(continued from p. 1)

The entire southern half of the state was included in a series of Watches on the afternoon and evening of Mar 24th, with more than a dozen south Louisiana parishes being struck by strong-to-severe thunderstorms. Police confirmed a tornado touch-down at 8:04pm in Forked Island (Vermilion P.), but no damage was reported.

Additional reports of wind damage that evening were received from Cameron and Iberia parishes. A few isolated strong-to-severe storms moved through sections of central and southcentral Louisiana during the late evening of the 24th, with "hail reported in the community of Catahoula (Upper St. Martin P.).

Louisiana Waterways in Flood During All or Part of March

Major Rivers:
- Mississippi at Red River Landing & Baton Rouge
- Atchafalaya at Morgan City
- Ouachita at Monroe and Columbia Locks
- Sabine (various sections)
- Red River, south of Shreveport to near Alexandria

Regional Rivers:
- north Louisiana:
  - Little River
  - Caddo Lake
  - Lake Bistineau
  - Lake Claiborne
- southcentral Louisiana:
  - Lake D’Arbonne
  - Lake Wallace
- southwest Louisiana:
  - Bayou Dorcheat
  - Lake O’Genou
  - Calcasieu River at Glenmora, Oakdale & Oberlin
- southcentral Louisiana:
  - Vermilion River at Lafayette
- Florida Parishes:
  - Lower Pearl River and the Bogue Chitto, Tangipahoa, Tchefuncte, Bogue Falaya, Tickfaw, & Amite
DIVISIONAL PDSIs: Jan 1998 - Mar 2001

Divisional PDSIs for recent months are "preliminary" estimates. Source: National Climatic Data Center

CENTRAL GULF COAST CLIMATE OUTLOOK

The NWS/Climate Prediction Center 'Long-Lead Outlooks' (LLOs) are released at mid-month and are prepared for the subsequent month and thirteen three-month periods. Details regarding the LLOs can be found at http://www.cpc.ncep.noaa.gov/products/predictions/.

The NWS/CPC's ENSO discussion indicates that La Niña (ENSO "cold phase") continues to dissipate over the central Pacific and that this trend will continue through the upcoming months. However, sea-surface temperatures (SSTs) remain slightly-below normal into the early summer. However, La Niña does not usually serve as a significant force impacting the nation’s climate during the spring and summer, and is therefore not considered as a contributing factor in the seasonal forecasts.

30-Day Outlook:
CPC's temperature outlook indicates "normal to warm" conditions during May for south Louisiana, southern Mississippi, most of Alabama, Florida, and the southern two-thirds of Texas. "Climatology" (no forecast trend) is posted for northern sections of Louisiana, Texas, Mississippi and Alabama. May’s precipitation outlook posts "climatology" for Louisiana, Mississippi, northwest Alabama, and western Texas, while the remainder of the Gulf Coast region is forecasted to be "normal to dry".

90-Day Outlook:
Three-month temperature outlooks (May-June-July) suggest "normal to warm" conditions to persist for most of Louisiana, coastal regions of Mississippi and Alabama, Florida and the southern Texas. "Climatology" is the official outlook for north Louisiana and the remainder of the Gulf Coast Region. With regard to rainfall, the 90-day outlook calls for "climatology" for Louisiana and most of the Gulf Coast, while "normal to dry" conditions will continue to be expected for all of Florida and southeast Alabama.
## March 2001 Preliminary Climate Data

### Precipitation Around the State

<table>
<thead>
<tr>
<th>STATION</th>
<th>Monthly TOTAL DEPT</th>
<th>MAX 1-Day DEPT</th>
<th>Rain Days</th>
<th>Cumulative TOTAL DEPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>NORTHWEST DIVISION:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ABERDEEN</td>
<td>7.30</td>
<td>+4.22</td>
<td>1.42</td>
<td>12</td>
</tr>
<tr>
<td>COUGARVILLE</td>
<td>0.95</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>JENKINSS</td>
<td>9.90</td>
<td>+3.91</td>
<td>1.42</td>
<td>12</td>
</tr>
<tr>
<td>NANNA 3</td>
<td>9.97</td>
<td>+3.78</td>
<td>1.42</td>
<td>12</td>
</tr>
<tr>
<td>HOSSTON</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>KELTHERI</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>KOREAN</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>LOGANSPORT</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>MANFIELD</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>MINDEN</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>MOORINGSPT 1 N</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>RED RIVER RVH STA</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>ROSSON</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>SHELBYPORT CARGILL PK</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>SHELBYPORT DOWNTOWN</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>SHELBYPORT SHV AP</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>SPRINGHILL</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>VIVIAN</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
</tbody>
</table>

### South Central District

<table>
<thead>
<tr>
<th>STATION</th>
<th>Monthly TOTAL DEPT</th>
<th>MAX 1-Day DEPT</th>
<th>Rain Days</th>
<th>Cumulative TOTAL DEPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABERDEEN</td>
<td>7.30</td>
<td>+4.22</td>
<td>1.42</td>
<td>12</td>
</tr>
<tr>
<td>COUGARVILLE</td>
<td>0.95</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>JENKINSS</td>
<td>9.90</td>
<td>+3.91</td>
<td>1.42</td>
<td>12</td>
</tr>
<tr>
<td>NANNA 3</td>
<td>9.97</td>
<td>+3.78</td>
<td>1.42</td>
<td>12</td>
</tr>
<tr>
<td>HOSSTON</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>KELTHERI</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>KOREAN</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>LOGANSPORT</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>MANFIELD</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>MINDEN</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>MOORINGSPT 1 N</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>RED RIVER RVH STA</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>ROSSON</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>SHELBYPORT CARGILL PK</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>SHELBYPORT DOWNTOWN</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>SHELBYPORT SHV AP</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>SPRINGHILL</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>VIVIAN</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
</tbody>
</table>

### Baton Rouge District

<table>
<thead>
<tr>
<th>STATION</th>
<th>Monthly TOTAL DEPT</th>
<th>MAX 1-Day DEPT</th>
<th>Rain Days</th>
<th>Cumulative TOTAL DEPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABERDEEN</td>
<td>7.30</td>
<td>+4.22</td>
<td>1.42</td>
<td>12</td>
</tr>
<tr>
<td>COUGARVILLE</td>
<td>0.95</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>JENKINSS</td>
<td>9.90</td>
<td>+3.91</td>
<td>1.42</td>
<td>12</td>
</tr>
<tr>
<td>NANNA 3</td>
<td>9.97</td>
<td>+3.78</td>
<td>1.42</td>
<td>12</td>
</tr>
<tr>
<td>HOSSTON</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>KELTHERI</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>KOREAN</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>LOGANSPORT</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>MANFIELD</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>MINDEN</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>MOORINGSPT 1 N</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>RED RIVER RVH STA</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>ROSSON</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>SHELBYPORT CARGILL PK</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>SHELBYPORT DOWNTOWN</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>SHELBYPORT SHV AP</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>SPRINGHILL</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>VIVIAN</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
</tbody>
</table>

### South Central District

<table>
<thead>
<tr>
<th>STATION</th>
<th>Monthly TOTAL DEPT</th>
<th>MAX 1-Day DEPT</th>
<th>Rain Days</th>
<th>Cumulative TOTAL DEPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABERDEEN</td>
<td>7.30</td>
<td>+4.22</td>
<td>1.42</td>
<td>12</td>
</tr>
<tr>
<td>COUGARVILLE</td>
<td>0.95</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>JENKINSS</td>
<td>9.90</td>
<td>+3.91</td>
<td>1.42</td>
<td>12</td>
</tr>
<tr>
<td>NANNA 3</td>
<td>9.97</td>
<td>+3.78</td>
<td>1.42</td>
<td>12</td>
</tr>
<tr>
<td>HOSSTON</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>KELTHERI</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>KOREAN</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>LOGANSPORT</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>MANFIELD</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>MINDEN</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>MOORINGSPT 1 N</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>RED RIVER RVH STA</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>ROSSON</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>SHELBYPORT CARGILL PK</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>SHELBYPORT DOWNTOWN</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>SHELBYPORT SHV AP</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>SPRINGHILL</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
<tr>
<td>VIVIAN</td>
<td>9.90</td>
<td>-7.81</td>
<td>1.5</td>
<td>12</td>
</tr>
</tbody>
</table>
### MARCH 2001 PRELIMINARY CLIMATE DATA

#### TEMPERATURE (°F)

<table>
<thead>
<tr>
<th>STATION</th>
<th>AVG</th>
<th>AVG</th>
<th>MEAN TEMP</th>
<th>Station</th>
<th>Absolute MAX</th>
<th>MIN</th>
<th>No Days</th>
<th>290</th>
<th>552</th>
<th>Monthly</th>
<th>Degree Days</th>
<th>CDD</th>
<th>MONTHLY TOTAL</th>
<th>Rain Days</th>
<th>Cumulative Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STATEWIDE AVERAGES:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>55.3</td>
<td>-3.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>+0.43</td>
<td>+18.51</td>
<td>18.37</td>
<td>18.51</td>
<td>+3.63</td>
<td></td>
</tr>
</tbody>
</table>

#### PRECIPITATION (in.)

<table>
<thead>
<tr>
<th>STATION</th>
<th>F) PRECIPITATION (in.)</th>
<th>°HDD</th>
<th>CDD</th>
<th>TOTAL</th>
<th>1-Day</th>
<th>Days</th>
<th>TOTAL</th>
<th>Rain</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STATEWIDE AVERAGES:</strong></td>
<td></td>
<td>3.63</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

### DIVISIONS

#### NORTHWEST DIVISION:

- MANSEFIELD
- MINDEN
- SHREVEPORT CARGILL PK
- SHREVEPORT SHV AP

#### Divisional Summary:

- NORTHWEST DIVISION: 62.1 42.5 52.3 -3.8 79 30 7.97 +542 0 20.02 +7.29

#### NORTH CENTRAL DIVISION:

- BENVILLE
- CALHOUN RES STA
- COLUMBIA LOCKS
- FARMERVILLE
- HOMER
- RUSTON-LA TECH
- WINNFIELD 2 W

#### Divisional Summary:

- NORTH CENTRAL DIVISION: 62.1 42.5 52.3 -3.8 79 30 7.97 +542 0 20.02 +7.29

#### WEST CENTRAL DIVISION:

- ASHLAND
- HOUSES GARDENS
- LEESVILLE
- MARION
- NATCHECOTES
- PINE SPRINGS RES STA

#### Divisional Summary:

- WEST CENTRAL DIVISION: 62.1 42.5 52.3 -3.8 79 30 7.97 +542 0 20.02 +7.29

#### EAST CENTRAL DIVISION:

- ALEXANDRIA 5 SSE
- BOIS D'ARC 3 NE
- CLEVELAND 3 NW
- GRAND COTEAU
- JENEAU 4 WSW
- NEW ROADS 5 ESE
- OLLA

#### Divisional Summary:

- EAST CENTRAL DIVISION: 62.1 42.5 52.3 -3.8 79 30 7.97 +542 0 20.02 +7.29

#### SOUTH CENTRAL DIVISION:

- EAST 2 SW
- GRANT 5 SW
- INVERNESS 5 SW
- STERLINGTON #2

#### Divisional Summary:

- SOUTH CENTRAL DIVISION: 62.1 42.5 52.3 -3.8 79 30 7.97 +542 0 20.02 +7.29

#### SOUTHEAST DIVISION:

- ALEXANDRIA 5 SSE
- BOOTHVILLE ASOS
- ELDORADO 4 WSW
- WINNSBORO 5 SSE

#### Divisional Summary:

- SOUTHEAST DIVISION: 62.1 42.5 52.3 -3.8 79 30 7.97 +542 0 20.02 +7.29

---

( M ) – indicates that daily observations are missing from the monthly or cumulative record
MARCH 2001 DAILY CLIMOGRAPHS

LSU-RED RIVER
Research Station

LSU-CALHOUN
Research Station

WINNSBORO
5 SSE

LSU-DEAN LEE
Research Station

FRANKLINTON
5 SW

JENNINGS
NWS Coop

LSU-BEN HUR
Research Farm

USDA-HOUMA
Field Station
MOISTURE STATUS SUMMARY

March’s "wet" weather effectively eliminated any lingering soil-water deficits across the state, yet monthly PDSI data from the NCDC (p. 9) suggest that "dry to drought" conditions persist for much of the southern half of Louisiana. Soil-moisture estimates as of the end of March indicate substantial surplus water across the state, but some evidence and observations suggest that impacts from the two-year drought continue in the landscape, most notably with the "brown marsh" (marshgrass die-back) phenomenon.

Thornthwaite-Mather water-balance assessments (daily time-series displayed above) suggest that soil-moisture levels across the state have been running at or near field-capacity throughout 2001. Many northern parishes -- where rains have been above-normal -- have been dealing with localized flooding through much of the winter, and excessive rains during March only added to these problems. In fact, by mid-March, numerous lakes, rivers and bayous across the state had reached or exceeded floodstage (see list of selected waterways on cover page).

When compared to NCDC’s monthly PDSIs, CPC’s weekly PDSIs and CMIs -- which focus on shorter-term assessments -- indicate "near-normal" to "saturated" conditions throughout the Pelican State, with standing water reported in many north Louisiana fields as of month’s end. The USDA’s weekly Drought Monitor (DM) -- a composite index of various moisture indicators -- shows that the hydrologic aspects of the recent drought have faded across south Louisiana, with "near-normal to wet" conditions for all but the extreme southeastern parishes.

All in all, soil-moisture characteristics for most parishes have rebounded to near-normal levels across most of the state as of the end of the first quarter of 2001.

PDSI OUTLOOK

Projections through May 2001 suggest that "near-normal" to "wet" conditions are likely to persist across Louisiana through the spring, with a 60% to 80% chance of "moist to wet" conditions persisting over the next 90 days for the three northern divisions. For most of the remainder of Louisiana, "near-normal" conditions are favored by the outlooks. There remains a very small potential for drought conditions to persist or re-develop for the southeastern quarter of the state, but the probabilities for such an outcome through the spring are estimated at less than 1-in-4.

---

PAN EVAPORATION: MARCH 2001

<table>
<thead>
<tr>
<th>Station</th>
<th>Total</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSU-RED RIVER Res Sta</td>
<td>3.8&quot;E</td>
<td>4.4&quot;</td>
</tr>
<tr>
<td>LSU-CALHOUN Res Sta</td>
<td>4.2&quot;E</td>
<td>4.8&quot;</td>
</tr>
<tr>
<td>LSU-BEN HUR Farm</td>
<td>4.9&quot;E</td>
<td>4.7&quot;</td>
</tr>
<tr>
<td>Jennings</td>
<td>4.2&quot;E</td>
<td>4.3&quot;</td>
</tr>
<tr>
<td>USDA-HOUMA Field Sta</td>
<td>4.6&quot;E</td>
<td>4.5&quot;</td>
</tr>
</tbody>
</table>

E - Estimated monthly total
SYNOPTIC WEATHER

Weatherwise, March 2001 was almost the opposite of March 2000. For Louisiana and the Gulf Coast, March 2000 was dominated by Tropical Index (TI) weather with few fronts, and weather which was warmer and drier than normal. By comparison, March 2001 was dominated by Continental Index (CI) weather, very infrequent TI weather, and more Storminess Index (SI) weather.

During most of March, upper-air troughs were positioned over the East and occasionally the Central States, allowing colder air from Canada or mildly-cool air from The West to move over Louisiana, with the only brief periods of maritime tropical air from the Gulf. Only five fronts were positioned over the state during the month; the most notable included a nearly stationary front during March 1-3, and two polar -- or Arctic -- fronts and continental polar air on March 4-7 and again on March 25-26.

At New Orleans, March’s Gulf Return (GR) frequency of 2% was the lowest GR percentage for this month during the entire synoptic weather-type assessment, which dates back to 1961; the previous March low was 7% in 1979. The Continental Index (CI) of 66% was the third highest recorded for any March over the 40-year series, and the Tropical Index (TI) of 16% tied for third lowest. The lowest TI for March is 11% in 1969.

R.A. Muller

SYNOPTIC WEATHER TYPE CALENDAR: MARCH 2001

<table>
<thead>
<tr>
<th>Date</th>
<th>Shreveport</th>
<th>Monroe</th>
<th>Lake Charles</th>
<th>Baton Rouge</th>
<th>New Orleans</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
</tr>
<tr>
<td>2</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
</tr>
<tr>
<td>3</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
</tr>
<tr>
<td>4</td>
<td>PH</td>
<td>PH</td>
<td>PH</td>
<td>PH</td>
<td>PH</td>
</tr>
<tr>
<td>5</td>
<td>CH</td>
<td>CH</td>
<td>CH</td>
<td>CH</td>
<td>CH</td>
</tr>
<tr>
<td>6</td>
<td>CH</td>
<td>CH</td>
<td>CH</td>
<td>CH</td>
<td>CH</td>
</tr>
<tr>
<td>7</td>
<td>CH</td>
<td>CH</td>
<td>CH</td>
<td>CH</td>
<td>CH</td>
</tr>
<tr>
<td>8</td>
<td>PH</td>
<td>PH</td>
<td>PH</td>
<td>PH</td>
<td>PH</td>
</tr>
<tr>
<td>9</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
</tr>
<tr>
<td>10</td>
<td>CH</td>
<td>CR</td>
<td>CR</td>
<td>CR</td>
<td>CR</td>
</tr>
<tr>
<td>11</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
</tr>
<tr>
<td>12</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
</tr>
<tr>
<td>13</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
</tr>
<tr>
<td>14</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
</tr>
<tr>
<td>15</td>
<td>PH</td>
<td>PH</td>
<td>PH</td>
<td>PH</td>
<td>PH</td>
</tr>
<tr>
<td>16</td>
<td>CH</td>
<td>CH</td>
<td>CH</td>
<td>CH</td>
<td>CH</td>
</tr>
<tr>
<td>17</td>
<td>CH</td>
<td>CH</td>
<td>CH</td>
<td>CH</td>
<td>CH</td>
</tr>
<tr>
<td>18</td>
<td>CH</td>
<td>CH</td>
<td>CH</td>
<td>CH</td>
<td>CH</td>
</tr>
<tr>
<td>19</td>
<td>CR</td>
<td>CR</td>
<td>CR</td>
<td>CR</td>
<td>CR</td>
</tr>
<tr>
<td>20</td>
<td>CR</td>
<td>CR</td>
<td>CR</td>
<td>CR</td>
<td>CR</td>
</tr>
<tr>
<td>21</td>
<td>CR</td>
<td>CR</td>
<td>CR</td>
<td>CR</td>
<td>CR</td>
</tr>
<tr>
<td>22</td>
<td>FGR</td>
<td>FGR</td>
<td>FGR</td>
<td>FGR</td>
<td>FGR</td>
</tr>
<tr>
<td>23</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
</tr>
<tr>
<td>24</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
</tr>
<tr>
<td>25</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
</tr>
<tr>
<td>26</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
</tr>
<tr>
<td>27</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
</tr>
<tr>
<td>28</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
</tr>
<tr>
<td>29</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
<td>FOR</td>
</tr>
<tr>
<td>30</td>
<td>PH</td>
<td>PH</td>
<td>PH</td>
<td>PH</td>
<td>PH</td>
</tr>
</tbody>
</table>

SYNOPTIC WEATHER TYPES by PERCENT: MARCH 2001

<table>
<thead>
<tr>
<th></th>
<th>Shreveport</th>
<th>Monroe</th>
<th>Lake Charles</th>
<th>Baton Rouge</th>
<th>New Orleans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pacific High (PH)</td>
<td>15</td>
<td>7</td>
<td>16</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>Continental High (CH)</td>
<td>29</td>
<td>25</td>
<td>37</td>
<td>26</td>
<td>35</td>
</tr>
<tr>
<td>Frontal Overrunning (FOR)</td>
<td>39</td>
<td>24</td>
<td>32</td>
<td>25</td>
<td>24</td>
</tr>
<tr>
<td>Coastal Return (CR)</td>
<td>8</td>
<td>7</td>
<td>8</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Gulf Return (GR)</td>
<td>2</td>
<td>19</td>
<td>2</td>
<td>20</td>
<td>6</td>
</tr>
<tr>
<td>Frontal Gulf Return (FGR)</td>
<td>8</td>
<td>13</td>
<td>8</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>Gulf High (GH)</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Gulf Tropical Disturbance (GTD)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Continental Index (CH+FOR)</td>
<td>68</td>
<td>49</td>
<td>69</td>
<td>51</td>
<td>60</td>
</tr>
<tr>
<td>Tropical Index (GR+FGR+GTD)</td>
<td>10</td>
<td>32</td>
<td>10</td>
<td>31</td>
<td>16</td>
</tr>
<tr>
<td>Storminess Index (FOR+FGR+GTD)</td>
<td>47</td>
<td>37</td>
<td>40</td>
<td>36</td>
<td>34</td>
</tr>
</tbody>
</table>
TEMPERATURE SUMMARIES

After a "warm" February, cooler-than-normal weather returned to the Bayou State for March. March's statewide-average temperature was 55.3°F, 3.6°F below the norm. From a statewide perspective, March was actually 1°F cooler than February. Indeed, "cooler-than-normal" weather has become a recent trend for Louisiana, as February is the only month since October 2000 with monthly temperatures averaging above the norm.

Divisional average temperatures for March ranged from the low to upper 50s across the state. Monthly divisional departures ranged from -2.0°F (SE Div) to as much as -5.0°F (NC), with divisional departures tending to be slightly greater over the central and northern parishes. Monthly maximums and minimums -- as reported by individual stations -- were below-normal statewide, with maximums displaying departures on the order of -2°F to -7°F. Monthly minimum departures tended to be smaller by comparison, ranging from "near normal" for a handful of sites to -4°F or -5°F for a very few stations in central and southwestern Louisiana.

Daily temperature series (see climographs on p. 6) show that daily maximums displayed considerable day-to-day variability during March. Minimums, in contrast, were far less variable. Still, a number of north Louisiana sites recorded one or more light freezes during March, with Bienville 3 NE (NC Div) and Jena 4 WSW (C Div) both reporting lows of 28°F during the month. A few "mild" March days saw afternoon highs reach the 70s and 80s, with Houma (SE Div) reaching a high of 84°F on the afternoon of Mar 3rd. Yet chilly weather near month's end resulted in a few days with highs failing to reach the 50s for a few northern parishes, and only reaching the upper 50s and low 60s along the coast -- temperatures as much as 20°F or more below the expected norms!

**Daily Average Dewpoints MARCH 2001**

**MARCH DEWPOINTS**

March monthly dewpoints ranged from the low 40s (north) up to 50°F along the coast and were generally 2°F to 3°F below long-term monthly averages. The daily dewpoint series from Shreveport and New Orleans (adjacent figure) display a considerable degree of dewpoint variability through the month, with marked contrasts between "mild-and-moist" Gulf-originating air masses and those displaying "cool-and-dry" continental characteristics. Dewpoints briefly reached the upper 60°F and low 70°F over many southern parishes during the first days of the month, but tended to hover in the 40°F and 50°F statewide for most of March. However, "cold-and-dry" Continental High weather on Mar 5-6 and again on Mar 26 briefly pushed dewpoints down to the 30°F statewide.

**PRELIM DEGREE-DAY SUMMARIES for SELECTED STATIONS: MARCH 2001**

<table>
<thead>
<tr>
<th>Monthly HDDs</th>
<th>Seasonal HDDs</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHREVEPORT WSO AP</td>
<td>352</td>
</tr>
<tr>
<td>RUSTON-LA TECH UNIV</td>
<td>409</td>
</tr>
<tr>
<td>MCHROE FCWOS</td>
<td>384</td>
</tr>
<tr>
<td>NATCHITOCHES</td>
<td>352</td>
</tr>
<tr>
<td>LEEsville</td>
<td>346</td>
</tr>
<tr>
<td>ALEXANDRIA</td>
<td>317</td>
</tr>
<tr>
<td>BATON ROUGE WSO AP</td>
<td>252</td>
</tr>
<tr>
<td>SLIDELL</td>
<td>228</td>
</tr>
<tr>
<td>LAKE CHARLES WSO AP</td>
<td>240</td>
</tr>
<tr>
<td>LAFAYETTE LFT AP</td>
<td>226</td>
</tr>
<tr>
<td>MORGAN CITY</td>
<td>192</td>
</tr>
<tr>
<td>HOUMA</td>
<td>166</td>
</tr>
<tr>
<td>NEW ORLEANS WSCMO AP</td>
<td>184</td>
</tr>
<tr>
<td>NEW ORLEANS AUDUBON</td>
<td>153</td>
</tr>
</tbody>
</table>

**HDD Season:** Jul 2000 - Jun 2001

<table>
<thead>
<tr>
<th>Monthly CDDs</th>
<th>Seasonal CDDs</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHREVEPORT WSO AP</td>
<td>2</td>
</tr>
<tr>
<td>RUSTON-LA TECH UNIV</td>
<td>0</td>
</tr>
<tr>
<td>MCHROE FCWOS</td>
<td>2</td>
</tr>
<tr>
<td>NATCHITOCHES</td>
<td>0</td>
</tr>
<tr>
<td>LEEsville</td>
<td>0</td>
</tr>
<tr>
<td>ALEXANDRIA</td>
<td>0</td>
</tr>
<tr>
<td>BATON ROUGE WSO AP</td>
<td>4</td>
</tr>
<tr>
<td>SLIDELL</td>
<td>10</td>
</tr>
<tr>
<td>LAKE CHARLES WSO AP</td>
<td>4</td>
</tr>
<tr>
<td>LAFAYETTE LFT AP</td>
<td>4</td>
</tr>
<tr>
<td>MORGAN CITY</td>
<td>20</td>
</tr>
<tr>
<td>HOUMA</td>
<td>35</td>
</tr>
<tr>
<td>NEW ORLEANS WSCMO AP</td>
<td>20</td>
</tr>
<tr>
<td>NEW ORLEANS AUDUBON</td>
<td>29</td>
</tr>
</tbody>
</table>

**CDD Season:** Jan 2001 - Dec 2001
PRECIPITATION SUMMARY
March proved to be a very wet month for the Pelican State, with copious amounts of rain effectively recharging soils across drought-plagued southern Louisiana while generating localized flooding for many northern and central parishes. March's statewide rainfall averaged 9.4", 4.4" above the 1961-90 mean. From a statewide perspective, March 2001 is the "wettest" March since 1980 and the 5th "wettest" March dating back to 1889!

Unlike many recent months -- when precipitation showed a north-to-south declining gradient -- March rains were above-normal statewide. Monthly departures exceeded +3" for all nine climate divisions, and exceeded +4" for all but the NW and SE. March divisional totals topped 10" (more than double the norm) for the NE, WC and SC Divisions, with totals ranking among the top five March totals in more than 100 years for the WC, SW and SC Divisions.

Of the 73 Cooperative stations around the state with long-term normals, every one reported above-normal totals for the month. Of roughly 200 stations included in this month’s review, nearly one-third recorded more than 10" for the month, with nine sites topping 12" for March. Vidalia #2 (C Div) was Louisiana's "wet" spot during March, recording 13.59" of rain for the month.

The vast majority of stations in the state reported between 10 and 15 raindays for the month, with most sites reporting several "one-day" totals of more than one inch. Climographs (p. 6) show that the first few days of March were very wet, especially across northern Louisiana. A second cluster of raindays is evident during the second week of the month, but period totals are more variable around the state. The last four or five days of March also proved to be a wet period for most parishes.

First-quarter statewide cumulative rainfall for 2001 stands at 18.6" and is running 124% of normal thanks to March’s "wet" weather. Three-month totals for the three northern divisions are all above 20", with departures for these three regions running between +6" to +8". Cumulative totals are 3" to 5" above-normal for the WC, C, SW and SC Divisions, with the EC Division’s three-month sum being near the norm. Only the SE Division is reporting a significant shortfall for the year, with a three-month total of 13.0" (2.3" below the Jan-Mar divisional mean).

Roughly 80% of all stations with 30-year means are reporting above-normal totals through March, including every site across the northern half of the state. Jan-Mar totals exceed 15" for every site north of a DeRidder-Bunkie "line", with four north Louisiana sites already reporting more than 25" for the year -- nearly half of their respective annual normals! Cotton Valley 5 NNW (NW Div) is the state’s "wettest" location for 2001 with 27.34" for the first quarter.

After a dry start for 2001 across several southeastern parishes, March’s rains provided some much-needed moisture relief. Yet the SE Division’s three-month total is still only 8.5% of normal, suggesting that the region could use a run of wet weeks this Spring. Plaquemines Parish is the state’s "dry" spot thus far, averaging under 10" through the end of March, roughly two-thirds of normal.
MARCH HIGHLIGHTS

March statewide rainfall averaged more than 9” -- nearly double the monthly norm. The excessive rains not only saturated soils, but produced flooding problems for a number of Louisiana waterways. From a statewide perspective, the first three months of 2001 have been "wet" -- the state’s three-month statewide cumulative total stands at more than 18", almost 4" above the mean.

Monthly temperatures were below-the-mean, with March’s statewide average of 55°F being nearly 4° below normal. While rainfall has been highly variable through the last six months, March is the fifth month of the last half-dozen with “cooler-than-normal” weather, suggesting a noteworthy shift from the "warmer-than-normal" pattern that was evident during most of 2000.

MARCH WEATHER NOTES

A run of stormy weather which had begun at the end of February extended through the first days of March. Rains typically averaged from 3” to 7” across the state during the period, with localized totals in excess of 9”. As a result, high water continued along numerous north Louisiana rivers, bayous and lakes, and extended many of February’s River Flood Warnings through much or all of March. The rains also prompted numerous reports of additional flooding around the state, with Flash-Flood Watches and Warnings in effect for roughly half or more of the state during the first days of the month.

In addition, localized strong-to-severe thunderstorms impacted about half of the state’s parishes during the first three days of March, with reports of ¾” hail received from central Louisiana and reports of damming winds across portions of the southern third of the state. Among a list of storm reports across the state, police reported that mobile homes were blown off their foundations in Bayou L’Ourso (Assumption P.) on the afternoon of Mar 3rd.

Thunderstorms ahead of an advancing cold front tracked across south Louisiana late on the 8th through the pre-dawn hours of the 9th. Thunderstorm winds produced localized damage in Cameron and Calcasieu parishes prior to midnight, with isolated reports of damage extending over several southcentral Louisiana parishes through the night. High winds also produced minor to moderate damage to several Terrebonne Parish homes at about 3:30am on the 9th.

The month’s most significant and widespread outbreak of severe weather arrived late in the evening of Mar 11th and extended into the morning hours of the 12th. By sunrise on the 12th, the entire state had been included within a series of Severe Thunderstorm Watch boxes. The first round of thunderstorms developed prior to midnight over several southeastern parishes, with 1” hail reported in Destrehan (St. Charles P.). Severe storms continued to develop across the Florida Parishes between midnight and through sunrise, with additional severe thunderstorms reported over several northwest, northeast and central parishes through 7:00am.

In Natchitoches, “straightline” thunderstorm winds at approximately 5:40am destroyed one mobile home and overturned two others, leaving six persons injured. An NWS survey estimated the damage path of these winds at roughly 4½ miles. A well-defined squall line cut through numerous south Louisiana parishes between approximately 7:00-9:00am, moving eastward at an estimated 55 mph. Two tornadoes were reported in the Kentwood area (Tangipahoa P.): one at approximately 7:20 and a second at roughly 9:30am. The first cyclone left little or no damage, but the second twister did damage several homes in the area. NWS offices around the state also received a number of reports throughout the morning of downed trees and powerlines due to high winds, with ¾” to 1” hail reported in several southwestern and central parishes.

(continued on cover page)

STATEWIDE TEMPERATURES: Last 13 Months
Area-Weighted Monthly Averages

STATEWIDE RAINFALL: Last 13 Months
Area-Weighted Monthly Averages