

CLIMATIC CATASTROPHE & THE GREEN ENERGY REVOLUTION♪



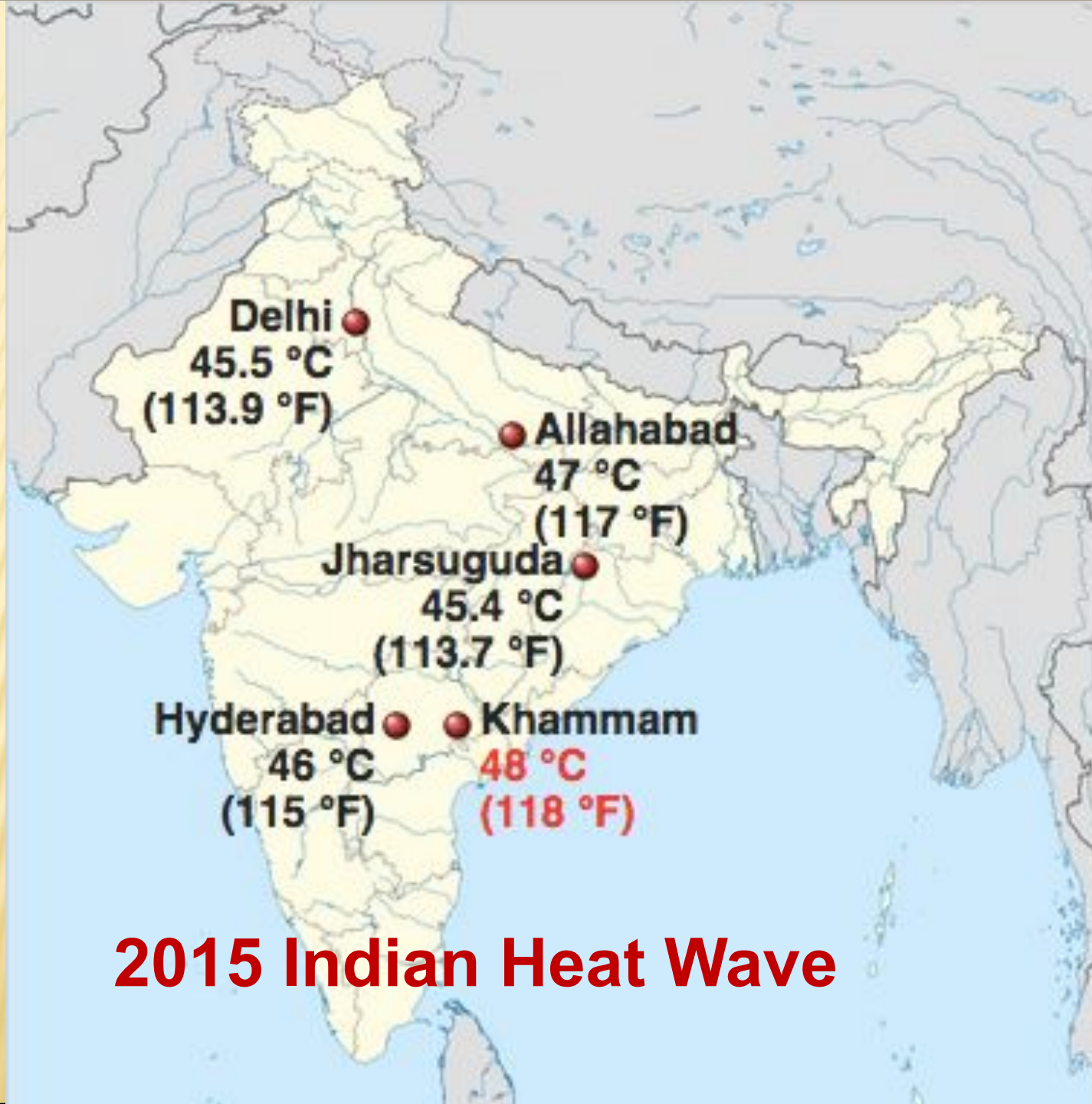
Dr. Eddy Lee

香港開埠以來首次：
全球氣候大遊行

GLOBAL CLIMATE MARCH
2015 年11月 29日

[https://](https://www.youtube.com/watch?v=raFnSNixCk8)
[www.youtube.com/](https://www.youtube.com/watch?v=raFnSNixCk8)
[watch?](https://www.youtube.com/watch?v=raFnSNixCk8)
[v=raFnSNixCk8](https://www.youtube.com/watch?v=raFnSNixCk8)





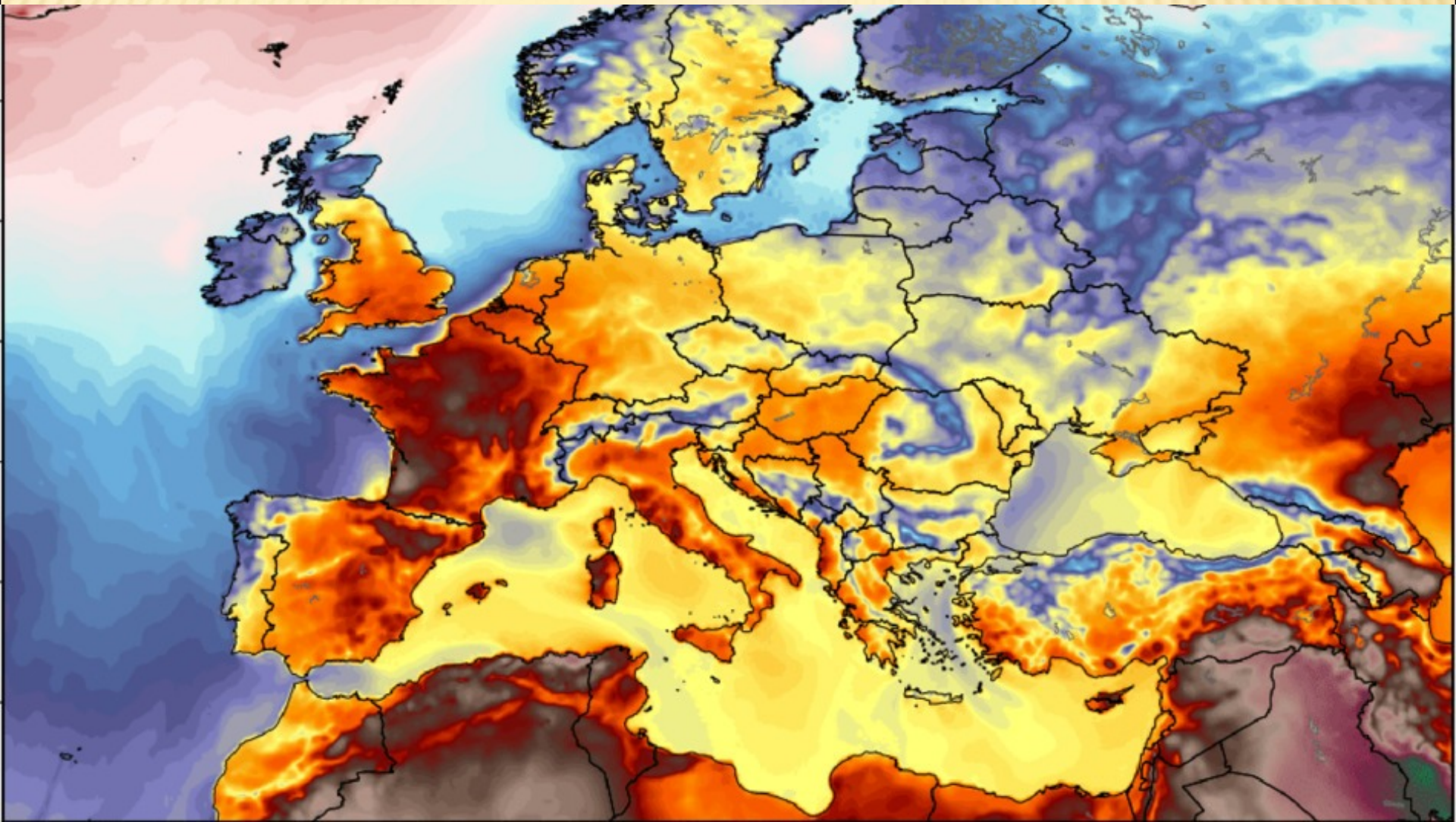
2015 Indian Heat Wave



**India Heat Wave May
2015 Death Toll: > 2,500**

Heat Wave in Europe June 2015

Max. in Paris: 39.7 C
Max. in London: 36.7 C



SUNDAY

HIGH TEMPERATURES

SPAIN

(Avg.)

Cordoba	44°	34°
---------	-----	-----

Seville	43°	33°
---------	-----	-----

Murcia	42°	27°
--------	-----	-----

Madrid	39°	29°
--------	-----	-----

Madrid

Cordoba

Seville

LIVE

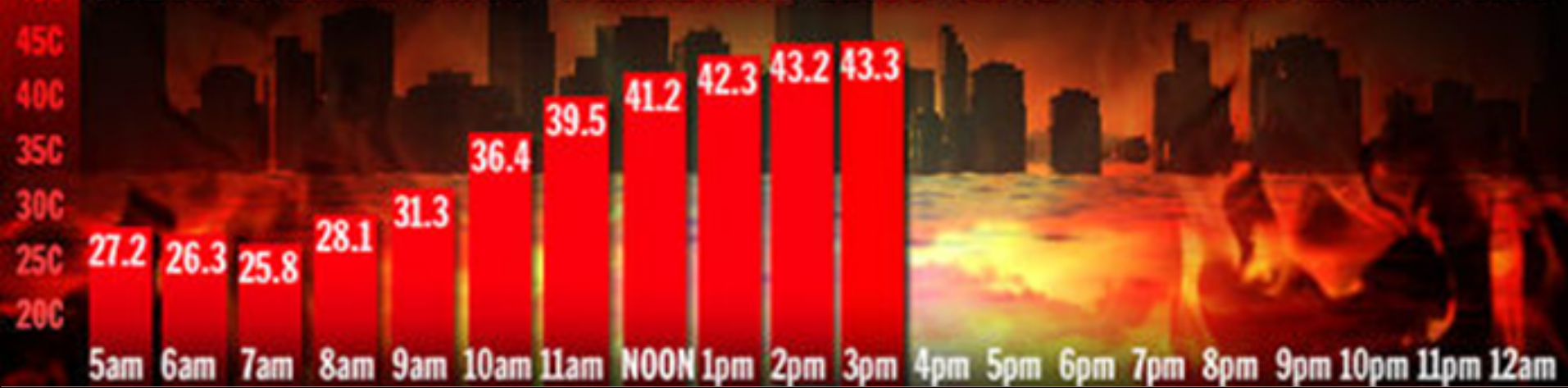
CNN

SNAP INDEX ▼ -119.50



RECORD HEATWAVE

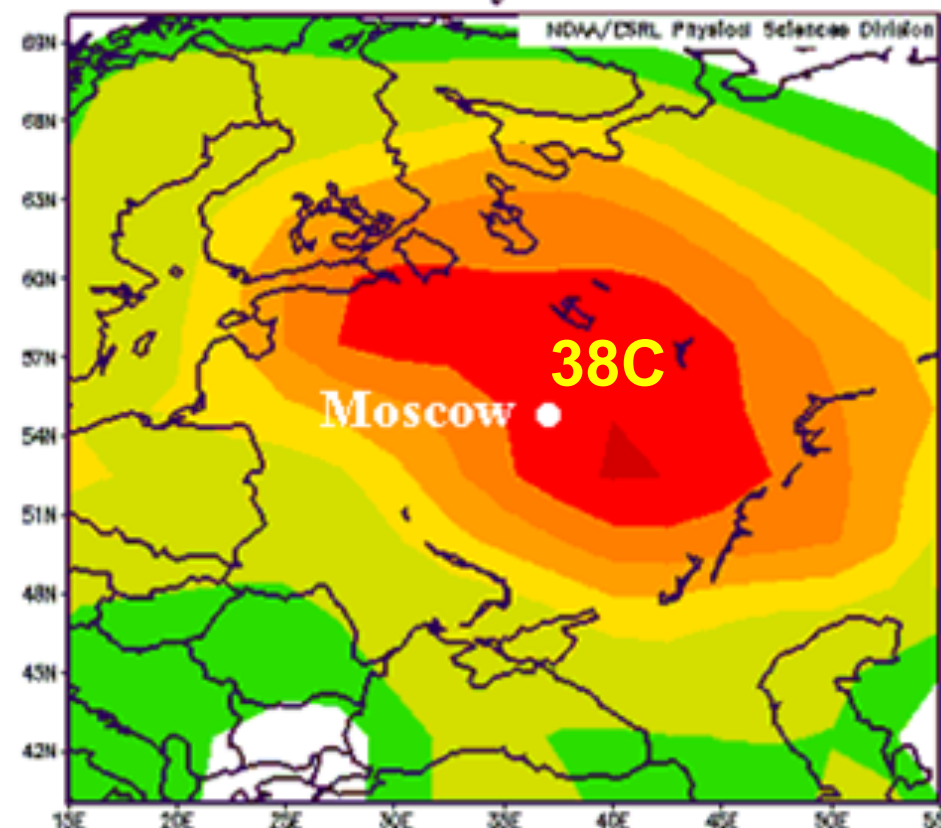
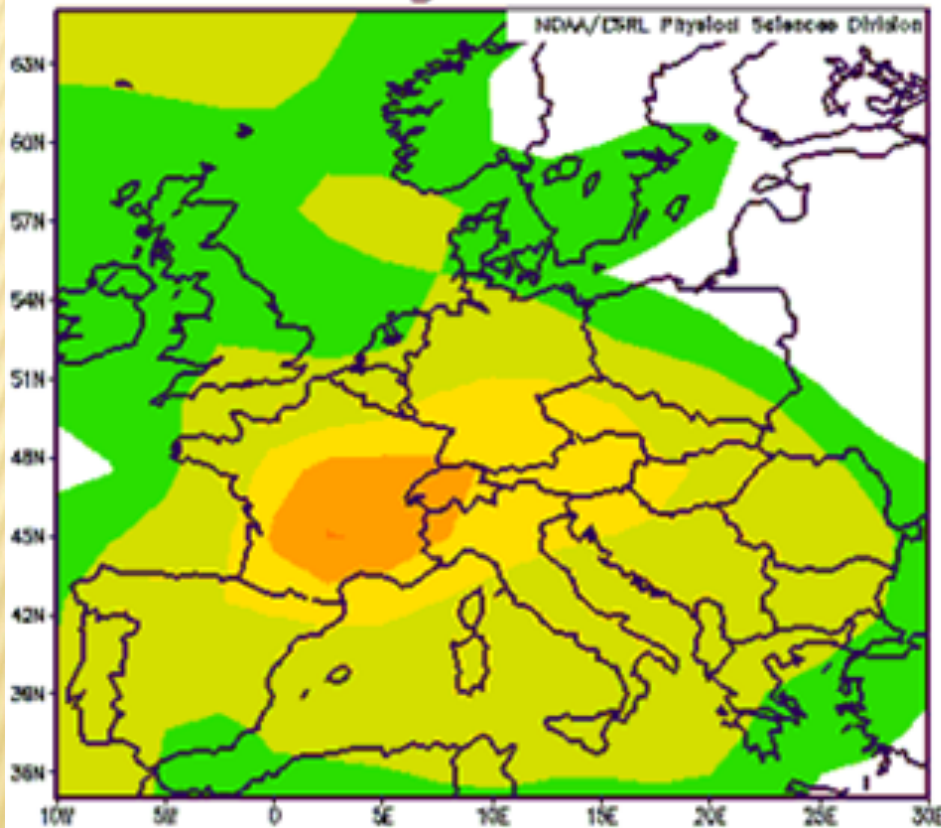
TUESDAY 16.6C-36.4C WEDNESDAY 18.8C-43.4C THURSDAY 25.7C-44.3C



Departure of Temperature from Average for Two Great Heat Waves

August 2003

July 2010



KILLER SCORCHERS

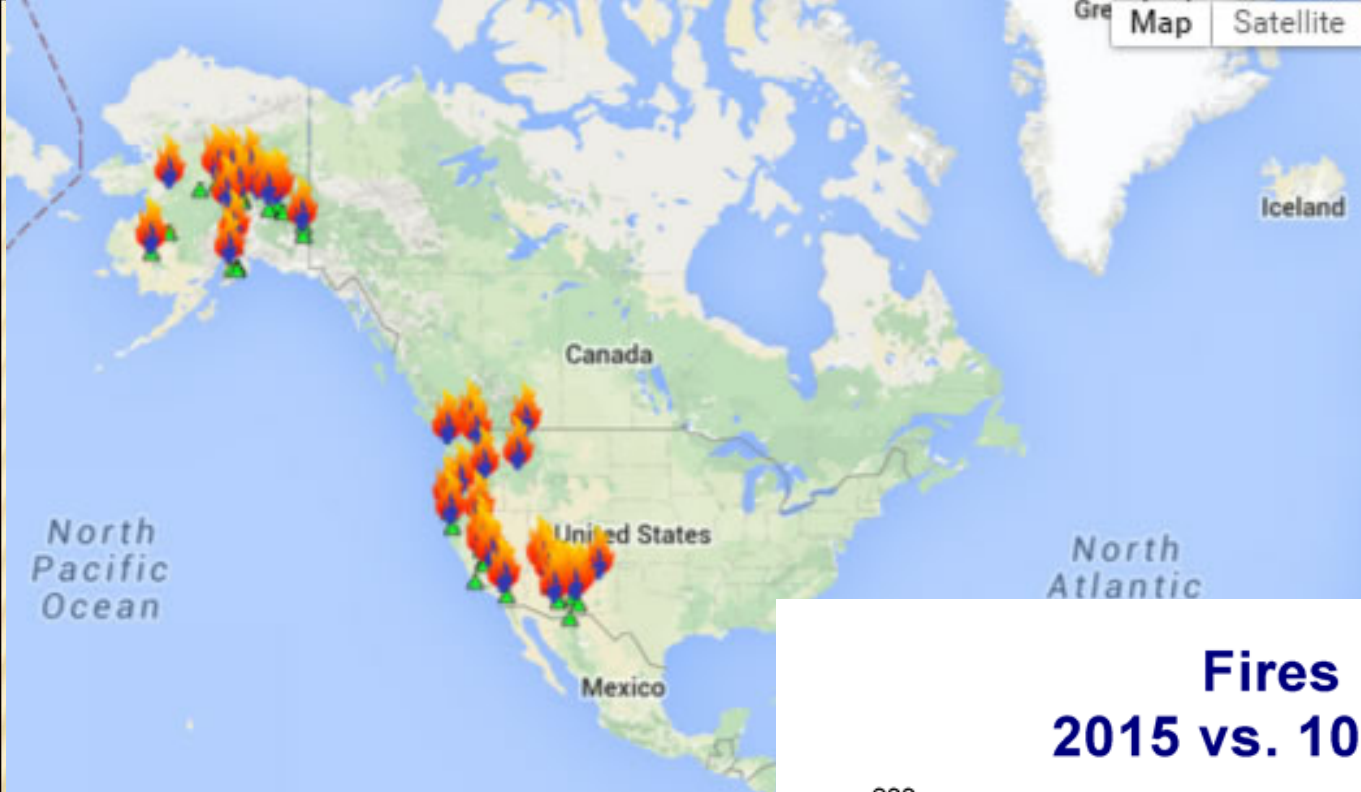
		Year	Estimated deaths
1	Europe	2003	71,310
2	Russia	2010	55,736
3	Europe	2006	3,418
4	India	1998	2,541
5	India	2015	2,000+
6	US, Canada	1936	1,693
7	US	1980	1,260
8	India	2003	1,210
9	India	2002	1,030
10	Greece, Turkey	1987	1,030

Source: EM-DAT, CERD, Brussels

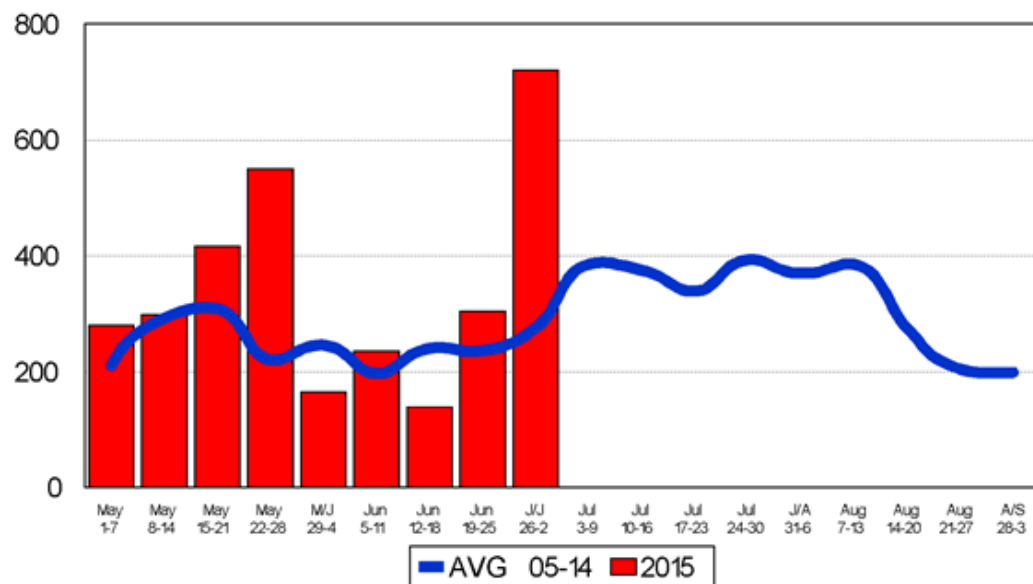


And then the Wild Fires...





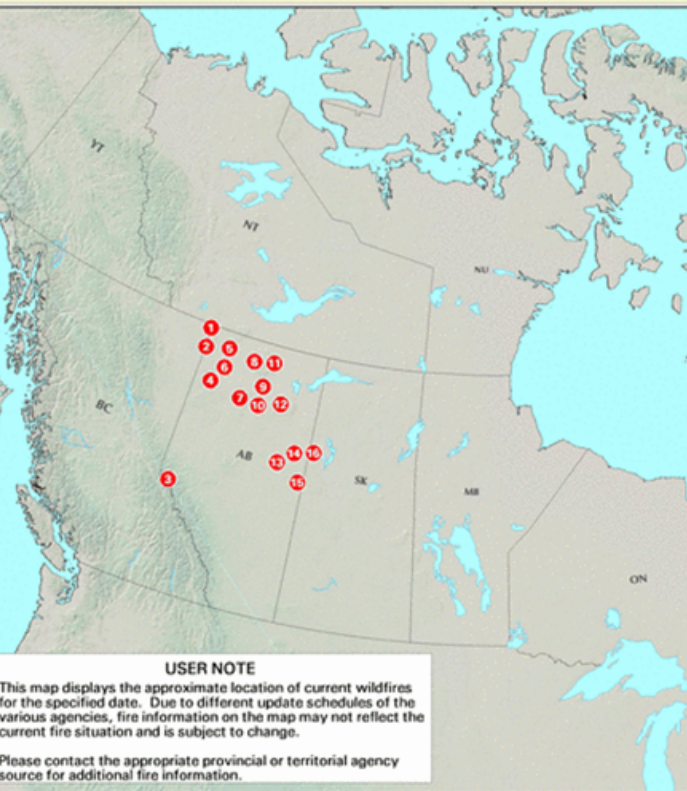
Fires By Week 2015 vs. 10 Year Average



Current as of July 2, 2015

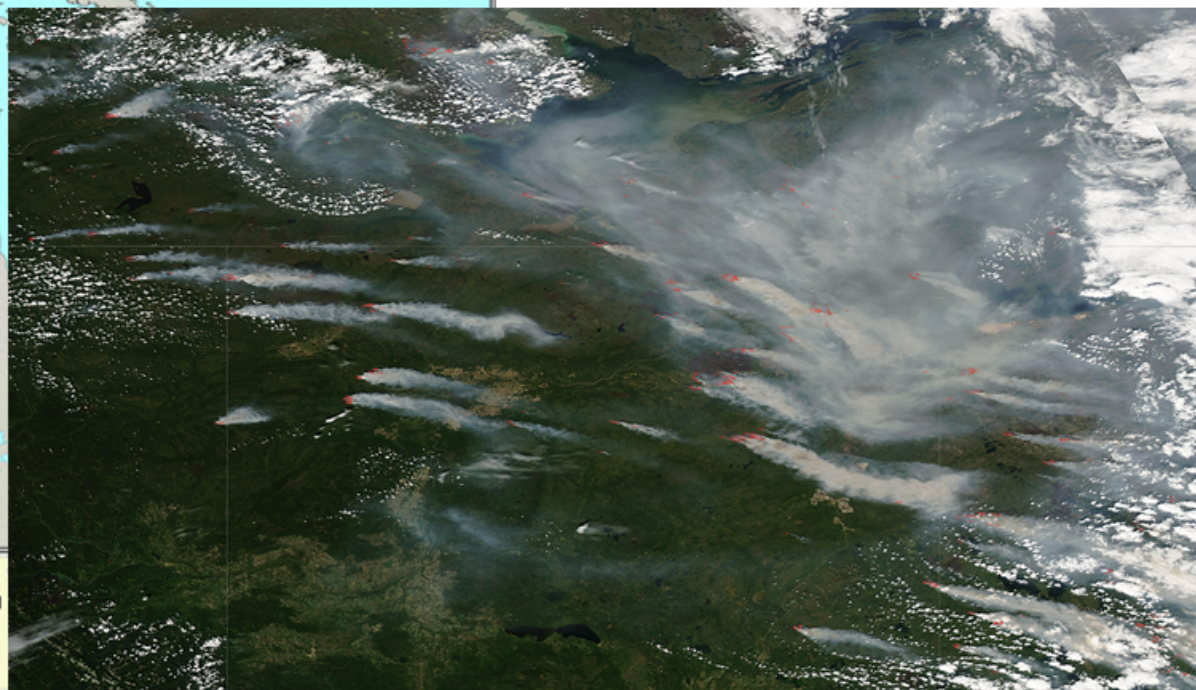
Canada Wildfires - June 30, 2015

(Greater Than 2500 Hectares)



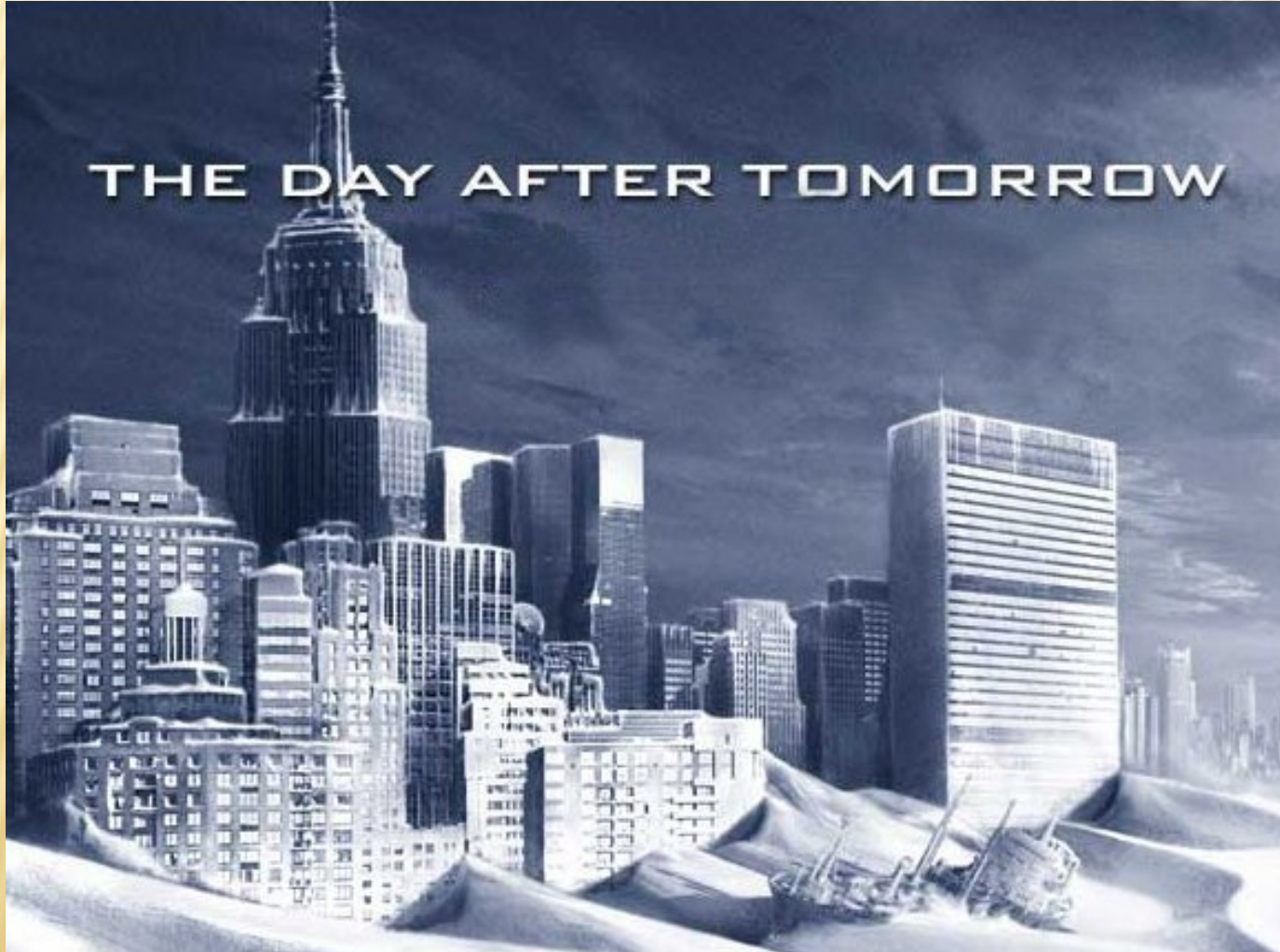
Fire information displayed on this map is provided by the following agencies.

- Alberta Forest Protection Division
- British Columbia Ministry of Forests and Range, Wildfire Management Branch
- Manitoba Conservation
- Northwest Territories Forest Management Division, ENR
- Ontario Ministry of Natural Resources
- Parks Canada
- Saskatchewan Environment
- Yukon Territory Wildland Fire Management



- | | | |
|----------|-----------|-----------|
| 1 HWF248 | 6 HWF217 | 11 HWF151 |
| 2 HWF111 | 7 HWF127 | 12 MWF101 |
| 3 EWF054 | 8 HWF204 | 13 LWF161 |
| 4 HWF219 | 9 HWF157 | 14 LWF126 |
| 5 HWF237 | 10 HWF229 | 15 LWF122 |

And paradoxically, also killer cold spell and blizzards.....





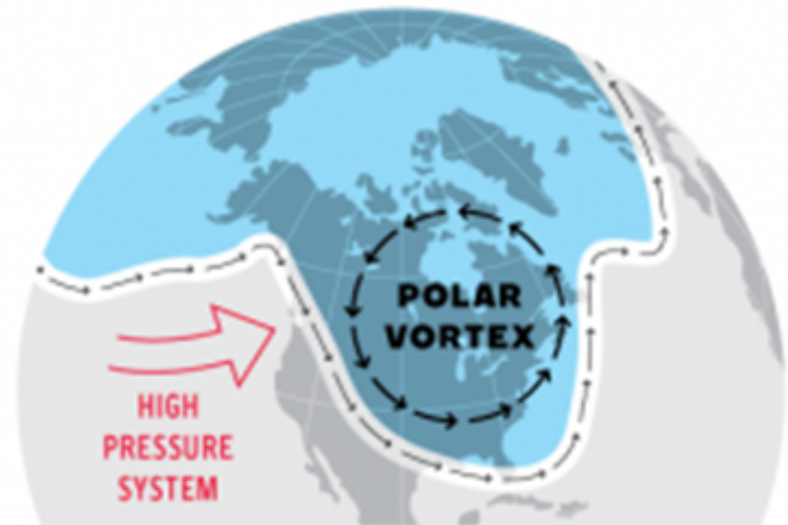
THE POLAR VORTEX HOW IT IS AFFECTING THE WEATHER IN THE US

The polar vortex is cold dense air high in the atmosphere normally centred around the polar region.



USUAL POLAR JET FLOW

The polar vortex is **usually held in place** by the **jet stream**. A strong fast-flowing, narrow air current high above the Earth that divides cold air from warm air.



THIS WEEK'S POLAR JET FLOW

In the US this week a **high pressure system** from the west **has pushed** the polar vortex **much further south** than normal. This has brought temperatures crashing down to -50C wind chill.

Bitter Cold

-55°C

Global
NEWS



SG 三立新聞 HD

新

美F16戰機墜毀
台飛行學員恐罹難

花蓮降雪點預測
合歡山松雪樓

中國大陸

全球暴冷急凍

東北部氣溫都偏低，

打工踩抹布挨揍

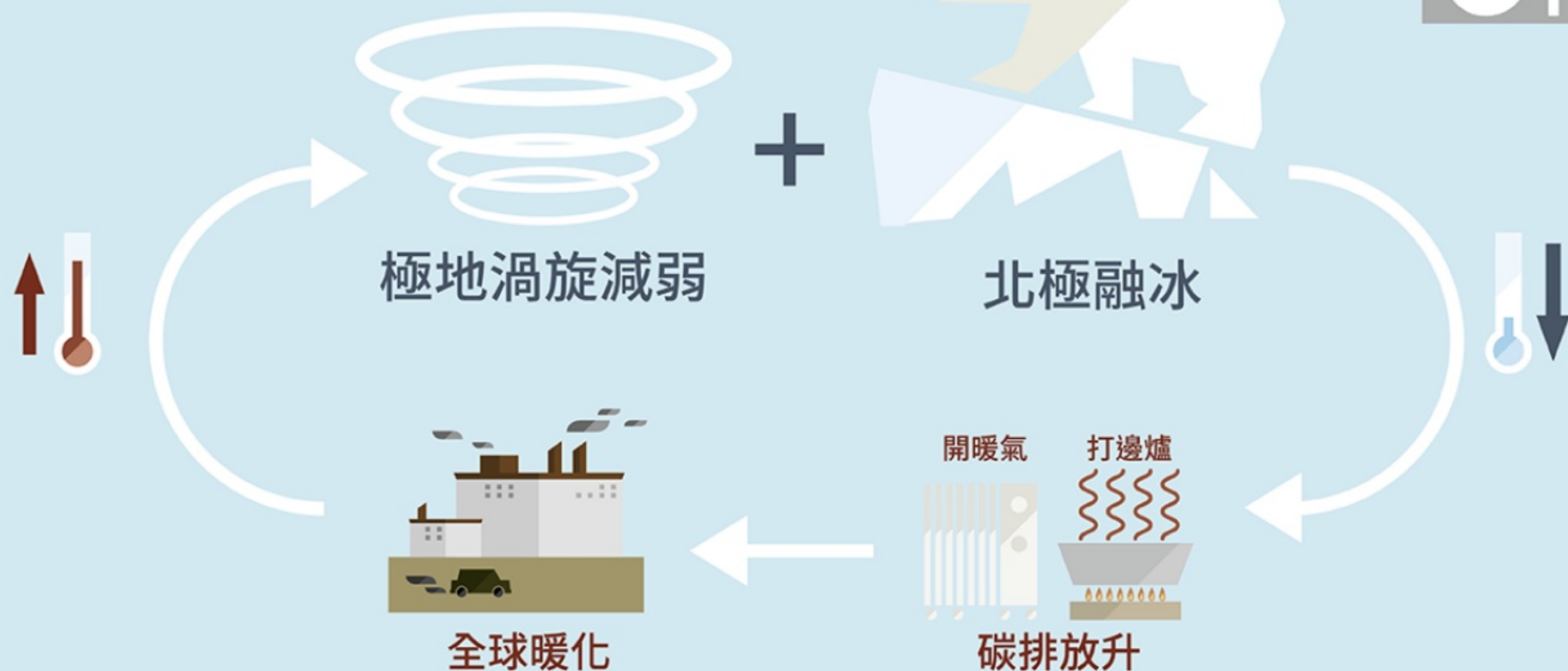
冰封內蒙古！零下47.8度破入冬紀錄

12:53:39

貿易卡關

我國貿易競爭力連4年下滑 成A段班吊車尾

香港點解會咁凍？



BUT the fact remains.....

Where Has All the Ice Gone?



The Disappearing Arctic Sea Ice.....



Arctic Sea Ice



1984

6.70 million square kilometers
(2.59 million square miles)

Alaska
(U.S.A)

Canada



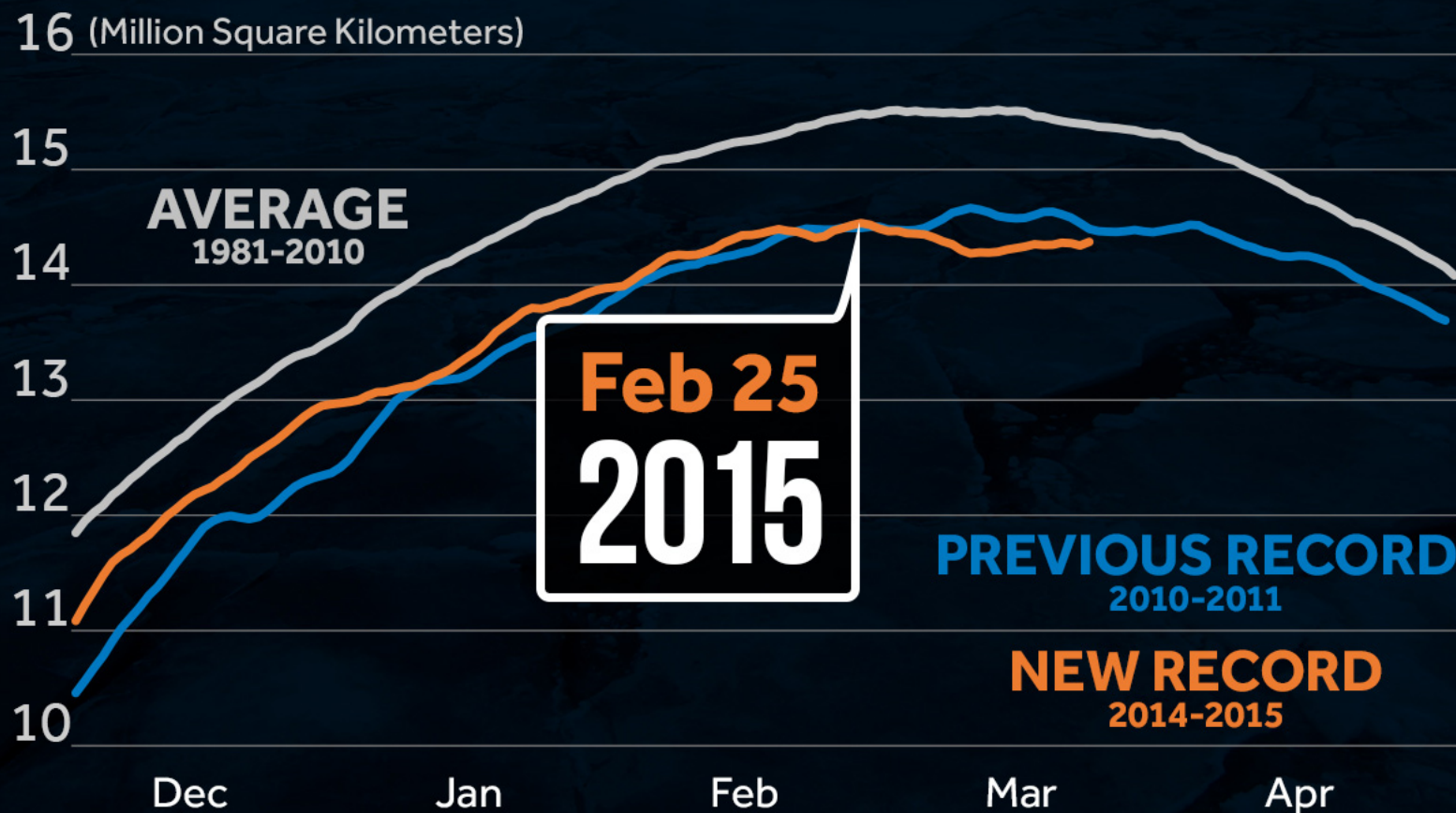
2012

3.41 million square kilometers
(1.32 million square miles)

Alaska
(U.S.A)

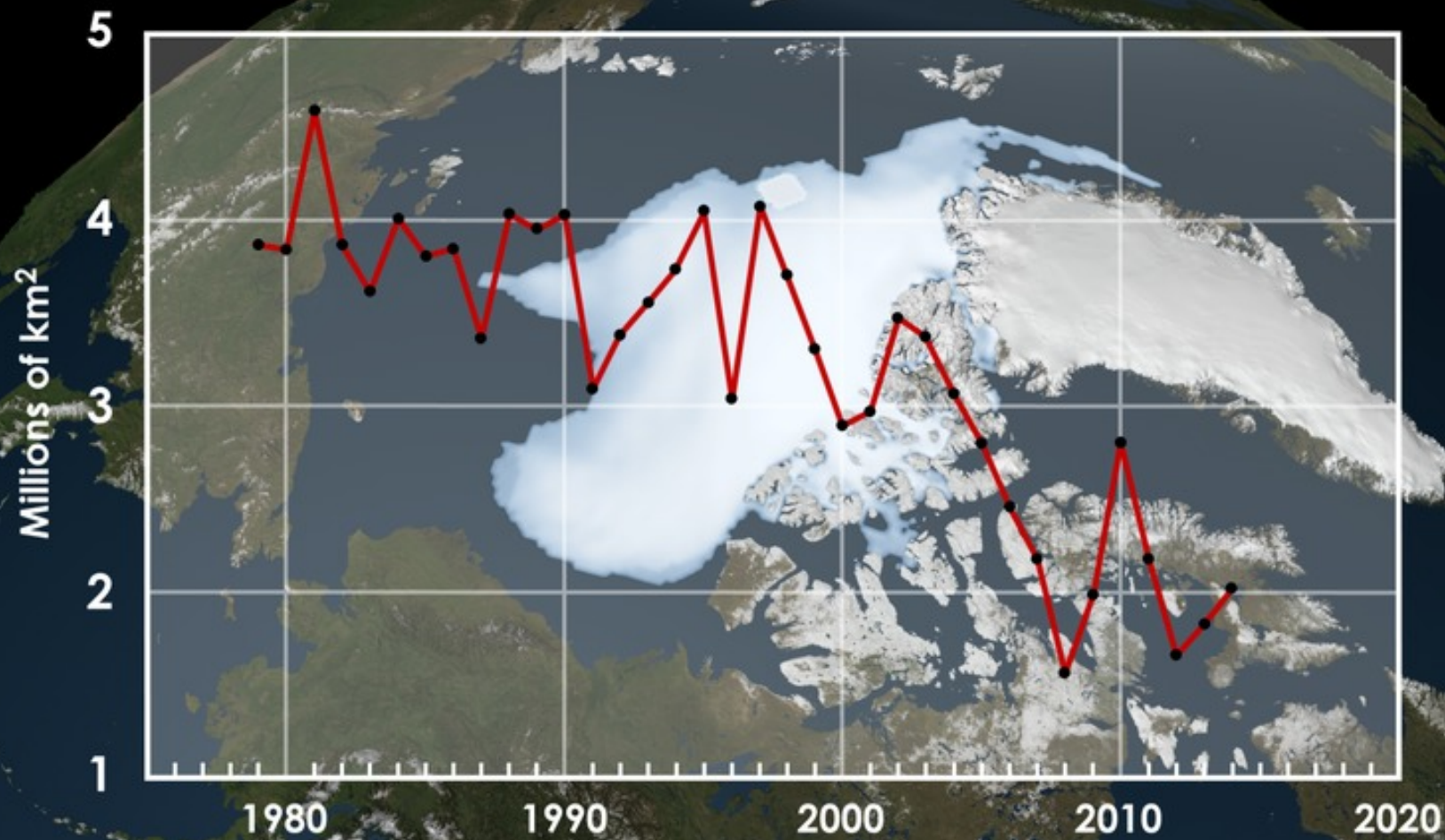
Canada

Arctic Sea Ice: Record Low Maximum



Area of Ocean with at Least 15% Ice.
Source: National Snow and Ice Data Center

Multi-Year Arctic Sea Ice Area



THE DISAPPEARING GLACIERS...



now you see it



photo: William O. Field

now you don't



photo: Bruce F. Molnia

Muir Glacier, Alaska: August 13, 1941 and August 31, 2004



CLIMATE 365

climate365.tumblr.com | go.nasa.gov/climate365

A photograph of the Columbia Glacier in Alaska. In the foreground, a blue Eiffel Tower graphic is placed on a rocky outcrop. To its left, a red vertical line with horizontal caps at the top and bottom indicates a height. The background features a massive glacier flowing through a dark, rocky canyon, with snow-capped mountains in the distance under a blue sky with some clouds.

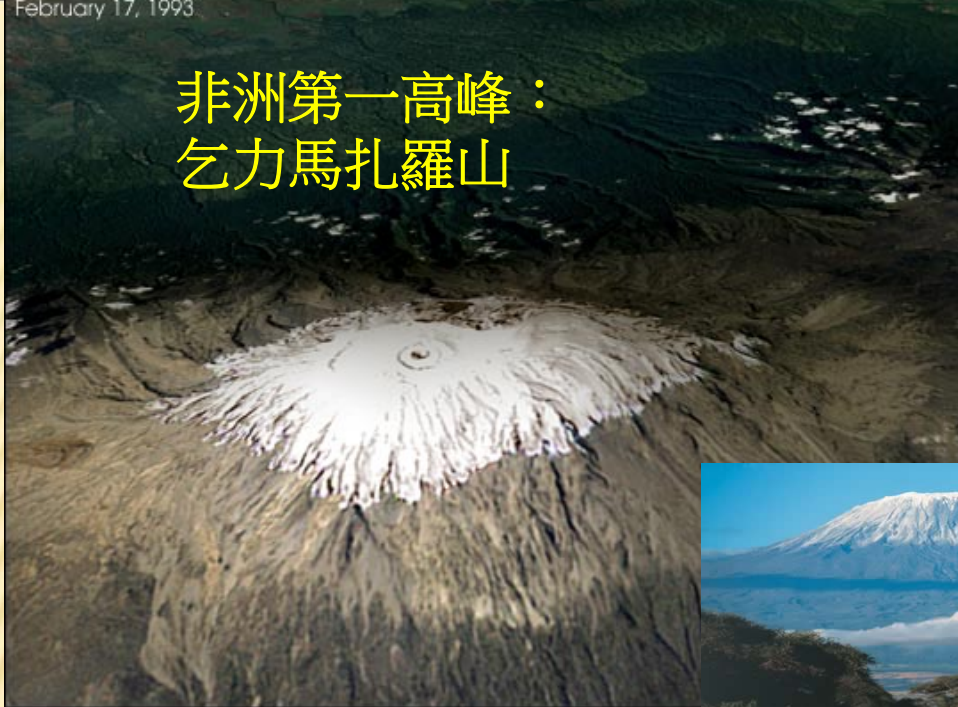
1,300 feet
400 meters

Columbia Glacier, Alaska

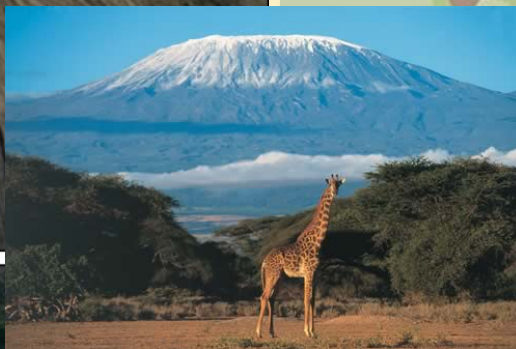


February 17, 1993

非洲第一高峰： 乞力馬扎羅山

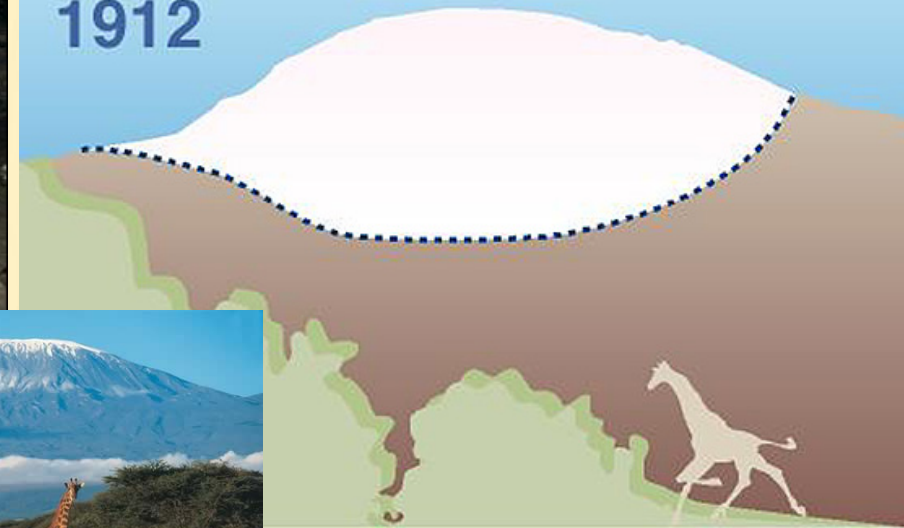


February 21, 2000



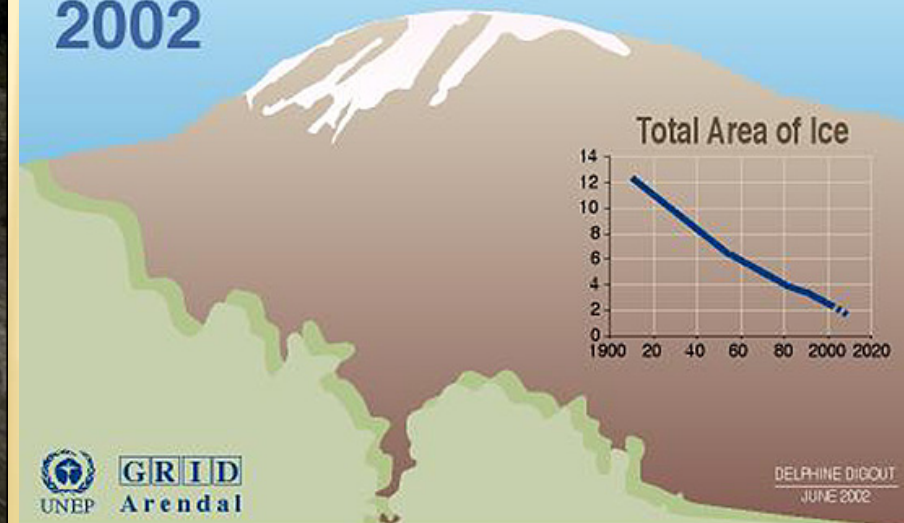
The Melting Snows of Kilimanjaro

1912



Glaciers
Ice --- Estimated line

2002



Sources: Meeting of the American Association for the Advancement of Science (AAAS), February 2001 ; Earthobservatory.nasa.gov.

The unexpected rapid melting of Greenland ice-cover

Greenland Surface Melt

1992



2002



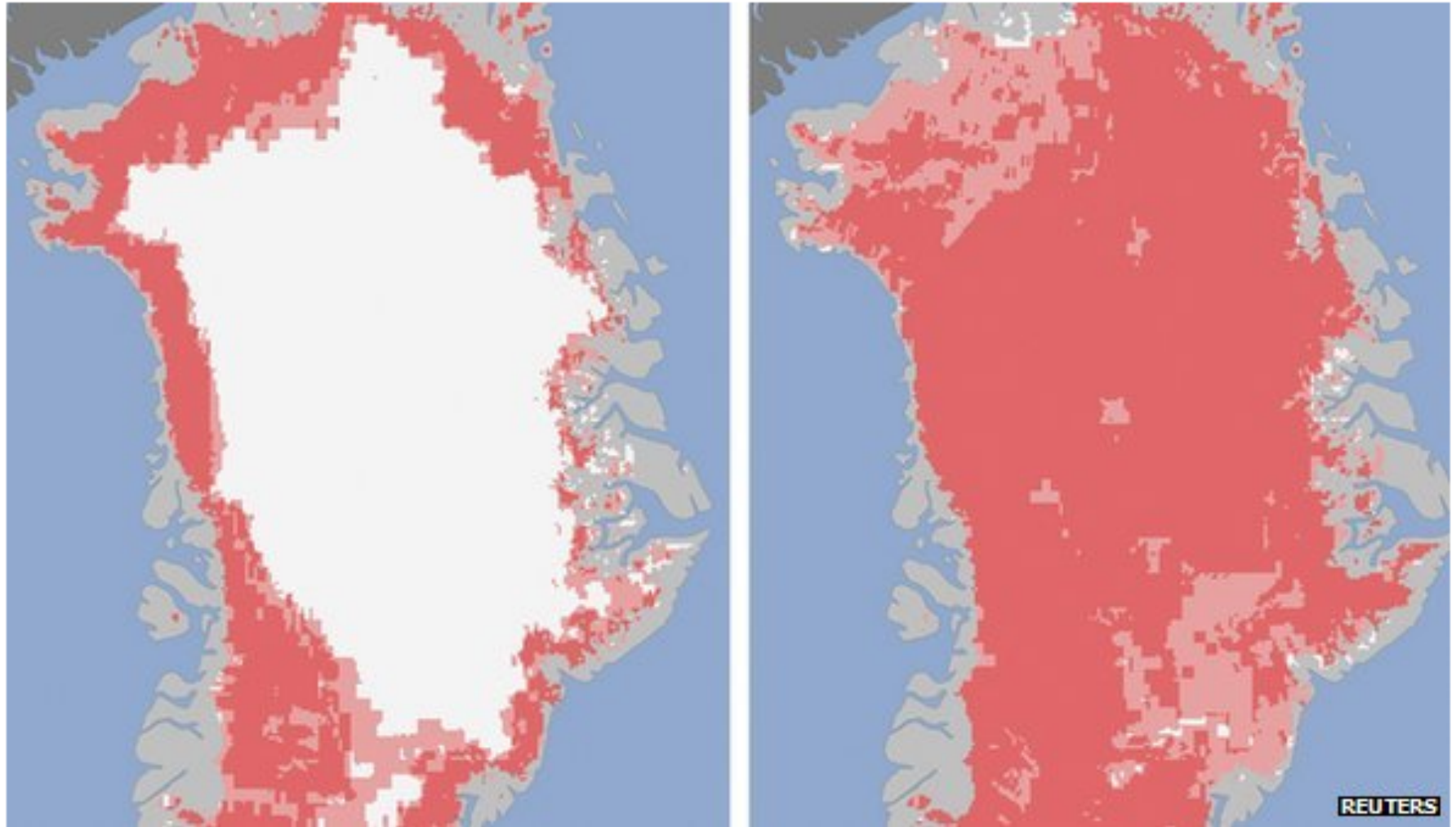
2005



Source: ADIA, 2004 and CRES, 2005;

Satellites reveal sudden Greenland ice melt

COMMENTS (720)



The first image shows Greenland's ice sheet on 8 July, the second, taken four days later, shows the

If all the ice over Greenland melts, the
global sea-level will rise
by 7 meters!

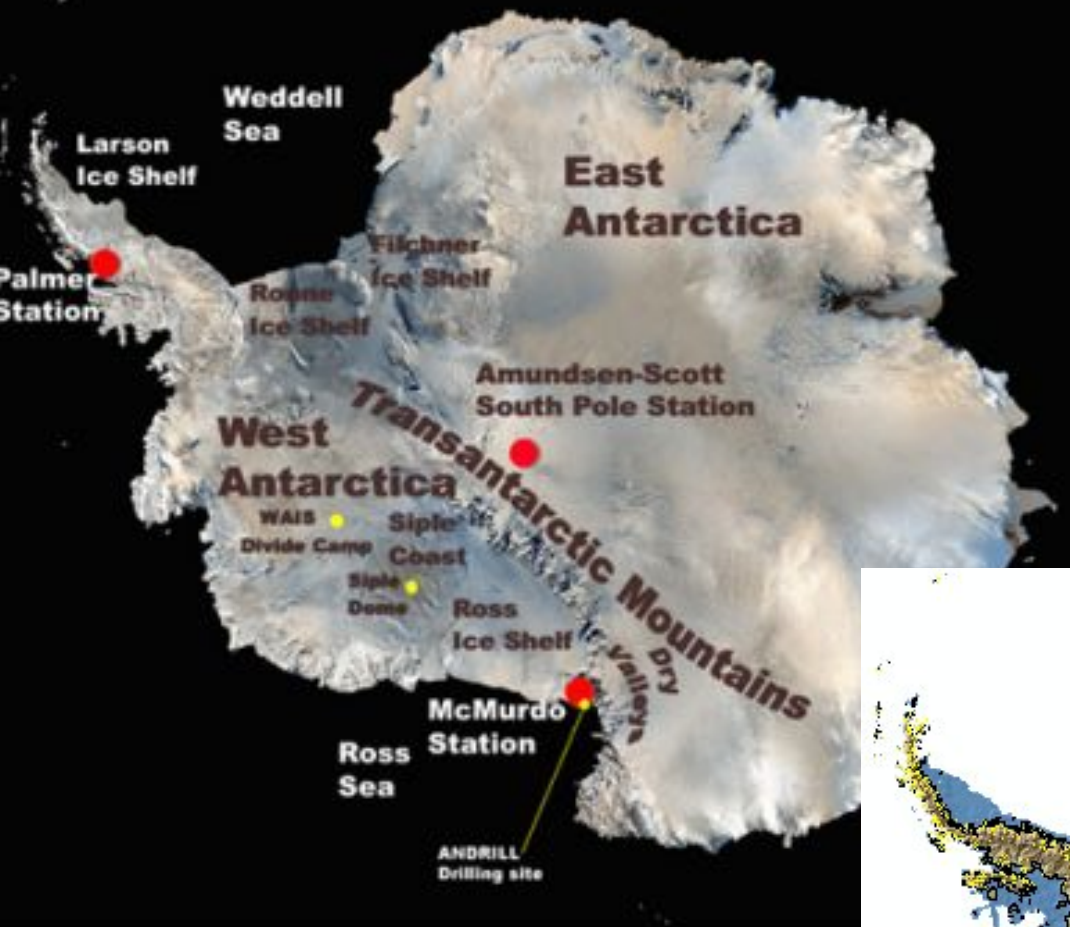


IMPOSSIBLE?

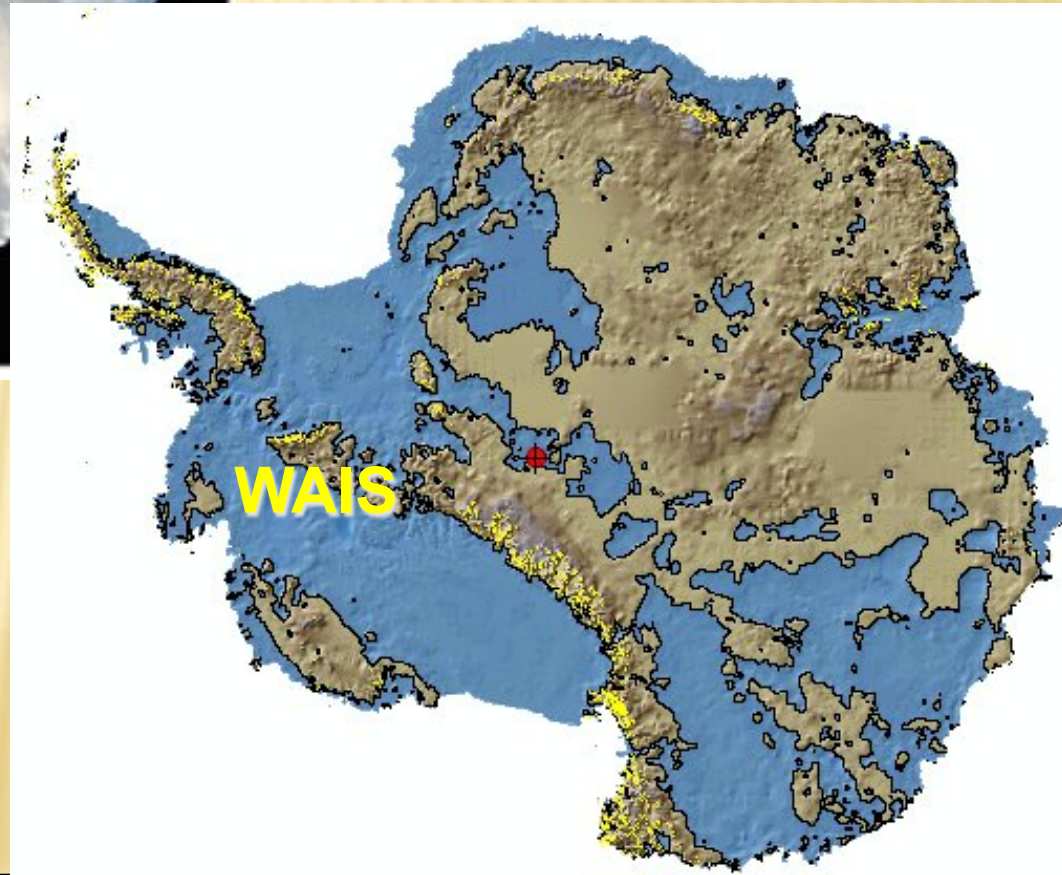








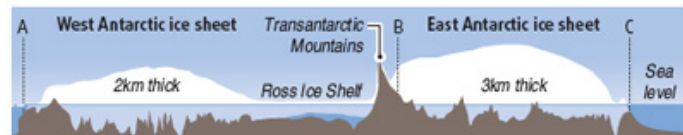
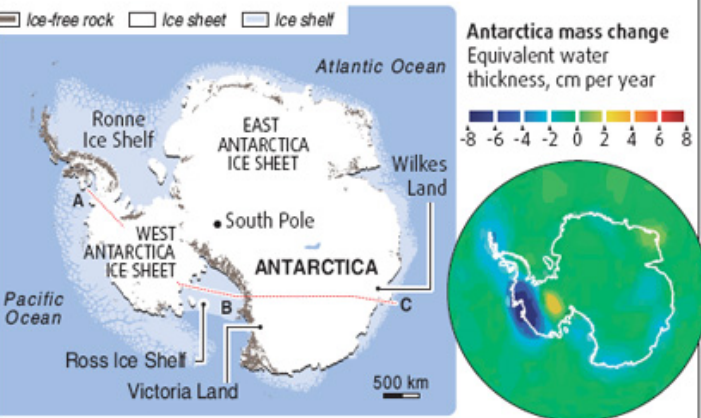
But dwarfing
Greenland
is...



Antarctica!

ANTARCTICA ICE LOSS

East Antarctica's ice started to melt faster from 2006, which could cause sea levels to rise sooner than anticipated, according to a study by scientists at the University of Texas

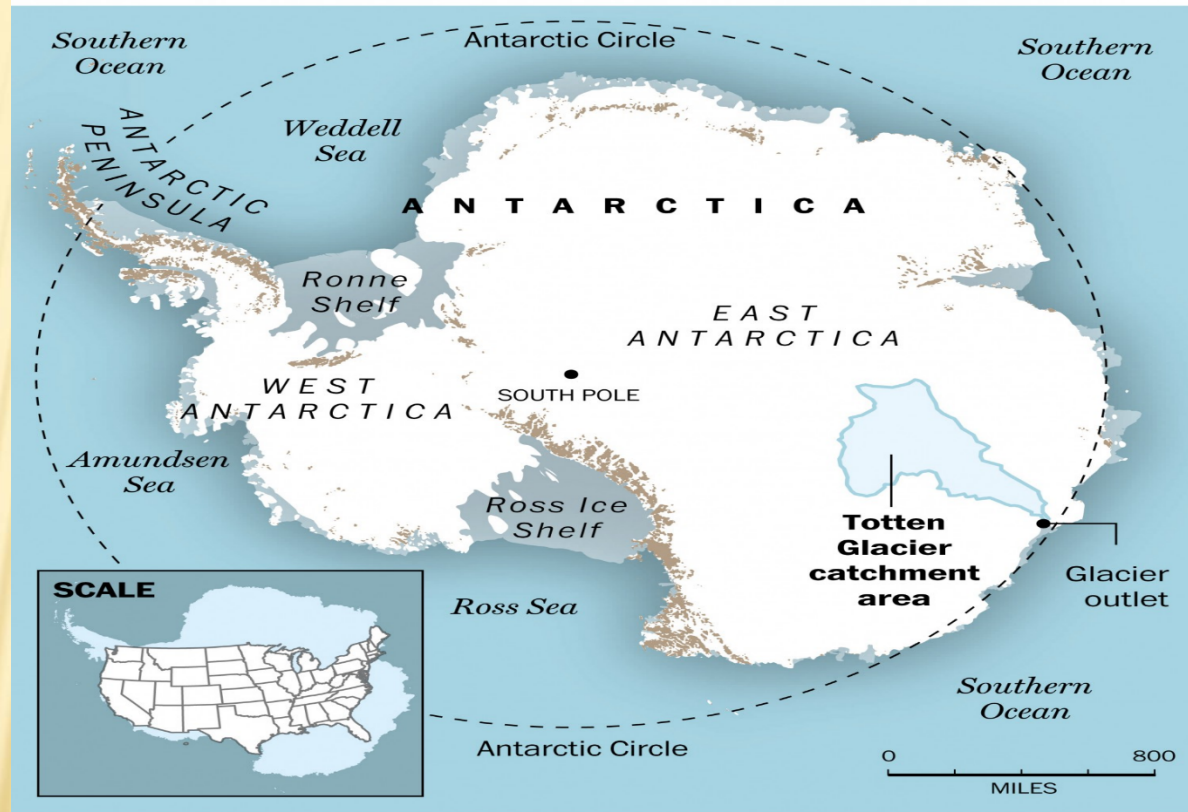


Sources: British Antarctica Survey, ANDRILL, Nature GeoScience

China Daily / Reuters

What's happening to this ice sheet?

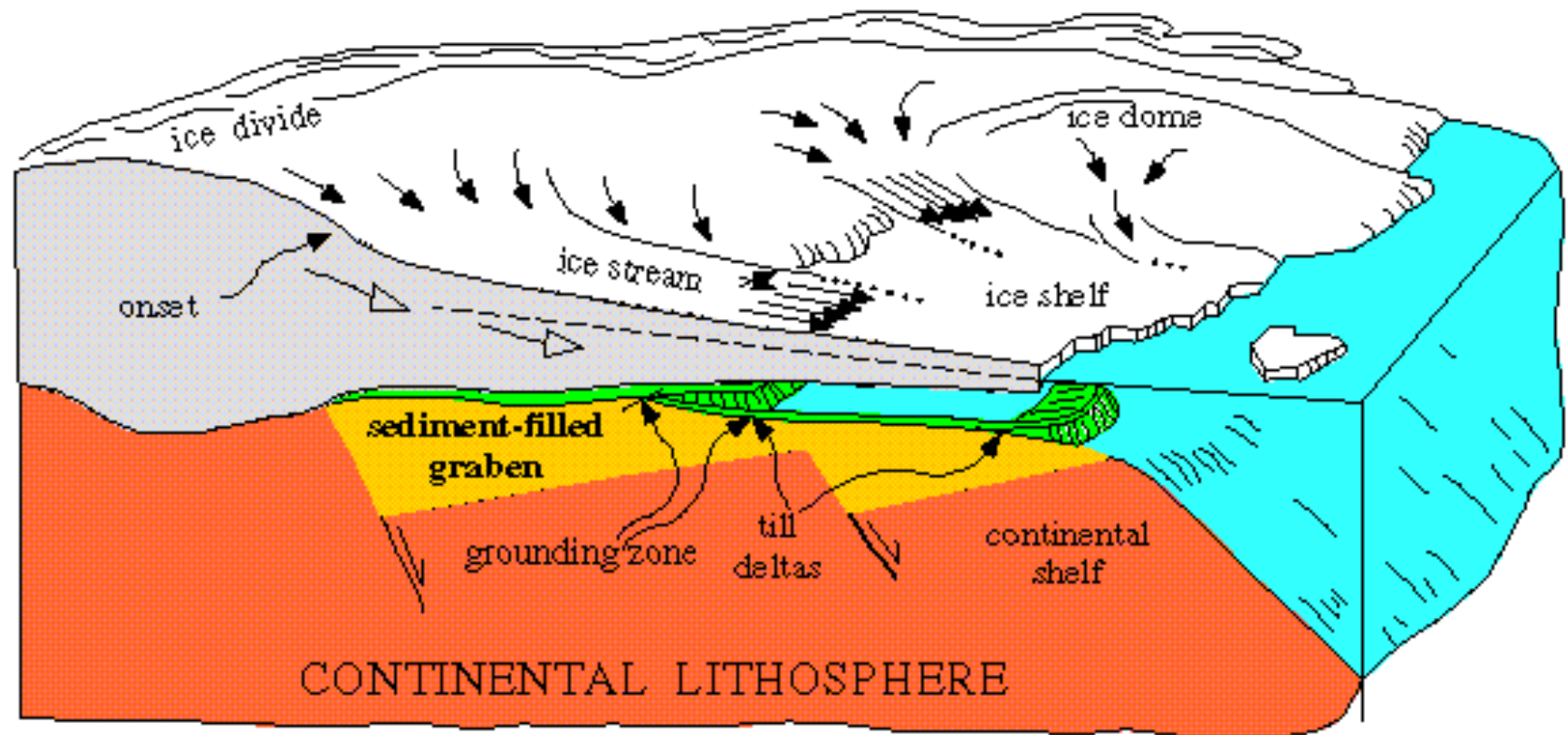
The Totten Glacier is melting fast. That is a problem because the glacier holds back a vast catchment of ice. If its more vulnerable portions were to flow into the ocean, it could produce a sea-level rise of more than 11 feet.



SOURCE: NATURE GEOSCIENCE

THE WASHINGTON POST

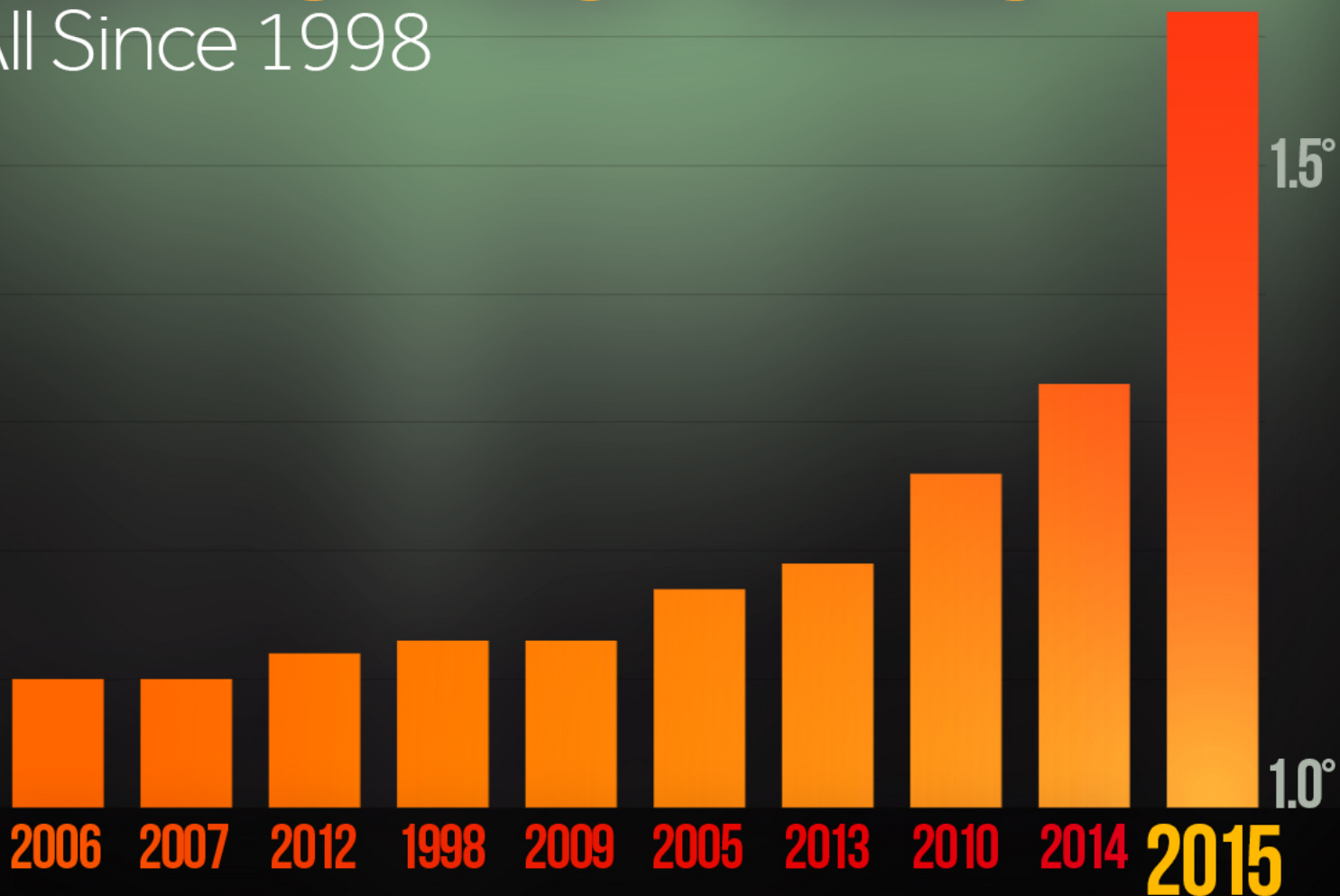
WEST ANTARCTIC ICE SHEET



If the WAIS melts, it will rise global sea level
by **23 meters!**

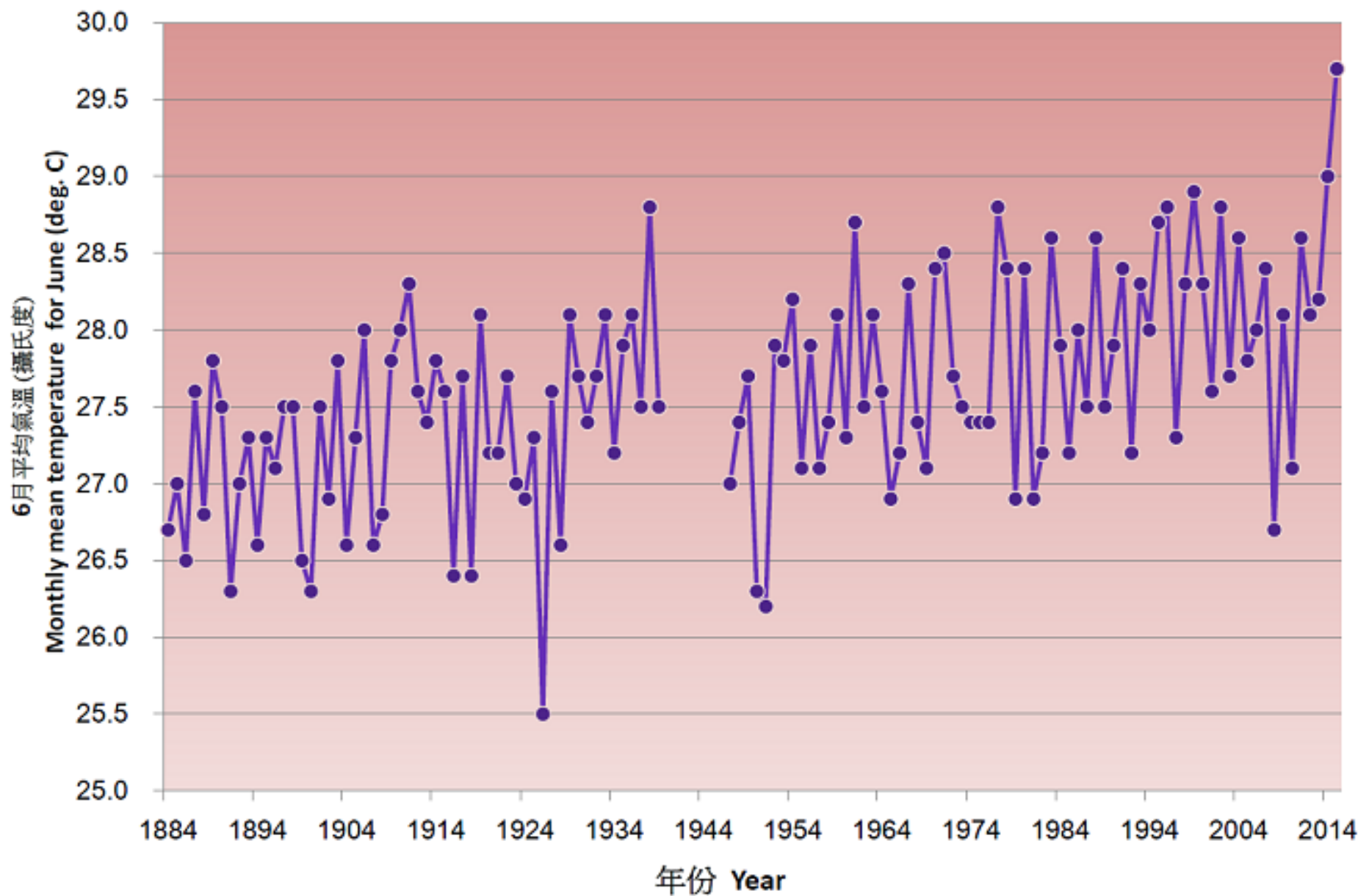
TEN HOTTEST YEARS

All Since 1998



2003 (not shown) tied with 2006, 2007. Columns represent difference from 20th century average.
Data as of January 20, 2016. Subject to change based on NCEI revisions.
Source: NOAA/NCEI

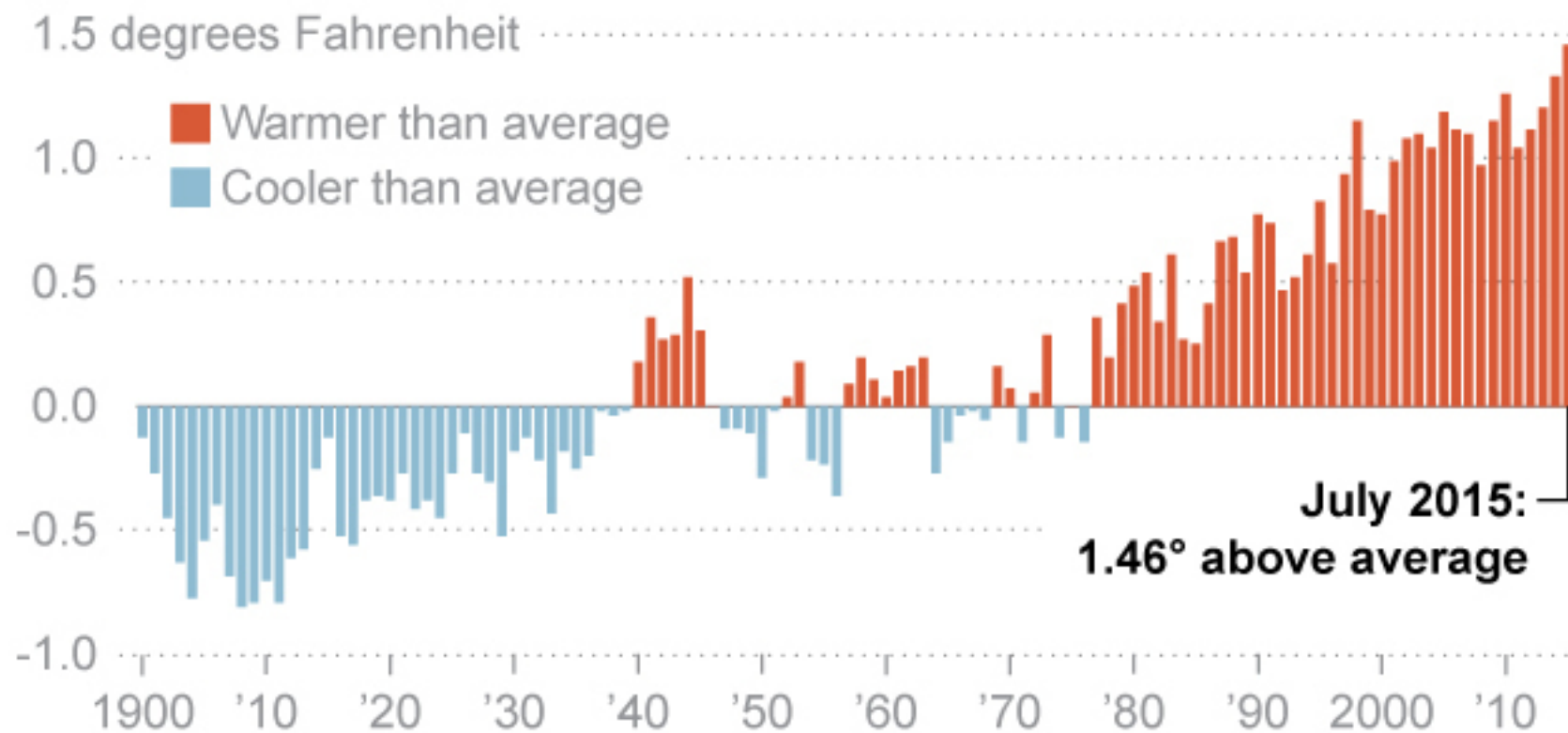
香港六月平均溫度變化 (1884-2015)



Warming trend

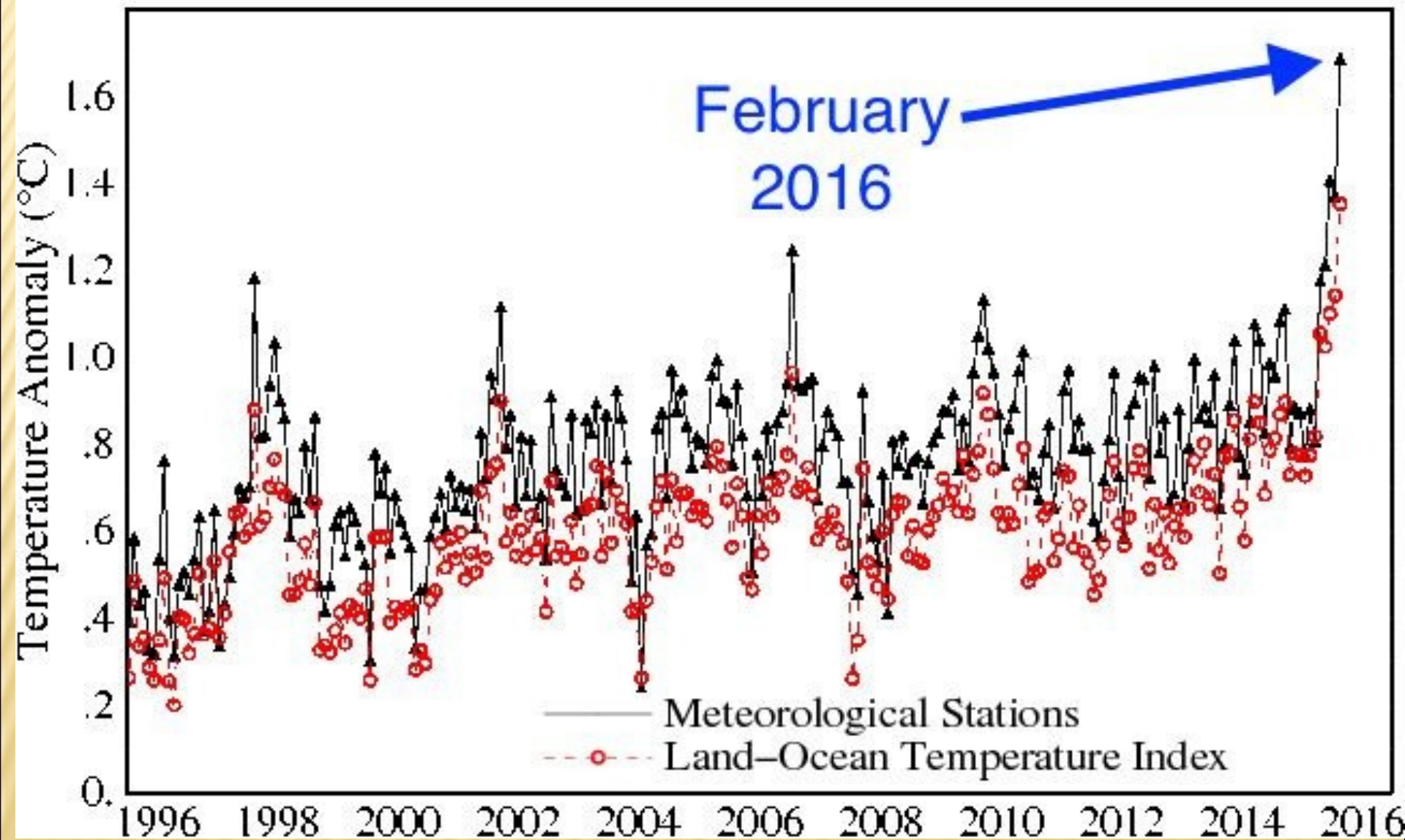
Last month was the hottest July on record, nearly 1.5 degrees above average July temperatures in the 20th century.

July temperatures compared to 20th century global average:



NOTE: July global average temperature in the 20th century was 60.4° F.

Monthly Mean Global Surface Temperature

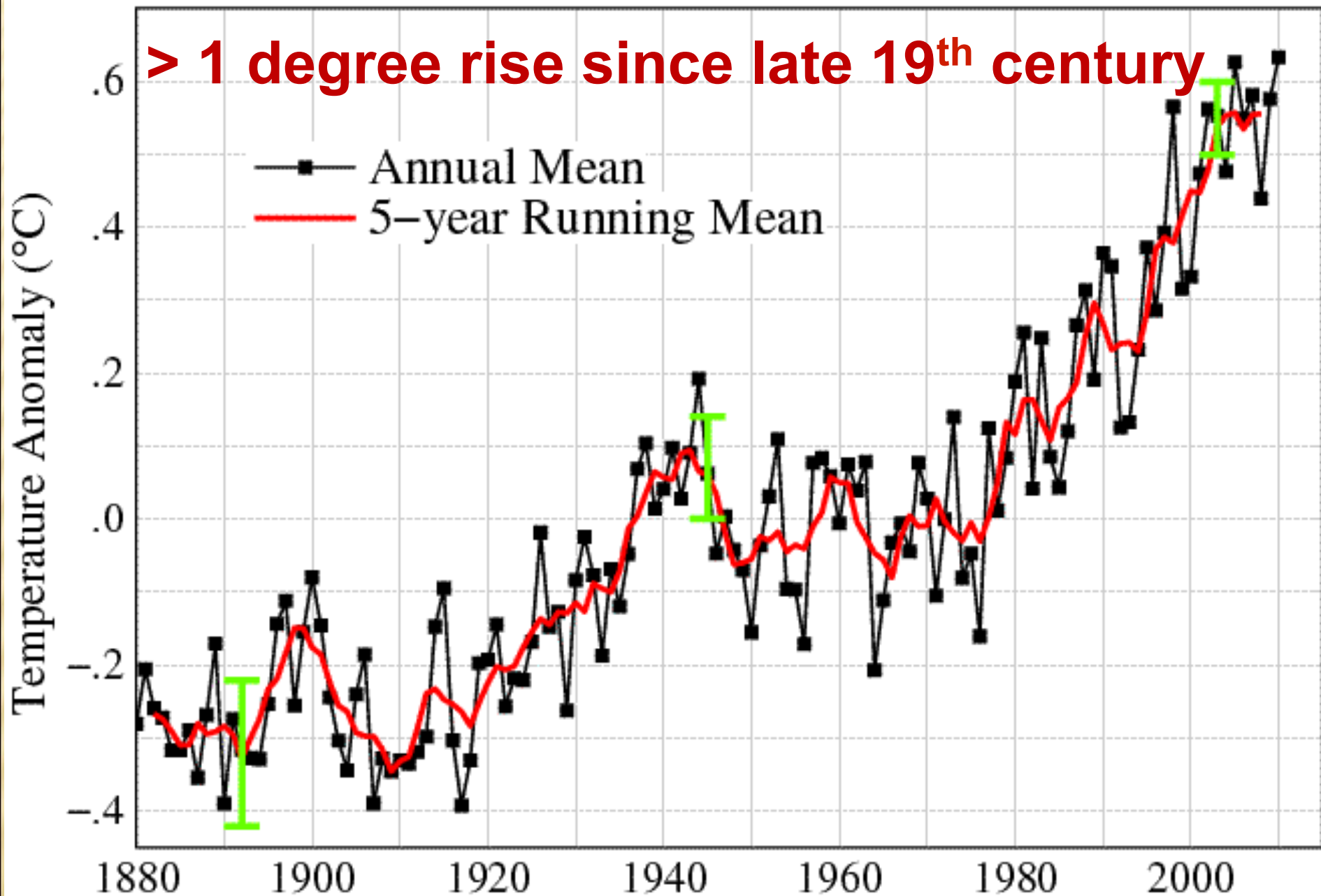


1884~2014年每年寒冷日數變化
(最低溫度在**12度**或以下)：
由廿多天下降至只有十多天

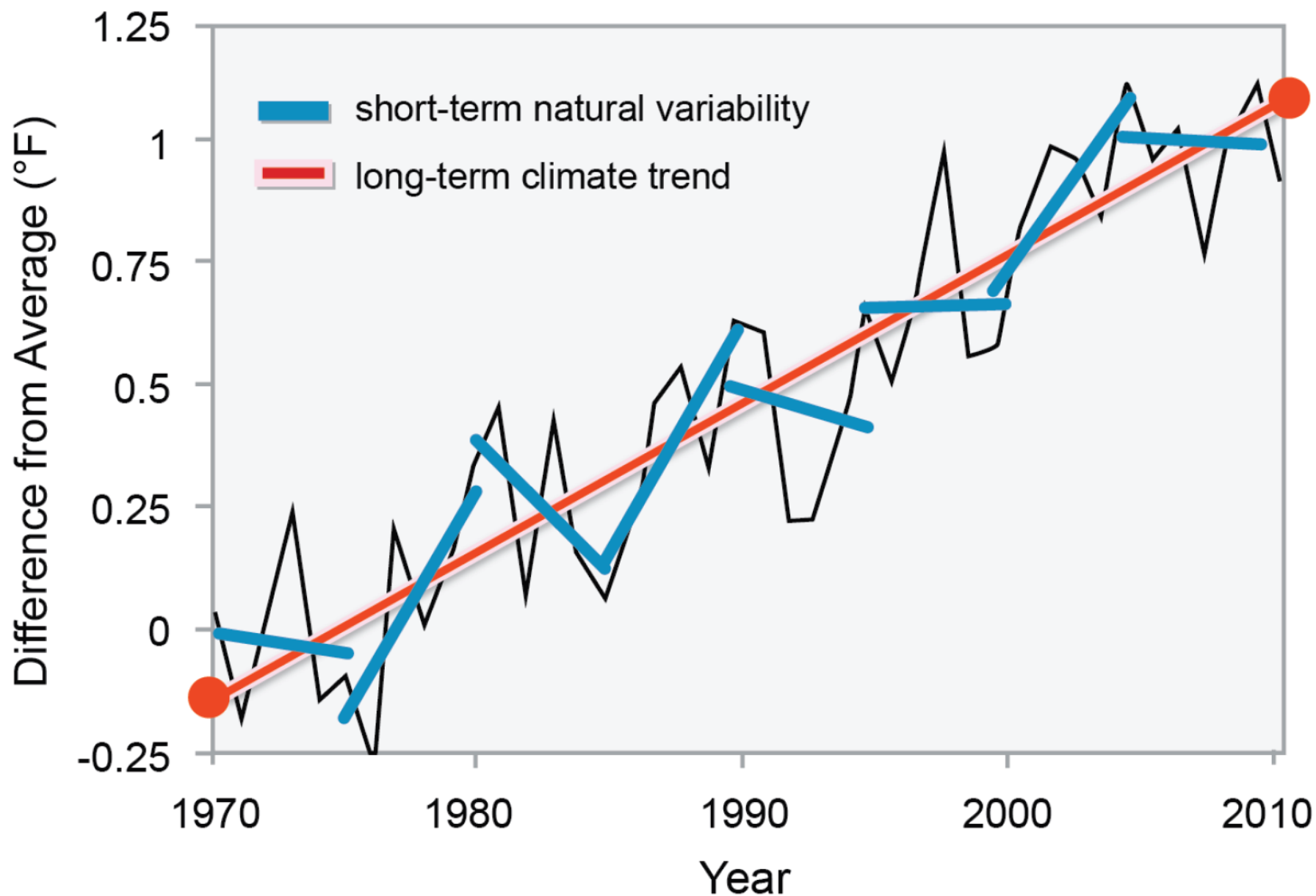
全年總日數(1884 - 2014)
ANNUAL TOTAL NO. OF DAYS (1884 - 2014)



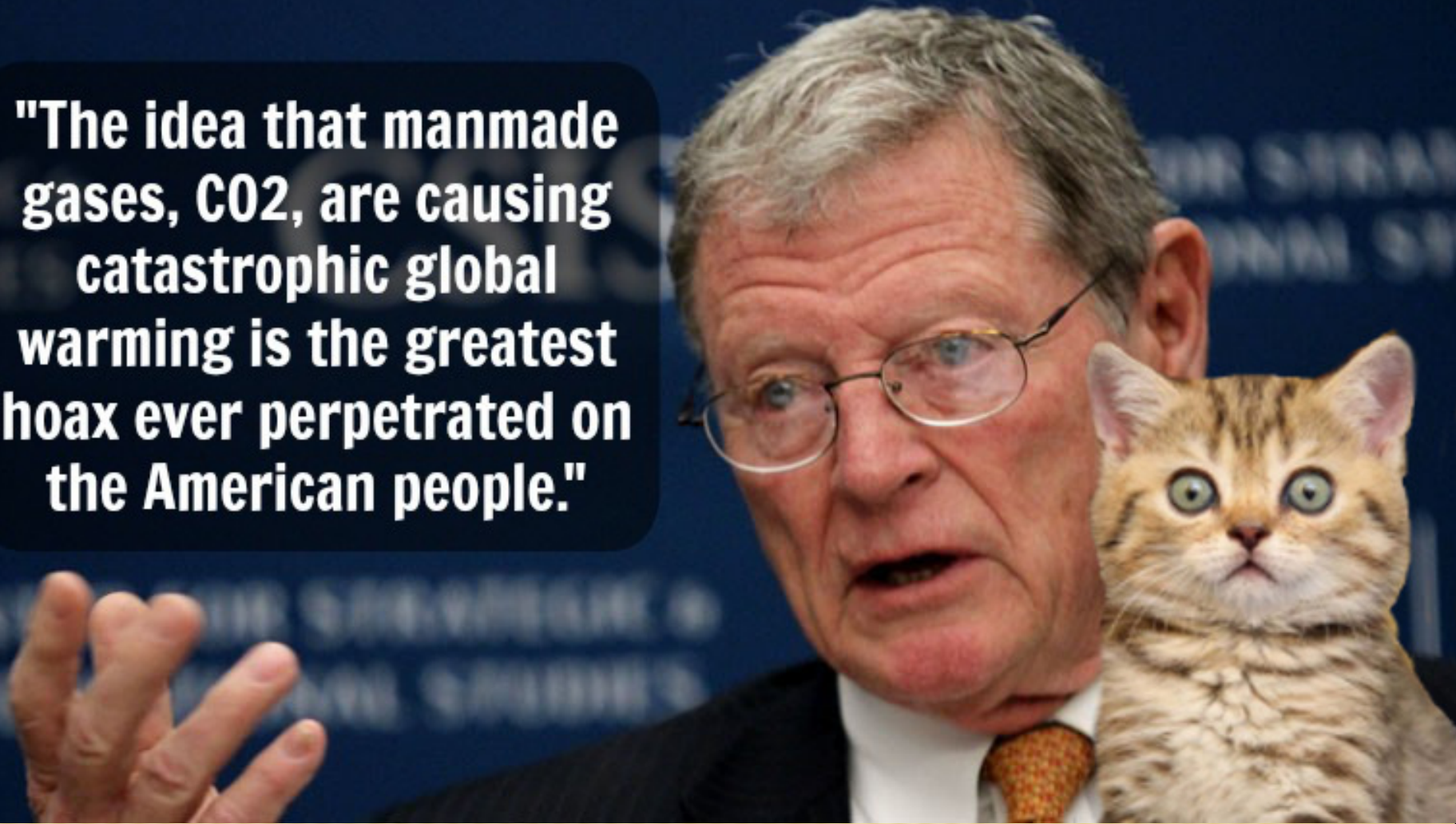
Global Land–Ocean Temperature Index



Short-term Variations Versus Long-term Trend



"The idea that manmade gases, CO₂, are causing catastrophic global warming is the greatest hoax ever perpetrated on the American people."



This is the incoming chairman of the Senate
Committee on Environment and Public Works
SENATOR JAMES INHOFE (R-OK)



HERE ARE HIS THOUGHTS ON CLIMATE CHANGE:

"The claim that global warming is caused by manmade emissions is simply untrue and not based on sound science. CO2 does not actually cause catastrophic disasters. Actually, it would be beneficial to our environment and the economy."

"With all the hysteria, all the fear, all the phony science, could it be that manmade global warming is the greatest hoax ever perpetrated on the American people? I believe it is."

"God's still up there. The arrogance of people to think that we, human beings, would be able to change what He is doing in the climate is to me outrageous."

"To my knowledge, nobody has uttered the term 'global warming' since 2009. It's been completely refuted in most areas."

"Thus far, no one has seriously demonstrated any scientific proof that increased global temperatures would lead to the catastrophes predicted by alarmists."

Gallup Poll: 42% Of Americans Feel The Media Exaggerates Global Warming

FILE IT UP 31

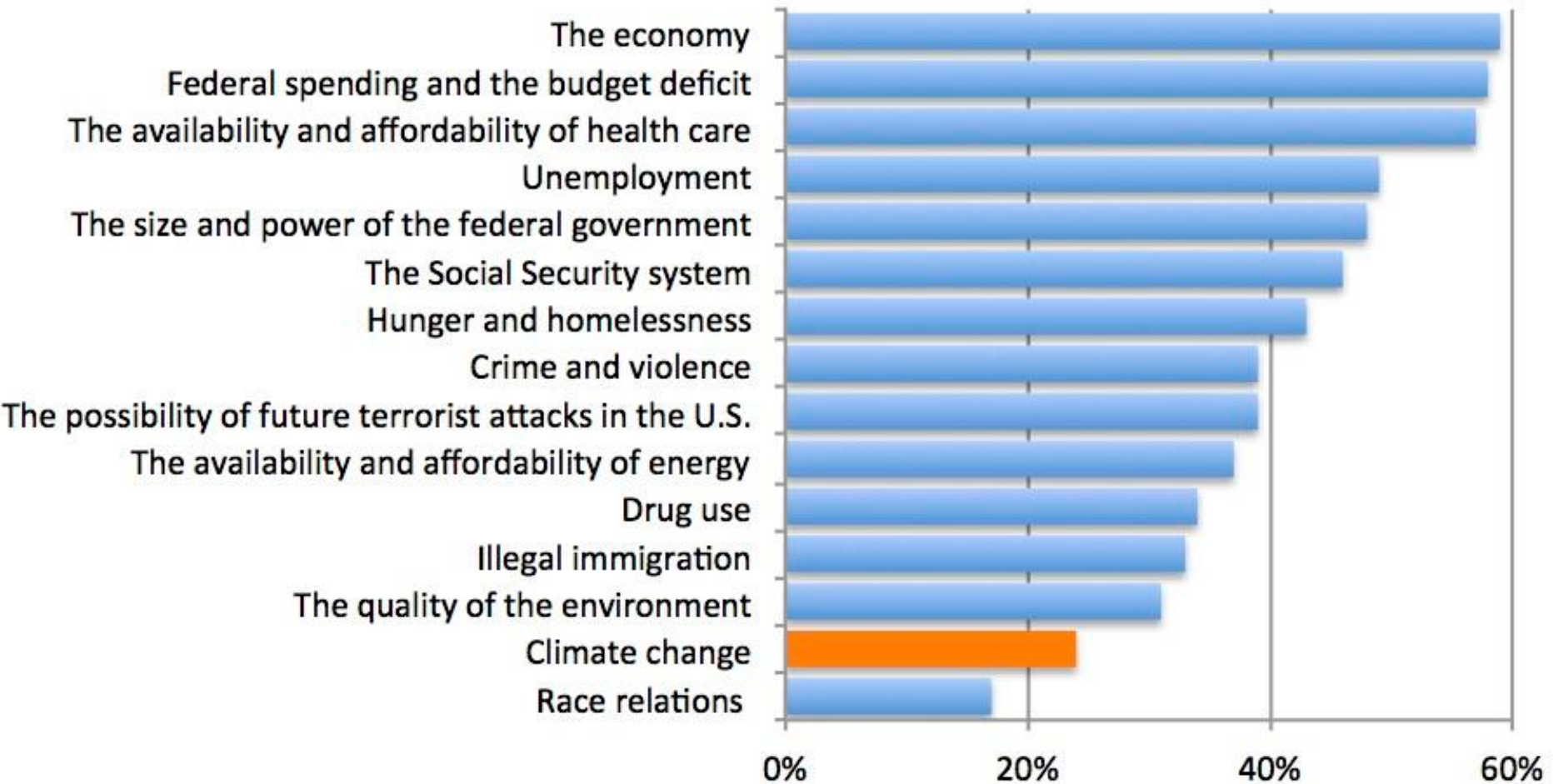
 **Tweet** 28

 **Recommend** 753

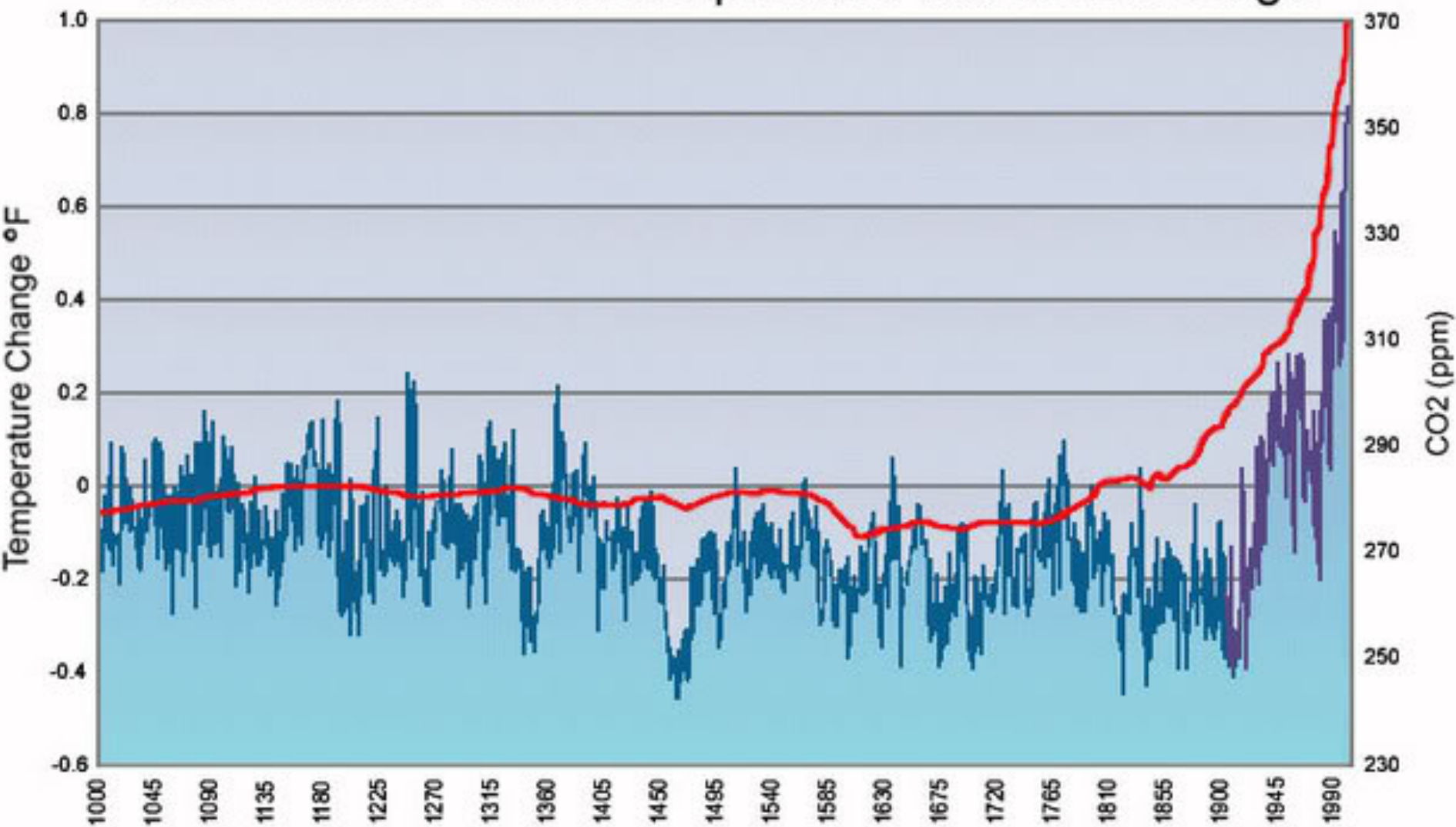
SHARE 



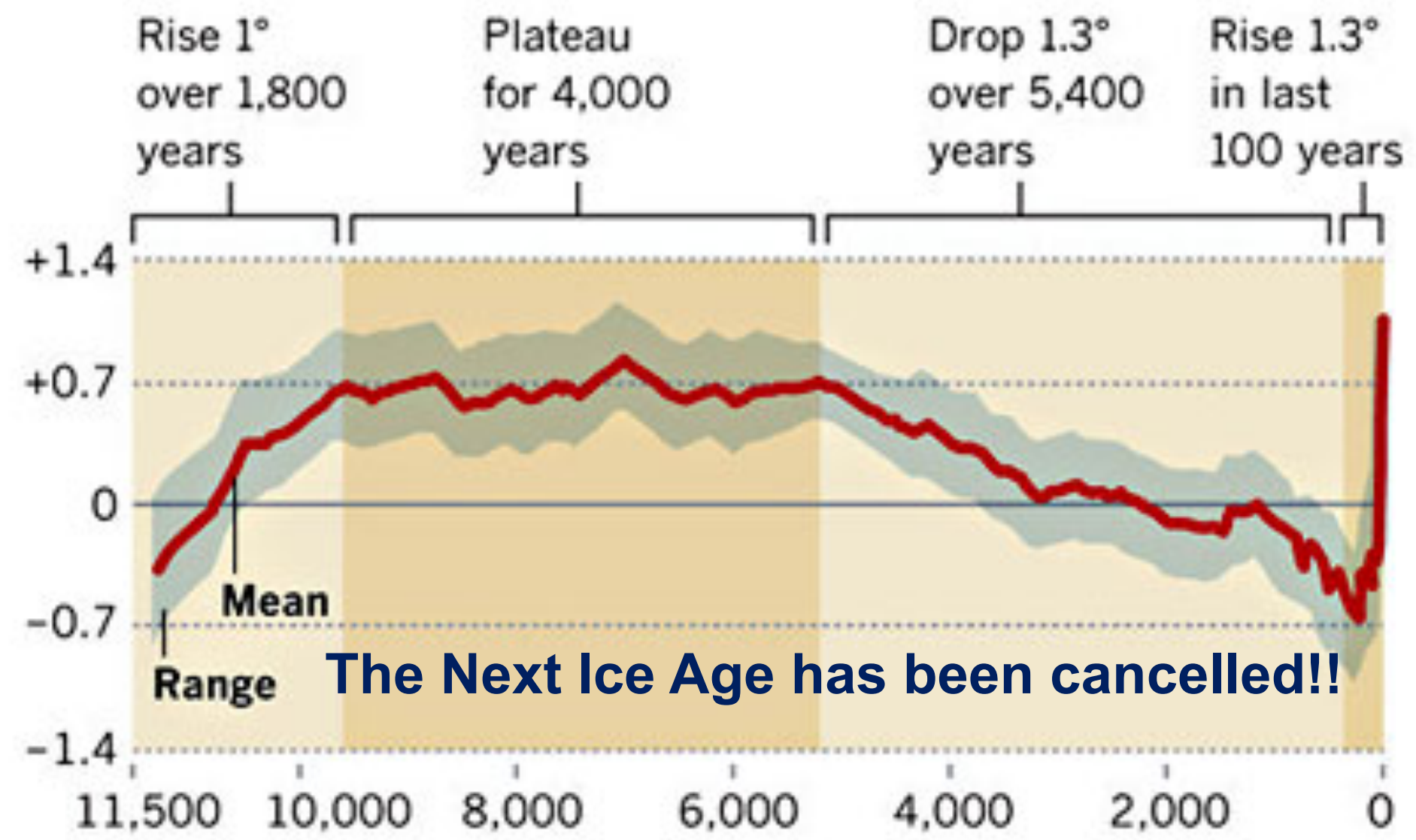
Problems US Worry Great Deal About, 2014



1000 Years of Global Temperature and CO2 Change



Change in global temperatures (in degrees Fahrenheit):

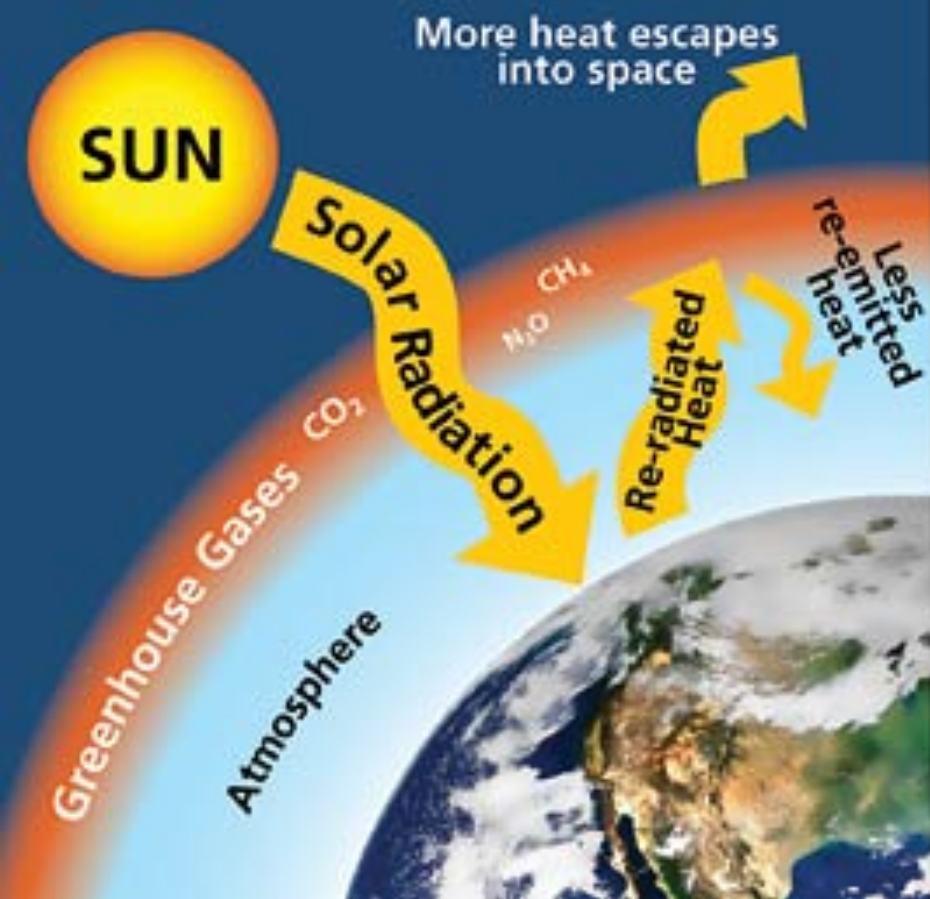


The Next Ice Age has been cancelled!!

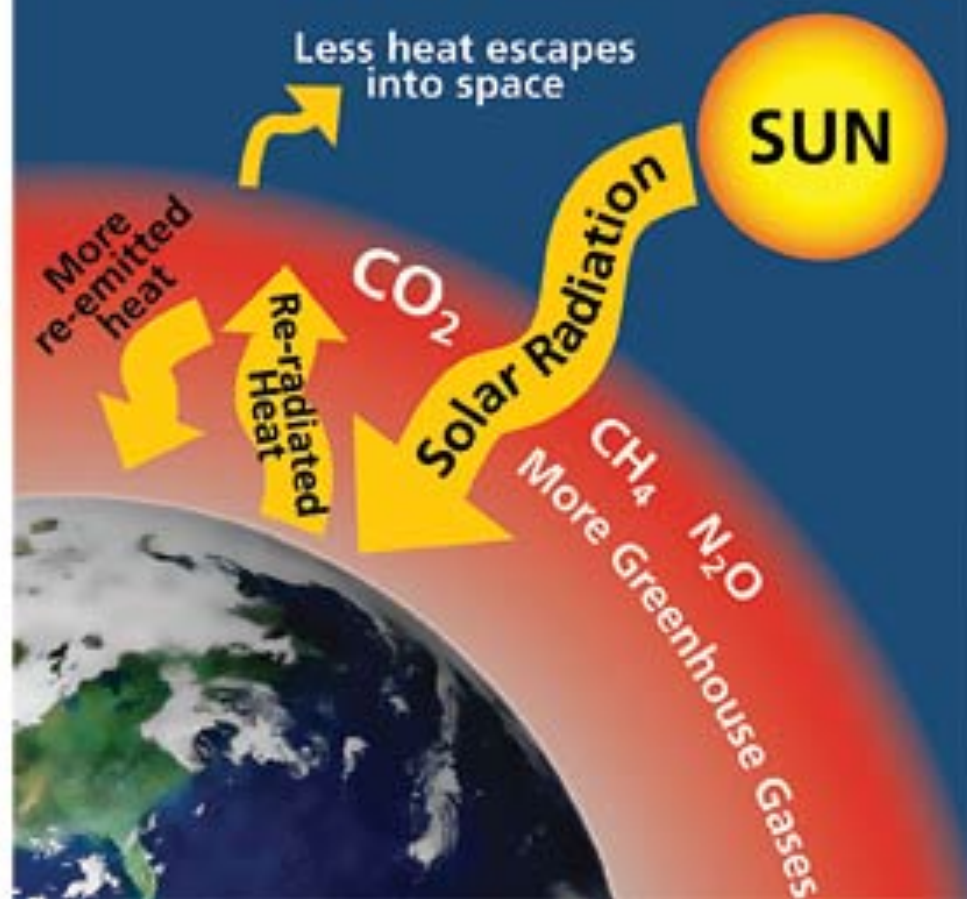
The Driving Force of Global Warming:

**Human-Enhanced
Greenhouse Effect**

Natural Greenhouse Effect



Human Enhanced Greenhouse Effect



-18 C → +14 C

+14 C → +15 C → +16 C →

Carbon Dioxide on the Rise

Carbon Dioxide (ppm)

400

The Keeling Curve

390
380
370
360
350
340
330
320
310

1958

1968

1978

1988

1998

2008

2015

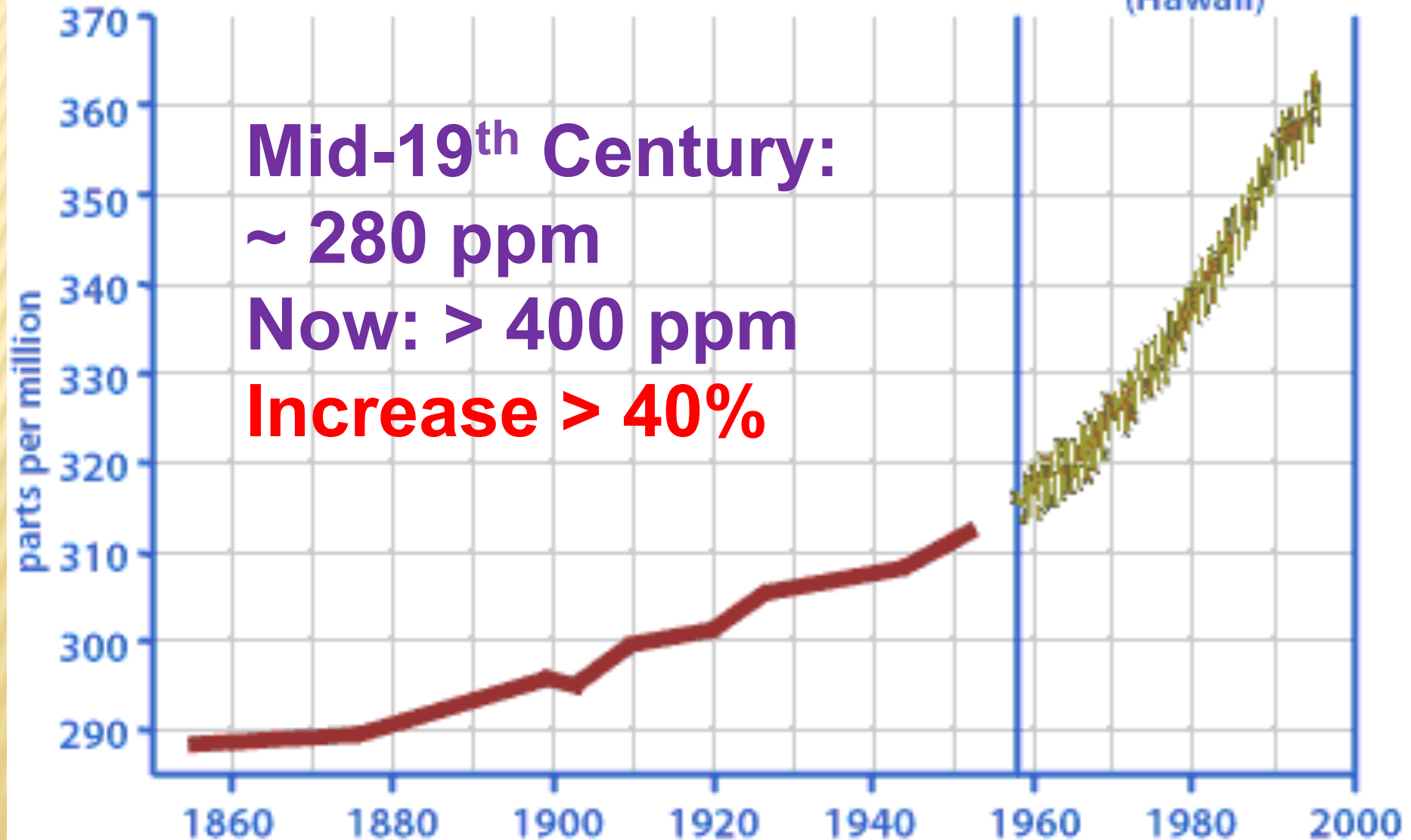
Source: Scripps Institution of Oceanography, La Jolla, CA

Carbon Dioxide Concentrations

Ice Core Data

Mauna Loa
(Hawaii)

Mid-19th Century:
~ 280 ppm
Now: > 400 ppm
Increase > 40%



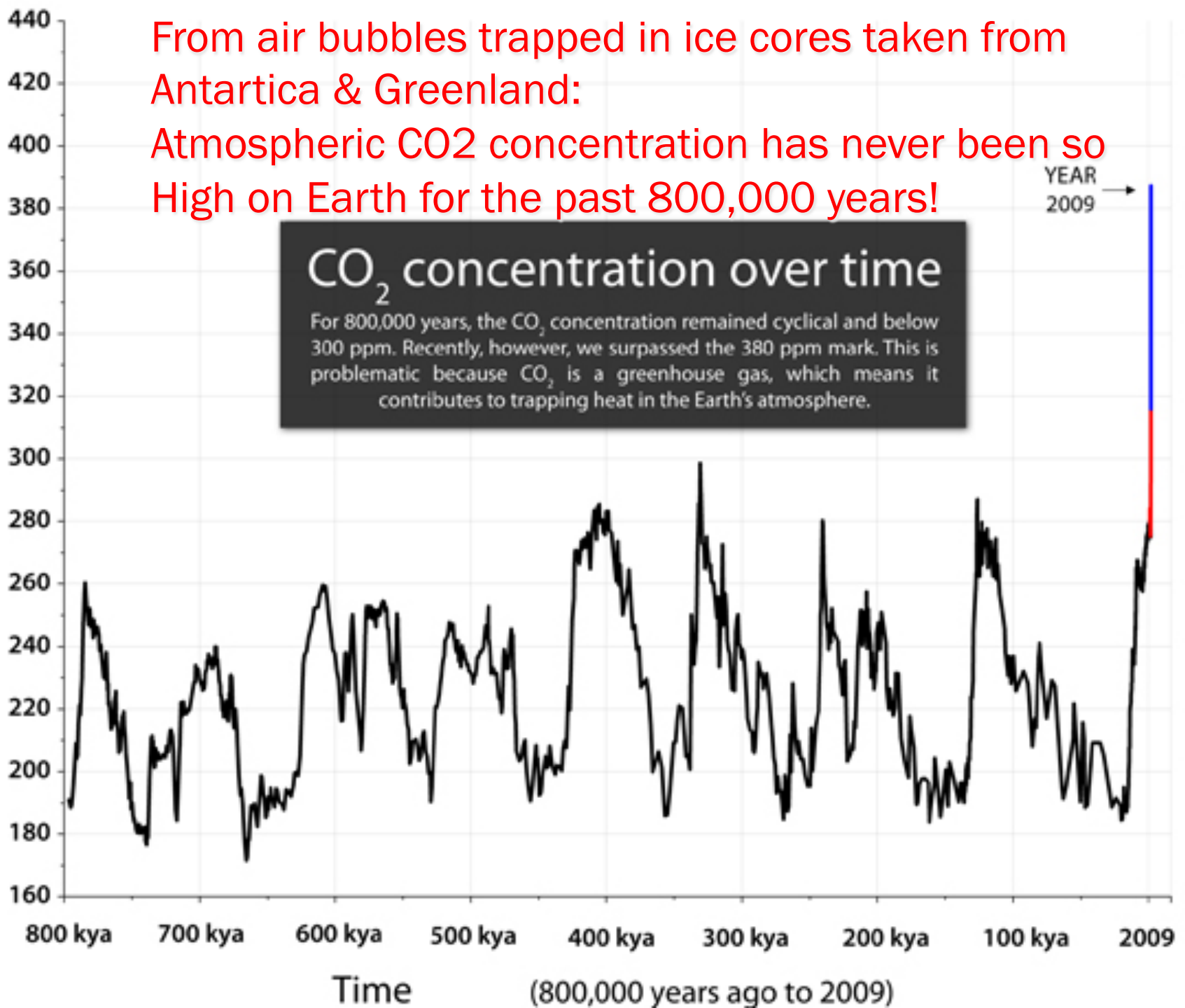
From air bubbles trapped in ice cores taken from
Antartica & Greenland:
Atmospheric CO₂ concentration has never been so
High on Earth for the past 800,000 years!

CO₂ concentration (ppm)

YEAR
2009 →

CO₂ concentration over time

For 800,000 years, the CO₂ concentration remained cyclical and below 300 ppm. Recently, however, we surpassed the 380 ppm mark. This is problematic because CO₂ is a greenhouse gas, which means it contributes to trapping heat in the Earth's atmosphere.



4

GLOBAL WARMING AT HIROSHIMA ATOMIC BOMBS PER SECOND

GET THE WIDGET FOR BLOGS

UNDERSTAND THE SCIENCE

USE THE FACEBOOK APP

Our climate is absorbing a lot of heat. When scientists add up all of the heat warming the oceans, land, and atmosphere and melting the ice, they find our climate is accumulating 4 Hiroshima atomic bombs worth of heat every second.

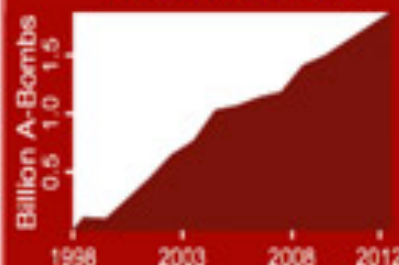
This warming is due to more heat-trapping greenhouse gases in the atmosphere. The burning of fossil fuels means we are emitting billions of tonnes of carbon dioxide every year. This is the main contributor to global warming.

To communicate the sheer amount of heat our planet is accumulating, we have created this widget, embeddable on blogs and also available as a Facebook app. To help get the word out on just how much global warming our planet is experiencing, add the widget to your own blog or use the widget on Facebook, like it and share it.

GET THE WIDGET
FOR YOUR BLOG

USE THE
FACEBOOK APP

Our climate has accumulated
2,037,065,708
Hiroshima atomic bombs
of heat since 1998



<http://sks.to/heat>



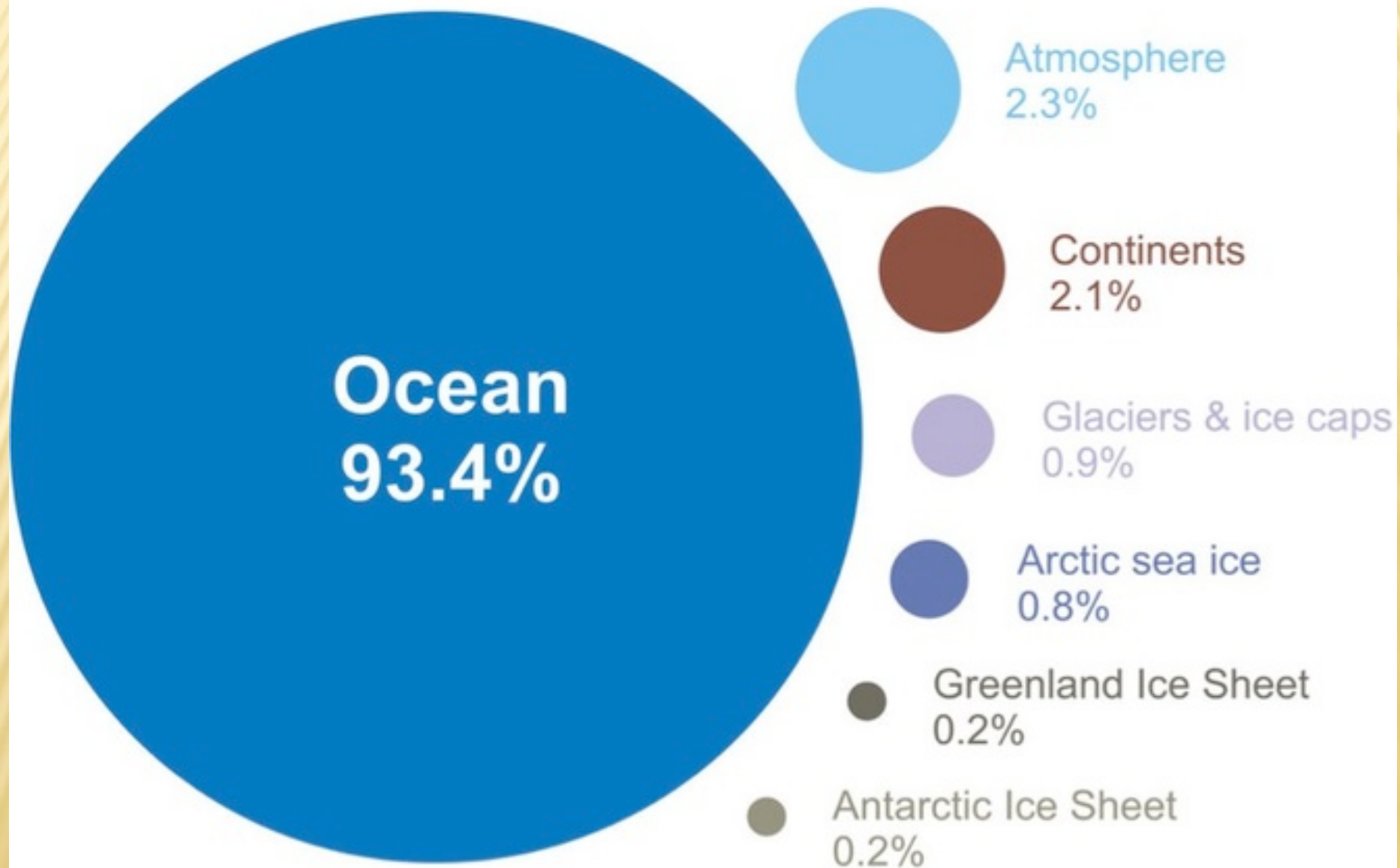
Home

About Us

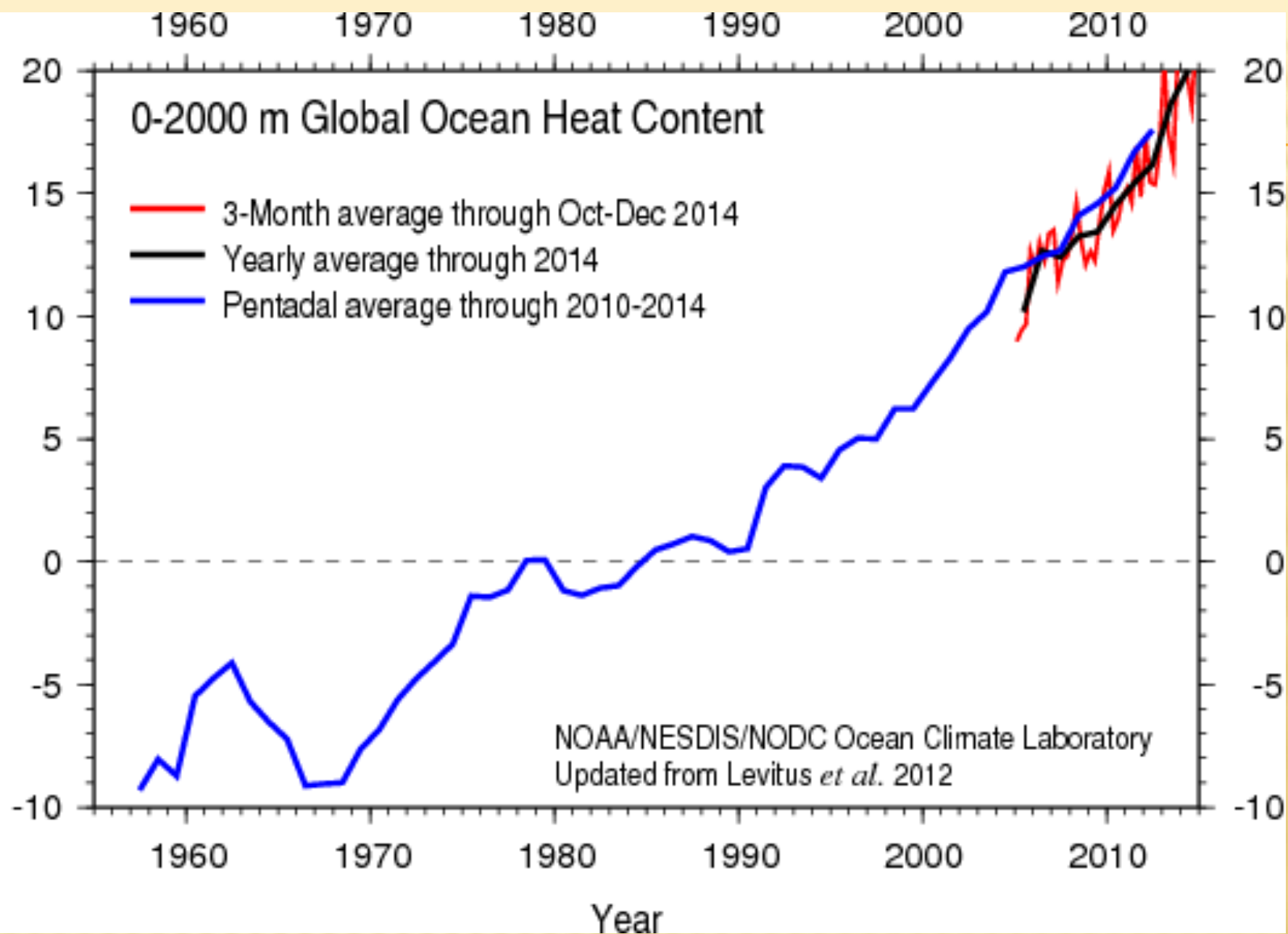
Contact Us

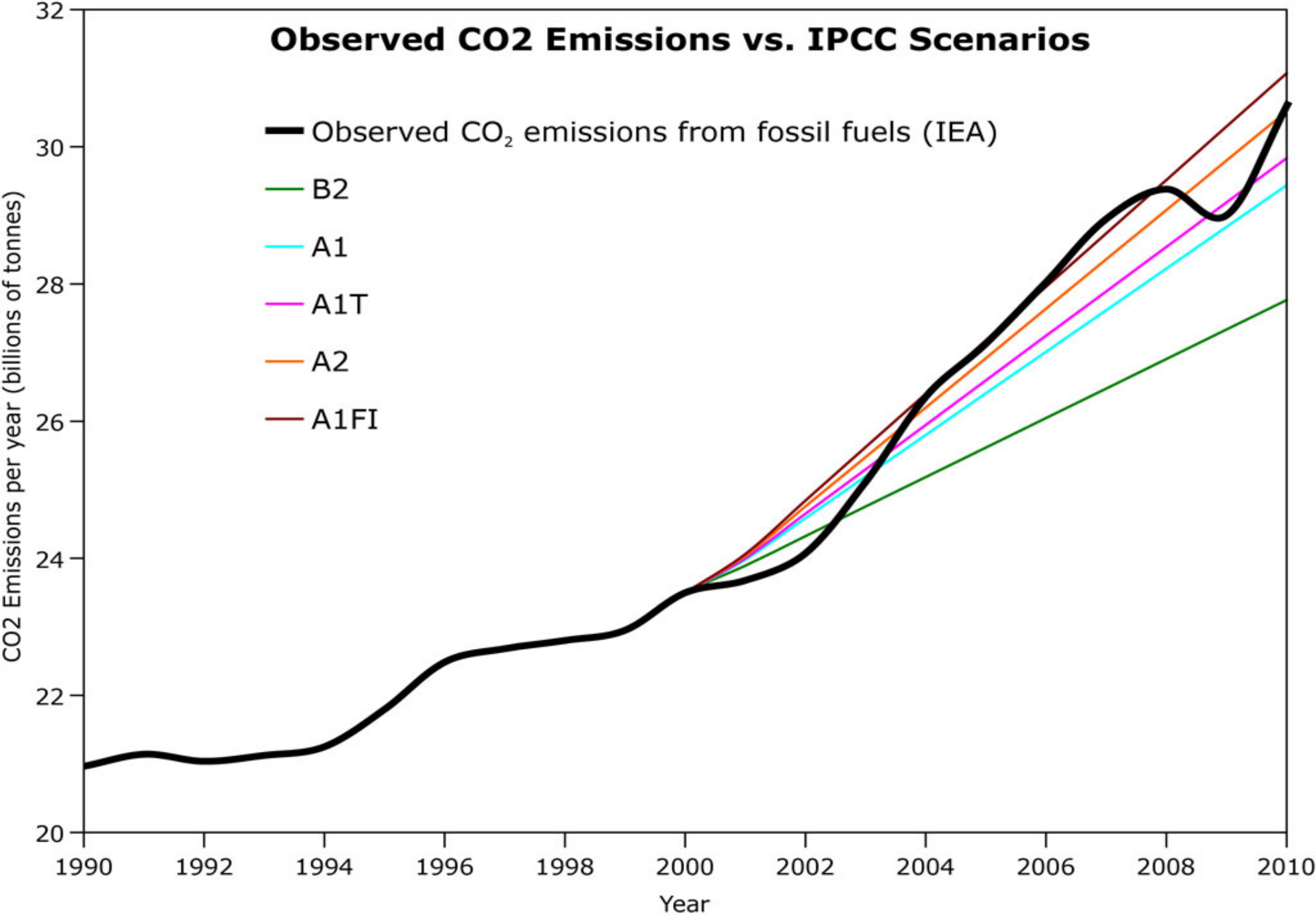
Created by Skeptical Science

Where is global warming going?



Heat Content (10^{22} Joules)





THE PERMAFROST TIMEBOMB...

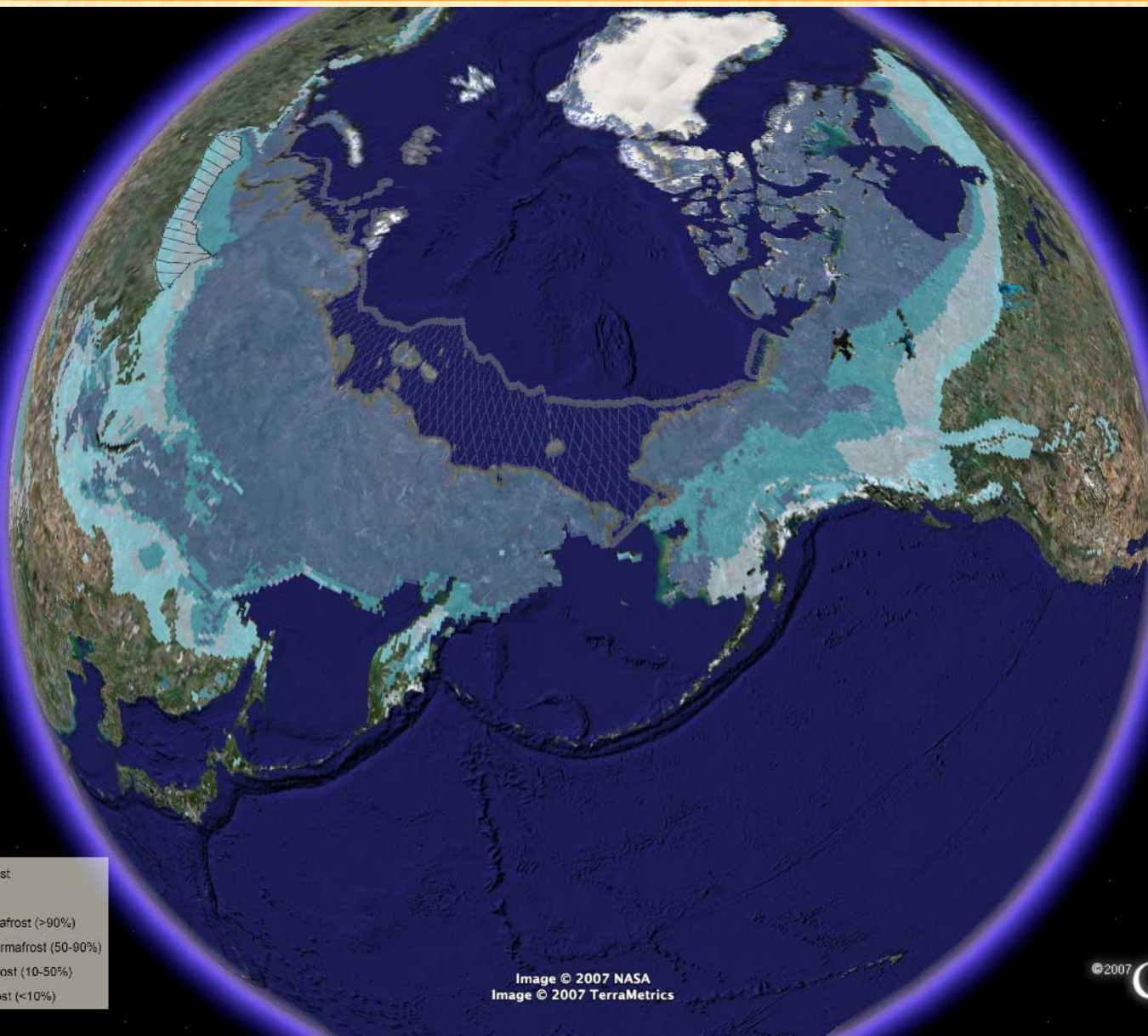
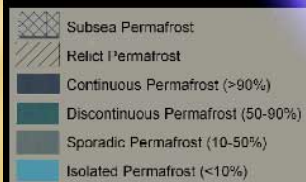


Image © 2007 NASA
Image © 2007 TerraMetrics

© 2007 Google™