NWS Form E-5 (04-2006) (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, LA**
MONTHLY REPORT OF HYDROLOGIC CONDITIONS		REPORT FOR: MONTH **JULY** YEAR **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 **August 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.

…Hot Weather over Southeastern Louisiana and Southern Mississippi in July…

As the weather week opened on June 28th, Tropical Storm Alex entered the Gulf of Mexico from the coast of the Yucatan. "Alex" pushed large feeder bands across southeastern Louisiana and southern Mississippi for days as it approached land. Hurricane Alex made landfall along the northeastern coast of Mexico, south of Brownsville, Texas, on July 1st. These tropical rains were augmented on July 1st by a stationary front anchored across northern Louisiana. This front eventually traveled south, stalled along the Gulf Coast, and persisted through July 4th. Although significant rainfall occurred from June 28th through 30th, additional heavy rains occurred over the first four days of July. By the end of the weather week on July 4th, areal rainfall averages generally ranged from 1.0 inch up to 3.57 inches, which occurred over extreme southeast Louisiana.

A series of boundaries produced widespread rainfall over Louisiana and Mississippi during the week of July 5th. Far above the normal for the week, rain totals over 4.00 inches were recorded at several locations, especially over the southernmost parishes of Louisiana. During the week, Butte La Rose measured 6.10 inches and Livingston measured 5.40 inches. At the weather week's end on July 11th, areal rainfall totals generally ranged from 1.0 to 2.20 inches.

High pressure dominated the weather over Louisiana and Mississippi up to July 16th. Hot and humid weather yielded few thunderstorms until around July 17th and 18th. For the week ending July 18th, areal average rainfall totals ranged from around 0.25 inch to near 1.0 inch.

After a week of widely scattered thunderstorms, Tropical Storm Bonnie became a threat for Louisiana, primarily, and coastal Mississippi on July 24th. Early Friday, "Bonnie" made landfall over southern Florida; the storm pushed northwest toward the Gulf of Mexico later on Friday. Isolated locations had heavy rainfall, such as Brusly and Port Allen in Louisiana, where over 4.0 inches fell in a few hours. Areal average rainfall for the week ranged from around 0.50 inch up to 1.67 inches over east-central Louisiana.

The weather week opened on July 26th with generally high pressure over the northern Gulf Coastal region. High pressure persisted until the end of July, bringing stable and hot conditions. Temperatures reached triple digits at many locations by August 1st. Areal average rainfall totals generally ranged from 0.5 to around 1.0 inch.

Flooding…

Starting June 27th, minor flooding became persistent on the Atchafalaya River at Morgan City, LA. The river remained above the flood stage during most of July, though the water level occasionally fell below the flood stage for short periods of time. Flooding ended on July 28th.

Monthly Reports by Agricultural Region	Areal Average	Departure from Normal
Southwest Mississippi (2 Sites)	4.12	N/A
South Central Mississippi (2 Sites)	6.77	+1.05
Coastal Mississippi	4.93	-1.93
Central Louisiana (3 Sites)	4.74	-0.92
East Central Louisiana	5.00	-0.98
South Central Louisiana (7 Sites)	5.96	-0.28
Southeast Louisiana	6.04	-0.93

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

Ocean Springs, MS	9.73		Oaknolia, LA	9.71	+4.45
Tylertown, MS	9.09	+3.16	Grand Isle, LA	9.08	+2.48
Liverpool, LA	9.06		Sun, LA	9.05	
Poplarville, MS	0.35	-6.21	Bay St. Louis NAS, MS	0.40	-6.83

Drought…

Hot weather persisted into early July and soils became drier over southeastern Louisiana and southern Mississippi. At the start of July, abnormally dry (D0) conditions existed over southwest Mississippi, the Atchafalaya River Basin, and the Florida Parishes. Conditions remained normal over the remainder of the region.

By July 6th, Hurricane Alex had helped to reverse the drying trend for all but the northernmost part of the Atchafalaya River Basin, southwest Mississippi, and the extreme southeastern corner of Jackson County. With the rains from "Alex", soils recovered over much of the Florida Parishes. However, moderate drought (D1) conditions became established over the northern Atchafalaya River Basin during that period and persisted throughout July. With the continued hot temperatures, moderate drought conditions spread into southwest Mississippi by July 27th. At the same time, soils returned to normal over extreme southeastern Jackson County.