Climate Review for the month of July 2014

Presented by:
National Weather Service
Newport/Morehead City
July was not your typical July in North Carolina. It was a cool and wet month as an upper level trough dominated the eastern half of the country. This caused the average temperatures across eastern NC to be 3 degrees below normal. Average max temperatures were in the mid 80s when typically they should be in the upper 80s. Average low temperatures were near normal, ranging in the upper 60s to low 70s. Several stationary fronts became stalled across the area which resulted in above normal rainfall amounts across our area. Several locations have seen rainfall totals up to 10 inches. The area continues to remain drought-free.

North Carolina had the earliest land falling hurricane on record. Hurricane Arthur (category two) made landfall on the east end of Shackleford Banks at 11:15 pm, July 3. The strongest winds were on the east side of the hurricane with the highest wind gust reported of 101 mph at Cape Lookout with widespread power outages throughout coastal eastern NC. The full report of Hurricane Arthur can be found on: http://www.weather.gov/mhx/Arthur.
Average Temperatures within our CWA

<table>
<thead>
<tr>
<th>City</th>
<th>Avg Max</th>
<th>Avg Max Normal</th>
<th>Avg Min</th>
<th>Avg Min Normal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beaufort</td>
<td>85.2</td>
<td>na</td>
<td>73.3</td>
<td>na</td>
</tr>
<tr>
<td>Cape Hatteras</td>
<td>85.7</td>
<td>84.6</td>
<td>73.8</td>
<td>73.6</td>
</tr>
<tr>
<td>New Bern</td>
<td>88.9</td>
<td>89.5</td>
<td>71.6</td>
<td>71.6</td>
</tr>
<tr>
<td>Greenville</td>
<td>87.3</td>
<td>89.9</td>
<td>68.7</td>
<td>70.7</td>
</tr>
<tr>
<td>Kinston</td>
<td>87.3</td>
<td>91.0</td>
<td>68.1</td>
<td>71</td>
</tr>
<tr>
<td>Williamston</td>
<td>86.3</td>
<td>88.6</td>
<td>69.3</td>
<td>68.9</td>
</tr>
<tr>
<td>Plymouth</td>
<td>87.1</td>
<td>89.4</td>
<td>68.6</td>
<td>70</td>
</tr>
<tr>
<td>Bayboro</td>
<td>87.5</td>
<td>89.3</td>
<td>68.2</td>
<td>71.4</td>
</tr>
</tbody>
</table>

Average temperatures were 3 degrees below normal.
Max and Min Temperature within our CWA.

<table>
<thead>
<tr>
<th>Location</th>
<th>MAX</th>
<th>MIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beaufort</td>
<td>89</td>
<td>63</td>
</tr>
<tr>
<td>Cape Hatteras</td>
<td>93</td>
<td>61</td>
</tr>
<tr>
<td>New Bern</td>
<td>95</td>
<td>61</td>
</tr>
<tr>
<td>Greenville</td>
<td>97</td>
<td>59</td>
</tr>
<tr>
<td>Kinston AG</td>
<td>94</td>
<td>58</td>
</tr>
<tr>
<td>Williamston</td>
<td>93</td>
<td>59</td>
</tr>
<tr>
<td>Plymouth</td>
<td>94</td>
<td>57</td>
</tr>
<tr>
<td>Bayboro</td>
<td>94</td>
<td>58</td>
</tr>
</tbody>
</table>
## July’s Rain versus Climate Normal

<table>
<thead>
<tr>
<th>Location</th>
<th>Precipitation (inches)</th>
<th>Normal</th>
<th>Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beaufort</td>
<td>7.99</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>Cape Hatteras</td>
<td>6.5</td>
<td>4.99</td>
<td>1.51</td>
</tr>
<tr>
<td>New Bern</td>
<td>6.51</td>
<td>6.17</td>
<td>0.34</td>
</tr>
<tr>
<td>Greenville</td>
<td>9.06</td>
<td>5.39</td>
<td>3.67</td>
</tr>
<tr>
<td>Kinston</td>
<td>8.43</td>
<td>5.58</td>
<td>2.85</td>
</tr>
<tr>
<td>Williamston</td>
<td>7.08</td>
<td>5.29</td>
<td>1.79</td>
</tr>
<tr>
<td>Plymouth</td>
<td>6.85</td>
<td>5.34</td>
<td>1.51</td>
</tr>
<tr>
<td>Bayboro</td>
<td>7.15</td>
<td>6.27</td>
<td>0.88</td>
</tr>
</tbody>
</table>

Most of eastern NC received above normal rainfall amounts with several locations receiving up to 10 inches.
Hurricane Arthur Total Rainfall

National Weather Service
Newport/Morehead City NC
Hurricane Arthur: July 3rd - July 4th

Precipitation (inches)
- <1
- 2 - 3
- 4 - 5
- 1 - 2
- 3 - 4
- >5

North Carolina

- Greene
- Pitt
- Craven
- Jones
- Duplin
- Onslow

This map was created by the National Weather Service in Newport, NC.
Most sources from CoCoRAHS, COOP Observers and Trained Spotters.
This map was generated using an interpolation method from actual values, but should be considered estimation only.
Hurricane Arthur Peak Wind Gust

National Weather Service
Newport/Morehead City NC
Hurricane Arthur: July 3rd - July 4th

Wind Gust (MPH)
- <45
- 75 - 90
- 45 - 60
- 90 - 105
- 60 - 75
- >105

North Carolina

This map was created by the National Weather Service in Newport, NC.
*Most Sources from WeatherFlow, ASCOS, AWOS and Tidmarsh Spotters.
*This map was generated using an interpolation method from actual values, but should be considered estimation only.
Before

July 1, 2014
Valid 8 a.m. EDT

Now

August 12, 2014
Valid 8 a.m. EDT
U.S. Monthly Drought Outlook
Drought Tendency During the Valid Period
Valid for August 2014
Released July 31, 2014

Monthly Drought Outlook

KEY:
- Drought persists or intensifies
- Drought remains but improves
- Drought removal likely
- Drought development likely

Author: Adam Allgood, Climate Prediction Center, NOAA

U.S. Seasonal Drought Outlook
Drought Tendency During the Valid Period
Valid for July 17 - October 31, 2014
Released July 17, 2014

Seasonal Drought Outlook

KEY:
- Drought persists or intensifies
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