NWS FORM E-5 (11-88)	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	
(PRES. by NWS Instruction 10-924) NATIONAL WEATHER SERVICE		NWFO NEW ORLEANS/BATON ROUGE, LOUISIANA
MONTHLY	REPORT OF RIVER AND FLOOD CONDITIONS	REPORT FOR: MONTH OCTOBER YEAR 2004
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 November 24, 2004

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)

...Tropical Storm Matthew made weather news for October 2004...

Early October was dry for most of the Lower Mississippi River Valley. Although spotty showers developed as a cold front passed through the region on October 2^{nd} , no significant rainfall occurred over southeastern Louisiana and southern Mississippi.

More dynamic weather developed after October 4th, as another frontal boundary produced scattered thunderstorms over much of southern Louisiana and Mississippi. Isolated rainfall amounts over 4.0 inches were measured. The approach of Tropical Storm Matthew brought significant rainfall into the region by October 8th. The tropical system made landfall near Houma, Louisiana during the morning of October 10th. The heaviest rain developed over southeastern Louisiana, along with parts of southwest and northern Louisiana. For much of southern Louisiana, areal average rainfall amounts were over 8.0 inches. In southeastern Louisiana during the period from October 4th through October 10th, rainfall totals over 10.0 inches occurred as follows:

Location	Amount in inches
Reserve	17.82
Galliano	14.88
Grand Isle	12.25
Houma	13.14
Thibodeaux	11.54
Salt Point	10.65
Greenwell Springs	10.58

Rainfall amounts were not as heavy in Mississippi during Tropical Storm Matthew. For the period from October 4th through October 10th, Gulfport measured 3.61 inches; Poplarville measured 2.94 inches; Tylertown measured 2.51 inches; and Waveland measured 3.42 inches. Areal average rainfall for the Mississippi coast was roughly 3.32 inches, which was a departure from normal of 2.57 inches. For southwestern Mississippi, the areal average rainfall for the week was 4.47 inches, which was a departure from normal of 3.70 inches.

In the circulation around the tropical system, strong, persistent east to southeast winds pushed tidal waters back across Lake Pontchartrain and Lake Maurepas. With unusually high tides starting October 8th and locally heavy rainfall, flooding developed on October 9th at French Settlement on the Amite River and at Killian on the Tickfaw River. Flooding ended at both locations on October 13th, after the tropical winds died down. In the heavy rainfall, the Atchafalaya River rose briefly to flood stage at Morgan City on October 9th.

Heavy rainfall from the tropical storm ended by October 11th. Cool temperatures and drier weather evolved after "Matthew" dissipated. Another front, with even cooler temperatures, produced another round of light rainfall by October 15th, mainly over the southern parishes. Still, most areas has less than a quarter of an inch

of rainfall.

For Louisiana, areal average rainfall ranged from 0.31 inches for the southeastern parishes to 0.91 inches for the east-central parishes. Coastal Mississippi had an areal average rainfall of 0.95 inches. Southwest Mississippi had an areal average rainfall total of 3.04 inches, a departure of 2.27 inches from the normal.

Warm, but dry weather prevailed over southeastern Louisiana and southern Mississippi from October 18th through October 24th. Areal average rainfall over all of southeastern Louisiana averaged less than 0.20 inches. For southwestern and coastal Mississippi, areal average rainfall amounts were 0.35 inches and 0.34 inches respectively.

October ended on a warm note for the Lower Mississippi River Valley, as a persistent upper-level high pressure system dominated the weather. Anchored over the Gulf of Mexico, the high pressure inhibited the development of storms over the area. Isolated showers and thunderstorms yielded areal average rainfall amounts of 0.15 inches or less for Louisiana. For southwest and coastal Mississippi, areal rainfall amounts were light as well.