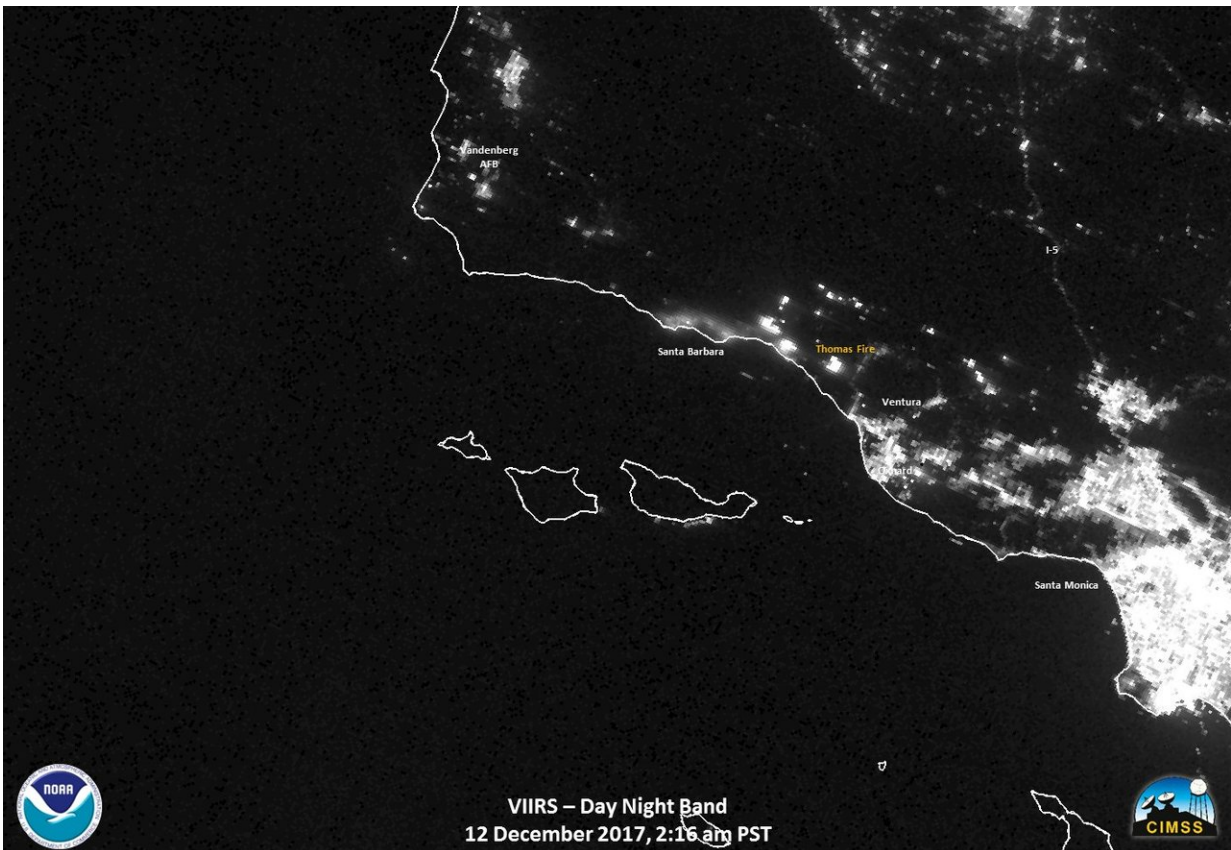


# Suomi NPP satellite provides copious information on California's fires

December 12 2017



The California fires during the nighttime using Suomi NPP's day/night band on the VIIRS instrument. Credit: NOAA/NASA Goddard Rapid Response Team

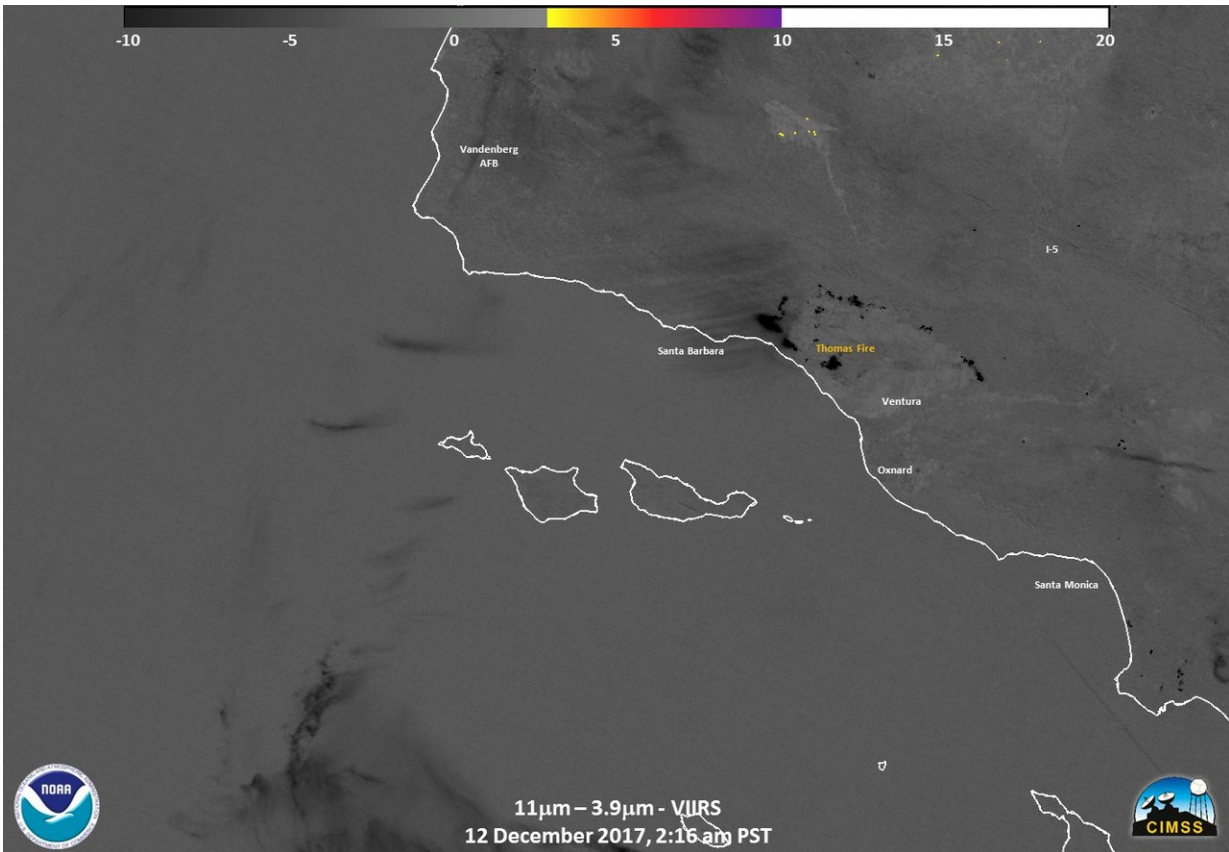
The Thomas fire, the fifth largest in California's history, continues to creep towards Montecito and Santa Barbara, and is currently 234,200

acres in size. That is about 4,200 acres larger than yesterday. Reports today are citing the fire at 20 percent containment per Inciweb.

Because the region was relatively cloud free last night, NOAA/NASA's Suomi NPP satellite's Visible Infrared Imaging Radiometer Suite (VIIRS) observed smoke over Santa Barbara using its Day Night Band. Using local weather information and combinations of the data from Suomi NPP's various instruments indicates that the [weather phenomenon](#) was smoke, and overcast at 4,800 ft. The scattering of light in Santa Barbara is due to a combination of smoke and clouds.

Suomi NPP is also able to give detailed information that even shows temperature differences within the various land areas. In this image, in the area the fire had burned, the 11-3.9um channel showed significantly different temperatures than the surrounding foothills. According to William Straka III, a researcher from the University of Wisconsin-Madison, this is a possible indicator of the burn scar left over from the fire.

Severe fire weather continues to promote significant [fire](#) growth further into Santa Barbara County, threatening the communities of Santa Barbara, Carpinteria, Montecito and Summerland. Gusty offshore winds will continue to threaten structures in parts of Ventura, Ojai, Santa Paula, Casitas Springs, Fillmore, unincorporated areas of Ventura County, Murrieta Canyon and Matilija Canyon, according to Inciweb.



The ability of Suomi NPP to distinguish different land temperatures helps to show where the hot spots are on the ground and where the edges of the burn scar are. Credit: NOAA/NASA

Provided by NASA's Goddard Space Flight Center

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