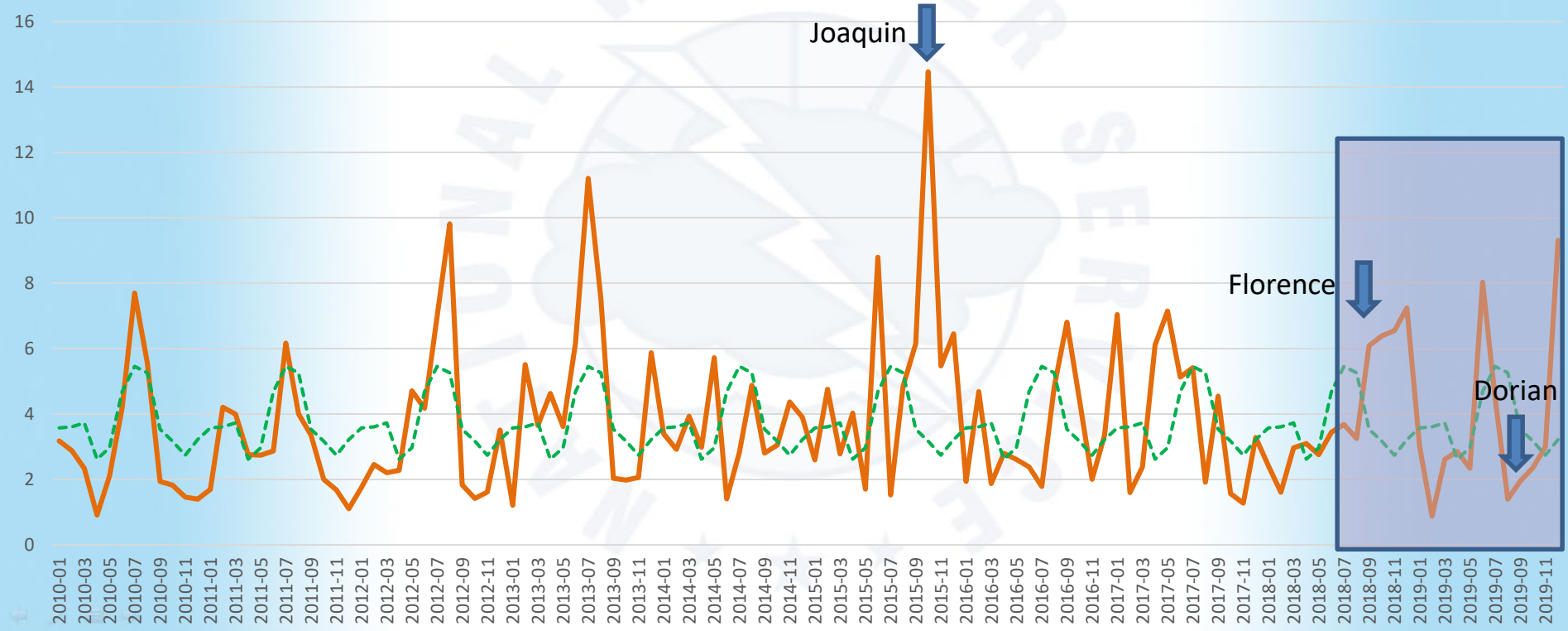
Past and Current Drought Conditions

National Weather Service: Columbia SC
Leonard Vaughan
Whitney Smith
Frank Alsheimer

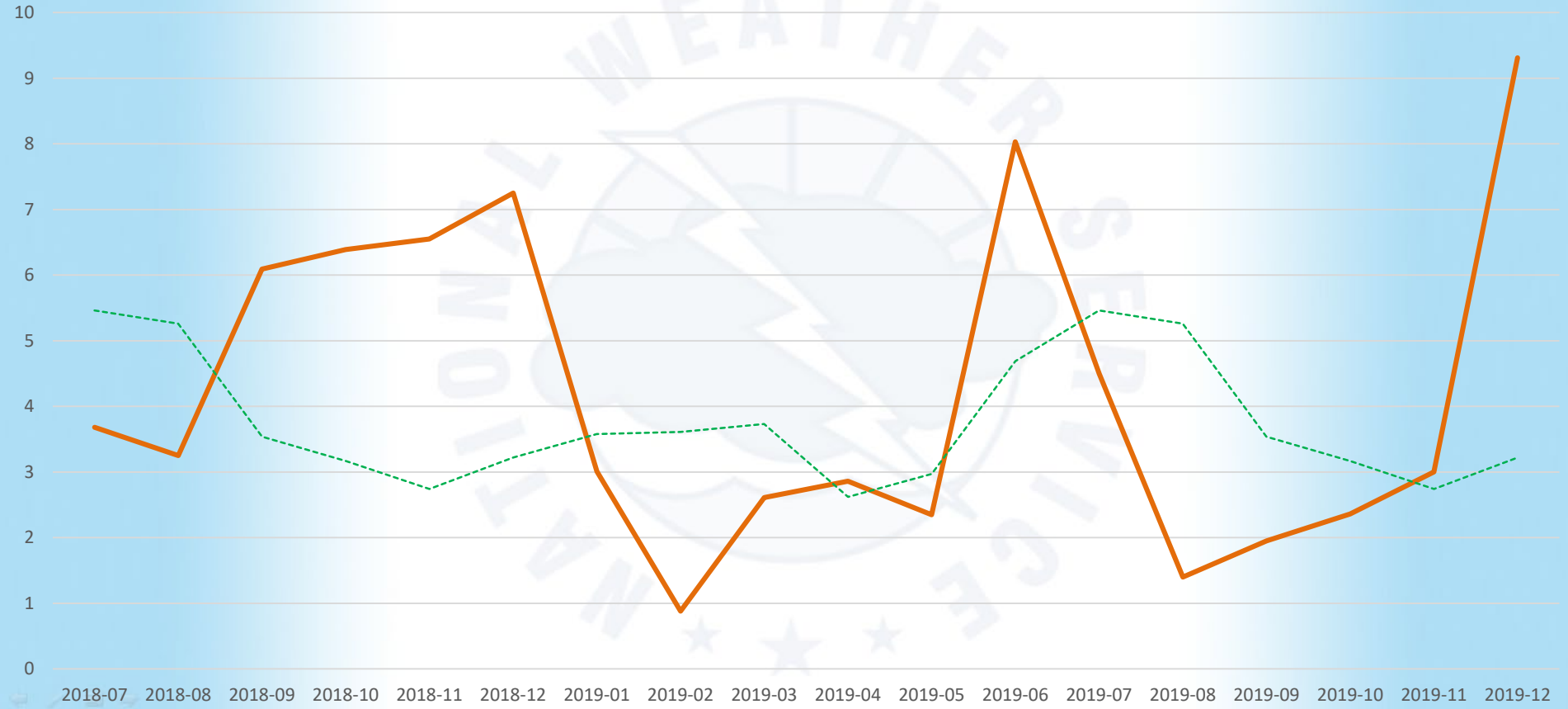
Presentation Created
2/7/2020 8:09 AM

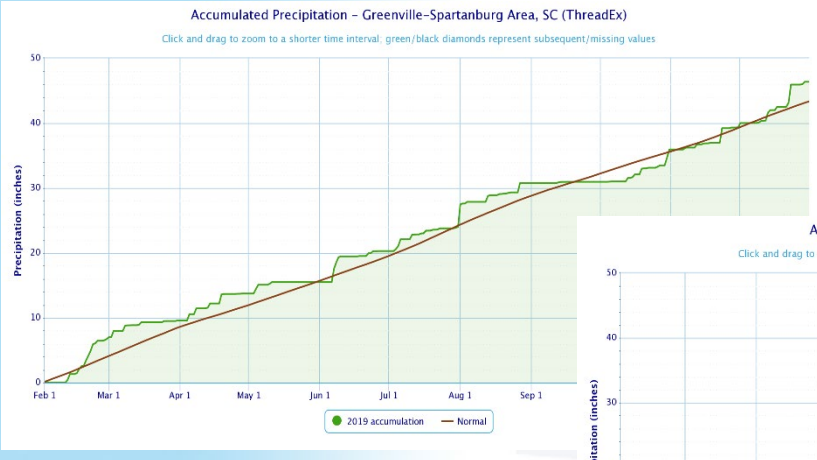
Rainfall Variation

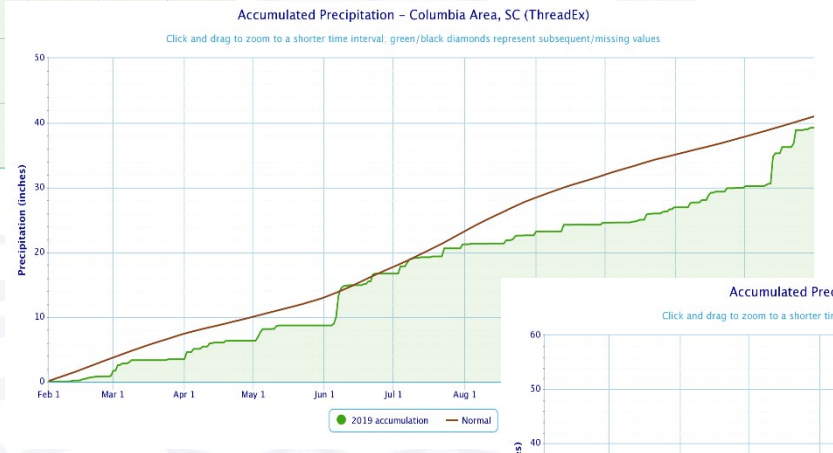
Columbia Metropolitan Airport Monthly Rainfall Since 2010

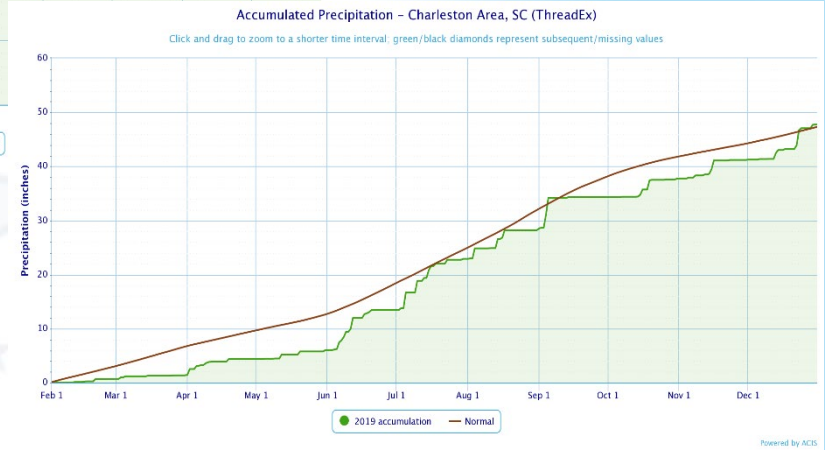


Columbia Metropolitan Airport Since July 2018




Accumulated Precipitation - Greenville-Spartanburg Area, SC (ThreadEx)
Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values
Precipitation (inches)
0
10
20
30
40
50
Feb 1
Mar 1
Apr 1
May 1
Jun 1
Jul 1
Aug 1
Sep 1
2019 accumulation
Normal

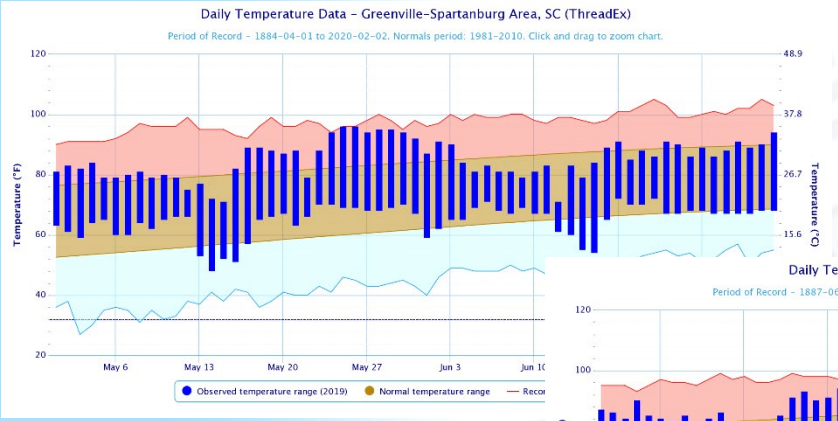

Accumulated Precipitation - Columbia Area, SC (ThreadEx)
Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values
Precipitation (inches)
0
10
20
30
40
50
Feb 1
Mar 1
Apr 1
May 1
Jun 1
Jul 1
Aug 1
2019 accumulation
Normal

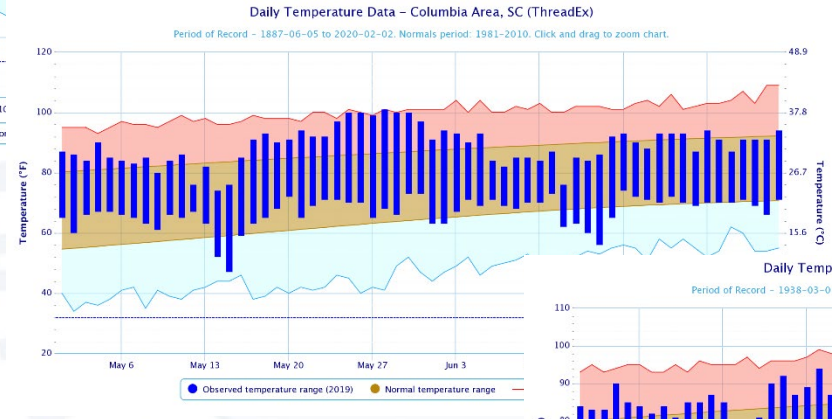

Accumulated Precipitation - Charleston Area, SC (ThreadEx)
Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values
Precipitation (inches)
0
10
20
30
40
50
60
Feb 1
Mar 1
Apr 1
May 1
Jun 1
Jul 1
Aug 1
Sep 1
Oct 1
Nov 1
Dec 1
2019 accumulation
Normal
Powered by ACIS

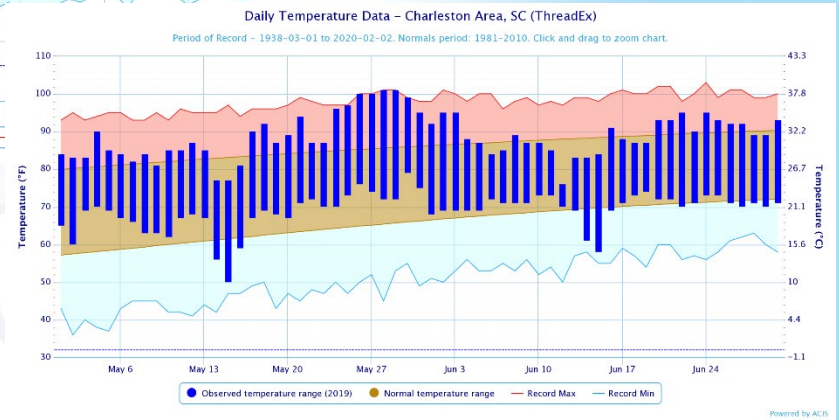
NATIONAL WEATHER SERVICE

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

WEATHER-READY NATION



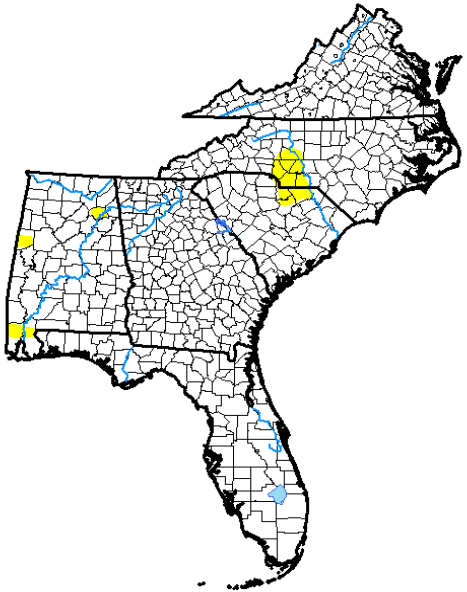




Drought Classifications

U.S. Drought Monitor

Southeast



July 3, 2018

(Released Thursday, Jul. 5, 2018)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	97.65	2.35	0.00	0.00	0.00	0.00
Last Week *06-26-2018*	98.37	1.63	0.00	0.00	0.00	0.00
3 Months Ago *04-03-2018*	43.67	56.33	26.31	6.68	0.00	0.00
Start of Calendar Year *01-02-2018*	25.90	74.10	33.15	0.00	0.00	0.00
Start of Water Year *09-26-2017*	94.78	5.22	0.00	0.00	0.00	0.00
One Year Ago *07-04-2017*	98.57	1.43	0.00	0.00	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

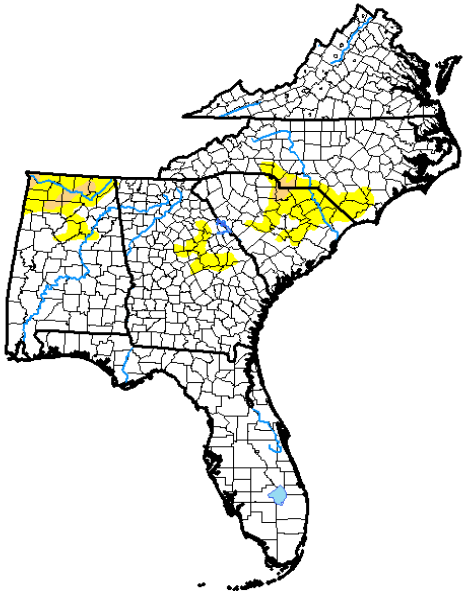
Author:
Richard Tinker
CPC/NOAA/NWS/NCEP

http://droughtmonitor.unl.edu/

Drought Classifications

U.S. Drought Monitor

Southeast



September 11, 2018

(Released Thursday, Sep. 13, 2018)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	89.86	10.14	1.09	0.00	0.00	0.00
Last Week *09-04-2018*	89.31	10.69	0.70	0.00	0.00	0.00
3 Months Ago *06-12-2018*	98.76	1.24	0.00	0.00	0.00	0.00
Start of Calendar Year *01-02-2018*	25.90	74.10	33.15	0.00	0.00	0.00
Start of Water Year *09-26-2017*	94.78	5.22	0.00	0.00	0.00	0.00
One Year Ago *09-12-2017*	97.54	2.46	0.00	0.00	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

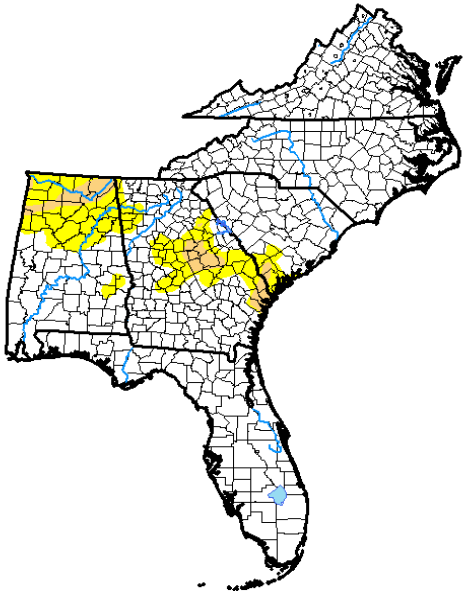
Author:
David Miskus
NOAA/NWS/NCEP/CPC

http://droughtmonitor.unl.edu/

Drought Classifications

U.S. Drought Monitor

Southeast



September 25, 2018

(Released Thursday, Sep. 27, 2018)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	86.18	13.82	2.97	0.00	0.00	0.00
Last Week *09-18-2018*	89.43	10.57	1.85	0.00	0.00	0.00
3 Months Ago *06-26-2018*	98.37	1.63	0.00	0.00	0.00	0.00
Start of Calendar Year *01-02-2018*	25.90	74.10	33.15	0.00	0.00	0.00
Start of Water Year *09-26-2017*	94.78	5.22	0.00	0.00	0.00	0.00
One Year Ago *09-26-2017*	94.78	5.22	0.00	0.00	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

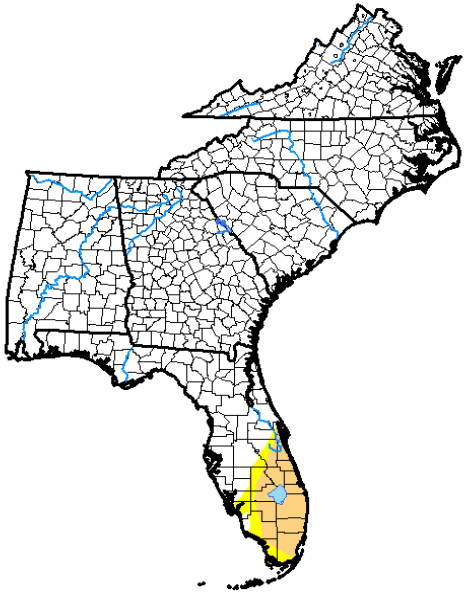
Author:
Jessica Blunden
NCEI/NOAA

http://droughtmonitor.unl.edu/

Drought Classifications

U.S. Drought Monitor

Southeast



January 1, 2019

(Released Thursday, Jan. 3, 2019)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	93.87	6.13	4.43	0.00	0.00	0.00
Last Week *12-25-2018*	94.44	5.56	4.05	0.00	0.00	0.00
3 Months Ago *10-02-2018*	84.64	15.36	2.46	0.00	0.00	0.00
Start of Calendar Year *01-01-2019*	93.87	6.13	4.43	0.00	0.00	0.00
Start of Water Year *09-25-2018*	86.18	13.82	2.97	0.00	0.00	0.00
One Year Ago *01-02-2018*	25.90	74.10	33.15	0.00	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

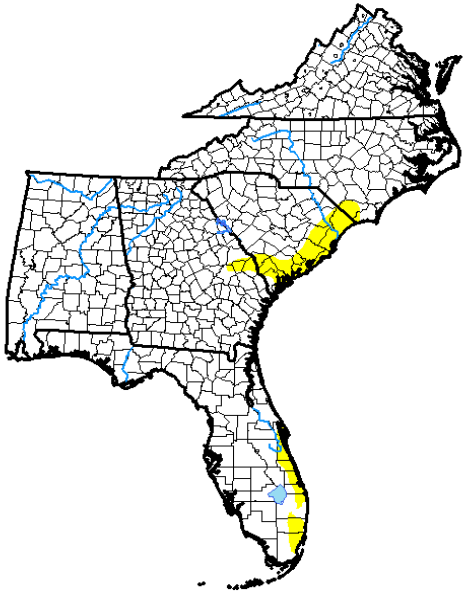
Author:
David Miskus
NOAA/NWS/NCEP/CPC

http://droughtmonitor.unl.edu/

Drought Classifications

U.S. Drought Monitor

Southeast



March 5, 2019

(Released Thursday, Mar. 7, 2019)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	95.19	4.81	0.00	0.00	0.00	0.00
Last Week *02-26-2019*	95.00	5.00	0.00	0.00	0.00	0.00
3 Months Ago *12-04-2018*	92.72	7.28	1.56	0.00	0.00	0.00
Start of Calendar Year *01-01-2019*	93.87	6.13	4.43	0.00	0.00	0.00
Start of Water Year *09-25-2018*	86.18	13.82	2.97	0.00	0.00	0.00
One Year Ago *03-06-2018*	48.34	51.66	16.85	0.42	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

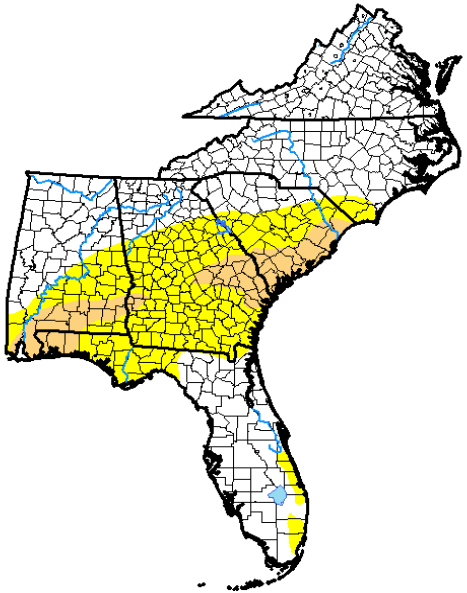
Author:
Eric Luebehusen
U.S. Department of Agriculture

http://droughtmonitor.unl.edu/

Drought Classifications

U.S. Drought Monitor

Southeast



April 2, 2019

(Released Thursday, Apr. 4, 2019)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	62.35	37.65	9.73	0.00	0.00	0.00
Last Week *03-26-2019*	72.99	27.01	2.91	0.00	0.00	0.00
3 Months Ago *01-01-2019*	93.87	6.13	4.43	0.00	0.00	0.00
Start of Calendar Year *01-01-2019*	93.87	6.13	4.43	0.00	0.00	0.00
Start of Water Year *09-25-2018*	86.18	13.82	2.97	0.00	0.00	0.00
One Year Ago *04-03-2018*	43.67	56.33	26.31	6.68	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

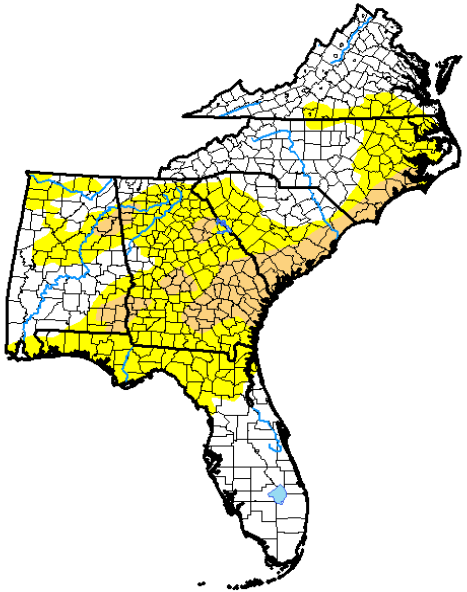
Author:
Curtis Riganti
National Drought Mitigation Center

http://droughtmonitor.unl.edu/

Drought Classifications

U.S. Drought Monitor

Southeast



May 28, 2019

(Released Thursday, May. 30, 2019)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	49.18	50.82	12.14	0.00	0.00	0.00
Last Week *05-21-2019*	68.13	31.87	6.22	0.00	0.00	0.00
3 Months Ago *02-26-2019*	95.00	5.00	0.00	0.00	0.00	0.00
Start of Calendar Year *01-01-2019*	93.87	6.13	4.43	0.00	0.00	0.00
Start of Water Year *09-25-2018*	86.18	13.82	2.97	0.00	0.00	0.00
One Year Ago *05-29-2018*	96.78	3.22	0.00	0.00	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

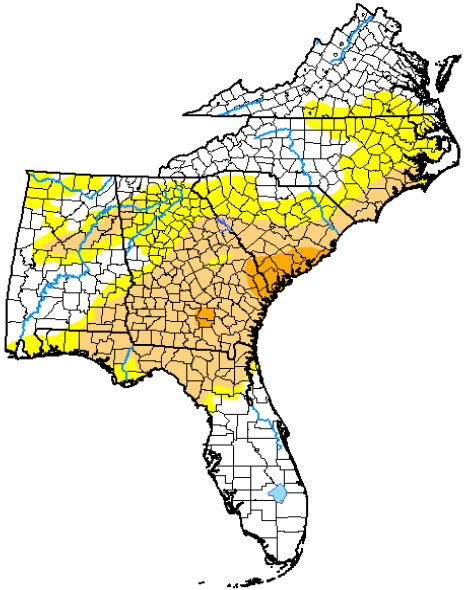
Author:
Richard Heim
NCEI/NOAA

http://droughtmonitor.unl.edu/

Drought Classifications

U.S. Drought Monitor

Southeast



June 4, 2019

(Released Thursday, Jun. 6, 2019)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	45.31	54.69	29.75	2.78	0.00	0.00
Last Week *05-28-2019*	49.18	50.82	12.14	0.00	0.00	0.00
3 Months Ago *03-05-2019*	95.19	4.81	0.00	0.00	0.00	0.00
Start of Calendar Year *01-01-2019*	93.87	6.13	4.43	0.00	0.00	0.00
Start of Water Year *09-25-2018*	86.18	13.82	2.97	0.00	0.00	0.00
One Year Ago *06-05-2018*	98.65	1.35	0.00	0.00	0.00	0.00

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

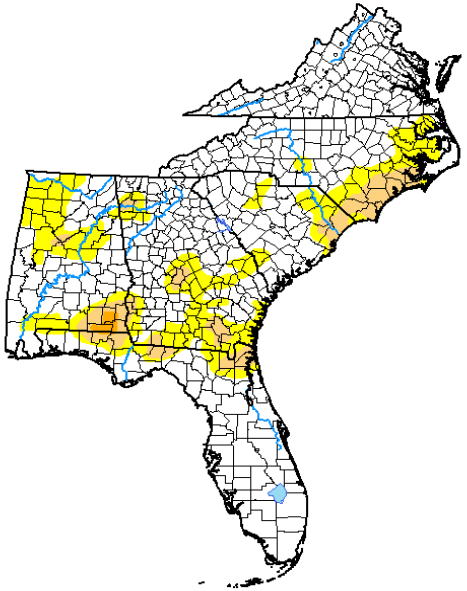
Author:
David Simeral
Western Regional Climate Center

droughtmonitor.unl.edu

Drought Classifications

U.S. Drought Monitor

Southeast



July 2, 2019

(Released Wednesday, Jul. 3, 2019)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	74.11	25.89	7.01	0.43	0.00	0.00
Last Week *06-25-2019*	70.83	29.17	6.41	0.51	0.00	0.00
3 Months Ago *04-02-2019*	62.35	37.65	9.73	0.00	0.00	0.00
Start of Calendar Year *01-01-2019*	93.87	6.13	4.43	0.00	0.00	0.00
Start of Water Year *09-25-2018*	86.18	13.82	2.97	0.00	0.00	0.00
One Year Ago *07-03-2018*	97.65	2.35	0.00	0.00	0.00	0.00

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

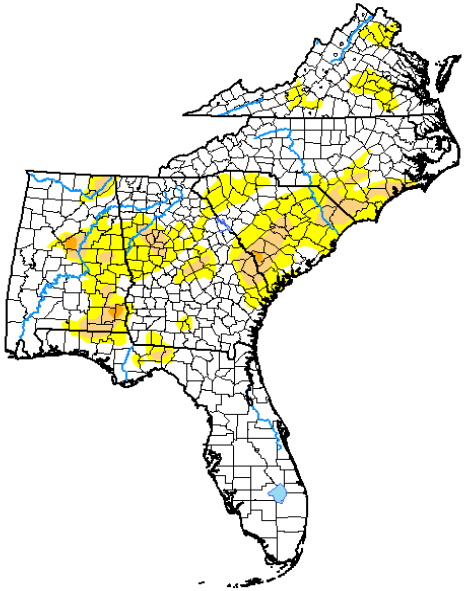
Author:
Richard Tinker
CPC/NOAA/NWS/NCEP

droughtmonitor.unl.edu

Drought Classifications

U.S. Drought Monitor

Southeast



August 27, 2019

(Released Thursday, Aug. 29, 2019)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	72.60	27.40	6.73	0.35	0.00	0.00
Last Week *08-20-2019*	66.01	33.99	6.13	0.41	0.00	0.00
3 Months Ago *05-28-2019*	49.18	50.82	12.14	0.00	0.00	0.00
Start of Calendar Year *01-01-2019*	93.87	6.13	4.43	0.00	0.00	0.00
Start of Water Year *09-25-2018*	86.18	13.82	2.97	0.00	0.00	0.00
One Year Ago *08-28-2018*	96.33	3.67	0.00	0.00	0.00	0.00

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

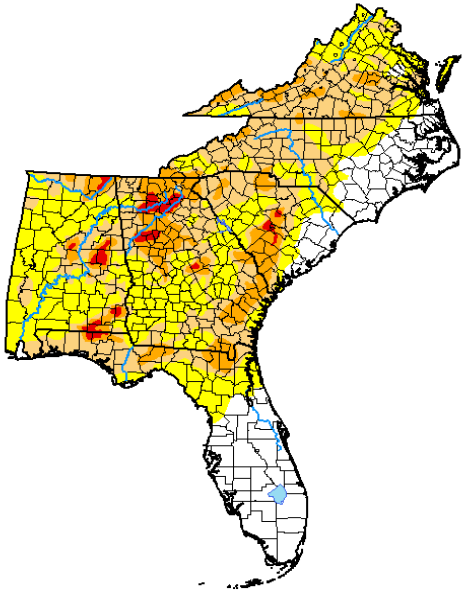
Author:
Jessica Blunden
NCEI/NOAA

droughtmonitor.unl.edu

Drought Classifications

U.S. Drought Monitor

Southeast



October 1, 2019

(Released Thursday, Oct. 3, 2019)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	20.54	79.46	44.26	13.71	1.87	0.00
Last Week *09-24-2019*	24.23	75.77	38.36	5.91	0.04	0.00
3 Months Ago *07-02-2019*	74.11	25.89	7.01	0.43	0.00	0.00
Start of Calendar Year *01-01-2019*	93.87	6.13	4.43	0.00	0.00	0.00
Start of Water Year *10-01-2019*	20.54	79.46	44.26	13.71	1.87	0.00
One Year Ago *10-02-2018*	84.64	15.36	2.46	0.00	0.00	0.00

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

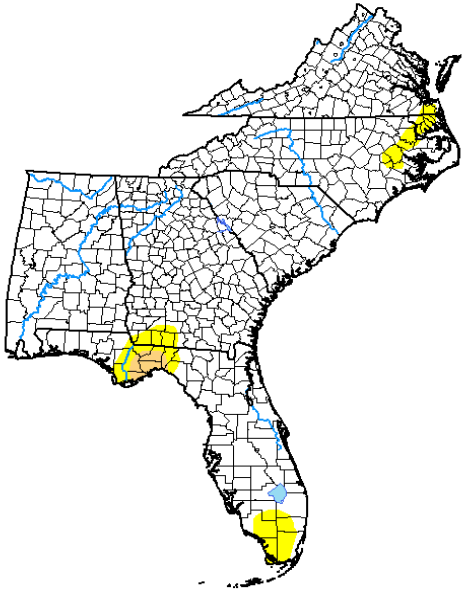
Author:
Brian Fuchs
National Drought Mitigation Center

droughtmonitor.unl.edu

Drought Classifications

U.S. Drought Monitor

Southeast



January 7, 2020

(Released Thursday, Jan. 9, 2020)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	94.20	5.80	0.82	0.00	0.00	0.00
Last Week *12-31-2019*	93.12	6.88	1.69	0.00	0.00	0.00
3 Months Ago *10-08-2019*	20.05	79.95	60.60	23.41	4.46	0.00
Start of Calendar Year *12-31-2019*	93.12	6.88	1.69	0.00	0.00	0.00
Start of Water Year *10-01-2019*	20.54	79.46	44.26	13.71	1.87	0.00
One Year Ago *01-08-2019*	93.86	6.14	5.12	0.00	0.00	0.00

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

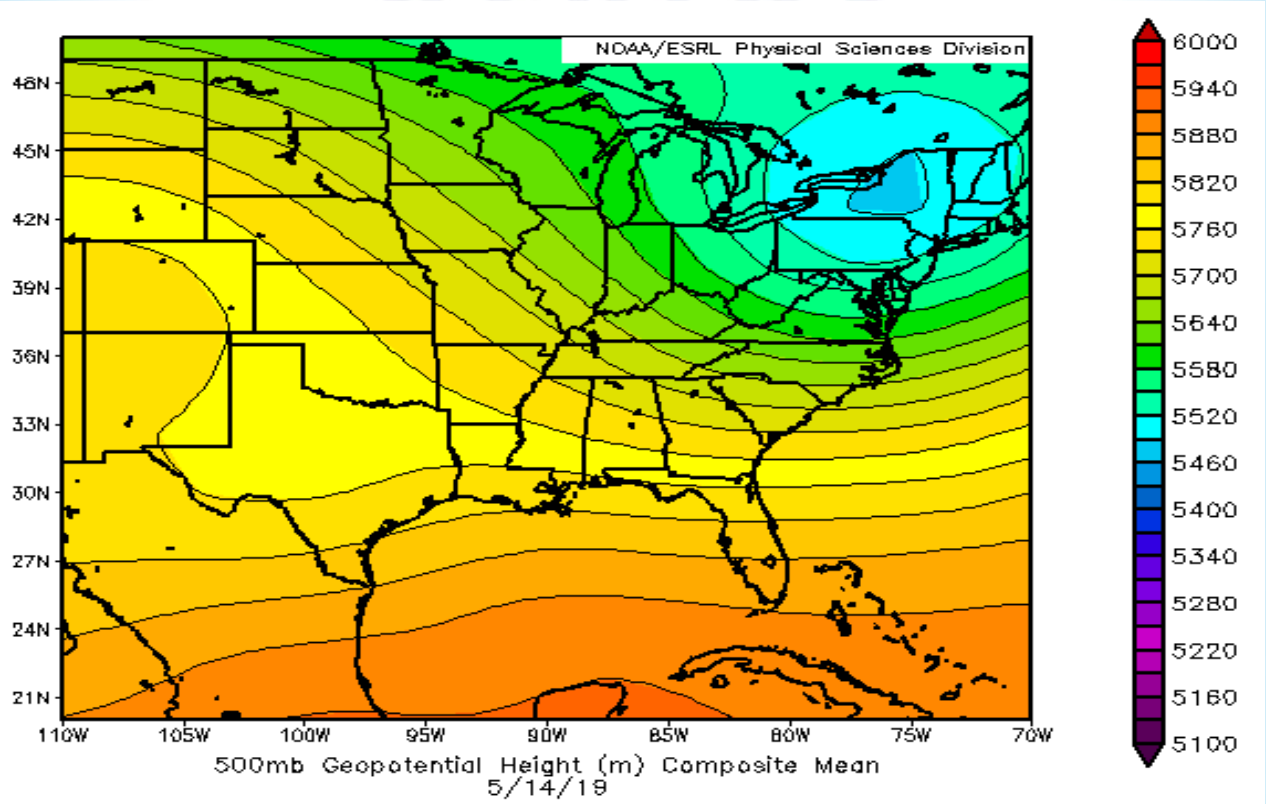
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

Author:

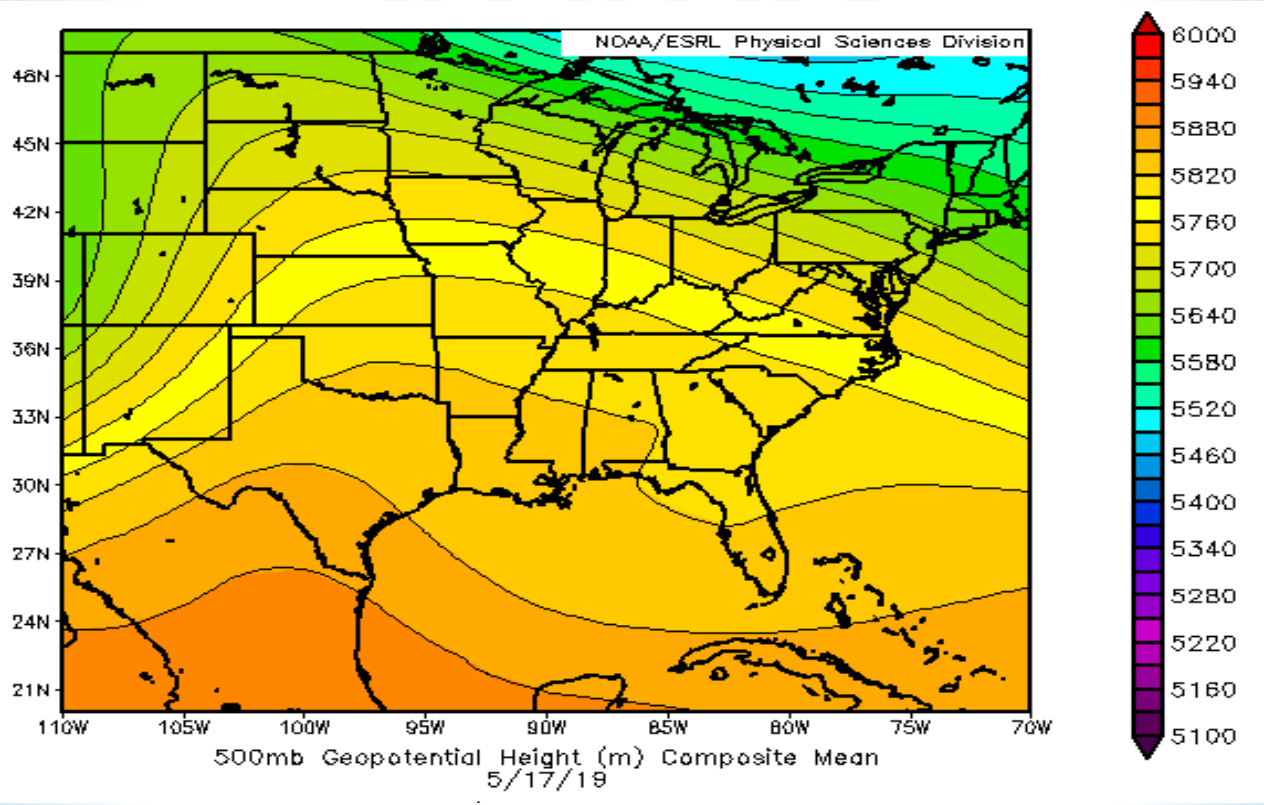
Curtis Riganti
National Drought Mitigation Center

droughtmonitor.unl.edu

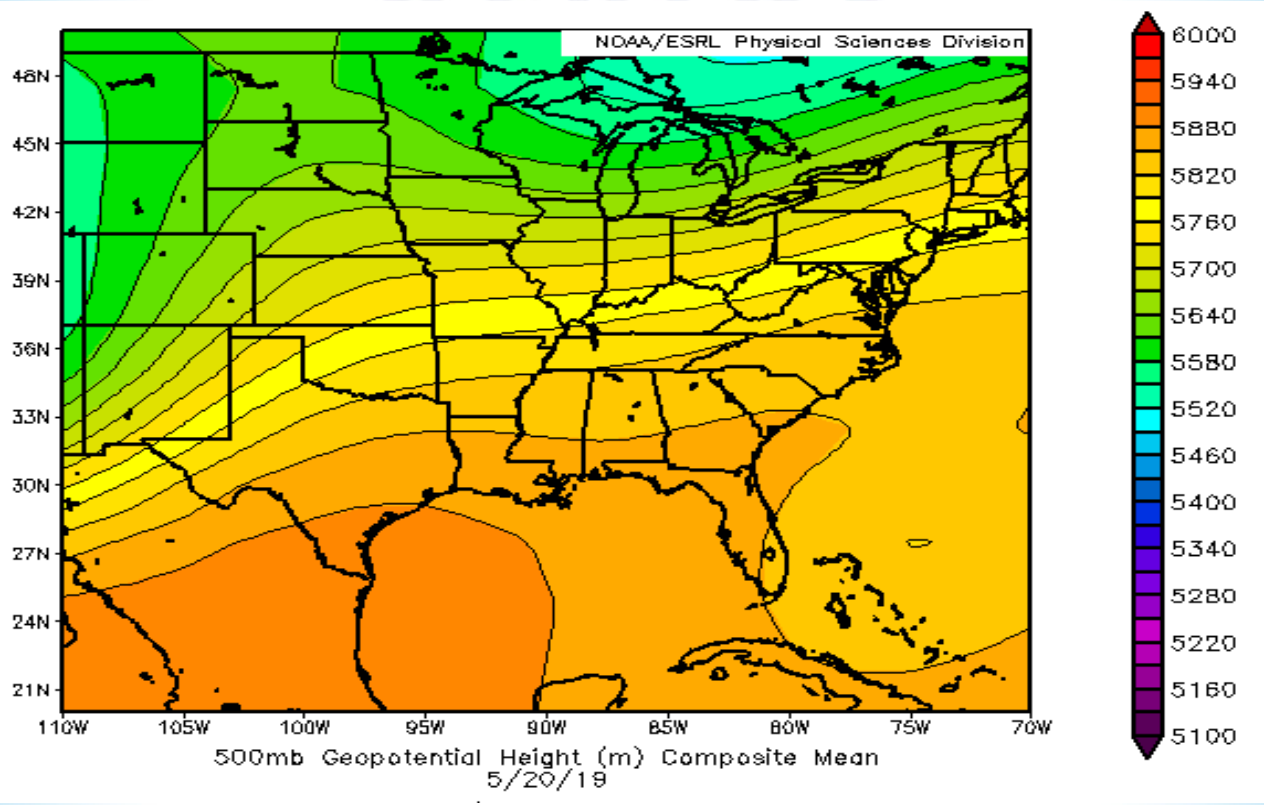
What happened in late May? (Upper Air)



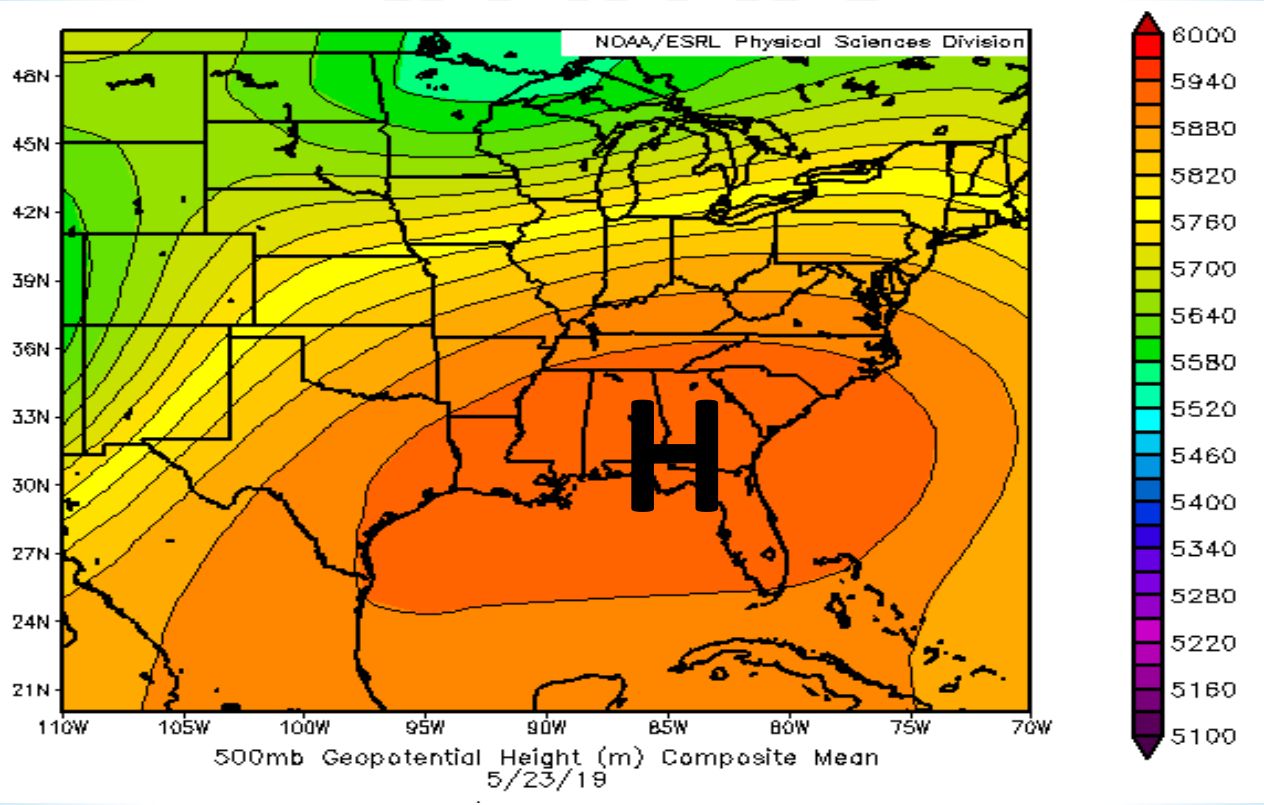
What happened in late May? (Upper Air)



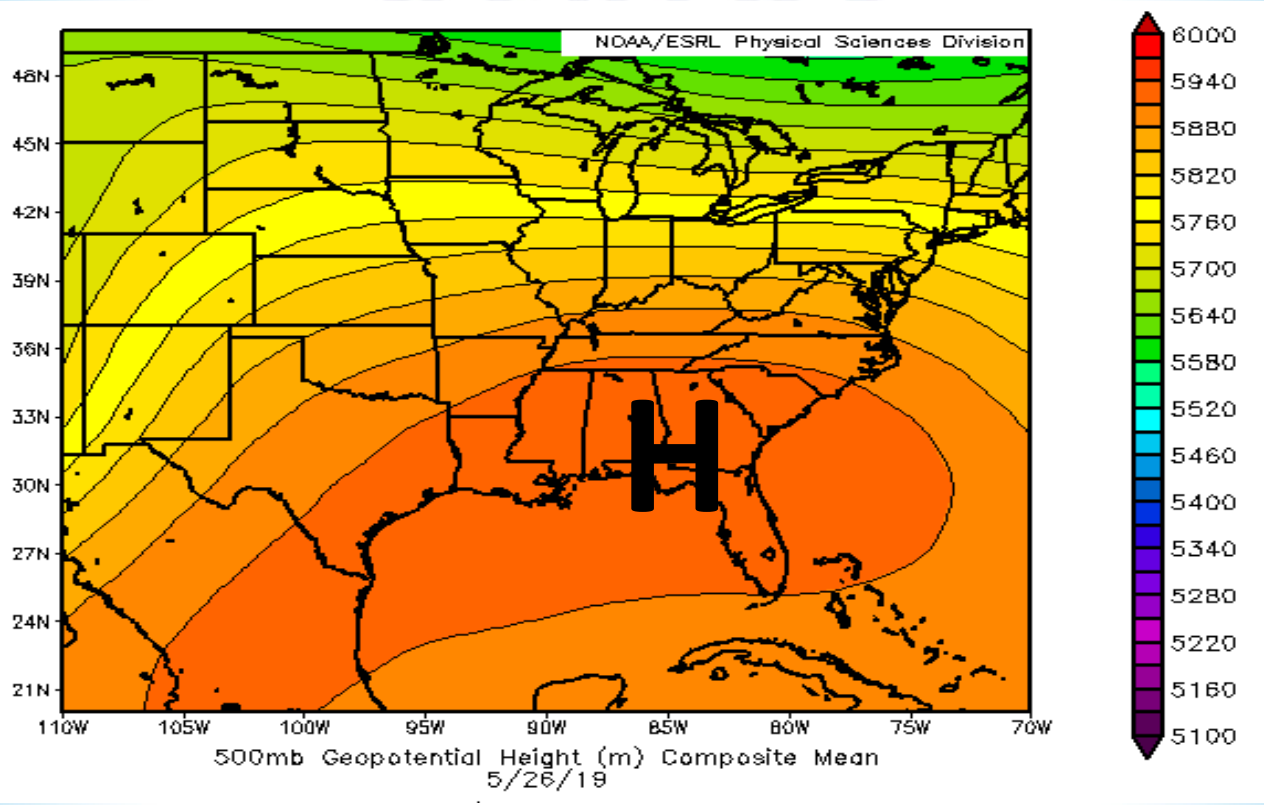
What happened in late May? (Upper Air)



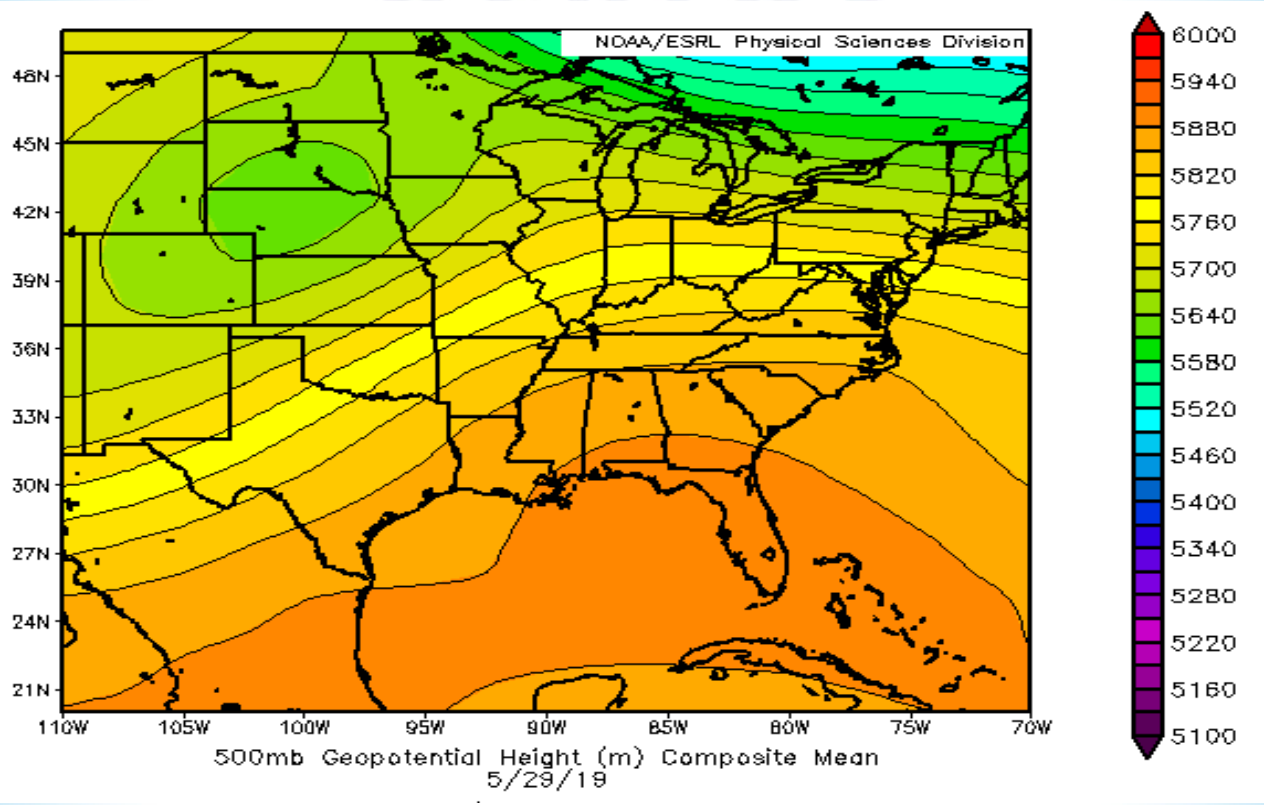
What happened in late May? (Upper Air)



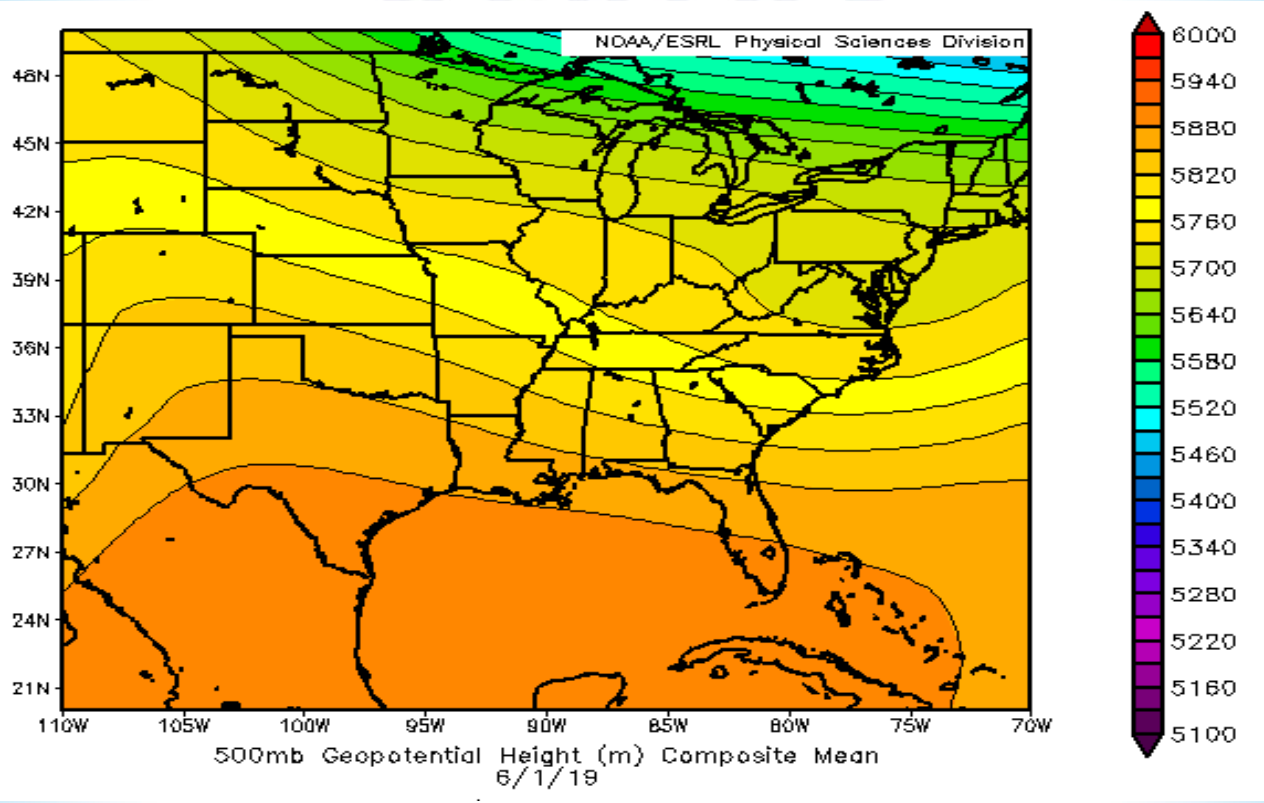
What happened in late May? (Upper Air)



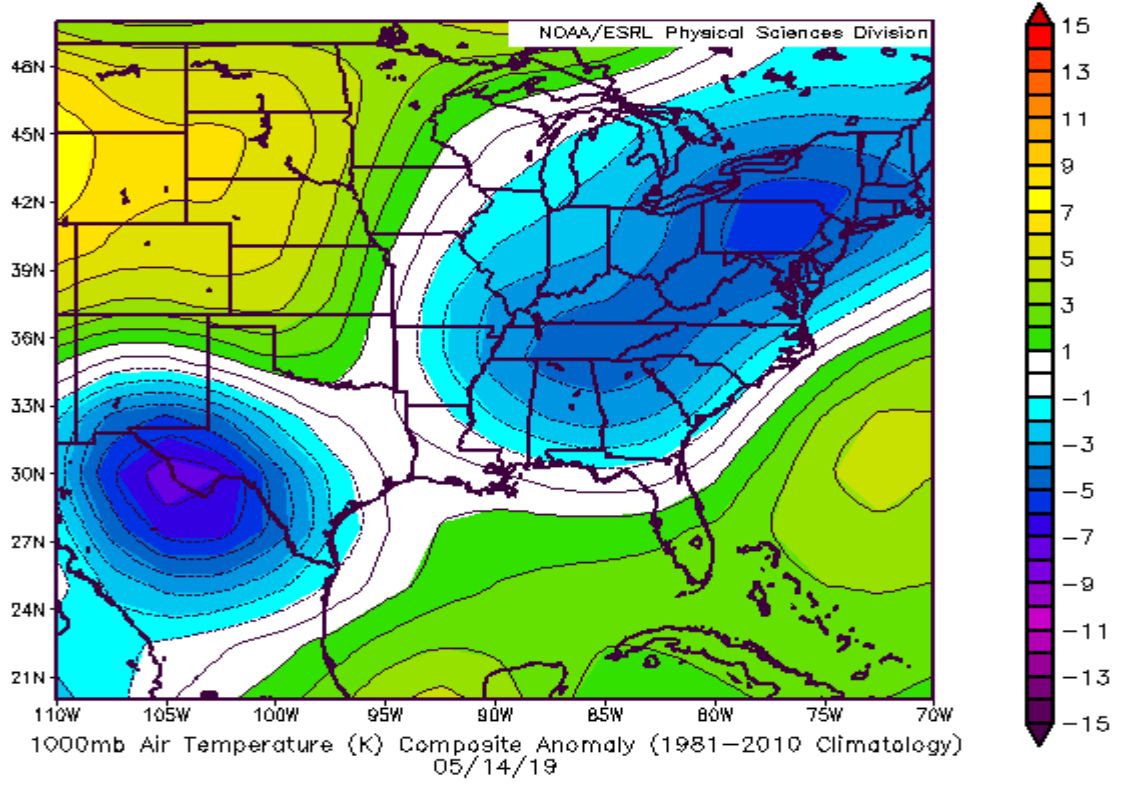
What happened in late May? (Upper Air)



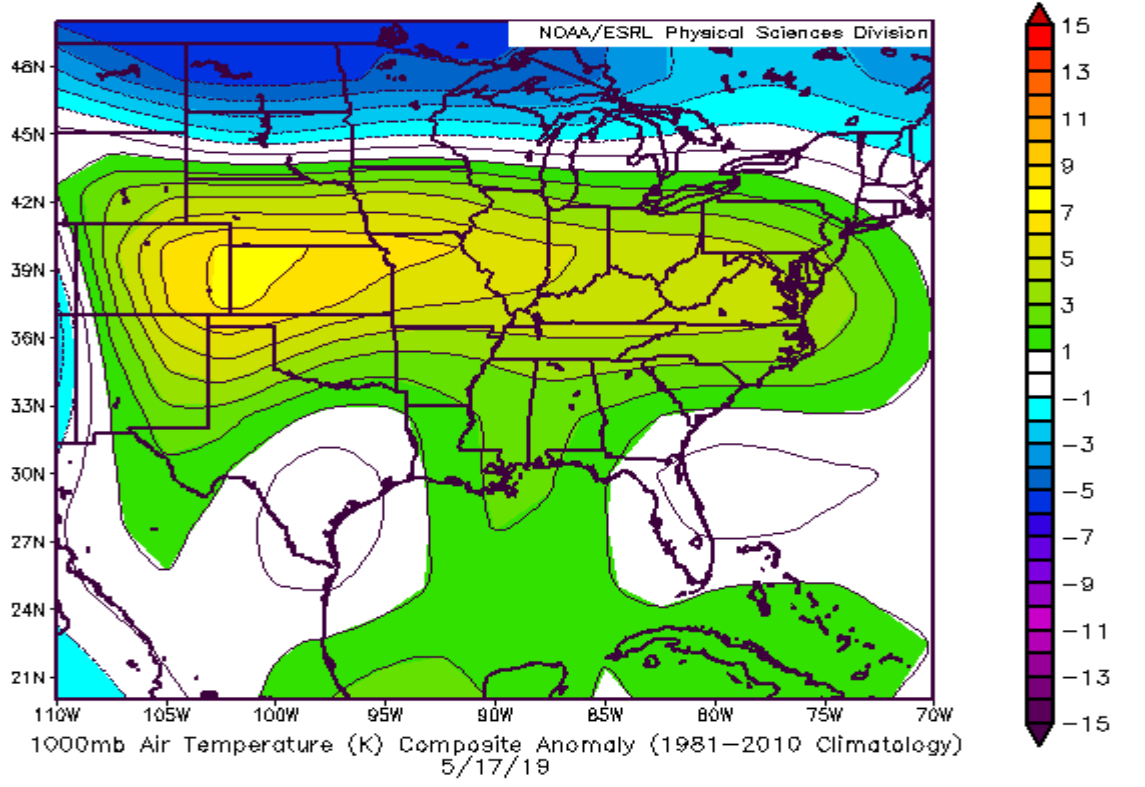
What happened in late May? (Upper Air)



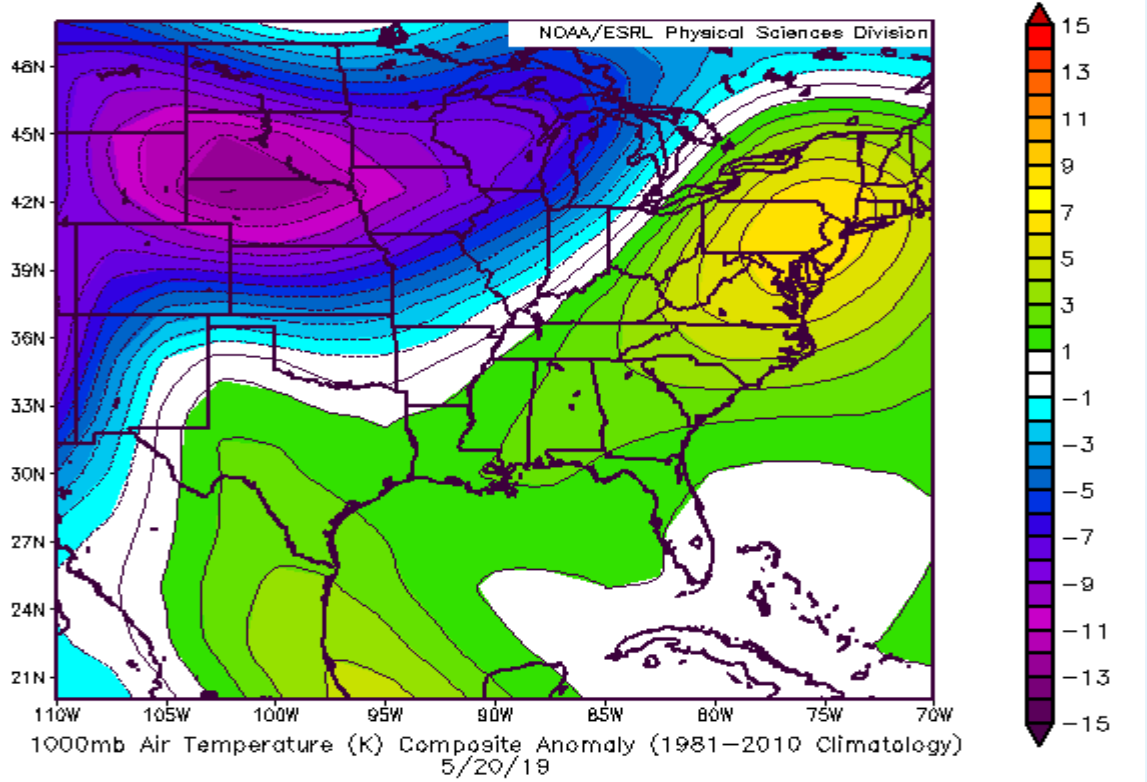
What happened in late May? (Temperature Anomalies)



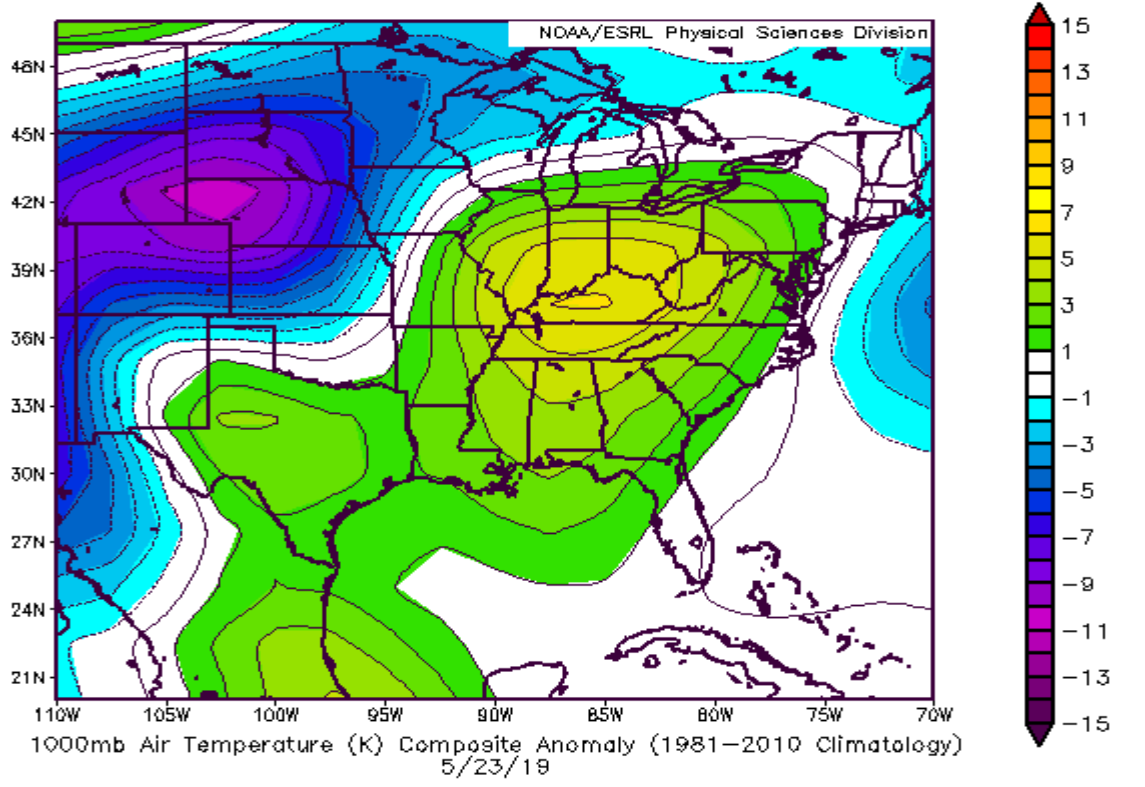
What happened in late May? (Temperature Anomalies)



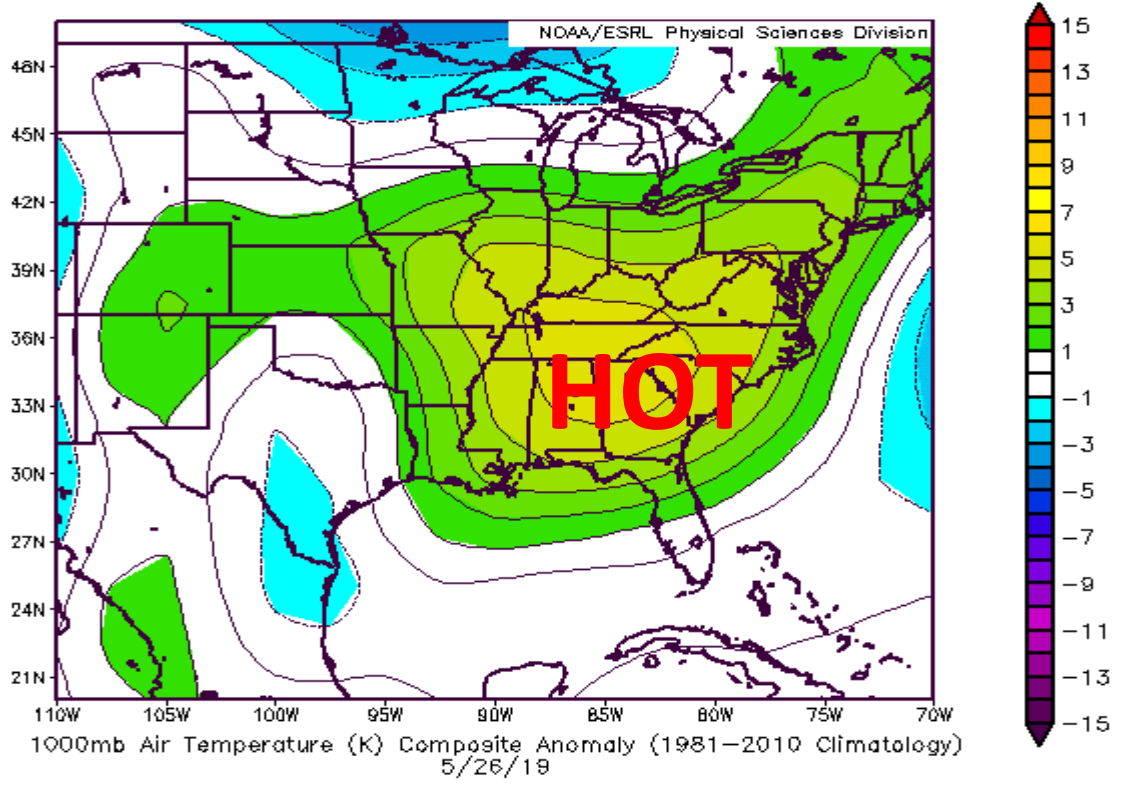
What happened in late May? (Temperature Anomalies)



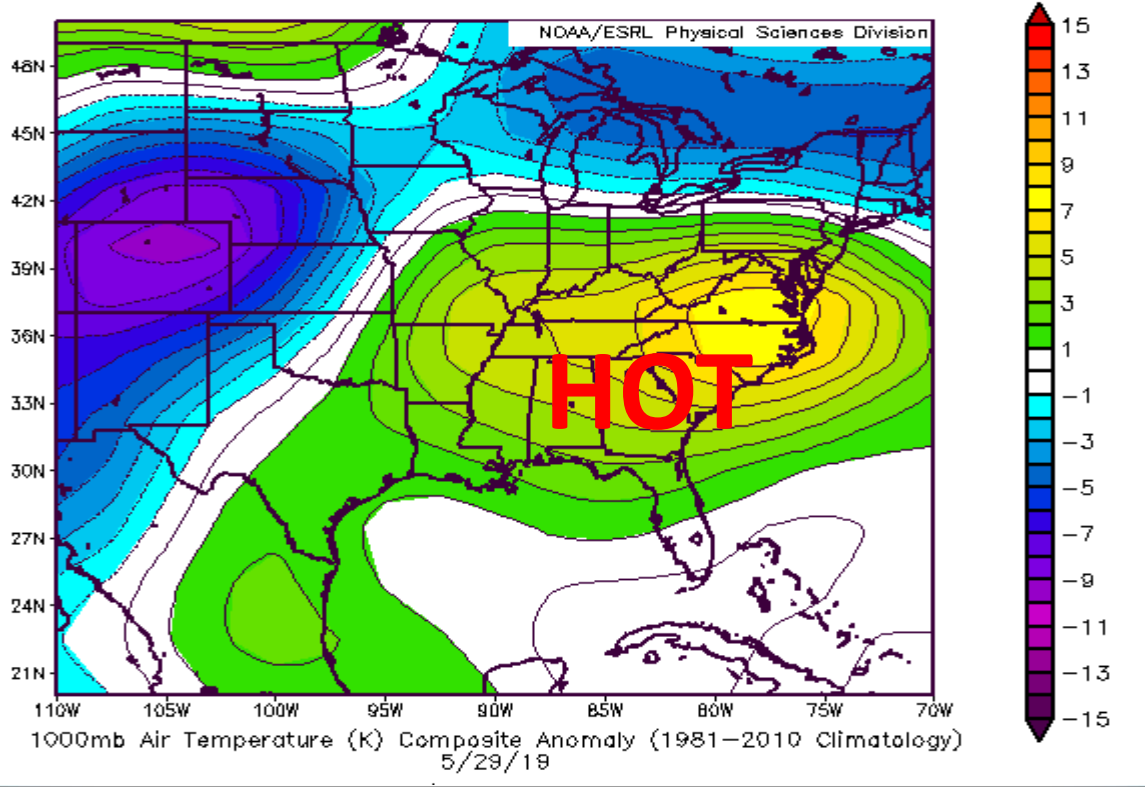
What happened in late May? (Temperature Anomalies)



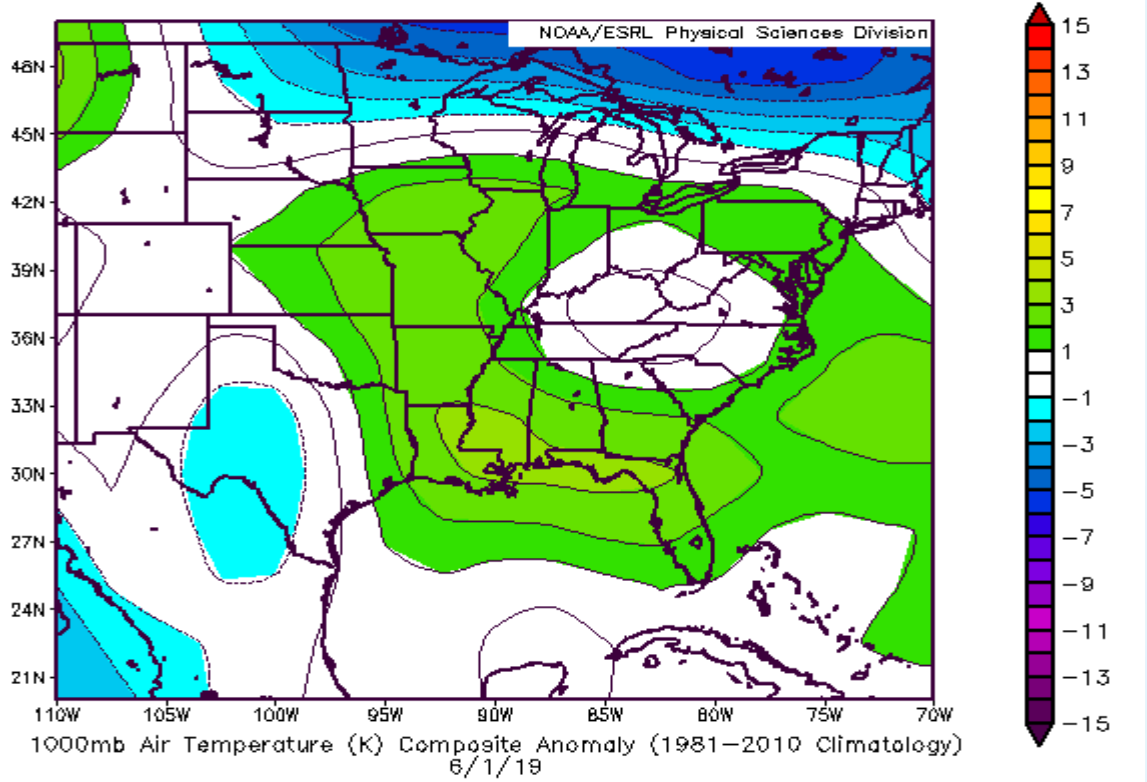
What happened in late May? (Temperature Anomalies)



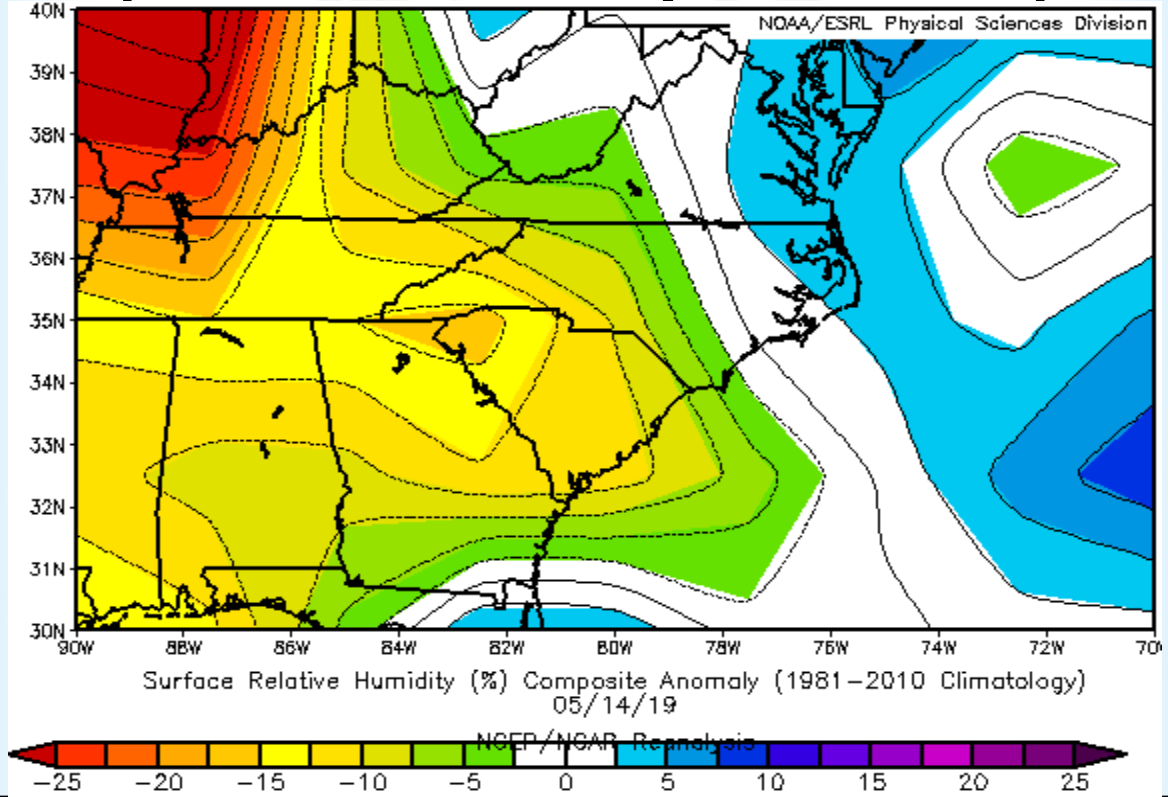
What happened in late May? (Temperature Anomalies)



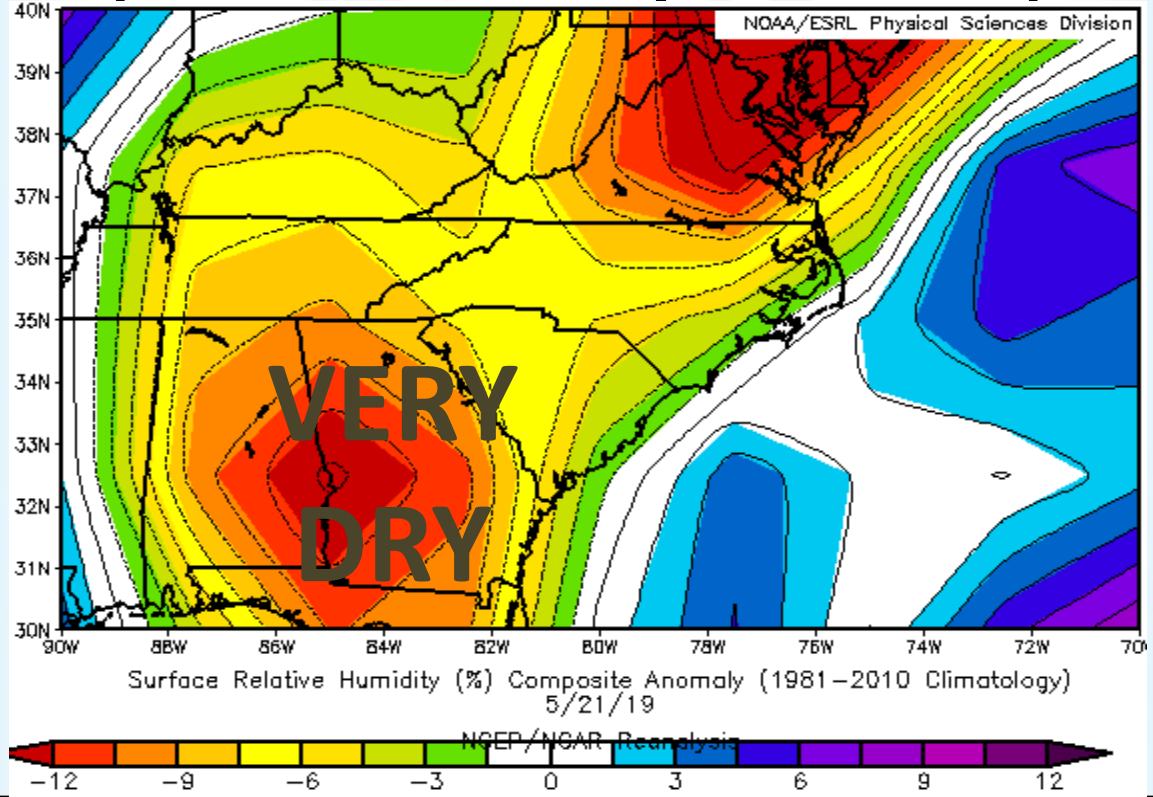
What happened in late May? (Temperature Anomalies)



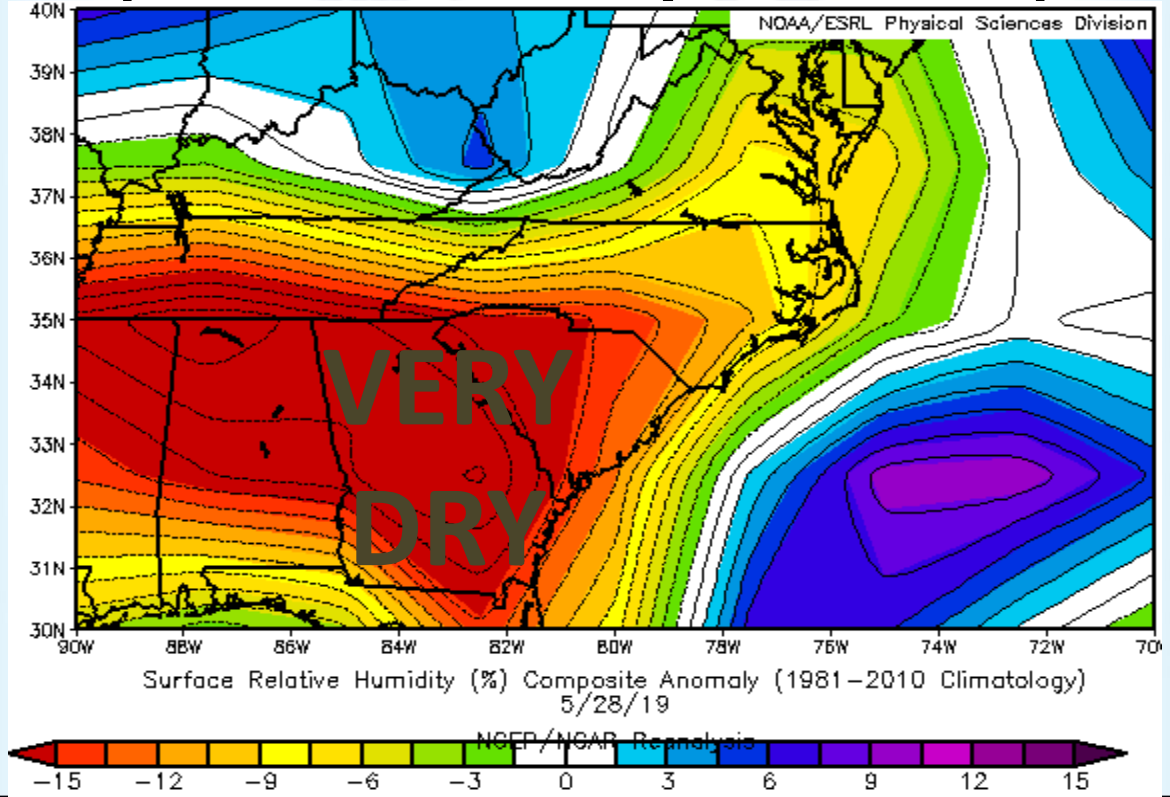
What happened in late May? (Relative Humidity Anomalies)



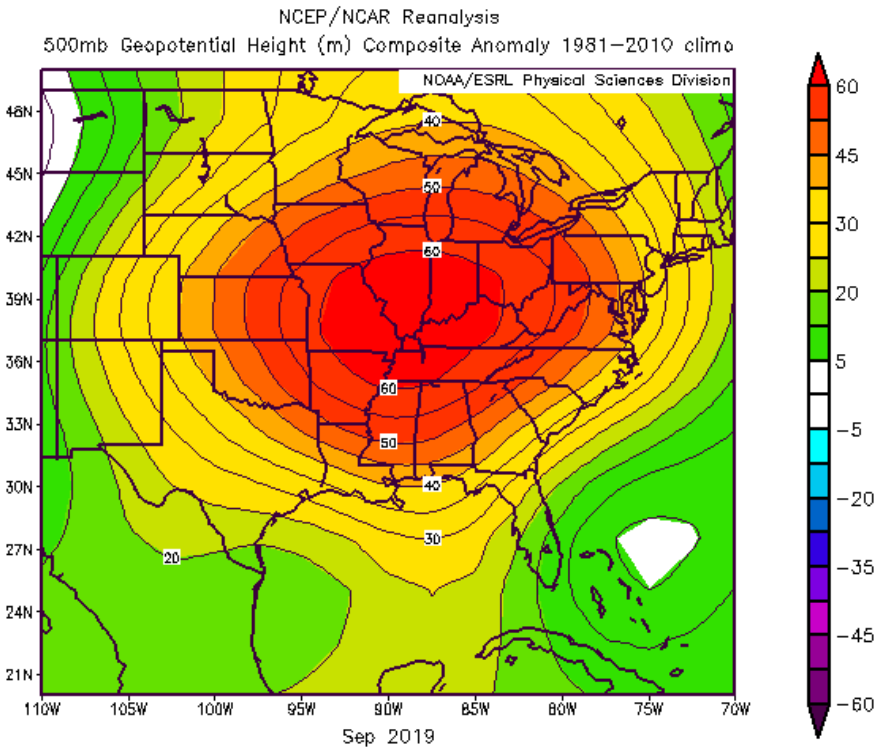
What happened in late May? (Relative Humidity Anomalies)



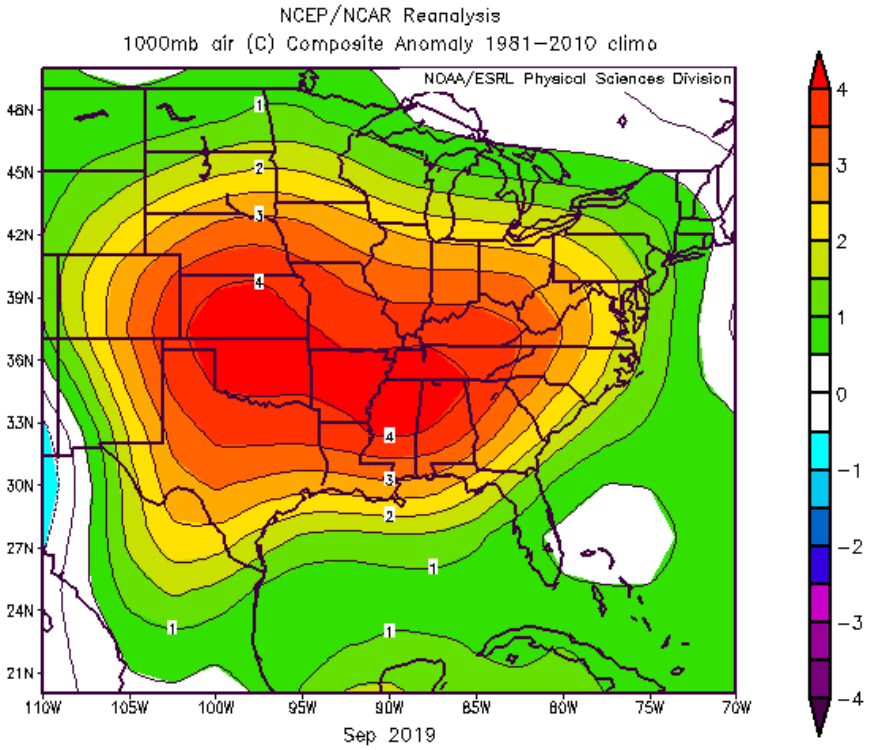
What happened in late May? (Relative Humidity Anomalies)



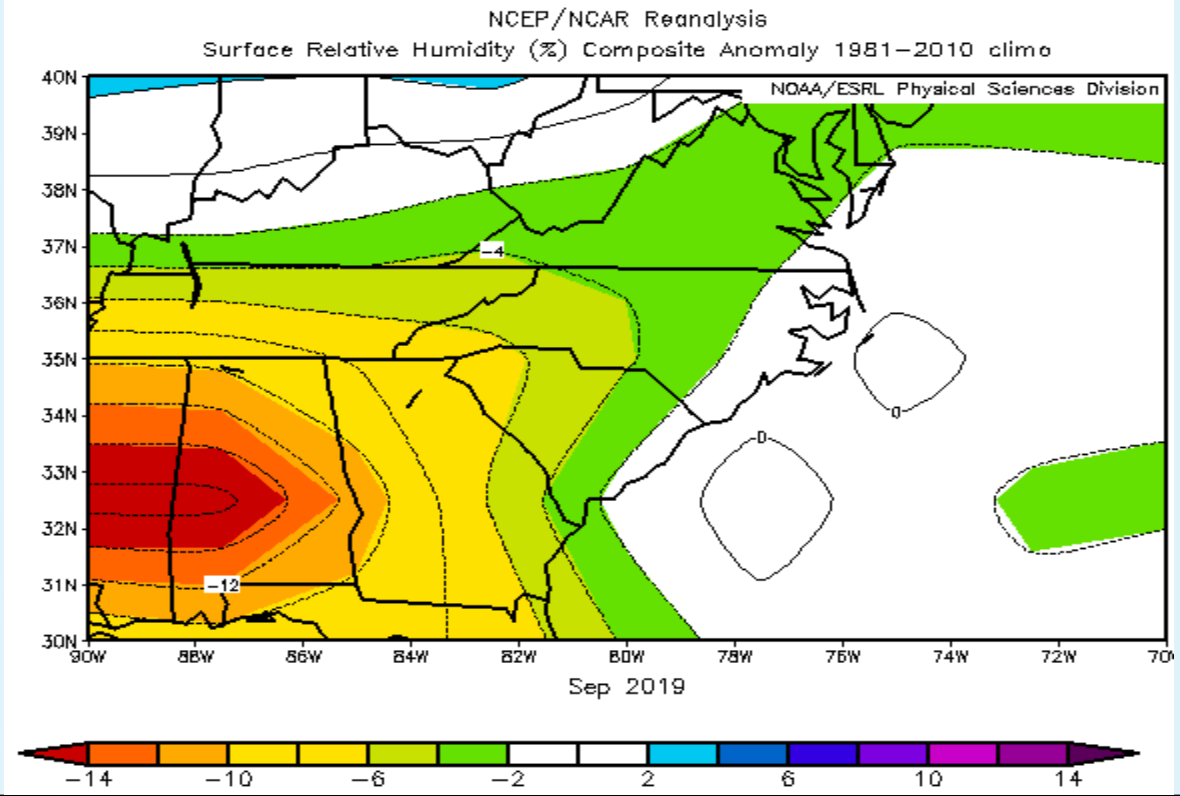
What happened in September? (Upper Air)



What happened in September? (Temperature Anomalies)



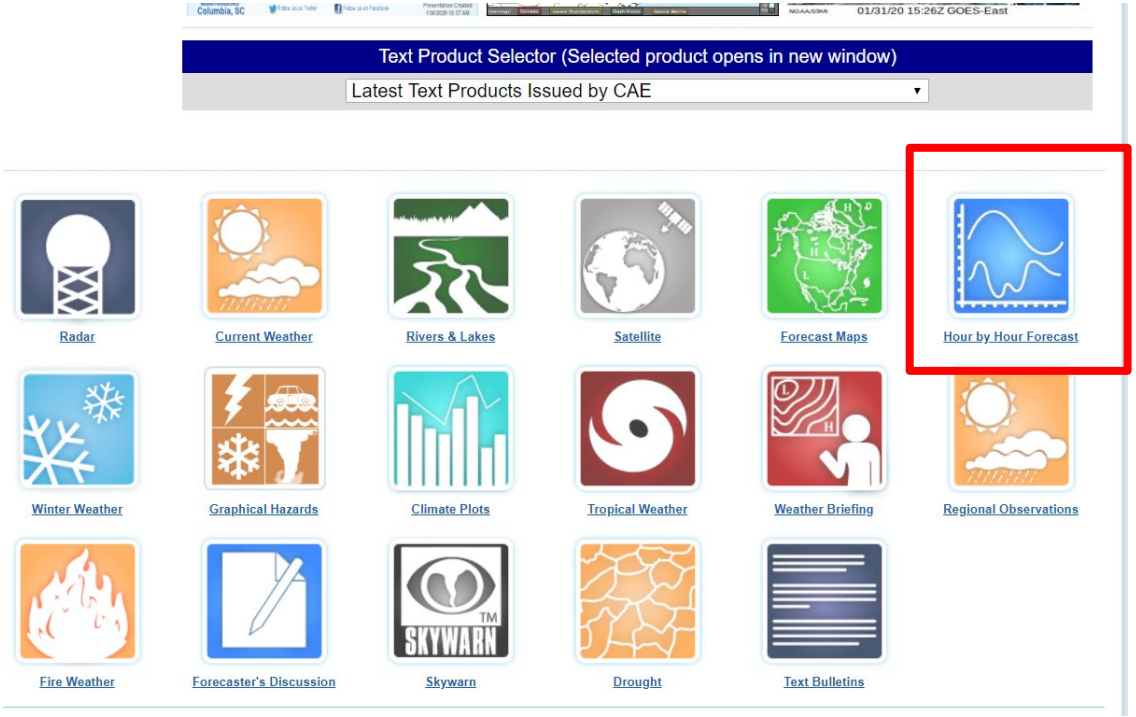
What happened in September? (Temperature Anomalies)



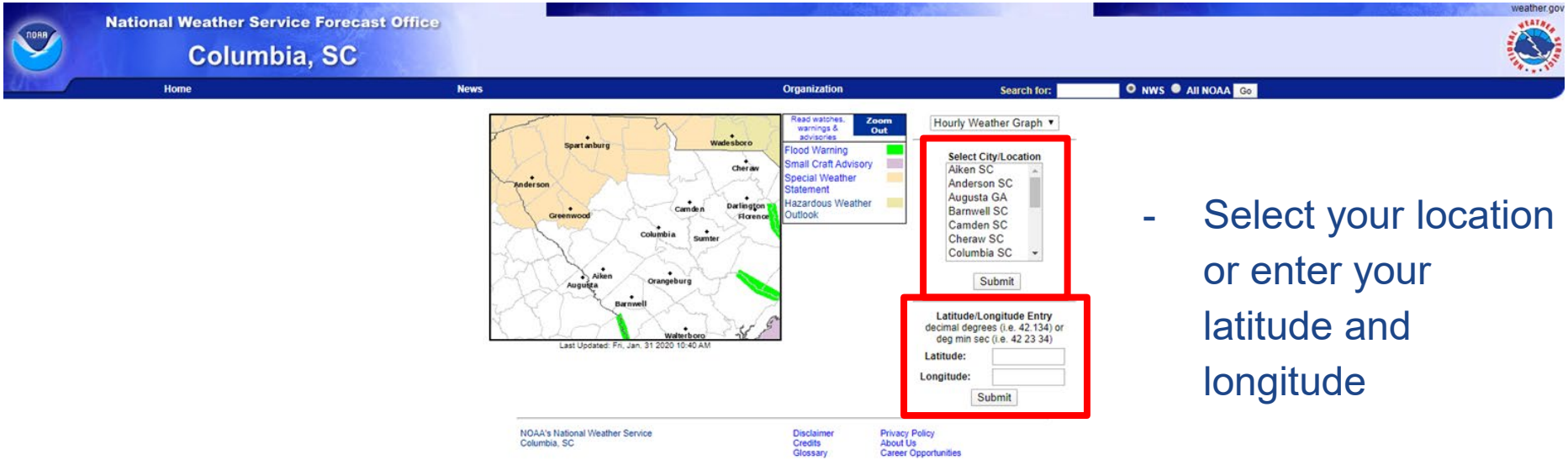
weather.gov

- Click your location on the map
- Will be taken to local office page

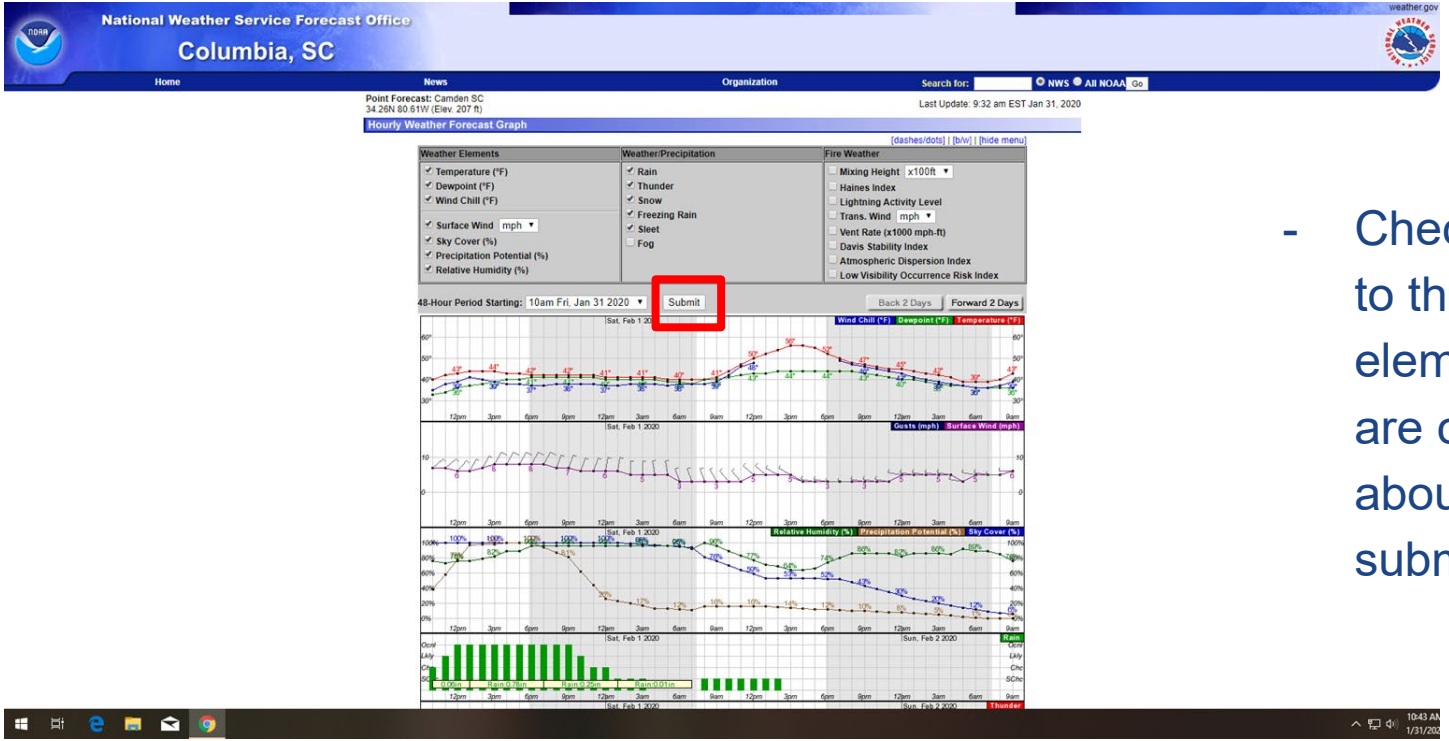
Hour by Hour Forecast



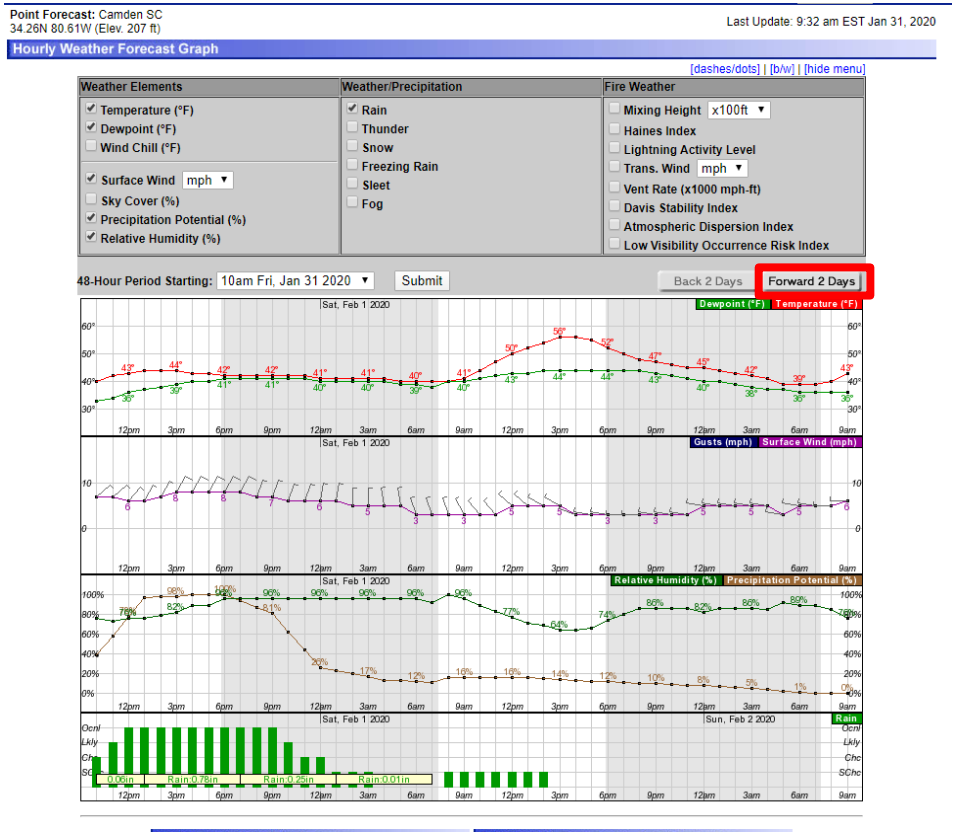
- Local Office page
- Click on Hour by Hour Forecast



- Select your location or enter your latitude and longitude

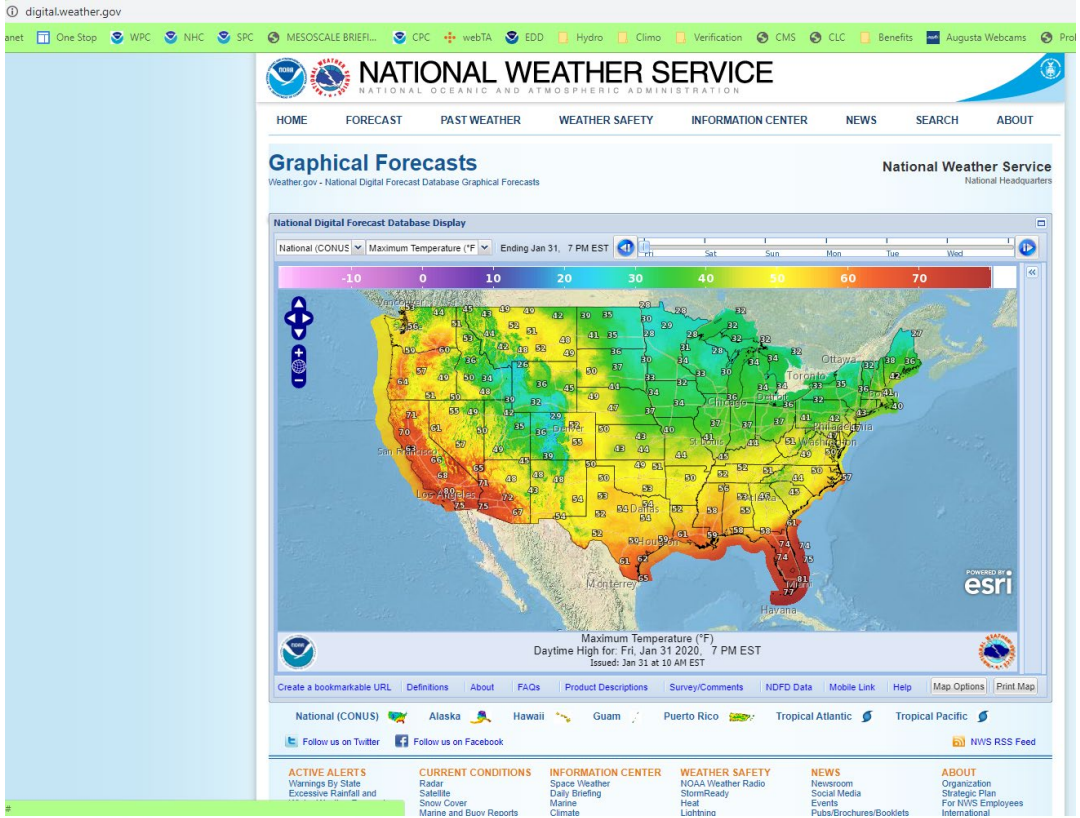


- Check the box next to the weather elements that you are concerned about and hit submit

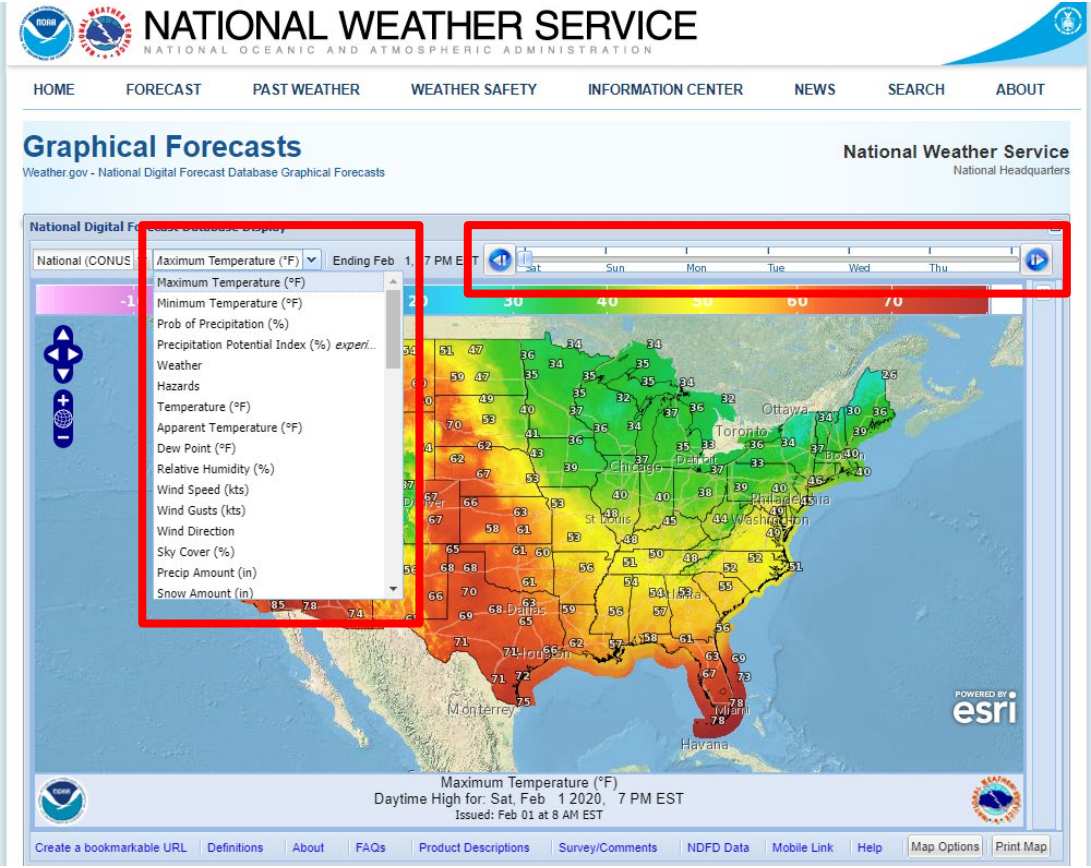


- Can view hourly weather elements out to 7 days

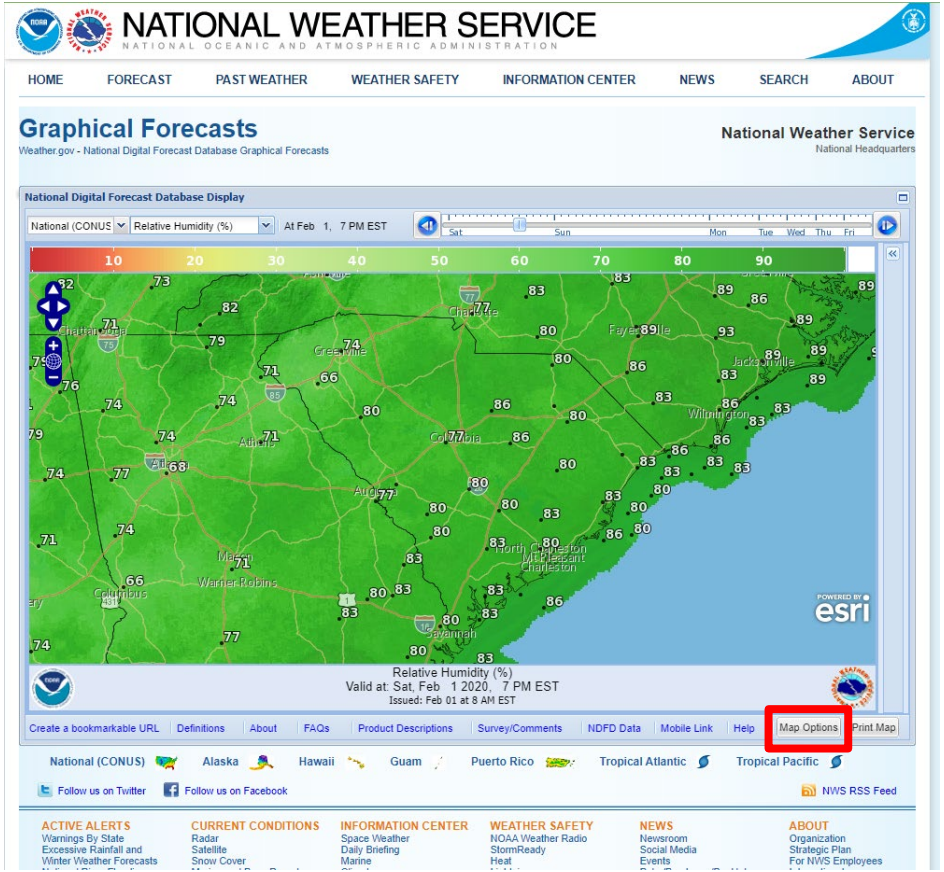
digital.weather.gov



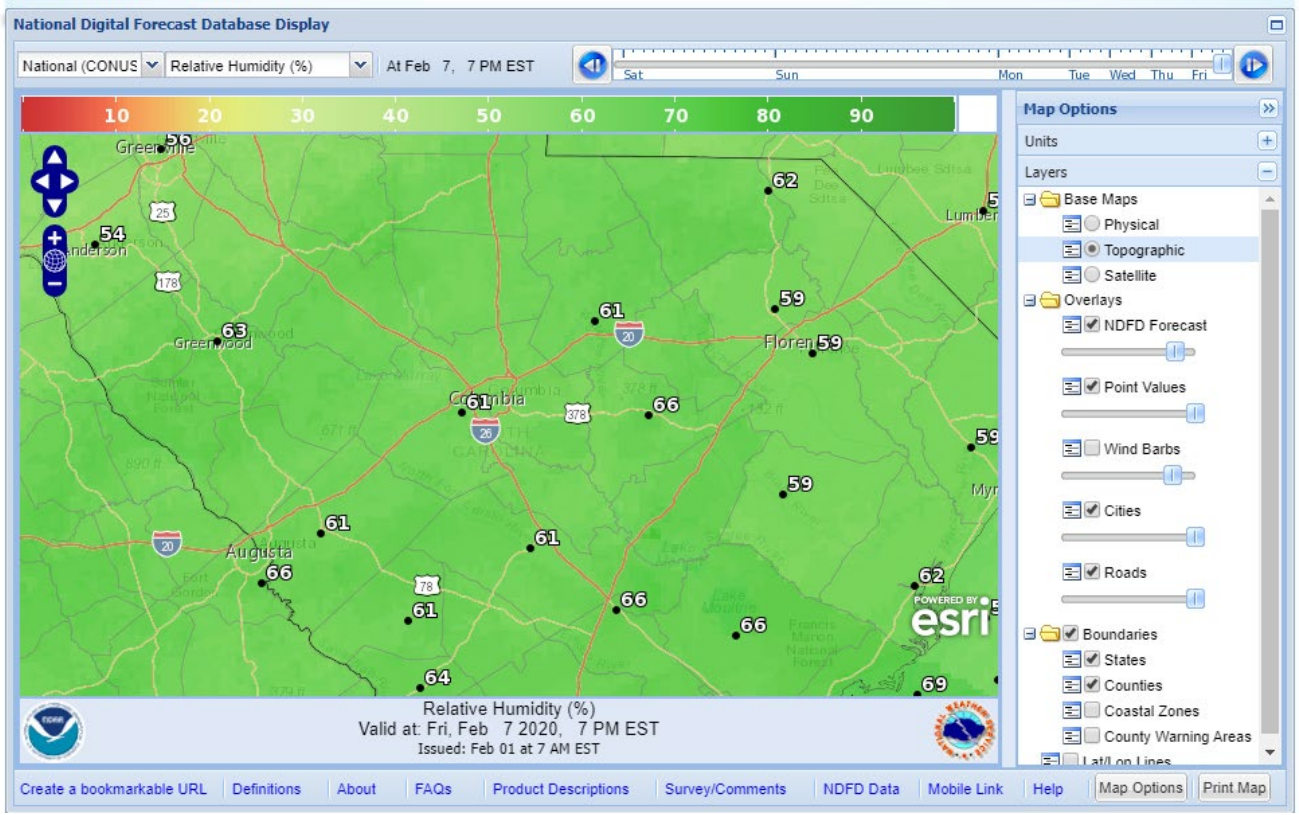
- Can view weather elements in map form out to 7 days



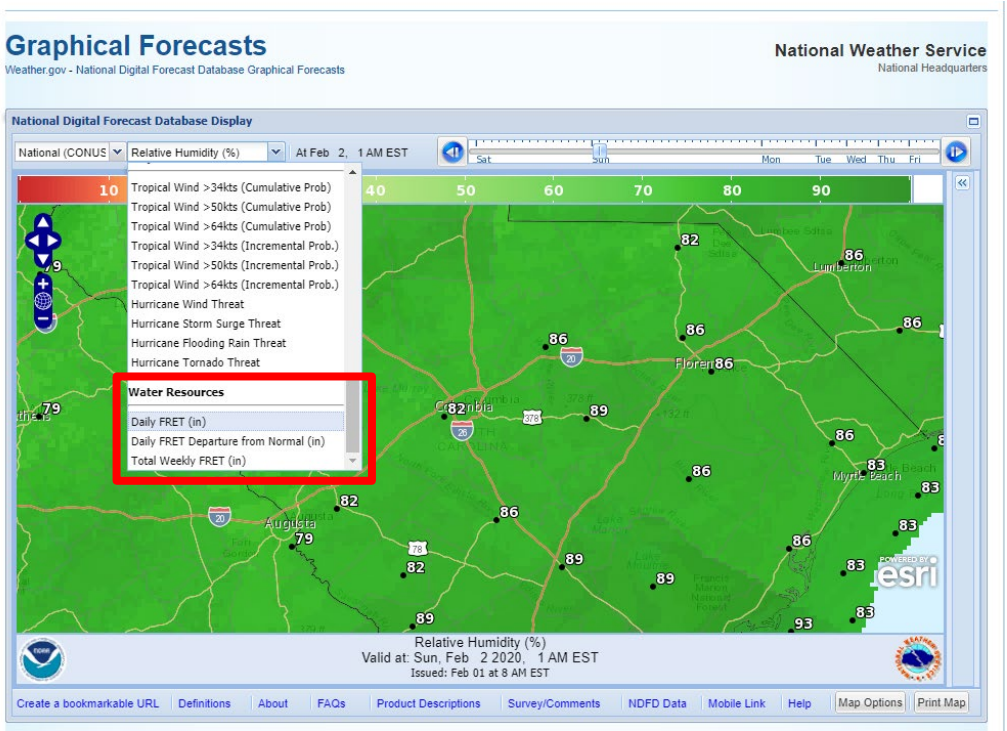
- Choose a weather element from the pull down menu
- Adjust day and time using the slider bar



- Zoom and pan the map
- Click the ‘Map Options’ button to adjust map display settings

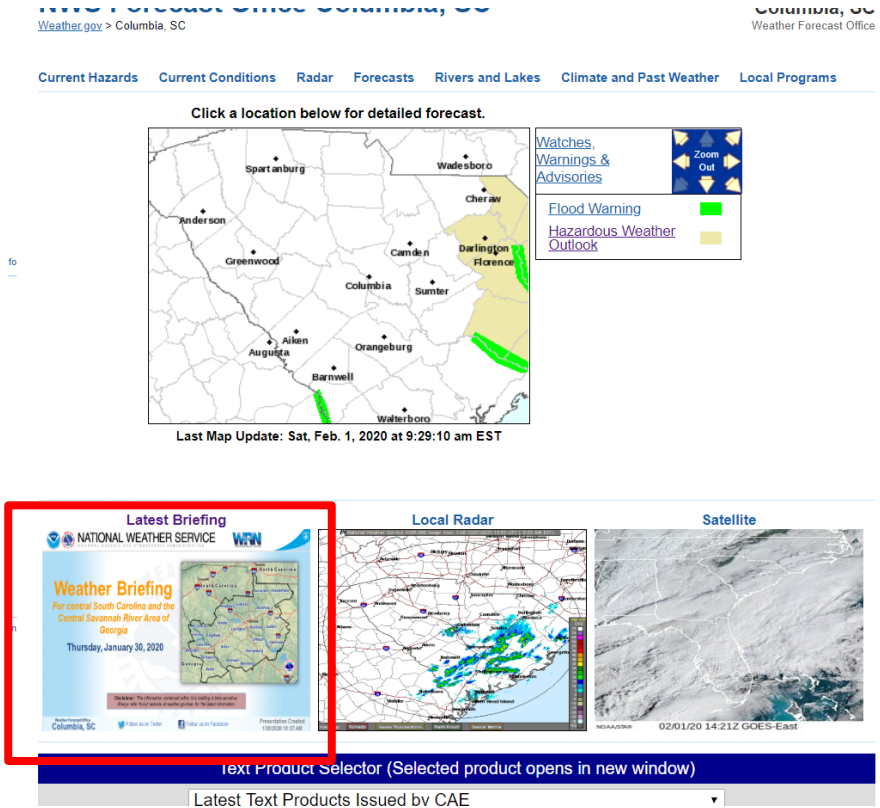

National Digital Forecast Database Display
National (CONUS
Relative Humidity (%)
At Feb 7, 7 PM EST
Sat
Sun
Mon
Tue
Wed
Thu
Fri
10
20
30
40
50
60
70
80
90
Greenville
Anderson
Greenwood
Columbia
Augusta
Florence
Lumberton
Relative Humidity (%)
Valid at: Fri, Feb 7 2020, 7 PM EST
Issued: Feb 01 at 7 AM EST
Map Options
Units
Layers
Base Maps
Physical
Topographic
Satellite
Overlays
NDFD Forecast
Point Values
Wind Barbs
Cities
Roads
Boundaries
States
Counties
Coastal Zones
County Warning Areas
Lat/Lon Lines
POWERED BY esri
Create a bookmarkable URL
Definitions
About
FAQs
Product Descriptions
Survey/Comments
NDFD Data
Mobile Link
Help
Map Options
Print Map

Forecast Reference EvapoTranspiration (FRET)



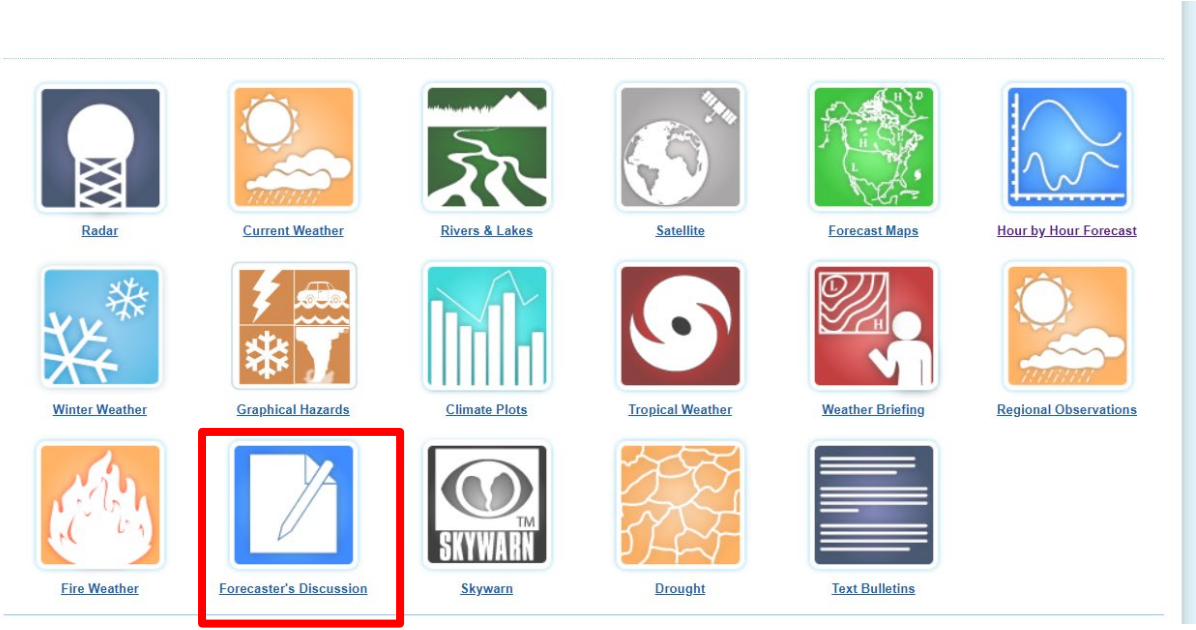
- The most likely depth of water (in inches) that would evaporate and transpire from a reference crop under the forecast weather conditions on a daily and weekly basis
- FRET forecasts can be of great use to irrigators, municipal water managers, reservoir operators for their planning and scheduling purposes

PowerPoint Briefings



- Biweekly routine and event PowerPoint briefings
- Provides a summary of weather highlights over the next 7 days

Area Forecast Discussion (AFD)



- Technical text discussion of weather conditions, models, and forecaster reasoning out to 7 days

000
FXUS62 KCAE 031526
AFDCAE

Area Forecast Discussion
National Weather Service Columbia SC
1026 AM EST Mon Feb 3 2020

.SYNOPSIS...
High pressure and dry conditions will persist over the region through early Tuesday. A low pressure system will move into the region late Tuesday with rain chances increasing for Tuesday night through Thursday night. Rain chances will diminish Friday as the system moves away from the region with dry high pressure expected for Saturday.

&&

.NEAR TERM /THROUGH TONIGHT/...
Unseasonably warm weather today with upper ridge over the area. Surface high pressure over FL will slowly move east through the day resulting in southwest flow and warm advection. Precipitable water will remain less than 0.5 inches. Expect full insolation with mainly thin high clouds, so temperatures will rise into the low to mid 70s.