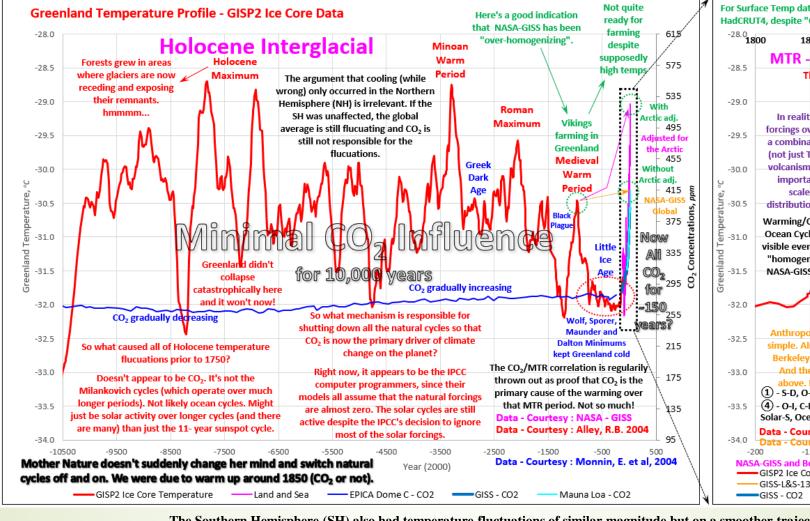
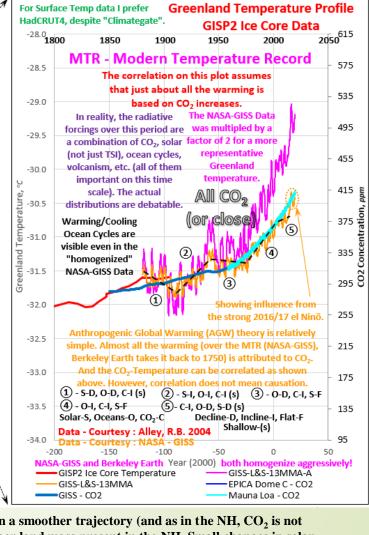
Holocene – Temperature-CO₂ Logic (AGW alarmist viewpoint)

More detail? Search "Ronald Davison climate"

In my opinion, any computer projection (the IPCC included) that ignores the temperature fluctuations over the Holocene does not represent the earth's climate system.







The Southern Hemisphere (SH) also had temperature fluctuations of similar magnitude but on a smoother trajectory (and as in the NH, CO₂ is not contributing to those fluctuations). The solar cycles show up in the NH, because of the much larger land mass present in the NH. Small changes in solar insolation affect land dominated areas more than ocean dominated areas. These NH temperature fluctuations have contributed significantly to the rise and fall of civilizations throughout the Holocene. If, as many solar/astrophysicists have forecasted, we are headed towards a Maunder (or even Dalton) type GSM, the fact that the effects might be limited to the NH doesn't alleviate the dangers associated with the cold weather crop losses typical of GSMs.

Imagine a year without significant agricultural contribution from Canada, Northern Europe, Russia and China. This effect could be similar to the Milankovitch Cycles which focus on the summer solstice solar insolation at 65° N latitude (i.e.: low insolation at 65° N leads to cooler temperatures (and ultimately major glaciation depending on the position in the cycles)).

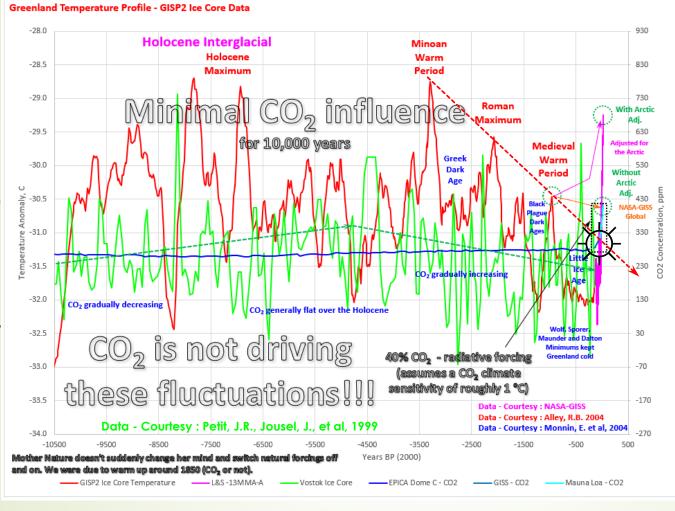
OPS-26b

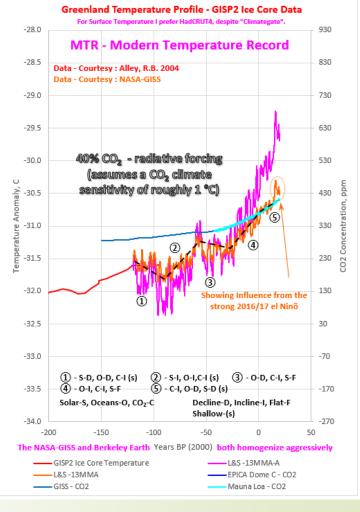
Holocene – Temperature-CO₂ Logic (40% CO₂ - Contribution)

More detail? Search "Ronald Davison climate"

This 40% scenario is much closer to reality than the AGW alarmist view, which requires the unsubstantiated positive water vapour feedbacks (essentially fudge factors) that multiply CO₂'s climate sensitivity of roughly 1 °C by factors of 3 to 4 to produce their "dangerous" temperature levels.

Holocene - 40% T-CO₂ Logic





This look at the Holocene incorporates CO₂'s theoretical climate sensitivity. At a climate sensitivity around 1 °C, the temperature increase associated with the CO₂ rise is roughly 40% of the total MTR. The remaining 60% is a combination of natural cycles (solar activity, ocean cycles, etc.). Interesting to note that the extrapolation from the Minoan Warm Period through the Modern Warm period corresponds closely with the 60% warming level (\$\omega\$, highlighted on the chart above). The implication, the natural cycles are still cooling, and CO₂ has been supplying a much-needed deviation from that cooling trend. A warming that we will be very thankful for as we move deeper into the forecasted Grand Solar Minimum (GSM). When the climate modellers start programming the full slate of solar forcings into their models, we may be able to reach a believable consensus based on all the scientific data. The current IPCC programming (based almost exclusively on CO₂) simply cannot model any time period (past or present) outside of the MTR.

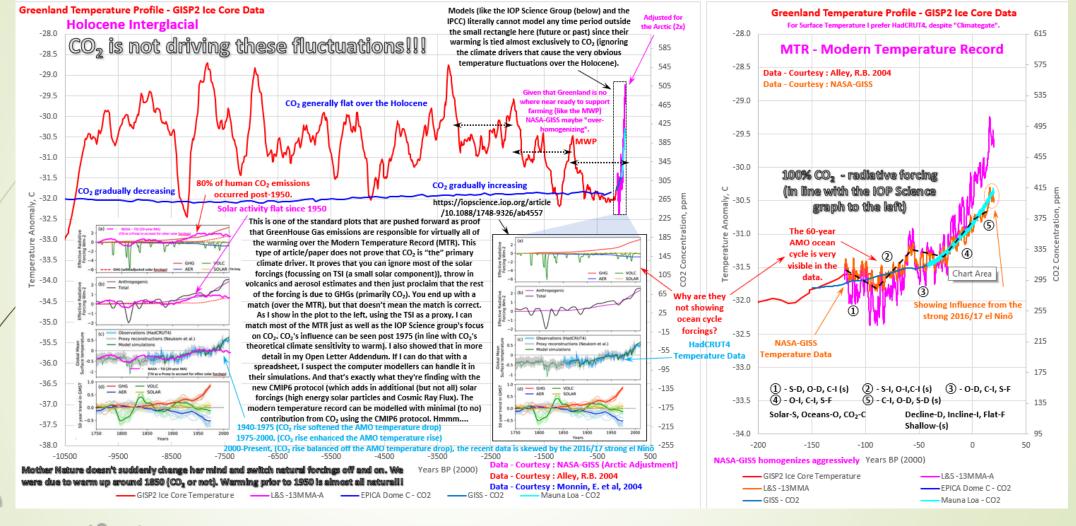
OPS-26c

More detail? Search "Ronald Davison climate"

This 100% scenario (the AGW alarmist view), requires unsubstantiated positive water vapour feedbacks (essentially fudge factors) that multiply CO2's climate sensitivity of roughly 1 °C by factors of 3 to 4 to produce their "dangerous" temperature levels. Ultimately irrelevant since the current modelling is not representative of any meaningful climate time period. AGW alarmists need to recognize that history began before 1850 and science still requires empirical data for proof (not unvalidated models or unsubstantiated theories).

Holocene - 100% T-CO₂ Logic

Holocene – Temperature-CO₂ Logic (100% CO₂ – AGW Talking Point - Forcings)



This look at the Holocene takes us back to the AGW climate alarmist viewpoint. The major problem with this viewpoint is simple. A history match to the MTR based almost exclusively on CO₂, ignores the historical temperature data prior to 1850 (or even 1750 for the IOP Science study). These models (IPCC included) simply cannot model the Holocene temperatures. The models respond to CO₂ (almost exclusively), yet CO₂ has remained almost flat for 10,000 plus years. If you can't match recent historical temperatures (like the Holocene), you can't forecast, let alone guarantee through consensus that you can model future global temperatures.

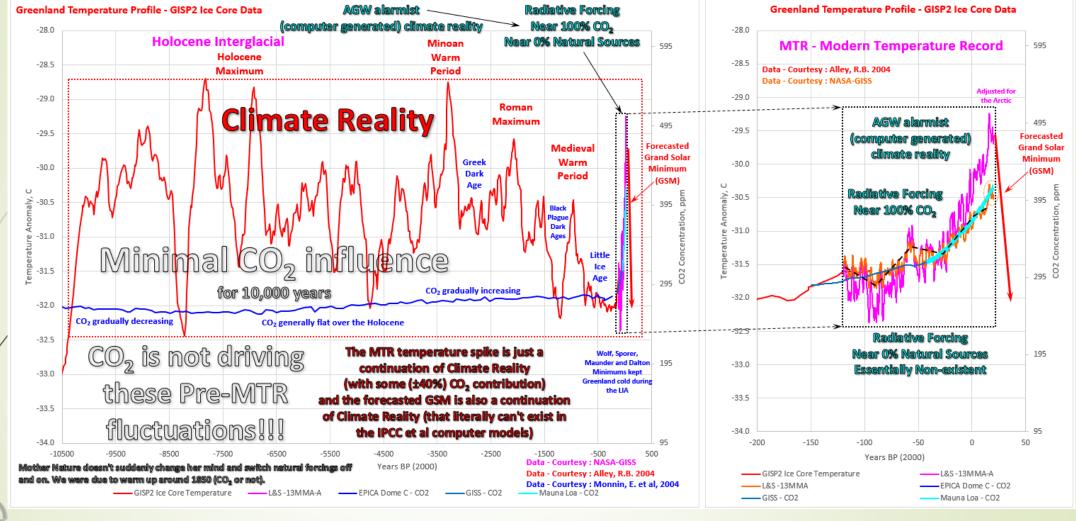
OPS-26d

The temperature fluctuations over the Holocene are a "Climate Reality". The MTR temperature spike is a continuation of that "Climate Reality" (with a boost from CO₂) and the forecasted GSM will be a further continuation of the Hologene "Climate Reality". The only reality (a short virtual reality) where CO₂ is "the" primary climate driver is in the IPCC et al computer models!!! Ignoring the GSM "Climate

Ignoring the GSM "Climate Reality" is likely the biggest mistake an educated mankind has ever made and unfortunately, we have very little time to prepare for the coming cold weather crop losses.

Holocene - T-CO₂ Climate Reality

Holocene – Temperature-CO₂ Logic (100% CO₂ – Climate Reality)



This look at the Holocene is a simplification of the previous three OPS views of the Holocene and the look can be summed up simply with the following comment.

More detail? Search "Ronald Davison climate"

There is "Climate Reality" and there is AGW alarmist "Computer Generated Virtual Climate Reality".

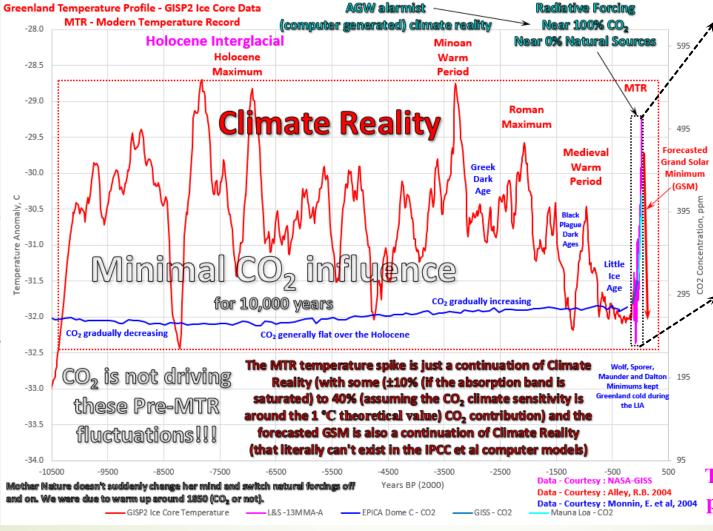
OPS-26e

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Holocene - T-CO₂ Climate Reality

Holocene – Temperature-CO₂ Logic (100% CO₂ – Climate Reality)



Radiative forcing in 2011 relative to 1750

WMGHG
Other Anthrop.

Total Anthrop.
Natural

Anthrop.
Natural

WMm')

For 4 billion years, natural force

have driven the climate and

suddenly CO₂ is the only driver?

IPCC 2014 AR5 Synthesis Report

This Photo by Unknown Author is licensed

This is the heart of the IPCC computer models!

These (above) are the radiative forcings used in the IPCC computer models. These models simply cannot history match the temperature fluctuations over the Holocene. CO₂ changes very little over the Holocene (pre-MTR), yet the temperature fluctuations are in line with or greater than the MTR rise out of the LIA.

The "models" can't match temperature pre-MTR, how are they going to match post-MTR? They aren't!!!!

MTR - Modern Temperature Record

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Not likely!!!

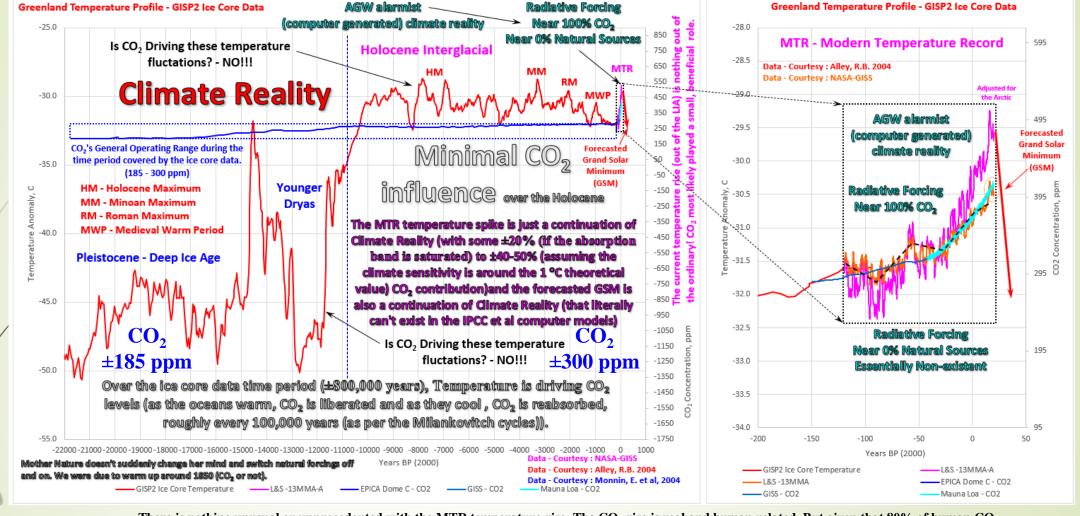
There is "Climate Reality" and there is AGW alarmist "Computer Generated Virtual Climate Reality".

This OPS just expands the CO₂-Temperature relationship back into the deep ice age. The CO₂ changes over the last several million years are driven by the temperature changes associated with the Milankovitch cycles. Alternating between long, deep ice ages (the dominant climate status) to the shorter interglacial warm periods (like the current Holocene).

The current MTR temperature rise will have a component of CO₂ influence but the natural climate drivers (solar and/or solar related) are also still active and contributing (TSI rose significantly over the MTR/(to the highest level in 7,000 years) Coincidence??).

Holocene+ - T-CO₂ Climate Reality

OPS-26f Holocene+ – Temperature-CO₂ Logic (100% CO₂ – Climate Reality)



There is nothing unusual or unprecedented with the MTR temperature rise. The CO₂ rise is real and human related. But given that 80% of human CO₂ emissions occurred post-1950, CO₂ simply cannot be responsible for all of that MTR temperature rise. The CO₂ contribution is ultimately dependent on its climate sensitivity (CS, which is definitely not "settled science"). Estimates range from near zero (if CO₂'s absorption band is saturated) to 4.5 (using the IPCC's unsubstantiated water vapour feedbacks). A CS of 1.0 °C (or less) is more than likely closer to reality.

More detail? Search

"Ronald Davison climate"

There is "Climate Reality" and there is

AGW alarmist "Computer Generated Virtual Climate Reality".