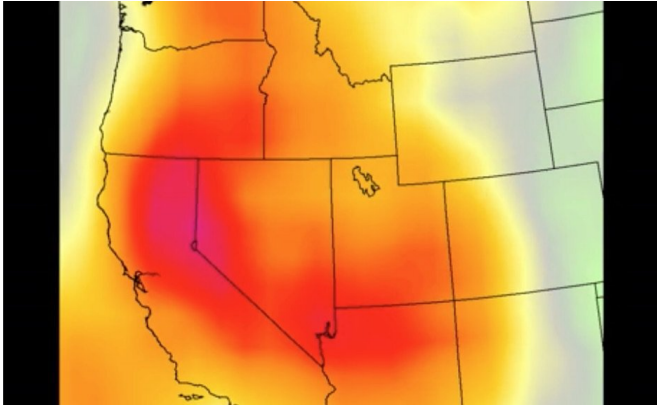


NASA tracks heat wave over US southwest

16 July 2021



Credit: Jet Propulsion Laboratory

While one science instrument mapped the dome of high pressure that settled over the southwestern U.S. in early July, another captured ground surface temperatures.

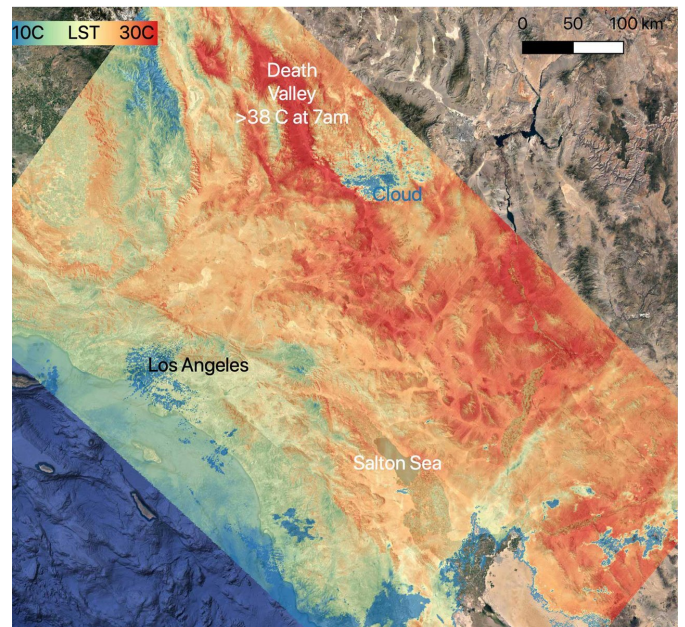
Just weeks after the Pacific Northwest endured record-shattering temperatures, another heat wave scorched the U.S. Southwest. This heat wave, which started around July 7, tied or broke several all-time records in California, Nevada, northern Arizona, and southern Utah.

Two instruments—NASA's Atmospheric Infrared Sounder (AIRS) aboard the Aqua satellite, and the agency's Ecosystem Spaceborne Thermal Radiometer Experiment on Space Station (ECOSTRESS) – tracked the [heat wave](#), providing visualizations of it.

The AIRS instrument captured the progression of a slow-moving heat dome across the southwestern U.S. from July 1 to July 12. The animation of the AIRS data (above) shows surface air temperature anomalies—values above or below long-term averages. The hottest areas, shown in pink, experienced surface air temperatures more than 10 degrees Fahrenheit (5.6 degrees Celsius) above average. Surface air temperature is

something that people directly feel when they are outside.

On July 8, NASA's ECOSTRESS instrument, attached to the International Space Station, captured ground surface temperature data over California. In the image (middle image), areas in red—including Death Valley—had surpassed 86 degrees Fahrenheit (30 degrees Celsius) by 7 a.m. local time, well above average ground surface temperatures for the area.



On July 8, 2021, NASA's ECOSTRESS instrument, aboard the space station captured ground surface temperature data over California. Areas in red – including Death Valley – had surpassed 86 degrees Fahrenheit by 7 a.m. local time, well above average ground surface temperatures for the area. Credit: NASA/JPL-Caltech

On July 9, Death Valley recorded a high air temperature of 130 F, which fell just a few degrees short of the official all-time surface air temperature record of 134 F set in 1913. On July 11, Bishop, California, hit an all-time high of 111 F and

Stovepipe Wells, California, set a new record for daily average temperature with 118 F. Numerous other daily, monthly, and all-time records were set throughout the inland areas of central and Southern California and northern Arizona.

More information: More information about AIRS can be found at: airs.jpl.nasa.gov/

More information about ECOSTRESS can be found at: ecostress.jpl.nasa.gov/

Provided by Jet Propulsion Laboratory

APA citation: NASA tracks heat wave over US southwest (2021, July 16) retrieved 17 October 2021 from <https://phys.org/news/2021-07-nasa-tracks-southwest.html>

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