

MONTHLY REPORT OF HYDROLOGIC CONDITIONS

REPORT FOR:
MONTH YEAR
AUGUST 2010

TO: Hydrologic Information Center, W/OS31
NOAA's National Weather Service
1325 East West Highway
Silver Spring, MD 20910-3283

SIGNATURE
Kenneth Graham, Meteorologist-In-Charge

DATE
September 15, 2010

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

An X inside this box indicates that no flooding occurred within this hydrologic service area.

...Lots of Rain but No Floods over Southeastern Louisiana and Southern Mississippi in August...

The first days of August were dominated high pressure over the southeastern Louisiana, southern Mississippi, and coastal Mississippi. The weather became more dynamic after August 5th, when thunderstorms developed over much of the region. The maximum rainfall during this period fell at Killian, LA, where 4.60 inches were measured over two days. Areal average rainfall totals ranged from near 0.75 inch up to 1.35 inches over east-central Louisiana.

Typical hot and muggy summer weather prevailed until August 11th. By that time, a tropical depression approached southeastern Louisiana, bringing heavy rainfall and flash floods over southern Mississippi and southern Louisiana. After Tropical Depression #5 made landfall, it pushed east across central Mississippi into Alabama over the next several days. For the weather week ending August 15th, areal rainfall totals generally ranged from near 1.0 inch up to 3.0 inches.

Eventually Tropical Depression #5 moved from southern Alabama back into the Gulf of Mexico. The system again threatened the coasts of Louisiana and Mississippi. By August 16th, the system made landfall the second time over southeastern Louisiana, bringing more heavy rainfall to the entire Lower Mississippi River Valley. The second landfall coincided with the approach of a strong cold front. Numerous thunderstorms occurred. With the copious rains, many areas had rain totals over 2.0 inches. Baton Rouge International Airport measured 8.94 inches; Morgan City reported 6.13 inches; and Woodville, MS measured 5.71 inches. During the week ending August 22nd, areal rainfall totals ranged from 2.55 inches up to 3.37 inches over east-central Louisiana.

Unsettled weather and abundant moisture produced periods of thunderstorms over southern Mississippi and southeastern Louisiana until the end of August. From August 23rd through August 29th, heavy downpours developed, mainly over southeast Louisiana and coastal Mississippi. Paradis, LA measured 11.74 inches during the week, with 6.02 inches falling on August 29th alone. Areal average rainfall totals over 3.40 inches occurred over east-central and southeast Louisiana. Other areas had areal averages of one to two inches of rain. Isolated heavy rainfall totals of 2.0 to 4.0 inches developed again on August 30th and August 31st over the southernmost parts of the coastal Louisiana parishes.

Extreme Rainfall for the Month (Inches and Departure from Normal)

Paradis, LA	22.42	+16.61	Metairie, LA	19.28
Galliano, LA	17.41	+10.28	Hammond, LA	17.24 +11.82
Ocean Springs, MS	17.23		Slidell, LA	15.81 +10.17
Bay St. Louis, MS	3.40	-2.70	Poplarville, MS	0.96 -4.10

Monthly Reports by Agricultural Region	Areal Average	Departure from Normal
Southwest Mississippi (2 Sites)	6.52	N/A
South Central Mississippi (2 Sites)	11.25	+6.28
Coastal Mississippi	11.09	+5.40
Central Louisiana (2 Sites)	5.06	-0.38
East Central Louisiana	11.73	+6.22
South Central Louisiana (6 Sites)	9.68	+3.90
Southeast Louisiana	11.57	+5.27

Drought

From the beginning of August until mid-August, southwestern Mississippi and the northern reaches of the Atchafalaya River Basin endured abnormally dry (D0) to moderate drought (D1) conditions. With the heavy rains associated with Tropical Depression #5, soil conditions improved by August 17th. With the rainfall, soils conditions become normal to abnormally dry over southwestern Mississippi, while abnormally dry to moderate drought conditions persisted over the northern stretches of the Atchafalaya River Basin. Soils over the remainder of the region were normal through August 17th, except for the eastern third of Jackson County. There soil conditions were abnormally dry after August 10th.