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# **Air Pollution, Not Greenhouse Gases: The Principal Cause of Global Warming**

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### **Author's contribution**

*The sole author designed, analysed, interpreted and prepared the manuscript.*

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**Short Communication**

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## **ABSTRACT**

**Aim:** Gottschalk demonstrated the bump coincident with World War II is a robust feature showing up in eight independent NOAA temperature databases. Without contradicting Gottschalk's conclusion, I consider the broader activities of WW2, especially the manner of altering Earth's delicate energy balance by particulate aerosols and then generalise to post-WW2 global warming. The aim is to present evidence that particulate pollution, not greenhouse gases, is the principal cause of global warming.

**Method:** Arrange seemingly unrelated observations into a logical sequence in the mind so that causal relationships become evident.

**Results:** The World War II wartime particulate-pollution, I submit, had the same global-warming consequence as the subsequent ever-increasing global aerosol particulate-pollution from (1) increases in aircraft and vehicular traffic, and the industrialization of China and India with their smokestacks spewing out smoke and coal fly ash and from (2) coal fly ash covertly jet-sprayed into the region where clouds form on a near-daily, near-global basis. Spraying coal fly ash into the atmosphere not only causes global warming by altering Earth's delicate thermal balance, but it is a major risk factor for chronic obstructive pulmonary disease, lung cancer, and neurodegenerative disease, as well as being involved in the global catastrophic bee and insect die-off and in forest die-

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offs worldwide, poisoning the biosphere with mercury, and destroying atmospheric ozone that protects us from the sun's deadly ultraviolet radiation. The continued deliberate pollution of our atmosphere with aerosolised coal fly ash will inevitably cripple our ability to produce food crops and will cause untold death and destruction, for example, by altering Monsoon weather patterns and by exacerbating wildfires.

**Conclusion:** The main cause of global warming is particulate pollution, not greenhouse gases. Unless atmospheric modification utilising aerosolised coal fly ash is halted, we drive ever-forward toward the first anthropogenic mass extinction of life on Earth.

*Keywords: Global warming; aerosol particulates; geoengineering; climate change; World War II; coal fly ash.*

## 1. INTRODUCTION

Since its first report in 1989, the United Nations' Intergovernmental Panel on Climate Change (IPCC) has promulgated the belief that our planet is experiencing global warming because greenhouse gases (GHG), notably anthropogenic carbon dioxide, in the atmosphere are trapping heat that should otherwise radiate into space [1]. That belief stems from committee-consensus assessments of climate computer models that are based upon assumptions. The methodology employed should cause concern as much as contemporary non-climate, solid-Earth geophysics is based on computer-models underlain by flawed assumptions [2-5].

Life on Earth is possible in part because of the delicate thermal balance that it maintains naturally. Earth continuously receives a vast quantity of energy from the sun over a broad energy spectrum, as well as producing some heat internally. To maintain thermal balance essentially all of that energy must be continuously radiated into space [6]. The interactions of radiation with surface and atmospheric components are complex, interrelated, and have various degrees of significance with respect to thermal balance [7-9]. The IPCC-condoned climate computer-models not only suffer from the uncertainties associated with those complexities, but the integrity of their models and assessments is compromised [10] by the universal, systematic failure to take into account the aerosolized pollution particulates that have been intentionally and covertly sprayed into the atmosphere for decades in the region where clouds form [11,12]. The covert aerial spraying is obvious to those who are aware of their natural surroundings, and millions of people have expressed concern [13,14].

Making models based upon assumptions generally does not lead to scientific discoveries.

What is needed instead is to discover relationships that are understandable logically and causally. The purpose of this brief communication is to disclose one such relationship that is understandable both logically and causally as evidence that the prime driver of global warming is not anthropogenic greenhouse gases, but rather pollution, especially particulate pollution. One consequence of pollution-caused global warming is heating the oceans, which decreases the solubility of carbon dioxide in seawater, thus forcing more of that gas into the atmosphere [15].

## 2. METHODOLOGY

As described previously [2,16], a different and more fundamental approach to making scientific discoveries than the frequently discussed variants of the scientific method is this: An individual ponders and through tedious efforts arranges seemingly unrelated observations into a logical sequence in the mind so that causal relationships become evident and new understanding emerges, showing the path for new observations, for new experiments, for new theoretical considerations, and for new discoveries. That is the method applied here.

## 3. RESULTS

Time series of global surface temperature presentations often exhibit a bump coincident with World War II (WW2), as did one such image on the front page of the January 19, 2017, *New York Times*. That bump is direct evidence of the effect of human activity on global temperature. Inspired by the *New York Times* image, Gottschalk [17,18] applied sophisticated curve-fitting techniques and demonstrated that the bump is a robust feature showing up in eight independent NOAA databases, four land and four ocean. Upon seeing his results, I requested permission to reproduce two of his figures (Figs. 1 and 2). Gottschalk graciously granted

permission and provided copies under the proviso that I reference their source, not alter them in any way, state if my conclusions differ from his, and note that the temperatures shown are temperature anomalies relative to 1970-2001.

Gottschalk concludes [17]: *“The bump is a consequence of human activity during WW2 ... seems the simplest and most likely. Indeed, if*

*one believes that human activity affects global temperature, one cannot dismiss out-of-hand the idea that WW2, an orgy of combustion of various fuels, had an effect.”* Without contradicting Gottschalk's conclusion, I consider the broader activities of WW2, especially the manner of altering Earth's delicate energy balance by particulate aerosols and then generalise to post-WW2 global warming.

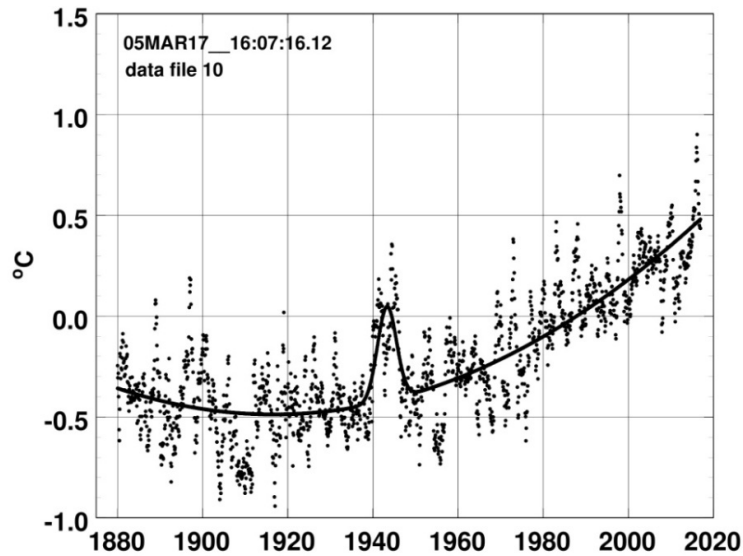


Fig. 1. From Gottschalk [17] showing a best-fit example of Gottschalk's curve fitting. The reason for the slight increase observed in the 19<sup>th</sup> century is unknown

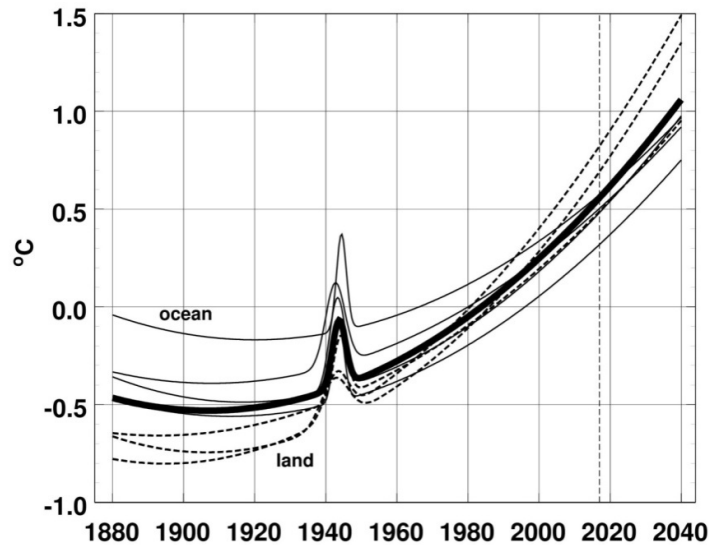


Fig. 2. From Gottschalk [18] showing the commonality of WW2 bumps in different independent NOAA data sets

Global warming occurred during World War II, but subsided soon thereafter (Figs. 1 and 2). A great spike in wartime air pollution inevitably occurred from maximized industrial production, from smoke and coal fly ash spewing from the smokestacks of industries, utilities, and locomotive engines, from greatly increased marine and aeronautical transport, and from extensive military activities that polluted the air with aircraft, ship, and vehicle exhaust and with the consequences of vast numbers of munition detonations. The implication is that global warming was caused by the pollution particulates trapping heat that should have been returned to space, thus altering Earth's delicate thermal balance. After the war as the aerosolized particulates settled to ground, Earth radiated its excess trapped energy, and global warming subsided, but only briefly before global warming began to rise again.

The World War II wartime particulate-pollution, I submit, had the same global-warming consequence as the more recent and ever-increasing global aerosol particulate-pollution. Some sources of post-WW2 aerosol pollution are obvious, and include increases in aircraft and vehicular traffic, and the industrialisation of China and India with their smokestacks spewing out smoke and coal fly ash. But there is another undisclosed, insidious source of deliberate particulate pollution that involves jet-spraying one or more particulate substances into the regions where clouds form.

The forensic scientific evidence is consistent with coal fly ash being the main aerosolised particulate jet-sprayed into the region where clouds form [11,19-21]. Coal fly ash is known to be an efficient radiation absorber [22] capable of heating the surrounding atmosphere [23,24]. Coal fly ash is the same pollutant spewed forth from WW2 smokestacks of industries, utilities, and locomotive engines and the same pollutant presently spewing forth from the smokestacks of coal-burning industries and utilities in China and India. The consequence, I submit, is that post-WW2 global warming has been and is being caused principally by those aerosolised pollution particulates trapping heat that should have been returned to space, thus altering Earth's delicate thermal balance.

Absent reliable, historical, global aerosol-particulate data, proxies can be employed to demonstrate the reasonableness of the proposition that increases in aerosolised

particulates over time is principally responsible for the concomitant global warming increases. Fig. 3 is a copy of Fig. 2 to which has been added three relative-value proxies that represent major activities that produce particulate pollution. The proxies are: Global coal production [25,26]; global crude oil production [26,27]; and, global aviation fuel consumption [26]. Each proxy database was normalised to its value at the date 1986 and each relative-value curve was then anchored at 1986 to the boldface relative global warming curve from Fig. 2. Absent from Fig. 3 are data on the undisclosed deliberate pollution of Earth's atmosphere which began six decades ago and progressively increased in duration, intensity, and geographical scope. By about 2010 the jet-sprayed particulate-pollution had become a near-daily, near-global occurrence, presumably under aegis of secret international agreement(s) [12].

There is evidence that at least as far back as 1958 the U. S. Air Force was engaged in jet-spraying particulate pollution into the air [28]. Fig. 4 is a photo of a U. S. Air Force jet spraying particulate trails in the air over Palm Springs, California (USA) on February 14, 2014. The U. S. Air Force Document AFD-0561013-001, published in 2005, lied about the aerial spraying: One section of that document entitled *The Chemtrail Hoax* states in part: "*There is no such thing as a 'Chemtrail'* [a term some use to describe the aerial spraying] ... *Contrails* [ice crystals from aircraft exhaust moisture] *are safe and are a natural phenomenon. They pose no health hazard of any kind. ... The Air Force is not conducting any weather modification experiments or programs and has no plans to do so in the future.*" [29].

NASA has aided and abetted the contrail deception [30]. For example, instructing teachers to teach children to "count the contrails" [31] and, for example, presenting false images of contrails (Fig. 5) leading the scientific community away from deliberate aerosolised particulate pollution and toward the less-significant importance of ice crystals in climate considerations [32].

There may be many undisclosed agendas for covertly spraying particulates into the atmosphere, for example, to modify or weaponise weather. Only one, however, seems likely to garner widespread secret support; namely, emplacing particulate-pollutants into the atmosphere to counteract supposed greenhouse-gas global warming.

Make no mistake: Spraying pollutant coal fly ash into the atmosphere to cool global warming is like dousing a fire with gasoline to extinguish it.

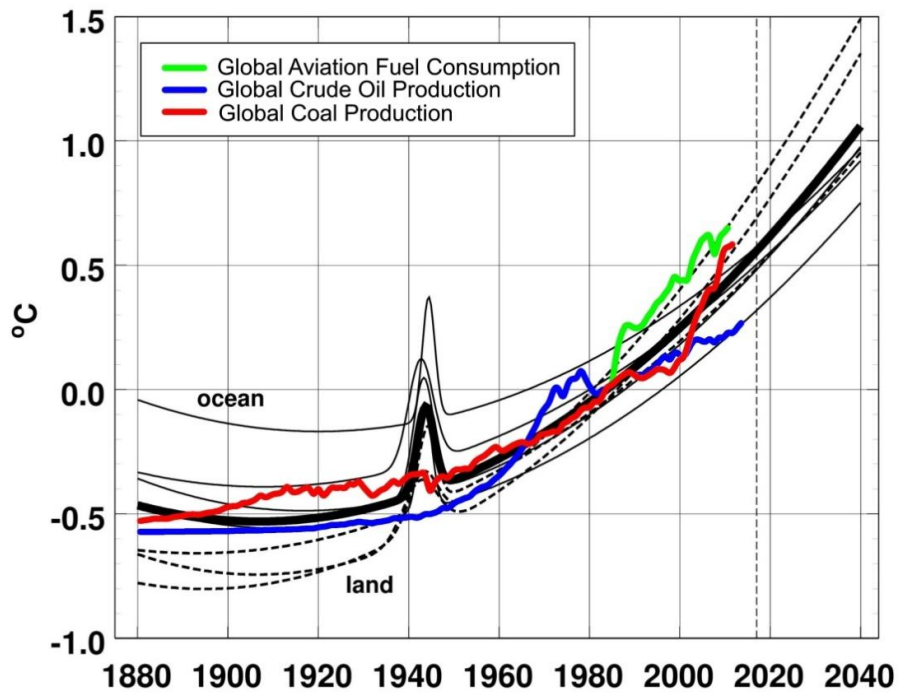


Fig. 3. Unaltered copy of Fig. 2 upon which has been added three proxy curves. Each proxy represents the relative increase over time of a major process that globally contributes particulate pollution to the atmosphere. The relative increases in particulate pollution, due to those major polluting processes, is strikingly similar to the relative increases in global warming evident from Gottschalk's curves



Fig. 4. U. S. Air Force jet emplacing particulate pollution in the air above palm springs, California (USA); inset shows the underwing marking. Photo courtesy of Dan dapper



**Fig. 5. Lower: NASA photograph dated January 26, 2001 falsely labeled “contrails.” Upper: Aerosol particulate trails across the sky February 4, 2017 in Soddy-Daisy, TN (USA). Photo courtesy of David Tulis**

Spraying coal fly ash pollutants into the atmosphere not only causes global warming, but it inflicts severe harm on human and environmental health. Currently, air pollution is the leading environmental cause of disease and death worldwide, and it is increasing at an alarming rate [33]. We have shown that aerosolized coal fly ash utilized in atmospheric manipulation operations is an important risk factor for chronic obstructive pulmonary disease (COPD) [34], lung cancer [35], and neurodegenerative disease [36], as well as being the source of previously unrecognized factors in

the global catastrophic bee and insect die-off [37] and in the unprecedented die-offs of forests worldwide [38], poisoning the biosphere with mercury [11], and destroying atmospheric ozone that protects us from the sun’s deadly ultraviolet radiation [39]. The continued deliberate pollution of our atmosphere with aerosolised coal fly ash will inevitably cripple our ability to produce food crops [20] and may cause untold death and destruction, for example, by altering Monsoon weather patterns [12] and by exacerbating wildfires.

#### 4. CONCLUSION

Secrecy is important in certain military circumstances, but in matters of governance secrecy invariably cloaks incompetence and/or deceit. Never in the history of human civilisation is that more evident or more dangerous to life on Earth than the internationalised covert jet-spraying of particulates into the air we breathe. Particulate pollution, not greenhouse gases, is the principal cause of global warming as the evidence presented here indicates. The near-daily, near-global, deliberate aerosol particulate pollution is heating our planet, disrupting weather and hydrological cycles, and poisoning life on Earth, the one habitable place in our Solar System. Unless halted, atmospheric modification utilising aerosolised coal fly ash will drive us ever-forward toward the first anthropogenic mass extinction of life on Earth.

#### COMPETING INTERESTS

Author has declared that no competing interests exist.

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