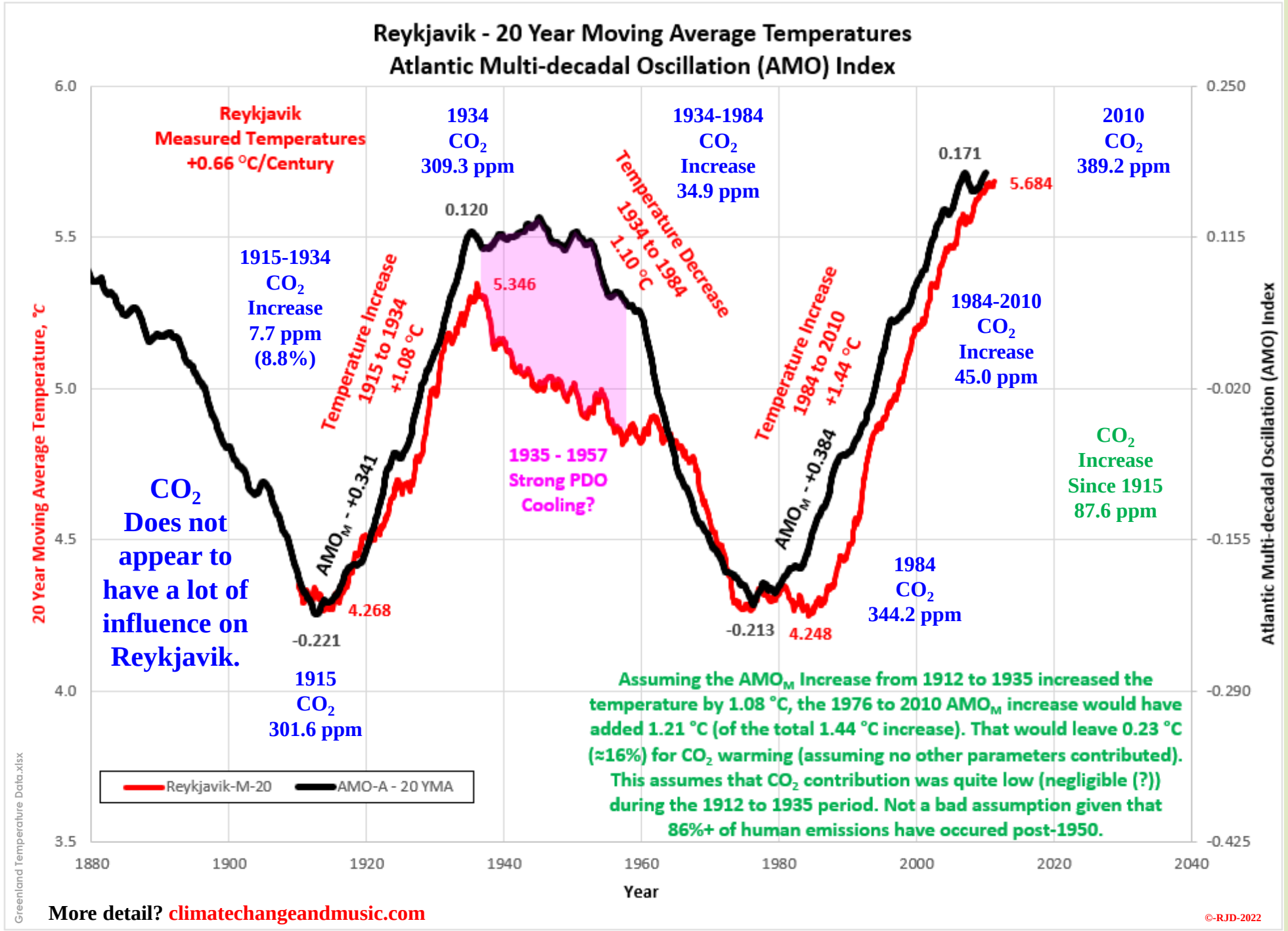
CSS-26a

Greenland/Iceland $AMO_M/PDO_M/CO_2$ Distribution Reykjavik

This CSS is an extension of the more detailed data review in my CSS-23 – Greenland/Iceland – Homogenization post. In CSS-23, I showed that that Greenland and Iceland temperatures and the AMO_M correlated quite well. This plot compares the AMO_M (20 Year Moving Average (M-Momentum)) to the 20 Year Moving Average Temperature (T_{20}). The AMO_M still correlates quite well but there is an earlier than expected temperature decline from the mid 1930s to the late 1950s. Begs the question, what caused the deviation? Definitely not CO_2, which was continuously rising. The most likely cause was a rapidly declining PDO_M from 1935 to 1957. If we assume the AMO_M was responsible for the warming from 1915 to 1934, then only 16% of the 1984 to 2010 temperature rise can be attributed to CO2 (assuming no other drivers (PDO, ENSO, Solar Activity, etc.) are active).

Reykjavik Temperature AMO_M



More detail? climatechangeandmusic.com

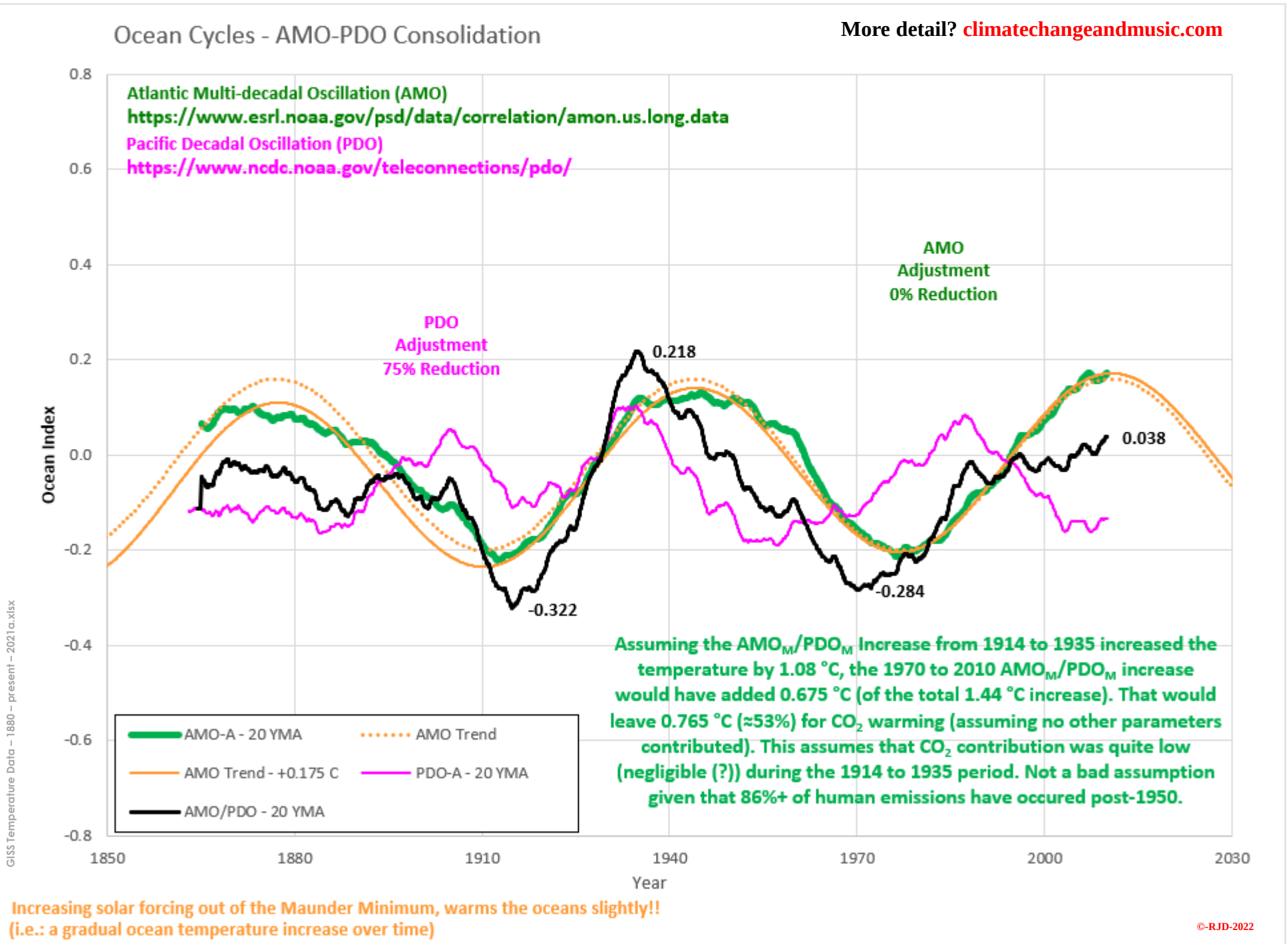
GSM – Grand Solar Minimum. The real "Climate Change" existential threat is right around the corner. Do the Research!

Greenland/Iceland $AMO_M/PDO_M/CO_2$ Distribution AMO_M/PDO_M

This slide lays out the AMO_M and PDO_M and their consolidation. The AMO, in general appears to have the stronger effect on global temperatures, so I have arbitrarily reduced the PDO_M by a factor of 75%. Given that we are looking at a very isolated location, that reduction may require an increase. The 1935 to 1957 PDO_M drop coincides with a relatively flat AMO_M, which may have provided a means for the PDO_M to exert more influence than normal in the North Atlantic.

AMO_M/PDO_M Consolidation

Using the consolidated AMO_M/PDO_M gives more room for CO_2 contribution (53% of the 1984 to 2010 Reykjavik temperature increase). Again, the other potential climate drivers would cut into that 53%. And the PDO_M effects (relative to Reykjavik) may be less than estimated here or they may be intermittent.

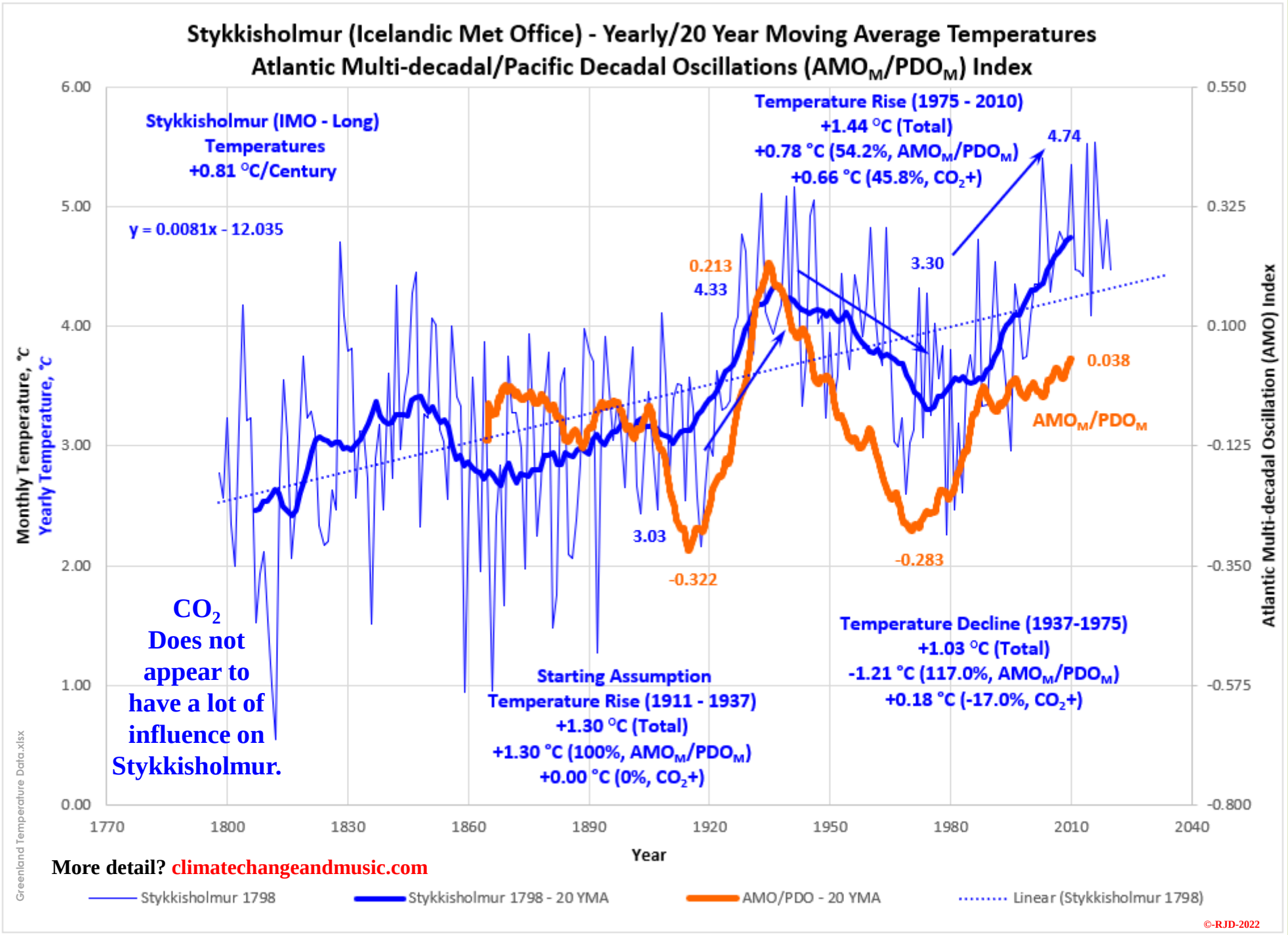


CSS-26c

Greenland/Iceland $AMO_M/PDO_M/CO_2$ Distribution Stykkisholmur

Stykkisholmur is also located in Iceland but has a significantly longer temperature record than Reykjavik. The AMO_M/PDO_M correlation is not as definitive as the AMO_M correlation (1900 to the present) but the AMO_M/PDO_M consolidation may be better when the older data is factored in. If we apply the same assumptions to this data as we did with Reykjavik, the CO_2 temperature contribution from 1975 to 2010 would be roughly 0.66 °C (45.8%, less any other unevaluated drivers). Applying the same logic to the 1937 to 1975 temperature decline, should have resulted in a 1.21 °C temperature drop. The measured drop was only 1.03 °C, suggesting that CO_2 may have provided a warming benefit of 0.18 °C (17%). Again, room for CO_2, but CO_2 is not dominating/dangerous.

Stykkisholmur Temperature AMO_M



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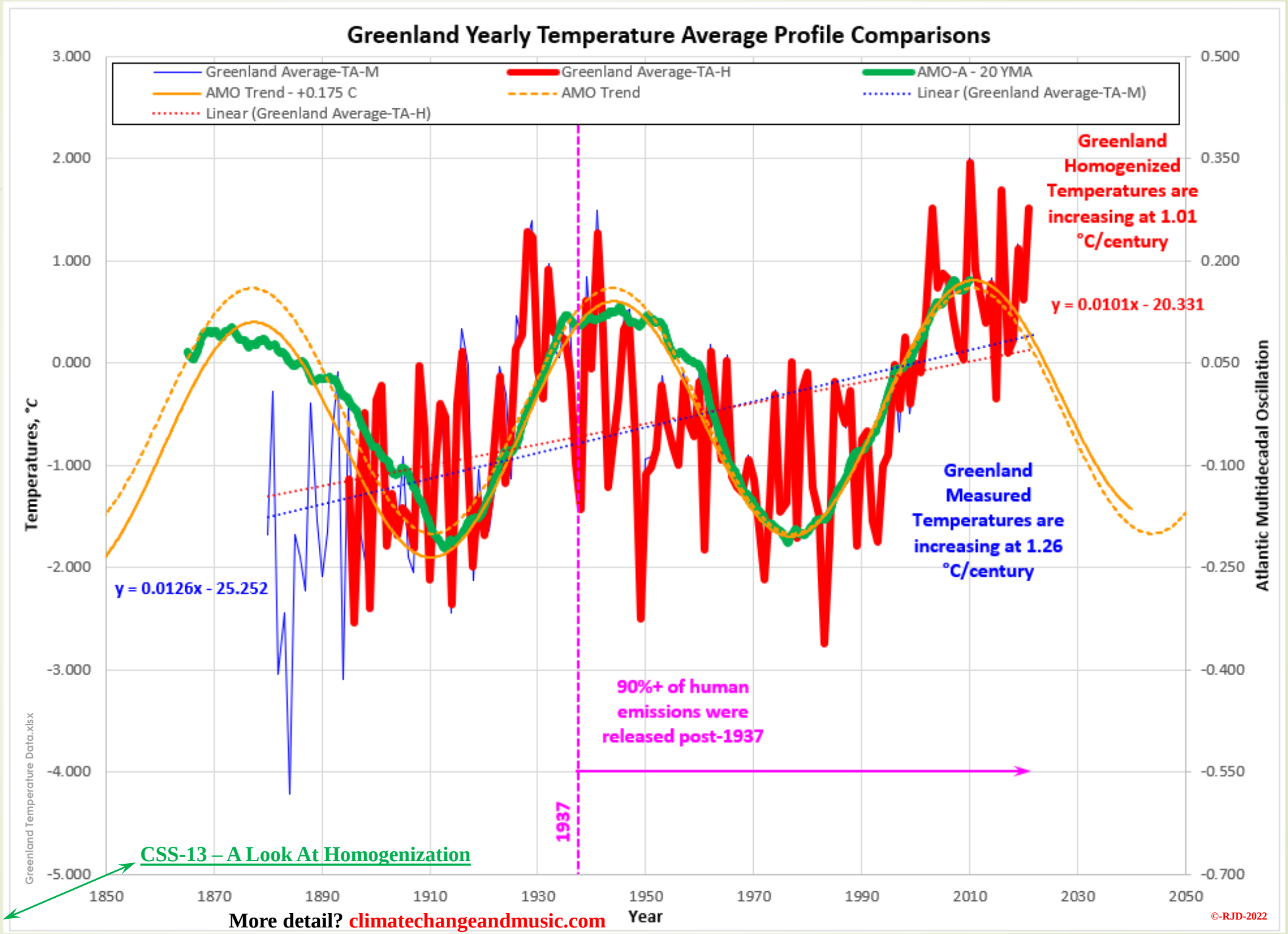
CSS-26d

Greenland/Iceland $AMO_M/PDO_M/CO_2$ Distribution Greenland Average

Greenland Temperature AMO_M

The same general analysis can be applied to Greenland (thereby increasing the geographical significance). CO_2 is obviously not the only climate driver affecting Greenland and Iceland. The AMO plays a significant role. The pre-1937 temperature increase (1910 to 1937) obviously had a very small CO_2 warming contribution, given the sharp temperature rise and only 5.6% of total human emissions occurred over that period (leading to an insignificant 10.5 ppm rise). The polar latitudes are supposed to be the "Global Warming" canaries in the coal mine. Why then does CO_2 appear to be so ineffective in Greenland and Iceland? Another candidate example of CO_2 – The FECKLESS GreenHouse Gas (CSS-7)? The situation is even worse in the Southern Hemisphere. Temperatures in Antarctica have been declining for 40 years with the coldest 6 months EVER.

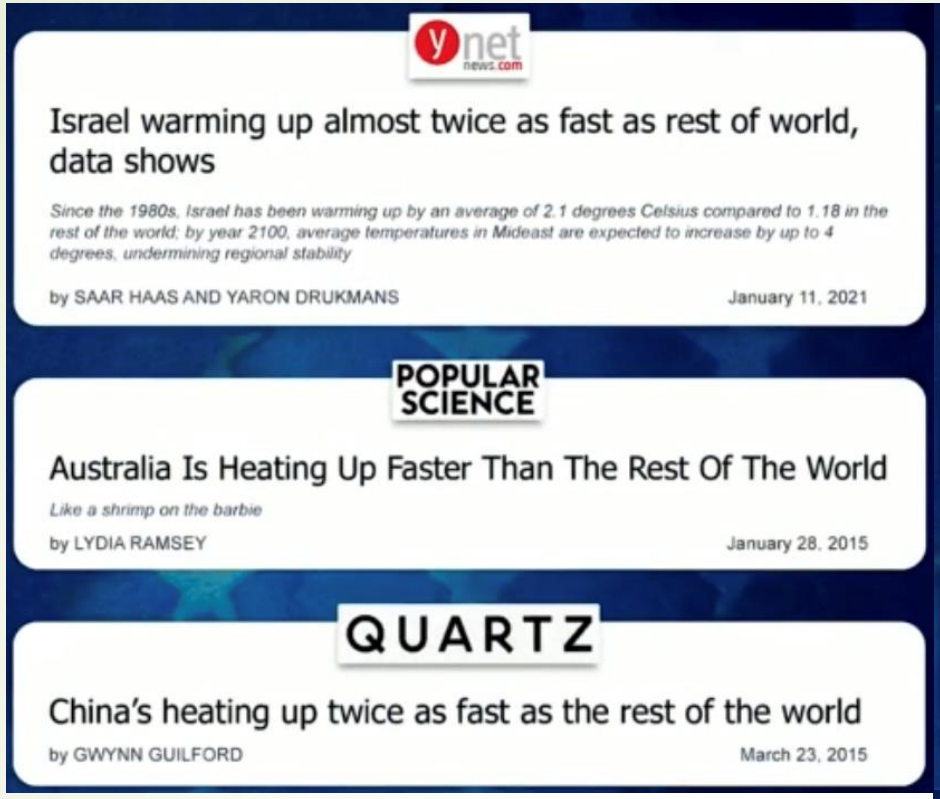


CSS-13 – A Look At Homogenization

More detail? climatechangeandmusic.com

Greenland/Iceland $AMO_M/PDO_M/CO_2$ Distribution – Everywhere is Warming Faster Than Everywhere Else

These types of headlines have been very common over the last few years. This is a small sample that was recently put forward (July 28th, 2022) by Dan Bongino. Taken as a whole, these statements/headlines are ludicrous. In the case of the South Pole, they are just outright wrong. The temperatures in Antarctica have been declining for the last 40 years, culminating in the coldest 6-month period EVER recorded last winter. More detail (a study by Zhu et al 2021 and the individual station data) is provided in my CSS-13 – A Look at Homogenization post. West Antarctica has been declining at 4.2 °C/century ±3.7 °C/century. East Antarctica has been declining at 7.0 °C/century ±2.4 °C/century.



Everywhere is Warming Faster

So, Antarctica is not cooperating with the Catastrophic Anthropogenic Global Warming (CAGW) alarmist narrative. But the Arctic is also not all that cooperative. The temperatures in Greenland and Iceland have been increasing at a rather anemic ±1.0 °C/century. Are Greenland and Iceland (and Antarctica) temperatures increasing faster than everywhere else in the world? No, they are not. Strange, since the northern latitudes should be warming faster than the rest of the world. For reference, the global temperatures over the satellite period (1979 to the present) have increased at a rate of 1.3 °C/century (per UAH Lower Troposphere, drroyspencer.com). That 1.3 °C/century includes the rather significant drop in temperature (0.64 °C) since the high in February 2016. What do you think will happen when the AMO begins to drop? Temperatures in Greenland/Iceland will fall significantly just like they did from roughly 1940 to 1975 (±1.0 °C). But this time we will also be layering in the cooler temperatures associated with the Grand Solar Minimum (GSM, OPS-52 – Solar Activity – NOAA Forecast). The GSM could add another degree or two to the temperature decline. CO_2 will not provide any significant/helpful warming to offset that cooling. Additional cooling events are also possible. Yet, we continue to waste capital on unnecessary green initiatives.

More detail? climatechangeandmusic.com