

NWS FORM E-5 (11-88) (PRES. by NWS Instruction 10-924)	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE	HYDROLOGIC SERVICE AREA (HSA)	
		NWFO NEW ORLEANS/BATON ROUGE, LOUISIANA	
MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS		REPORT FOR:	YEAR 2005
		MONTH AUGUST	
TO: Hydrometeorological Information Center, W/OH2 NOAA / National Weather Service 1325 East West Highway, Room 7230 Silver Spring, MD 20910-3283		SIGNATURE Paul S. Trotter, Meteorologist-In-Charge	
		DATE	September 25, 2005

When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924)

...Hurricane Katrina Devastated Southeastern Louisiana and Coastal Mississippi...

At the start of the month, an upper-level low pressure area over the central Gulf Coast produced severe thunderstorms with heavy rainfall, especially over the southeastern parishes. Slidell had a one-day rain total of nearly 2.5 inches. By August 6, a trough along the southeastern coast of Louisiana produced more thunderstorms. Areal average rainfall totals ranged from 1.56 inches over east-central Louisiana to 2.29 inches over southeastern Louisiana.

The week of August 8 began with a trough over the central Gulf Coast, from Mississippi to the Florida Panhandle. This weather feature produced thunderstorms from Slidell into Mississippi. Although a few locations measured from 1.0 to 3.0 inches during the week, areal average rainfall was less than 0.50 inch for all but coastal Mississippi, where the areal average was 0.86 inch. Soils were abnormally dry over extreme southwestern Mississippi.

High pressure dominated the weather through August 21 with only isolated thunderstorms. Areal average rainfall ranged from 0.30 inch over southern Mississippi to around 0.95 inch over southeast and east-central Louisiana. Soil conditions remained abnormally dry over extreme southwestern Mississippi.

As Hurricane Katrina churned over the Gulf of Mexico, its outer bands produced heavy rainfall for several locations. Although data for the week of August 22 is missing at many locations, several areas of southeastern Louisiana and south Mississippi had rainfall amounts of at least 1.0 to 3.0 inches. Abnormally dry conditions persisted over extreme southwestern Mississippi.

Hurricane Katrina made landfall over Plaquemines Parish on August 29. Rainfall amounts along the hurricane's path exceeded 8.0 to 10.0 inches over a large area. Considerable property damage and hundreds of deaths occurred due to numerous breaks in the levee system around metropolitan New Orleans; the breaks began on August 29. At least 80% of the city of New Orleans was underwater by August 31st due to levee failures. Remotely sensed estimates indicated from 16 to 20 feet of water in some parts of New Orleans, particularly over the east near Lake Pontchartrain. Large portions the Mississippi Gulf Coast were demolished as a result of the 20 to 30+ foot storm surge, which flooded the cities of Waveland, Biloxi, Gulfport, Pass Christian, Bay St. Louis, Ocean Springs, and other communities south of Interstate 10.

Flooding disrupted commerce over the region and along the Mississippi River. The heavy rainfall and storm surge pushed several rivers above their flood stages. In Louisiana, flooding developed on the Tchefuncte River at Covington; on the Bogue Falaya River at Covington near the Girl Scout Camp and downtown; on the Bogue Chitto River near Bush; and on the Lower Pearl River at Bogalusa and at Pearl River. In Mississippi, flooding developed on the West Hobolochitto Creek at McNeil; on the East Hobolochitto Creek at Caesar; on the Jourdan River near Kiln; on the Wolf River at Gulfport; on the Biloxi River at Wortham; and on the Escatawpa River near Orange Grove. Most areas were below flood stage at the end of the month, with the exception of the Bogue Chitto River, the Lower Pearl River, the West Hobolochitto Creek, and the East Hobolochitto Creek.

Moderate flooding occurred on the Bogue Falaya River at Covington (Boston Street) in Louisiana. Major flooding occurred in Mississippi on the West Hobolochitto River at McNeil; on the East Hobolochitto River at Caesar; and on the Biloxi River at Wortham. Flooding continued over the city of New Orleans, southeastern Louisiana, and coastal Mississippi into September. Drought conditions ended over the entire region with the rainfall from Hurricane Katrina.