

# Rare weather pattern could inundate region

By Edward Ortiz, Sacramento Bee

Scientists at NASA say they have identified a rare weather pattern that assures intense and potentially prolonged wet weather will strike California.

The research findings are a crucial addition to weather forecasting tools and may go a long way to alerting officials to the possibility of floods, mudslides and levee failures.

“We have found a strong connection between certain phases of two systems and the frequency of their atmospheric landfalls in California,” said Bin Guan, an earth sciences researcher at UCLA and lead researcher of the study.

Conducted in collaboration with scientists at UCLA and the National Oceanic and Atmospheric Administration, the study found a conclusive link between the alignment of two specific weather patterns in the Northern Hemisphere and the formation of an “atmospheric river” headed for California.

The research results were gleaned in part from data provided by NASA’s 11-year-old Aqua weather satellite – one of more than 40 weather-related satellites that circle the globe.

Atmospheric rivers are narrow bands of wind, often a mile high, that can pack the punch of a hurricane. As they move over the ocean they become laden with water vapor – and can carry with them as much water as the Mississippi River dumps into the Gulf of Mexico in an average week.

An example of the power of such an atmospheric river event was seen in 1999, when a winter storm hit California and caused 15 deaths and \$570 million in damage.

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