

GPS shows Earth's crust is rising

WASHINGTON, USA: Scientists using GPS technology to study the extent of the western US drought said Thursday the water shortage is causing parts of the Earth's crust to rise.



Scripps Research Dan Cayan says that there is clear evidence that the Earth's crust is rising in the western parts of the USA after the driest spell in 100 years. Image: [Meteora](#)

About 310trn litres, equivalent to a 15cm layer of water, have been lost since 2013, causing a slight upward lift across the region, according to a study published in the journal Science.

The "uplift" effect equals about 15mm in California's mountains and around four millimetres across the west.

The study was conducted by scientists at Scripps Institution of Oceanography at the University of California, San Diego.

Researchers found that precise GPS stations within the National Science Foundation's Plate Boundary Observatory and beyond had moved upward in recent years, coinciding with the current drought.

The study said the rise is not likely to increase the risk of earthquakes since it has virtually no effect on the San Andreas fault.

Scripps Researcher Dan Cayan said: "This technology can be used to study changes in fresh water stocks in other regions around the world, if they have a network of GPS sensors."

A NASA study published last month found the drought posed a major threat to underground water resources and regional water supplies.

Since 2000, seven western states, including Arizona, California, Colorado, Nevada, New Mexico, Utah and Wyoming, have seen the driest 14-year period in a century.

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