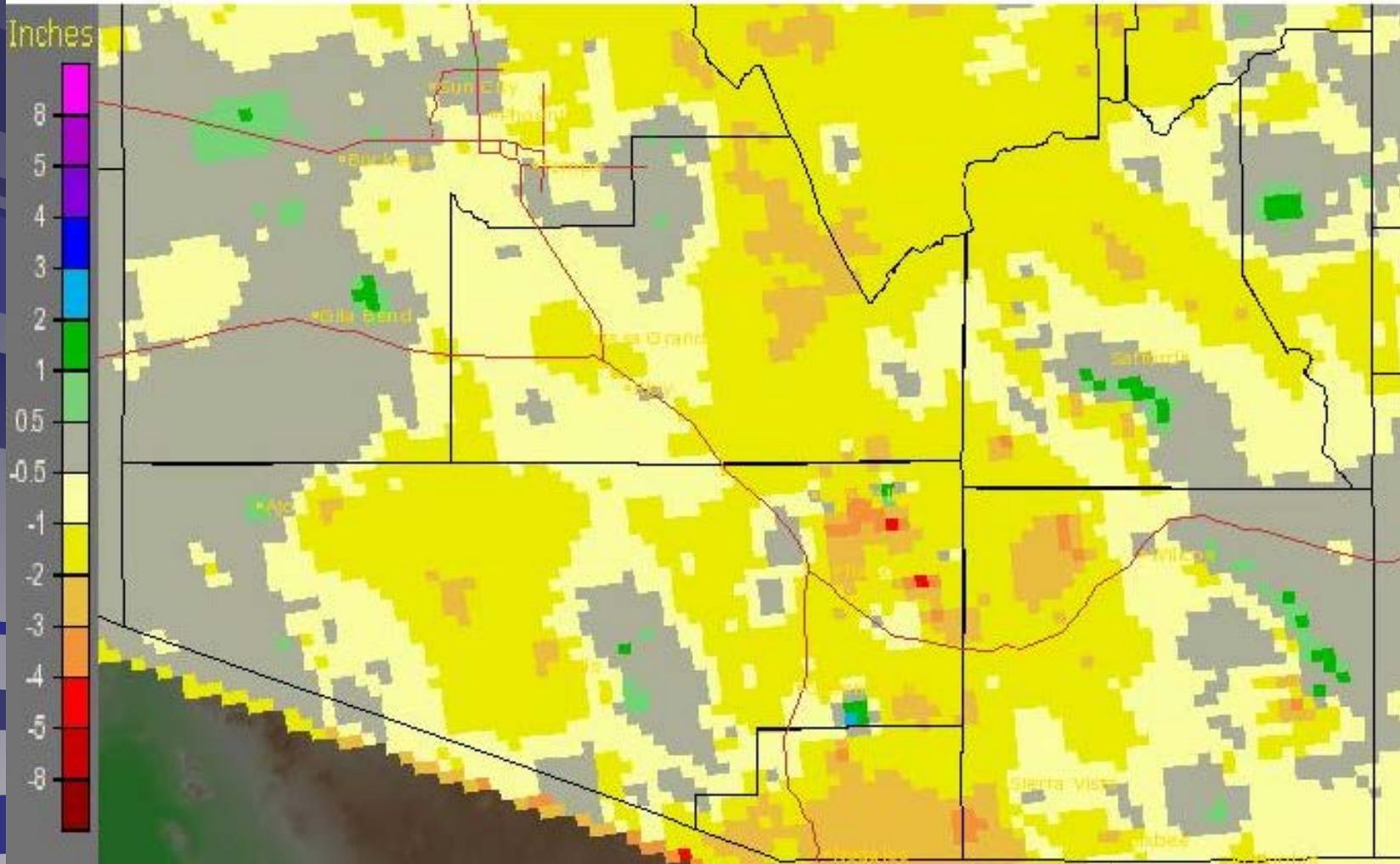
Tucson, AZ (TWC): August, 2013 Monthly Observed Precipitation
Valid at 9/1/2013 1200 UTC- Created 9/3/13 21:37 UTC



Southeast AZ August departure from normal precipitation

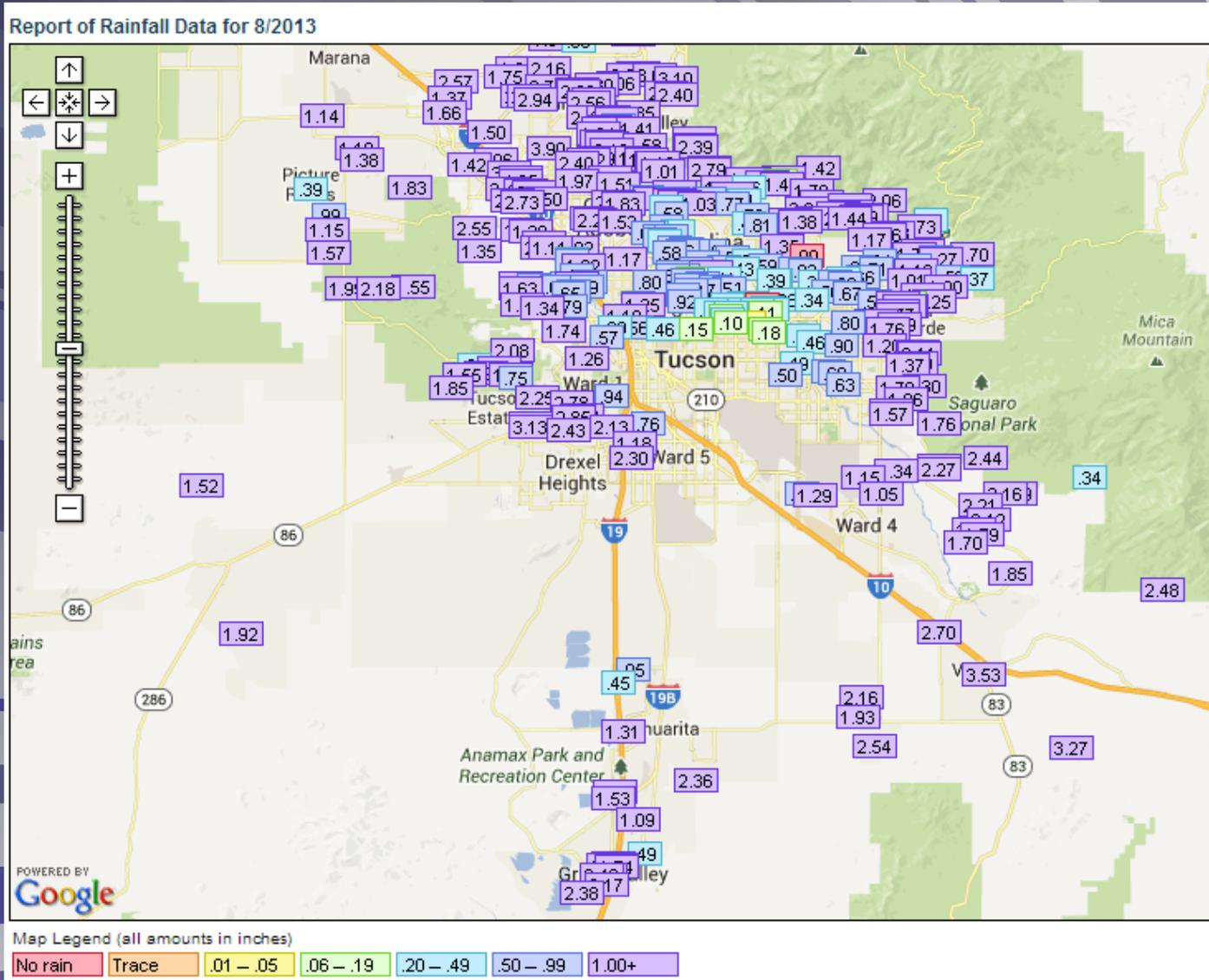
Source: <http://water.weather.gov>

Tucson, AZ (TWC): August, 2013 Monthly Departure from Normal Precipitation
Valid at 9/1/2013 1200 UTC- Created 9/3/13 21:38 UTC



Tucson Area precipitation totals for August

source: <http://rainlog.org>

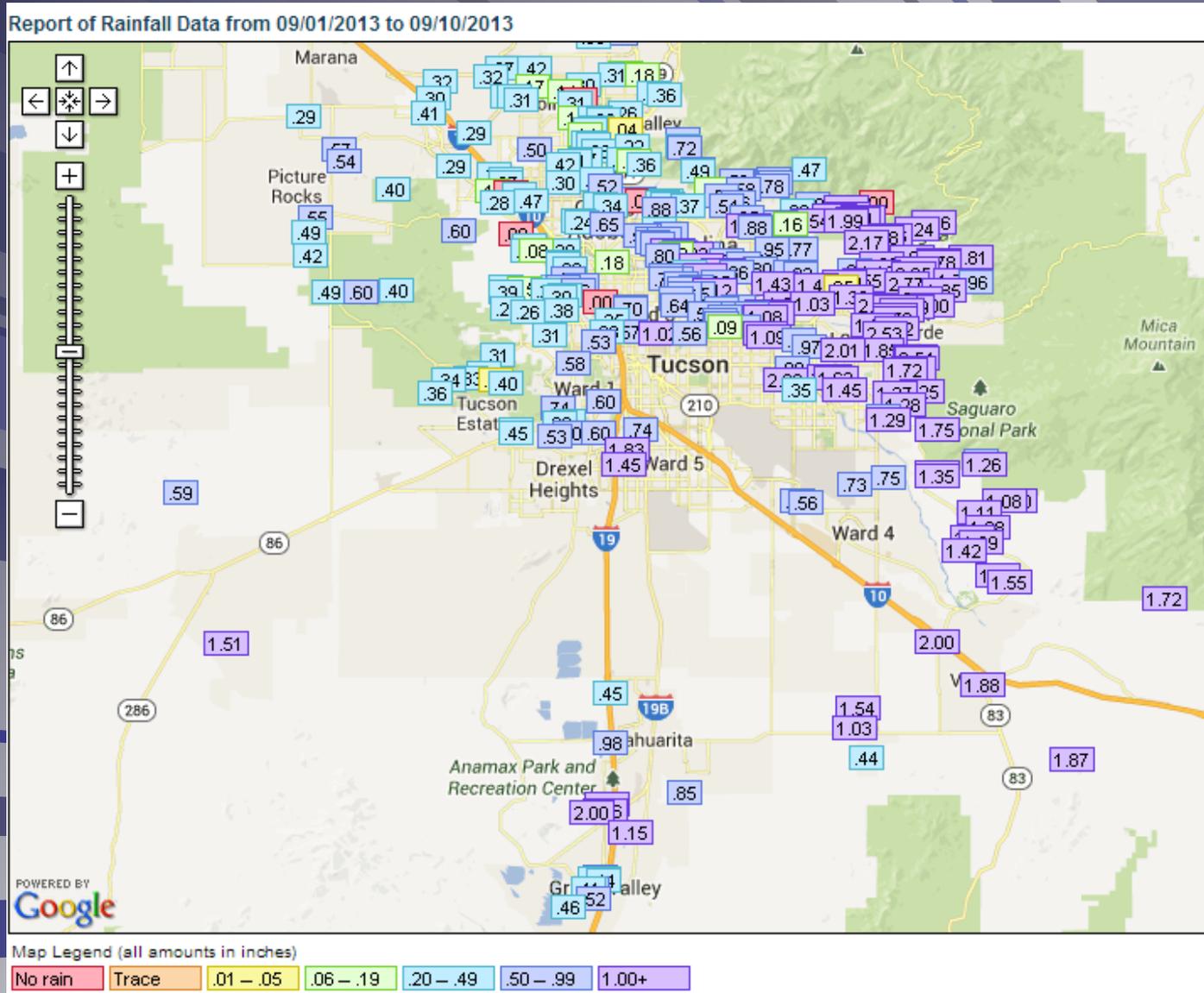


SEPTEMBER (As of Sept 10)

- 0.63" rain at Tucson Airport, monthly normal is 1.29"
- Rainlog.org, CoCoRaHS, and Pima CO ALERT gages recorded trace to 2.8"
- Tucson Airport Rainfall Amounts
 - Calendar Year = 5.48" (8.44" Normal)
 - Water Year = 6.69" (10.83" Normal)
- Douglas Airport Rainfall Amounts
 - Calendar Year = 17.11" (9.58" Normal)
 - Water Year = 17.74" (12.13" Normal)

Tucson Area precipitation totals for Sept 1-10 source:

<http://rainlog.org>





Drought Conditions

Drought Conditions start of Monsoon & Current

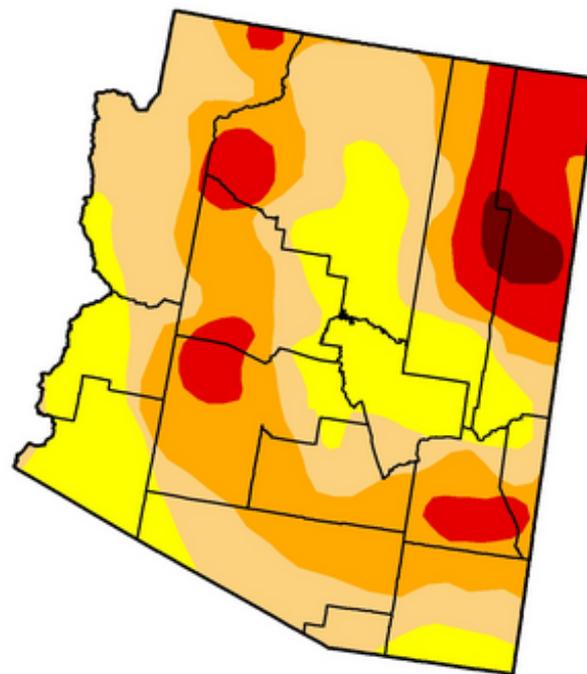
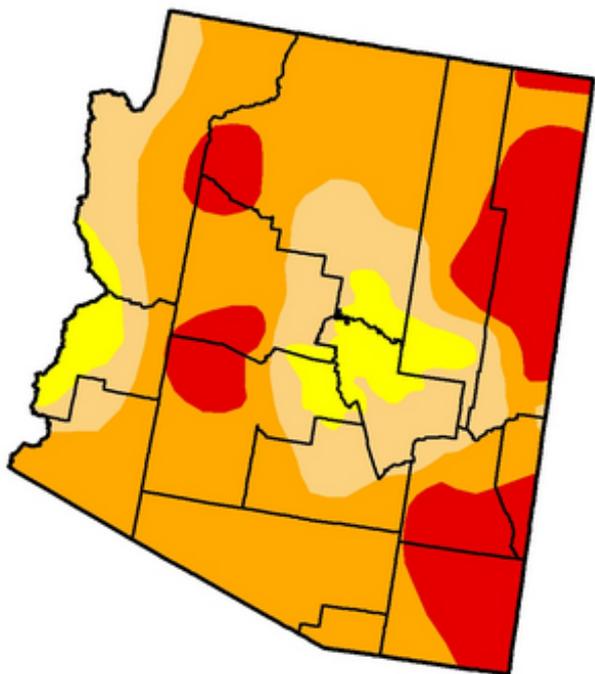
Drought Severity



D0 - Abnormally Dry
 D1 Drought - Moderate

D2 Drought - Severe
 D3 Drought - Extreme

D4 Drought - Exceptional



◀ June 11, 2013 ▶



◀ September 3, 2013 ▶



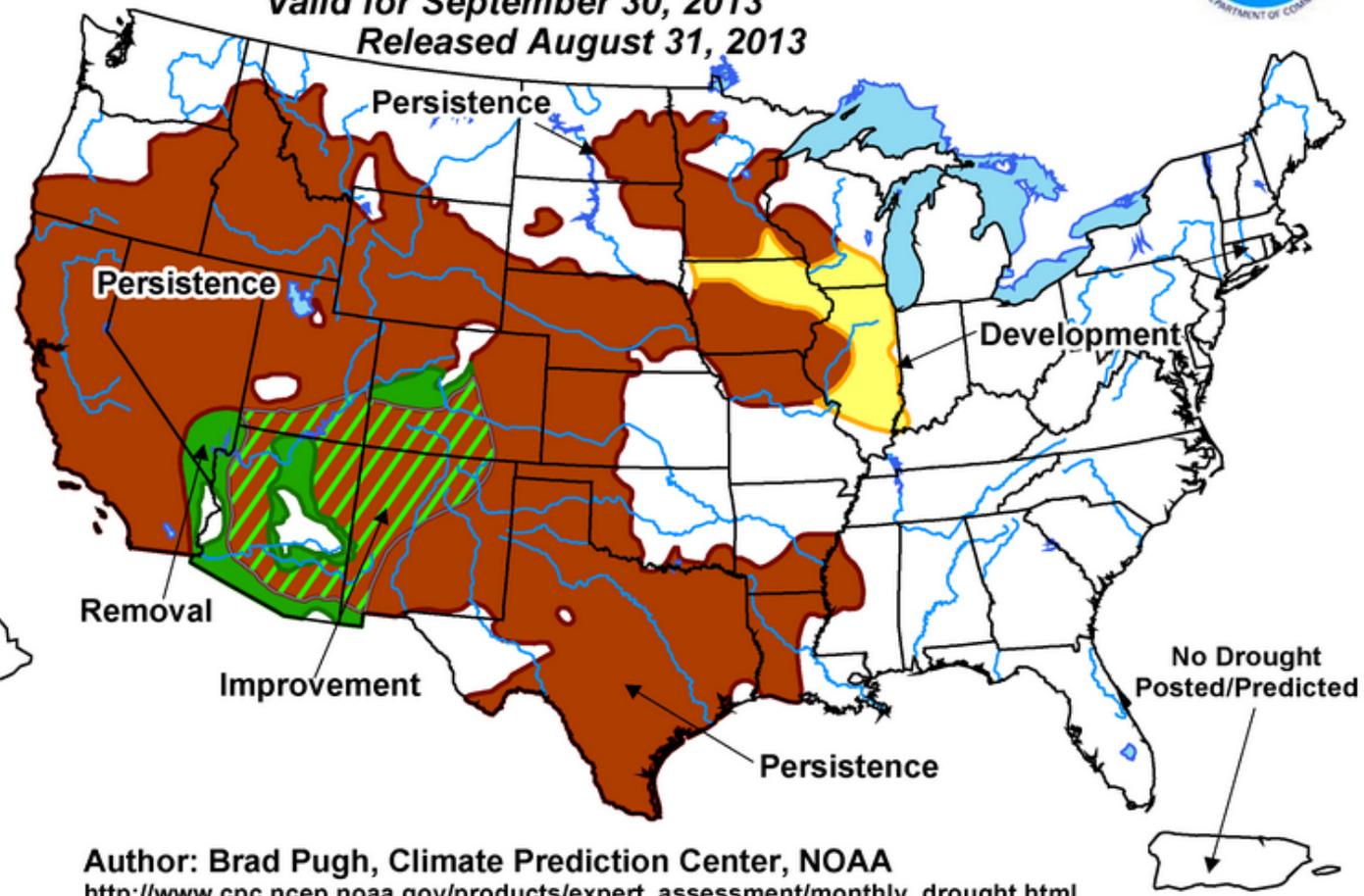
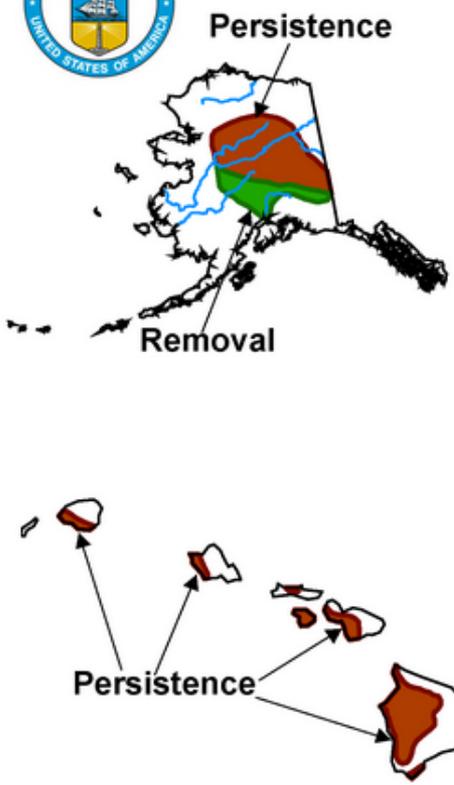
Week	Nothing	D0-D4	D1-D4	D2-D4	D3-D4	D4
June 11, 2013	0.00	100.00	92.49	72.23	19.67	0.00
September 3, 2013	0.00	100.00	76.23	42.31	15.55	1.94



U.S. Monthly Drought Outlook Drought Tendency During the Valid Period



Valid for September 30, 2013
Released August 31, 2013



KEY:

-  Drought persists or intensifies
-  Drought remains but improves
-  Drought removal likely
-  Drought development likely

Author: Brad Pugh, Climate Prediction Center, NOAA
http://www.cpc.ncep.noaa.gov/products/expert_assessment/monthly_drought.html

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor.

NOTE: The Green and Brown hatched areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period although drought will remain. The Green areas imply drought removal by the end of the period (D0 or none)



U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid for August 15 - November 30, 2013

Released August 15, 2013



Removal

Persistence

Removal

Persistence

Removal

Development

Removal

Persistence

Improvement

No Drought
Posted/Predicted

Development

Persistence

KEY:

 Drought persists or intensifies

 Drought remains but improves

 Drought removal likely

 Drought development likely

Author: Brad Pugh, Climate Prediction Center, NOAA

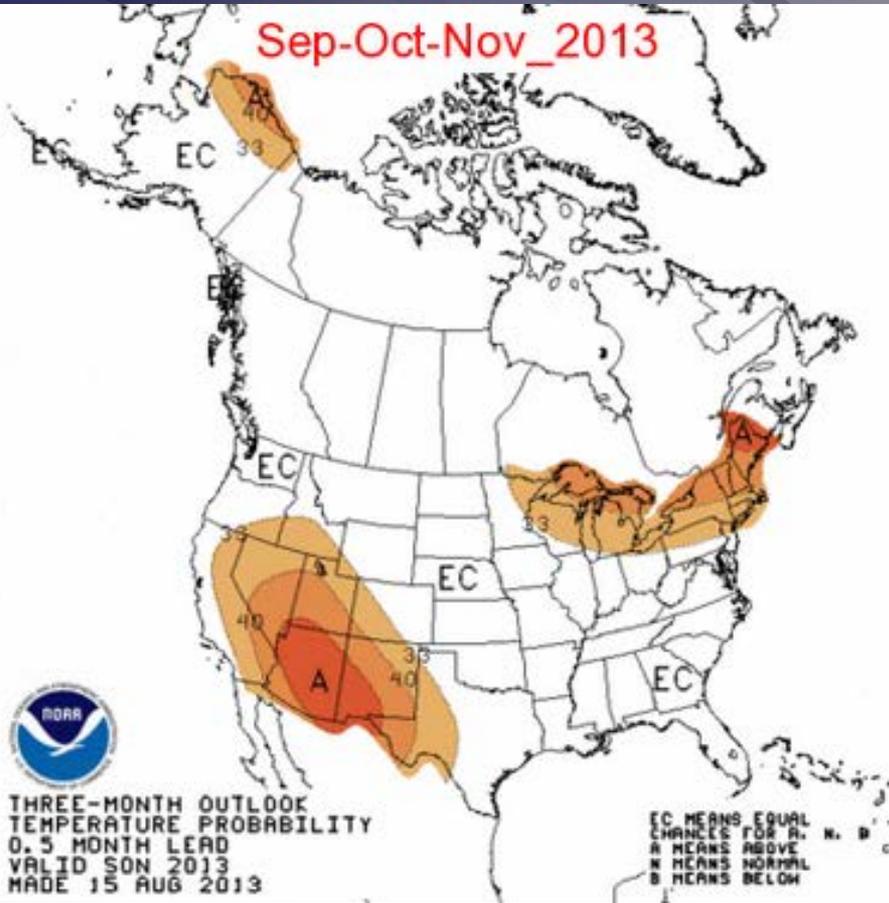
http://www.cpc.ncep.noaa.gov/products/expert_assessment/season_drought.html

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor.

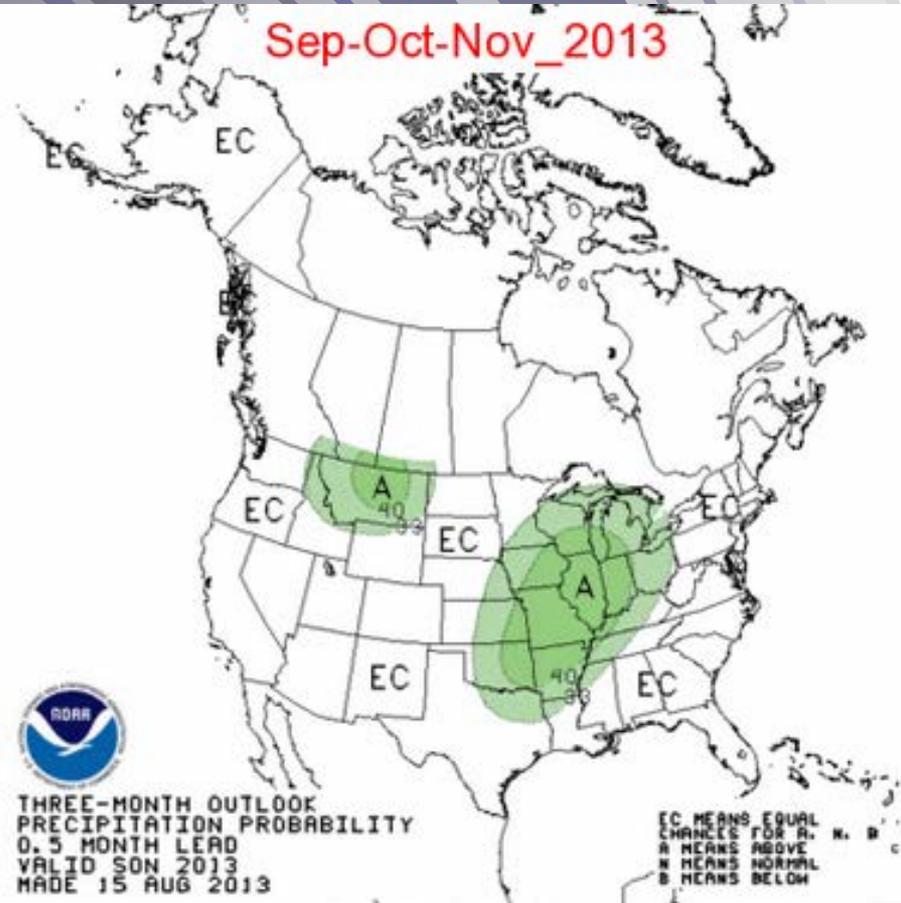
NOTE: The Green and Brown hatched areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period although drought will remain. The Green areas imply drought removal by the end of the period (D0 or none)

3 Month Outlook

Sep-Oct-Nov_2013



Sep-Oct-Nov_2013





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Last map update: Sep, 11th 2013 at 10:48:56 am MST

Latest Conditions at Tucson, AZ

Choose Your Front Page Site

Sep 11
9:53 am MST



81 °F

Select Location:

(56 minutes old)

Fair

(27 °C)

Heat Index 81 °F (27 °C)

Wind: N 3 MPH

RH: 47%

DewPt: 59 °F

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