

AN INDEPENDENT, OBJECTIVE ASSESSMENT OF THE ANTHROPOGENIC GLOBAL WARMING (AGW) ISSUE

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ABSTRACT

The Right Climate Stuff (TRCS) research team is an all-volunteer group of retired NASA Apollo Program scientists and engineers. We have performed an independent, objective assessment of the Anthropogenic Global Warming (AGW) issue using threat assessment and decision methods used to achieve astronaut safety requirements. We developed a simple algebraic model of earth surface temperature sensitivity to atmospheric Greenhouse Gas (GHG) concentration using Conservation of Energy principles. We validated this model by determining the value of a temperature sensitivity parameter in the model that causes the model to agree closely with long-term global mean surface temperature (GMST) trends since 1850, as recorded in the HadCRUT4 surface temperature database. We also made a projection of CO₂ and other GHG and aerosol atmospheric concentration rise that will occur due to burning all presently known world-wide reserves of coal, oil and natural gas. This resulted in a maximum CO₂ concentration of 600 ppm by 2100. Assuming the radiative forcing of other GHG and aerosols will continue their historical trend of 50 percent of the radiative forcing of CO₂, this projection has an IPCC Representative Concentration Pathway (RCP) rating of 6.2 W/m². Our validated model with the RCP6.2 projection of GHG rise, forecasts no more than 1° C GMST increase above current conditions by 2100. This assessment indicates we have time to perform the focused research required to remove the excessive uncertainty in current climate science forecasts of AGW to support public policy decision-making regarding the perceived AGW threat.