

the day; further, that following leader remarks, the Senate resume consideration of the motion to proceed to S. 2943, postcloture; finally, that all time during adjournment, recess, and morning business count postcloture on the motion to proceed.

The PRESIDING OFFICER. Without objection, it is so ordered.

ORDER FOR ADJOURNMENT

Mr. ROUNDS. Mr. President, if there is no further business to come before the Senate, I ask unanimous consent that it stand adjourned under the previous order, following the remarks of Senator WHITEHOUSE.

The PRESIDING OFFICER. Without objection, it is so ordered.

The Senator from Rhode Island.

CLIMATE CHANGE

Mr. WHITEHOUSE. Mr. President, I am back with my increasingly scuffed and battered "Time to Wake Up" sign now for the 138th time to urge that we stop sleepwalking through history. Climate change, as we know, is already harming our oceans and our farms, our health and our communities. Yet here in the Senate we continue to just stand idly by as carbon pollution piles up in the atmosphere, driving unprecedented changes in our States. I urge us again to wake up and to act with urgency.

Just 3 years ago the monitoring station atop Hawaii's Mauna Loa measured a significant milestone—400 parts per million of carbon dioxide in the atmosphere.

This chart of the data from Mauna Loa illustrates the negligible march upwards of our carbon levels. And it is not just at this one spot in the Pacific. The World Meteorological Organization maintains a global atmosphere watch network of atmospheric monitoring stations that spans 100 countries, including stations high in the Alps, Andes, Himalayas, as well as in the Arctic and Antarctic. Earlier this month, the Cape Grim Station—perhaps aptly named—in remote northwestern Tasmania saw its first measurement above 400 parts per million. A few days later, Casey Station in Antarctica measured carbon dioxide concentrations above 400 parts per million.

What is significant about 400 parts per million? The Earth has existed in a range between 170 and 300 parts per million of carbon dioxide for at least the last 800,000 years—probably millions of years but at least the last 800,000 years. *Homo sapiens* as a species have only been around for about 200,000 years, so 800,000 really goes back a ways. Primitive farming began only about 20,000 years ago. Before that, we were just hunter-gatherers. So 800,000 in that context is a long, safe, comfortable run for this planet that has been very good to humankind in that carbon concentration window of 170 to 300. Since the Industrial Revolution, when the great carbon dump began, we

have completely blown out of that range.

At the bottom of this chart is 300.

What is also apparent in this chart is the breathing, if you will, of the planet. The sawtooth effect of this line comes from carbon dioxide levels changing as spring triggers the collective inhale of trees and other plant life in the Northern Hemisphere.

This is another version of the same data. The line at the border between the white and the lavender is the carbon data for the year 2011—between 388 and 393 parts per million, going up and then going back down and then going up as the Earth inhales and exhales the carbon dioxide. In 2012, this was the line, up above 2011. In 2013, this was the line. In 2014, this was the line. In 2015—it is hard to see, but it is right here where my finger is tracing and then onward from here. And this is 2016 to date, and then the data stops. It is going to continue. That shelf is just the data ending because of the time of year we are in. So every single year we see the carbon dioxide levels marching up and up and up.

Dr. Ralph Keeling is director of the Mauna Loa CO₂ Program at the Scripps Institution of Oceanography and a sort of hero among scientists. He has said that he doubts carbon dioxide levels at Mauna Loa will ever again dip below 400 parts per million.

As our carbon pollution accumulates, we can actually measure the change in the amount of energy trapped by the atmosphere from the Sun. NOAA calls this the "Annual Greenhouse Gas Index," and the latest edition shows that in just the past 25 years, our carbon emissions have increased the heat-trapping capacity of our atmosphere by 50 percent above preindustrial levels. That is our doing.

The director of NOAA's Global Monitoring Division, Dr. Jim Butler, said: "We're dialing up Earth's thermostat in a way that will lock more heat into the ocean and atmosphere for thousands of years."

Last week the Washington Post reported that both NOAA and NASA found April 2016 to have been the warmest April ever recorded. What is remarkable is that April was the 12th consecutive month in a row in which that month was the warmest ever recorded for that month. That is a full year's worth of months that topped every previous such month for temperature, and it is the longest streak ever in NOAA's 137-year temperature record.

One thing we know about all of this excess heat is that the oceans have absorbed more than 90 percent of it. You think things are weird now with the weather, imagine if the oceans had not absorbed more than 90 percent of that excess heat. That is a measurement, not a theory. Unless we are going to repeal the laws of physics, we know that when water warms from absorbing that 90-plus percent of the heat energy, it expands. That is the law of thermal ex-

pansion. As a result, sea levels around the world are measurably rising because oceans are warming and expanding, as well as because of ice sheets and glaciers melting.

Sea level rise is a serious matter for my constituents and for all coastal communities. We measure approximately 10 inches of sea level rise at Naval Station Newport, RI, since the 1930s. Higher sea levels erode our shoreline. They push saltwater up into our marshes. Worst of all, from our human perspective, the big storms that get launched in this weather come riding ashore on higher seas, and they inflict more damage and worse flooding in our homes.

A couple of years ago, I visited South Florida with our friend Senator NELSON. In parts of Miami and Fort Lauderdale, sea water continues to flood streets and homes at high tide on perfectly calm and sunny days. It is not rain. These flooding events are occurring because sea level is rising.

A study published in February by Climate Central determined climate change was to blame for approximately three-quarters of the coastal floods recorded in the United States between 2005 and 2014, most of which were high-tide floods. The blue is the natural floods they experienced and the red is the flooding that was driven by climate change.

Dr. Ben Strauss, who led this analysis, said: "[T]his is really the first placing of human fingerprints on coastal floods, and thousands of them." And the body of science revealing those human fingerprints from climate change is growing. In the past, I have said that climate change "loads the dice" for extreme weather, but it is hard to link a particular event to climate change. That is beginning to change as the science continues to develop and the evidence continues to pile up.

In March, the National Academies of Sciences, Engineering, and Medicine released a report outlining a rigorous science-based system for attributing extreme weather events to climate change with statistical confidence. In other words, scientists are now able to assess how the risk of an extreme weather event has changed since these heat-trapping greenhouse gases have altered our climate.

Certain kinds of extreme events are relatively straightforward to assess and attribute heat waves, heavy rains, certain types of drought. Other kinds of extreme events, such as tornadoes, wildfires, and the frequency and intensity of hurricanes, are more complicated to dissect.

For example, heat waves are expected to become more common, more intense, and longer lasting because of the increase in heat-trapping gases in the atmosphere. An analysis of an extreme heat wave last May in Australia found it was made 23 times more likely to have happened because of climate change. When the odds in favor have

become so great, it is fair to say, according to one scientist associated with that report, that “some episodes of extreme heat would have been virtually impossible without climate change.” The attribution to specific events is closing in.

Dr. Heidi Cullen, chief scientist at Climate Central and a contributor to the National Academies report, has said:

The days of saying no single weather event can be linked to climate change are over. For many extreme weather events, the link is now strong.

Australian researchers have determined that the ocean warming that led to widespread and devastating coral bleaching on the Great Barrier Reef in March was made not 23 times more likely but 175 times more likely by human-caused climate change. Average water temperatures in the Coral Sea are up about 1.5 degrees Celsius since 1900. We measure that. And about one-half of that 1.5 degrees is due to natural variability, and 1 whole degree of it is from greenhouse gas emissions.

David Kline, a coral reef scientist at the Scripps Institution of Oceanography, has said: “We’ve had evidence before” that “human-induced climate change is behind the increase in severity and frequency of bleaching events. But this is the smoking gun.”

By the way, a bleaching event on a coral reef is like a heart attack in a human. The reef may survive it, but it will take a long time to recover, and very often the reef simply dies. With all of that happening, here we are in this Chamber, sitting on our hands, helpless. We have a responsibility, not only to the voters of today but to the generations who will follow us and inherit the world as we leave it to them.

Here is how Professor of Oceanography, Dr. Laura Faye Tenenbaum, at

NASA’s Jet Propulsion Laboratory, describes her predicament:

As a college professor who lectures on climate change, I will have to find a way to look into those 70 sets of eyes that have learned all semester long to trust me and somehow explain to those students, my students—who still believe in their young minds that success mostly depends on good grades and hard work, who believe in fairness, evenhandedness and opportunity—how much we as people have altered our environment, and that they will end up facing the consequences of our inability to act.

Where do we look for leadership? Not to one of the leading Presidential contenders. This character says he is just “not a great believer in man-made climate change.” So there. Like the science cares what his opinion is. All the science? The decades of research by thousands of scientists across the globe, the pride of the scientific profession? It is a “hoax,” he said, a “con job,” “pseudoscience,” and “BS.” I guess in that latter characterization, he can claim some real expertise. To my Republican colleagues, I have to ask: Is that really the line that we want to have about this problem? Is this your guy? Are you going to stand by him on this stuff?

But wait, it actually gets better. Yesterday POLITICO reported the New York billionaire is also applying for permission to build a seawall. He is a wall-building kind of guy, and he wants to build a seawall to protect his seaside golf resort. What does he want to protect his golf resort from with a wall—rapist Mexicans coming across the border? No. What he wants to defend his seaside golf resort from with a wall is “global warming and its effects.”

Remember the sea level rise I talked about? That is correct. That is what he said. Climate change is a hoax when his political interests dictate, but then it

is real and a threat when his economic interests are involved. Throughout the discussion of climate change, how often we see this—say one thing, do another.

I have to close by reminding my colleagues that my home State of Rhode Island is the Ocean State. We cannot fail to take climate change seriously. If this is uncomfortable for my colleagues, I apologize, but I don’t care. I have obligations to my State that I must discharge. We in Rhode Island are going to stand with America’s leading research institutions and scientists, we are going to stand with our national security experts, we are going to stand with the great American corporations such as Apple, Google, Mars, and National Grid, we are going to stand with President Obama, and we are going to stand with Pope Francis to do everything we can to face this climate challenge head-on. I hope that soon one day it will be time when we can all wake up and stand together.

I yield the floor.

ADJOURNMENT UNTIL 9:30 A.M.
TOMORROW

The PRESIDING OFFICER. The Senate stands adjourned until 9:30 a.m. tomorrow.

Thereupon, the Senate, at 6:52 p.m., adjourned until Thursday, May 26, 2016, at 9:30 a.m.

CONFIRMATION

Executive nomination confirmed by the Senate May 25, 2016:

DEPARTMENT OF JUSTICE

PATRICK A. BURKE, OF THE DISTRICT OF COLUMBIA, TO BE UNITED STATES MARSHAL FOR THE DISTRICT OF COLUMBIA FOR THE TERM OF FOUR YEARS.