

# Study: Louisiana moving down and south

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U.S. geologists say they have determined Louisiana is subsiding vertically and moving southward in respect to North America.

A Louisiana State University-led team studied global positioning system data collected since 1995 and found Louisiana -- including New Orleans and the Mississippi River Delta -- are affected by the subsidence. They hypothesize that occurs, in part, because the area is situated on the hanging wall of a fault system that separates North America from deltaic sediments.

The scientists theorize the sediments and underlying bedrock are moving southward due to gravitational instabilities created by sediment of the Mississippi River Delta loading Earth's crust and mantle, and by rising sea levels during continental glacial retreat.

Since New Orleans and other communities of southeastern Louisiana devastated by hurricanes Katrina and Rita lie atop that active fault system, the researchers caution possible future motion of the area should be considered during the region's reconstruction.

The study by Roy Dokka of Louisiana State University, Giovanni Sella of the National Oceanic and Atmospheric Administration and Timothy Dixon of the University of Miami appears in the December issue of the journal *Geophysical Research Letters*.

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