Climate Change, Apocalypse? Apparition? Admonition?¹

Introduction

This work considers the opposing secular views on the subject of climate change with respect to the reported increase in the earth's overall average surface temperature. One such view, apocalyptic, perceives the reported increase in atmospheric CO₂ carbon dioxide from burning fossil fuels as the main driving force for the reported temperature increase. The opposing view, apparitional, is that the sun's energy output and earth-sun relative movement determine climate change, with negligible manmade contribution. Following that consideration, this work then evaluates climate change according to *"what saith the scripture?"* Romans 4:3, Galatians 4:30 to enable the reader to fulfil Isai-ah 7:15 *"Butter and honey shall he eat, that he may know to refuse the evil, and choose the good"* according to *"the sincere milk of the word"* 1 Peter 2:2 *"Pleasant words…as an honeycomb, sweet to the soul, and health to the bones"* Proverbs 16:24 concerning what is true or false about climate change.

Before climate change can be explicitly addressed, these related topics must be considered:

Age of the Earth

Secular science², however it perceives climate change, incorrectly perceives the earth as billions of years old.

Bible-believing scientist Ian T. Taylor³ reports that Archbishop James Ussher, 1581-1656, calculated the year of Creation from Biblical data to be 4004 B.C., making the earth just over 6,000 years old. Having considered in detail the natural processes by which earth's age may be estimated, Taylor concludes that an age of less than 10,000 years fits all the facts most closely.

Bible-believing scientist Scott M. Huse⁴ agrees, concluding from detailed analyses of the natural processes by which earth's age may be estimated that the age of the earth is 4,000-10,000 years.

Bible-believing researcher Vance Ferrell⁵ likewise concludes from an extensive overview analyses of the natural processes by which earth's age may be estimated that the age of the earth is less than 10,000 years. *"In the mouth of two or three witnesses shall every word be established"* 2 Corinthians 13:1.

All that considered, for the purpose of comparing and contrasting the graphical climate change data from secular sources in this work, this writer views the scales for the horizontal axes together with secular stated time spans as follows:

Secular Horizontal Scale, Years	Biblical Horizontal Scale
0-2000	0-2000
0-2016	0-2016
0-750000	~0-6000
1000-2000	1000-2000
1780-2010	1780-2010
1850-2010	1850-2010
1850-2020	1850-2020
1865-1990	1865-1990
1870-2010	1870-2010
1880-2010	1880-2010
1880-2020	1880-2020
1975-2010	1975-2010
1980-2015	1980-2015
$4000-0 \le 18000-0$	~2000-0*
100000-0	~2000-0*
400000-0	~3000-0
800000-0	~6000-0
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*very approximate, likewise 800 [~50] years, p 24 of this work

Ice Ages

One site⁶ in favour of **Climate Change – Apparition?** states, emphases in source document, *Earth's climate and the biosphere have been in constant flux, dominated by ice ages and glaciers for the past several million years. We are currently enjoying a temporary reprieve from the deep freeze.* That site's comments on earth's ice ages will be addressed later in this work in response to contemporary reports⁷ on melting ice sheets but for now, a Biblically sound response follows. Note in passing the reference to the effect on earth's surface temperature of a sudden, catastrophic increase in atmospheric CO₂ concentration. Vance Ferrell⁸ states, author's emphases, capitalisations and underlining,

RAPID COOLING – There are over 10,000 extinct volcanoes in the world today...They had their origin in the catastrophic conditions below the surface of the earth at the time of the Flood. <u>Thousands of volcanoes poured forth so much smoke that they darkened the sky</u>. <u>The result was a rapid cooling of the earth</u>...

At the close of the Flood, when several thousand volcanoes were erupting at the same time, climatic conditions dramatically and quickly changed throughout the world. When they subsided, the climate could again warm up...

An increase of carbon dioxide, from volcanic emissions of ash, would raise the temperature but little. Even an eightfold increase in CO_2 would raise the mean temperature by only about $2^{\circ}F$ [~1°C]. But the dust factor would decrease the temperature significantly and more effectively. <u>Scientists tell us</u> that volcanic action, sustained over several years, could trigger an ice age...

<u>Rapid cooling</u>, <u>induced by hundreds and thousands of volcanic explosions just after the Flood</u>, <u>brought on the ice age</u>...

Earth-Sun Relative Movement

Secular science, however it perceives climate change, incorrectly perceives the earth as rotating daily upon its axis and orbiting the sun yearly

Concerning earth-sun relative movement, Dr Gerardus Bouw's⁹ rigorous Biblically scientific study on geocentricity shows that Joshua 10:13 "And the sun stood still, and the moon stayed, until the people had avenged themselves upon their enemies. Is not this written in the book of Jasher? So the sun stood still in the midst of heaven, and hasted not to go down about a whole day" is literally true and that therefore because God cannot utter an untruth ["God...cannot lie" Titus 1:3]...we must conclude that the Bible teaches, in Joshua 10:13 and elsewhere, that the universe rotates around the earth once per day, carrying the sun, moon and stars with it, regardless of what introductory astronomy texts may say...

This site¹⁰ in favour of **Climate Change – Apparition?** states, emphases in source document, *Climate change is controlled primarily by cyclical eccentricities in Earth's rotation and orbit, as well as variations in the sun's energy output.*

The statement *cyclical eccentricities in Earth's rotation and orbit* should actually refer to equivalent eccentricities in the *relative* movement between the earth and the sun insofar as the earth itself apart from God's End Times judgement, see later in this work, does *not* orbit or rotate on its axis or move out of its place *independently of God*, the *sun* moves *relative to the earth*¹¹. Dr Bouw's thesis on geocentricity has notable support, in its essence even from a world-renowned astronomer and especially from *"the scripture of truth"* Daniel 10:21 in addition to Joshua 10:13. The graphic following is germane to geocentricity:

We know that the difference between a heliocentric theory and a geocentric theory is one of relative motion only, and that such a difference has no physical significance – Sir Fred Hoyle

"...how should man be just with God?...Which shaketh the earth out of her place, and the pillars thereof tremble" Job 9:2, 6.

"...the sun...is as a bridegroom coming out of his chamber, and rejoiceth as a strong man to run a race. His going forth is from the end of the heaven, and his circuit unto the ends of it..." Psalm 19:4-6.

"Therefore I will shake the heavens, and the earth shall remove out of her place, in the wrath of the LORD of hosts, and in the day of his fierce anger" Isaiah 13:13.



The model of Tycho Brahe¹²

The inscription on the top of the image says: New hypothesis for the system of the world, recently proposed by the author, by which the old redundancy and inelegance of Ptolemaeus and the recent absurdity of Copernicus concerning the motion of the Earth are excluded, and which is in excellent agreement with the Celestial Appearance. (Figure from De mundi aetherei recentioribus phaenomenis.)

A 17th century illustration of the Hypothesis Tychonica from Hevelius' Selenographia, 1647 page 163, whereby the Sun, Moon, and <u>sphere</u> of stars orbit the Earth, while the five known planets (Mercury, Venus, Mars, Jupiter, and Saturn) orbit the Sun.

Climate change considerations now follow. It should be noted that each side of the opposing secular views on the subject of climate change produces detailed information, much of it as graphics, with extensive lists of references in support of its case with rebuttals of the opposing side.

Climate Change - Apocalypse?

Is 'Climate Change' the 'Apocalypse Now' of the 21st century? Internationally acclaimed Australian environmental scientist Tim Flannery¹³ says yes.

The Weather Makers

Prior to 1800 (the start of the Industrial Revolution) there were about 280 parts per million of CO_2 in the atmosphere, which equates to around 586 billion tonnes of CO_2 ...Today the figures are 380 parts per million or around 790 billion tonnes...

CO₂ that humans have liberated by burning fossil fuels [since the Industrial Revolution]...is the cause – directly and indirectly – of around 80% of all global warming...

The energy we liberate when we burn these fuels comes from carbon and hydrogen. Because carbon causes climate change [via global warming], the more carbon-rich a fuel is, the more danger it presents to humanity's future...

If we do not reduce our emissions of greenhouse gases ... an increase of $3^{\circ}C$ (give or take $2^{\circ}C$) [in the overall surface temperature of the Earth] over the twenty-first century seems inevitable...

Cities will...begin to die when [climate change via global warming] overwhelms the capacity of their networks to supply the essentials. This may occur through the repeated battering of extreme weather events, rising seas and storm surges, extreme cold or heat, water deprivation or flood, or even disease...

Crops will be stressed by higher temperature...a CO_2 -rich world promises to be one in which crop production is lower than today...

Human health, water and food security are now under threat from the modest amount of climate change that has already occurred [via global warming from manmade CO_2 emissions]. If humans pursue business-as-usual for the first half of this century, I believe the collapse of civilisation due to climate change becomes inevitable...

Flannery's analysis is supported by these very detailed sites, the first of which¹⁴ draws attention to a reported increase in the earth's surface temperature with time over an extended period of measurement, according to a stated average temperature 14° C, see below and page following, assigned a reference value of 0°C for the purpose of the graphic:

Average Surface Temperature

1.4.1 Global warming in general

Increased CO_2 and other GHG [greenhouse gas] concentrations are likely to raise the Earth's average temperature a considerable amount. The average surface temperature of the Earth is likely to increase by 2.5 to 10.4 F (1.4–5.8 C) by the end of the twenty-first century, relative to 1990 (see Figure 1.31). This projected rate of warming is about 2 to 10 times greater than the warming observed during the twentieth century and may represent a warming rate unprecedented for at least the last 10,000 [~2,000] years...



<u>Environment</u>

Our environment is severely impacted by greenhouse gases (GHGs). These gases absorb heat, keeping the surface temperature on Earth at 14°C on average, while without them, the Earth's average surface temperature would otherwise have been -19°C. Due to human activity, and particularly the burning fossil fuels, land-use changes along with minor contribution of external and internal forces, the amount of GHGs has increased and GHGs are absorbing heat, directly leading to more heat being retained in the atmosphere, causing climate change. A recent study revealed that global carbon (C) emissions from fossil fuels were 9.795 gigatonne (Gt) in 2015 or 35.9 GtCO₂ of carbon dioxide. Fossil fuel emissions were 0.6% above emissions in 2013 and 60% above emissions in 1990 (the reference year in the Kyoto Protocol). Fossil fuel emissions accounted for approximately 75% of total CO_2 emissions from human activities in 2015. This portion of emissions originates from coal (42%), oil (33%), gas (18%), cement (6%), and gas flaring (1%). Consequently, the amount of CO₂ in the air increased from 280 parts per million by volume (ppmv) at the beginning of the century to 400 ppm at the end of 2015. This has resulted in the atmospheric CO₂ concentration getting [to a] toxic level faster...

This site¹⁵ agrees and indeed provides detailed counter-arguments to every secular objection to climate change perceived as predominately manmade with the reported increase in the earth's overall average surface temperature being driven mainly by manmade CO₂ release. Selected key examples of that site's data in those respects are as follows.

Sceptical Science, Global Warming & Climate Change Myths

2. "It's the sun" versus Sun and climate moving in opposite directions

Figure 2 shows how much different factors have contributed recent warming. It compares the contributions from the sun, volcanoes, El Niño and greenhouse gases. The sun adds 0.02 to 0.1°C. Volcanoes cool the Earth by 0.1-0.2°C. Natural variability (like El Niño) heats or cools by about 0.1-0.2°C. Greenhouse gases have heated the climate by over 0.8°C...

(a) Global surface temperature record (1870–2010) relative to the average global surface temperature for 1961–1990 (black line). A model of global surface temperature change (a: red line) produced using the sum of the impacts on temperature of natural (b, c, d) and anthropogenic factors (e).

(b) Estimated temperature response to solar forcing.

(c) Estimated temperature response to volcanic eruptions.

(d) Estimated temperature variability due to internal variability, here related to the El Niño-Southern Oscillation.

(e) Estimated temperature response to anthropogenic forcing, consisting of a warming component from greenhouse gases, and a cooling component from most aerosols. (<u>IPCC AR5, Chap 5</u>)



Figure 2 Global surface temperature anomalies from 1870 to 2010 and the natural (solar, volcanic, and internal) and anthropogenic factors that influence them

12. "CO2 lags temperature" versus CO2 lags temperature – what does it mean?

12. "CO2 lags temperature" versus Shakun et al. Clarify the CO2-Temperature Lag

Earth's climate has varied widely over its history, from ice ages characterised by large ice sheets covering many land areas, to warm periods with no ice at the poles. Several factors have affected past climate change, including solar variability, volcanic activity and changes in the composition of the atmosphere. Data from Antarctic ice cores reveals an interesting story for the past 400,000 [~3,000] years. During this period, CO2 and temperatures are closely correlated, which means they rise and fall together. However, based on Antarctic ice core data, changes in CO2 follow changes in temperatures by about 600 to 1000 years, as illustrated in Figure 1 below. This has led some to conclude that CO2 simply cannot be responsible for current global warming...



Figure 1: Vostok ice core records for carbon dioxide concentration and temperature change.

This statement does not tell the whole story. The initial changes in temperature during this period are explained by changes in the Earth's orbit around the sun, which affects the amount of seasonal sunlight reaching the Earth's surface. In the case of warming, the lag between temperature and CO2 is explained as follows: as ocean temperatures rise, oceans release CO2 into the atmosphere. In turn, this release amplifies the warming trend, leading to yet more CO2 being released. In other words, increasing CO2 levels become both the cause and effect of further warming...Thus while the initial warming hasn't historically been caused by CO2, CO2 has amplified the warming for thousands of subsequent years, and thus is still the principal control knob governing Earth's temperature.

<u>36. "Water vapor is the most powerful greenhouse gas" versus Rising CO2 increases atmospheric</u> water vapor, which makes global warming much worse.

When skeptics use this argument, they are trying to imply that an increase in CO2 isn't a major problem. If CO2 isn't as powerful as water vapor, which there's already a lot of, adding a little more CO2 couldn't be that bad, right? What this argument misses is the fact that water vapor creates what scientists call a 'positive feedback loop' in the atmosphere — making any temperature changes larger than they would be otherwise.

How does this work? The amount of water vapor in the atmosphere exists in direct relation to the temperature. If you increase the temperature, more water evaporates and becomes vapor, and vice versa. So when something else causes a temperature increase (such as extra CO2 from fossil fuels), more water evaporates. Then, since water vapor is a greenhouse gas, this additional water vapor causes the temperature to go up even further — a positive feedback.

How much does water vapor amplify CO2 warming? Studies show that water vapor feedback roughly doubles the amount of warming caused by CO2. So if there is a 1°C change caused by CO2, the water vapor will cause the temperature to go up another 1°C. When other feedback loops are included, the total warming from a potential 1°C change caused by CO2 is, in reality, as much as 3°C.

The other factor to consider is that water is evaporated from the land and sea and falls as rain or snow all the time. Thus the amount held in the atmosphere as water vapour varies greatly in just hours and days as result of the prevailing weather in any location. So even though water vapour is the greatest greenhouse gas, it is relatively short-lived. On the other hand, CO2 is removed from the air by natural geological-scale processes and these take a long time to work. Consequently CO2 stays in our atmosphere for years and even centuries. A small additional amount has a much more long-term effect.

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So skeptics are right in saying that water vapor is the dominant greenhouse gas. What they don't mention is that the water vapor feedback loop actually makes temperature changes caused by CO2 even bigger.

In agreement with the foregoing secular sources is a very distinguished UK scientific body¹⁶.

The Royal Society: Climate Change: evidence and causes

1. Is the climate warming?

Yes. Earth's average surface air temperature has increased by about $1^{\circ}C$ (1.8°F) since 1900, with over half of the increase occurring since the mid-1970s [Figure 1a]. A wide range of other observations (such as reduced Arctic sea ice extent and increased ocean heat content) and indications from the natural world (such as poleward shifts of temperature-sensitive species of fish, mammals, insects, etc.) together provide incontrovertible evidence of planetary-scale warming.

The clearest evidence for surface warming comes from widespread thermometer records that, in some places, extend back to the late 19th century. Today, temperatures are monitored at many thousands of locations, over both the land and ocean surface. Indirect estimates of temperature change from such sources as tree rings and ice cores help to place recent temperature changes in the context of the past. In terms of the average surface temperature of Earth, these indirect estimates show that 1989 to 2019 was very likely the warmest 30-year period in more than 800 years; the most recent decade, 2010-2019, is the warmest decade in the instrumental record so far (since 1850).



Figure 1a [Figure 1.31 above]

Earth's global average surface temperature has risen as shown in this plot of combined land and ocean measurements from 1850 to 2019, derived from three independent analyses of the available data sets. The temperature changes are relative to the global average surface temperature of 1961–1990. Source: NOAA Climate.gov; data from UK Met Office Hadley Centre (maroon), US National Aeronautics and Space Administration Goddard Institute for Space Studies (red), and US National Oceanic and Atmospheric Administration National Centers for Environmental Information (orange).

4. What role has the Sun played in climate change in recent decades?

The Sun provides the primary source of energy driving Earth's climate system, but its variations have played very little role in the climate changes observed in recent decades. Direct satellite measurements since the late 1970s show no net increase in the Sun's output, while at the same time global surface temperatures have increased [Figure 2]...the available evidence does not indicate pronounced long-term changes in the Sun's output over the past century, during which time human-



induced increases in CO_2 concentrations have been the dominant influence on the long-term global surface temperature increase.

Measurements of the Sun's energy incident on Earth show no net increase in solar forcing during the past 40 years, and therefore this cannot be responsible for warming during that period. The data show only small periodic amplitude variations associated with the Sun's 11-year cycle. Source: TSI data from Physikalisch-Meteorologisches Observatorium Davos, Switzerland, on the new VIRGO scale from 1978 to mid-2018; temperature data for same time period from the HadCRUT4 dataset, UK Met Office, Hadley Centre.

7. Is the current level of atmospheric CO2 concentration unprecedented in Earth's history?

The present level of atmospheric CO_2 concentration is almost certainly unprecedented in the past million years...

Measurements of air in ice cores show that for the past 800,000 [~6,000] years up until the 20th century, the atmospheric CO_2 concentration stayed within the range 170 to 300 parts per million (ppm), making the recent rapid rise to more than 400 ppm over 200 years particularly remarkable [figure 3]. During the glacial cycles of the past 800,000 [~6,000] years both CO_2 and methane have acted as important amplifiers of the climate changes triggered by variations in Earth's orbit around the Sun. As Earth warmed from the last ice age, temperature and CO_2 started to rise at approximately the same time and continued to rise in tandem from about 18,000 to 11,000 [~2,000] years ago. Changes in ocean temperature, circulation, chemistry, and biology caused CO_2 to be released to the atmosphere, which combined with other feedbacks to push Earth into an even warmer state...



Figure 3

Data from ice cores have been used to reconstruct Antarctic temperatures and atmospheric CO2 concentrations over the past 800,000 [~6,000] years. Temperature is based on measurements of the isotopic content of water in the Dome C ice core. CO2 is measured in air trapped in ice, and is a composite of the Dome C and Vostok ice core. The current CO2 concentration (blue dot) is from atmospheric measurements. The cyclical pattern of temperature variations constitutes the ice age/interglacial cycles. During these cycles, changes in CO2 concentrations (in blue) track closely with changes in temperature (in orange). As the record shows, the recent increase in atmospheric CO2 concentration is unprecedented in the past 800,000 [~6,000] years. Atmospheric CO2 concentration surpassed 400 ppm in 2016, and the average concentration in 2019 was more than 411 ppm. Source: Based on figure by Jeremy Shakun, data from Lüthi et al., 2008 and Jouzel et al., 2007.

Another well-known source¹⁷ corroborates and summarises the foregoing analyses.

Global temperature record, Proxy (climate), Climate Change

Global temperature record by direct measurement



<u>Global temperature record by indirect i.e. proxy estimation - tree rings and ice cores</u>

<u>Proxy</u> measurements can be used to reconstruct the temperature record before the historical period. Quantities such as <u>tree ring</u> widths, <u>coral growth</u>, <u>isotope variations</u> in <u>ice cores</u>, ocean and lake sediments, <u>cave deposits</u>, <u>fossils</u>, <u>ice cores</u>, <u>borehole temperatures</u>, and <u>glacier</u> length records are correlated with climatic fluctuations. From these, proxy temperature reconstructions of the last 2000 years have been performed for the northern hemisphere, and over shorter time scales for the southern hemisphere and tropics...

In the study of past climates ("<u>paleoclimatology</u>"), **climate proxies** are preserved physical characteristics of the past that stand in for direct meteorological measurements...and enable scientists to reconstruct the <u>climatic conditions</u> over a longer fraction of the Earth's history. Reliable global records of climate only began in the 1880s, and proxies provide the only means for scientists to determine climatic patterns before record-keeping began...



This image compares ten reconstructed proxy temperature studies covering the last 2,000 years.

human influence on climate dominant

The <u>Intergovernmental Panel on Climate Change</u> (IPCC) concluded that "human influence on climate has been the dominant cause of observed warming since the mid-20th century". These findings have been recognized by the national science academies of major nations and are <u>not disputed by</u> <u>any scientific body of national or international standing</u>... The largest human influence has been the emission of <u>greenhouse gases</u>, with over 90% of the impact from <u>carbon dioxide</u> and <u>methane</u> [the impact of CO₂ being dominant]... <u>Fossil fuel</u> burning is the main source of these gases...

Human activity since the Industrial Revolution, mainly extracting and burning fossil fuels...has increased the amount of greenhouse gases in the atmosphere...

In 2013, CO₂ readings taken at the world's primary benchmark site in <u>Mauna Loa</u> surpassed 400 <u>ppm</u> for the first time...CO₂ levels are much higher than they have been at any time during the last 800,000 [~6,000] years, the period for which reliable data have been collected from air trapped in <u>ice cores</u>...



<u>Radiative forcing</u> of different contributors to climate change in 2011, as reported in the <u>fifth IPCC assessment report</u>.



*CO*² *concentrations over the last* 800,000 [~6,000] *years as measured from ice cores (blue/green) and directly (black)*



Observed temperature from NASA...vs the 1850–1900 average as a pre-industrial baseline. The main driver for increased global temperatures in the industrial era is human activity with natural forces adding variability

Climate Change - Apocalypse? Conclusion

A distinguished body of secular scientists citing a wide range of detailed sources strongly supports Tim Flannery's declaration, which effectively sums up the scientists' collective perception that unrestricted manmade CO_2 emissions will ensure cataclysmic climate change and global temperature increase that will obliterate life on earth. See this extract from *The Weather Makers*:

CO₂ that humans have liberated by burning fossil fuels [since the Industrial Revolution]...is the cause – directly and indirectly – of around 80% of all global warming...

Human health, water and food security are now under threat from the modest amount of climate change that has already occurred [via global warming from manmade CO_2 emissions]. If humans pursue business-as-usual for the first half of this century, I believe the collapse of civilisation due to climate change becomes inevitable...

Note, however, that the temperature direct measurement versus time profiles that are key to the climate change apocalypse perception apply 1850-the present maximum, which may be considered a narrow timescale climatologically. See *Figures 1.31, 2, 1a, 2, Global mean surface temperature change since 1880, Surface and Satellite Temperatures, Observed temperature from NASA...vs the 1850–1900 average as a pre-industrial baseline.* Climate-related profiles over longer timescales, *Figures 1, 3, Reconstructed Temperature, CO2 concentrations over the last 800,000* [~6,000] *years* consist of or at least include proxy i.e. indirect estimates. See pp 5, 6, 8, 9, 11, 11, 15, 7, 10, 12, 14 of this work. It remains to be seen therefore how trustworthy those indicators will prove to be of a *manmade* global climatological life-extinction cataclysm, especially in view of King Solomon's *earthly* perception of *earthly* life's continuance:

"One generation passeth away, and another generation cometh: but the earth abideth for ever" Ecclesiastes 1:4.

Other Researchers

What do other researchers say? It should be noted that the following summaries do appear to have sound scientific support.

Climate Change - Apparition?

The supporters of this view do not deny the reality of climate change but they do not see that it is governed by manmade activity or that it portends a cataclysm. See this comprehensive overview¹⁸. Note that equivalent data from different sources may not always match.

Global Warming: Ten Facts and Ten Myths on Climate Change



Originally published by GR [GlobalResearch] in 2009. The data presented by the author pertains to the period prior to 2009. Emphases in source documents

Ten facts about climate change

1. Climate has always changed, and it always will. The assumption that prior to the industrial revolution the Earth had a "stable" climate is simply wrong. The only sensible thing to do about climate change is to prepare for it [e.g. erect flood defences].

2. Accurate temperature measurements made from weather balloons and satellites since the late 1950s show **no atmospheric warming** since 1958. In contrast, averaged ground-based thermometers record a warming of about $0.4^{\circ}C$ over the same time period. Many scientists believe that the thermometer record is biased by the Urban Heat Island effect and other artefacts.

3. Despite the expenditure of more than US\$50 billion dollars looking for it since 1990, no unambiguous anthropogenic (human) signal has been identified in the global temperature pattern.

4. Without the greenhouse effect, the average surface temperature on Earth would be $-18^{\circ}C$ rather than the equable $+15^{\circ}C$ that has nurtured the development of life.

Carbon dioxide is a minor greenhouse gas, responsible for ~26% ($8^{\circ}C$) of the total greenhouse effect ($33^{\circ}C$), of which in turn at most 25% (~ $2^{\circ}C$) can be attributed to carbon dioxide contributed by human activity. Water vapour, contributing at least 70% of the effect, is by far the most important atmospheric greenhouse gas.

5. On both annual (1 year) and geological (up to 100,000 [~2,000] year) time scales, changes in atmospheric temperature PRECEDE changes in CO_2 . Carbon dioxide therefore cannot be the primary forcing agent for temperature increase (though increasing CO_2 does cause a diminishingly mild positive temperature feedback).

6. The UN Intergovernmental Panel on Climate Change (**IPCC**) has acted as the main scaremonger for the global warming lobby that led to the Kyoto Protocol. Fatally, the IPCC is a political, not scientific, body.

Hendrik Tennekes, a retired Director of Research at the Royal Netherlands Meteorological Institute, says that "the IPCC review process is fatally flawed" and that "the IPCC wilfully ignores the paradigm shift¹⁹ [a fundamental change in approach or underlying assumptions] created by the foremost meteorologist of the twentieth century, Edward Lorenz". Lorenz's over-arching conclusion from his exhaustive research was that "In view of the inevitable inaccuracy and incompleteness of weather observations, precise very-long-range forecasting would seem to be nonexistent" i.e. casting doubt on the validity of climate change apocalypse perceptions put forward by Flannery et al.

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7. The Kyoto Protocol will cost many trillions of dollars and exercises a significant impost* [for] those countries that signed it, but will deliver no significant cooling (less than $.02^{\circ}C$ by 2050, assuming that all commitments are met). *tax burden

The Russian Academy of Sciences says that Kyoto has no scientific basis; Andre Illarianov, senior advisor to Russian president Putin, calls Kyoto-ism "one of the most [aggressive], intrusive, destructive ideologies since the collapse of communism and fascism". If Kyoto was a "first step" then it was in the same wrong direction as the later "Bali roadmap*"²⁰.

*The Bali Road Map [set out under the auspices of the UNFCCC United Nations Framework Convention on Climate Change] was adopted at the 13th Conference of the Parties and the 3rd Meeting of the Parties in December 2007 in Bali. The Road Map is a set of ... forward-looking decisions that represent the work that needs to be done under various negotiating "tracks" that is essential to reaching a secure climate future... The UNFCCC objective is to "stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the <u>climate system</u>"... Lorenz's exhaustive research indicates that the UNFCCC objective cannot be achieved.

READ MORE²¹

8. Climate change is a non-linear (chaotic) process, some parts of which are only dimly or not at all understood. No deterministic computer model will ever be able to make an accurate prediction of climate 100 years into the future.

9. Not surprisingly, therefore, experts in computer modelling agree also that **no current** (or likely near-future) climate model is able to make accurate predictions of regional climate change.

10. The biggest untruth about human global warming is the assertion that nearly all scientists agree that it is occurring, and at a dangerous rate.

The reality is that **almost every aspect of climate science is the subject of vigorous debate**. Further, thousands of qualified scientists worldwide have signed declarations which (i) query the evidence for hypothetical human-caused warming and (ii) support a rational scientific (not emotional) approach to its study within the context of known natural climate change.

LAYING TEN GLOBAL WARMING MYTHS

Myth 1 Average global temperature (AGT) has increased over the last few years.

Fact 1 Within error bounds, AGT has not increased since 1995 and has declined since 2002, despite an increase in atmospheric CO_2 of 8% since 1995.

Myth 2 During the late 20th Century, AGT increased at a dangerously fast rate and reached an unprecedented magnitude.

Facts 2 The late 20th Century AGT rise was at a rate of $1-2^{\circ}C/century$, which lies well within natural rates of climate change for the last 10,000 [~2,000] yr. AGT has been several degrees warmer than today many times in the recent geological past.

Myth 3 AGT was relatively unchanging in pre-industrial times, has sky-rocketed since 1900, and will increase by several degrees more over the next 100 years (the Mann, Bradley & Hughes "hockey stick" curve and its computer extrapolation).

Facts 3 The Mann et al. curve has been exposed as a statistical contrivance. There is no convincing evidence that past climate was unchanging, nor that 20th century changes in AGT were unusual, nor that dangerous human warming is underway.

Myth 4 Computer models predict that AGT will increase by up to $6^{\circ}C$ over the next 100 years.

Facts 4 Deterministic computer models do. Other equally valid (empirical) computer models predict cooling.

Myth 5 Warming of more than $2^{\circ}C$ will have catastrophic effects on ecosystems and mankind alike.

Facts 5 A $2^{0}C$ change would be well within previous natural bounds. Ecosystems have been adapting to such changes since time immemorial. The result is the process that we call evolution ["For in six days the LORD made heaven and earth, the sea, and all that in them is..." Exodus 20:11]. Mankind can and does adapt to all climate extremes.

Myth 6 Further human addition of CO_2 to the atmosphere will cause dangerous warming, and is generally harmful.

Facts 6 No human-caused warming can yet be detected that is distinct from natural system variation and noise. Any additional human-caused warming which occurs will probably amount to less than 1° C. Atmospheric CO₂ is a beneficial fertilizer for plants, including especially cereal crops, and also aids efficient evapo-transpiration.

Myth 7 Changes in solar activity cannot explain recent changes in AGT.

Facts 7 The sun's output varies in several ways on many time scales (including the 11-, 22- and 80year solar cycles), with concomitant effects on Earth's climate. While changes in visible radiation are small, changes in particle flux and magnetic field are known to exercise a strong climatic effect. More than 50% of the 0.8°C rise in AGT observed during the 20th century can be attributed to solar change.

Myth 8 Unprecedented melting of ice is taking place in both the north and south polar regions.

Facts 8 Both the Greenland and Antarctic ice sheets are growing in thickness and cooling at their summit. Sea ice around Antarctica attained a record area in 2007. Temperatures in the Arctic region are just now achieving the levels of natural warmth experienced during the early 1940s, and the region was warmer still (sea-ice free) during earlier times.

Myth 9 Human-caused global warming is causing dangerous global sea-level (SL) rise.

Facts 9 SL change differs from time to time and place to place; between 1955 and 1996, for example, SL at Tuvalu fell by 105 mm (2.5 mm/yr). Global average SL is a statistical measure of no value for environmental planning purposes. A global average SL rise of 1-2 mm/yr occurred naturally over the last 150 years, and shows no sign of human-influenced increase.

Myth 10 The late 20th Century increase in AGT caused an increase in the number of severe storms (cyclones), or in storm intensity.

Facts 10 Meteorological experts are agreed that no increase in storms has occurred beyond that associated with natural variation of the climate system.

The late Robert M. Carter was a Research Professor at James Cook University (Queensland) and the University of Adelaide (South Australia). He [was] a palaeontologist, stratigrapher, marine geologist and environmental scientist with more than thirty years professional experience.

The original source of this article is James Cook University, Queensland, Australia and Global Research Copyright © <u>Prof. Robert M. Carter</u>, James Cook University, Queensland, Australia and Global Research, 2018

This site²² addresses key aspects of temperature measurement with respect to climate change.

Measuring Temperature

The whole fear for greenhouse global warming is based on actual temperature measurements all over the world, because these would confirm whether computer model projections are right. Not just today's record is important, but also that of historic times, to show that temperatures began to rise critically with the combustion of fossil fuels. Many methods for measuring temperature both now and in the distant past, are available and these are discussed in this chapter. It is also shown how major fraud has occurred.

The site reveals that uncertainties in temperature measurement exist with respect to determination of global surface temperature and in turn interpretation of the results.

The site then calls into question the validity of the IPCC's well-known 'hockey stick' graph²³ often put forward as proof of potentially cataclysmic manmade global warming. Note for comparison the 1850-the present segments of *Figures 1.31, 2, 1a, Global mean surface temperature change since 1880, Observed temperature from NASA...vs the 1850–1900 average as a pre-industrial baseline* and the narrower 1980-present segments of *Figure 2, Surface and Satellite Temperatures* pp 5, 6, 8, 11, 15, 9, 11 of this work. Note that CRU is Climate Research Unit.

It should be noted that support²⁴ exists for the validity of the hockey stick graph. That site cites and rejects the work of McKitrick, see extract below, but does not refer explicitly to his 2005 publication. The link that site gives to the 2004 work by McIntyre in agreement with McKitrick is broken. However, that site refers to a very detailed 2007 publication rejecting McKitrick's 2005 publication but does not address the 2010 publication in support of McKitrick's work.

See extracts below from the temperature measurement site. Emphases in source documents:

Temperature Uncertainty

In a paper [1] scientists are reminded of the natural uncertainty (or inaccuracy) in thermometer measurements, arising from reading errors, instrument errors, time of day errors, poor location and weather short-term fluctuations. It creates a band of almost 1 degree C around observations. In scientific terms, it means that it cannot be said with certainty that the world has warmed since Temperature 1880. Draw a horizontal line from just above 0 on left to right and it will traverse through the grey envelope. In the words of the authors: "The ±0.46°C lower limit of uncertainty shows that between 1880 and 2000, the trend in averaged global surface air temperature anomalies is statistically indistinguishable from 0°C at the 1-sigma level [half the width of the grey envelope]. One cannot, therefore, avoid the conclusion that it is presently



impossible to quantify the warming trend in global climate since 1880."

[1] Frank, Patrick (2011): *Uncertainty in the Global Average Surface Air Temperature* <u>www.science-climat-energie.be/wp-content/uploads/2019/07/Frank uncertainty global avg.pdf</u> SPPIREPRINT SERIES February 14, 2011 Reprinted from ENERGY & ENVIRONMENT/VOLUME 21 No. 8 2010

Critical comments about CRU tree ring 'hockey stick' as used by the IPCC

The infamous hockey stick graph produced by Mann, Bradley & Hughes...and used by the **IPCC** in their Third Assessment Report as the 'smoking gun' of Global Warming, has been criticised and rebutted scientifically:

McKitrick [1]: "...our model performs better when using highly autocorrelated noise rather than proxies to "predict" temperature. The real proxies are less predictive than our "fake" data." McShane and Wyner [2]: "We find that

McShane and Wyner [2]: "We find that the proxies do not predict temperature significantly better than random series generated independently of temperature. Furthermore, various model specifications that perform similarly at predicting temperature produce extremely different historical backcasts.



"Finally, the proxies seem unable to forecast the high levels of and sharp run-up in temperature in the 1990s either in-sample or from contiguous holdout blocks, thus casting doubt on their ability to predict such phenomena if in fact they occurred several hundred years ago...Furthermore, it implies that up to half of the already short instrumental record is corrupted by anthropogenic factors, thus undermining paleoclimatology as a statistical enterprise."

The word fraud comes to mind

[1] McKitrick R (2005): What is the 'Hockey Stick' Debate About? APEC Study Group, Australia...
[2] McShane B M and Wyner A J (2010): A Statistical Analysis of Multiple Temperature Proxies: Are Reconstructions of Surface Temperatures Over the Last 1000 Years Reliable? Annuals Appl, Phys Sep 2010

Central Europe Temperatures

The site includes this following temperature profile from 1780-the present and comments *Over two centuries of temperature measurements at 5 locations in Europe, track one another remarkably well. They show no remarkable warming or cooling.*



Data Manipulation

The site shows further that NASA temperature anomaly data have been 'adjusted' to strengthen the case for global warming as predominantly manmade. Emphases in source documents:



The people who guard the world's temperature archive (NASA/NCDC, James Hansen in the picture) have been making undocumented adjustments to both recent data and that of a distant past, as shown in these two graphs of US temperature, the leftmost published in 1999 and the rightmost in 2011 [1]. The magenta and green arrows allow comparison between the two graphs. As one can see, past data [have] been adjusted downward while recent data [were] adjusted upward, giving the impression of steady global warming*. No honest scientist would do this without a written and published record of the changes and the reasons for doing so, while also retaining and making freely available the origi-

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nal unadjusted data. Note that many of these changes were done by computer programs, where they are hidden in computer code. Oops!

*From Glickstein citation: The <u>see-saw</u> (with James Hansen juggling the Earth's temperature data and our economic future...) indicates the change between a peak in the early 1930's and a trough in the mid 1990's. Note how the slope changes between the 1999 version and that for 2011. In the 2011 version, the 1930's get COOLER and the 1990's get WARMER. If you add the changes together, you get somewhat more than the 0.3°C. I have allocated for Data Bias, so I am being quite conservative here ...

[1] Ira Glickstein (2011): *The PAST is Not What it Used to Be (GW Tiger Tale)* wattsupwiththat.com/2011/01/16/the-past-is-not-what-it-used-to-be-gw-tiger-tale/

In complete contrast to Flannery and other supporters of **Climate Change – Apocalypse?** Glickstein has these summary comments, emphases in source document:

This is what you may look forward to:

Normal Seasons of the Sun – *How natural processes beyond human control, including Solar Cycles and Ocean Oscillations, are the actual cause of most climate change.*

Some People Claim There's a Human to Blame – Yes, human actions, mainly burning of fossil fuels and changes in land use, are responsible for some small amount of Global Warming.

Is the Global Warming Tiger a Pussy Cat? - If, as many of us expect, natural processes lead to stabilization of global temperatures over the coming decades, and perhaps a bit of cooling, we will realize the whole Global Warming uproar was like the boy who saw a pussy cat and cried tiger.

In line with Glickstein's comments above, the site's overall conclusion after detailed climatological analyses with respect to the perception of manmade CO_2 -driven global warming yielding unprecedented increase of earth's surface temperature portending cataclysmic climate change is that, emphases in source document, *the data record cannot with certainty tell whether there has been any warming or cooling*.

These sites^{25, 26, 27} provide further summary data with respect to *Climate Change – Apparition?* The following extracts are from the site *Global Warming* and related links, emphases in source documents. The emphasis given to the site *Global Warming* in this work is in this writer's view necessary for a balanced response by **Climate Change - Apparition?** to **Climate Change - Apocalypse?**.

The Role of the Greenhouse Effect

*F*rom an historical perspective, global warming has saved us, at least temporarily, from an Icehouse Climate, although humans can hardly take the credit.

Science is clear on what controls cycles of climate change. Global warming (and cooling) cycles are controlled primarily by:

- 1) Cyclical variations in the sun's energy output
- 2) Eccentricities in Earth's orbit
- 3) The influence of **plate tectonics** on the distribution of continents and oceans
- 4) The so-called "greenhouse effect," caused by atmospheric gases such as gaseous water vapor (not droplets), carbon dioxide, methane, and nitrous oxides, which help to trap radiant heat which might otherwise escape into space.

The "greenhouse effect" actually is a bit player in global climate (although without [its] benefits the average temperature of the Earth would be minus 18°C). [Humans] did not cause the greenhouse effect, but critics maintain human additions to atmospheric greenhouse gases may cause global temperatures to rise too much.

Generally understood, but rarely publicized is the fact that **95% of the greenhouse effect is due** solely to natural water vapor. Of the remaining 5%, only 0.2% to 0.3% of the greenhouse effect (depending on whose numbers you use) is due to emissions of carbon dioxide and other gases from <u>human sources</u>. If we are in fact in a global warming crisis, even the most aggressive and costly proposals for limiting industrial carbon dioxide emissions would have an undetectable effect on global climate...

Carbon Dioxide from all **coal burning** worldwide comprises only **0.013%** of the **greenhouse gases** in Earth's atmosphere.

A Brief History of Ice Ages and Warming

See remarks earlier by Vance Ferrell under **Ice Ages** on p 2 of this work. This extract puts *The Inde*pendent and BBC reports *Climate crisis: Ice sheets melting at 'worst-case scenario' rate* and *Cli*mate change: Warmth shatters section of Greenland ice shelf in historical perspective.

Global warming started long before the "Industrial Revolution" and the invention of the internal combustion engine. Global warming began 18,000 [~2,000] years ago as the earth started warming its way out of the **Pleistocene Ice Age** - a time when much of North America, Europe, and Asia lay buried beneath great sheets of glacial ice.

Earth's climate and the biosphere have been in constant flux, dominated by ice ages and glaciers for the past several million years. We are currently enjoying a temporary reprieve from the deep freeze.

Approximately every 100,000 [~2,000] years Earth's climate warms up temporarily. These warm periods, called **interglacial periods**, appear to last approximately 15,000 to 20,000 [~2,000] years before regressing back to a cold ice age climate. At year 18,000 [~2,000] and counting our current interglacial vacation from the Ice Age is much nearer its end than its beginning.

Global warming during Earth's current **interglacial warm period** has greatly altered our environment and the distribution and diversity of all life. For example:

Approximately 15,000 [~2,000] years ago the earth had warmed sufficiently to halt the advance of glaciers, and sea levels worldwide began to rise.

By 8,000 [~2,000] years ago the land bridge across the Bering Strait was drowned, cutting off the migration of men and animals to North America from Asia.

Since the end of the Ice Age, Earth's temperature has risen approximately 16 degrees F and <u>sea</u> <u>levels have risen a total of 300 feet!</u> Forests have returned where once there was only ice.



Over the past 750,000 [~6,000] years of Earth's history, Ice Ages have occurred at regular intervals of approximately 100,000 [~2,000] years each. Courtesy of <u>Illinois State Museum</u>

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Causes of Global Climate Change

Climate change is controlled primarily by cyclical eccentricities in Earth's rotation and orbit, as well as variations in the sun's energy output.

"Greenhouse gases" in Earth's atmosphere also influence Earth's temperature, but in a much smaller way. Human additions to total greenhouse gases play a still smaller role, contributing about 0.2% - 0.3% to Earth's greenhouse effect...

Playing with Numbers

Global climate and temperature cycles are the result of a complex interplay between a variety of causes. Because these cycles and events overlap, sometimes compounding one another, sometimes [cancelling] one another out, it is inaccurate to imply a statistically significant trend in climate or temperature patterns from just a few years or a few decades of data.

Unfortunately, a lot of disinformation about where Earth's climate is heading is being propagated by "scientists" who use improper statistical methods, short-term temperature trends, or faulty computer models to make analytical and anecdotal projections about the significance of man-made influences to Earth's climate.

During the last 100 years there have been **two general cycles of warming and cooling** recorded in the U.S. We are currently in the second warming cycle. Overall, U.S. temperatures show **no significant warming trend over the last 100 years** (1). This has been well-established but not well-publicized.



Each year Government press releases declare the previous year to be the "hottest year on record." <u>The UN's executive summary on climate change, issued in January 2001</u>...insists that the 20th century was the warmest in the last millennium. The news media distribute these stories and people generally believed them to be true. However, as most climatologists know, these reports generally are founded on ground-based temperature readings, which are misleading. The more meaningful and precise orbiting satellite data for the same period (which are generally not cited by the press) have year after year showed little or no warming.

Dr. Patrick Michaels has demonstrated this effect is a common problem with ground-based recording stations, many of which originally were located in predominantly rural areas, but over time have suffered background bias due to urban sprawl and the encroachment of concrete and asphalt (the <u>"urban heat island effect"</u>). The result has been an upward distortion of increases in ground temperature over time... Satellite measurements are not limited in this way, and are accurate to within 0.1°C. They are widely recognized by scientists as the most accurate data available. Significantly, 24

global temperature readings from orbiting satellites show no significant warming in the 18 years they have been continuously recording and returning data...

(1) <u>A scientific Discussion of Climate Change</u>, Sallie Baliunas, Ph.D., Harvard- Smithsonian Center for Astrophysics and Willie Soon, Ph.D., Harvard- Smithsonian Center for Astrophysics

A Matter of Opinion

Has manmade pollution in the form of carbon dioxide (CO2) and other gases caused a runaway Greenhouse Effect and Global Warming?

Before joining the mantra, consider the following:



Compiled by R. S. Bradley and J. A. Eddy based on J. T. Houghton et al., Climate Change: The IPCC Assessment, Cambridge University Press, Cambridge, 1990 and published in EarthQuest, vo. 1, 1991. Courtesy of Thomas Crowley <u>Remembrance of Things Past: Greenhouse Lessons from the Geologic Record</u>

1. The idea that man-made pollution is responsible for global warming is not supported by historical fact. The period known as the **Holocene Maximum** is a good example - so-named because it was the hottest period in human history. The interesting thing is this period occurred approximately 7500 to 4000 [~2,000] years B.P. (before present) - long before humans invented industrial pollution.

2. CO2 in our atmosphere has been increasing steadily for the last 18,000 [~2,000] years - long before humans invented smokestacks (*Figure 1* [following]). Unless you count campfires and intestinal gas, man played no role in the pre-industrial increases.

As illustrated in this chart of **Ice Core data from the** <u>Soviet Station Vostok in Antarctica</u>, CO2 concentrations in earth' atmosphere move with temperature. Both temperatures and CO2 have been on the increase for 18,000 [~2,000] years. Interestingly, CO2 lags an average of about 800 [~50] years behind the temperature changes – confirming that CO2 is not a primary driver of the temperature changes...

The real signature of greenhouse warming is not surface temperature but temperature in the **middle** of the troposphere, about 5 kilometers up. If global warming is occurring from an increasing greenhouse effect due to CO2 additions by humans the temperature of the middle troposphere should be warming faster than Earth's surface... However, the opposite has been happening – which suggests either the <u>surface temperature records</u> are in error or natural factors, such as changes in solar activity, may be responsible for the slight rise in surface temperatures (approximately 0.6° C, globally) that appears to have occurred over the past century.

Interestingly, from 1999 to the present the temperature of the **mid troposphere** has actually **decreased** slightly and surface temperatures have <u>ceased warming</u>... - even as CO2 concentrations have continued to increase... This should not be happening if CO2 increases to the atmosphere are the primary driver of global warming. That result appears to be independent of the 2019 reported increase of atmospheric $CO_2 \ge 400$ ppm, pp 5, 9, 10, 13 of this work.





CO2 Graph Sources:	Temperature Graph Sources:
2001-1958: South Pole Air Flask Data 1958-1220 B.P.: Law Dome, Antarctica 1220 B.P 2302 B.P.: Taylor Dome, Antarc- tica 2302 B.P 414k B.P.: Vostok Ice Core Data	2000-1979: Satellite stratospheric data 1979-1871: S. Hemisphere ground temp. data 1871- 422k B.P.: Vostok Ice Core Data



Sources of Greenhouse Gases

3. Total human contributions to greenhouse gases account for only about 0.28% of the "greenhouse effect" (Figure 2). Anthropogenic (man-made) carbon dioxide (CO2) comprises about 0.117% of this total, and man-made sources of other gases (methane, nitrous oxide (NOX), other misc. gases) contributes another 0.163%.

Approximately 99.72% of the "greenhouse effect" is due to natural causes - mostly water vapor and traces of other gases, which we can do nothing at all about. Eliminating human activity altogether would have little impact on climate change.





NOTE: "Human additions" represent such a small percentage of the total Greenhouse Effect (0.28%) that they are barely visible in this "pie chart" at the scale represented.

Atmospheric concentrations of the various greenhouse gases have been adjusted for heat retention potential of each. For example, the global warming potential (GWP) of various man-made **chlor-oflourocarbons** (CFC's) range between 1,300 and 9,300 times greater potency as greenhouse gases than CO2. **Methane** has a GWP of about 21 and **nitrous oxide** a GWP of about 310.

Comparing greenhouse gases by strict **concentration** only, the total human component is somewhere between 0.1% and 0.2%, depending on whose numbers you use. Adjusted for GWP, the total human **contribution** to Earth's overall greenhouse effect is about 0.28%:

Based on concentrations (ppb) adjusted for heat retention characteristics	% of All Greenhouse Gases	% Natural	% Man-made
Water vapor	95.000%	94.999%	0.001%
Carbon Dioxide (CO2)	3.618%	3.502%	0.117%
Methane (CH4)	0.360%	0.294%	0.066%
Nitrous Oxide (N2O)	0.950%	0.903%	0.047%
Misc. gases (CFC's, etc.)	0.072%	0.025%	0.047%
Total	100.00%	99.72	0.28%

 TABLE 4a

 Anthropogenic (man-made) Contribution to the "Greenhouse Effect"

 expressed as % of Total (water vapor INCLUDED)

4. If global warming is caused by CO2 in the atmosphere then does CO2 also cause increased sun activity too?

This chart...illustrates that variations in sun activity are generally proportional to both variations in atmospheric CO2 and atmospheric temperature (Figure 3).

Put another way, rising Earth temperatures and increasing CO2 may be "effects" and our own sun the "cause".





Note that Figure Observed temperature from NASA...vs the 1850–1900 average as a pre-industrial baseline p 15 of this work and **Figures 1**, **3** appear to contradict.

What is solar wind?

The solar wind is a stream of energized, charged particles, primarily electrons and protons, flowing outward from the Sun, through the solar system at speeds as high as 900 km/s and at a temperature of 1 million degrees (Celsius). It is made of plasma.



The Sun's corona, taken by the SOHO satellite with a special camera that blocks out light from the Sun's main disk. Courtesy of SOHO consortium. SOHO is a project of international cooperation between ESA and NASA.

The solar wind is caused by the hot solar corona, which is the outermost layer of the solar atmosphere, expanding into space. The corona is the "rim" of the Sun that is visible to the naked eye during a solar eclipse.

FUN FACTS about CARBON DIOXIDE

• Of the 186 billion tons of carbon from CO2 that enter earth's atmosphere each year from all sources, only 6 billion tons are from human activity. Approximately 90 billion tons come from biologic activity in earth's oceans and another 90 billion tons from such sources as volcanoes and decaying land plants.

At 380 parts per million CO2 is a minor constituent of earth's atmosphere - <u>less than 4/100ths of</u> <u>1% of all gases present</u>. Compared to former geologic times, earth's current atmosphere is <u>CO2</u> - <u>impoverished</u>.

CO2 is odorless, colorless, and tasteless. Plants absorb CO2 and emit oxygen as a waste product. Humans and animals breathe oxygen and emit CO2 as a waste product. Carbon dioxide is a nutrient, not a pollutant, and all life - plants and animals alike - benefit from more of it. All life on earth is carbon-based and CO2 is an essential ingredient. When plant-growers want to stimulate plant growth, they introduce more carbon dioxide.

CO2 that goes into the atmosphere does not stay there but is continually recycled by terrestrial plant life and earth's oceans - the great retirement home for most terrestrial carbon dioxide.

If we are in a global warming crisis today, even the most aggressive and costly proposals for limiting industrial carbon dioxide emissions would have a negligible effect on global climate!

The case for a "greenhouse problem" is made by environmentalists, news anchormen [see Dr Gipp's remarks following], and special interests [groups] who make inaccurate and misleading statements about global warming and climate change. Even though people may be skeptical of such rhetoric initially, after a while people start believing it must be true because we hear it so often.

To sum up^{29} :

Unravelling the Earth's Temperature Record

...As illustrated in this final graph, over the past 800,000 [~6,000] years the Earth has undergone major swings in warming and cooling at approximately 100,000 [~2,000] year intervals, interrupted by minor warming cycles at shorter intervals. This represents periods of glacial expansion, separated by distinct but relatively short-lived periods of glacial retreat.



Temperature data inferred from measurements of the ratio of oxygen isotope ratios in fossil plankton that settled to the sea floor, and assumes that changes in global temperature approximately tracks changes in the global ice volume. Based on data from J. Imbrie, J. D. Hays, D. G. Martinson, A. McIntyre, A. C. Mix, J. J. Morley, N. G. Pisias, W. L. Prell, and N. J. Shackleton, in A. Berger, J. Imbrie, J. Hats, G. Kukla, and B. Saltzman, eds., Milankovitch and Climate, Dordrecht, Reidel, pp. 269-305, 1984. Courtesy of Thomas Crowley,

Remembrance of Things Past: Greenhouse Lessons from the Geologic Record

Climate Change - Apparition? Conclusion

A second distinguished body of secular scientists citing a wide range of detailed sources strongly opposes Tim Flannery's declaration. See the extract from *The Weather Makers* under **Climate Change - Apocalypse? Conclusion** pp 15-16 of this work.

The opponents of Flannery's declaration perceive that greenhouse gases in total and manmade CO_2 in particular have a miniscule effect on climate change and global temperature, which are determined essentially by variations in the relative movement of the earth versus the sun and in the sun's energy output. The opponents' perception is that varying atmospheric CO_2 levels are an effect, not a cause, of the earth's varying temperature levels, that elimination of all manmade CO_2 would not affect climate and that the proponents of manmade CO_2 -based cataclysmic climate change are not above faking results to support their case e.g. NASA.

Reiterating King Solomon's *earthly* perception of *earthly* life's continuance "One generation passeth away, and another generation cometh: <u>but the earth abideth for ever</u>" Ecclesiastes 1:4, it is therefore instructive to summarise the contradictory perceptions of the supporters and opponents of Flannery's declaration on climate change.

Contradictory Perceptions

The contradictory perceptions of the two opposing camps with respect to Flannery's declaration on climate change are as follows:

The apocalyptic perception is that unrestricted release of manmade CO_2 is largely the cause of increasing global temperature thereby progressively destabilising the earth's climate and in turn ultimately bringing about extinction of all life on earth.

The apparitional perception is that variations in the sun's energy output aka solar wind and in earthsun relative movement largely determine climate change and in turn variations in global temperature followed by variations in atmospheric CO_2 levels, not the other way round. This perception declares that total elimination of manmade CO_2 would have negligible effect on climate change.

The contradictory perceptions of the two opposing camps with respect to climate change, over climatologically limited but similar timescales, are readily apparent by inspection of the following graphics from *Observed temperature from NASA...vs the 1850–1900 average as a pre-industrial baseline*³⁰ p 15 of this work, and <u>Comparison of Atmospheric Temperature with CO2 Over The Last</u> <u>100 Years</u>³¹. The first graphic depicts increasing global *surface* temperature perceived to be resulting primarily from manmade CO₂ release, i.e. the main 'human driver.' The second and third graphics depicting atmospheric CO₂ levels together with *atmospheric* temperature indicate that the observed profiles do not match, casting serious doubt on the perception that manmade CO₂ release is the prime cause of increasing global temperature and on the perception that the said increase is itself real.



Observed temperature from NASA…vs the 1850–1900 average as a pre-industrial baseline. The main driver for increased global temperatures in the industrial era is human activity,

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Comparison of Atmospheric Temperature with CO2 Over The Last 100 Years



CO2 Graph Sources:	Temperature Graph Sources:
2001-1958: South Pole Air Flask Data 1958-1220 B.P.: Law Dome, Antarctica 1220 B.P 2302 B.P.: Taylor Dome, Antarc- tica 2302 B.P 414k B.P.: Vostok Ice Core Data	2000-1979: Satellite stratospheric data 1979-1871: S. Hemisphere ground temp. data 1871- 422k B.P.: Vostok Ice Core Data



Note the following explanatory comments, emphases in source document:

Temperatures have increased by about **0.5°C** over the last 100 years. Most of these increases occurred in the first 50 years of this time period.

Carbon dioxide (CO2) has also increased over the last 100 years - from about 300 ppm to 370 ppm. Interestingly, the majority of these additions have occurred in the last 50 years, when temperature increases have been slowest.

Independent data from orbiting [satellites] have been [continuously] measuring global temperatures since the 1970's and indicate that over the last 25 years there has actually been a slight decrease in overall global temperatures.

Assuming that at least part of the source of CO2 additions in the last 50 years is anthropogenic (man-made), the likely scenario is (at the level of additions involved) that CO2 concentrations in our atmosphere are an effect of temperature - not the other way around. The perturbation of CO2 equilibrium has not had the proportional effect on temperature that greenhouse activists predict.

NASA's <u>Data Manipulation</u> notwithstanding, p 20 of this work, the situation to this writer is therefore similar to that which confronted King Solomon concerning which "Then said the king, The one saith, This is my son that liveth, and thy son is the dead: and the other saith, Nay; but thy son is the dead, and my son is the living" 1 Kings 3:23. Thankfully, King Solomon did not have to use the sword that he asked for, 1 Kings 3:24-27, because "the certainty of the words of truth" Proverbs 22:21 prevailed and will prevail again in the present case according to "the sword of the Spirit, which is the word of God" Ephesians 6:17 with respect to "What saith the scripture?" Romans 4:3, Galatians 4:30.

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Climate Change – Admonition?

Admonition for National Repentance and Revival

The scientific controversy over climate change consists of two mutually exclusive perceptions, which may be termed the apocalyptic perception and the apparition perception.

The apocalyptic perception is that unrestricted release of manmade CO_2 is largely the cause of increasing global temperature thereby progressively destabilising the earth's climate ultimately bringing about extinction of life on earth.

The apparitional perception is that variations in the sun's energy output aka solar wind and in earthsun relative movement largely determine climate change and in turn variations in global temperature followed by variations in atmospheric CO_2 levels, not the other way round. This perception declares that total elimination of manmade CO_2 would have negligible effect on climate change.

The scientific controversy notwithstanding, today's believer should never forget that "the earth is the Lord's, and the fulness thereof" 1 Corinthians 10:26, 28 including its climate as God says to Noah "While the earth remaineth, seedtime and harvest, and cold and heat, and summer and winter, and day and night shall not cease" Genesis 8:22.

But the Lord may drastically disrupt this stable rhythm, for the purpose of national repentance, because "He sendeth forth his commandment upon earth: his word runneth very swiftly. He giveth snow like wool: he scattereth the hoarfrost like ashes. He casteth forth his ice like morsels: who can stand before his cold? He sendeth out his word, and melteth them: he causeth his wind to blow, and the waters flow...Fire and hail; snow and vapour; stormy wind fulfilling his word" Psalm 147:15-18, 148:8. As Elihu says to Job:

- Job 37:1 At this also my heart trembleth, and is moved out of his place.
- Job 37:2 Hear attentively the noise of his voice, and the sound that goeth out of his mouth.
- Job 37:3 He directeth it under the whole heaven, and his lightning unto the ends of the earth.
- Job 37:4 After it a voice roareth: he thundereth with the voice of his excellency; and he will not stay them when his voice is heard.
- Job 37:5 God thundereth marvellously with his voice; great things doeth he, which we cannot comprehend.
- Job 37:6 For he saith to the snow, Be thou on the earth; likewise to the small rain, and to the great rain of his strength.
- Job 37:7 He sealeth up the hand of every man; that all men may know his work.
- Job 37:8 Then the beasts go into dens, and remain in their places.
- Job 37:9 Out of the south cometh the whirlwind: and cold out of the north.
- Job 37:10 By the breath of God frost is given: and the breadth of the waters is straitened.
- Job 37:11 Also by watering he wearieth the thick cloud: he scattereth his bright cloud:
- Job 37:12 And it is turned round about by his counsels: that they may do whatsoever he commandeth them upon the face of the world in the earth.
- Job 37:13 He causeth it to come, whether for correction, or for his land, or for mercy.
- Job 37:14 Hearken unto this, O Job: stand still, and consider the wondrous works of God.
- Job 37:15 Dost thou know when God disposed them, and caused the light of his cloud to shine?
- Job 37:16 Dost thou know the balancings of the clouds, the wondrous works of him which is perfect in knowledge?
- Job 37:17 How thy garments are warm, when he quieteth the earth by the south wind?
- Job 37:18 Hast thou with him spread out the sky, which is strong, and as a molten looking glass?

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- Job 37:19 Teach us what we shall say unto him; for we cannot order our speech by reason of darkness.
- Job 37:20 Shall it be told him that I speak? if a man speak, surely he shall be swallowed up.
- Job 37:21 And now men see not the bright light which is in the clouds: but the wind passeth, and cleanseth them.
- Job 37:22 Fair weather cometh out of the north: with God is terrible majesty.
- Job 37:23 Touching the Almighty, we cannot find him out: he is excellent in power, and in judgment, and in plenty of justice: he will not afflict.
- Job 37:24 Men do therefore fear him: he respecteth not any that are wise of heart.

Job 37 summarises all aspects of climate worldwide; thunder, lightning, snow, rain, wind, heat, cold, frost, cloud, light, darkness and identifies the climate Changer not as *man* but *God* because "*He sealeth up the hand of every man; that all men may know his work…the wondrous works of God*" Job 37:7, 14.

The climate change apparition approach is therefore correct in that sense, even if by coincidence.

That said, the climate change apocalypse approach will be realized, not according to release of manmade CO₂ but in fulfilment of Psalm 147:15-18, 148:8, prefigured by Exodus 9:23-24 "And Moses stretched forth his rod toward heaven: and the LORD sent thunder and hail, and the fire ran along upon the ground; and the LORD rained hail upon the land of Egypt. So there was hail, and fire mingled with the hail, very grievous, such as there was none like it in all the land of Egypt since it became a nation" and prophesied for example by Revelation 8:7, 11:3, 6 "The first angel sounded, and there followed hail and fire mingled with blood, and they were cast upon the earth: and the third part of trees was burnt up, and all green grass was burnt up...And I will give power unto my two witnesses, and they shall prophesy a thousand two hundred and threescore days, clothed in sackcloth...These have power to shut heaven, that it rain not in the days of their prophecy: and have power over waters to turn them to blood, and to smite the earth with all plagues, as often as they will."

The reason for God's drastic disruption of climate is given by Job 37:13 "He causeth it to come, whether for correction, or for his land, or for mercy" to compel men to submit to Job 37:24 "Men do therefore fear him: he respecteth not any that are wise of heart" and therefore to follow Nebuchadnezzar's exhortation as he testified in Daniel 4:37 "Now I Nebuchadnezzar praise and extol and honour the King of heaven, all whose works are truth, and his ways judgment: and those that walk in pride he is able to abase."

Keeping in mind that "*the earth is the Lord's, and the fulness thereof*" 1 Corinthians 10:26, 28 including its climate, this is what one discerning, bible-believing, independent American Baptist evangelist, Dr Sam Gipp³², his emphases, has said about the need "*for correction, or for his land, or for mercy*."

Here are the groups that are actively helping...Muslim murderers to take over our country:

- 1. The News Media: They support anyone who hates this nation and seeks its destruction.
- 2. **Public Schools:** They are run by the liberal NEA [National Education Association] and want every child in America destroyed.
- 3. Liberal Judges: They over throw the will and the good of the people to help destroy America.
- 4. Hollywood: They promote pro-Muslim, anti-Christian programming.
- 5. **Politicians:** The Democrats actively support the destruction of America while the Republicans are too cowardly to take any stand they think will hurt them politically.
- 6. Cowards: Who are intimidated into silence by their television sets.

The worship of false gods violates God!

This nation has seen nothing but <u>drought</u>, <u>wildfires</u>, <u>hurricanes</u>, <u>tornadoes</u>, <u>industrial collapse</u>, <u>and</u> <u>other catastrophes because of our national</u>, <u>cowardly [kowtowing] to false religions</u>.

Besides Islam, the same applies for all other false religions, e.g. consumerism, materialism, humanism, ecumenism, Romanism, multiculturalism, scholarship-onlyism (i.e. 'correcting' the 1611 Authorised Holy Bible) *and environmentalism*. Concerning the need for national repentance therefore, in our own nations, *"Is there not a cause?"* 1 Samuel 17:29.

Yes, there is. The essentials of national repentance for Britain are set out as follows.

The essentials of national repentance and revival for Britain are encapsulated in a national return to one Book, *"the royal law"* James 2:8³³, the 1611 Authorised King James Holy Bible by which this nation's governance is determined according to the Coronation Oath, which is a solemn national covenant with Almighty God.

"The Royal Law" James 2:8



"The Royal Law" James 2:8



The Queen Enthroned with "The Royal Law"

British Governance

British governance is embodied in the Coronation Oath³⁴. Her Majesty Queen Elizabeth II undertook the Oath when she was crowned. David Gardner³⁵ explains the significance of the Oath.

When the Sovereign is crowned, he or she is required to place one hand on the open Bible, and is then required to take a solemn oath before Almighty God 'to uphold to the utmost of my power, the Laws of God within the Realm, and the true profession of the Christian Gospel.' Parliament, through its peers, pledges itself to support the sovereign in this. This is the British position constitutionally.

It still is, as shown below, regardless of how much it has been violated in practice or by whom.

The Coronation Oath

The monarch-to-be is seated upon the Chair of Estate in Westminster Abbey. The Archbishop of Canterbury gives the Coronation Oath for the monarch's enthronement. The Oath states in part:

Archbishop: "Will you to the utmost of your power maintain the Laws of God and the true profession of the Gospel? Will you to the utmost of your power maintain in the United Kingdom the Protestant Reformed Religion established by law? Will you maintain and preserve inviolably the settlement of the Church of England, and the doctrine, worship, discipline, and government thereof as by law established in England? And will you reserve unto the Bishops and Clergy of England, and to the Churches there committed to their charge, all such rights and privileges, as by law do or shall appertain to them of any of them?"



The Coronation Bible and Title Page

Queen: "All this I promise to do."

The Oath is sealed with the King James Bible³⁶, presented to the monarch. The presenter at Queen Elizabeth II's Coronation was the Moderator of the Church of Scotland, with these words. "Our gracious Queen: to keep your Majesty ever mindful of the Law and the Gospel of God as the Rule for the whole life and government of Christian Princes, we present you with this Book, the most valuable thing that this world affords. Here is Wisdom [Revelation 13:18]; This is the royal Law [James 2:8]; These are the lively Oracles of God [Acts 7:38, Romans 3:2, Hebrews 5:12, 1 Peter 4:11]."

The King James Bible used for the Coronation contains the Apocrypha but the Apocrypha is *not* part of *"the royal law."* See figure **The Coronation Bible and Title Page**.

"The Royal Law"

James 2:8 states "If ye fulfil <u>the royal law according to the scripture</u>, Thou shalt love thy neighbour as thyself, ye do well:" "The royal law" and "the scripture" are each "the whole law" James 2:10 and the Coronation Oath is unequivocal that the King James Bible is "the royal law" for "the Rule for the whole life and government of" Her Majesty and her subjects. In turn, nothing is above the King James Bible "for thou hast magnified thy word above all thy name" Psalm 138:2.

"The royal law" states in Numbers 15:16* with respect to Great Britain and the Old Dominions that:

"One law and one manner shall be for you, and for the stranger that sojourneth with you."

*To Israel first but not rescinded for other nations by Paul, the author of specific Christian doctrine

Numbers 15:16 means that for governance of Britain's inhabitants by "the royal law" the AV1611:

- Criticism of *"the royal law"* the AV1611 is treason against God and the Crown.
- Hostility towards Israel and/or the Jewish people is treason against God and the Crown.
- Catholicism by its hatred of "the royal law" the AV1611 is treason against God and the Crown.
- Britain's membership of the papal European Union is treason against God and the Crown.
- Entry of foreigners alien to "*the royal law*" the AV1611 is treason against God and the Crown.
- Mohammedanism and all non-Biblical religions are treason against God and the Crown.
- Secular belief systems e.g. Darwinism, Marxism etc. are treason against God and the Crown.
- "<u>Whoremongers</u>...<u>them that defile themselves with mankind</u>...<u>menstealers</u>...<u>liars</u>...<u>perjured</u> <u>persons</u>" 1 Timothy 1:10 "<u>and all that do unrighteously</u>, <u>are an abomination unto the LORD</u> <u>thy God</u>" Deuteronomy 25:16 and traitors to "the royal law" the AV1611, God and the Crown.

The Coronation Oath has been repeatedly violated since the Coronation and it still is. However, as Rev Gardner states, the Oath is *a solemn oath before Almighty God* so God the Offended Party must punish the violators.

God the Offended Party

Men in scripture are likened to trees. *"And he looked up, and said, <u>I see men as trees, walking</u>" Mark 8:24.*

God promises a judgement by fire in the End Times. "And <u>I will send a fire</u> on Magog, <u>and among them that</u> <u>dwell carelessly in the isles:</u> <u>and they shall know that I</u> <u>am the LORD</u>" Ezekiel 39:6.

The Fire of Jeremiah

"The isles" and "trees, walking" are easily identified.

Jeremiah 21:14 is therefore a grim warning for Britain³⁷.

"...<u>I will punish you according to the fruit of your doings</u>, <u>saith the LORD</u>: <u>and I will kindle a fire</u> in the forest thereof, <u>and it shall devour all things round about</u>..."

Proverbs 13:13 is a further warning, though with "<u>mercy</u>...<u>against judgment</u>" James 2:13: "<u>Whoso</u> <u>despiseth the word shall be destroyed</u>: <u>but he that feareth the commandment shall be rewarded</u>."</u>

Britain *must* therefore regain her only firebreak *"the royal law"* the AV1611 to receive mercy when God's End Times judgement by fire finally descends *"that the whole nation perish not"* John 11:50.

That is the only way to escape "the devouring fire...everlasting burnings" Isaiah 33:14.

2 Kings 23:1-3 show how a return to *"the royal law"* James 2:8 should be implemented both royally and nationally, most likely at a recognized place of national worship such as Westminster Abbey and

televised to the Houses of Parliament and nationwide. The application this time is for *any* nation such that *"If that nation, against whom I have pronounced, turn from their evil, I will repent of the evil that I thought to do unto them"* Jeremiah 18:8.

"And <u>the king</u> sent, and they gathered unto him <u>all the elders of Judah and of Jerusalem</u>. And <u>the</u> <u>king</u> went up into <u>the house of the LORD</u>, and <u>all the men of Judah and all the inhabitants of Je-</u> <u>rusalem with him</u>, and <u>the priests</u>, and <u>the prophets</u>, and <u>all the people</u>, <u>both small and great</u>: and he read in their ears <u>all the words of the book of the covenant</u> which was found in <u>the house of the</u> <u>LORD</u>. And <u>the king</u> stood by a pillar, and <u>made a covenant before the LORD</u>, to walk after the <u>LORD</u>, and to keep his commandments and his testimonies and his statutes with all their heart and all their soul, to perform the words of this covenant that were written in this book</u>. And all the <u>people stood to the covenant</u>" 2 Kings 23:1-3.

The same can also apply to *individual* repentance, as this timely reminder from Jack Chick clearly shows, according to God's impending judgement worldwide that includes *real* global warming via *God's* drastic *real* climate change way beyond terrestrial effects³⁸.

"Behold, the day of the LORD cometh, cruel both with wrath and fierce anger, to lay the land desolate: and he shall destroy the sinners thereof out of it. For the stars of heaven and the constellations thereof shall not give their



light: the sun shall be darkened in his going forth, and the moon shall not cause her light to shine. And I will punish the world for their evil, and the wicked for their iniquity; and I will cause the arrogancy of the proud to cease, and will lay low the haughtiness of the terrible" Isaiah 13:9-11.

Conclusion³⁹



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