NC STATE UNIVERSITY

Too much? Too little? Or Just right? Drought Information for Water Managers

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NORTH CAROLINA CLIMATE OFFICE

CISA

NOAA

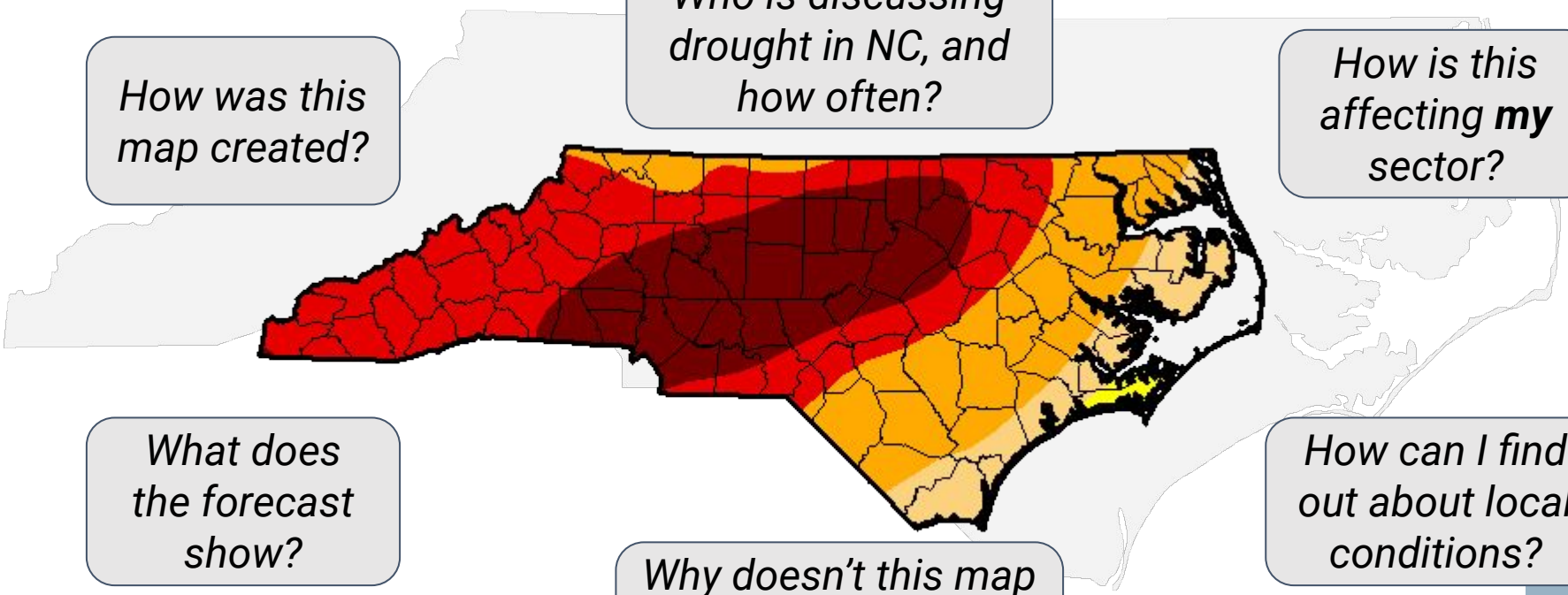
NATIONAL INTEGRATED DROUGHT INFORMATION SYSTEM NIDIS

Project Background

How was this map created?

Who is discussing drought in NC, and how often?

*How is this affecting **my** sector?*



What does the forecast show?

*Why doesn't this map reflect conditions I'm seeing in **my** area?*

How can I find out about local conditions?

Project Background

Goal: Provide ***relevant***, ***accessible***, and ***actionable*** drought-related information to decision makers tailored to specific sectors

Official Title: "*Innovating Approaches to Drought Communications with North Carolina Decision Makers*"

Codename: *Project Nighthawk*

The common nighthawk. Photo by Andy Reago and Chrissy McClarren, shared under CC BY 2.0.

Informed Consent

More information at ***http://climate.ncsu.edu/nighthawk***

- Participant selection
- Potential benefits and risks of participation
- Confidentiality

Scenario: Spring 2017

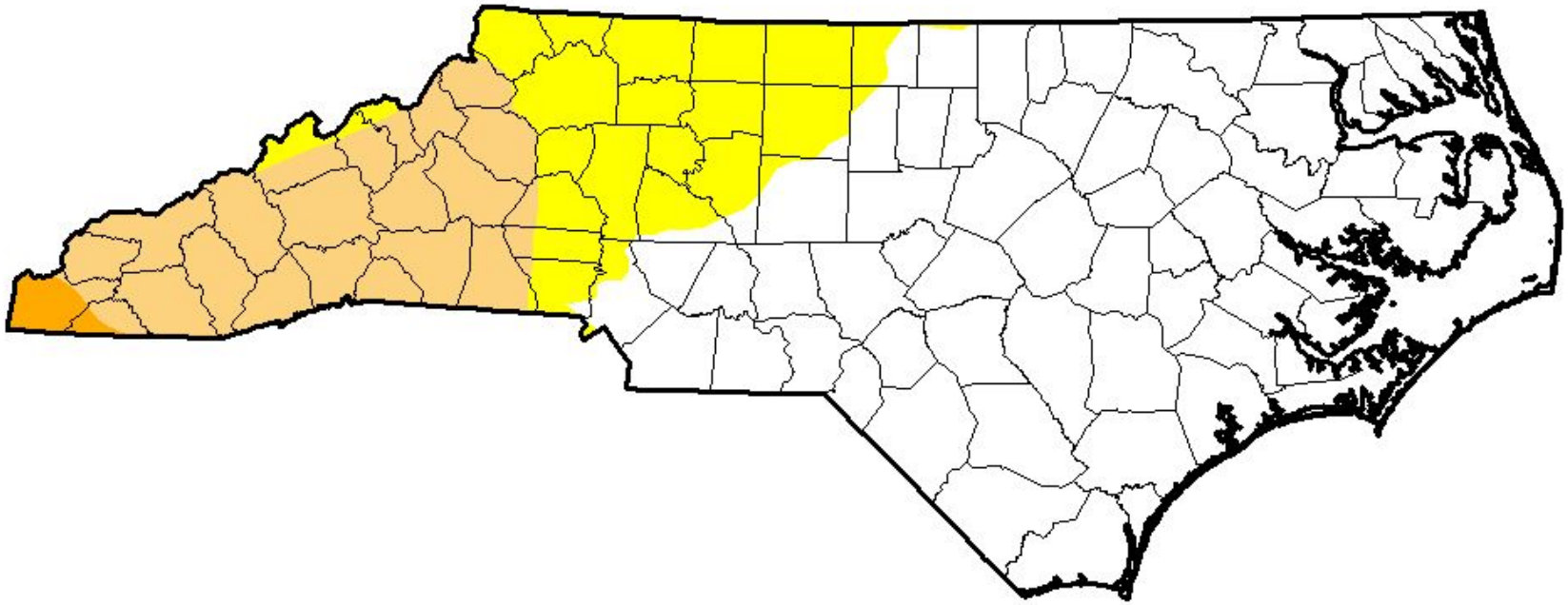
U.S. Drought Monitor

North Carolina

September 27, 2016

(Released Thursday, Sep. 29, 2016)

Valid 8 a.m. EDT



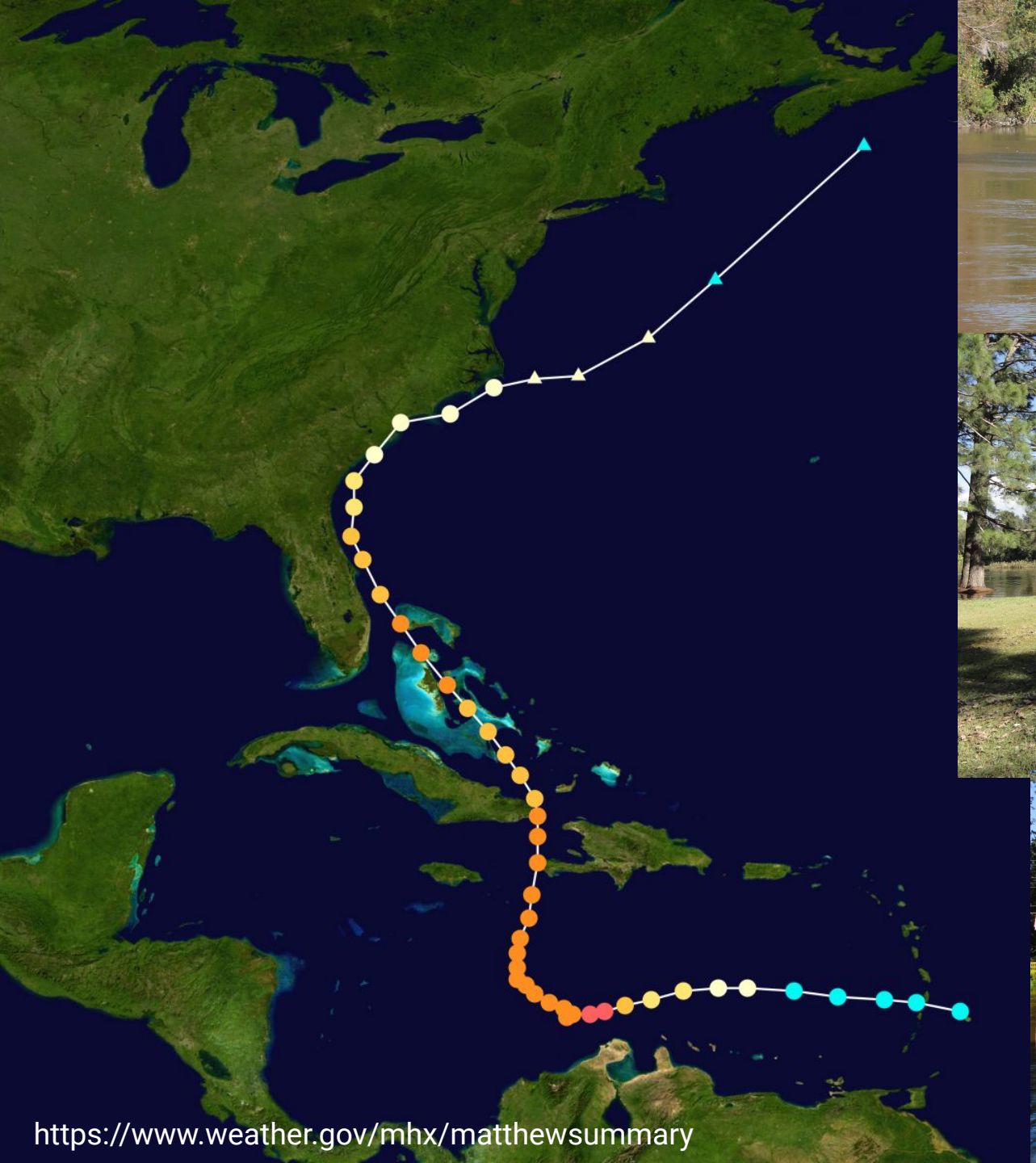
Intensity:

- 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:
Chris Fenimore
NCEI/NESDIS/NOAA

http://droughtmonitor.unl.edu/



https://www.weather.gov/mhx/matthewsummary

Tar River flooding near Grimesland.

Flooding near Chinquapin in Duplin County.

Flooding on the Neuse River in Kinston

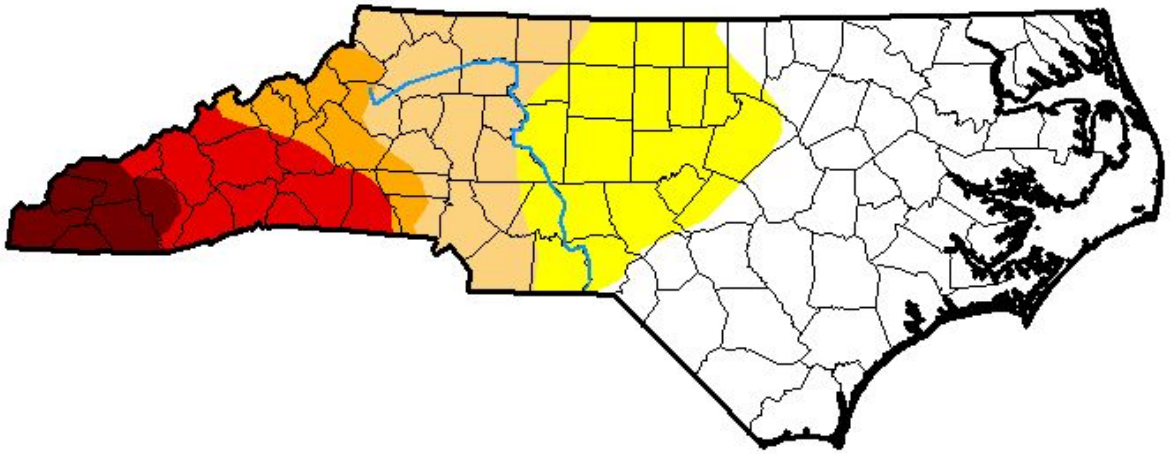
U.S. Drought Monitor

North Carolina

November 29, 2016

(Released Thursday, Dec. 1, 2016)

Valid 7 a.m. EST



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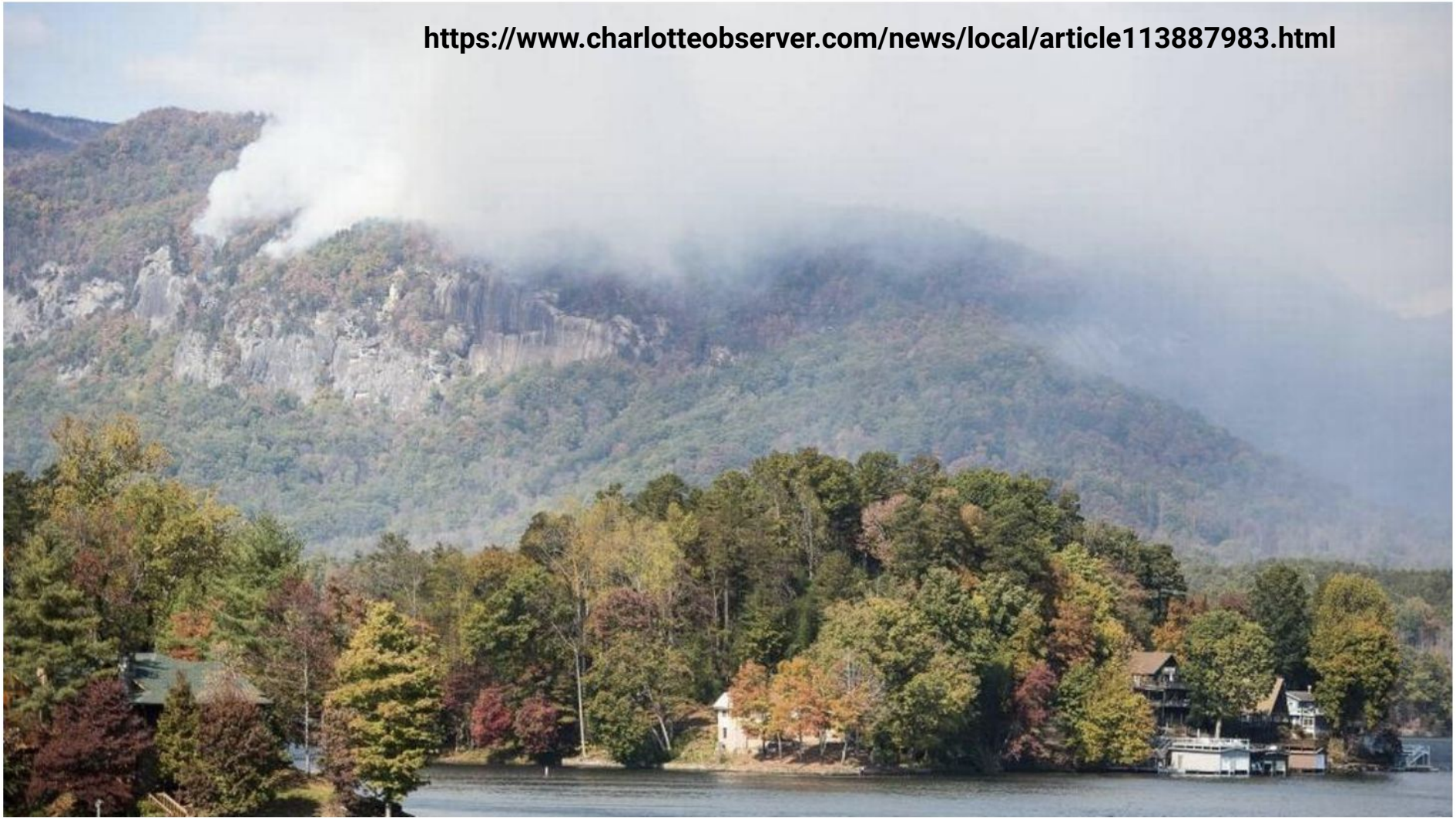
Author:

Richard Heim
NCEI/NOAA

http://droughtmonitor.unl.edu/

https://www.charlotteobserver.com/news/local/article113887983.html



Smoke from the Party Rock fire near Lake Lure spreads as emergency services and the N.C. Forest Service work to contain the blaze on Wednesday at Lake Lure. Unseasonably warm dry weather has deepened a drought that's igniting forest fires across the southeastern U.S. **ABIGAIL MARGULIS** *AP*

Smoke from the Tellico Fire near the Nantahala Outdoor Center

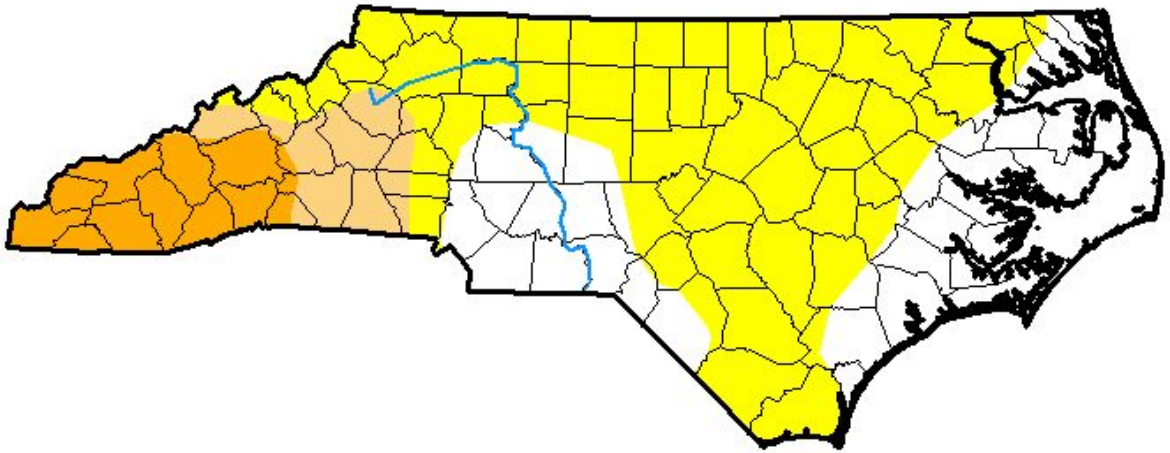
U.S. Drought Monitor

North Carolina

February 21, 2017

(Released Thursday, Feb. 23, 2017)

Valid 7 a.m. EST



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Author:

Richard Heim
NCEI/NOAA

http://droughtmonitor.unl.edu/

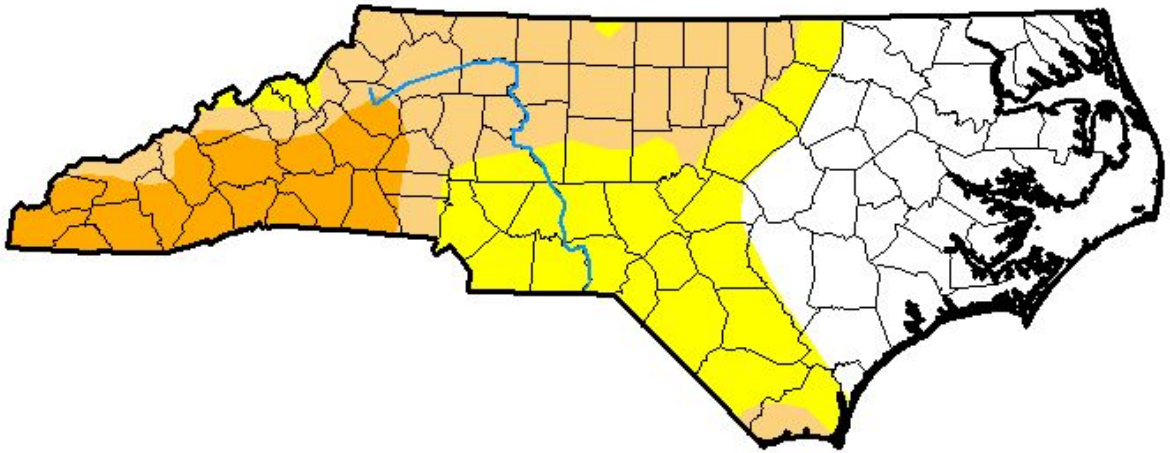
U.S. Drought Monitor

North Carolina

March 28, 2017

(Released Thursday, Mar. 30, 2017)

Valid 8 a.m. EDT



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Author:

Eric Luebehusen
U.S. Department of Agriculture

http://droughtmonitor.unl.edu/

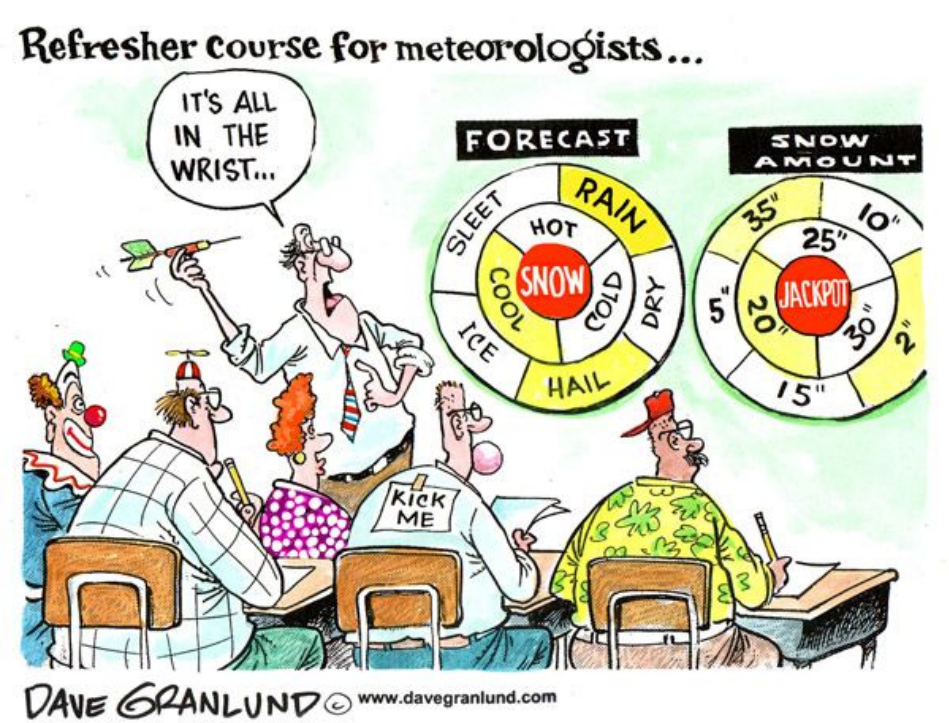
Activity

Scenario

- Would you use this resource? Why / why not?
- Would you share this with your colleagues, customers, or clients? Why / why not?
- Does this help you to understand the NC drought monitoring process?
- What do you like? What do you dislike?
- What suggestions do you have for changes?

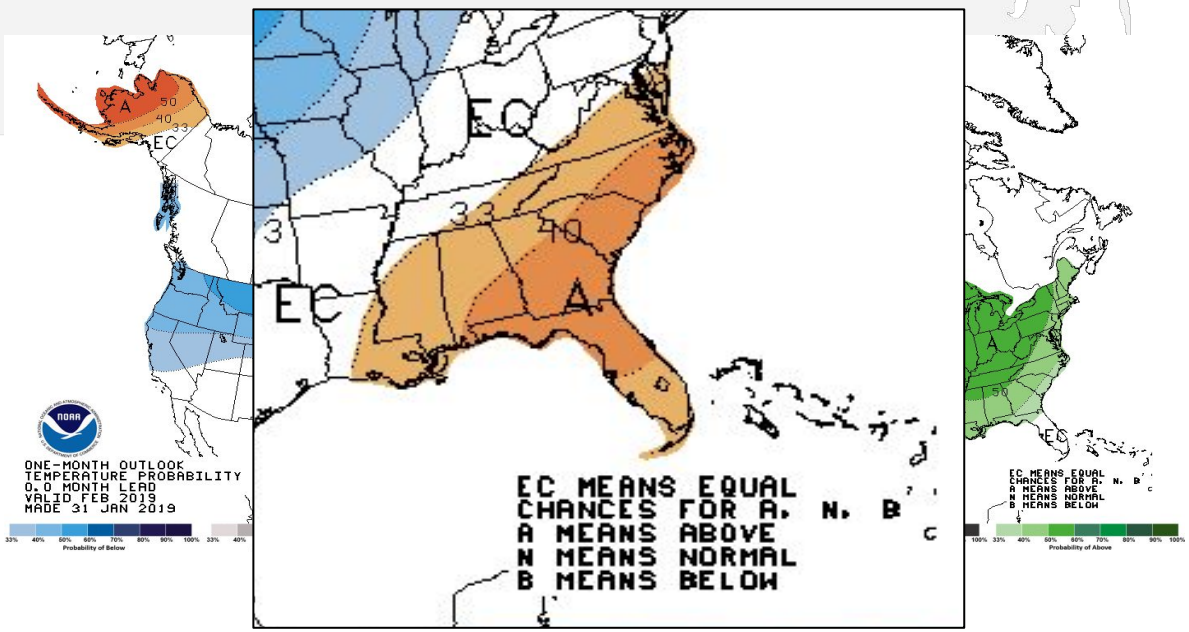
Weather Outlooks

Where do you go for weather outlooks on different timescales? How accurate do you think they are?

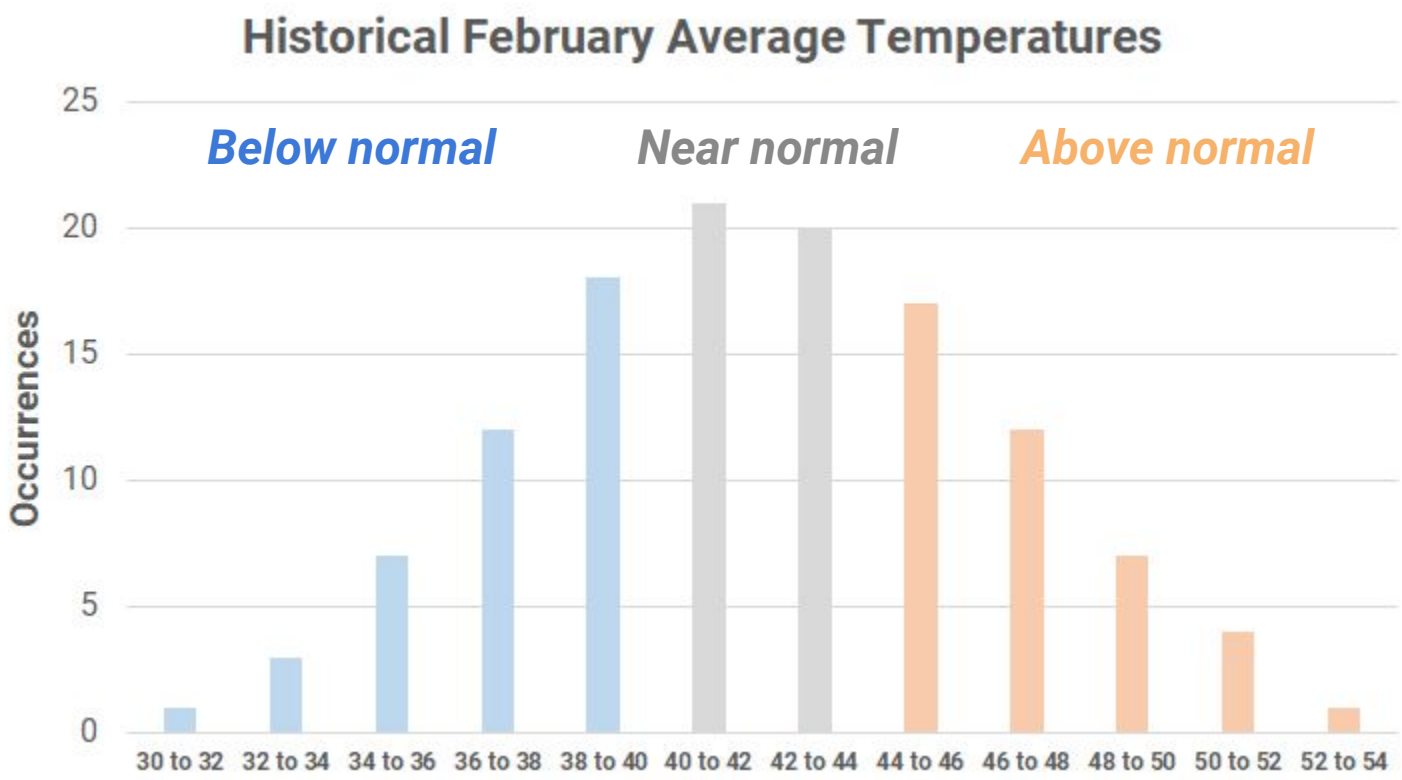


CPC Outlooks

- The NWS Climate Prediction Center produces ***medium-range and long-range outlooks*** for temperature and precipitation
  - 6 to 10 day
  - 8 to 14 day
  - 3 to 4 week
  - 1 month
  - 3 month



Interpreting CPC Outlooks



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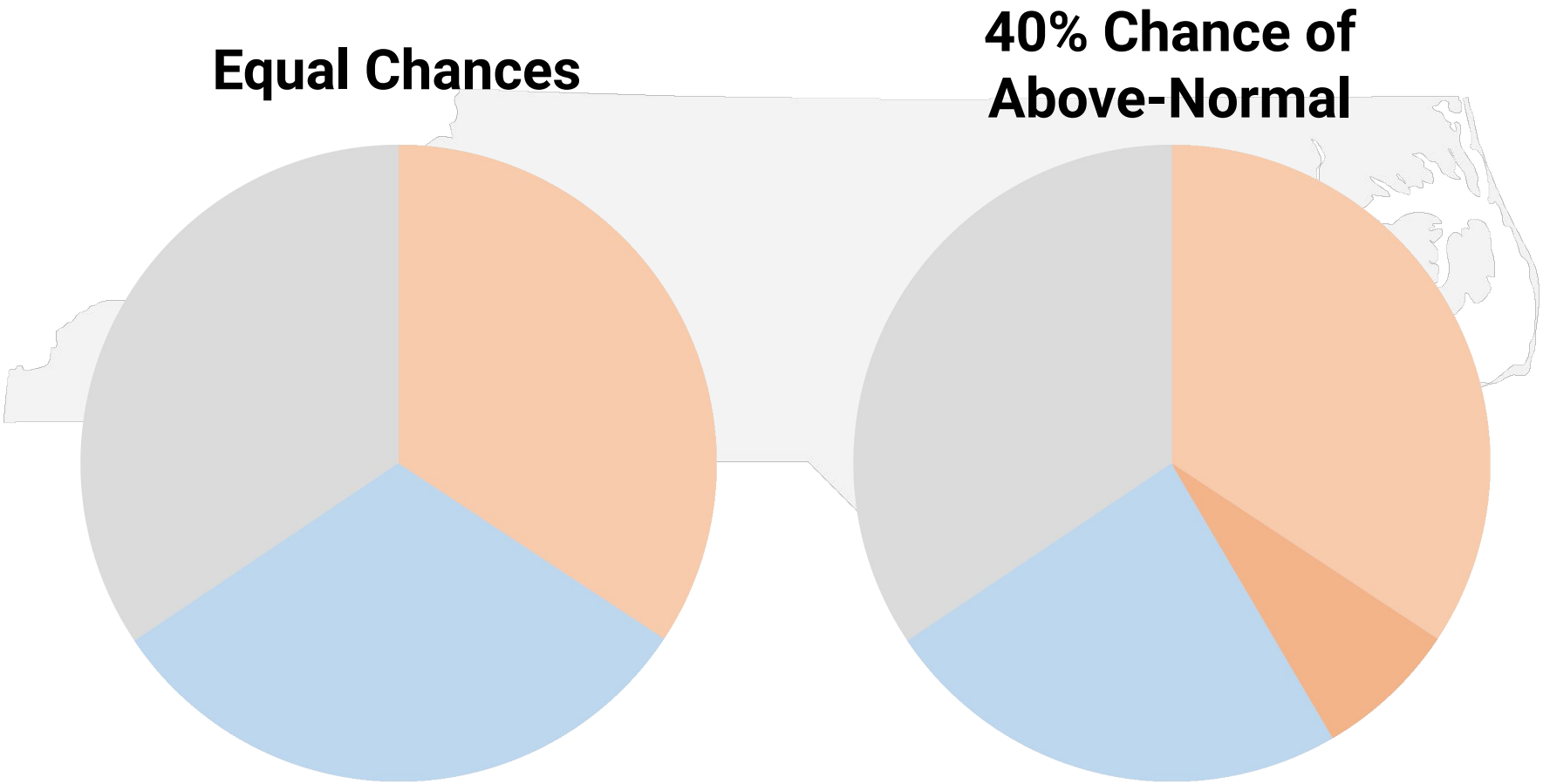
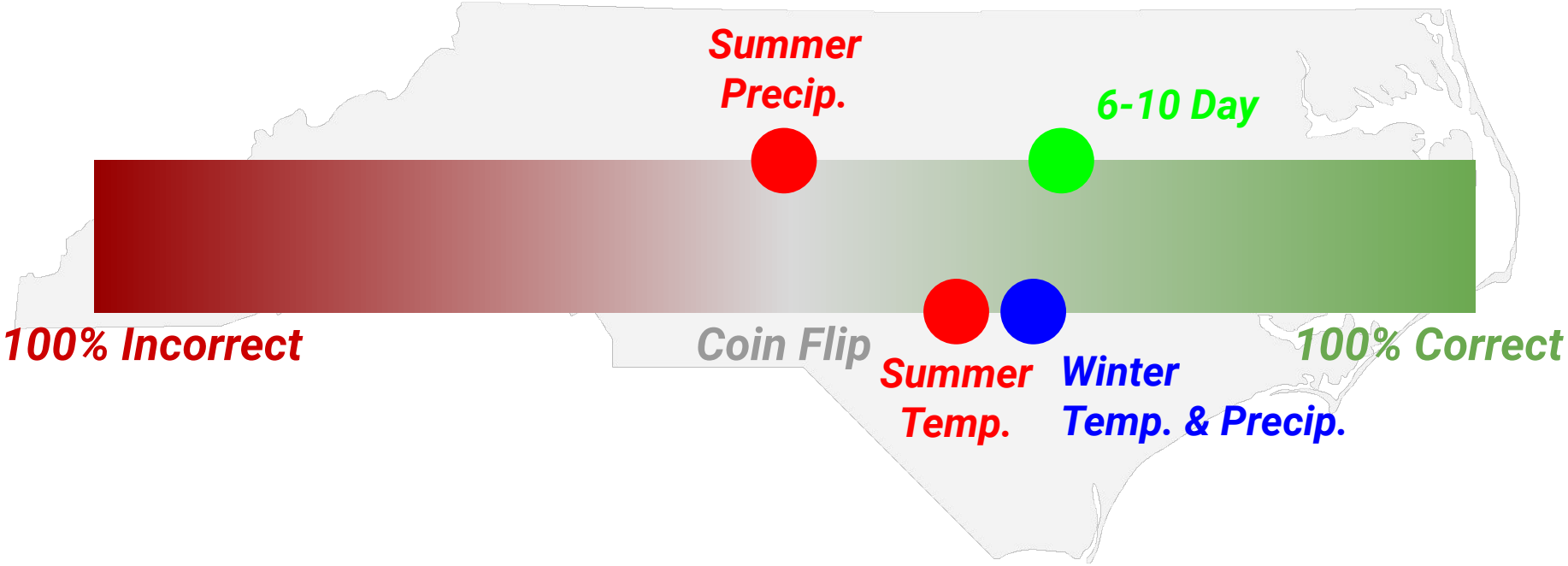


Activity: Outlook Accuracy

How accurate do you think the CPC's outlooks are? Place colored dots on the spectrum on the wall to make your guesses:

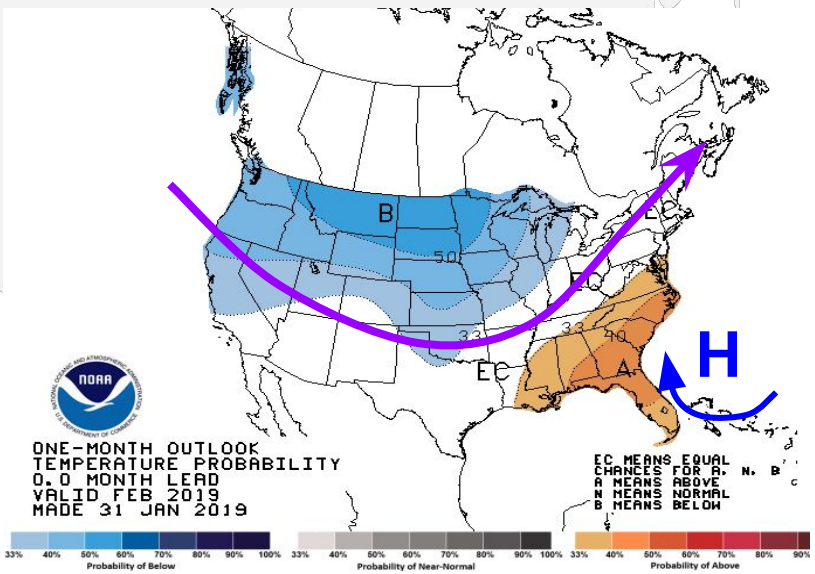
- 6 to 10 day temp. & precip.
- 3-month ***wintertime*** temp. & precip.
- 3-month ***summertime*** temp. & precip.

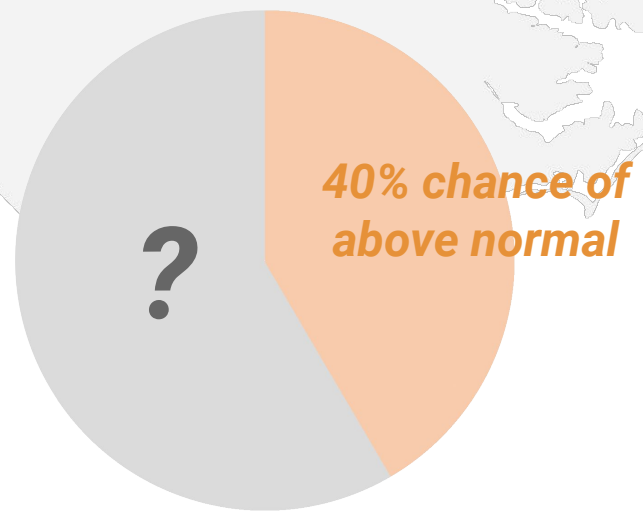
Activity: Outlook Accuracy



What *Can* CPC Outlooks Tell Us?

- The ***change in the likelihood*** of above- or below-normal temperatures and precipitation compared to climatology (33%)
- Which factors are driving those changes and their confidence in them
- What the overall atmospheric (jet stream) patterns may look like



What *Can't* CPC Outlooks Tell Us?

- The ***intensity*** of above- or below-normal temperatures and precipitation
- The odds of less-likely outcomes
- Variability of conditions within each time period
- How to act in response to a given outlook