

## Climate at a Glance: Antarctic Ice Melt

### Bullet-Point Summary:

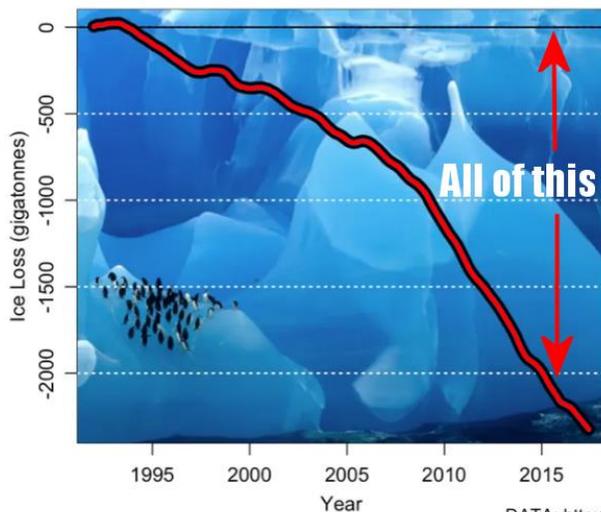
- Media outlets in 2019 and 2020 began claiming the Antarctic ice cap is melting six times faster than it was 30 years ago.
- Thirty years ago, Antarctica was barely losing ice mass, and this remains so. “Six times” almost no ice loss remains almost no ice loss.
- When recent ice loss measurements are compared to the full Antarctic ice cap, the loss is so small that it is barely detectable.
- Sea-level measurements contradict claims that Antarctic ice loss threatens coastal flooding. NASA satellite instruments, with readings dating back to 1993, show global sea level rising at a pace of merely 1.2 inches per decade, which is **not significantly different than sea-level rise since the mid-1800s**.

**Short Summary:** [NASA](#) and [subsequent media stories](#) have said this about Greenland and Antarctic ice: “The two regions have lost 6.4 trillion tons of ice in three decades; unabated, this rate of melting could cause flooding that affects hundreds of millions of people by 2100.” However, that is far short of even 1 percent of Greenland and Antarctic ice mass. As shown in the graph to the right in Figure 1 below, the total ice loss each year is a nearly undetectable three ten-thousandths of one percent (0.0003 percent) of the Antarctic ice mass.

### What The Media Shows You:

#### Magnified Ice Loss Only

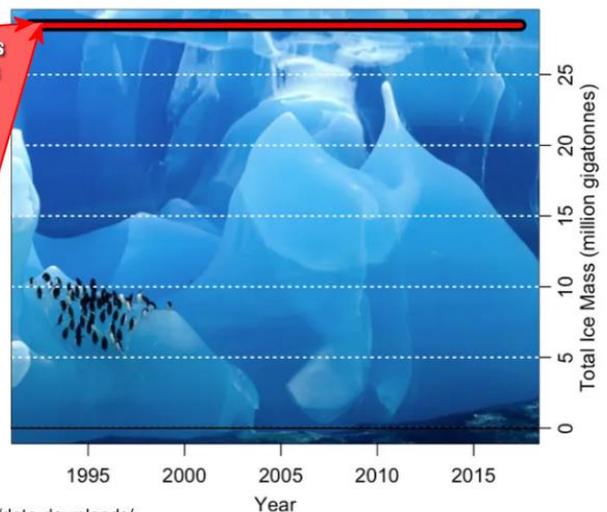
Cumulative Ice Mass Loss  
Antarctica, 1992 - 2017



### What The Reality Is:

#### Ice Loss vs. All Antarctic Ice

Change In Total Ice Mass  
Antarctica, 1992 - 2017



*Figure 1: Comparison of satellite data for Antarctic ice mass loss. Cumulative ice mass loss on the left and that same data compared to the total mass of ice on the right. Data source: <http://imbie.org>. Graphs originally by Willis Eshenbach, adapted and annotated by Anthony Watts.*

### **Further reading:**

1. “Greenland, Antarctica Melting Six Times Faster Than in the 1990s.” Source: NASA press release, accessed 03/28/20, <https://www.nasa.gov/feature/jpl/greenland-antarctica-melting-six-times-faster-than-in-the-1990s>
2. “Ice loss in Antarctica and Greenland increased sixfold in the last 30 years.” Source: LiveScience.com, accessed March 3/28/20, <https://www.livescience.com/antarctica-greenland-ice-shelf-loss.html>
3. NASA satellite instruments, with readings dating back to 1993, show global sea level rising at a pace of merely 1.2 inches per decade. “Sea Level Rise,” *Climate at a Glance*, accessed 4/2/20, <https://climateataglance.com/climate-at-a-glance-sea-level-rise/>
4. The data plotted in the graphs above is from the ice sheet mass balance inter-comparison exercise (IMBIE), a joint exercise by NASA and the European Space Agency, <http://imbie.org/about-the-project/>

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