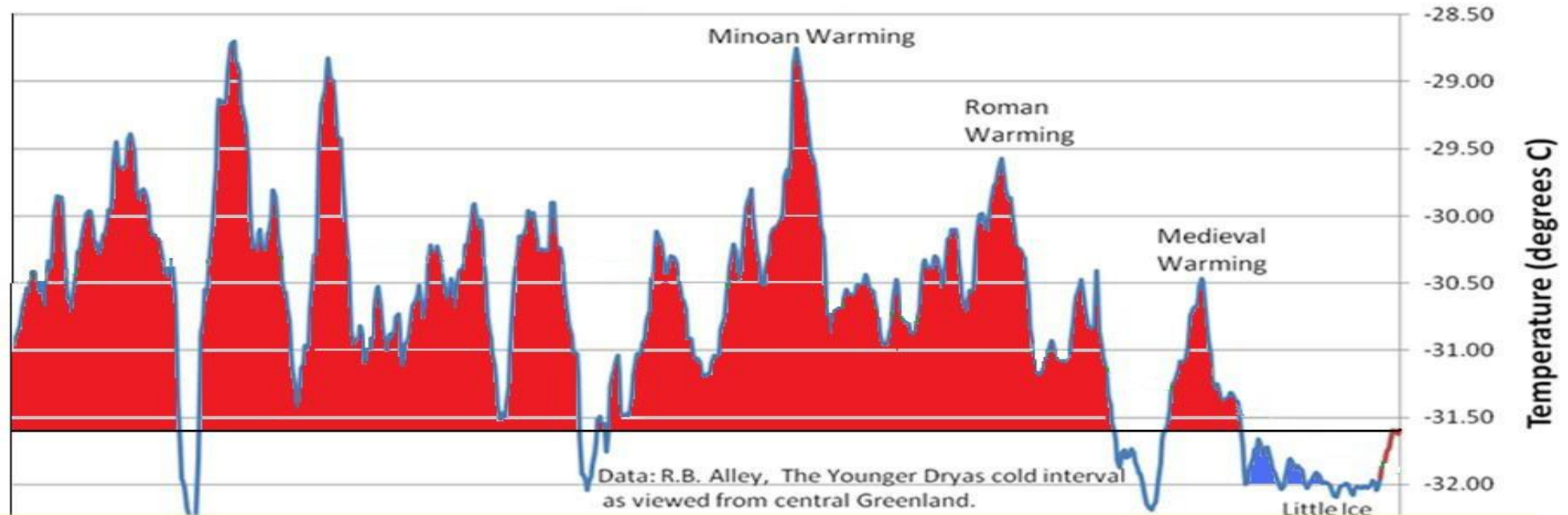


Doubting Catastrophic Anthropogenic Climate Change

“Extreme Weather Increasing



Bob Endlich

bendlich@msn.com

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Cruces Atmospheric Sciences Forum

This introduction briefly shows with words, but especially with data, the errors, blatant mis-statements of fact, and deliberate distortions that the climate alarmist community spews forth with regularity and intensity.

We directly quote some of the mis-statements, and provide the counter with data, much of it from US Governmental sources and readily available over the Internet.

Almost all of our graphics contain hyperlinks directly to the data source we quote...

<this contrasts with most alarmist claims>

Claims of increasing extreme weather, hottest year on record, crop harvest declines, increasing heavy rainfall events, Arctic sea ice collapse--many from the Fourth National Climate Assessment, often "NCA4."



Executive Summary

Special Report

Global annually averaged surface air temperature has increased by about 1.8°F (1.0°C) over the last 115 years (1901–2016). This period is now the warmest in the history of modern civilization. **The last few years have also seen record-breaking, climate-related weather extremes, and the last three years have been the warmest years on record for the globe.** These trends are expected to continue over climate timescales.

Claims of “record-breaking” severe weather extremes

“The last few years have also seen record-breaking, climate-related weather extremes, the three warmest years on record for the globe, and continued decline in arctic sea ice.”

<https://science2017.globalchange.gov/chapter/executive-summary/>

We have a post directly rebutting this claim at

<https://casf.me/critique-fourth-national-climate-assessment/>

The following graphics quote from, and point out, the false nature of these claims

New U.S. Climate Assessment Forecasts Dire Effects On Economy, Health



Volunteers search a mobile home park in Paradise, Calif.

Government scientists predict wildfires like the one that struck this community will contribute to billions in losses for the U.S. economy.

Climate change will be expensive

Some parts of the U.S. economy could suffer hundreds of billions of dollars in annual losses by the end of the century unless global greenhouse gas emissions are substantially reduced, the report finds. **Already, there's the impact of increasingly frequent and intense extreme weather events.** The report notes that **large wildfires are more frequent** and that the areas burned by lightning-ignited fires are "expected to increase by at least 30 percent by 2060." The costs for fighting fires and forest management are on the rise (see chart).

“Already, there's the impact of increasingly frequent and intense extreme weather events.” “...large wildfires are more frequent...”

So, we'll examine data with respect to

- Wildfires
- Hurricane Frequency, Hurricanes' Energy, and Frequency of Hurricane Strikes
- Tornado Frequency

Executive Summary

Highlights of the Findings of the U.S. Global Change
Research Program Climate Science Special Report



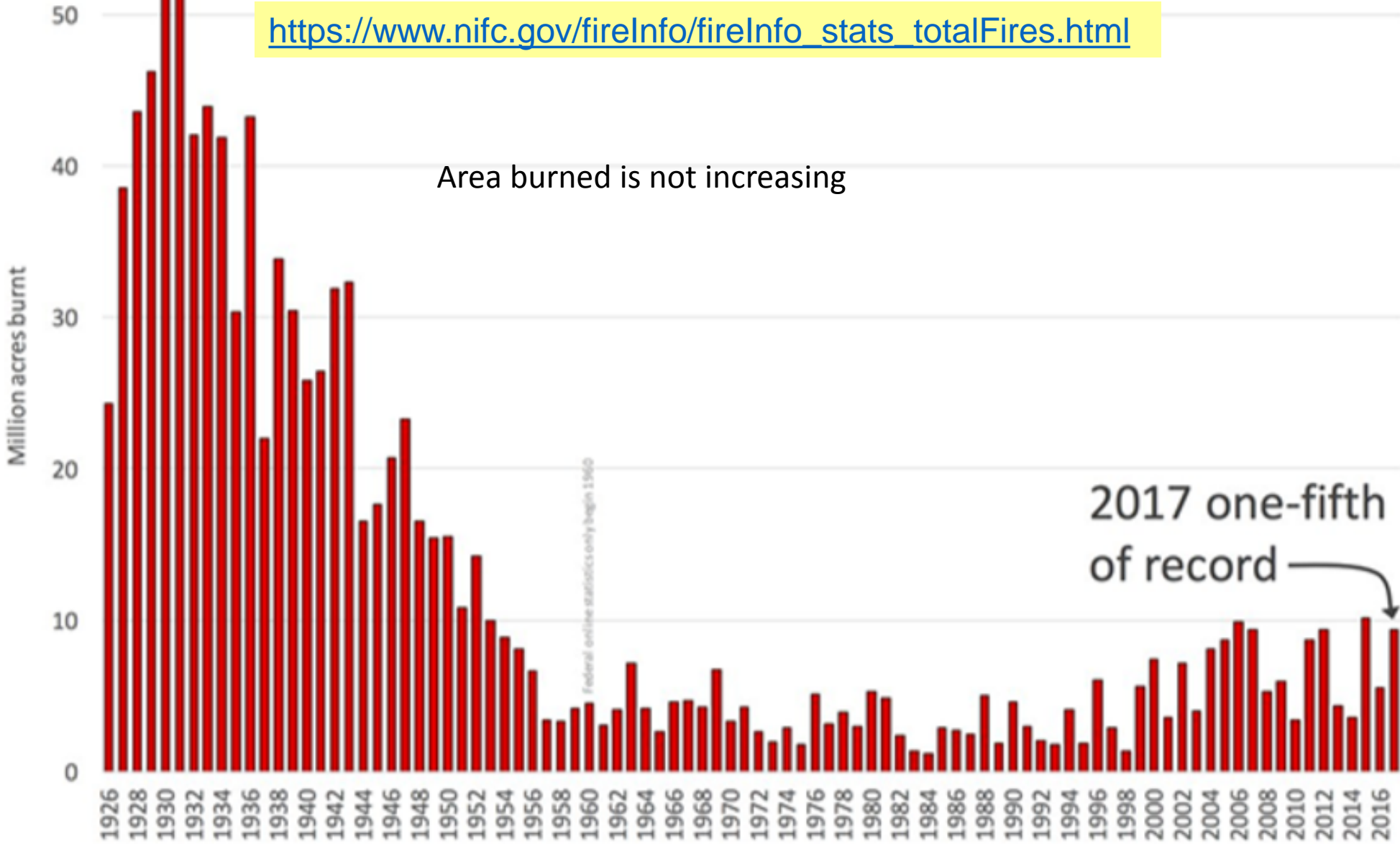
“The incidence of large forest fires in the western United States and Alaska has increased since the early 1980s and is projected to further increase in those regions as the climate changes, with profound changes to regional ecosystems.”

Extreme Weather Events

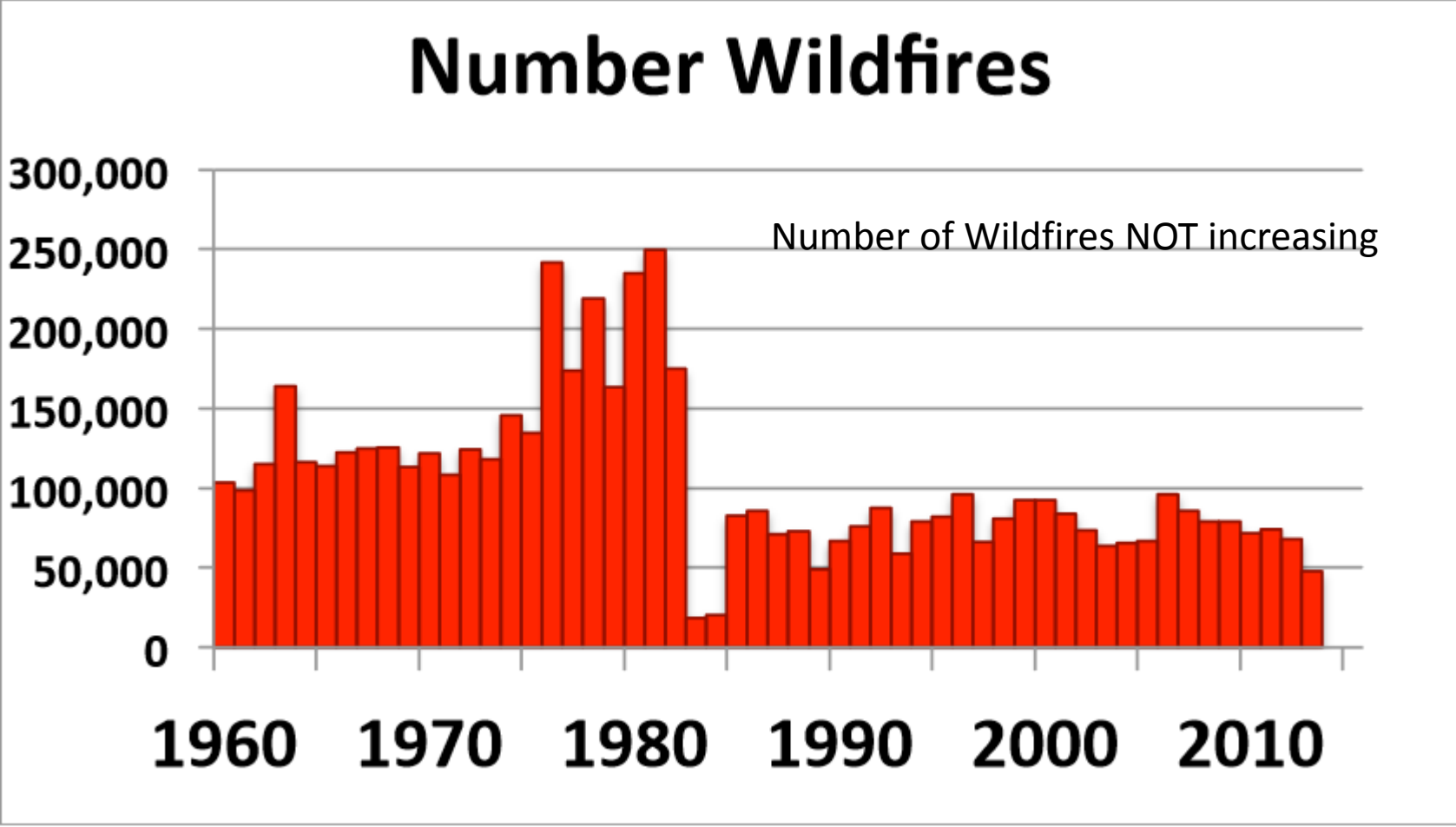
Large Fires

US Forest Area Burned 1926-2017

https://www.nifc.gov/fireInfo/fireInfo_stats_totalFires.html

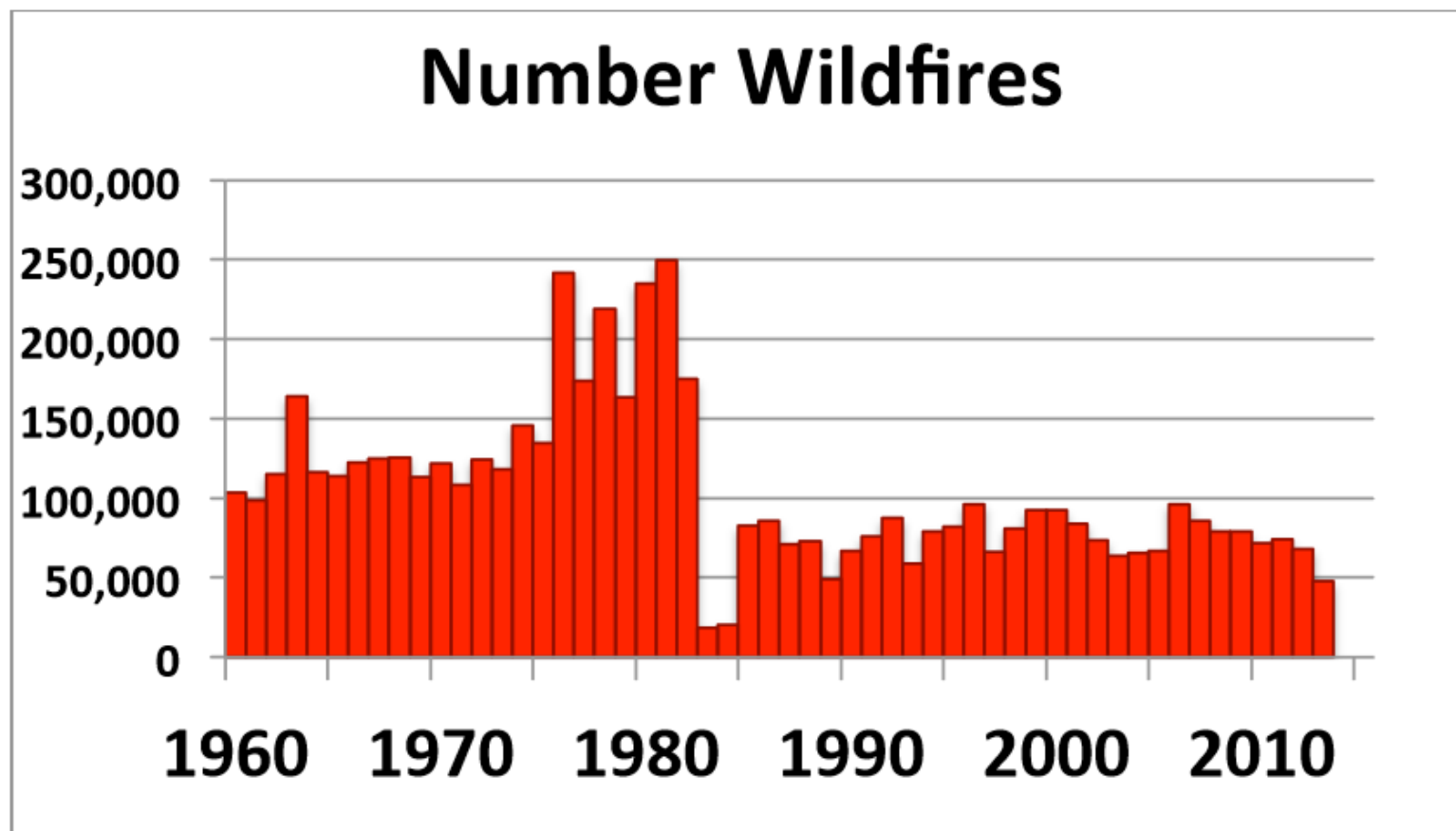


Sources: National Interagency Fire Center, data 1960-2016, https://www.nifc.gov/fireInfo/fireInfo_stats_totalFires.html, 2017 data until Oct 13, adjusted to similar fraction burnt area over past 9 years
Historical Statistics of the United States - Colonial Times to 1970 Vol 1, Series L 48-55, 1926-70, perfect overlap for 1960-70. facebook.com/bjornlomborg



Above: Number of U.S. wildfires. As the management of these events changes, and thus the number also changes, but the number of events since 1985 has remained constant. (National Interagency Fire Center.)

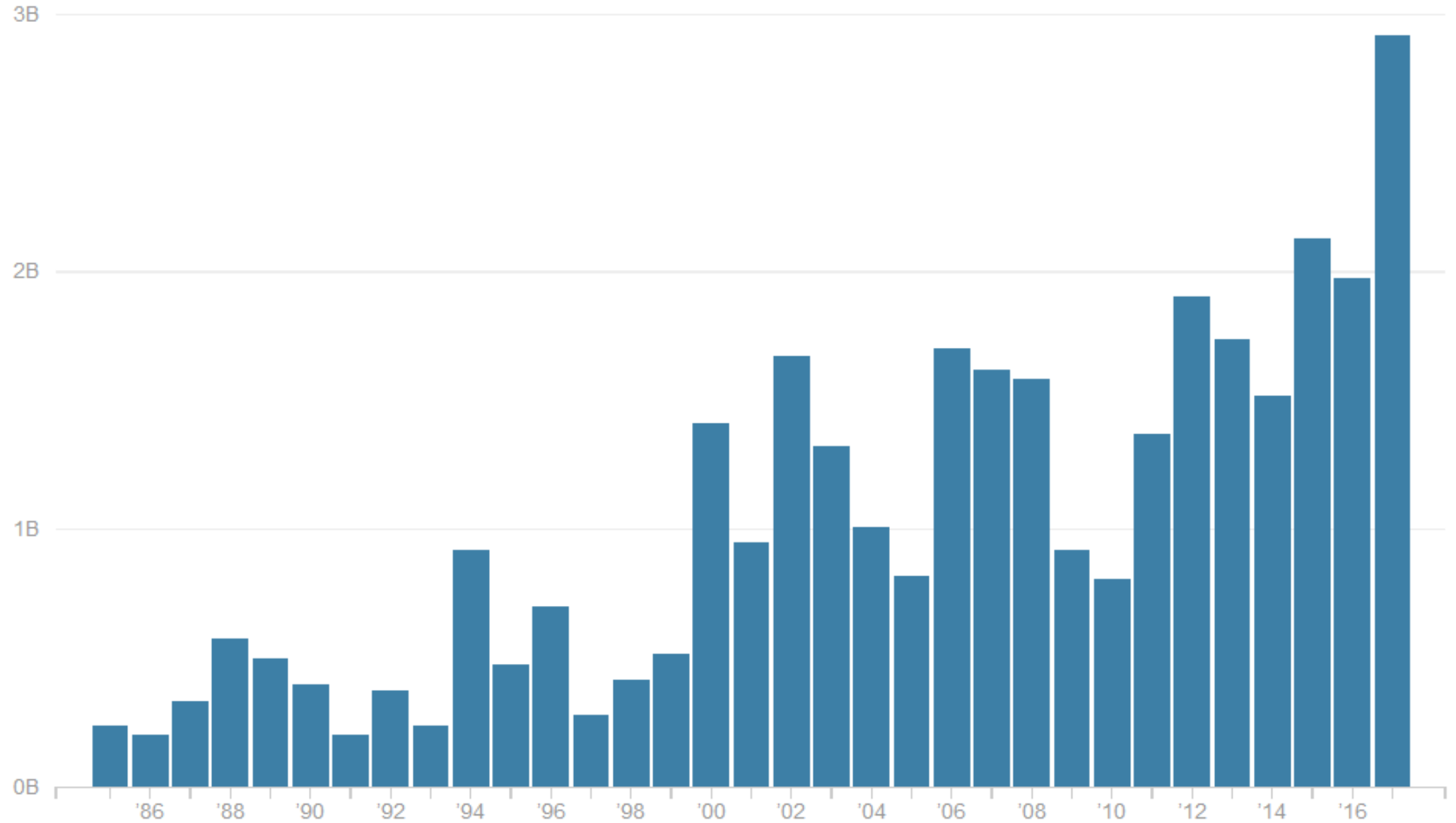
“The incidence of large forest fires in the western United States and Alaska has increased since the early 1980s and is projected to further increase in those regions as the climate changes, with profound changes to regional ecosystems.”



This blatant mis-statement of fact is breath-taking.

This is but one of numerous such outright falsehoods, proclaimed by our own Government, which we describe for the visitor.

Billions Of Dollars Spent On Wildfire Suppression In The U.S. 1985-2017



Data described in the previous slide is often used to support the claim, “Global Warming is making forest fires more severe.”

Forest fires are indeed getting more severe, but this is because nearly a century of the “Smokey Bear Campaign” to put out all forest fires has increased fuel load dramatically.

Fire IS part of nature.

Fire WILL consume excessive fuel loads.

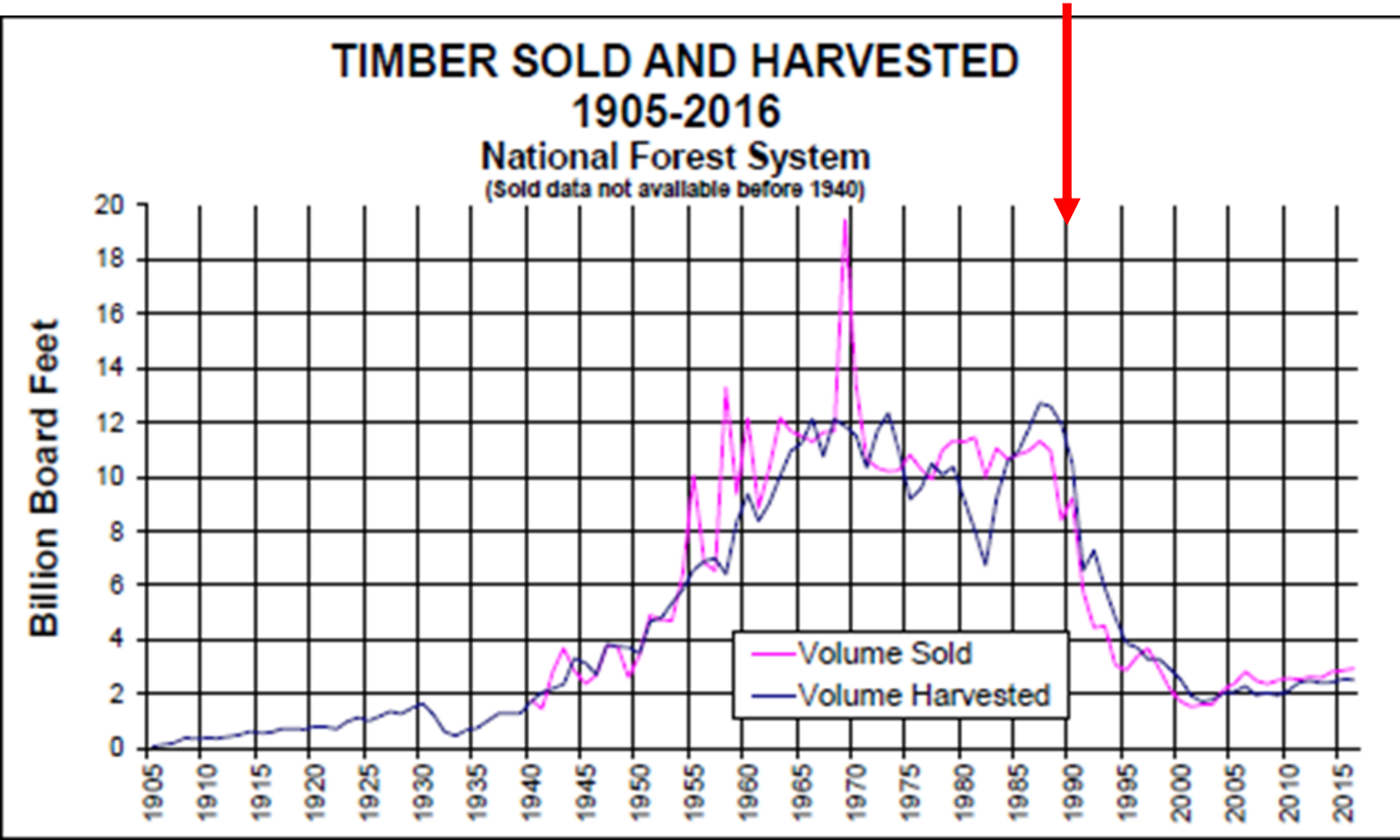
To compound the error of the Smokey Bear Campaign, the Northern Spotted Owl decision suddenly stopped harvest of forest products from National Forest lands:

In short, fuel loads dramatically increased yet again.

1990s Spotted Owl controversy

- Spotted Owl listed as a threatened species under the Endangered Species Act in 1990 throughout its range in northern California, Oregon, and Washington.
- 1991 Court order halted logging on national forests in those states on grounds those forests were prime spotted owl habitats.
- Logging all but stopped on western forests as the graph shows.

Precipitous logging decline after 1990 is especially telling.



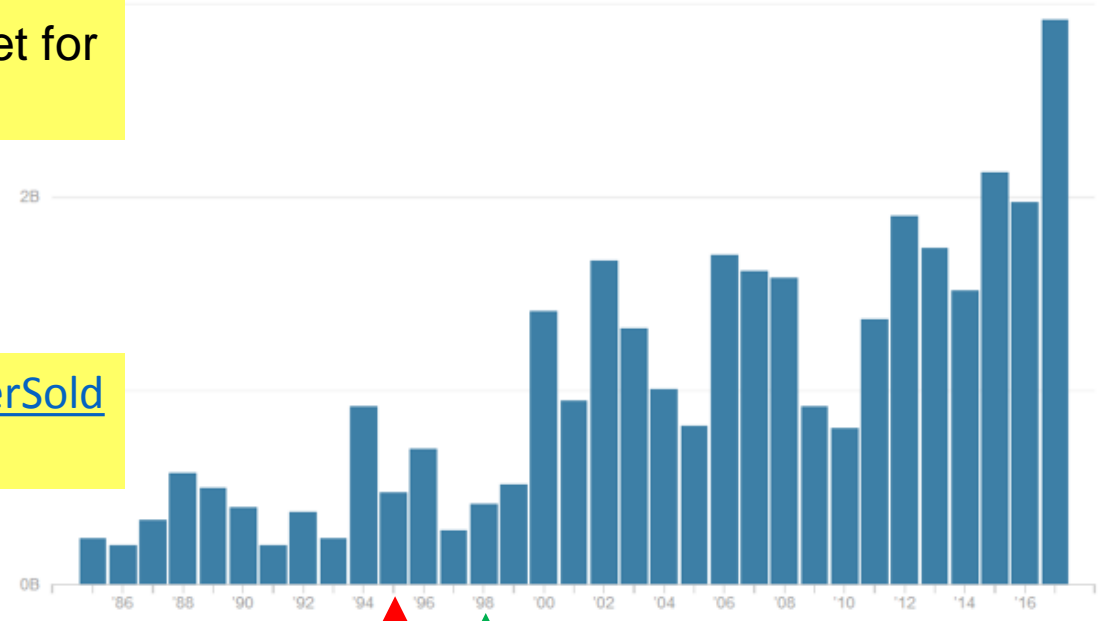
Red arrow points to 1990

Cause and Effect?

As the harvest in board feet was decimated, the stage was set for increasing dollar amounts needed for fire suppression.

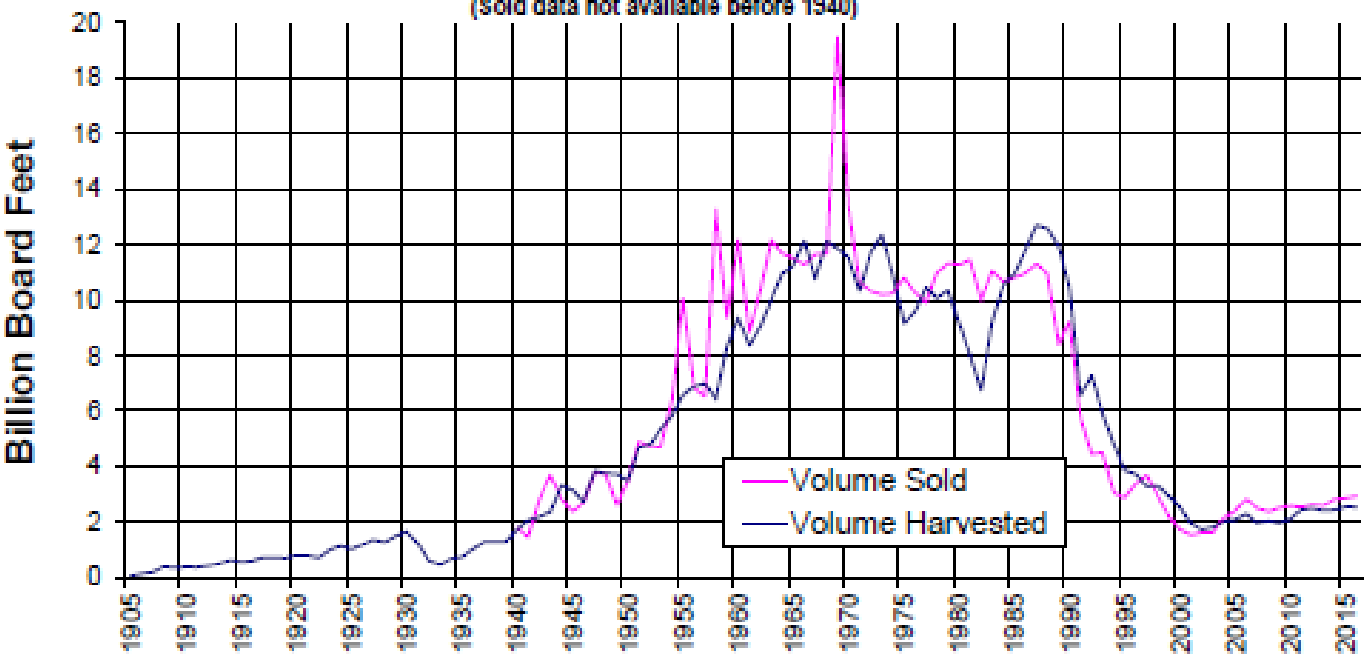
Red arrows point to 1995.

<https://www.fs.fed.us/forestmanagement/products/images/TimberSoldHarvested1905-2016.png>



TIMBER SOLD AND HARVESTED 1905-2016

National Forest System
(Sold data not available before 1940)



PDO Warm
Wet in West

PDO Cold
Dry in West

<https://www.npr.org/2018/11/26/670812889/what-you-need-to-know-about-the-new-u-s-climate-assessment>

Green Arrow Points to 1998, when the Pacific Decadal Oscillation, PDO, a 60-year long weather event, shifted from Warm to Cold, and from Wet to Dry



It is an odd way of calculating priorities.

California and the federal government take immense steps to stop, for example, tailpipe emissions, which at their worst did not cause a fraction of the pollution that the forest fires are now creating throughout the state.

Extreme Weather Events: Hurricanes

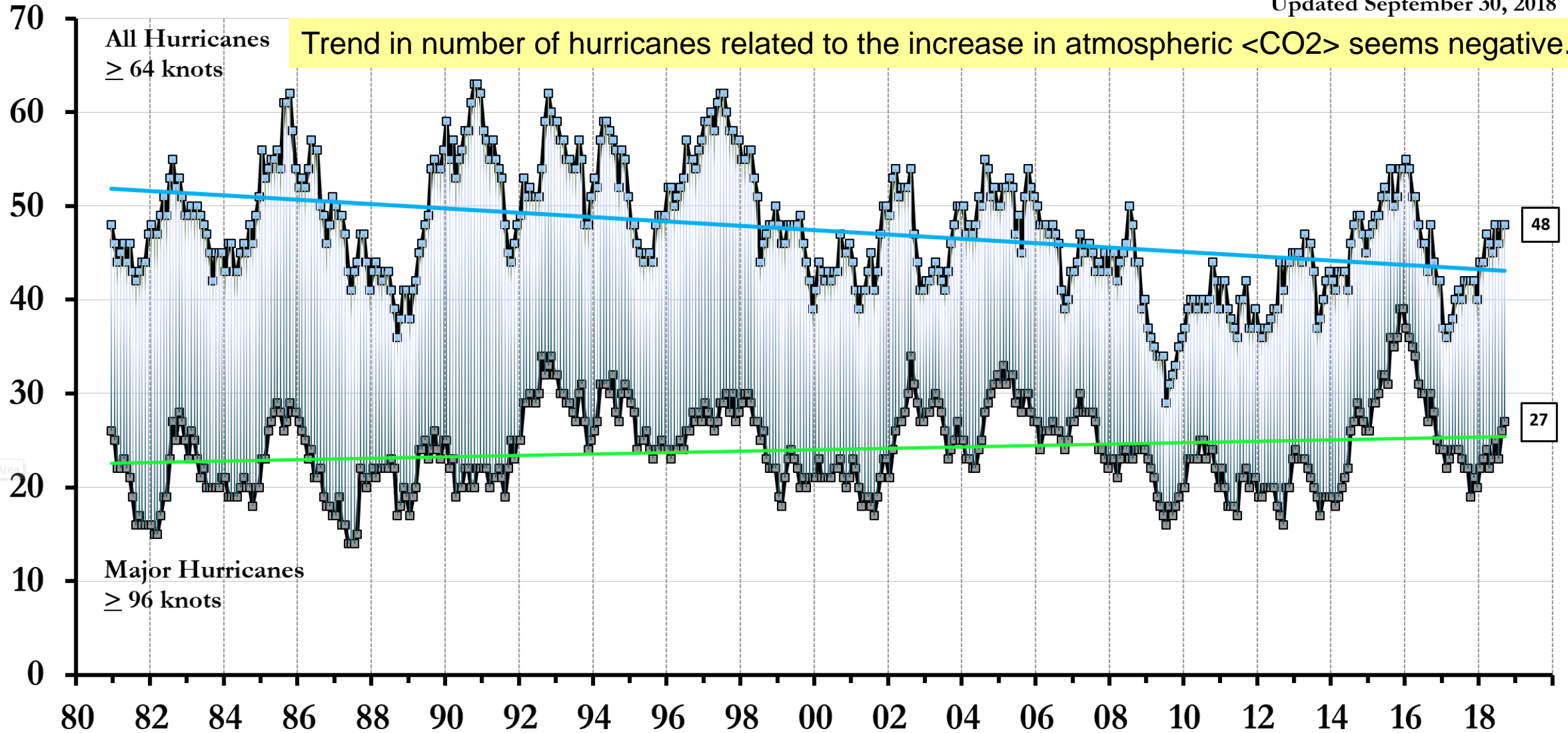
Examining claims increasing <CO2> is increasing hurricane numbers and damage from hurricane strikes in the USA.

Global Major Hurricane Frequency -- 12 month running sums

Dr. Ryan N. Maue

Updated September 30, 2018

Trend in number of hurricanes related to the increase in atmospheric <CO2> seems negative.



Accumulated Cyclone Energy, a measure similar to kinetic energy, of all tropical storms, hurricanes, and typhoons

http://policlimate.com/tropical/global_running_ace.png

Global Tropical Cyclone Accumulated Cyclone Energy (ACE)

24-month Running Sums -- Dr. Ryan N. Maue -- Updated October 31, 2018

—■— Global —■— Northern Hemisphere

2400

2000

1600

1200

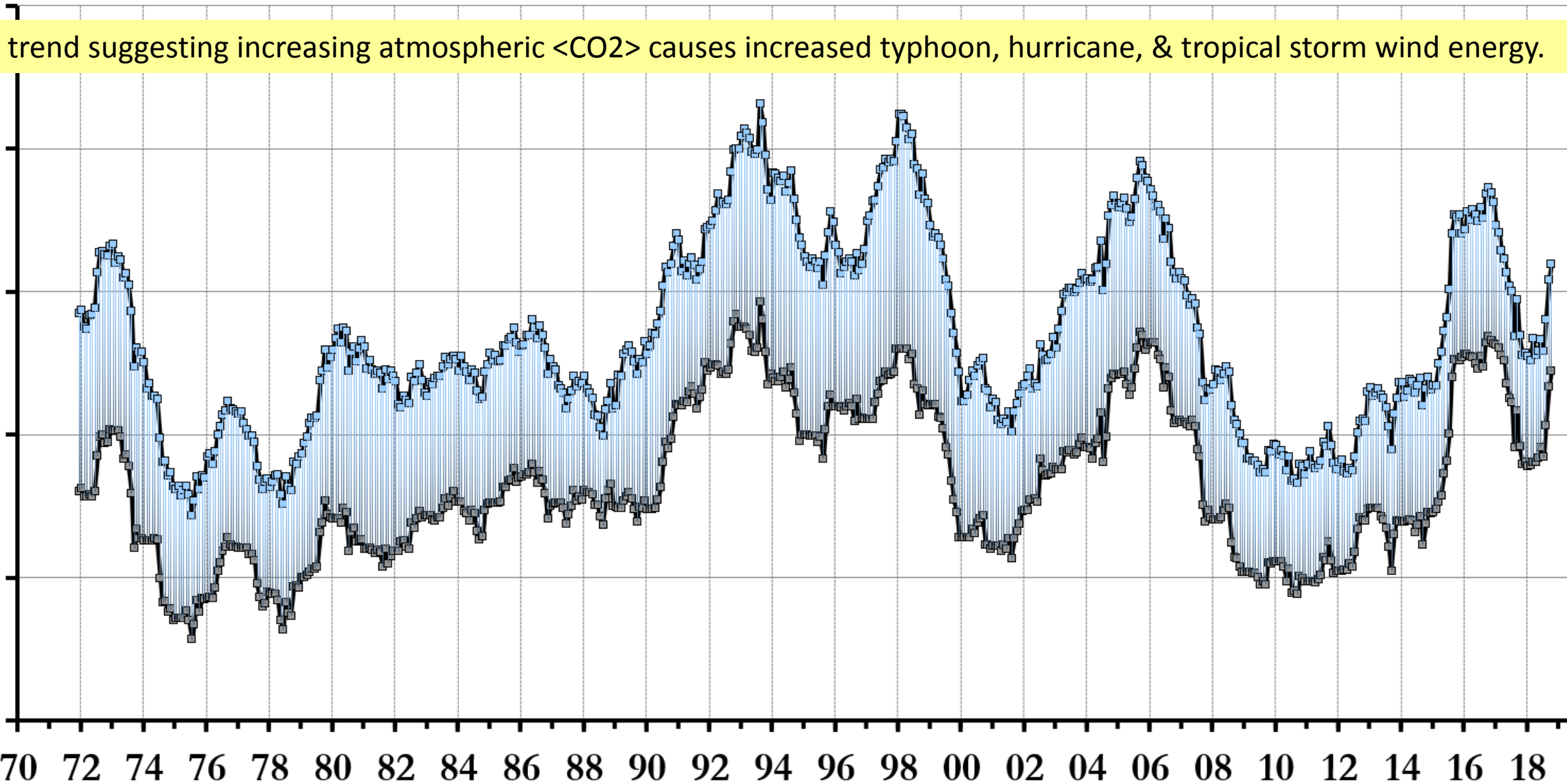
800

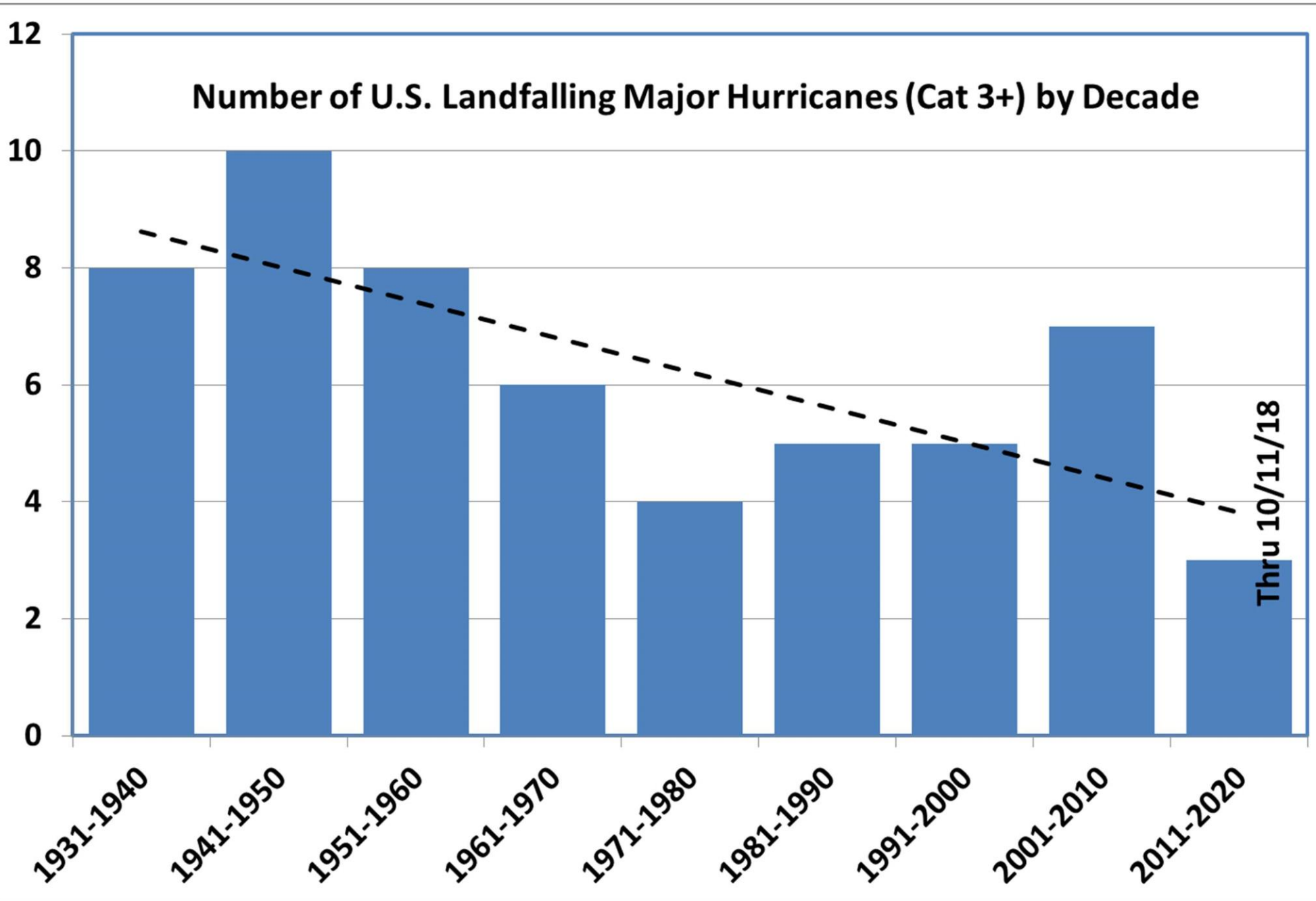
400

Accumulated Cyclone Energy (10^4 knots²)

70 72 74 76 78 80 82 84 86 88 90 92 94 96 98 00 02 04 06 08 10 12 14 16 18

There's no trend suggesting increasing atmospheric $\langle \text{CO}_2 \rangle$ causes increased typhoon, hurricane, & tropical storm wind energy.

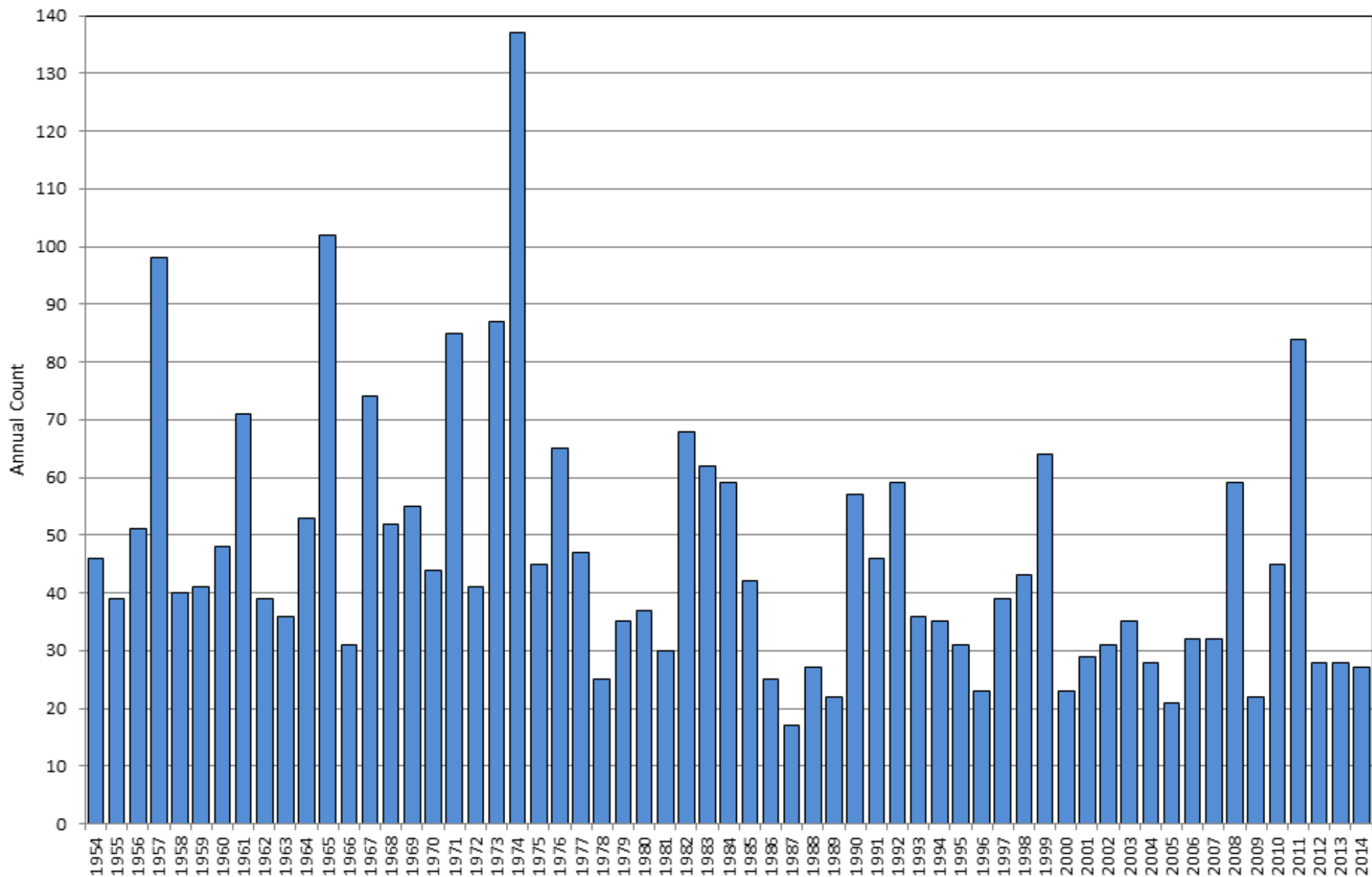




Extreme Weather Events

Tornadoes

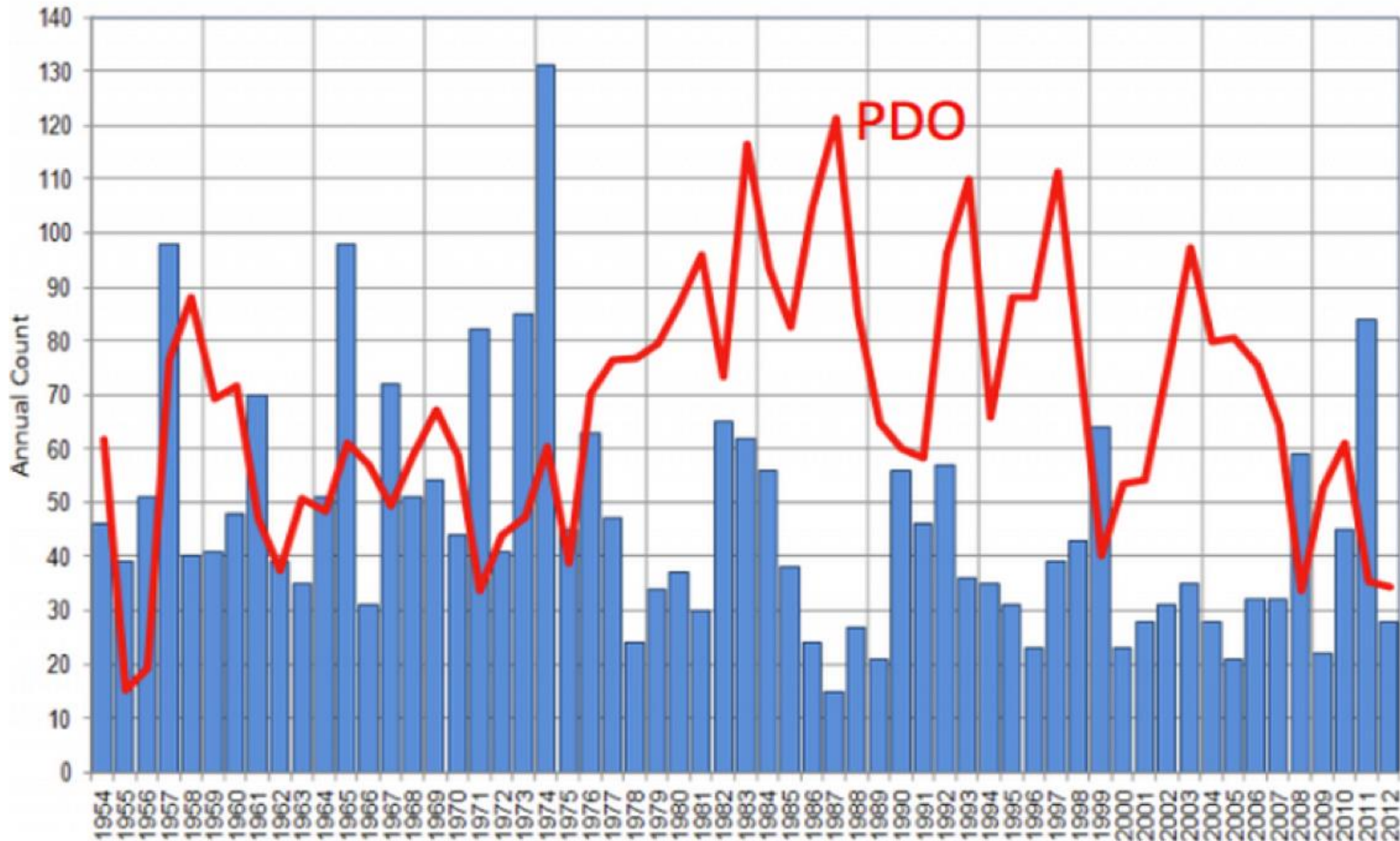
U.S. Annual Count of Strong to Violent Tornadoes (F3+), 1954 through 2014



U.S. Annual Count of Strong to Violent Tornadoes (F3+), 1954 through 2012

“PDO” is an acronym for Pacific Decadal Oscillation, a 60-year long weather event which brings periods of higher rainfall and drought in western US states.

<http://research.jisao.washington.edu/pdo/>



Perhaps Mother Nature Herself is laughing at the climate alarmists.
A month after the National Climate Assessment Vol 2 was released, the day after Thanksgiving, 2018,
this story was published in USA Today

<https://www.usatoday.com/story/news/nation/2018/12/28/tornadoes-set-record-lows-2018-only-10-deaths-us/243136000>

2018 was an all-time record quiet year for tornadoes in the U.S.

Doyle Rice, USA TODAY Published 1:47 p.m. ET Dec. 28, 2018 | Updated 12:48 p.m. ET Jan. 1, 2019



“Both the number of Americans killed by tornadoes and the number of violent tornadoes in the U.S. set record lows that have stood for decades. <underlining added>

Tornadoes only killed 10 Americans in 2018, the fewest since unofficial records began in 1875 during the administration of President Ulysses S. Grant.

The previous record low year for tornado deaths was 1910, when 12 people died, according to data from NOAA's National Severe Storms Laboratory.”

Several tornadoes hit Texas on Halloween night, Oct. 31, 2018.
(Photo: AP)