NWS FORM E-5 (11-88)  U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	HYDROLOGIC SERVICE AREA (HSA)	
(PRES. by NWS Instruction 10-924)  NATIONAL WEATHER SERVICE	NEW ORLEANS/BATON ROUGE, LA REPORT FOR:	
MONTHLY REPORT OF HYDROLOGIC CONDITIONS	MONTH YEAR DECEMBER 2012	
TO: Hydrometeorological Information Center, W/OH2 NOAA / National Weather Service 1325 East West Highway, Room 7230 Silver Spring, MD 20910-3283	SIGNATURE  KENNETH GRAHAM  METEOROLOGIST-IN-CHARGE  DATE  JANUARY 15, 2013	

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)

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

...Periods Of Heavy Rainfall And Severe Weather Developed During December 2012...

The first few days of December were warm and dry, as humidity increased across southeastern Louisiana, southwestern Mississippi, and coastal Mississippi. After December 3<sup>rd</sup>, thunderstorms developed when a frontal boundary moved south across the region and eventually stalled across southeast Louisiana and coastal Mississippi. By December 9<sup>th</sup>, areal average rainfall totals for the week ranged from near 1.0 inch to 1.40 inches.

Periods of unsettled weather occurred during the weather week of December 10<sup>th</sup>, although conditions settled down from December 11<sup>th</sup> through 14<sup>th</sup>. Widespread rain developed; amounts were lighter over southeast Louisiana. By December 16<sup>th</sup>, areal average rain totals ranged from around 0.25 inch over southeast Louisiana to 1.15 inches.

The weather week opened on December 17<sup>th</sup> with two cold fronts moving over the region. These fronts, especially the first one, produced substantive rains. Later on December 19<sup>th</sup> and 20<sup>th</sup>, another strong cold front brought additional rainfall to Louisiana and Mississippi. Areal average rain totals for the weather week ranged around 0.25 inch over southeast Louisiana to near 1.25 inches.

Christmas Day was stormy, as two cold fronts induced severe weather and copious rains from December 24<sup>th</sup> through December 26<sup>th</sup>. Downpours developed area-wide again on December 28<sup>th</sup> and 29<sup>th</sup>, due to the influence of a low pressure system that formed over the western Gulf of Mexico. Many areas measured 2.0 to 4.0 inches during this week, with the heaviest rains over central and east-central Louisiana. The greatest accumulation for the week was 4.48 inches at St. Francisville, LA. For the same period, Norwood, LA measured 4.43 inches; Mount Hermon, LA had 4.25 inches; and Talisheek, LA recorded 4.23 inches. Areal rain totals averaged from 1.0 inch to 2.12 inches as the weather week ended December 30<sup>th</sup>. Fair weather returned by December 30<sup>th</sup>, in time for the New Year celebrations.

## Flooding...

Copious rains produced minor flooding over the last few days of the year. Flooding developed by December 29<sup>th</sup> on the Bogue Chitto River at Tylertown, MS and receded that same day. Minor flooding also developed on December 29<sup>th</sup> at Bogalusa on the Lower Pearl River, receded, and then redeveloped on that same day. The next day, more minor flooding developed in Louisiana on the Tangipahoa River near Robert; on the Bogue Chitto River near Bush; and on the Lower Pearl River at Pearl River. The flooding in Louisiana continued into January 2013.

Monthly Reports by Agricultural Region	Areal Average	Departure from Normal
Southwest Mississippi (2 Sites)	4.60	N/A
South Central Mississippi (1 Site)	7.25	+1.81
Coastal Mississippi	1.93	-3.10
Central Louisiana (2 Sites)	9.22	+3.60
East Central Louisiana	6.14	+1.14
South Central Louisiana (8 Sites)	4.62	-0.58
Southeast Louisiana	2.88	-2.03

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

St. Francisville, LA	11.53	+5.48	New Road, LA	10.29	+4.59
Liverpool, LA	11.15	+5.70	Oaknolia, LA	10.07	+4.18

## Drought...

At the start of December, soil moisture contents were normal over the region, with the exception of a small area within Wilkinson County, Mississippi. By December 4<sup>th</sup>, abnormally dry (D0) soil conditions had progressed from that small part of Wilkinson County and become established over most of southeastern Louisiana and coastal Mississippi.

After the periods of heavy rains through mid-December, conditions began to improve. The additional copious rains toward the end of the month further fortified soil moisture. By the end of the December, normal soil moisture contents were established over all agricultural districts, except southeast Louisiana and coastal Mississippi. For these areas, abnormally dry (D0) conditions persisted into January 2013.