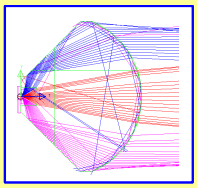

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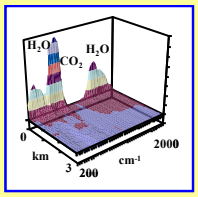

The Corruption of Climate Science

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Ventura Photonics Climate Post 26, VPCP 0026.1a
Ventura Photonics
Thousand Oaks, CA
August 2023, Revised September 2023

This is the second of two posts that address the climate fraud. The first, VPCP 25, *A Greenhouse Gas Radiative Forcing does not produce a Measurable Change in the Surface Temperature of the Earth* addresses the technical fraud related to radiative forcing. This post addresses mission creep in government agencies and the exploitation of the fictional global warming apocalypse by outside environmental and political groups. A more detailed discussion of climate energy transfer is given in the book *Finding Simplicity in a Complex World – The Role of the diurnal Temperature Cycle in Climate Energy Transfer and climate Change* by Roy Clark and Arthur Rörsch, available on Amazon.

Go to the Finding simplicity web site
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Summary

Eisenhower's warning about the corruption of science by government funding has come true. Climate science has been thoroughly corrupted by a tidal wave of government largesse. There are three parts to this climate fraud. First, climate energy transfer was oversimplified using the equilibrium climate assumption. This created global warming as a mathematical artifact when the CO_2 concentration was increased in these early 'air column' models. Second, there was 'mission creep'. As funding was reduced for NASA space exploration and Department of Energy (DOE) nuclear programs, climate modeling became an alternative source of revenue. The simplified climate models ware accepted without question. Third, there was a deliberate decision by various outside interests, including environmentalists and politicians to exploit the fictional climate apocalypse to further their own causes. The climate models used to perpetuate the climate fraud are no longer based on science. They are political models based on the pseudoscience of radiative forcings, feedbacks and climate sensitivity that are 'tuned' to meet political goals. The climate modelers are paid to provide the climate lies and propaganda needed to justify public policy to restrict the use of fossil fuels.

It is time to dismantle this multi-trillion dollar fraud.

Introduction

Starting in the nineteenth century, the energy transfer processes that determine the surface temperature were oversimplified using the equilibrium assumption. The time dependent flux terms were replaced by average values [Pouillet, 1836]. When the CO_2 concentration was increased in the equilibrium air column model that was used by Arrhenius in 1896, it created global warming as a mathematical artifact of the modeling assumptions [Arrhenius, 1896]. Over time, the original speculation by Tyndall [1861, 1863] that changes in the atmospheric concentration of CO_2 could cycle the earth through an Ice Age was transformed into concerns that fossil fuel combustion could cause global warming. This became scientific dogma. When Manabe and Wetherald (M&W) developed the first generally accepted computer climate model in 1967 [M&W, 1967] (MW67) they used a modified equilibrium air column. A 9 or 18 layer radiative transfer model with a fixed relative humidity distribution was added to the Arrhenius model. This created a 'water vapor feedback' that amplified the original CO_2 induced warming artifact. This type of model is known as a one dimensional radiative convective (1-D RC) model. They then spent the next 8 years building their 1967 model artifacts into each unit cell of a 'highly simplified' global circulation model [Manabe and Wetherald, 1975] (MW75).

Such climate modeling efforts were expensive. They required the latest computer technology and the mathematicians and programmers to develop and run the models. Melodramatic warnings about anthropogenic global warming rapidly became a lucrative source of research funding. The climate modelers were soon trapped in a web of lies of their own making. They could not correct

the modeling errors that they had created without the risk of losing their jobs - or even going to jail.

Mission creep now started as resources were reduced for NASA space programs and later DOE nuclear programs. (The Atomic Energy Commission was merged into DOE in 1977). The climate modelers at NASA started out by studying radiative transfer in planetary atmospheres, mainly Mars and Venus. On both planets, the atmospheric composition is approximately 95% CO_2. The modelers then began to expand their work and analyze the earth's climate. They failed to conduct any model validation or 'due diligence' and blindly accepted the 1-D RC equilibrium air column model and the CO_2 warming dogma. They just wanted funding to continue their work on atmospheric energy transfer. In the 1970s there was a global cooling scare that was caused by the negative or cooling phase of the AMO after1940 (see VPCP 25, Figure 4). Belief in CO_2 induced global warming required an alternative explanation. Rasool and Schneider [1971] proposed an increase in aerosol concentration. At the time, they were both working for NASA Goddard. Ramanathan [1975], then working at NASA Langley, calculated a 'greenhouse effect' from chlorofluorcarbons. Here, he used a sensitivity of 1.425 W m^{-2} K^{-1} for the change in weather station temperature due to variations in the solar flux derived by Budyko [1969]. He assumed an equilibrium average climate and applied the same solar sensitivity to the change in LWIR flux at the top of the atmosphere (TOA) produced by chlorofluorocarbons. Molecular line broadening effects were ignored [Clark and Rörsch, 2023, (CR23), Clark, 2013]. A group from NASA Goddard that included Hansen [Wang et al, 1976] (H76) then extended this work to include N_2O, CH_4, NH_3, HNO_3, C_2H_4, SO_2 and CCl_4 as well as the species H_2O, CO_2 and O_3 included in MW67 and CCl_2F_2, CCl_3F from Ramanathan [1975].

The foundation of the climate modeling fraud was completed with the publication of the 1981 paper by Hansen et al [Hansen et al, 1981] (H81). This added a slab ocean model, the CO_2 doubling ritual and the calculation of the global temperature record using a contrived set of 'radiative forcings' to the 1-D RC model. H81 created the prototype political climate model. The complexities of the earth's climate were reduced to the single time series of numbers in the global average temperature record and the climate model used a contrived set of radiative forcings to match these numbers. The 'anthropogenic' forcings could then be separated from the 'natural' forcings used as a political tool to control the energy supply. The technical fraud is discussed in more detail in VPCP 25 and in VPCP 24 '*Follow the Yellow Brick Road*' [Clark, 2023]. The climate fraud started to grow as junior researchers trained at NOAA and NASA moved on to other positions, taking their fraudulent climate modeling experience with them. However, nature did not cooperate and the first hint of global warming was not found until 1985 as the new warming phase of the AMO became detectable in the global temperature record [Wigley et al, 1985, Jones et al, 1986].

There was also a deliberate decision by various outside interests, including environmentalists and politicians to exploit the fictional climate apocalypse to further their own causes [Hecht, 2007, Mead and Kellogg, 1976]. The World Meteorological Organization (WMO) and the United Nations Environmental Program (UNEP) were used to promote the global warming scare [Bolin,

2007, Kummer, 2012]. The UN Intergovernmental Panel on Climate Change (UN IPCC) was established in 1988 and the US Global Change Research Program (USGCRP) was established by Presidential initiative in 1989 and mandated by Congress in 1990. In the UK, Margaret Thatcher became a proponent of the global warming scare. The UK Hadley Center was established in 1990 and became a major supporter of the IPCC [Courtney, 2012, Folland et al, 2004]. In the US, one of leading political advocates of climate change was Al Gore. He was US vice president from 1992 to 2000.

The basic concepts of radiative forcings, feedbacks and climate sensitivity were established with H81 and little has changed since then except that the models have become larger and more complex as computer technology has matured [Ramaswamy et al, 2019]. 'Efficacies' were added to further 'tune' the radiative forcings by Hansen et al in 2005 [Hansen et al, 2005]. The development of the multitrillion dollar climate fraud that we have today can be divided into three phases. First there was the technical fraud that began in the nineteenth century and led to the publication of the fraudulent climate model by Manabe and Wetherald in 1967. Second, there was 'mission creep' that expanded the climate fraud and led to the use of radiative forcings, feedback and climate sensitivity that continues today. Third, there was the political exploitation of the climate fraud that started with the formation of the IPCC and similar organizations. The models became 'political models' that were 'tuned' to meet political goals. The primary function of the climate modelers was to provide the climate lies and propaganda needed to support the politicians and justify public policy to restrict the use of fossil fuels. We are no longer dealing with climate 'science'. Instead we are dealing with the Imperial Cult of the Global Warming Apocalypse. The climate 'scientists' running the large scale equilibrium climate models are no longer scientists. They have become prophets of the Imperial Cult. Some people decide to take their religious texts too literally and become born again Christians. The climate modelers have abandoned physical reality and become born again morons. They have chosen to believe in the simplistic mathematics of radiative forcings, feedbacks and climate sensitivity. The problem is not a scientific one and logic and reason will not prevail. Instead of the Divine Right of Kings, we are dealing with the Divine Right of Morons to save the word from a non-existent problem. The three phases of the climate modeling fraud will now be considered in more detail.

From Physical Reality to Mathematical Simplicity

The temperature of the earth was discussed by Joseph Fourier in two similar memoires (reviews) published in 1824 and 1827 [Fourier, 1824, 1827]. He correctly described the time dependent heating of the earth's land surface by the solar flux. He also described ocean solar heating and atmospheric cooling by convection. However, he did not use the term 'greenhouse effect'. Instead he discussed a solar calorimeter with glass windows that had been developed by Saussure. An important and long neglected part of Fourier's work was the description of the seasonal time delay or phase shift in the subsurface heat transfer. Here he was able to quantitatively explain the observed temperature changes using his theory of heat, published in 1822 [Fourier, 1822].

> At a moderate depth, as three or four meters, the temperature observed does not vary during each day, but the change is very perceptible in the course of a year, it varies and falls alternately. The extent of these variations, that is, the difference between the maximum and minimum of temperature, is not the same at all depths, it is inversely as the distance from the surface. The different points of the same vertical line do not arrive at the same time at the extreme temperatures.
> .....
> The results observed are in accordance with those furnished by the theory, no phenomenon is more completely explained.
>
> *Fourier (1824, p. 144)*

Similar time delays or phase shifts are observed in the diurnal and seasonal temperature response to the solar flux in the land and ocean thermal reservoirs and in the troposphere. They are irrefutable evidence for a non-equilibrium thermal response to the solar flux. Climate energy transfer including the phase shifts is discussed in more detail in CR23.

The equilibrium climate assumption was first introduced by Pouillet in 1836. As a hypothesis, it had already been disproved by Fourier at least 12 years before. In 1840, Agassiz proposed the existence of an Ice Age based on observations of the glaciers in the Alps [Agassiz, 1840]. The climate debate then shifted from surface temperature to the cause of an Ice Age. This led Tyndall in the early 1860s to speculate that changes in the atmospheric CO_2 concentration could alter the earth's climate [Tyndall, 1861, 1863]. This in turn was the motivation for Arrhenius [1896] to try and calculate changes in surface temperature produced by CO_2. Arrhenius used an 'equilibrium air column' in his calculations, so his results were invalid. He replaced the time dependence with 24 hour average solar and LWIR fluxes and neglected the effects of convection, evaporation and subsurface transport. When the CO_2 concentration was increased, this approach had to produce an increase in surface temperature as a mathematical artifact of the calculation. His calculation is illustrated in Figure 1. The following quotes show the acceptance of the equilibrium assumption and the concern over climate change related to an Ice Age cycle.

> *III. Thermal Equilibrium on the Surface and in the Atmosphere of the Earth*
> All authors agree in the view that there prevails an equilibrium in the temperature of the earth and of its atmosphere.
>
> *Arrhenius 1896, p. 254*
>
> *V. Geological Consequences*
> I should certainly not have undertaken these tedious calculations if an extraordinary interest had not been connected with them. In the Physical Society of Stockholm there have been occasionally very lively discussions of the cause of the Ice Age.
>
> *Arrhenius 1896, p. 267*

Arrhenius repeated his calculations in 1906 and obtained smaller temperature changes [Arrhenius, 2014].

The first person to claim a measurable effect on surface temperature from an increase in CO_2 concentration due to fossil fuel combustion was Callendar [1938]. He assumed that an increase in LWIR absorption and emission in the CO_2 band near 650 cm^{-1} could cause a change in surface

temperature. He found a slight increase in both CO_2 concentration and meteorological temperatures, particularly in the N. hemisphere. He was probably the first person to find the signal from the Atlantic Multi-decadal Oscillation (AMO) in the weather station data. His period of record included the warming phase of the AMO from about 1915 to 1935 (see VPCP 25, Figure 4).

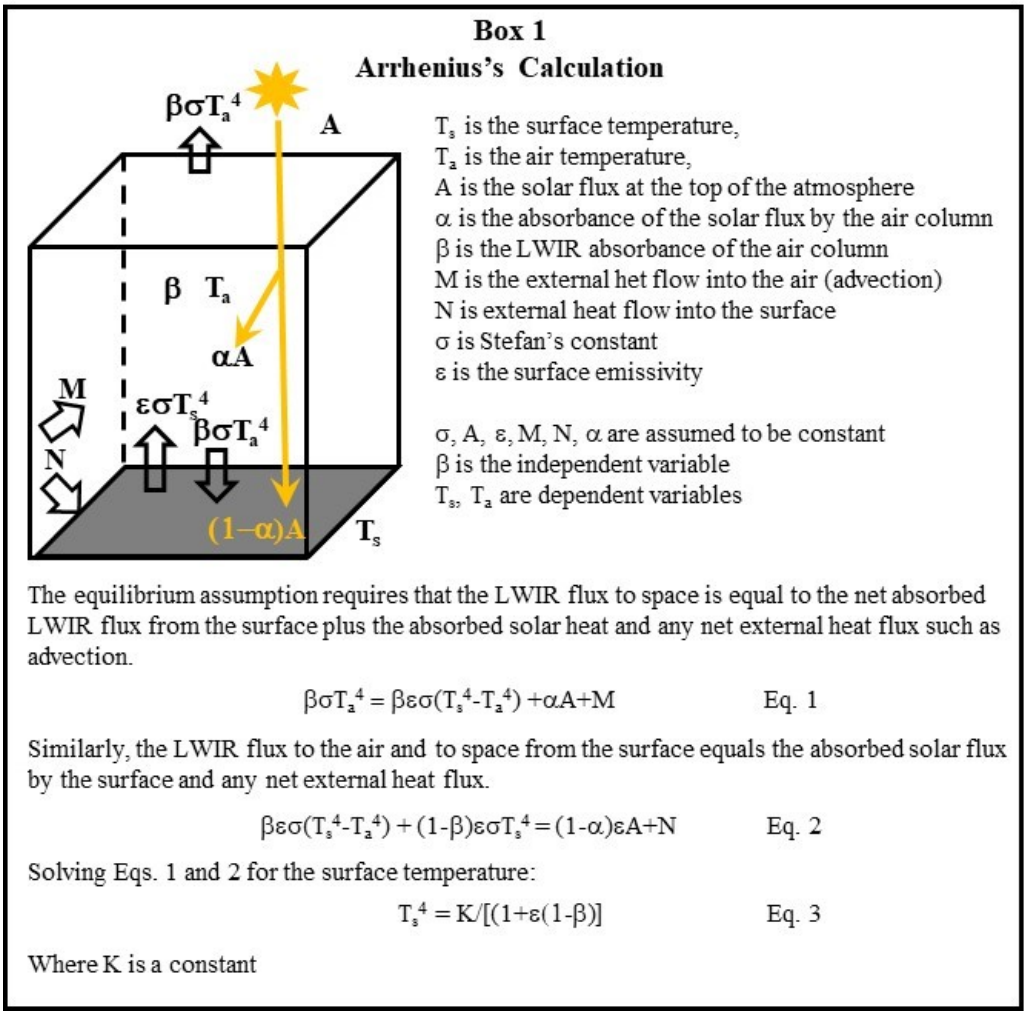

Figure 1: The outline of the calculation used by Arrhenius to calculate changes in 'equilibrium surface temperature' produced by changes in the atmospheric concentration of CO_2.

Interest in the effects of CO_2 from fossil fuel combustion on climate was revived in the late 1950s with the work of Burt Bolin and Roger Revelle on the distribution of CO_2 between the atmosphere and the oceans [Bolin and Eriksson, 1959, Bolin, 1960, Revelle and Seuss, 1957]. They had a new technique that they could use. This was the measurement of the carbon isotope ratios $^{14}C/^{12}C$ and $^{13}C/^{12}C$. However, this only provided information on the amount of CO_2 in the atmosphere that could be attributed to combustion. There was no new information on the relationship between CO_2 and surface temperature. They also used exaggerated claims of climate warming to obtain research

funds. They made no attempt to validate their claims using any thermal engineering calculations of the surface temperature.

One of the earliest uses of computers was for weather forecasting, pioneered by a group led by John von Neumann [Harper, 2004]. However, the global circulation models (GCMs) used in this application require the solution of large numbers of coupled nonlinear equations. Lorenz [1963, 1973] found that such solutions were unstable, even for a simple convection model with 3 equations. A practical limit for weather forecasting was 12 days ahead. This work should have made it clear that such GCMs had no predictive capabilities over the time scales associated with climate change. Similarly, the time delays or phase shifts found in the surface temperature data are irrefutable evidence for a non-equilibrium climate (CR23). Unfortunately, by the early 1960s, the equilibrium climate assumption had become firmly entrenched as scientific dogma. The idea that an increase in atmospheric CO_2 concentration produced by fossil fueled combustion CO_2 could cause an increase in surface temperature was accepted without question.

The MW67 model was an 'improved' version of the equilibrium air column used by Arrhenius with radiative transfer through 9 or 18 air layers added. It provided a mathematical platform for the development and evaluation of radiative transfer and related algorithms. The assumptions used to build the model had to create climate warming as a mathematical artifact of the calculations even before the first line of model code was written. They were clearly stated on the second page of their paper:

> 1) At the top of the atmosphere, the net incoming solar radiation should be equal to the net outgoing long wave radiation.
> 2) No temperature discontinuity should exist
> 3) Free and forced convection and mixing by the large scale eddies prevent the lapse rate from exceeding a critical lapse rate equal to 6.5 C km^{-1}.
> 4) Whenever the lapse rate is subcritical, the condition of local radiative equilibrium is satisfied.
> 5) The heat capacity of the earth's surface is zero.
> 6) The atmosphere maintains the given vertical distribution of relative humidity (new requirement).

These assumptions should make it clear to anyone reading the paper that the MW67 model has no basis in physical reality. The implications of these assumptions need to be carefully evaluated before anyone used the MW67 model. Has anyone seen an 'equilibrium average sun' shining in the sky at night? The heat capacity of the ocean layer illuminated by the solar flux is far from zero and the dominant ocean cooling process is wind driven evaporation.

M&W chose to ignore the errors that they introduced in the MW67 model and went on to incorporate the 1967 mathematical warming artifacts into every unit of a 'highly simplified' global circulation model [M&W, 1975] (MW75). The 1967 model was now described as a 'global average climate model'. Although the MW75 GCM did not contain any real climate effects such as ocean transport and the cloud cover was fixed, claims of global warming from a 'CO_2 doubling' were still made, even though the source was the invalid 1967 assumptions. The 1975 model also created a 'hot spot' in the upper troposphere at low and middle latitudes. This is also an artifact of

the model assumptions related to the relative humidity assumption. The temperature increases produced by a 'CO_2 doubling' and the 'hot spot' are shown in Figure 2.

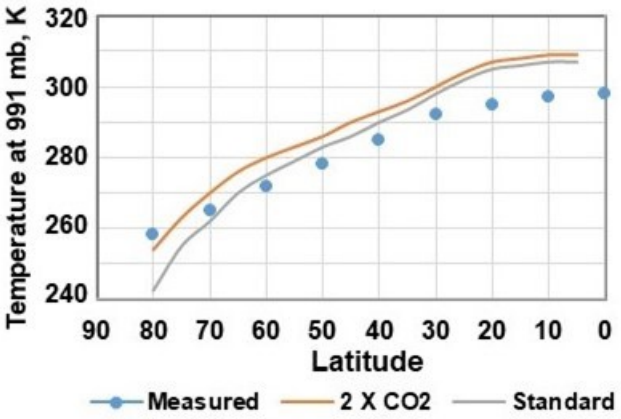

Fig. 5. Zonal mean temperature at the lowest prognostic level (i.e.~991 mb). Dots indicate the observed distribution of zonal mean surface air temperature (Oort and Rasmusson, 1977)

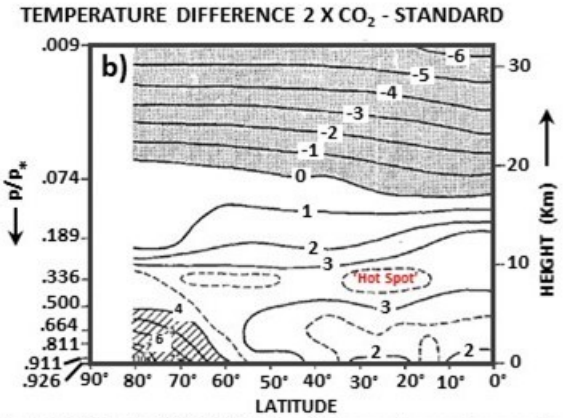

Fig. 4. Latitude-height distribution of the zonal mean temperature (K) for the standard case (a) aand of the increase in zonal mean temperature (K) resulting from the doubling of the CO_2 concentration (b). Stippling indicates a decrease in temperature

Figure 2: The effect of a CO_2 doubling in the 1975 M&W GCM, a) The increase in surface air temperature and b) the tropospheric 'hot spot' near 10 km altitude at low and mid latitudes.

In their conclusions, M&W stated:

> In evaluating these results, one should recall that the current study is based upon a model with fixed cloudiness. The results may be altered significantly if we use a model with the capability to predict cloudiness. Other major characteristics of the model which can affect the sensitivities of the model climate are idealized geography, swamp ocean and no seasonal variation. Because of the various simplifications of the model, it is advisable not to take too seriously the quantitative aspect of the results obtained in this study.

The MW75 paper set a benchmark for climate warming by CO_2. The equilibrium air column was now hidden inside the unit cell of the GCM. Funding for additional GCM development work by M&W or others required similar warming effects. The climate model bandwagon was rolling and there was no turning back.

Mission Creep

The basic technical foundation of the climate modeling fraud was established with the publication of H81. This is discussed in more detail in VPCP 17 and VPCP 25. The climate models results were officially 'sanctified' by the Charney report published in 1979 [Charney, 1979]. It concluded in part:

> When it is assumed that the CO_2 content of the atmosphere is doubled and statistical thermal equilibrium is achieved, the more realistic of the modeling efforts predict a global surface warming between 2 C and 3.5 °C with greater increases at higher latitudes.

> The primary effect of an increase of CO_2 is to cause more absorption in the troposphere and thus to increase the air temperature in the troposphere. A strong positive feedback mechanism is the accompanying increase of moisture which is an even more powerful absorber of terrestrial radiation.

This report was very narrow in scope and ignored the large body of evidence that was available to show that the climate equilibrium assumption was invalid and that an increase in the atmospheric CO_2 concentration could not change the surface temperature of the earth. There was no quantitative discussion of the surface energy transfer processes that determine the surface temperature. For example, detailed flux and temperature measurements were available from the Great Plains Turbulence Field Program conducted in 1953 [Letteau and Davidson, 1957, CR23]. Ocean surface energy transfer was discussed by Bunker [1976]. Natural wind driven ocean oscillations including the Southern Oscillation Index and the North Atlantic Oscillation were also ignored [Julian and Chervin, 1978, Lamb, 1972]. Stephenson et al, [2003] provides a historical review and earlier references. The spectral properties of water were published by Hale and Querry [1973]. This showed that the penetration depth of the LWIR flux into the water surface was less than 100 micron. An LWIR radiative forcing by a greenhouse gas could not heat the oceans.

The causes of an Ice Age were finally explained in 1976 by Hays et al. Subtle changes in the distribution of the solar flux over the earth's surface related to Milankovitch cycles – orbital eccentricity, axial tilt and precession were sufficient to change the balance between the rates of heating and cooling of the earth. Changes in the atmospheric concentration of CO_2 followed the ocean temperature changes [Hayes et al, 1976, Imbrie and Imbrie, 1979]. The mathematical warming artifacts created by the equilibrium air column had been revealed to anyone who cared to look. Physical reality had been abandoned in favor of mathematical simplicity. The climate modelers were blinded by the equilibrium assumption. They continued to play computer games in their equilibrium climate fantasy land. They wanted to keep their jobs.

The original 1967 1-D RC model developed by M&W had a partially reflective blackbody surface with zero heat capacity. H81 introduced a 'slab' ocean model that had two layers, a 'mixed layer' 100 m deep and a 1000 m 'diffuse layer' below this. This just added time delays to the climate model that became part of the CO_2 doubling ritual. In reality, the penetration depth of the LWIR flux from CO_2 into the water surface is less than 100 micron (0.004 inches) [Hale and Querry, 1973]. Here it is fully coupled to the much larger and more variable wind driven latent heat flux (evaporation) [Yu et al, 2008, CR23]. Any increase in downward LWIR flux from the lower troposphere to the ocean surface produced by an increase in CO_2 concentration cannot heat the oceans (CR23). Hansen et al were not the only ones to consider a 'slab' ocean model. Manabe and Stouffer [1980] created $4xCO_2$ induced warming in a single 'mixed layer' ocean. A two layer slab ocean model was described by Cess and Goldenberg [1981] and ocean-atmosphere coupling was discussed by Dickinson [1981]. The ocean warming from a quadrupling of the CO_2 concentration calculated by Manabe and Stouffer is shown in Figure 3.

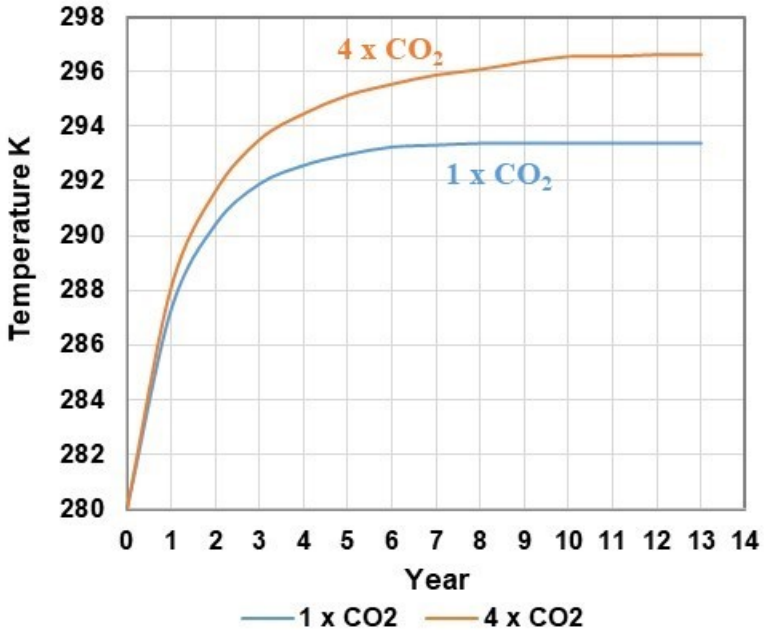

Fig. 6. Time variation of the global mean water temperature of the mixed layer ocean from 1 x CO_2 and 4 x CO_2 experiments. A 1 year running mean operator is applied to both curves

Figure 3: Ocean warming produced by a quadrupling of the CO_2 concentration, fig. 6 from Manabe and Stouffer, 1980.

The climate modelers also ignored the details of their own radiative transfer calculations. The LWIR flux emitted to space is decoupled from the downward LWIR flux to the surface by molecular line broadening (CR23). Atmospheric heating effects could be evaluated by extending the radiative transfer calculations to include the local LWIR cooling rate and running the calculations at different CO_2 concentrations. As illustrated in Figure 4a, Stone and Manabe [1968] discussed the LWIR cooling rate profiles produced by two different radiative transfer models but they did not consider the effects of changing the CO_2 concentration. Ackerman [1979] determined both the cooling rate profiles and the change in the cooling rate produced by a doubling of the CO_2 concentration (Figures 4b through 4d). Unfortunately, neither Stone and Manabe nor Ackerman extended their analysis beyond the accepted equilibrium air column model. The seasonal and diurnal temperature cycles and ocean surface energy transfer were not considered. When the changes in LWIR flux related to CO_2 are added to the other time dependent flux terms and coupled to the surface thermal reservoirs, any temperature changes are too small to measure (CR23). There is reasonable agreement with later work by Feldman et al [2008] on the LWIR cooling rates and with Iacono et al [2008] on the changes in cooling rates produced by a CO_2 doubling. Feldman et al calculated a total tropospheric cooling rate of -2.0 to -2.5 K per day for the tropical atmosphere. Iacono et al calculated a maximum warming rate of +0.08 K per day for a CO_2 doubling at mid latitudes. This is too small to measure. At a lapse rate of -6.5 K km^{-1}, an increase of +0.08 K is produced by a decrease in altitude of 12 meters. This is equivalent to riding an elevator down four floors.

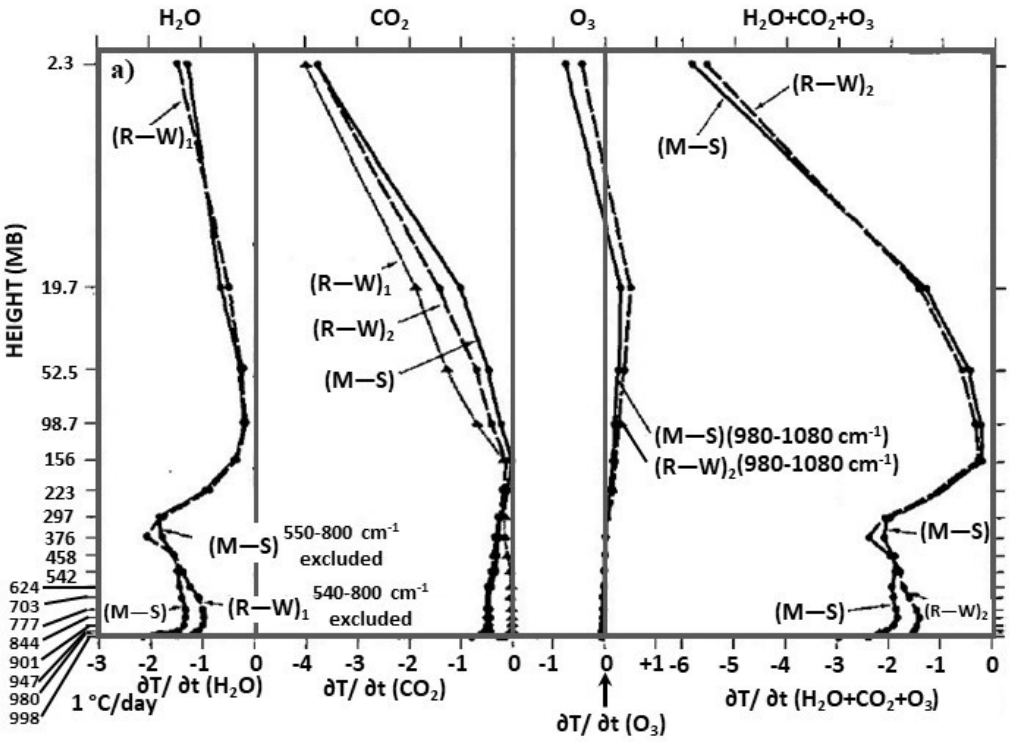

Figure 4: Comparison of heating rated computed by the (M-S) and (R-W) models

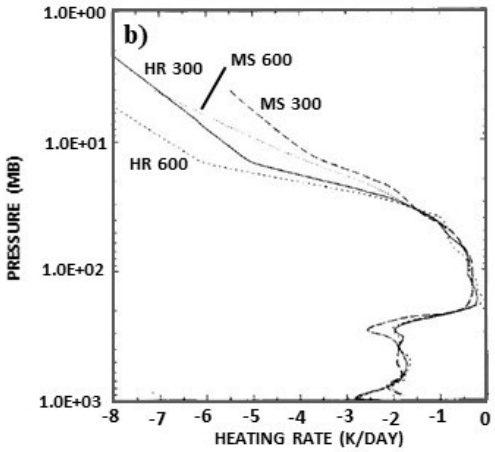

Fig. 3(a) Heating rate profiles computed with HR code for CO_2 concentrations of 300 ppm (solid curve) and 600 ppm (short dash) and profiled computed with MS code for CO_2 concentrations of 300 ppm (long dash) and 600 ppm (dotted) using mid latitude summer profiles.

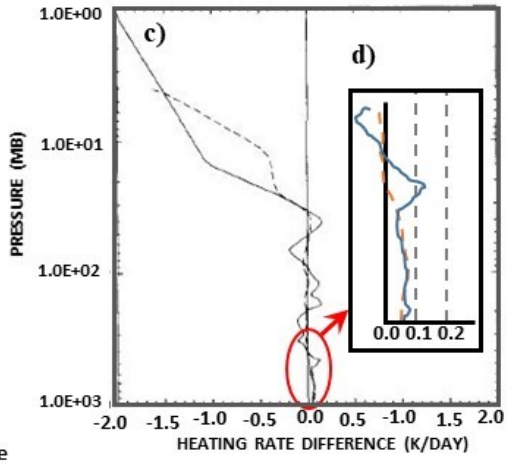

Fig. 3(b) Difference between heating rate profiles for computed CO_2 concentration of 300 ppm and 600 ppm for HR code (solid curve) and MS code (long dash)

Figure 4: The calculation of atmospheric LWIR cooling rates by a) Stone and Manabe and b) by Ackerman. c) The difference in cooling rates produced by a doubling of the CO_2 concentration and d) the response of the lower troposphere from c) on an enlarged scale, also from Ackerman.

Starting in about 1982, a major CO_2 research program was initiated by the US Department of Energy (DOE) with an extensive report published in 1985 [MacCracken and Luther, 1985a, 1985b, Riches and Koomanoff, 1985]. The climate model results were accepted without question. The issue was how to detect the CO_2 signal in the surface temperature record. In their analysis of the

temperature record Wigley et al [1985] concluded that "*unequivocal, statistically rigorous detection of the effects of changing CO_2 levels on atmospheric temperatures is not yet possible*". No quantitative thermal engineering analysis of the changes in surface temperature was presented. In the following year, using the same data set, the Climate Research Unit (CRU) at the University of E. Anglia started to ramp up the warming claims: "*the data show a long timescale warming trend, with the three warmest years being 1980, 1981 and 1983 and five of the nine warmest years in the entire 134 year record occurring after 1978*" [Jones et al. 1986]. In a slightly later paper, Jones et al [1988] concluded "*Nevertheless, the persistent surface and tropospheric warmth of the 1980s which, together with the ENSO, gave the exceptional warmth of 1987 could indicate the consequences of increased concentrations of CO_2 and other radiatively active gases in the atmosphere*". Again, there was no attempt to perform any thermal engineering analysis of the surface temperature. The temperature record from Jones et al [1988] is shown in Figure 5. The increase in CO_2 concentration [Keeling, 2023] has been added and the positive phases of the AMO are indicated. Based on Figure 5, there is no reason to expect that the increase in CO_2 concentration has had any effect on the temperature record. The full list of authors is P. D. Jones and T. M. L. Wigley, *Climatic Research Unit*, *University of E. Anglia*, C. K. Folland and D. E. Parker, *Meteorological Office. Bracknell, UK,* J. K. Angell, *Air Resources Laboratory*, *NOAA Environmental Research Labs*, *Silver Spring, MD, USA*, S. Lebedeff and J. E. Hansen, *NASA Goddard Space Flight Center*, *New York, USA*.

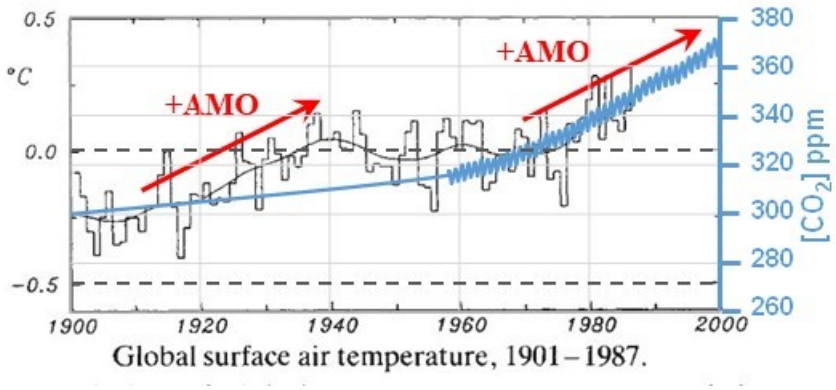

Figure 5: The temperature record from Jones et al [1988] with the Keeling curve and the phases of the AMO added.

Mission creep continued as the DOE supported climate model comparison programs that later evolved into the Climate Model Intercomparison Project (CMIP) [Meehl et al, 1997, Stouffer et al, 2017, Taylor et al, 2012]. This has become the major source of fraudulent climate model results used by the IPCC. As computer technology improved and more groups joined the climate modeling bandwagon, the underlying pseudoscience of radiative forcings, feedbacks and climate sensitivity was accepted without question. One invalid climate model could be compared to another and physical reality could be ignored. The models were 'tuned' to match the global mean temperature record using a set of contrived radiative forcings. These were then manipulated to claim 'human causes' for every imaginable 'extreme weather event' [Herring et al, 2022].

In 1979 there were only two modeling groups that provided GCM data for the Charney report. By 1995, 18 coupled climate models were available from seven different countries [Meehl et al, 1997]. The modeling effort for the IPCC is now coordinated through the Coupled Model Intercomparison Project (CMIP). In 2019 there were 49 modeling groups with approximately 100 different models involved in CMIP6 generating the fraudulent data to be incorporated into the next IPCC climate assessment (AR6) [Hausfather, 2019, IPCC, 2021]. All of these models used the same basic approach established by M&W and H81. The climate sensitivities created by these models is clear evidence of the climate modeling fraud (see VPCP 25, Figure 3f). All 49 groups of climate modelers have abandoned physical reality and entered the equilibrium climate fantasy land.

The 'Attribution' of Extreme Weather Events

Starting with the Third IPCC Climate Assessment Report [2001], a new level of political fraud was added to the climate models. The contrived time series of radiative forcings used to create the illusion of a fit to the global mean temperature record was split into 'natural' and 'anthropogenic' forcings. The climate models were then rerun to create a separate 'natural baseline' and an 'anthropogenic contribution'. A vague statistical argument using changes to the normal distribution ('bell' or Gaussian curve) of temperature was then used to claim that the increase in temperature caused by 'anthropogenic' forcings would cause an increase in the frequency and intensity of 'extreme weather events'. This is illustrated in Figure 6. The calculated global mean temperature record using a contrived set of natural, anthropogenic and combined forcings is shown in Figures 6a through 6c. The forcing components are shown in Figure 6d and 6e and the 'attribution' argument based on changes to a normal statistical distribution of temperature is shown in Figure 6f. (Figures 3a through 3c, 3d and 3f are from WG1 AR3, SPM4, SPM 3 and fig. 2.32. Figure 3e is from Tett et al, 2000, fig. 1). The climate model results are from Stott et al [2000] using the Hadley HadCM3 model. The basic pseudoscientific claim that the radiative forcings produced by an increase in atmospheric greenhouse gas concentration change the energy balance of the earth and increase the surface temperature is still used. However, every imaginable form of 'extreme weather event' can now be blamed on 'anthropogenic warming' [Herring et al, 2022]. Natural climate changes related for example to ocean oscillations, downslope winds and blocking high pressure systems can be 'enhanced' by the pseudoscience of radiative forcings.

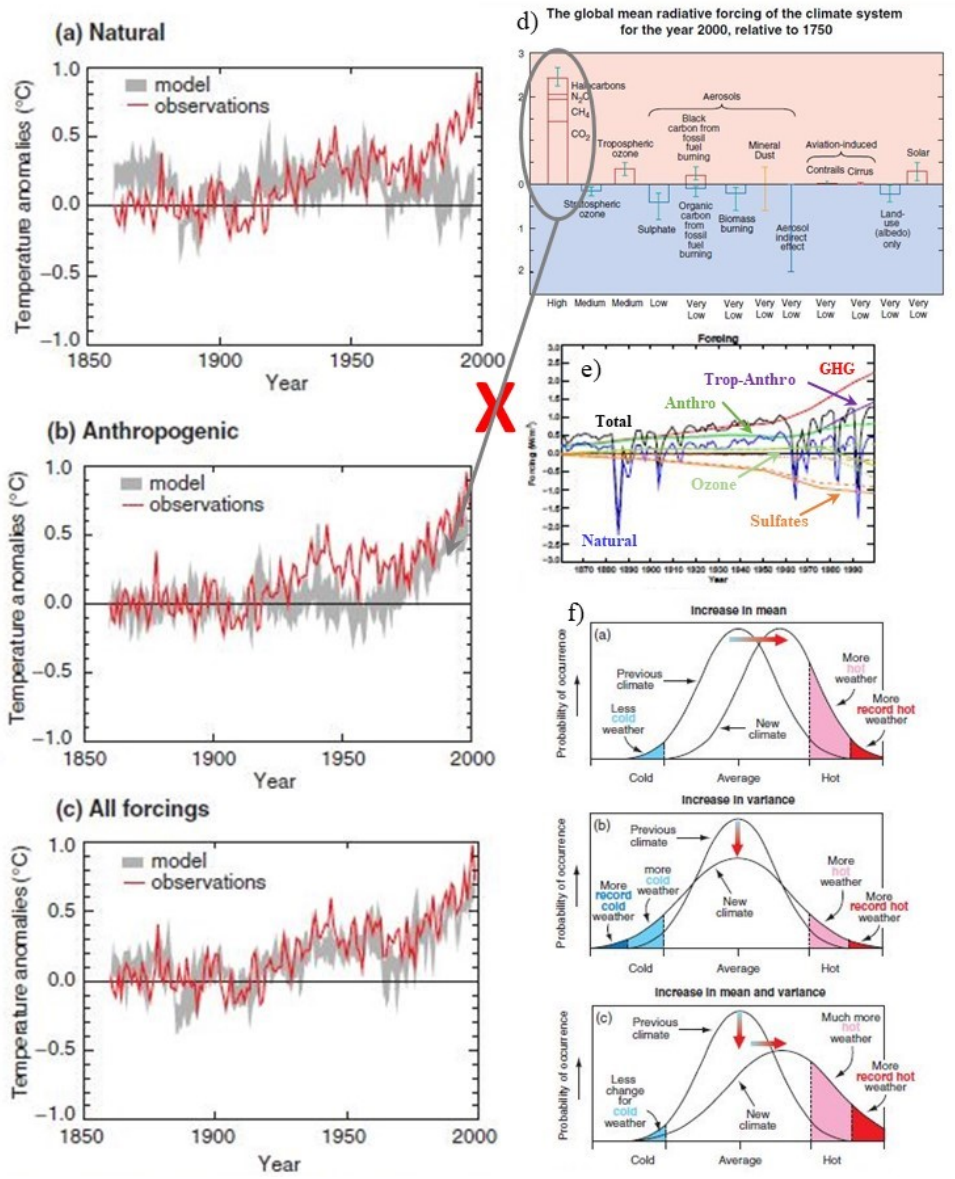

Figure 6: The 'attribution' argument from the Third IPCC Climate Assessment. A contrived set of pseudoscientific radiative forcings shown in d) and e) is divided into 'natural' and 'anthropogenic' forcings and used to create the illusion that the climate models can simulate a 'natural' climate baseline as shown in a), the 'anthropogenic' contribution as shown in b) and be combined to match the temperature record in c). Presumed changes to a normal (Gaussian) statistical temperature distribution are then used to 'attribute' increases in the intensity and frequency of 'extreme weather' to the anthropogenic temperature increase. In reality, the LWIR 'greenhouse gas' forcings do not change the surface temperature or the energy balance of the earth.

The Imperial Cult of the Global Warming Apocalypse

The World Meteorological Organization (WMO) and the United Nations Environmental Program (UNEP) were used to promote the global warming scare [Bolin, 2007]. The UN Intergovernmental Panel on Climate Change (UN IPCC) was established in 1988 and the US Global Change Research Program (USGCRP) was established by Presidential initiative in 1989 and mandated by Congress

in 1990. The formation of the IPCC completed the transition from climate dogma to the Imperial Cult of the Global Warming Apocalypse. However, there is a basic conflict between the missions of the IPCC and the USGCRP that does not seem to be well understood.

The IPCC is a political body, not a scientific one [Crok and May, 2023, Bolin, 2007]. Its mission is to assess "the scientific, technical and socioeconomic information relevant for the understanding of the risk of human-induced climate change." This is based on the *a-priori* assumption that human activities are causing CO_2 induced global warming. There never was an attempt to objectively evaluate the scientific evidence of the cause of climate change.

The US Global Change Research Program (USGCRP) was established by presidential initiative in 1989 and mandated by Congress in 1990. Its mission is 'to coordinate federal research and investments in understanding the forces shaping the global environment, both human and natural, and their impacts on society'. Thirteen government agencies are involved, the Department of Agriculture (USDA), the Department of Commerce (DOC), (NOAA and NIST), the Department of Defense (DOD), the Department of Energy (DOE), including the National Laboratories, Department of Health and Human Services (HHS), Department of the Interior (DOI) (USGS), Department of State (DOS), Department of Transportation (DOT), Environmental Protection Agency (EPA), National Aeronautics and Space Administration (NASA), National Science Foundation (NSF), The Smithsonian Institution (SI) and the US Agency for International Development (USAID).

Since it was founded, the USGCRP has blindly copied the IPCC reports and failed to look beyond the pseudoscience of radiative forcings, feedbacks and climate sensitivity found in the climate modeling assumptions. The basic question that the USGCRP should have answered has never been addressed: how does the observed annual increase in average atmospheric CO_2 concentration, now near 2.4 ppm per year, cause climate change? As discussed in VPCP 25, any increases in surface temperature are too small to measure. Further details are given in CR23.

The agencies involved in the USGCRP may be divided into those that run climate models and those that have simply relied on the climate model results. There has been a fundamental failure within the second group of agencies to perform any kind of model validation or 'due diligence' to ensure that the climate model results are correct. In fact very few of the analysts associated with the USGCRP have any understanding of time dependent climate energy transfer. This may be illustrated by examining the US Geological Survey Report, '*Using information from global climate models to inform policymaking-The role of the U.S. Geological Survey*' (USGS2020) [Terando et al, 2020]. Figure 1 from USGS2020 is shown here as Figure 7 (The temperature scale is °F not °C). These figures are an updated version of the temperature record shown in Figure 6 using modeling results from the CMIP5 model ensemble.

Simple inspection of the 'observed temperatures' reveals a distinct peak near 1940 and an earlier minimum near 1910. The slope from 1970 to 2000 is similar to the slope from 1910 to 1940. This is the 'signal' from the Atlantic Multi-decadal Oscillation (AMO) [AMO, 2022]. It has nothing to

do with CO_2. There is also an underlying linear increase in temperature related to the temperature recovery from the Little Ice Age (LIA) [Akasofu, 2010]. The rest of the warming may be explained by various biases and 'adjustments' that have been made to the raw weather station data as part of the global averaging process. This is illustrated in Figure 8. A more detailed discussion is provided in VPCP 25, (see Figure 3e). There has been no investigation of this by the USGCRP. If the results do not conform to the 'climate change narrative' they have been ignored. Similarly, there has been no investigation of the energy transfer processes that determine the surface temperature. How does the increase in atmospheric CO_2 concentration heat the surface? Where are the thermal engineering calculations? Terando et al blindly accepted and copied the climate modeling results.

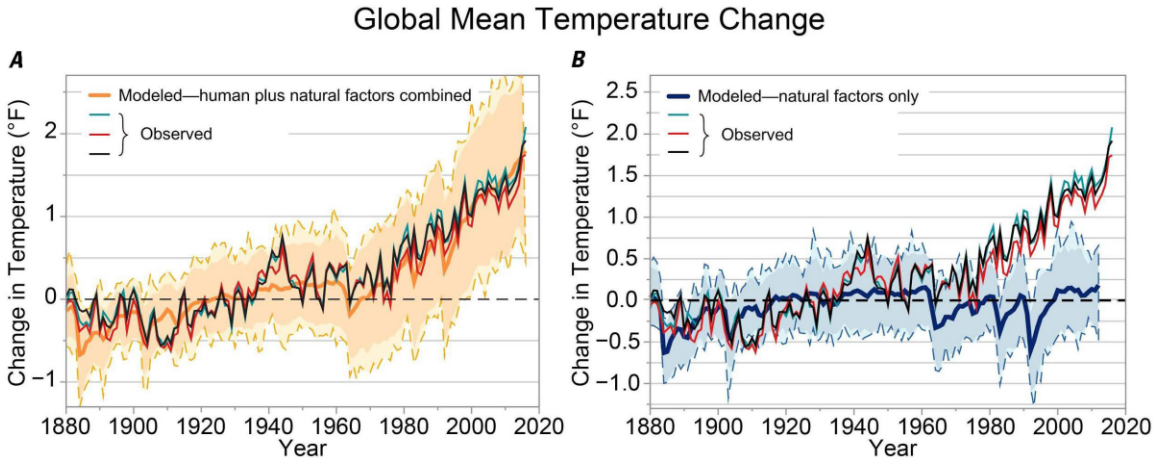

Figure 7: Figure 1 from USGS2020 [Terando et al, 2020]

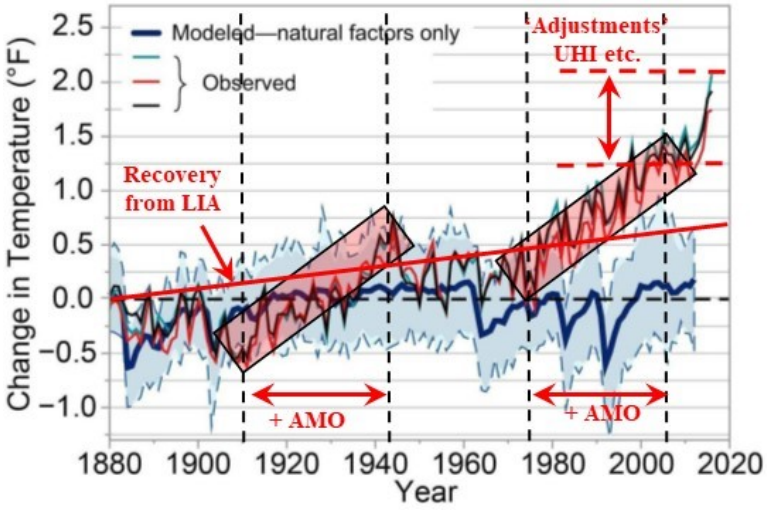

Figure 8: The real causes of the warming shown in Figure 7.

It is instructive to trace the source of Figure 6. It is the same as figure 3.1 of NCA4, the Fourth Climate Assessment report [Knutson et al, 2017]. This in turn was adapted from figures 14 through 16 in Appendix 4 of NCA3, the Third Climate Assessment Report [Melillo et al, 2014]. The original source was Jones et al 2013 figure 7 (and figure 4) [Jones et al, 2013]. This figure was also used in the IPCC AR5 WG1 climate assessment report figure 10.7 [IPCC, 2013]. All of this

is political modeling designed to support government policy in return for continued funding. The authors of the original Jones paper are from the UK Met Office and two of the authors, Jones and Stott were authors of the 2000 paper used in AR3. Many of the principal authors of the National Climate Assessments are also IPCC authors. There is a conflict of interest here that would preclude consideration of natural climate changes such as ocean oscillations, downslope winds and high pressure domes that contradict the anthropogenic attribution argument. The ocean oscillations are produced by a natural imbalance between the solar heating and the wind driven cooling of the ocean gyre circulation. Instead of King Canute trying to stop the rising tide, the natural baseline created by the pseudoscientific radiative forcing argument may compared to using the climate models to try and stop the ocean waves and create a flat ocean without the gyre circulation.

Where was the Oversight?

Time delays or phase shifts between the peak solar flux and the surface temperature response clearly demonstrate that there is no climate equilibrium state that can be perturbed by an increase in the atmospheric concentration of CO_2 or other greenhouse gases.

Global circulation models have no predictive capabilities over the time scales required for climate change because of Lorenz instabilities.

When the CO_2 concentration is increased, the simplistic equilibrium air column model used by Manabe and Wetherald must create an increase in surface temperature as a mathematical artifact in the calculation. This is then amplified by a 'water vapor feedback'.

Why were Manabe and Wetherald allowed to proceed with their work on the GCM model in 1967?

Why has the work on radiative forcing based climate modeling by Ramaswamy and others at NOAA been allowed to continue for so long?

Why has the American Meteorological Society continued to publish the climate supplements edited by Herring et al?

Why did NASA fail to identify the fraud in the 1-D RC equilibrium air column model used by Hansen's group and others to claim global warming effects from a range of 'greenhouse gases'?

Why did NASA fail to identify the scientific errors in the 1981 paper by Hansen et al?

NASA has a well-established review process of Technology Readiness Levels (TRLs). Why was this not applied to Hansen's climate models?

Similarly, where is the thermal analysis of the effects of CO_2 on the surface temperature for such missions as the OCO satellite?

Why was the Charney Report so limited in scope? Why were the obvious errors in the climate models not identified?

From 1940 to 1970, the AMO was in its cooling phase. This led to speculation about 'global cooling' and the onset of an Ice Age. The AMO then changed to its warming phase. By 1986, the AMO warming could be detected in the weather station record. Why was this change from global cooling to global warming accepted without question? Did this not demonstrate that something was wrong with the equilibrium climate models?

The USGCRP has failed in its basic mission to understand 'the forces shaping the global environment, both human and natural, and their impacts on society'. Instead of conducting an independent review of the equilibrium climate models and their 'predictions', the USGCRP has blindly copied climate model results and the IPCC reports. The organization has relied on melodramatic temperature increases from fraudulent climate models to promote the coming of the Climate Apocalypse.

The conflict of interest between the climate modelers associated with the IPCC and the independent analysis to be performed by the USGCRP as mandated by Congress has not been recognized.

The IPCC is an international body that was established to promote the climate fraud. There is no oversight. The USGCRP was established by Congress and funded by the US Treasury using money from US taxpayers. It is subject to the laws of the United States and Congressional oversight. The National Laboratories are private companies run by consortia and funded through DOE contracts. Why has Congress allowed this climate fraud to continue for so long?

Conclusions

Eisenhower's warning about the corruption of science by government funding has come true. The foundation of the modern computer based climate modeling fraud was established between 1967 and 1981 by the work of Manabe and Wetherald (M&W) at NOAA and Hansen's group at NASA Goddard. As funding was reduced for space exploration and nuclear programs, government scientists jumped on the climate modeling bandwagon and blindly copied and 'improved' the equilibrium climate models that had already been developed. This led to 'mission creep' at government agencies such as NASA and DOE. The exploitation of the fictional global warming apocalypse by outside political and environmental groups coincided with the warming phase of the AMO that was first detected in 1985. The climate fraud grew rapidly after the formation of the IPCC in 1988. The climate models used to perpetuate the climate fraud are no longer based on science. They are political models based on the pseudoscience of radiative forcings, feedbacks and climate sensitivity that are 'tuned' to meet political goals. The climate modelers are paid to provide the climate lies and propaganda needed to justify public policy to restrict the use of fossil fuels. It is time to stop pretending that the climate modelers are scientists. They are prophets of the Imperial Cult of the Global Warming Apocalypse. They have chosen to believe the results created by their

simplistic climate model assumptions and claimed the Divine Right of Born Again Morons to save the world from a nonexistent problem.

It is time for Congress to shut down funding for all equilibrium climate modeling and related work including the USGCRP. There is no cost or technical justification for utility scale alternative energy. Nor is there any justification for the large scale deployment of electric vehicles. There is no climate emergency. 'Net Zero' will be an economic disaster for the US and cause unnecessary suffering for the people of the US – and the rest of the world. There are also major legal issues related to the damages caused by the climate fraud that need to be addressed.

Acknowledgement

This work was performed as independent research by the author. It was not supported by any grant awards and none of the work was conducted as a part of employment duties for any employer. The views expressed are those of the author. He hopes that you will agree with them.

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Normally, the references given in an article of this nature would be almost exclusively to the peer reviewed literature, with limited references to websites that provide access to climate data. Unfortunately, climate science has been thoroughly corrupted by the global warming fraud. The peer review process has collapsed and been replaced by blatant cronyism. Many of the publications in 'prestigious' journals such as Nature, Science, PNAS and others that relate to climate modeling predictions of global warming are fraudulent and should never have been published. Consequently many of the important references given here are to website publications. This should not detract from the integrity of the information provided. Many of these website publications have received a more thorough review than they might have received through the traditional peer review process.

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