

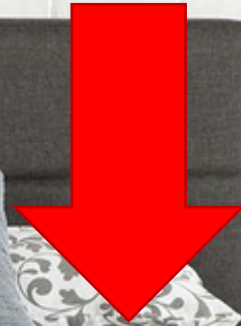
How to talk climate on the Sphere

Tom Di Liberto

CollabraLink Inc

NOAA OAR Climate Program Office

Wrong Side. **Right Side.**



Weather is your Mood

Climate is your



Personality

Created by Creative Stall
from Noun Project

Consensus among climate scientists worldwide

“The size of this warming is broadly consistent with prediction of climate models, but it is also of the same magnitude as natural climate variability.”

—*IPCC First Assessment Report, 1990*

“The balance of evidence suggests that there is a discernable human influence on global climate.”

—*IPCC Second Assessment Report, 1995*

“Most of the observed warming over the last 50 years is likely to have been due to the increase in greenhouse gas concentrations.”

—*IPCC Third Assessment Report, 2001*

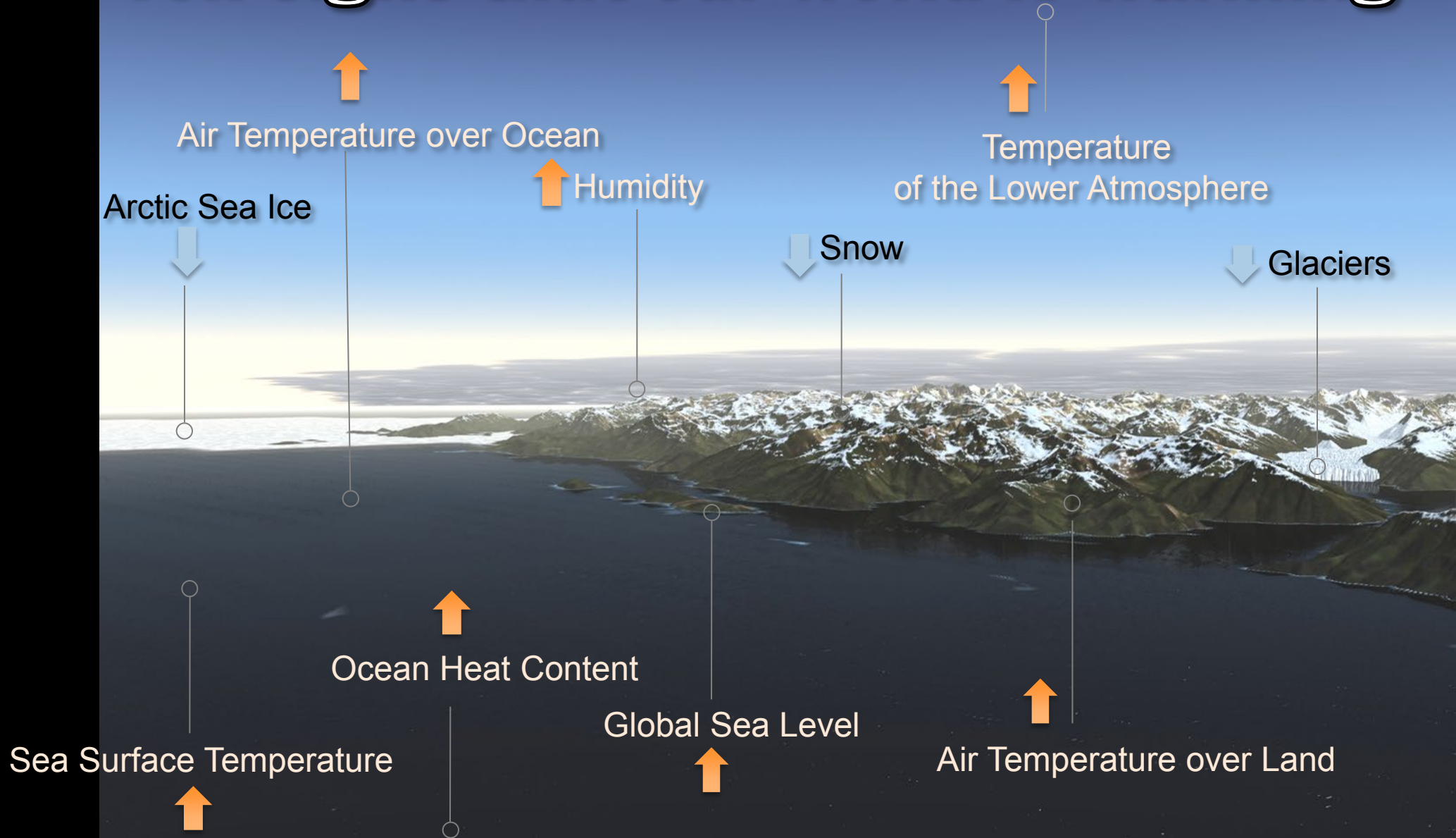
“Most of the observed increase in globally averaged temperatures since the mid-20th century is very likely (>90% probability) due to the observed increase in anthropogenic greenhouse gas concentrations.”

—*IPCC Fourth Assessment Report, 2007*

“Scientists are more certain than ever—95% certain—that most of the warming since 1950 has been caused by humans.”

—*IPCC Fifth Assessment Report, 2013*

Ten signs that our world is warming



**Climate change is
happening.**

It's us.

It's a problem.

We can fix it.



Air

Water



Space



Snow & Ice

People



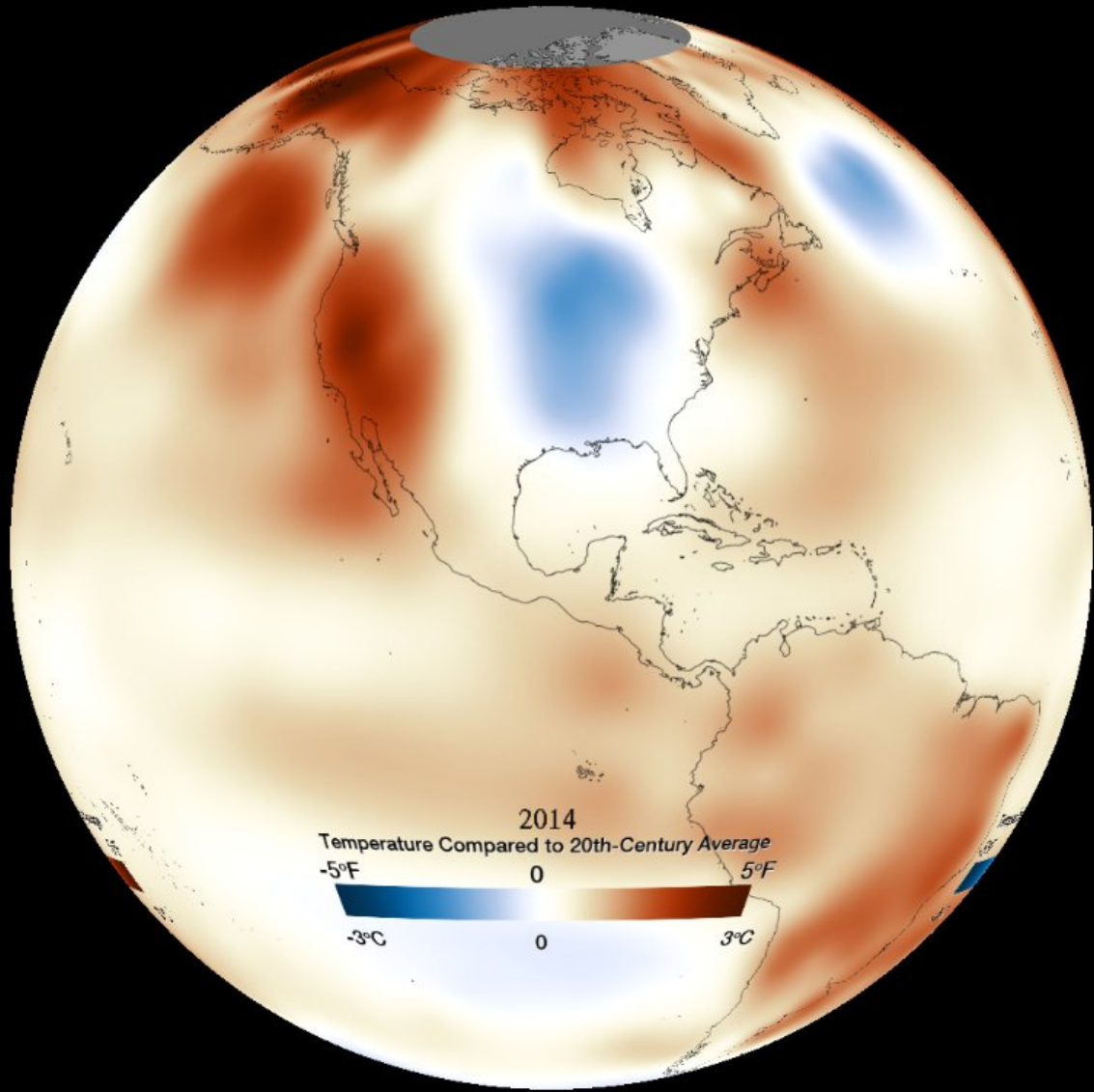
Land



Looking back

Past Climate

Sea Ice



Temperature Anomalies

Recent weather/climate



**Current
clouds**



**Current
snow**

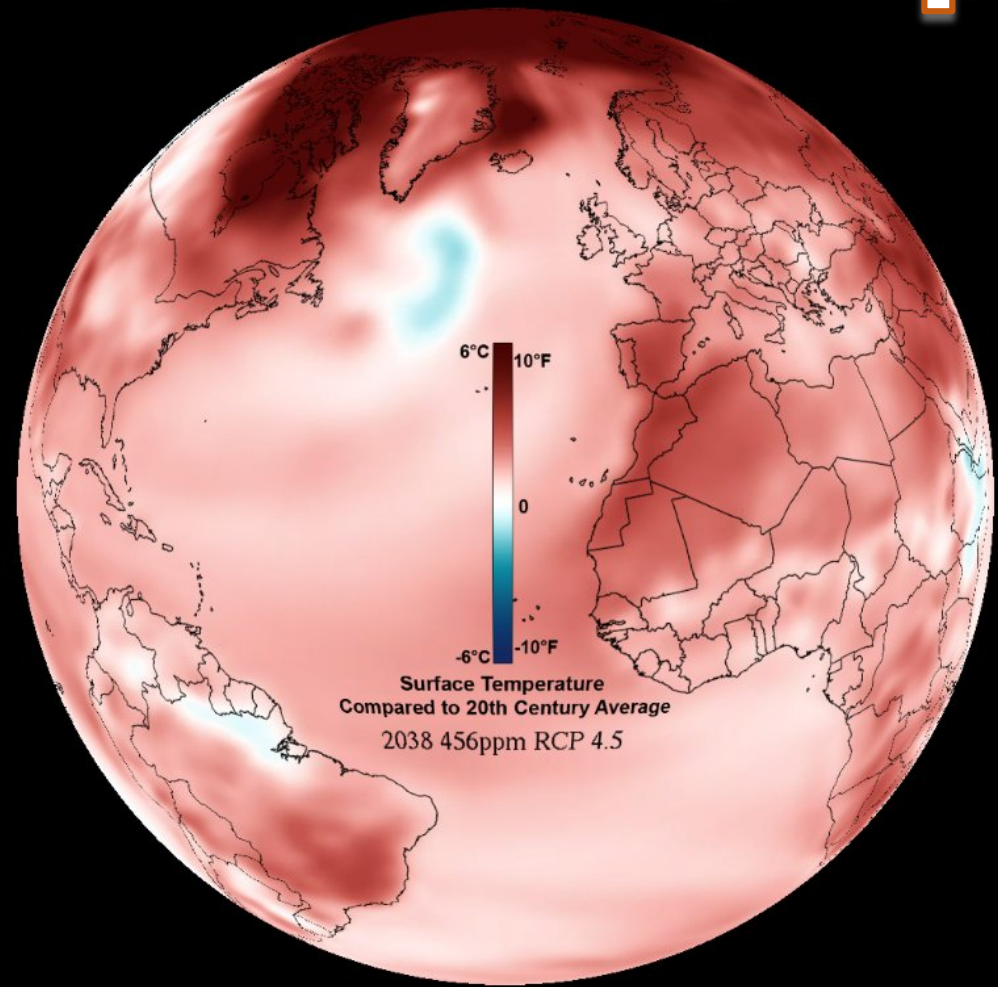
Hurricane Season



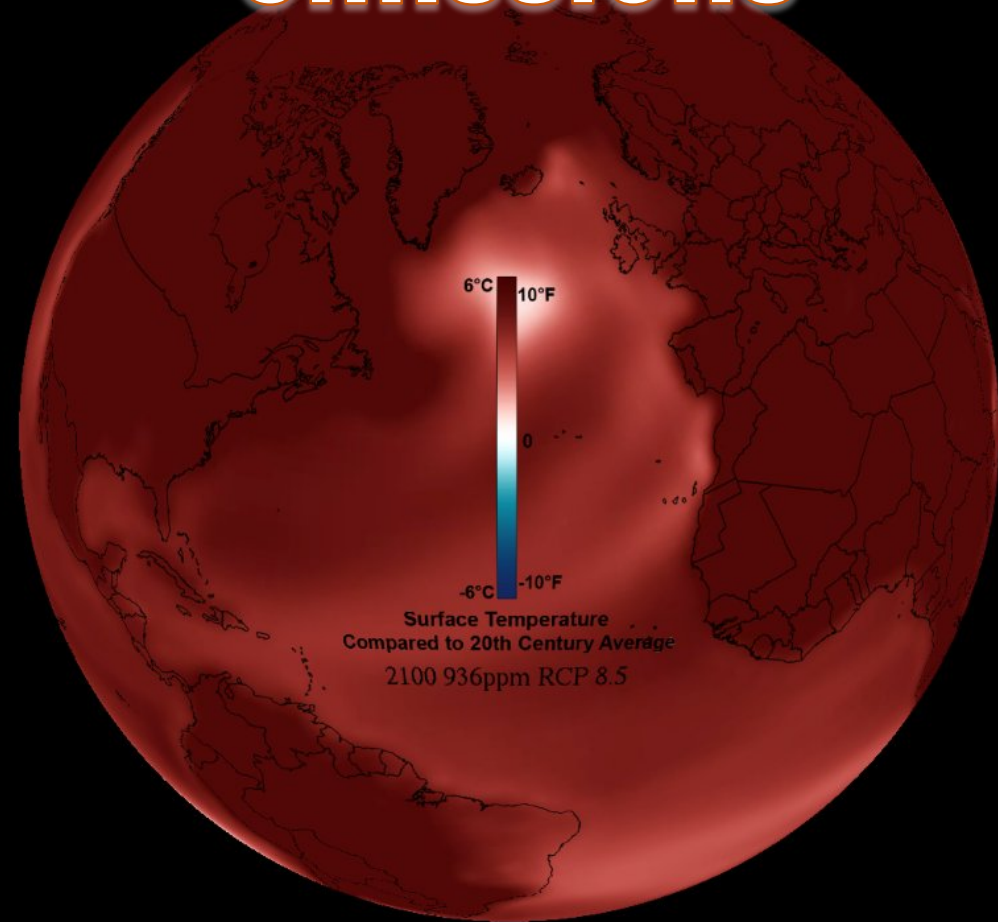
Looking forward

Temperature Projections

Higher GHG emissions



Lower GHG emissions



Sea Level Rise



Making connections

Human influence on environment

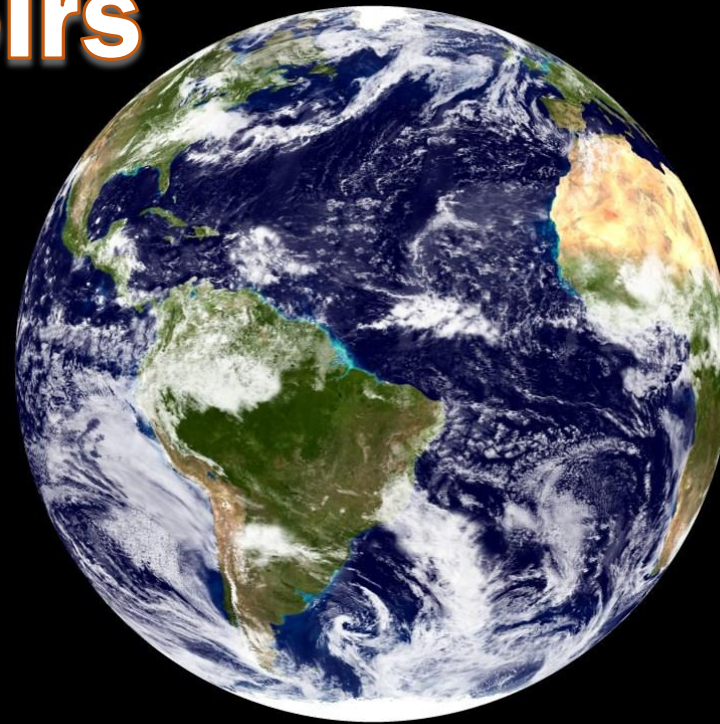


Dams/reservoirs

Nighttime lights



Population



Blue Marble



Transportation

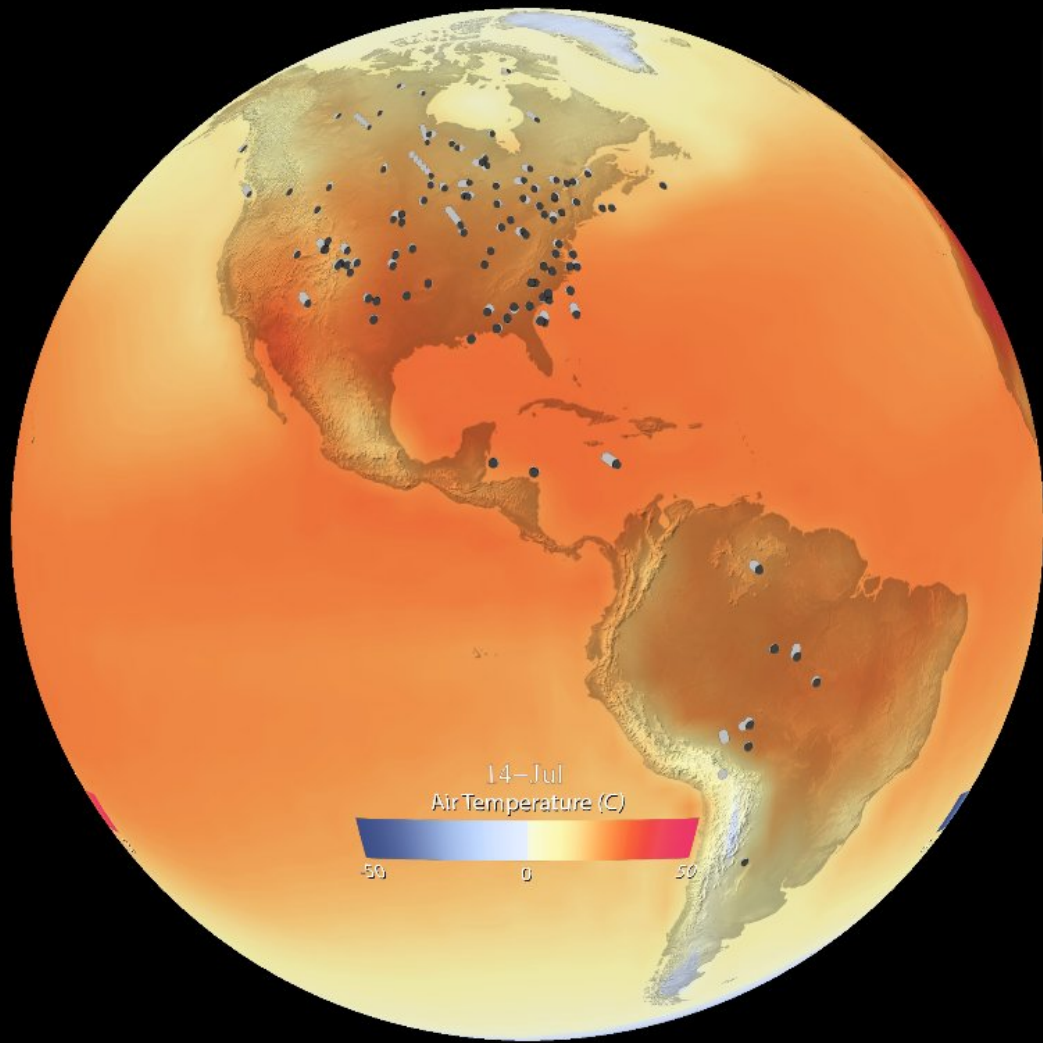


Air Traffic

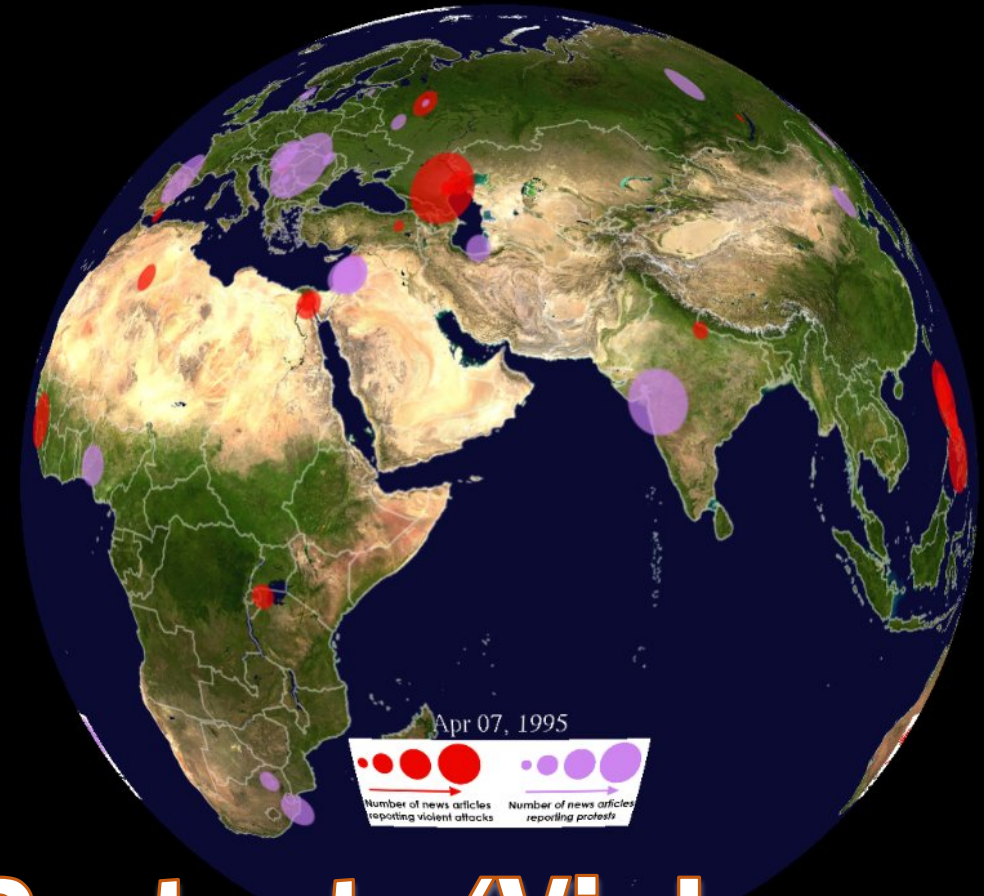


**Human
transportation**

Human and animal connections

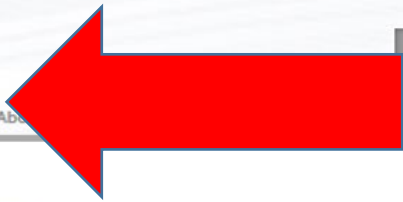


Bird Migration



Protests/Violence

Resources



Featured on Climate.gov 1 2 3 4 5



Climate & skiing

November 19, 2018

Filed in: News & Features

From retreating snow elevations to rain-soaked powder, warming due to human-caused climate change will radically transform U.S. skiing over the remainder of the twenty-first century.

[read more](#)

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Intro to CLEAN Portal
September 20, 2018
Filed in: Teaching Climate



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February 26, 2018
Filed in: Teaching Climate

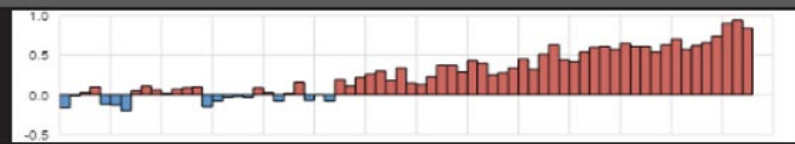


Southeast and Caribbean Region
July 10, 2014
Filed in: Teaching Climate

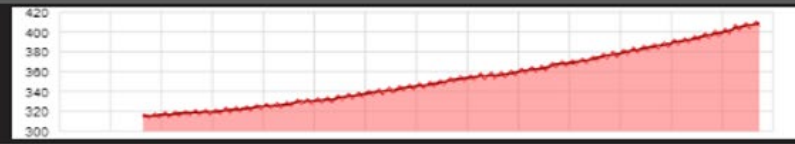
Global Climate Dashboard

Climate Change | Climate Variability | Climate Projections

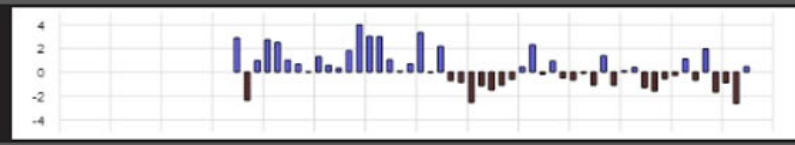
Global Average Temperature (°C)
The temperature near Earth's surface is rising: the bars show each year's average temperature compared to the 20th century average.
[learn more >>](#)



Carbon Dioxide (ppm)
The amount of carbon dioxide in the atmosphere has risen by 25% since 1958, and by about 40% since the Industrial Revolution.
[learn more >>](#)



Spring Snow Cover (million km²)
Snow is melting earlier: each bar shows spring snow cover in the Northern Hemisphere compared to the long-term average.
[learn more >>](#)



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Teaching Climate

Climate Resilience Toolkit



U.S. Climate
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Toolkit

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Meet the Challenges of a Changing Climate

Find information and tools to help you understand and address your climate risks.

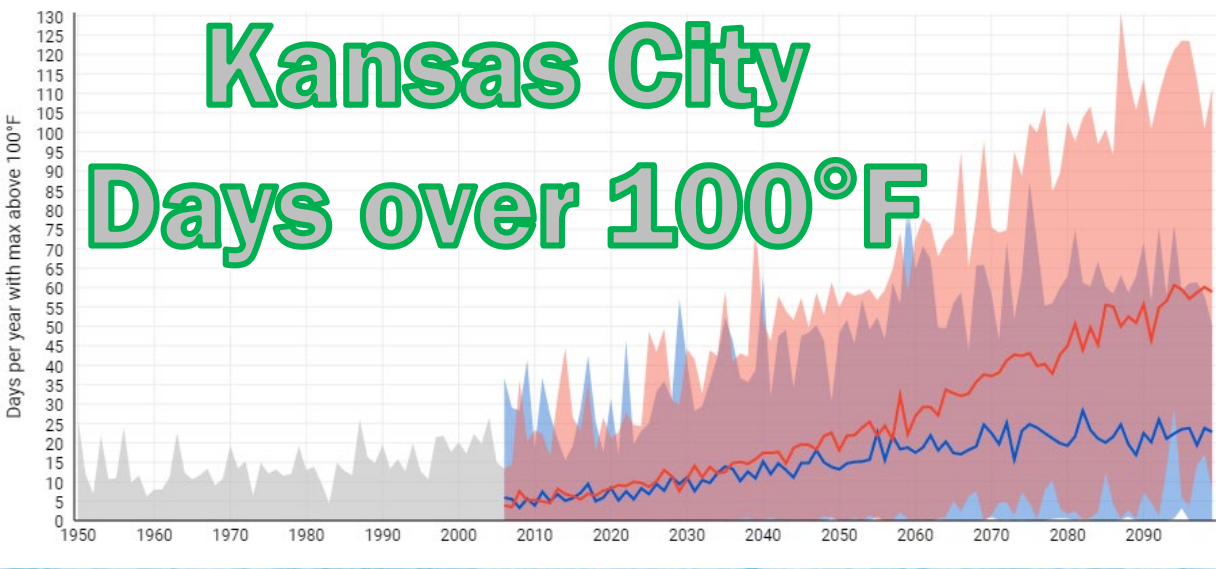
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Climate Explorer

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THE CLIMATE EXPLORER

Explore graphs and maps of historical and projected climate variables for any county in the contiguous United States.

- Select a location
- View by variable
- Weather & Tidal Stations
- New here? Take the tour

crt-climate-explorer.nemac.org

National Climate Assessment

NCA
4

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FOURTH NATIONAL CLIMATE ASSESSMENT

Volume II: Impacts, Risks, and Adaptation in the United States

The National Climate Assessment (NCA) assesses the science of climate change and variability and its impacts across the United States, now and throughout this century.

SUMMARY FINDINGS

REPORT CHAPTERS

OVERVIEW

DOWNLOADS

Volume I presents an assessment of the physical science underlying this report: science2017.globalchange.gov



Visualizing Change

VISUALIZING CHANGE NARRATIVES STRATEGIC FRAMING SCIENCE RESOURCES FAQ



VISUALIZING CHANGE:

A toolkit for informal educators using visual narratives on climate change.

What is this toolkit?



STRATEGICALLY-FRAMED NARRATIVE SCRIPTS

Each narrative contains strategically-framed annotated scripts that facilitates better interpretation and understanding of climate science. Each script contains notes, rational, and background information that grounds



VISUALIZATIONS, VIDEOS AND IMAGES

ISEIs can download the full suite of strategically-framed visuals suitable to be used on an interactive sphere (such as Science on a Sphere, Magic Planet, or HyperGlobe), flat screen, or hand held tablet.



CLIMATE SCIENCE AND STRATEGIC FRAMING RESOURCES

This toolkit contains has an extensive library of high-quality research that informs the science of both climate change and strategic framing including research reports, science summaries, glossary of terms, and

**Now let's
discuss stuff!**

Tom.DiLiberto@noaa.gov

