

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) WFO Jackson, Mississippi
		REPORT FOR: MONTH YEAR August 2004
MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS		SIGNATURE Alan E. Gerard, MIC In Charge of HSA
TO: Hydrometeorological Information Center, W/OH2 NOAA / National Weather Service 1325 East West Highway, Room 7230 Silver Spring, MD 20910-3283		DATE September 13, 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)

Synopsis...

Although rainfall totals for the month of August suggest above normal amounts, heavy rainfall amount over a few days caused the above normal rainfall totals. This was an unusual August with several fronts and low pressure systems moving through the area, causing cooler than normal temperatures and more fall like conditions.

Starting in late July, a cold front approached the region, passing through portions of Northeast Louisiana and Southeast Arkansas, eventually reaching Central Mississippi on the August 1st. No Flooding was reporting during the period; however, rainfall amounts ranged from a few hundredths to 1.90 inches. Some 24 hour rainfall reports for August 1st were: 1.48 inches at Newport, MS, 1.90 at Prentiss, MS and 1.60 inches at Hazelhurst, MS.

High pressure settled in on the 2nd giving the HSA a break from rainfall through the 4th. Another cold front pushed through on the 5th causing scattered showers and thunderstorms. Fair weather returned on the 6th and continued through the 9th. A few afternoon showers and thunderstorms developed on the 9th. 24 hour totals from the 9th included 2.25 inches at Crandall, MS. Overall, only a few locations received any rain at all during this period, most rainfall ranged from trace amounts with one or two near 1 inch.

Showers and thunderstorms continued to develop between the 10th and 12th. A weak disturbance and a stalled boundary just north of the area allowed large amounts of moisture to flow into the region on the 10th. A few breaks in the clouds and afternoon heating led to scattered showers and thunderstorms on the 11th and another front dropped into the region on the 12th. Rainfall amounts during this period ranged from trace amounts to 2.80 inches. Some 24 hour rainfall totals were: 1.83 at Columbia, MS (12th), 2.25 inches at Dunns Falls, MS (11th) and 2.52 inches at Laurel, MS (10th).

Fair and dry weather settled over the region from the 13th through the 19th. Showers and thunderstorms developed ahead of a cold front on the 20th, with more rain from the 21st through 23rd. The front once again stalled just north of the area. Abundant moisture and afternoon heating led to scattered showers and thunderstorms through the 26th. Rainfall totals ranged during this 6 day period ranged from a half inch to 6.75 inch. The great-

est 24 hour rainfall amounts were: 2.51 at Winsboro, LA (21st), 4.35 at Clayton, LA (21st) and 3.50 at Mize, MS (23rd)

A surface high built in behind the cold front on the 27th and the 28th. A few showers and thunderstorms developed on the 29th as warm moist air returned to the area. One last cold front traversed the region on the 30th, keeping rain over the area through the 31st.

River and Soil Conditions...

After a wetter than normal July, soil moisture over the HSA was above normal at the beginning of the month. Above normal rainfall during the month of August over Southeast Arkansas and north and central sections of Northeast Louisiana produced above normal soil moisture conditions. Normal to just above normal rainfall elsewhere left soil moisture conditions at near normal to slightly above normal levels for this time of year.

Evaporation and transpiration rates continue to be high, allowing soil moisture to deplete rather rapidly during dry periods. Several rainfall events produced flash flooding in Southeast Arkansas and portions of Northeast Louisiana during the month. Although River flooding did not occur, heavy rainfall amounts caused minor to moderate rises to the Leaf and Big Black River basins throughout the month.

With above normal soil conditions and normal rainfall patterns over the next 60 to 90 days for central and northern sections of Northeast Louisiana and Southeast Arkansas, normal flood potential can be expected. With soil moisture conditions near normal and normal rainfall patterns for the next 60 to 90 days for the remainder of the HSA, flood potential should be near normal to slightly below normal. Note: Tropical rainfall events over the HSA with intense rainfall rates could significantly increase flood potentials.

Rainfall for the month of August...

RIVER BASIN RAINFALL DEPARTURE FROM NORMAL

Southeast Arkansas (Chicot & Ashley counties)	2.50 to 4.75 inches	Near normal to above normal.
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<p>Northeast Louisiana (Tensas, Boeuf, Bayou Macon & Lower Ouachita)</p>	<p>2.50 to 3.50 inches northern sections</p> <p>5.00 to 6.50 inches central sections</p> <p>1.00 to 7.75 inches southern section</p>	<p>Near normal to slightly above normal</p> <p>Well above normal.</p> <p>Well below to well above normal.</p>
<p>Lower Yazoo</p>	<p>2.00 to 6.25 inches</p>	<p>Slightly below normal to much above normal.</p>
<p>Big Black</p>	<p>3.00 to 5.50 inches upper basin</p> <p>4.00 to 5.00 inches middle basin</p> <p>3.75 to 4.00 inches lower basin</p>	<p>Normal to well above normal.</p> <p>Above normal normal.</p> <p>Near normal.</p>
<p>Homochitto/ Bayou Pierre</p>	<p>2.50 to 3.50 inches</p>	<p>Below to well below normal.</p>
<p>Pearl(abv Jackson)</p>	<p>3.75 to 7.75 inches</p>	<p>Normal to well above normal.</p>

Pearl(Blo Jackson)	2.50 to 4.50 inches	Near normal to well below normal
Pascagoula	2.75 to 7.00 inches over the Leaf basin. 4.00 to 4.25 inches over the Black Creek 3.25 to 8.25 inches over the Chickasawhay basin	Slightly below to well above normal. Near normal. Normal to well above normal
Tombigbee tributaries in the JAN HAS	2.00 to 5.00 inches	Near normal to well above normal.

The heaviest rainfall amounts in the HSA for the month were: 7.75 inches at Clayton, LA; 7.70 inches at Jackson, MS; 7.09 inches at Laurel, MS; 6.93 inches at Mize, MS; 6.60 inches at Dunns Falls, MS; 6.30 inches at Elliott, MS and 6.41 inches at Rayville, LA.

At the Jackson WFO, the August monthly rainfall was 7.70 inches, which was 4.04 inches above normal. Total rainfall for the year was 43.18 inches, which was 4.26 inches above normal.

At Meridian Key Field, the August monthly rainfall was 2.64 inches, which was 1.49 inches below normal. Total rainfall for the year was 39.98 inches, which was 1.49 inches below normal.

At Greenwood-Leflore Airport, the August monthly rainfall was 3.56 inches, which was 1.12 inches above normal. Total rainfall for the year was 41.57 inches, which was 4.28 inches above normal.

Mississippi River...

After significant falls in river stages during the month of July, the Mississippi River stages from Arkansas City to Natchez experienced a rise near the first and last of the month with a fall in between.

The Arkansas City and Greenville river stages were near seasonal norms at

the beginning of the month dropping below seasonal norms around the 10th and staying below until around the 25th. Vicksburg and Natchez were well above seasonal norms at the beginning of the month and remained above for the entire month. The provisional high and low stages for August are listed below:

Location High Stage(ft) Date Low Stage(ft) Date

Arkansas City, AR	14.30	08/07/04	3.96	08/25/04
Greenville, MS	25.63	08/08/04	15.16	08/26/04
Vicksburg, MS	19.08	08/09/04	7.87	08/27/04
Natchez, MS	26.46	08/01/04	15.33	08/28/04

Total Flood Warning products issued: 00

Total Flood Statement products issued: 00

Daily Rainfall Products (RRA'S) issued 31

Daily River Forecast Products (RVS'S) issued: 31

Daily River Stage products (RVA'S) issued 31

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Note: Provisional Stage and precipitation data was furnished with the cooperation of the Mississippi, Louisiana, and Arkansas National Weather Service Cooperative Observers, United States Geological Survey (USGS), United States Army Corps of Engineers (USACE), Pearl River Valley Water Supply District (PRVWSD), Pat Harrison Waterway District, Pearl River Basin Development District, and the Mississippi Department of Environmental Quality.

cc: USGS Little Rock District
USGS Ruston District
USACE Mobile District
USACE Vicksburg District
USACE Mississippi Valley Division
USGS Mississippi District
SRH Climate, Weather and Water Division
LMRFC
Pearl River Valley Water Supply District
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Southern Region Climate Center
Pat Harrison Waterway District
Pearl River Basin Development District