Short Communication

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6 ABSTRACT

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Aim: Gottschalk demonstrated that the bump coincident with World War II is a robust feature showing up in eight independent NOAA temperature databases and noted that "...*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 generalize to post-WW2 global warming.

Air Pollution, Not Greenhouse Gases:

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 globalwarming 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 smoke stacks 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-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 aerosolized coal fly ash will inevitably cripple our ability to produce food crops and may cause untold death and destruction by altering Monsoon weather patterns and by exacerbating wildfires. **Conclusion:** Unless halted, atmosphere modification utilizing aerosolized coal fly ash will drive us ever-forward toward the first anthropogenic mass extinction of life on Earth.

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Keywords: Global warming, aerosol particulates, geoengineering, climate change, World War II, coal fly ash

1. INTRODUCTION

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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 underlain by flawed assumptions [2-5].

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22 Life on Earth is possible in part because of the delicate thermal balance that it maintains naturally. 23 Earth continuously receives a vast quantity of energy from the sun over a broad energy spectrum, as 24 well as producing some heat internally. To maintain thermal balance essentially all of that energy 25 must be continuously radiated into space [6]. The interactions of radiation with surface and 26 atmospheric components are complex, interrelated, and have various degrees of significance with 27 respect to thermal balance [7-9]. The IPCC-condoned climate computer-models not only suffer from 28 the uncertainties associated with those complexities, but the integrity of their models and 29 assessments is compromised [10] by the universal, systematic failure to take into account the 30 aerosolized pollution particulates that have been intentionally and covertly sprayed into the 31 atmosphere for decades in the region where clouds form [11,12].

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.

38 2. METHODOLOGY

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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 [2]. That is the method applied here.

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47 3. RESULTS

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49 Time series of global surface temperature presentations often exhibit a bump coincident with World 50 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 51 New York Times image, Gottschalk [13,14] applied sophisticated curve-fitting techniques and 52 demonstrated that the bump is a robust feature showing up in eight independent NOAA databases, 53 54 four land and four ocean. Upon seeing his results, I requested permission to reproduce two of his 55 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, 56 and note that the temperatures shown are temperature anomalies relative to 1970-2001. 57





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Fig. 2. From [14] showing the commonality of WW2 bumps in different independent NOAA data sets.

Gottschalk concludes [13]: "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 generalize to post-WW2 global warming.

75 Global warming occurred during World War II, but subsided soon thereafter (Figs. 1 and 2). A great 76 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 77 78 greatly increased marine and aeronautical transport, and from extensive military activities that polluted 79 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 80 81 heat that should have been returned to space, thus altering Earth's delicate thermal balance After the 82 war as the aerosolized particulates settled to ground, Earth radiated its excess trapped energy, and 83 global warming subsided, but only briefly before global warming began to rise again.

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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 industrialization of China and India with their smoke stacks spewing out smoke and coal fly ash. But there is another undisclosed, insidious source of deliberate particulate pollution that involves jetspaying one or more particulate substances into the regions where clouds form.

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92 Forensic scientific evidence is consistent with coal fly ash being the main aerosolized particulate jetsprayed into the region where clouds form [11,15-17]. Coal fly ash is known to be an efficient radiation 93 absorber capable of heating the surrounding atmosphere [18]. Coal fly ash is the same pollutant 94 95 spewed forth from WW2 smokestacks of industries, utilities, and locomotive engines and the same 96 pollutant presently spewing forth from the smokestacks of coal burning industries and utilities in China 97 and India. The consequence, I submit, is that post-WW2 global warming has been and is being caused principally by those aerosolized pollution particulates trapping heat that should have been 98 99 returned to space, thus altering Earth's delicate thermal balance.

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101 There is evidence that at least as far back as 1958 the U.S. Air Force was engaged in jet-spraying 102 particulate pollution into the air [19]. Fig. 3 is a photo of a U. S. Air Force jet spraying particulate trails 103 in the air over Palm Springs, California (USA) on February 14, 2014. The U. S. Air Force Document 104 AFD-0561013-001, published in 2005, lied about the aerial spraying: One section of that document 105 entitled The Chemtrail Hoax states in part: "There is no such thing as a 'Chemtrail' [a term some use 106 to describe the aerial spraying] ... Contrails [ice crystals from aircraft exhaust moisture] are safe and 107 are a natural phenomenon. They pose no health hazard of any kind. ... The Air Force is not 108 conducting any weather modification experiments or programs and has no plans to do so in the 109 future." [20]. 110



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Fig. 3. 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.

NASA has aided and abetted the contrail deception [21]. For example, instructing teachers to teach
children to "count the contrails" [22] and, for example, presenting false images of contrails (Fig. 4)
leading the scientific community away from deliberate aerosolized particulate pollution and toward the
importance of ice crystals in climate considerations [23].

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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.

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On or about 2010, the aerial particulate spraying became a near-daily, near-global activity,

presumably under aegis of some secret international agreement [12]. There may be many

undisclosed agendas for covertly spraying particulates into the atmosphere, for example, to modify or

weaponize weather. But only one seems likely to garner widespread secret support, namely,

emplacing pollutant particulates into the atmosphere to counteract greenhouse-gas global warming.

Spraying coal fly ash pollutants into the atmosphere not only causes global warming, but it inflects
 severe harm on human and environmental health. Currently, air pollution is the leading environmental

139 cause of disease and death worldwide, and it is increasing at an alarming rate [24]. We have shown 140 that aerosolized coal fly ash utilized in atmospheric manipulation operations is an important risk factor 141 for chronic obstructive pulmonary disease (COPD) [25], lung cancer [26], and neurodegenerative 142 disease [27], as well as being the source of previously unrecognized factors in the global catastrophic 143 bee and insect die-off [28] and in the unprecedented die-offs of forests worldwide [29], poisoning the biosphere with mercury [11], and destroying atmospheric ozone that protects us from the sun's deadly 144 145 ultraviolet radiation [30]. The continued deliberate pollution of our atmosphere with aerosolized coal 146 fly ash will inevitably cripple our ability to produce food crops [16] and may cause untold death and 147 destruction by altering Monsoon weather patterns [12] and by exacerbating wildfires.

149 4. CONCLUSION

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Unless halted, atmosphere modification utilizing aerosolized coal fly ash will drive us ever-forwardtoward the first anthropogenic mass extinction of life on Earth.

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