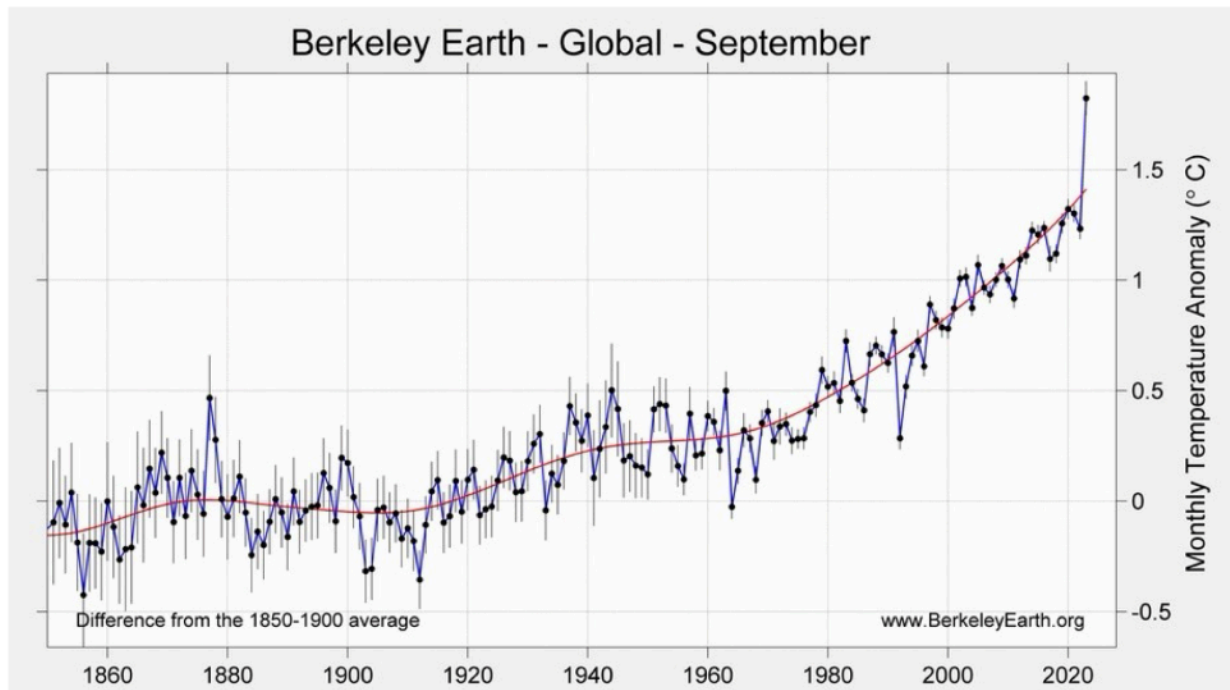


'I Study Climate Change. The Data Is Telling Us Something New.'

Solarman55, author



Staggering. Unnerving. Mind-boggling. Absolutely gobsmackingly bananas.

As global temperatures shattered records and reached dangerous new highs over and over the past few months, my climate scientist colleagues and I have just about run out of adjectives to describe what we have seen. Data from Berkeley Earth released on Wednesday shows that September was an astounding 0.5 degree Celsius (almost a full degree Fahrenheit) hotter than the prior record, and July and August were around 0.3 degree Celsius (0.5 degree Fahrenheit) hotter. 2023 is almost certain to be the hottest year since reliable global records began in the mid-1800s and probably for the past 2,000 years (and well before that).

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Until recently, climate change was framed as an issue that would affect our children. Today it is nearly omnipresent, and it is impossible to ignore. And very soon, with the acceleration, we will experience even more of its effects: Ice sheets and glaciers will melt faster, extreme weather events will become more frequent, and even more plants and animals will be put at risk of extinction.

Does this acceleration mean that warming is happening faster than we thought or that it is too late to avoid the worst impacts? Not necessarily.

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It's now clear that we can control how warm the planet gets over the coming decades. Climate models have consistently found that once we get emissions down to net zero, the world will largely stop warming; there is no warming that is inevitable or in the pipeline after that point. Of course, the world will not cool back down for many centuries, unless world powers join in major efforts to remove more carbon dioxide from the atmosphere than we add. But that is the brutal math of climate change and the reason we need to speed up efforts to reduce emissions significantly.

On that front, there is some reason for cautious hope. The world is on the brink of a clean energy transition. My take remains this: Each of us must take personal action to reduce our own CO₂ emissions, now. I've written about a bunch of ways in Ask Solarman.