

The Biblical Chronologist

WHAT HAS BEEN IS REMOTE AND EXCEEDINGLY MYSTERIOUS. WHO CAN DISCOVER IT?
(Ecclesiastes 7:24)

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Bible/Science Corrects Mistaken Climate Change Science Forecasts

The Noahic Events theory of climate change was published a few months ago under the title, “Bible/Science Corrects Mistaken Climate Change Science.”¹ The present article uses a few sentences from a recent climate change news piece published in The Guardian as a springboard to discuss the climate change topic further, with particular emphasis on forecasting the outcome of presently observed global warming. I wish to clarify that I do not mean to single out or pick on The Guardian. The preaching of a mistaken, carbon-emissions climate change message is hardly unique to it.

A climate change news article, recently published in *The Guardian*, opens by asserting as fact that fossil fuel emissions are the cause of 1) presently observed global warming and 2) presently observed extreme weather events.

The havoc unleashed by Hurricane Milton provided unambiguous evidence that we are entering a critical and alarming new phase in the planet’s climate crisis. Rising fossil fuel emissions have triggered increases in ocean temperatures and sea levels to such an extent they are generating some of the most destructive storms ever experienced in Florida.²

These assertions, though commonly heard today, are actually mistaken opinions, not facts.

¹Gerald E. Aardsma, “Bible/Science Corrects Mistaken Climate Change Science,” *The Biblical Chronologist* 14.5 (March 21, 2024): 1–22. www.BiblicalChronologist.org.

²www.theguardian.com/commentisfree/2024/oct/13/the-observer-view-on-climate-change-hurricane-milton-is-a-portent-but-its-not-too-late (accessed October 17, 2024)

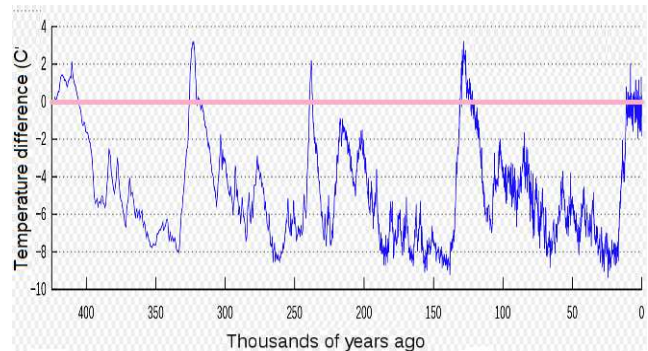


Figure 1: Temperature difference in Celsius degrees relative to 1900 A.D. (pink line) at Vostok, Antarctica, for approximately the past 420,000 years. The time scale is in years before present (BP) with 0 BP corresponding to 1950 A.D. (See en.wikipedia.org/wiki/Climate_variability_and_change#/media/File:Vostok_Petit_data.svg for the original graph, which I used to construct this figure. The pink line was added by me.)

“Climate Crisis”

To begin with, using the Bible/science method of getting at the truth—a method which holds a high view of both the Bible and science, neither denigrating nor deifying either—one finds that the planet is not undergoing a “climate crisis.” Rather, the planet is experiencing a normal episode of interglacial warming.

Polar ice cores show unambiguously that the global warming which is presently happening has happened four times previously at roughly one hundred thousand year intervals. As seen in Figure 1, this is the fifth time in this series of interglacials that global temperatures have exceeded what we have come to regard as normal temperature (pink line). Obviously, this global warming behavior is normal to our planet. Figure 1 shows that the planet has weathered (pun intended) four of these global warming episodes previously. This gives considerable confidence that it will weather the presently-underway global warming episode as well. There is no climate crisis.



Figure 2: The burning of fossil fuels is elevating carbon dioxide levels in Earth's atmosphere. (science.nasa.gov/resource/graphic-the-relentless-rise-of-carbon-dioxide/)

Carbon Emissions

The mistaken idea that Earth is presently in a climate crisis arises only if one pins presently observed global warming on anthropogenic fossil fuel emissions.

It is a fact that carbon dioxide levels in the atmosphere are climbing year by year due to anthropogenic fossil fuel emissions. If one mistakenly supposes that high carbon dioxide levels are driving global warming, then one mistakenly infers a climate crisis in the making because carbon dioxide levels are higher than they have been in hundreds of thousands of years (Figure 2), and there is no end to increasing carbon dioxide levels in sight anywhere in the near future.

But an elementary principle of science argues against the hypothesis that high carbon dioxide levels due to anthropogenic fossil fuel emissions are the cause of presently observed global warming.

Modern fossil fuel emissions result from humans burning fossil fuels—coal, oil, and natural gas—to

power our machines and heat our homes. This began in earnest only with the Industrial Revolution in the late 1700's and early 1800's. So anthropogenic fossil fuel emissions cannot be the cause of any of the previous four interglacials shown in Figure 1. Their global warming episodes (where their temperature differences rise above the pink line) were clearly not caused by humans burning fossil fuels. Nobody was mining coal to generate electricity or pumping oil or natural gas from the ground to power cars and heat homes a hundred thousand years ago.

Clearly, anthropogenic fossil fuel emissions were *not* the cause of previous global warming episodes. Thus, to claim that anthropogenic fossil fuel emissions are the cause of presently observed global warming is to violate Occam's razor by multiplying hypotheses unnecessarily. According to Occam's razor, a single hypothesis explaining interglacial global warmings, both past and present, is to be preferred.

Noahic Events

The cause of interglacial global warming episodes is not fossil fuel emissions. It is Noahic Events, as I have previously explained.³

According to the Noahic Events theory of climate change, the fundamental factor responsible for the climate change displayed by Figure 1 is the amount of sunlight reflected back into space by Earth's glaciers. When glaciers are large, during glacial epochs, a significant fraction of incoming solar radiation is reflected back into space, and Earth's air temperature cools down.

Glaciers grow the way pancakes grow. If a little batter is poured onto the center of a hot frying pan, the result will be a small pancake in the center of the frying pan. But if instead lots of batter is slowly poured onto the center of the frying pan, then the pancake spreads out, filling the frying pan. The weight of newly added batter pushes older batter away from center. For glaciers, the weight of new snow, added year by year for thousands of years, pushes previous snow and ice out away from center, causing the glacier to spread out and grow.

Noahic Events cause hemispherical flooding by the water of the oceans.⁴ When ocean water floods glaciers, it causes them to thin due to melting. Thin glaciers stop growing and spreading because of a loss of weight. When the flooding is over, they begin to add back new snow in their interiors, slowly growing in thickness there once again, but it takes thousands of years for enough new snow to accumulate on top of the old, thinned glacier for the glacier to begin to spread out once again. Meanwhile much of the old ice out away from center slowly continues to thin due to summer meltback. Eventually, after several thousand years, this ice thins to zero thickness. Suddenly, the land appears once again. Solar radiation previously being reflected suddenly begins to be absorbed, and air temperatures begin to rise.

Contrary to common misconception, the glaciers are not melting because of global warming.

Rather, global warming is presently happening because the Arctic glaciers are melting. They were thinned by flooding with ocean water during Noah's Flood 5,500 years ago. They have been experiencing net loss of ice at their margins ever since. The glaciers are adjusting their shape and size as a natural consequence of having been thinned. This is temporary. Ultimately, they will begin to grow again.

The Noahic Events theory of climate change does not violate Occam's razor. According to it, thinning of glaciers by Noahic Events is the sole cause of interglacial global warmings, both past and present. The present global warming is a predictably delayed consequence of that particular Noahic Event which is recorded in the biblical book of Genesis and popularly known as Noah's Flood. Carbon dioxide levels in the atmosphere are a red herring when it comes to explaining interglacial warming episodes past and present.

The Guardian Forecasts

Farther down in the same article by *The Guardian*, a number of forecasts are given.

Jim Skea, the chair of the Intergovernmental Panel on Climate Change (IPCC), recently warned the world was headed towards 3C warming [i.e., a rise in global mean temperature of 3 Centigrade degrees above its 1900 A.D. level] by 2100 if current policies are maintained. In such an overheated world, several catastrophic points of no return would be passed, from the runaway melting of ice sheets to the Amazon rainforest drying out, on top of catastrophic sea-level rises and the displacement of millions of people whose homelands have become uninhabitable.⁵

From my Bible/science vantage point, I see merely alarmism, not facts or even legitimate science, in these forecasts.

Look at the temperature difference data shown in Figure 1 again. It falsifies the claim that 3C warming will trigger "runaway melting of ice

³Gerald E. Aardsma, "Bible/Science Corrects Mistaken Climate Change Science," *The Biblical Chronologist* 14.5 (March 21, 2024): 1–22. www.BiblicalChronologist.org.

⁴Gerald E. Aardsma, *Noah's Flood Happened 3520 B.C.* (Loda, IL: Aardsma Research and Publishing, 2015). www.BiblicalChronologist.org.

⁵www.theguardian.com/commentisfree/2024/oct/13/the-observer-view-on-climate-change-hurricane-milton-is-a-portent-but-its-not-too-late (accessed October 17, 2024)

sheets.” It shows a 3C-warming event three interglacials ago. This 3C warming did not cause runaway melting of the Antarctic ice sheet. We know this because the data of Figure 1 are measured from ice cores drilled through the Antarctic ice sheet at Vostok, Antarctica. If the Antarctic ice sheet had melted away in a “runaway melting of ice sheets” due to this 3C warming event, then there would be no ice from times earlier than the 3C warming event. But Figure 1 reveals another full 100,000 year interglacial cycle’s worth of ice at earlier times. The Antarctic ice sheet clearly survived this remote 3C-warming event.

In addition to being falsified by available climate change data, these alarmist forecasts show a lack of comprehension of the fundamental design of our planet.

Somewhat counterintuitively, heating the planet does not eradicate glaciers. It grows them. Earth’s glaciers are actually part of a negative feedback loop which counteracts overheating of the planet.

Glaciers grow as a result of snow falling on them. Snow results from water vapor crystallizing in the atmosphere. To get water vapor into the atmosphere to make snow, liquid water needs to be evaporated. Evaporation of water takes a lot of heat energy. So, the warmer the source of water is, the more water vapor will get into the atmosphere, and the more snow will crystallize from the atmosphere and fall onto the glaciers. Thus, heating the planet causes glaciers to grow. One might say that warming the planet feeds the glaciers.

Meanwhile, as glaciers grow, they reflect more incoming solar radiation back out into space, and this cools the planet.

This is a natural negative feedback loop which protects Earth against overheating. Earth’s “twin” planet, Venus, does not have this feedback loop, and it is definitely overheated. Its average surface temperature exceeds 800°F, hot enough to melt lead.

Earth may be *temporarily* warmed, but growth of its glaciers will protect it from overheating. Temporary warming can happen because glaciers are ponderous and take time to grow. This is what global warming has always been in the past, as Figure 1 shows. All four previous interglacials were episodes of temporary warming. They happened because the northern glaciers were first thinned

due to flooding by ocean water during unique triplet, northern Noahic Events.⁶ The result was eventual recession of the glaciers, reducing Earth’s reflectivity and thus warming the earth via increased absorption of solar radiation.

But the warmed Earth responded by cooling back down, as Figure 1 shows, not by going on to melt the glaciers completely away and overheat the planet. Earth cooled back down because the glaciers began to grow again. Warming simply fed the glaciers, encouraging new growth.

Overall, anything which might cause the planet to heat up, including greenhouse gases such as carbon dioxide emitted into the atmosphere, will be counteracted by the growth of Earth’s glaciers. Thus, carbon emissions, in the worst case, can only bring about net growth of the glaciers and eventual cooling, not catastrophic loss of glaciers and overheating.

The forecasts by *The Guardian* are not supported by legitimate science.

***The Biblical Chronologist* Forecasts**

What, really, can we expect in the future as a result of presently observed global warming?

To answer this question, begin by assuming that there will be no further Noahic Events in the time span under discussion. This assumption may be entirely false. We do not currently know when the next Noahic Event might happen, as previously discussed.⁷ There is currently nothing known to science preventing another Noahic Event at any time. The assumption is necessary, nonetheless, to allow semi-quantitative forecasting to happen.

We now know that carbon emissions are not the cause of global warming. Thus, past, present, and future carbon emissions can simply be ignored.

To learn what to expect in the future from the deglaciation currently underway, we need to look at what happened in the case of previous deglaciations. This turns our attention to Figure 1 once again.

⁶Gerald E. Aardsma, “Bible/Science Corrects Mistaken Climate Change Science,” *The Biblical Chronologist* 14.5 (March 21, 2024): 1–22. www.BiblicalChronologist.org.

⁷Gerald E. Aardsma, “Bible/Science Corrects Mistaken Climate Change Science,” *The Biblical Chronologist* 14.5 (March 21, 2024): 1–22. www.BiblicalChronologist.org.

Assume the chronology shown in the graph of Figure 1 is roughly correct. Building accurate ice core chronologies is not easy. It is certain that this chronology is not correct in detail—more on this below. But assume it is roughly correct to facilitate discussion and manipulation of the graph without frequent caveats.

Figure 1 shows five deglaciations, the fifth one (farthest right) being the deglaciation which is currently underway. We are trying to forecast how this fifth deglaciation will end. How high is the temperature likely to go? How long is it likely to take to reach its maximum? And what is likely to happen after that?

We expect the present deglaciation to be similar to the other four deglaciations. Unfortunately for the present purpose, the previous four deglaciations are not all identical. They reach different maximum temperatures, for example. Thus, to make the most precise forecasts from ice core data, it is necessary to interpret the data in light of the Noahic Events theory of climate change. This theory provides an explanation of why these peaks look the way they do (Figure 3). It says, as I will now show, that we should expect the present (rightmost) deglaciation to be most similar to the first (leftmost) deglaciation.

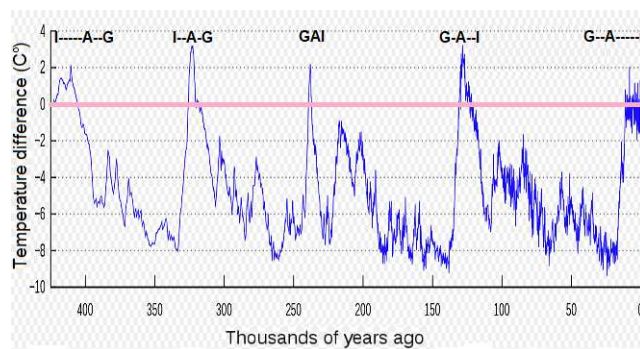


Figure 3: This is the same graph as Figure 1 except that here, each deglaciation peak is labeled to show the sequence and rough timing of Noahic Events giving rise to it. The three Noahic Events involved are Iceland (I), Afar (A), and Galápagos (G). The approximate relative lapse of time between these Noahic Events is indicated by dashes. The center peak has no dashes, indicating that the three Noahic Events were approximately simultaneous. More high frequency variation is apparent in younger peaks. This is a preservation/sampling effect. Annual accumulation of snow is present in older ice in much thinner layers than younger ice as a result of deformational thinning due to the weight of overlying ice. This causes short term variations to be averaged out.

Why Choose the Leftmost Peak?

The Noahic Events theory of climate change predicts that the closer together in time the three Noahic Events giving rise to each of these deglaciations occur, the higher the temperature spike will go (i.e., the taller the peak will be) and the faster it will be over (i.e., the narrower the peak will be).

The peak will go higher because more glaciers are being thinned by flooding all at once, which will result in more ice being melted away and land area being exposed all at once (about five and a half thousand years later), which will result in greater loss of total reflectivity all at once, which will produce greater absorption of solar radiation all at once, which will cause greater warming of the planet all at once. Said simply, global warming is a transient behavior, and concentrating the driving force amplifies the response.

The peak will be thinner, not only because the warming due to individual Noahic Events is happening all at once rather than being spread out in time, but also because adding more heat all at once produces the highest maximum temperature which feeds most rapid regrowth of the glaciers.

The center peak may seem to falsify the amplitude prediction. It agrees with the prediction that it should be the thinnest peak, but disagrees with the prediction that it should be the tallest peak.

I suggest that this does not represent a falsification of the theory but rather a limitation of the ice core dataset.

I have previously pointed out that the problem of missing ice is inevitable with these ice core datasets.⁸ I suggest that the center peak does not rise as high as it should because there is a time gap due to missing ice at this point in the ice core dataset (Figure 4).

The loss of ice, in this case, may be due to Noahic Event flooding at Vostok due to one of the southern Noahic Events, but its coincidence with this highest peak suggests another possibility. It may have been due to actual melting and/or sublimation of the top of the ice sheet at Vostok due to the unusually elevated temperature back at that particular time. In such a case, ongoing loss of ice

⁸Gerald E. Aardsma, "Bible/Science Corrects Mistaken Climate Change Science," *The Biblical Chronologist* 14.5 (March 21, 2024): 1–22. www.BiblicalChronologist.org.

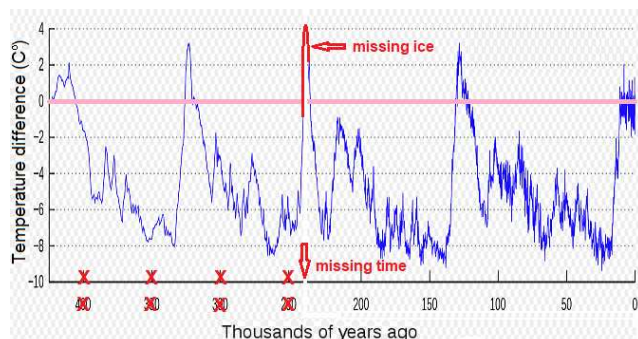


Figure 4: The graph of Figure 1 has been modified once again, this time to illustrate how missing ice may explain the shorter than expected center peak. The peak shown is hypothetical, for illustrative purposes only. Its true height and width are not known. As a result of loss of ice, the ice core record is missing the chunk of time during which the peak occurred. The missing chunk of time illustrated here is roughly 3,500 years. The true time gap is probably smaller than this, but this large gap facilitated ease of illustration. Average annual accumulation of snow at Vostok is observed to be about nine tenths of an inch today. This implies a loss of some 260 feet of snow from the top of the ice sheet. The same effect is possible in a much shorter time interval, with much less loss of snow, especially for a sharp, narrow peak such as this center peak is expected to have been.

from the Antarctic ice sheet could carry on for a protracted length of time, but eventually the Arctic glaciers, which had melted back, causing the heat spike, would begin to grow again, increasing reflectivity and cooling the planet once again, thus halting further Antarctic melting and/or sublimation.

The hypothesis that ice is missing for this center peak may be tested in a fairly simple way. The EPICA ice core is taken from a location on the Antarctic ice sheet which is warmer than Vostok. Thus, it would be expected to be even more prone to loss of ice due to unusually elevated temperature. In that case, even more of the center peak would be lost, making the EPICA center peak relatively shorter than the Vostok center peak.

Figure 5 shows that this is indeed the case, corroborating the missing ice hypothesis. The EPICA (red) center peak is substantially shorter than the red peaks on either side of it whereas the Vostok (green) center peak is only slightly shorter than the green peaks on either side of it.

Returning to the main point, it appears that the Noahic Events theory of climate change does a good job of explaining the shape of these deglaciation peaks.

Now notice that the peaks either side of the center peak look similar to each other. This is true whether one focuses on the EPICA dataset or the Vostok dataset. In either dataset, the peaks either side of the center peak reach similar maximum heights and have similar widths and strikingly similar shapes with a leading rapid rise and then a fall with a shoulder on it.

This implies that reversing the order of the three Noahic Events involved in both of these two side peaks (Figure 3) did not significantly change the temperature response of the planet.

And this leads to the expectation that the temperature response to the present (rightmost) deglaciation (Figure 1) should look most similar to that of the first (leftmost) deglaciation, the ordering of which is also reversed (Figure 3).

This works out very well in practice, as Figure 6 shows, allowing the following predictions to be made (focused mainly on the more objective red peaks alignment):

1. We have not yet reached the maximum temperature for the present deglaciation. Average global annual temperature will continue to increase.
2. Maximum temperature may take centuries to achieve. (For scale, note that the width of the vertical 1950 A.D. grid line in Figure 6 is 300 years.)
3. The long-term average temperature rise above the 1900 A.D. fiducial temperature will be roughly 2 Celsius degrees, as it was for the leftmost peak of Figure 1. (But note that this is the long-term average. There may, of course, be short-term excursions above this average lasting for decades or even centuries.)
4. The polar ice sheets will shrink, but they will not disappear.
5. Net growth of the glaciers (i.e., glaciation) will resume by at most two thousand years from now, cooling Earth back down once again.

Extreme Weather Events

One more correction of *The Guardian* news piece seems necessary before closing this article.

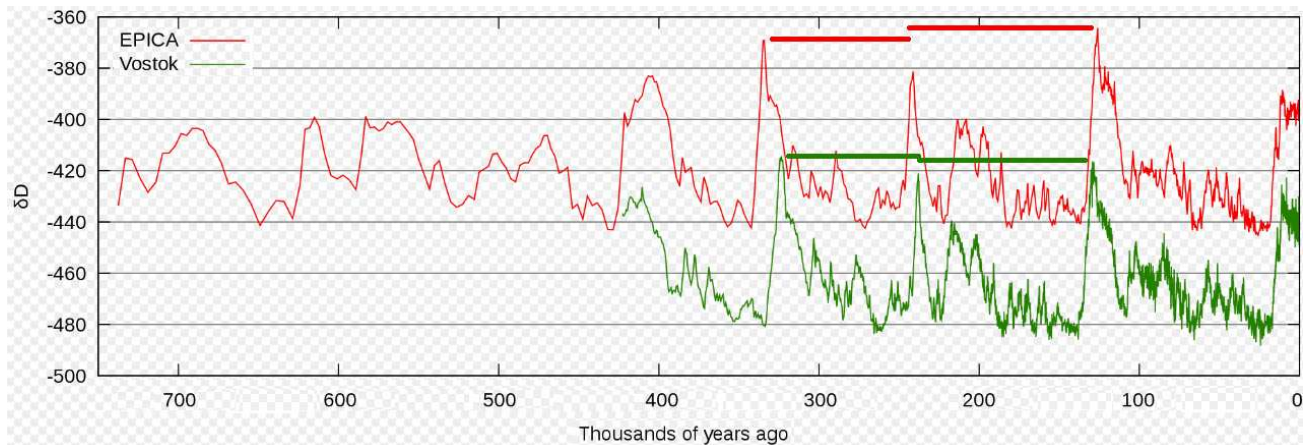


Figure 5: A comparison of two different ice core records from widely separated locations in Antarctica. The green (Vostok) curve is lower down on the graph than the red (EPICA) curve because the Vostok core is from a colder region on the ice sheet than the EPICA core. The peaks do not always line up exactly on the time axis in this comparison because of inaccuracies inherent in constructing the chronologies of the ice cores. I drew horizontal lines from the peaks on either side to help show the relative shortness of the center EPICA peak compared to the center Vostok peak. While the demonstration of the relative shortness of the central peak is the main point of this figure, notice also that the five interglacial peaks are not repeated at earlier times. This is because the three Noahic Events involved in each of these deglaciations have slightly different periods. They happen to coincide only at the central peak. They become increasingly separated as one moves either to the right or to the left of the central peak—which is why the peaks get shorter and fatter the more one moves away from the central peak. Prior to the leftmost of the five deglaciation peaks, the three Noahic Events were sufficiently separated to not produce prominent deglaciation peaks. (See en.wikipedia.org/wiki/European_Project_for_Ice_Coring_in_Antarctica#/media/File:EPICA_delta_D_plot.svg for the original graph, which I used to construct this figure.)

Global warming can be expected to increase extreme weather events, but this is an effect of global warming, not an effect of carbon emissions. Thus, whatever statistically significant increases in extreme weather events may ever be observed, these increases will not be evidence supporting the fossil fuel emissions theory of global warming, as global warming is due to Noahic Events, not emissions.

Rising temperatures due to global warming due to receding glaciers due to Noahic Events are sure to increase water vapor in the atmosphere due to increased evaporation from the oceans, which is bound to drive more stormy weather and more severe storms. But before blaming any observed increase in extreme weather events entirely on global warming, one should first stop and consider whether current efforts to reduce carbon emissions may also be responsible.

Specifically, on the basis of fundamental physics, it appears that wind power can only exacerbate the problem of extreme weather events.

Winds exist on Earth because the equator is hot, and the poles are cold. Winds are driven by this temperature difference. Winds from the poles act

to cool the equator. Winds from the equator act to warm the poles. If the winds were to be shut off, the equator would be very much hotter, and the poles would be very much colder.

Wind energy results from the velocity of the wind. Wind turbines extract energy from the wind. Extracting energy from the wind reduces its velocity—it slows the wind down. In consequence, the temperature difference between equator and poles will increase. The poles will get colder and the equator will get hotter. This will counteract global warming at the poles but exacerbate it at the equator. And it will produce stronger (higher velocity, more energetic) source winds. Both of these effects—the larger temperature difference between poles and equator, and the stronger source winds—will produce more extreme weather, which can only contribute to extreme weather events.

Solar power, too, is not climate neutral. In particular, on the basis of fundamental physics once again, it appears that solar power can only exacerbate global warming.

This is very easy to see. Solar panels are designed to absorb as much sunlight as possible. This

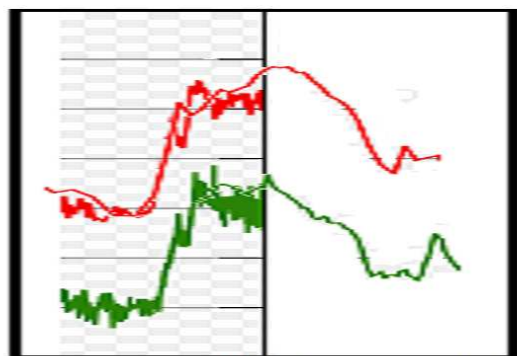


Figure 6: This shows a superposition of deglaciation peaks to facilitate forecasting the deglaciation presently underway using the similar deglaciation from 400 thousand years ago. The red and green deglaciation peaks near 400 thousand years ago from the Figure 5 graph have been moved forward and placed on top of the red and green deglaciation peaks near 0 thousand years ago. The horizontal scale has been expanded by a factor of eight to aid visual comparison. The mottled gray background and horizontal grid lines for the older deglaciation peaks were first erased to allow these peaks to be placed on top without obscuring the younger peaks underneath. This made alignment of the deglaciation peaks from the EPICA (red) ice core easy using their steep leading edges. No vertical displacement was found to be needed. The Vostok (green) deglaciation peaks were aligned separately by eye, also without vertical displacement. The older green deglaciation peak lacks a steep leading edge, making horizontal alignment more subjective in the Vostok case. The younger peaks show a great deal more high frequency “noise” than the older peaks. This results from thinning of deeper (older) ice, due to the weight of overlying ice and snow, averaging out short-period variability.

is just another way of saying that their reflectivity of solar radiation is very low. Covering land area with solar panels does the opposite of covering land area with glaciers. The result of covering land area with solar panels is to decrease Earth’s reflectivity. This causes more incoming solar radiation to be absorbed, which can only exacerbate global warming since, as we have seen, reduction of Earth’s reflectivity is the fundamental cause of global warming past and present. And, as we have already seen, global warming can be expected to increase extreme weather events.

Exacerbation of extreme weather events appears to constitute a potentially large liability for large-scale utilization of both wind power and solar power.

According to fundamental physics, if the goal is to mitigate global warming and concomitant extreme weather events, it makes a great deal more sense to legislate that all roofs must be white than

it does to meddle with the global energy infrastructure. To reduce global warming, one needs to do what glaciers do: reflect more sunlight back out into space.

Conclusion

Climate change scientists need to regroup. The Noahic Events theory of climate change provides an explanation of global warming which is obviously far superior to that of the fossil fuel emissions theory.

The “net zero” carbon emission goal is a mistake. The expenditure of taxpayer money to achieve “net zero” is a boondoggle. The scientific theory driving this goal is wrong, and the efficacy and potentially hazardous consequences of the “remedies” being enacted for carbon emissions appear to have been insufficiently thought through.

Climate change journalists need to get their facts straight. Climate change alarmism needs to stop.

The vast resources presently being misdirected to reduce carbon emissions need to be redirected toward scientific investigation and mitigation of the real hazard: the destruction of civilization and decimation of the global human population by the next Noahic Event. ◇

The Biblical Chronologist is written and edited by Gerald E. Aardsma, a Ph.D. scientist (nuclear physics) with special background in radioisotopic dating methods such as radiocarbon. *The Biblical Chronologist* has a fourfold purpose:

1. to encourage, enrich, and strengthen the faith of conservative Christians through instruction in biblical chronology and its many implications,
2. to foster informed, up-to-date, scholarly research in this vital field,
3. to communicate current developments and discoveries stemming from biblical chronology in an easily understood manner, and
4. to advance the growth of knowledge via a proper integration of ancient biblical and modern scientific data and principles.

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