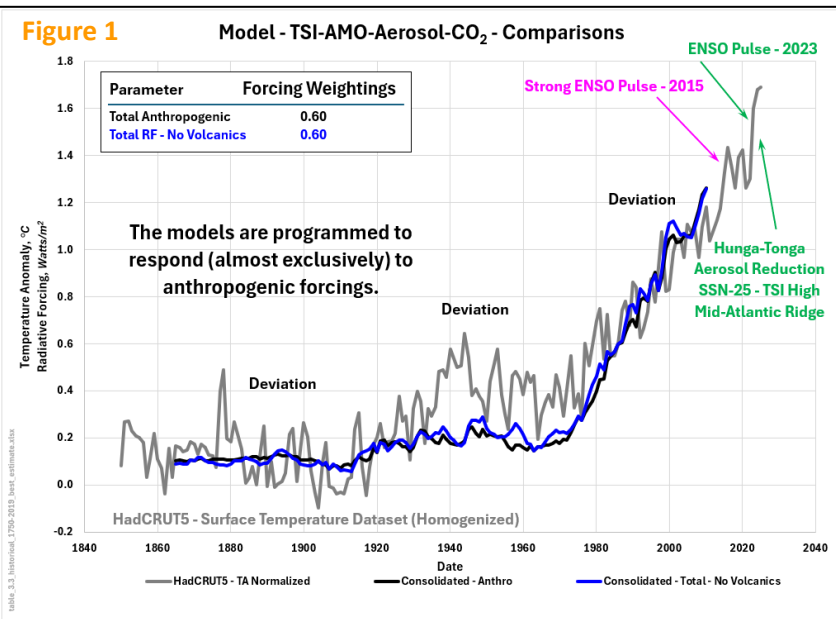
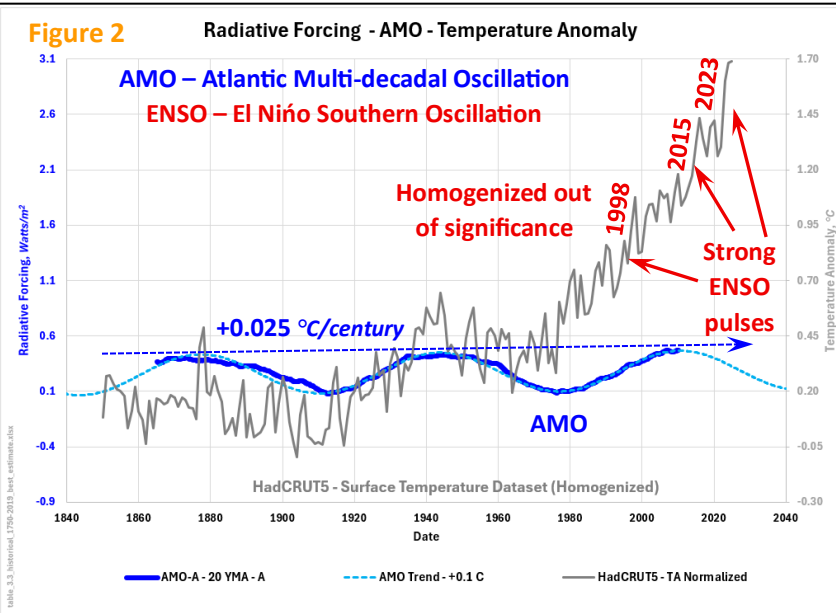


IPCC Theory/Model Shortcomings

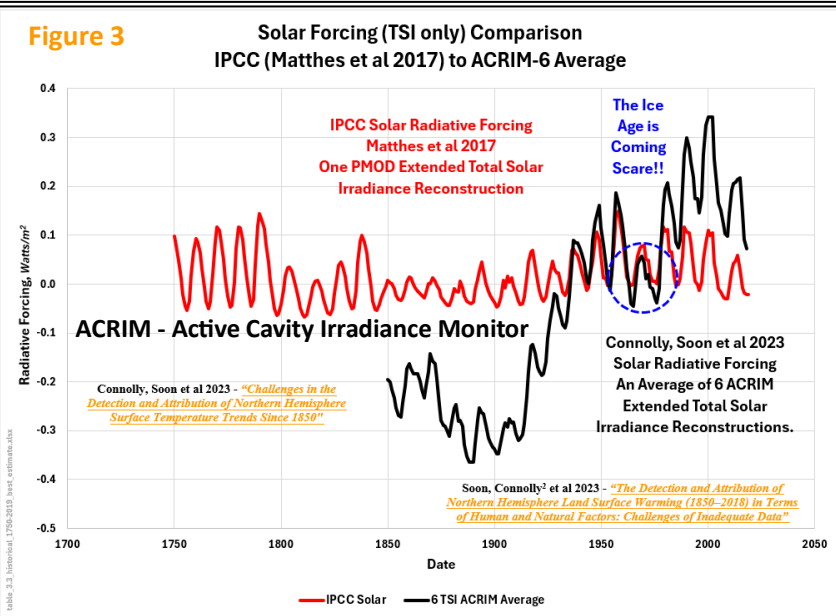
How dependable are the IPCC computer model projections? The plot to the left uses the IPCC's "best estimates", comparing the Total Radiative Forcings (RF) and the Total Anthropogenic RF with the HadCRUT5 homogenized surface temperature dataset. There is a general correlation, but history match does deviate from the HadCRUT5 data in several areas. The models are obviously programmed to respond (almost exclusively) to anthropogenic forcings.

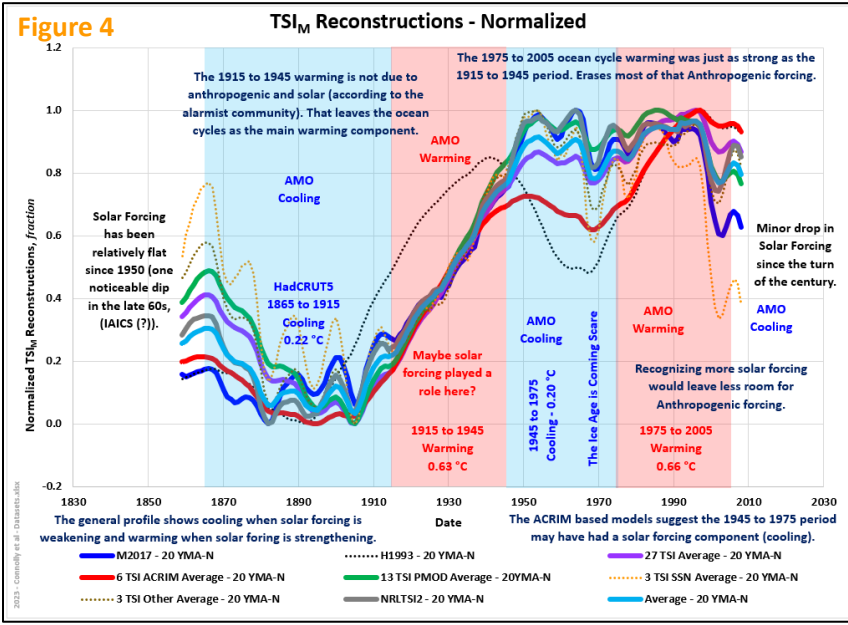


The Anthropogenic focus is obvious but there are natural forcings that the IPCC is downplaying and/or outright ignoring. The ocean cycles are not included, because the IPCC views them as benign over longer time intervals. But the AMO RF (shown to the left) has been inclining as well as oscillating from warm to cold. The AMO is transitioning to a 30-year cooling phase that is not factored into the model projections. The recent, prominent temperature increases are primarily ENSO driven (with other influences including minor CO₂ contribution).

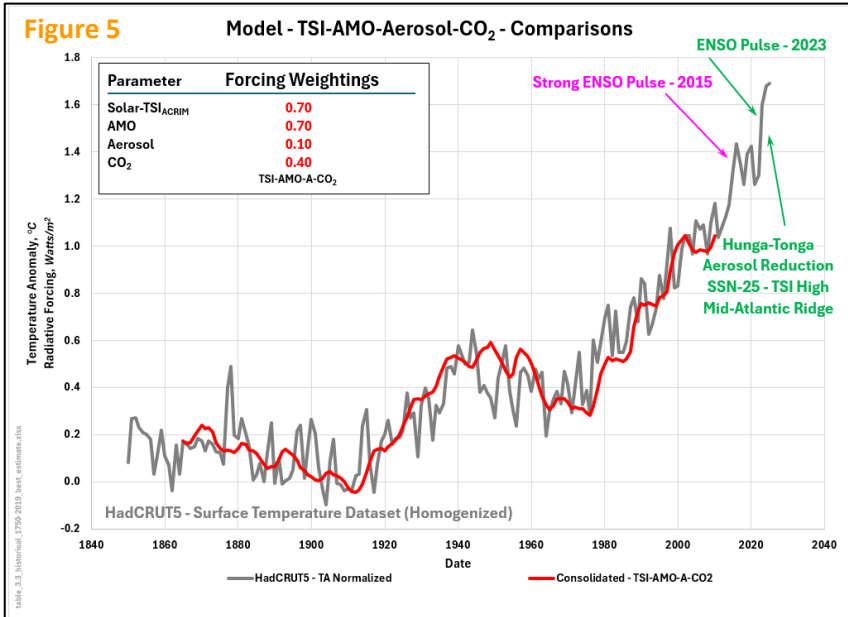


The IPCC has knowingly chosen to ignore/minimize solar forcings. Their "best estimate" is a watered-down version of the Matthes et al 2017 Total Solar Irradiance (TSI) reconstruction. They have effectively cherry picked one out of the 40+ available TSI reconstructions (catalogued by Connolly-Soon et al). As shown to the left, the ACRIM-6 average TSI has a far more pronounced radiative forcing than the subdued Matthes et al 2017 TSI. The ACRIM-6 TSI construction is strong enough to explain many of the HadCRUT5 temperature fluctuations.

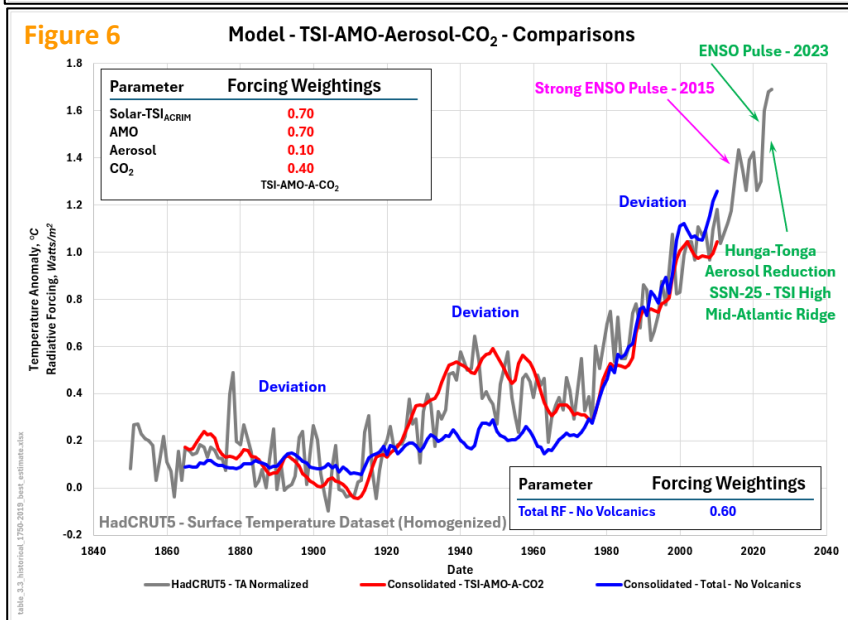




The IPCC has also chosen to restrict solar forcings to TSI alone. TSI is just one of the many solar forcings acting on our planet. Cosmic Ray Flux (CRF, a prominent factor in regulating cloud albedo) and High Energy Particles (HEP) have been programmed into the CMIP6 models. In beta testing, the CRF and HEP were able to history match the HadCRUT5 data without CO₂ influence. Their “best estimates have effectively turned the CRF and HEP RFs off. Most TSI_M (TSI Momentum, 20 Year Moving Average) reconstructions have the same general profile (as shown in the normalized plot to the left). Any TSI_M reconstruction can be used as a proxy.



Adding in the AMO and substituting the ACRIM-6 TSI reconstruction for the Matthes et al 2017 TSI reconstruction produces a realistic history match. CO₂'s RF is adjusted to reflect a 0.8 °C Equilibrium Climate Sensitivity (ECS, radiative component only). The IPCC models all run too hot (based on their “unsettled” 1.8 to 5.7 °C ECS range), suggesting an ECS less than 1.8 °C. The consolidated (natural and anthropogenic) radiative forcings produce a far superior history match when compared to the anthropogenic focused forcings alone.



The plot to the left consolidates and compares both the natural/anthropogenic RF and the anthropogenic focused RF to the HadCRUT5 temperature profile. The difference (very noticeable here) becomes even more important pre-1850. CO₂ concentrations were virtually flat for the last 10,000+ years (pre-1850), yet temperatures fluctuated significantly. Obviously, there is more to ‘climate change’ than just CO₂. Ignoring the ocean cycles and solar forcings is simplistic, unscientific, frankly dangerous. CO₂ concentrations do contribute to temperature changes, but its warming capacity is small and declining.