NOAA's National Weather Service, Newport/Morehead city NC

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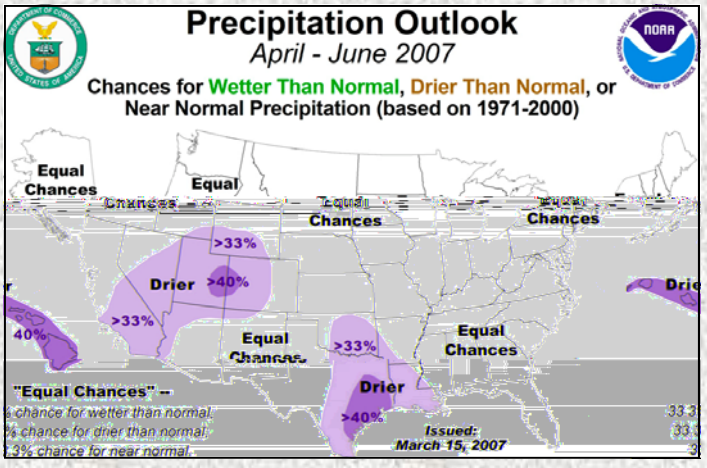
Carolina Sky Watcher

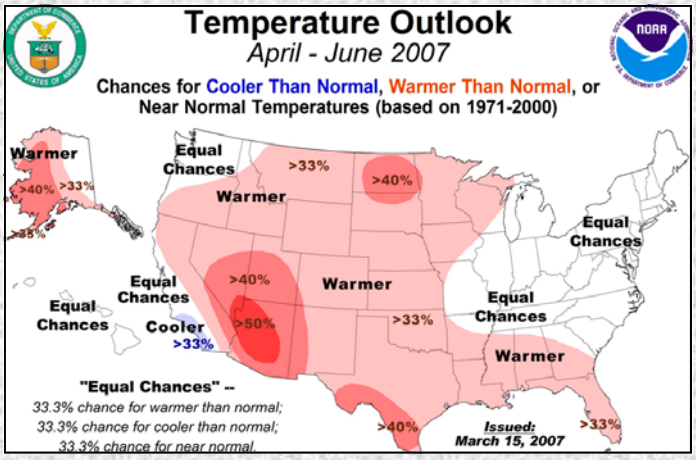
Spring 2007 edition

SPRING 2007 OUTLOOK

By Hal Austin, Forecaster

On March 15, NOAA scientists released their outlook for temperatures and precipitation for April through June. For eastern North Carolina, there are equal chances of having below, average or above average temperatures *and* rainfall! An equal chance, either for temperature or precipitation, is predicted when there are no reliable and skillful signals on which to base the seasonal outlook.





Here are the 30-year averages (1971-2000) for some select communities in the area:

MAY	Avg. Monthly High	Avg. Monthly Low	Avg. Monthly Pcpn.
New Bern	80.2	59.3	4.33
Greenville	79.9	56.8	4.04
Kinston	79.8	55.0	4.10
Williamston	79.0	56.8	4.03

JUNE	Avg. Monthly High	Avg. Monthly Low	Avg. Monthly Pcpn.
New Bern	86.1	66.9	4.59
Greenville	86.2	64.7	4.46
Kinston	86.2	63.1	4.64
Williamston	85.7	64.9	4.55

These averages, plus much more useful climate data for central eastern North Carolina can be found on our

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webpage. Go to **www.erh.noaa.gov/mhx**. Scroll down the left-hand side to "Climate" and click on "More…" Then on that page, click on the "NOWData" tab. If you'd like to read the entire Spring 2007 outlook, go to: **www.noaanews.noaa.gov/stories2007/s2818.htm**

HAPPY BIRTHDAY NOAA!

By Hal Austin, Forecaster

The National Oceanic & Atmospheric Administration (NOAA), the parent organization of the National Weather Service, is 200 years old!

In 1807, President Thomas Jefferson founded the U.S. Coast and Geodetic Survey (as the Survey of the Coast) to provide nautical charts to the maritime community for safe passage into American ports and along our extensive coastline. The Weather Bureau (today's National Weather Service) was founded 1870 and, one year later, the U.S. Commission of Fish and Fisheries was founded. Individually, these organizations were America's first physical science agency, America's first agency dedicated specifically to the atmospheric sciences, and America's first conservation agency.

The cultures of scientific accuracy and precision, service to protect life and property, and stewardship of resources of these three agencies were brought together in 1970, with the establishment of NOAA, an agency within the Department of Commerce.

Today, in 2007, we celebrate the 200th anniversary of the founding of the Coast and Geodetic Survey, the establishment of which set in motion a 200-year legacy of science, service, and stewardship.

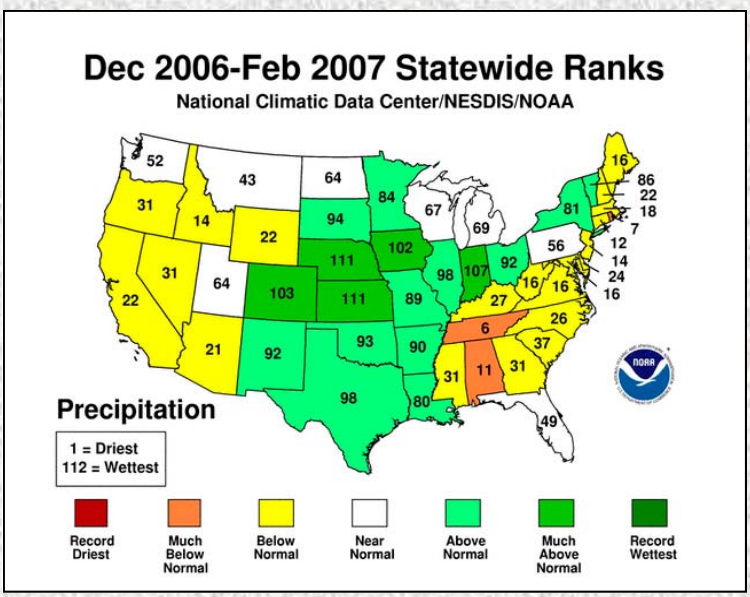
NOAA has set up a special website to commemorate the event. Point your browser to:

http://celebrating200years.noaa.gov/

You'll find feature stories, educational materials, historical resources and much, much more!

WARMER & DRIER WINTER

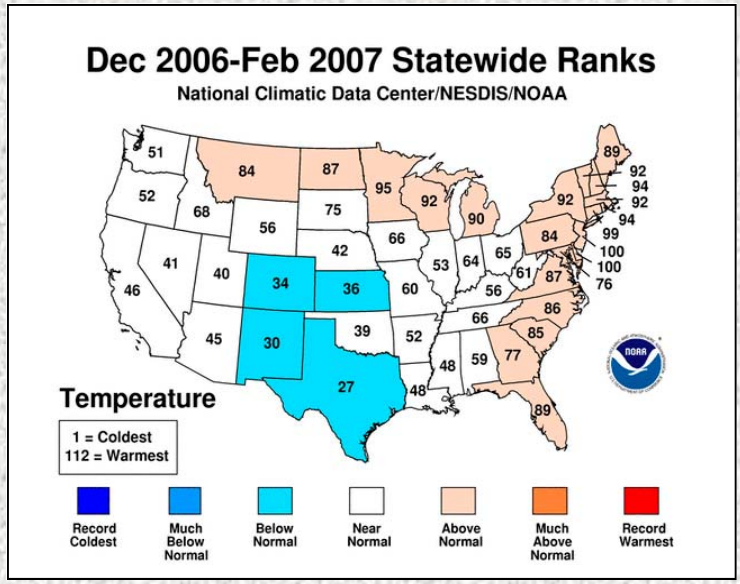
By Hal Austin, Forecaster



The December 2006-February 2007 winter season in North Carolina was warmer and drier than normal, according to data released March 15 by NOAA's National Climatic Data Center in Asheville.

Upper-level wind patterns brought unusually cold temperatures to the southern Plains and much of the West in January. More typical winter conditions finally arrived in the eastern United States by late January and a period of colder-than-normal temperatures persisted through President's Day weekend. This past winter ranked as the 86th warmest on record for North Carolina (*see figure below*).

The warmer-than-average winter temperatures in the Midwest and East helped reduce residential energy needs for the nation. Using the Residential Energy Demand Temperature Index (REDTI—an index developed at NOAA to relate energy usage to climate), the nation's residential energy demand was approximately three percent lower than what would have occurred under average climate conditions for the season.



Seasonal energy demand would have been even lower, if not for February's colder temperatures. For the month, temperature-related residential energy demand was approximately six percent higher than what would have occurred under average climate conditions for February.

Winter was drier than average from the Deep South to Kentucky, the mid-Atlantic, and along the Northeast Seaboard states. Much of the West also was drier than average. For February, precipitation was below average in the Southeast, Northeast and Midwest regions. For North Carolina, this past winter was the 26th driest on record (*see figure above left*).

The entire report can be found at: **www.noaanews.noaa.gov/stories2007/s2819.htm**

To report adverse weather conditions 24/7, please call us at:

1-800-889-6889

FIRE WEATHER SEASON IS HERE

By Jim Wingenroth, Forecaster

NWS forecaster Scott Kennedy attends a prescribed burn conducted by the US Forest Service to gain a better understanding of how such burns are conducted.

The National Weather Service office in Newport issues public and marine forecasts on a daily basis, but did you know that our forecasters are quite involved with fire weather forecasting as well? NWS forecasters are responsible for issuing a suite of fire weather products that are used by land management personnel. Products include the Fire Weather Planning Forecast, the Spot Forecast, Fire Weather Watches and Red Flag Warnings. One of the primary fire weather products that is issued on a daily basis is the Fire Weather Planning Forecast. This forecast is primarily used by land management personnel for input in the pre-suppression decision making process for wild fires. Decisions made based on this forecast directly impact firefighter safety, the protection of the public and property as well as resource allocation should a wildfire ignite. Some important parameters that decision makers look at in the fire weather forecast include relative humidity values and wind speeds both at the surface and aloft. How stable or unstable the atmosphere becomes is also very crucial for decision makers. A very dry air mass resulting in very low humidity values combined with high surface winds can result in the rapid spread of wildfires.

The Spot forecast is a site specific forecast product. These forecasts aid land management and fire control agencies in the protection of life and property when a fire has already started or in times when prescribed burning is conducted for the reduction and restoration of natural resources. Spot Forecasts may also be issued during hazardous material incidents and other threats to the public. Spot Forecasts are issued by forecasters when requested by authorities for a specific location, whereas the Fire Weather forecast encompasses a much broader area.

Fire Weather Watches and Red Flag Warnings are issued when the combination of weather conditions and dry fuels or burning materials such as wood, grass, leaves etc could result in extreme fire danger. These products alert authorities to the possibility of rapid fire growth and fire suppression issues that could pose a threat to life and property.
A Fire Weather Watch is issued well in advance of the expected threat period, usually within 24 to 72 hours and is the precursor to a Red Flag Warning. A Red Flag Warning will be issued within 24 hours when forecasters have a high level of confidence that weather conditions and dry fuels will result in dangerous fire weather conditions.

Spring is here and temperatures are getting warmer which means more outdoor activities that involve flames such as barbequing, camping and outdoor burning. For more information on what you can do to prevent wildfires, please visit the link below from the North Carolina Division of Forest Resources for important information concerning outdoor fire safety.

http://www.dfr.state.nc.us/fire_control/fire_safetburning.htm

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An F4 tornado struck La Plata, MD on April 28, 2002. The tornado caused 3 deaths and 122 injuries. Property damage exceeded $100 million. The picture above shows some of the devastation. The new EF scale will help improve rating tornado intensity.

ENHANCED FUJITA SCALE

By Hal Austin, Forecaster

On Thursday, February 1st, NOAA's National Weather Service fully implemented the Enhanced Fujita (EF) scale to rate tornadoes, replacing the original Fujita scale. The EF scale will continue to rate tornadoes on a scale from 0 to 5, but ranges in wind speed will be more accurate with the improved rating scale.

The Fujita scale was developed in 1971 by the late T. Theodore Fujita, Ph.D., to rate tornadoes and estimate associated wind speed based on the damage they cause. The EF scale refines and improves the original scale. It was developed by the Texas Tech University Wind Science and Engineering Research Center, along with a forum of wind engineers, universities, private companies, government organizations, private sector meteorologists and NOAA meteorologists from across the country.

Limitations of the original Fujita scale may have led to inconsistent ratings, including possible overestimates of wind speeds. The EF scale includes more damage indicators and degrees of damage than the original Fujita scale, allowing more detailed analysis and better correlation between damage and wind speed. The EF scale will not affect the original historical Fujita scale data base. A correlation between the original Fujita scale and the EF scale has been developed. This makes it possible to express ratings in terms of one scale to the other, preserving the historical database.

NOAA's Storm Prediction Center in Norman OK has created a web page with detailed information on the EF scale. The address is: **www.spc.noaa.gov/efscale**