### The Washington Post

#### **Capital Weather Gang**

# The planet had its biggest temperature spike in modern history in February

By Jason Samenow March 14

The global temperature in February took its greatest leap in 136 years of record-keeping, rising 1.35 degrees Celsius (2.43 degrees Fahrenheit) above the 1951-1980 average. As a result of the gigantic temperature jump, it became the warmest February on record by a landslide.

NASA released the data over the weekend, and scientists reacted with astonishment.

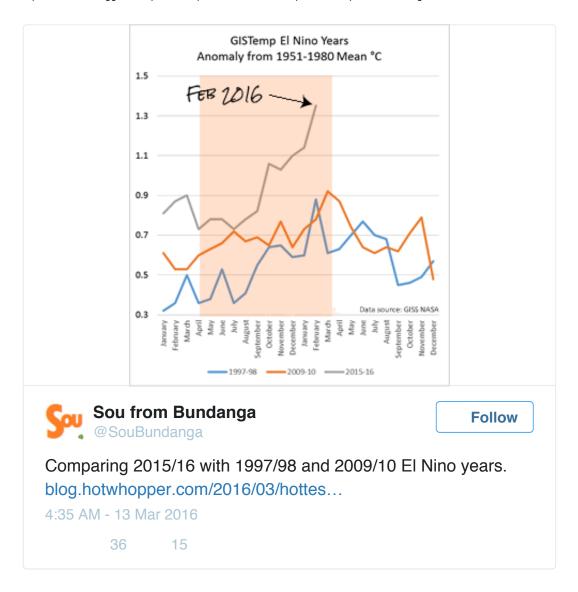
"Wow," <u>tweeted climate scientist Gavin Schmidt</u>, who directs NASA's Goddard Institute for Space Studies. "Normally I don't comment on individual months, but last month was special."

"This result is a true shocker, and yet another reminder of the incessant long-term rise in global temperature resulting from human-produced greenhouse gases," <u>blogged meteorologists Jeff Masters and Bob Henson at</u> Weather Underground.

The 1.35-degree difference from the 1951 base line marked the greatest monthly departure on record, 0.21 degrees Celsius above the next biggest departure established just the month before that.

The extraordinary global warmth was set in motion by the long-term climate-warming trend, but it surged to another level because of the record-challenging El Niño event that released into the atmosphere large quantities of heat stored in the tropical Pacific Ocean.

The heat injection helped this February pass February 1998, the previous record holder, by a whopping 0.47 degrees Celsius (0.85 Fahrenheit).



Although February 1998's global temperature also spiked because of El Niño, this year's rise was steeper and started at a higher base line because of the years of climate warming in between.

February's warmth was especially pronounced over land areas in the Northern Hemisphere outside the tropics. In the Arctic, temperatures were remarkably warm, about 6 degrees Celsius (almost 11 degrees Fahrenheit) above normal, and sea ice was at a record low for the month.

Two other research centers confirmed that February achieved record highs, including <u>an analysis of surface</u> temperature data from the Japan Meteorological Agency and a satellite-based estimate of lower atmospheric temperatures from the University of Alabama at Huntsville.

The planetary warmth that began 2016 is without a rival, at a whole different level from the past two years, which ultimately set records.

The year will probably end as the warmest on record, passing 2015 and 2014. Deke Arndt, a climate scientist

at the National Oceanic and Atmospheric Administration, put it this way in a conversation with Discover's Tom Yulsman: "If my wife asked me if I thought 2016 was going to be the warmest year, I'd say 'yes' pretty confidently. However, as a public servant and as a scientist, we're a pretty conservative lot, and I don't think we'd say that until we were 100 percent sure."

At some point, 2016's chart-topping warmth is bound to reverse. The present El Niño is forecast to wane as the spring wears on and a La Niña event, which exerts a cooling effect on the planetary temperature, could kick in later this year or in 2017.

"Global warming' is not a relentless march towards warmer temperature with every month and season and year and decade being warmer than the preceding month and season and decade," climate scientist Jerry Meehl of the National Center for Atmospheric Research told Yulsman. "Human-caused warming due to increasing greenhouse gases can best be seen over the long term so that the internal variations average out, leaving the more steady increase of global temperatures over those longer time scales."

Jason is the Washington Post's weather editor and Capital Weather Gang's chief meteorologist. He earned a master's degree in atmospheric science, and spent 10 years as a climate change science analyst for the U.S. government. He holds the Digital Seal of Approval from the National Weather Association.

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At a G	At a Glance			
Sat.	Sun.	Mon.		
45° /47° 80%	35° /42° 70%	32° /47°		

Tue.	Wed.	Thu.
31° /53°	43° /68°	50° /72°

Forecast by National Weather Service •

National Dulles BWI Airport

**Right Now** 

**47.0** 

(8.3°C)

WeatherOvercast

Wind Northeast at

11.5 mph

Wind 42 F

Chill

**Dew** 30.9 F

**Point** 

Pressure018.2 mb

Last updated: Mar 19, 2016, 5:52 a.m.

### Washington, D.C.,

### **Snow Tracker**

**Current Snow Total** 

22.2"

Record Most Snow (2009-10)

56.1"

Record Least Snow 0.1"

(1997-98, 1972-73)

Last Winter's Snow Total

18.3"

Winter Outlook •

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Sunset	7:19 pm	7:21 pm	7: <u>18</u>