

WILL THE REAL LOS ANGELES STAND UP, PART 2: IMPACTS OF A WEATHER STATION'S RELOCATION ON CLIMATIC RECORDS (AND RECORD WEATHER)



William C. Patzert^{1*}, Steve LaDochy², Pedro Ramirez² and Josh K. Willis¹

¹Jet Propulsion Laboratory, NASA, Pasadena, CA

²California State University, Los Angeles, CA

In August, 1999, the National Weather Service (NWS) moved the official downtown Civic Center weather station to the University of Southern California (USC) campus, a 3.78 miles (almost 6 km) distance to the southwest of its previous location near city center at the Department of Water & Power (DWP).

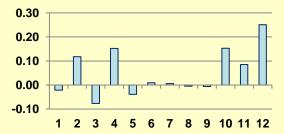
By comparing weather records between the new USC station and the old DWP site, we evaluate the impact of the relocation. Here we present updated, longer records.



Table 2. Average Precipitation (in.) for DWP, USC for the Water Year (July1-June30) 1999-2014.

| | DWP | USC | | DWP | USC |
|------|-------|-------|-------|--------|-------|
| 1999 | 12.01 | 11.57 | 2008 | 9.32 | 9.08 |
| 2000 | 17.64 | 17.94 | 2009 | 15.99 | 16.36 |
| 2001 | 5.49 | 4.92 | 2010 | 22.90 | 20.20 |
| 2002 | 19.71 | 16.49 | 2011 | 9.27 | 8.69 |
| 2003 | 10.33 | 9.35 | 2012 | 6.96 | 5.85 |
| 2004 | 38.32 | 37.96 | 2013 | 3.27 | 6.08 |
| 2005 | 14.52 | 13.16 | | | |
| 2006 | 3.13 | 3.21 | AVG | 13.49 | 12.96 |
| 2007 | 13.42 | 13.53 | DWP-U | SC +0. | 53 |

DWP-USC Precipitation Differences (Inches)





DWP site on top of a 2-story parking garage.

USC campus weather station resembles park.

Table 1. Average Tempertures for DWP, USC for Aug. 1999-June. 2014

| | Tmax | | | Tmin | | |
|-------|------|------|------|------|--|--|
| D | WP | USC | DWP | USC | | |
| 1999 | 79.5 | 77.0 | 56.6 | 56.3 | | |
| 2000 | 75.8 | 74.3 | 56.0 | 55.8 | | |
| 2001 | 74.3 | 72.8 | 55.2 | 55.3 | | |
| 2002 | 74.9 | 73.5 | 55.1 | 55.4 | | |
| 2003 | 76.7 | 74.5 | 56.4 | 56.4 | | |
| 2004 | 76.1 | 74.3 | 56.1 | 56.5 | | |
| 2005 | 75.5 | 73.9 | 56.0 | 56.2 | | |
| 2006 | 76.5 | 76.3 | 56.4 | 57.2 | | |
| 2007 | 75.7 | 75 | 56.1 | 56.2 | | |
| 2008 | 77.2 | 76.1 | 56.5 | 56.7 | | |
| 2009 | 77.0 | 75.5 | 56.1 | 56.9 | | |
| 2010 | 75.0 | 74.4 | 54.8 | 57.0 | | |
| 2011 | 75.5 | 73.1 | 54.1 | 54.7 | | |
| 2012 | 76.3 | 74.8 | 56.6 | 56.2 | | |
| 2013 | 75.7 | 74.8 | 56.1 | 56.0 | | |
| 2014 | 75.3 | 74.8 | 55.5 | 55.7 | | |
| Avg | 77.1 | 74.7 | 55.9 | 56.1 | | |
| Diff. | 1.7 | | -0.2 | | | |

