GOES-West satellite eyes soggy storm approaching California
28 February 2014

A swirling Eastern Pacific Ocean storm system headed for California was spotted by NOAA's GOES-West satellite on February 28. According to the National Weather Service, this storm system has the potential to bring heavy rainfall to the drought-stricken state.

The storm was captured using visible data from NOAA's GOES-West or GOES-15 satellite on Feb. 28 at 1430 UTC/6:30 a.m. PST was made into an image by NASA/NOAA's GOES Project at NASA's Goddard Space Flight Center in Greenbelt, Md. Credit: NASA/NOAA

At 11:30 a.m. PST on February 28, Bill Patzert, climatologist at NASA's Jet Propulsion Laboratory in Pasadena, Calif. said, "Right now from northern to southern California we are being battered by very heavy rain, strong winds and our coastal communities are being battered by high surf. Through the weekend we are bracing for mud and rock slides in areas that recently burned [from wildfires]. Flooding is looming up and down the state."

The National Weather Service (NWS) serving Los Angeles posted a Flood Watch for the region on Friday, February 28. The Flood Watch notes the "potential for flash flooding and debris flows for some 2013 and 2014 burn areas in Los Angeles County from this morning through Saturday evening (March 1)."

The NWS Flood Watch also noted "a very strong and dynamic storm will bring a significant amount of rain to much of southwestern California through Saturday evening. A flash flood watch has been issued for several recent burn areas in Los Angeles County due to the abundant rainfall expected. Rain rates at times are expected to range from a half inch to one inch per hour which could cause significant mud and debris flows. There will be a chance of thunderstorms with locally higher rainfall rates."

"Californians haven't seen rain and wind this powerful in 3 years," Patzert said. "By early next week, as this system moves east, this powerful system will wreak havoc causing snow and ice storms through the Midwest into the Northeast."

GOES satellites provide the kind of continuous monitoring necessary for intensive data analysis. Geostationary describes an orbit in which a satellite is always in the same position with respect to the rotating Earth. This allows GOES to hover continuously over one position on Earth's surface, appearing stationary. As a result, GOES provide a constant vigil for the atmospheric "triggers" for
severe weather conditions such as tornadoes, flash floods, hail storms and hurricanes.

On a positive note, Patzert noted, "This is a nice down payment on drought recovery in the parched Western U.S."

Provided by NASA's Goddard Space Flight Center

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