

GSM - Grand Solar Minimum. The real "Climate Change" existential threat is right around the corner. Do the Research!

CSS-54a

Greenland AMO Correlation

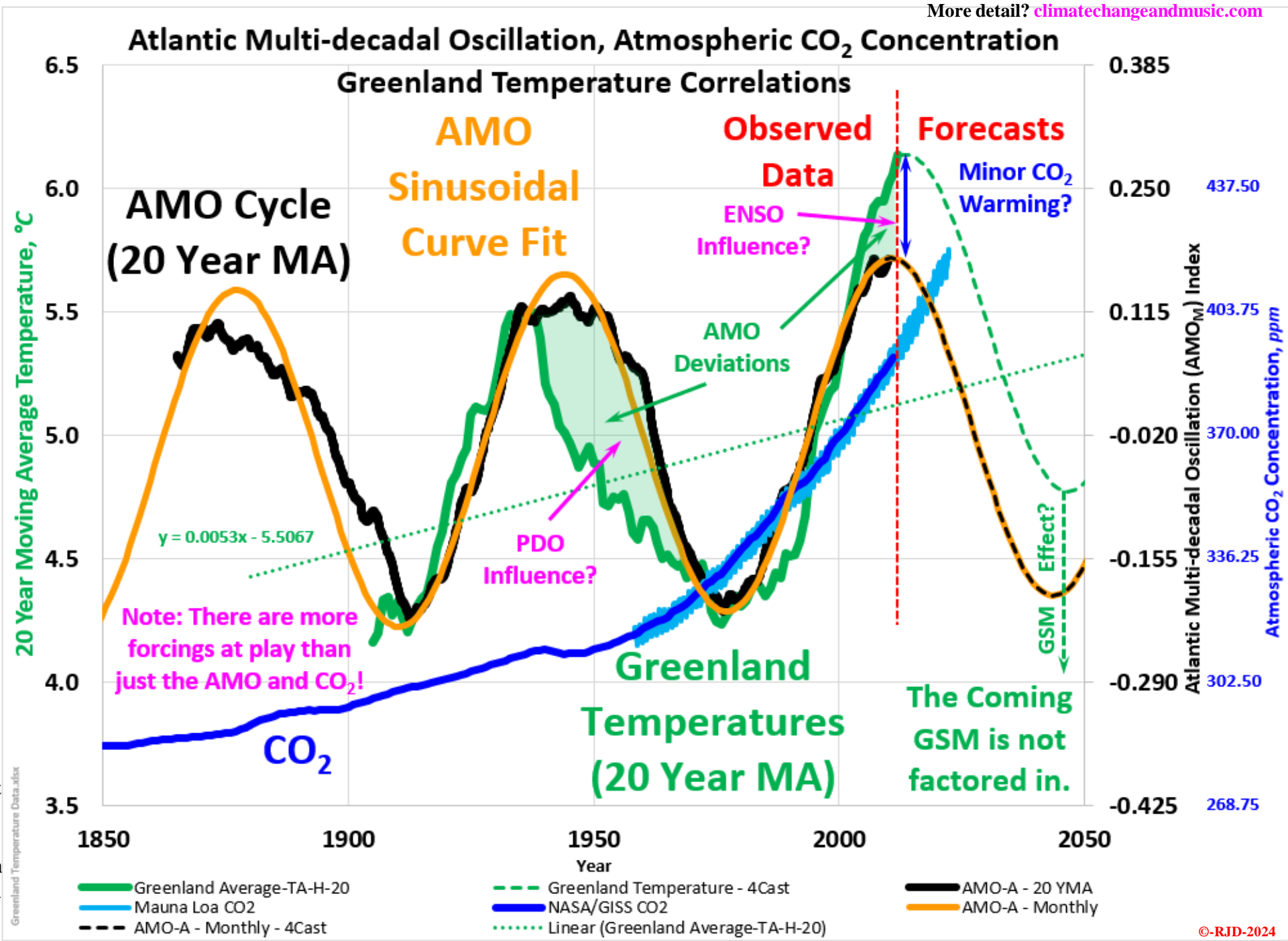
This post builds on my OPS-72 - Where are Greenland Temperatures Headed? and [CSS-26 - Greenland/Iceland AMO-PDO-CO2 Distribution](#)

posts. The Atlantic Multi-decadal Oscillation (AMO_M, 20 Year Moving Average (YMA)) correlates quite well with the average Greenland Temperature (20 YMA). The CO₂ correlation is dismal. There are two significant deviations from the AMO_M. The most likely reason for the 1935 to 1957 deviation is the Pacific Decadal Oscillation (PDO_M), certainly not CO₂. Slide CSS-54c shows the consolidated AMO_M/PDO_M Temperature correlation.

The second AMO_M deviation begins early in the 21st century. There

is a strong ENSO pulse that began with the very strong 1998 El Niño. If anthropogenic CO₂ influence is significant this is where that impact would be felt (86% of human CO₂ emissions have occurred post-1950. Given Greenland is in the North Atlantic, the AMO_M likely has a stronger impact than the PDO_M. Here they have equal weighting.

Greenland AMO Correlation



More detail? climatechangeandmusic.com

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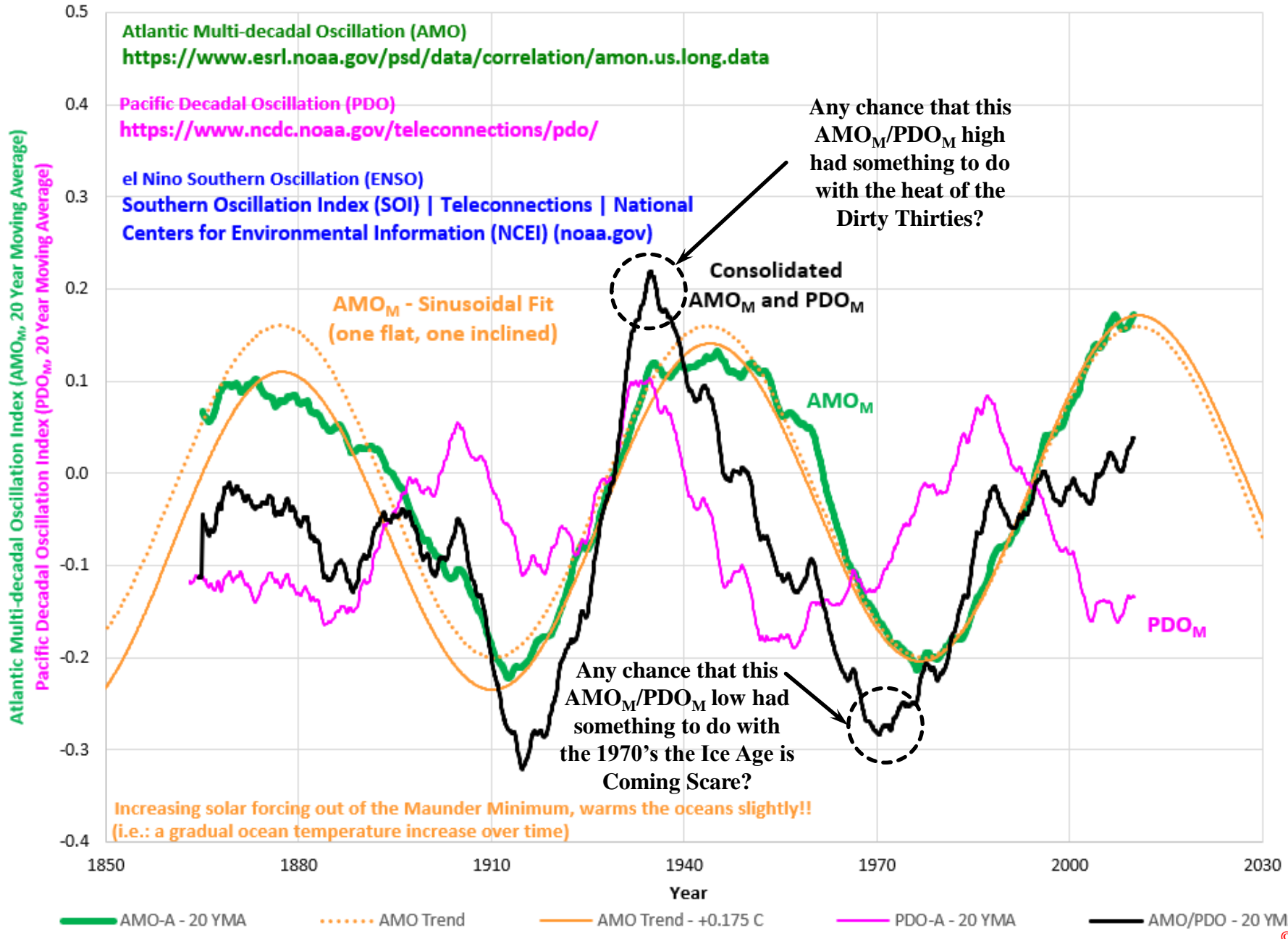
AMO_M/PDO_M Consolidation

This slide shows the AMO_M and PDO_M curves and the AMO_M/PDO_M consolidation. There also two sinusoidal curves laid over the AMO_M. The dashed curve represents a flat sinusoidal curve. The solid sinusoidal curve factors in the slight warming rising solar forcings would create in the world's oceans. A 0.175 °C temperature rise out of the depths of the Little Ice Age (LIA), the Maunder Minimum, provides the best fit to AMO_M. The El Niño Southern Oscillation (ENSO) could also be factored in, but that dataset is not as long, and the charts would become that much more complicated.

AMO_M/PDO_M Consolidation

Strange how the Dirty 30s line up with AMO_M/PDO_M high and the Ice Age is Coming Scare lines up with the AMO_M/PDO_M low. Not really given that ocean temperatures ultimately drive atmospheric temperatures, not CO₂. The AMO, PDO and ENSO routinely dominate CO₂ influence (and not just in Greenland/Iceland).

AMO_M-PDO_M Comparison



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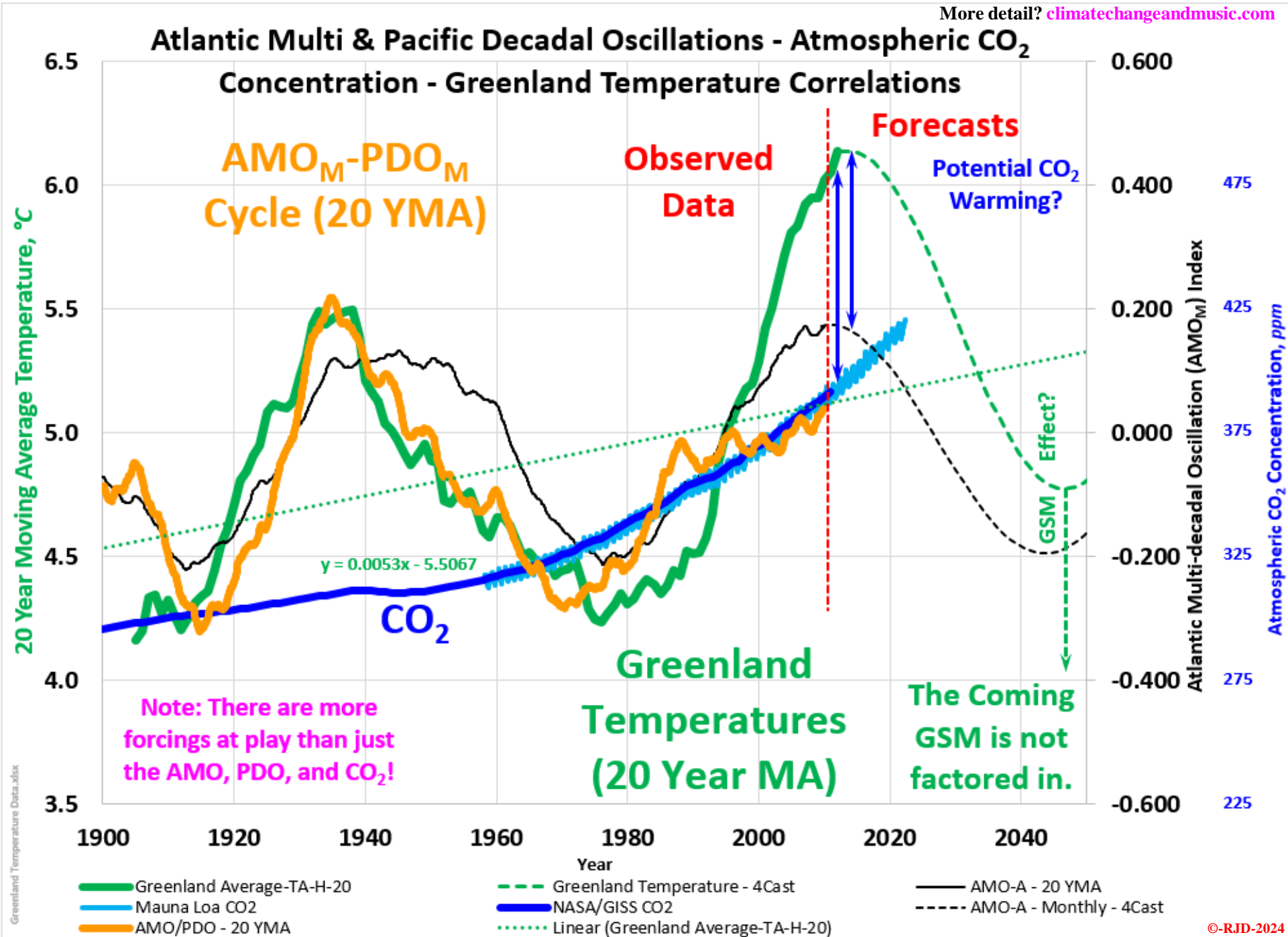
AMO_M/PDO_M Consolidation & Temperatures

This slide correlates the AMO_M/PDO_M consolidation with Greenland's average temperature. The AMO_M/PDO_M consolidated correlation is much better over the early 20th century cycle, but not as robust as the AMO_M alone over the next cycle (refer to CSS-54a). However, the AMO_M/PDO_M consolidated correlation is, without a doubt a much better correlation than CO₂. A PDO_M forecast is not as simple to produce as the AMO_M forecast, given the much more erratic historical data. The AMO_M forecast will still very

AMO_M/PDO_M Consolidation Temperature

likely be the dominant forcing on Greenland temperatures. Unfortunately,

for Greenland (and the rest of the planet), there are several other major cooling influences set to severely impact global temperatures over the next few years/decades. The forecasted Grand Solar Minimum (GSM) will drive temperatures lower in the real world, just not in the computer models that are self-acknowledged to run way too hot.



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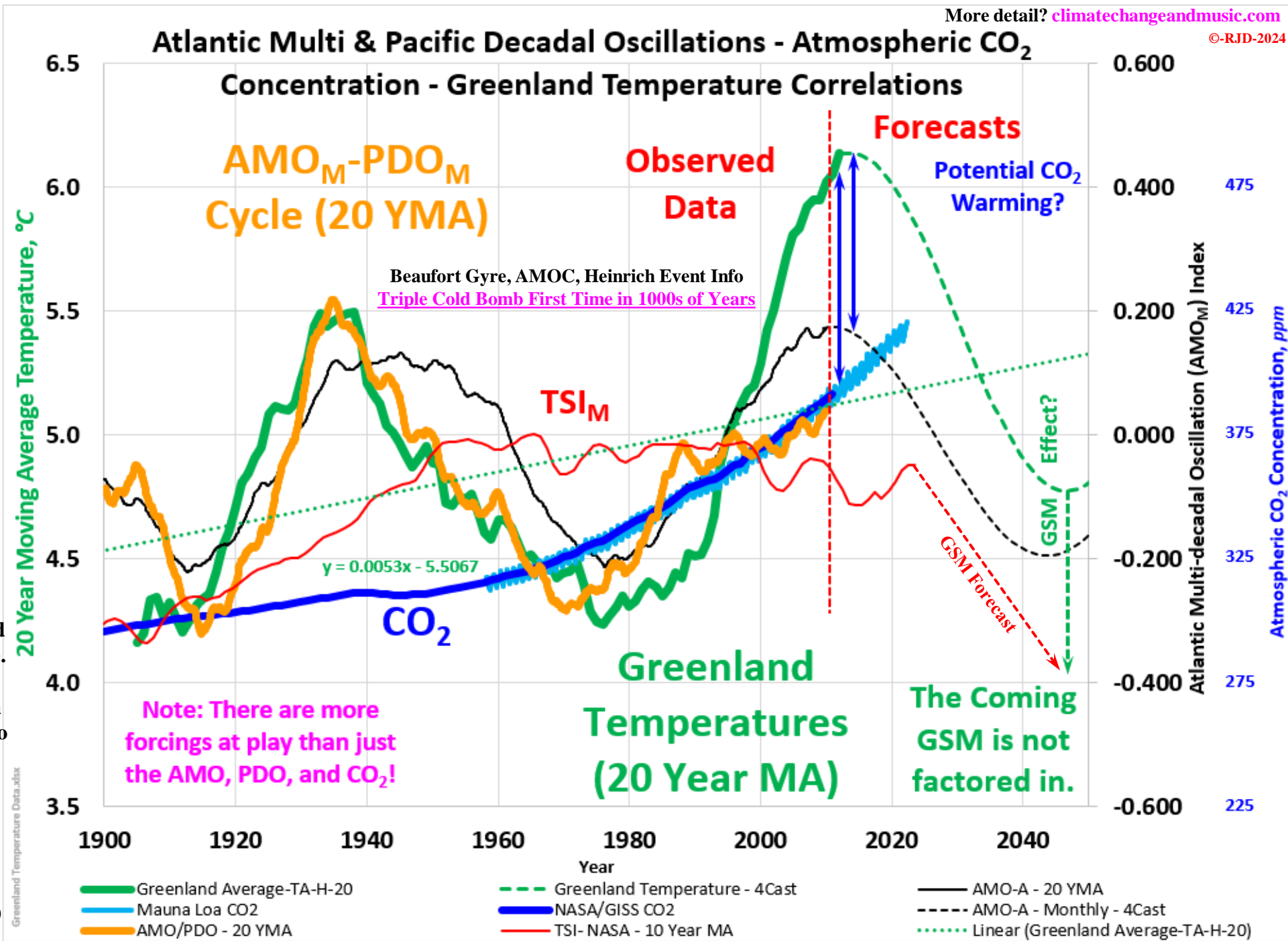
CSS-54d

Rolling In Solar Activity

This slide superimposes the Total Solar Irradiance (TSI_M, 10 Year Moving Average (YMA)) over the CSS-54c data sets. This dataset (the Naval Research Lab's NRLTSI2 TSI) was pulled off NASA's website originally. There is a wide variety of TSI reconstructions summarized in detail by [Soon-Connolly² et al's 2023 paper](#), summarized in my [CSS-51 - Soon-Connolly - Solar Forcings](#) post. As shown in my [CSS-42 - The Role of the Sun - Scaffeta 2023](#) post, the Naval Research Lab's TSI reconstruction is close to the average TSIs used by Scaffeta in his recent [2023 paper](#) and should be representative.

Rolling In Solar Activity

Things will be bad enough with the AMO and GSM cooling. You can also roll in the imminent Beaufort Gyre freshwater release, the Atlantic Meridional Overturning Circulation collapse (AMOC, surprisingly in the mainstream news right now) and the regular 6,000-year Heinrich warming event we are experiencing (no, not CO₂) which leads to more ocean cooling.



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CSS-54e

Beaufort Gyre, AMOC, Heinrich Event Info
Triple Cold Bomb First Time in 1000s of Years

Beaufort Gyre, AMOC, Heinrich Events, Oh My!

The Climate system is indeed complicated! But sure, we should keep going with the religious belief that CO₂ is the only viable climate driver and society killing CO₂ emission reduction and carbon taxes are the only solution. The Atlantic Meridional Overturning Circulation has been in the mainstream news a lot lately and they have begun acknowledging that the real threat is sudden cold (think, "The Day After Tomorrow" (according to the [Weather Channel](#))). Yet the powers that be are still planning to geoengineer some additional cooling. What could go wrong? Mother Nature is way ahead of Bill Gates et al with the AMO in the batter's box and the GSM on deck. The heart of the batting order (BG, AMOC and Heinrich) are still in the hole. And CO₂ (to continue the baseball metaphor) is minor league and summed up in my

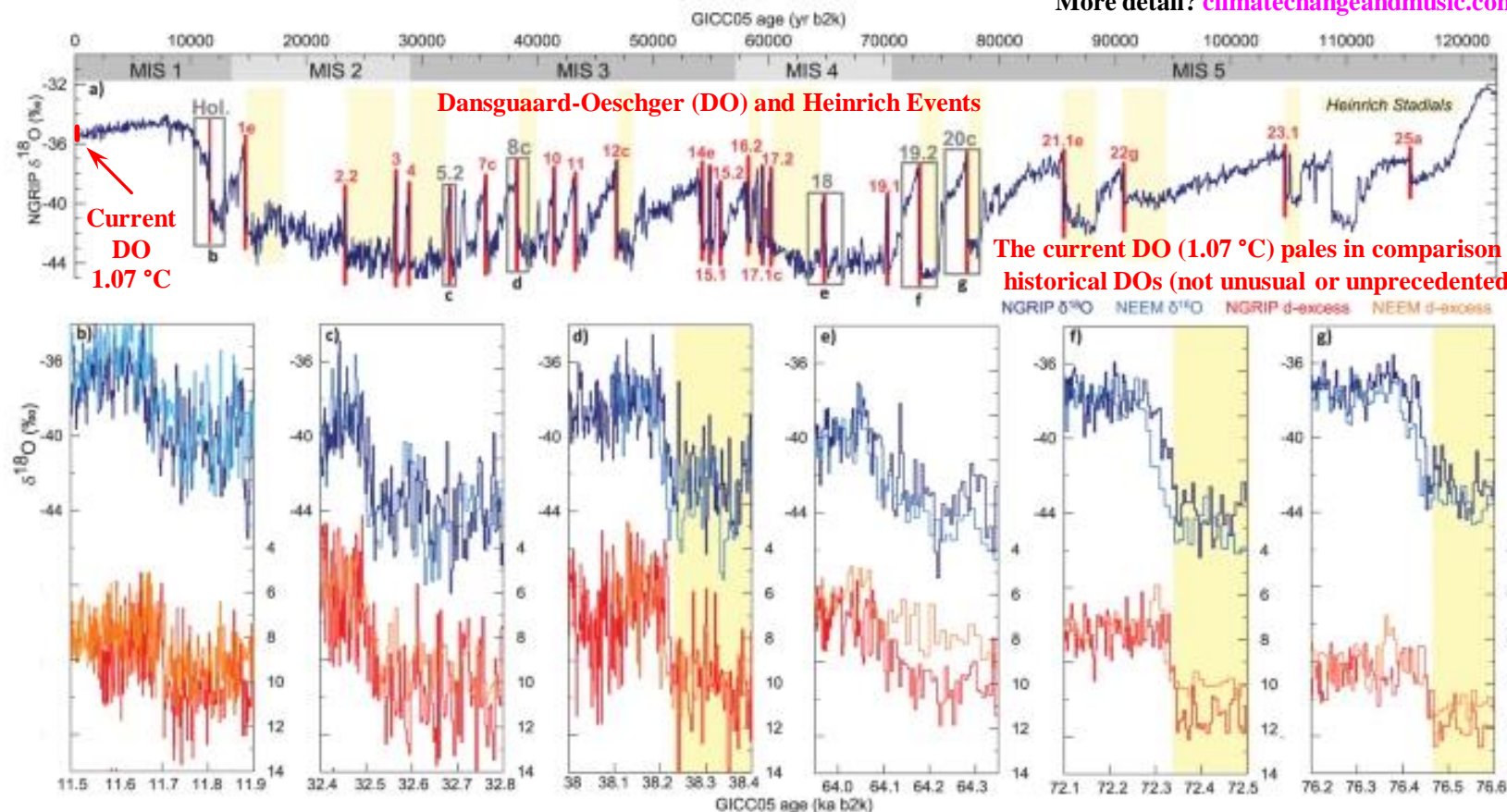
[CSS-53 - CO₂'s Moneyball Moment](#) post. These three

Beaufort Gyre AMOC Heinrich Events

events (BG-AMOC-H) are all linked and will very likely push the globe into a rapid cooling phase. The Dansgaard-Oeschger (DO) events (red spikes, rapid temperature rise) are followed by Heinrich events (a quick drop in temperature). The DO events appear to be stronger in the colder historical periods. The current DO began centuries (i.e.: in the LIA) before measurable anthropogenic global warming was even possible. The BG and Heinrich cold freshwater releases could easily disrupt the AMOC in the very near future. [Wake Up](#)

Fig. 1: Abrupt climate variability recorded in Greenland water isotopic records.

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The current DO (1.07 °C) pales in comparison to historical DOs (not unusual or unprecedented)

