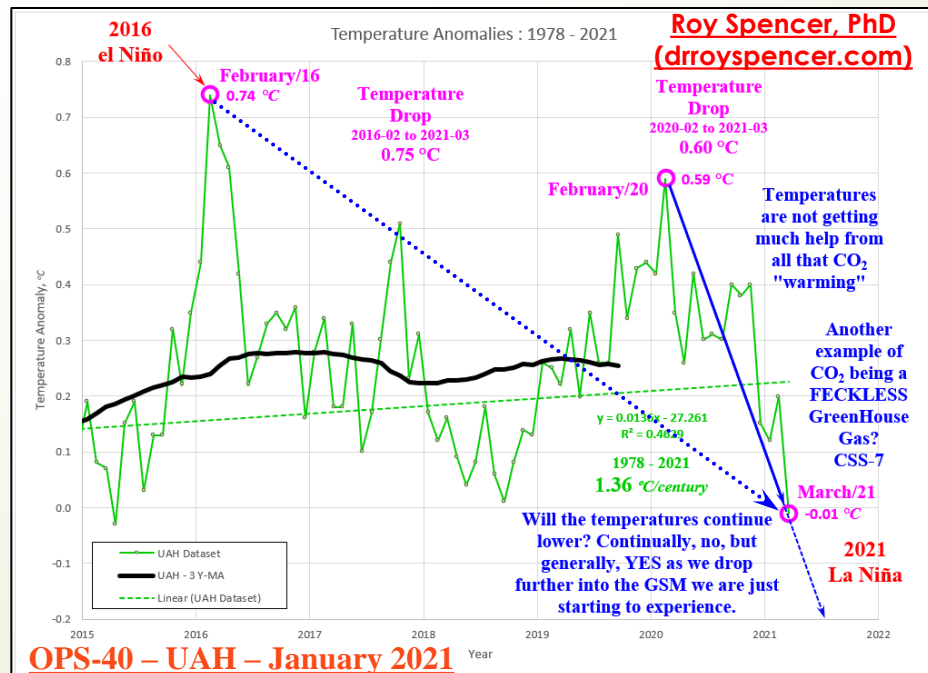
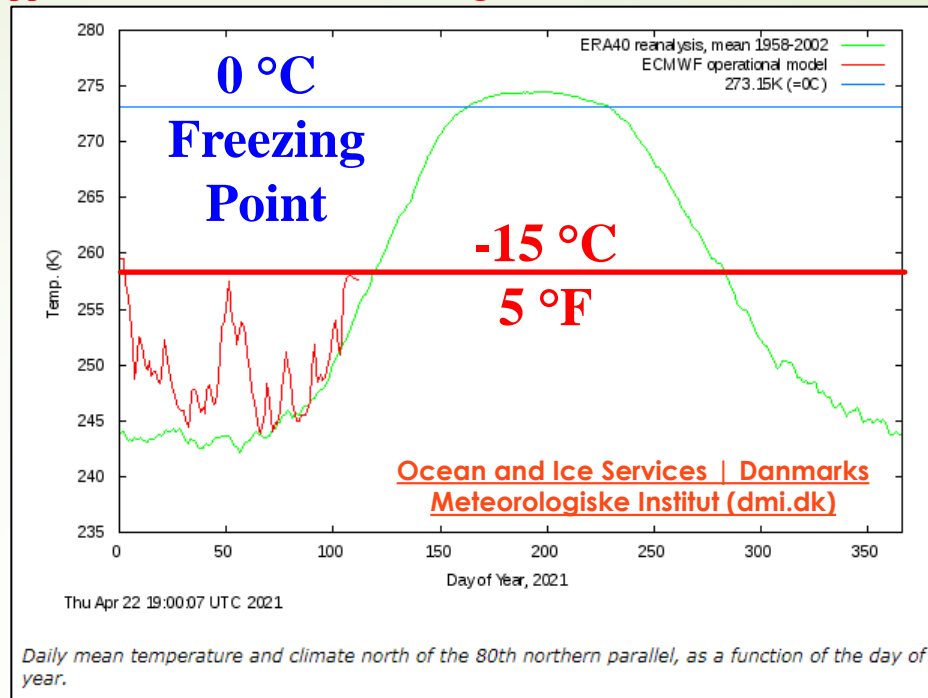
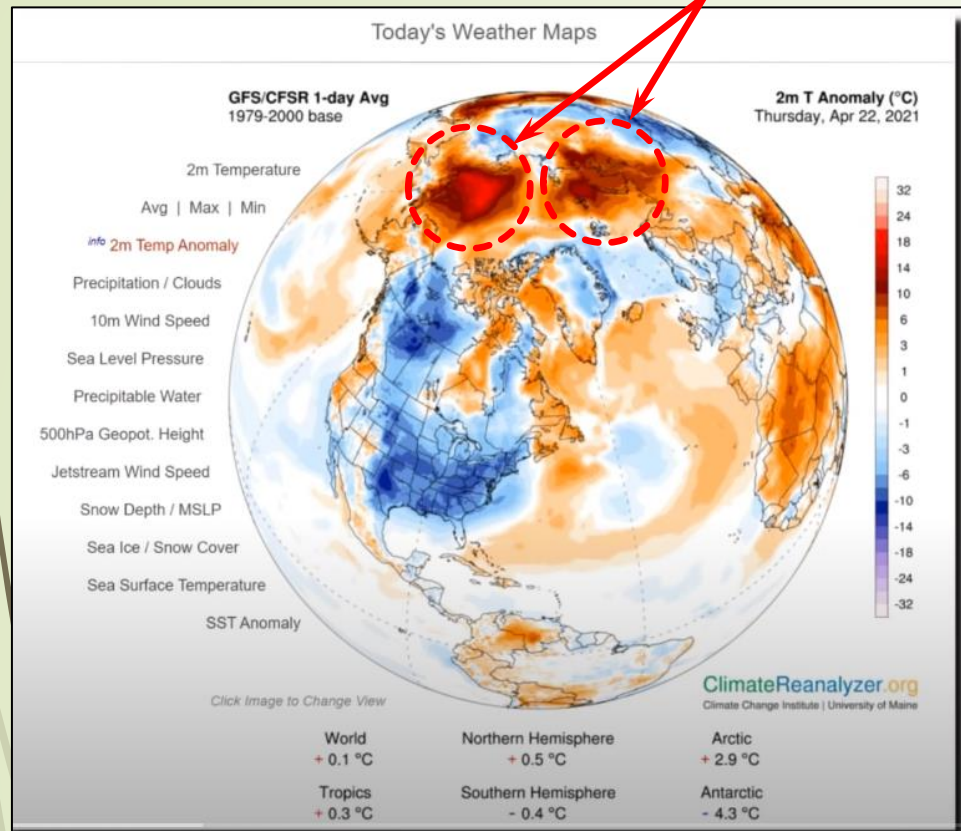


GSM - Grand Solar Minimum. You really should do the Research!



The Arctic (and Antarctic) Sea Ice areal extents are included on the next slide. Arctic Sea Ice Volumes are also included.

The Arctic Ocean Sea Ice is not melting away to nothing anytime soon. The more likely scenario is the significant ice growth that occurs during a GSM. The real imminent danger is the generally colder temperatures that will lead to crop failures, massive starvation, petulance and civil strife. But sure, keep wasting trillions on "Global Warming", fighting a non-toxic trace gas that is near historically dangerous lows and is absolutely essential for life on the planet!

As shown on the UAH temperature data (to the left), CO<sub>2</sub>'s role in the current temperatures is minimal. Temperatures fluctuate wildly despite a small steady rise in CO<sub>2</sub>. More detail can be seen in OPS-40 - UAH - January 2021 Update. The temperature has dropped 0.60 °C in 13 months (Major contributor - La Nina). Lower solar activity will begin to drop the temperatures even more dramatically as we move further into the GSM over the next couple of decades.

Another example of CO<sub>2</sub> - The FECKLESS GreenHouse Gas - CSS-7!!! Ocean Cycles and Solar Activity are more dominant than CO<sub>2</sub>.

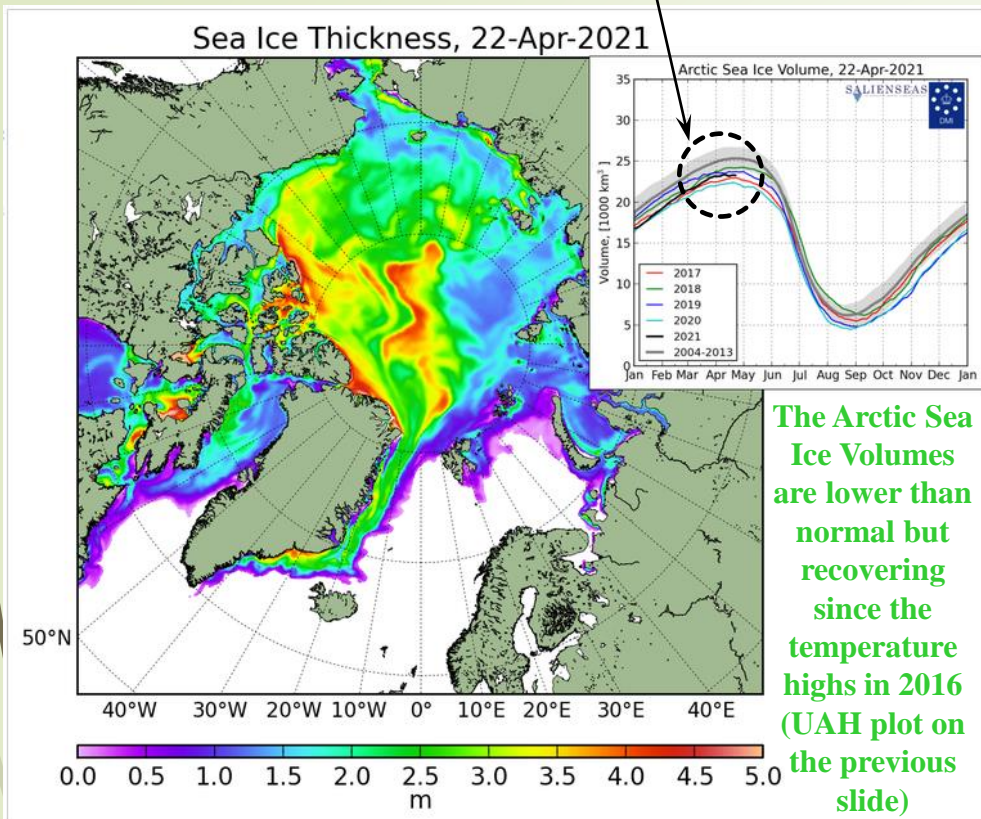
Earth Day 2021 Temperature Anomaly

The planet isn't exactly burning up on this, the CAGW alarmist's Holy Earth Day-2021. Even those "hot spots" are generally well below freezing. As shown on the DMI plot the average Arctic temperature (north of the 80<sup>th</sup> parallel) is close to normal. The Temperature Anomaly plot above was pulled from a Tony Heller Video (Earth Day Madness - YouTube). This visual was confirmed by going directly to the ClimateReanalyzer.org website.

All this empirical data is available on my website (with links). [climatechangeandmusic.com](http://climatechangeandmusic.com)

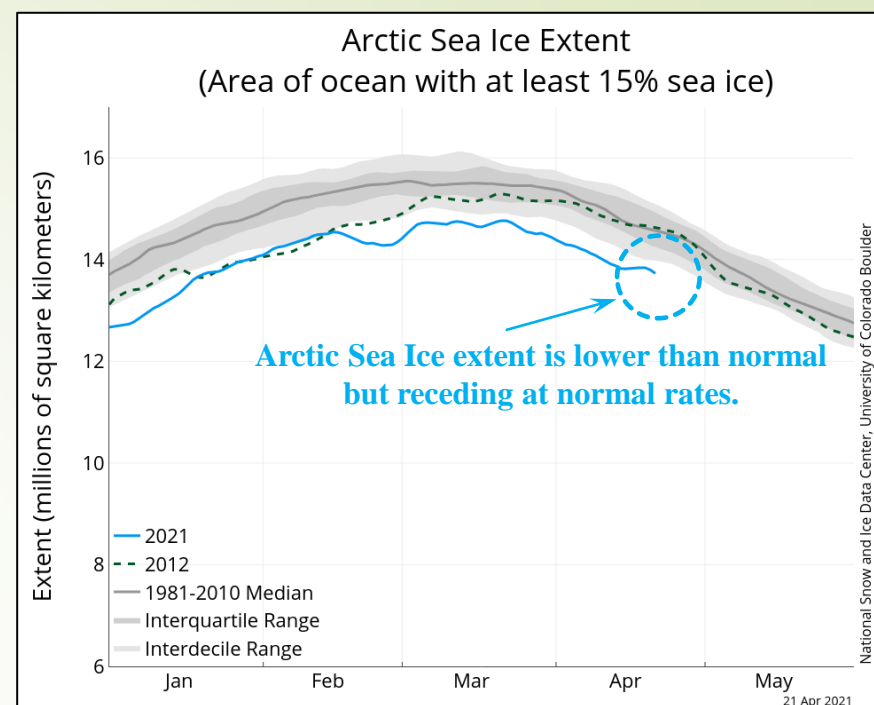
The sun, (not CO<sub>2</sub>) is the primary climate driver!

Arctic Sea Ice Volumes are currently flat (a bit below normal).

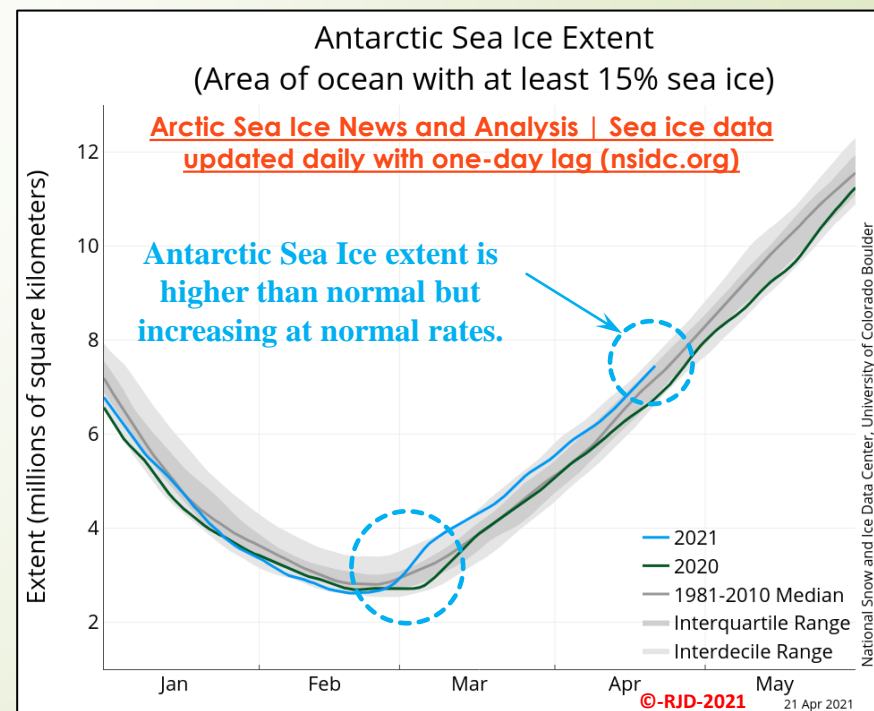


The Arctic Sea Ice Volumes are lower than normal but recovering since the temperature highs in 2016 (UAH plot on the previous slide)

As with the Sea Ice Volumes, the Sea Ice Extents are also recovering from the global high temperatures associated with the strong el Niño in 2016. The plots to the right do not have the additional years plotted. Those additional years can easily be reviewed by going to NOAA’s Sea Ice Extent webpage ([Interactive Sea Ice Chart](#)). Strange how the ice volumes/extents and global temperatures follow each other when a “non-homogenized” temperature data set is used (UAH Satellite – Lower Troposphere Temperature). More discussion related to “homogenization” will be included on the next few slides.



Arctic Sea Ice extent is lower than normal but receding at normal rates.



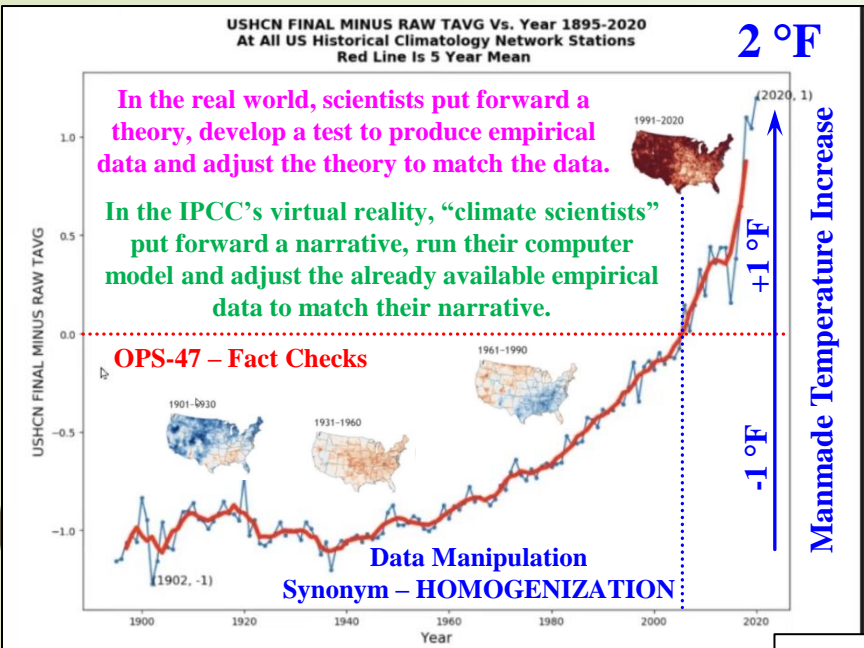
Antarctic Sea Ice extent is higher than normal but increasing at normal rates.

Earth Day 2021 Sea Ice Area/Volume

As per usual, the CAGW alarmist crowd will focus on the lower than normal Arctic Sea Ice Extent (by 5.6%) and conveniently ignore the higher than normal Antarctic Sea Ice Extent (by 2.4%). The Sea Ice Extent/Volumes have always ebbed and flowed (CSS-5 – Snow and Ice) but nowhere in the recent historical/empirical data does the yearly deviations stray far from the average. So, is it surprising that the CAGW doomsday prophets, predicting the demise of polar sea ice (the Arctic specifically), have been consistently wrong? Yet the CAGW alarmist community (politicians, mainstream media, IPCC “climate scientists”, etc.) still use the same unvalidated models that spat out those ridiculous predictions. The IPCC models are programmed to respond to CO<sub>2</sub> and little else (OPS-22 – Computer Models – Real Simple). The natural cycles (solar related) have not ceased to exist just because the IPCC has decreed it so. If the CAGW alarmists were honest they would acknowledge that the temperatures over most of the Holocene interglacial warm period have been much warmer than the current “highest temperatures EVER”. Warm enough for the Vikings to live/farm in Greenland, warm enough for forests to grow where glaciers are currently receding and warm enough for an Arctic free of ice. But that would assume that CAGW alarmists are honest (even with themselves).

That empirical data is available on my website (with links). [climatechangeandmusic.com](http://climatechangeandmusic.com)

# CSS-8c Earth Day - 2021



Yep, the temperature increase is real and is manmade

[Climate change and the 1991-2020 U.S. Climate Normals](#) / [NOAA Climate.gov](#)

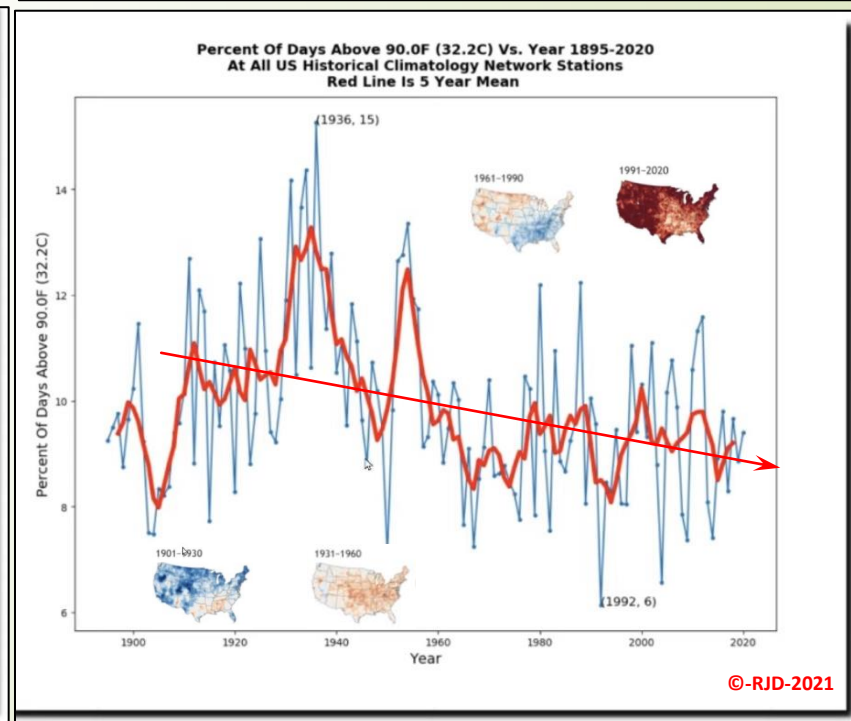
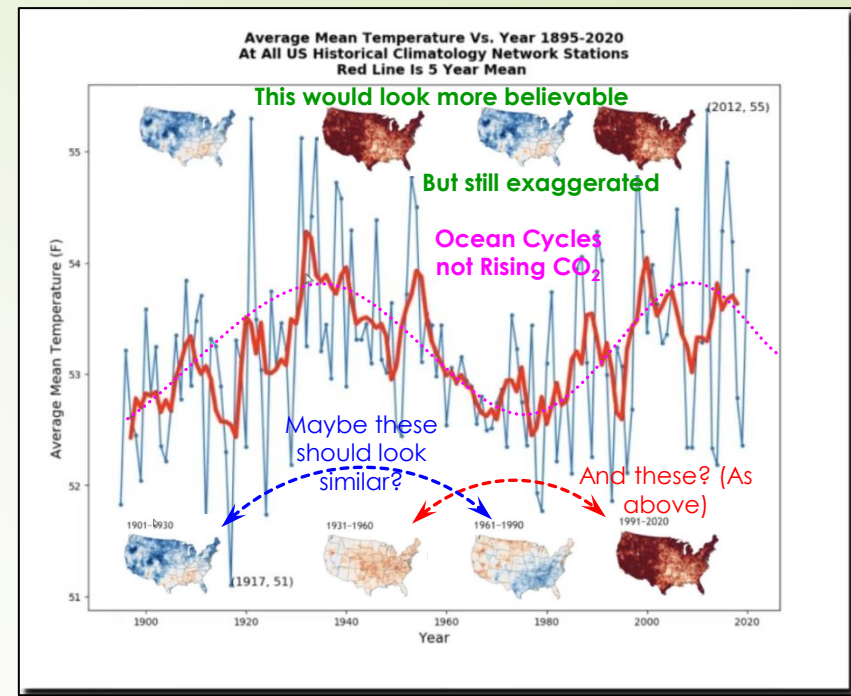
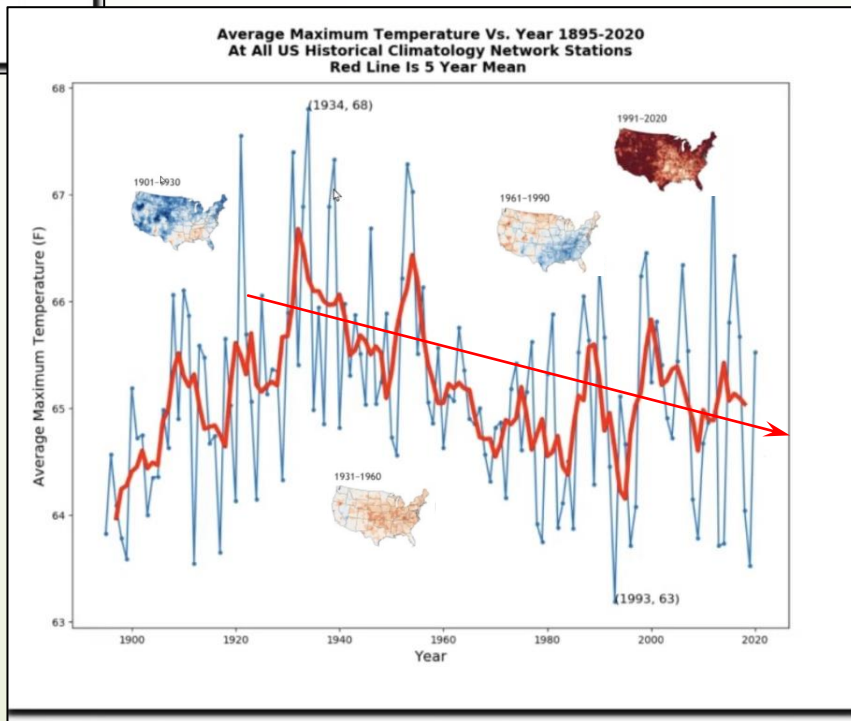
The plot above summarizes the homogenization process (which strangely, correlates directly to rising CO<sub>2</sub> levels). The curve above shows the difference between measured temperatures and the final “homogenized” values for public consumption. The CO<sub>2</sub>/Temperature Difference plot can be found on Tony’s website (a little homework). Not much wonder why the NASA/NOAA charts show warming, is there?

Small US Maps

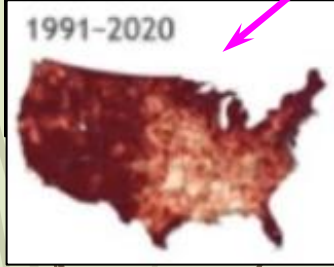
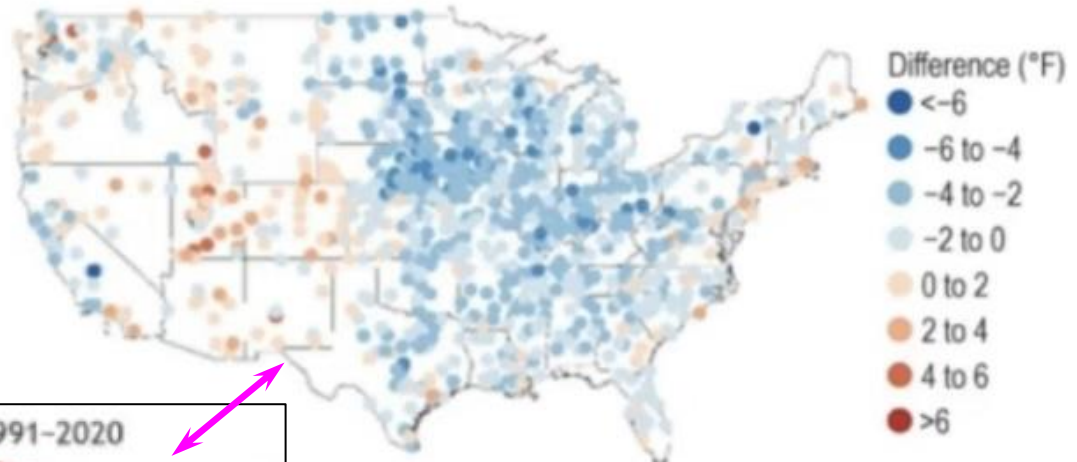
[Climate change and the 1991-2020 U.S. Climate Normals](#) | [NOAA Climate.gov](#)

That empirical data is available on my website (with links). [climatechangeandmusic.com](#)

All the plots shown here are courtesy Tony Heller. They were pulled from his [Earth Day 2021](#) video. And before the CAGW alarmists start pulling their hair out, Tony Heller is one of those “Climate Deniers” they love to warn the uninformed masses about. Strange how these plots reflect the same general data profiles that are shown on the next slide and were pulled from the 2018 US National Climate Assessment. If you have additional raw measured data that shows different results, bring it forward. The temperatures were much hotter in the Dirty Thirties than now despite what the over-homogenized surface data sets are showing. That homogenization process has lowered temperatures pre-2005 by 1 °F and increased post-2005 by 1 °F. Not hard to show warming when you cool the past and warm the present!!! Might be a good time to bring up that honest speculation again.

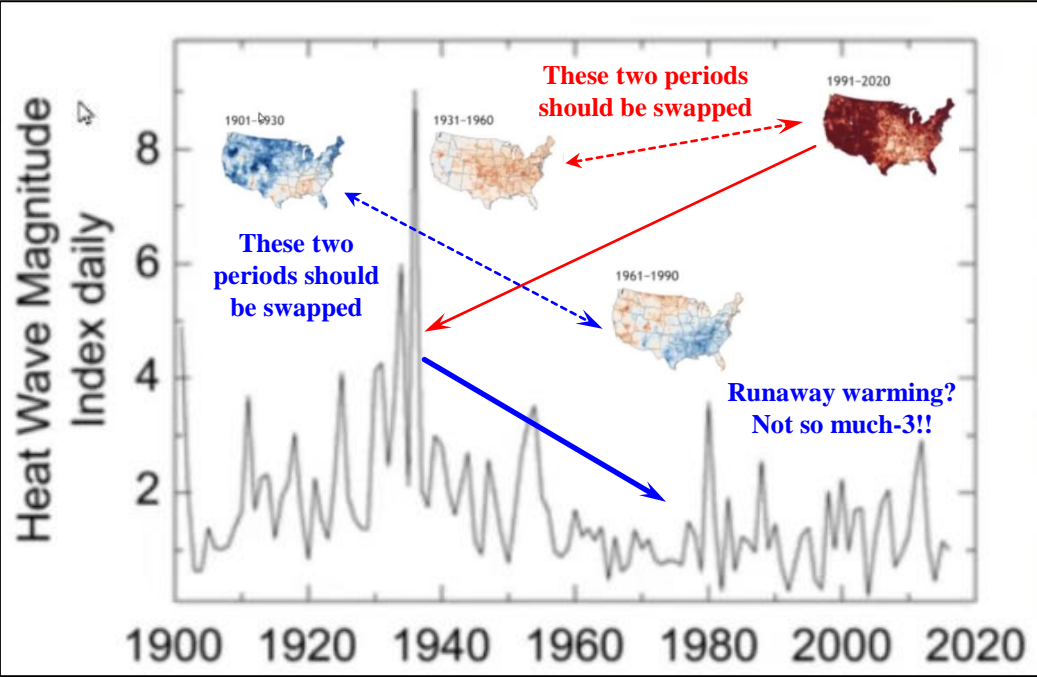
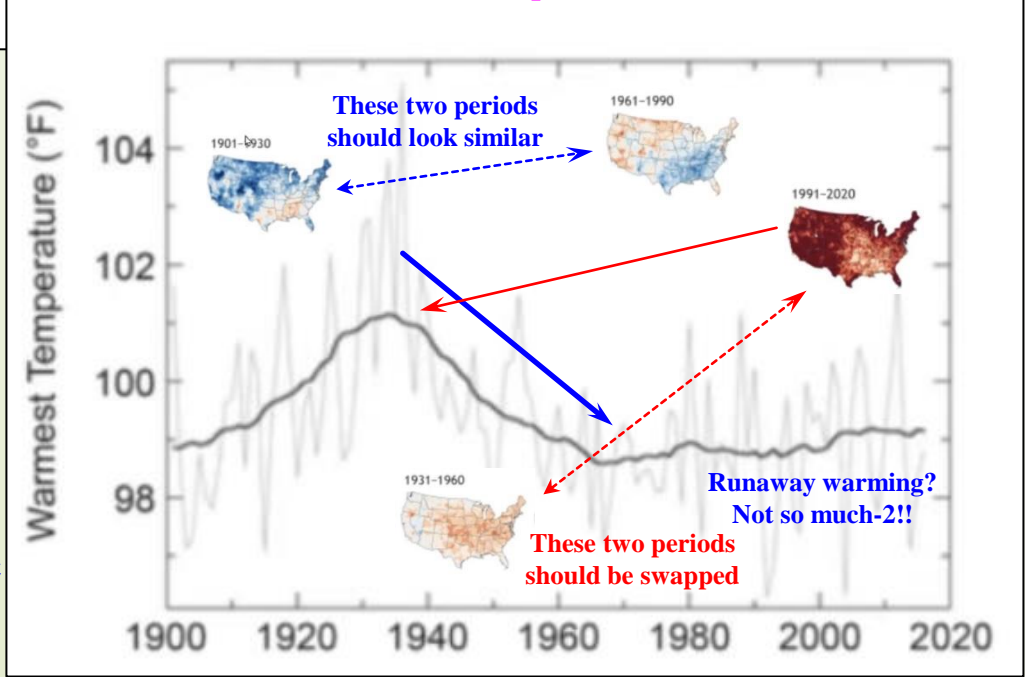
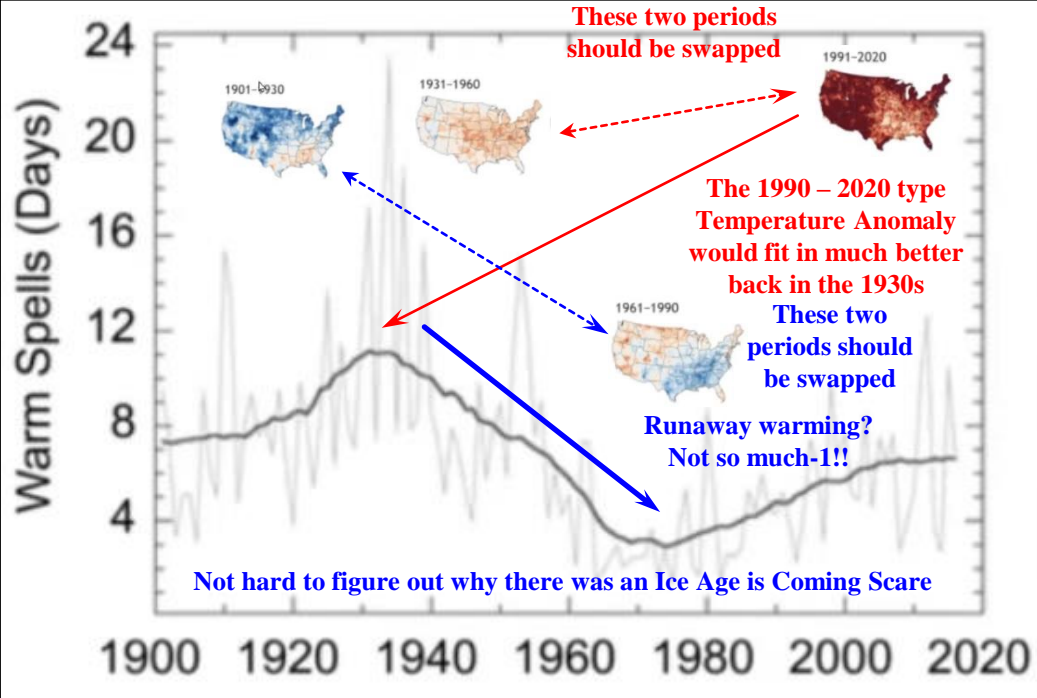


Change in Warmest Temperature of the Year  
1986-2016 Average Minus 1901-1960 Average



A little difficult to reconcile these two maps.

The 2018 US National Climate Assessment held some temperature related information that does not seem to conform with CAGW alarmist narrative. How long will it take for this information to be removed from public circulation? A little more evidence that the "homogenization" process might be a little over aggressive? Just asking!

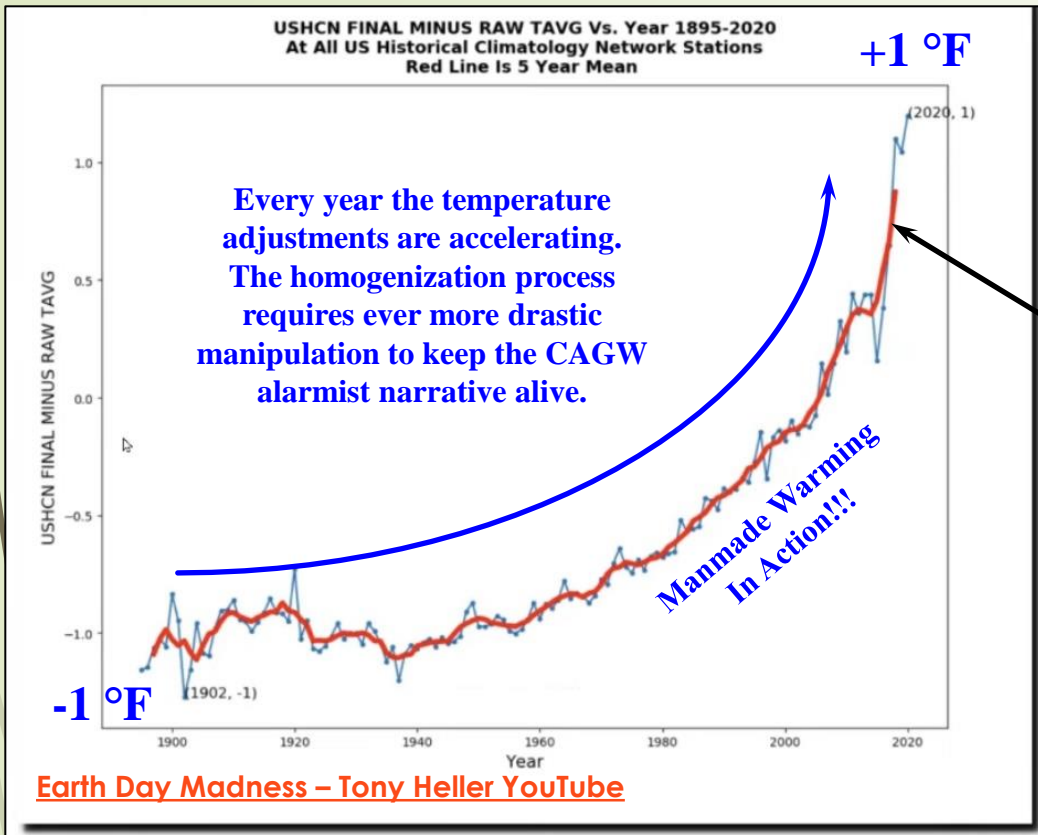


Earth Day 2021  
US - 2018 NCA

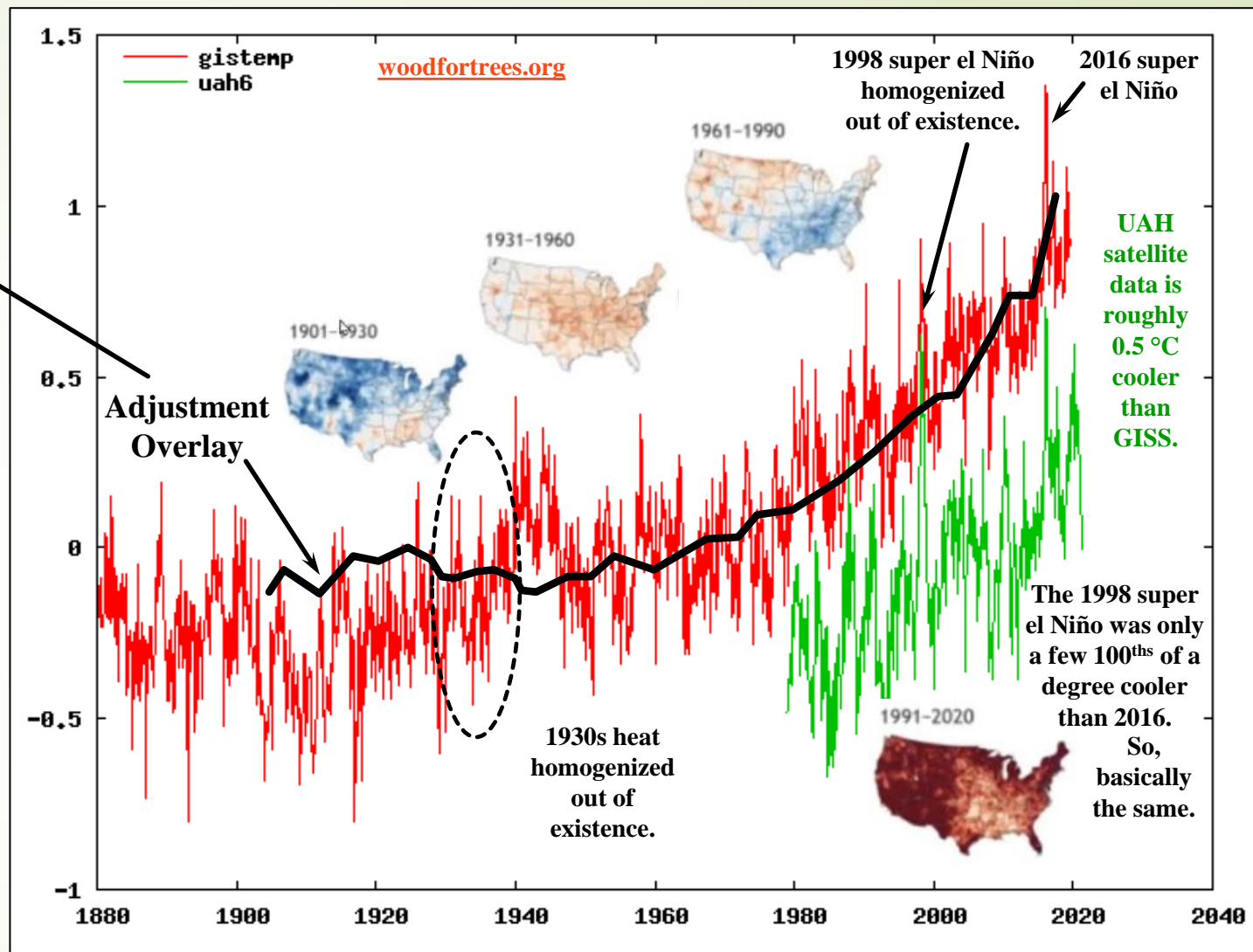
Warming appears to be leveling off. Heading into a cool/cold phase (GSM, AMO, La Nina, Beaufort Gyre, etc.)? Refer back to the UAH data.

Small US Maps  
[Climate change and the 1991-2020 U.S. Climate Normals | NOAA Climate.gov](#)

GSM - Grand Solar Minimum. You really should do the Research!



Earth Day Madness - Tony Heller YouTube



A quick website for comparing global temperature data sets is [woodfortrees.org](http://woodfortrees.org). I have plotted just the NASA/GISS surface data and the University of Alabama - Huntsville satellite data here to show the contrast. The satellite data is more accurate but that data has only been available since 1978. The data, you the public are presented with is the over-homogenized NASA-GISS surface data which conveniently conforms nicely with homogenization temperature adjustments and the NOAA maps.

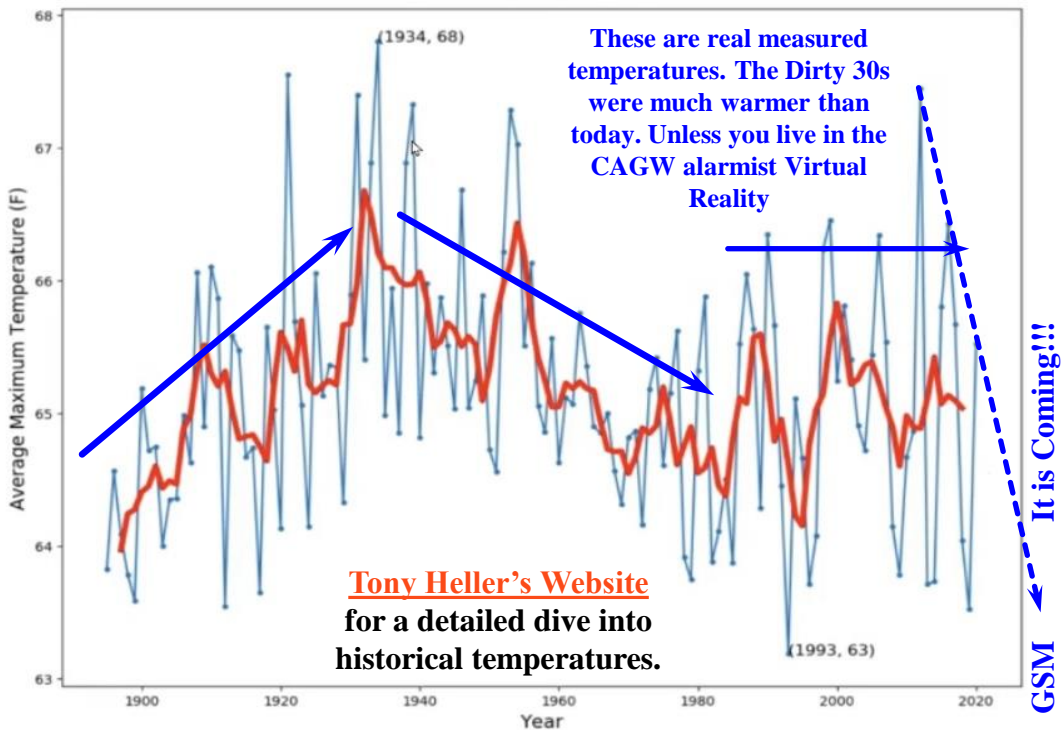
Earth Day 2021 MTR

The premise that the world is warming at dangerous rates is an artifact of the homogenization process. Over the Modern Temperature Record (MTR), the measured temperatures have been adjusted progressively cooler as you look back in time from 2005 and progressively warmer as you look forward from 2005. That is not a natural temperature response, that is an intentional manmade manipulation to conform with the CAGW alarmist narrative.

- Small US Maps
- [Climate change and the 1991-2020 U.S. Climate Normals | NOAA Climate.gov](#)

GSM – Grand Solar Minimum. You really should do the Research!

Average Maximum Temperature Vs. Year 1895-2020  
At All US Historical Climatology Network Stations  
Red Line is 5 Year Mean



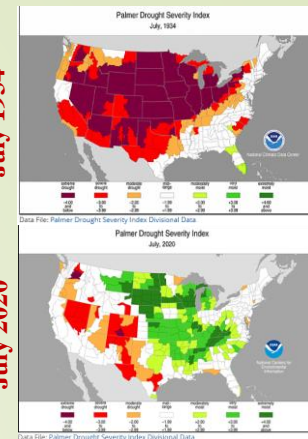
Tony Heller's Website  
for a detailed dive into  
historical temperatures.

Earth Day Madness – Tony Heller YouTube

# CSS-8f Earth Day - 2021

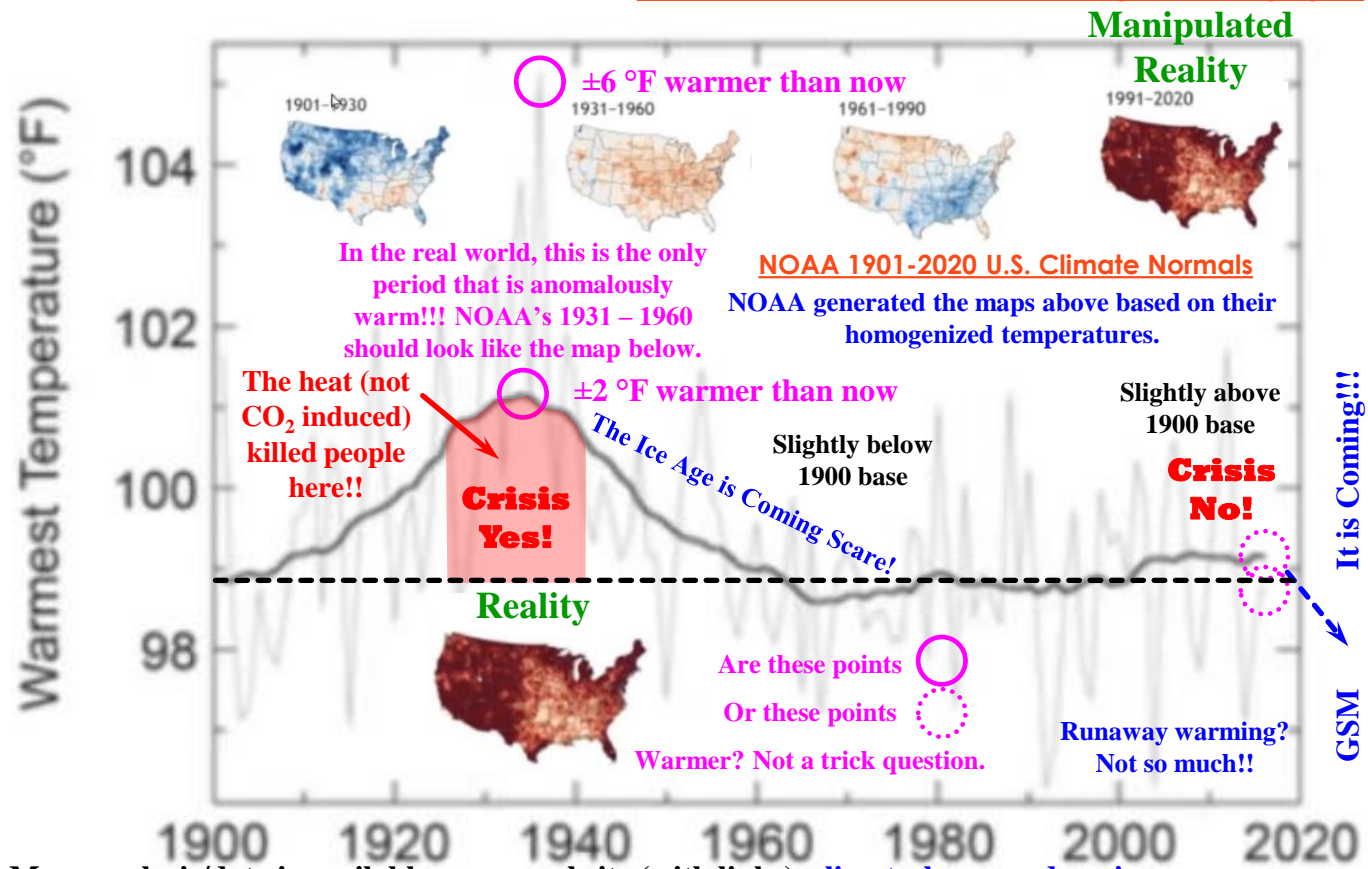
The planet has warmed since the mid-1800s, but a significant portion of the warming officially presented to the public is based on homogenized (i.e.: manipulated) surface temperature data. The measured temperature very clearly shows that the 1930s were much warmer than today's temperatures. Those hot temperatures and record heat did not just disappear because NASA/NOAA, etc. homogenized them out of existence in the public eye. Those alive at the time, lived through serious drought/fire situations. Unlike the CAGW alarmists that believe the world is currently living through a "Climate Emergency". The July 1934 Palmer Drought Severity Index (to the right) shows the stark contrast between July 1934 and July 2020. And let us not forget the data shows that extreme weather is not accelerating. Fires were much larger, droughts were longer and more severe, hurricanes/tornados/floods have been stronger and more frequent in the past when CO<sub>2</sub> was much lower. Detail on my website [climatechangeandmusic.com](http://climatechangeandmusic.com).

Reality  
July 1934  
July 2020



Palmer Drought Severity Index/

Fourth National Climate Assessment (globalchange.gov)



More analysis/data is available on my website (with links). [climatechangeandmusic.com](http://climatechangeandmusic.com) ©-RJD-2021

## Earth Day 2021 Reality Check

Small US Maps  
Climate change and the 1991-2020 U.S. Climate Normals | NOAA Climate.gov

The US temperature data is not global but it is very important since they have the most accurate and extensive network.

