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Exposing the lies of Germ Theory and virology using their own sources.

“Covid” and Chemtrails



Airplane leaving jet contrails with COVID-19 word inside. Symbolizing the global spread of the coronavirus through global air traffic
Airplane leaving jet contrails with coronavirus word inside. Symbolizing the global spread of the coronavirus through global air traffic

A few months ago, I wrote an **[article < https://viroliegy.com/2022/01/28/the-covid-19-and-air-pollution-connection/>](https://viroliegy.com/2022/01/28/the-covid-19-and-air-pollution-connection/)** exploring the connection between the symptoms of disease known as “Covid-19” and air pollution. While air pollution is not the only factor currently causing disease, I laid out why I believe that this is the

most likely explanation for any perceived increase in respiratory symptoms of disease. I provided a general overview on the problem of air pollution and how it can impact our health and environment. Within the article, I touched upon the issue of persistent contrails, a.k.a chemtrails, and provided information directly from Government sources admitting the impact that these trails have on our health and environment. Even though this information is readily available to anyone willing to look, there are many out there who still seem to believe that these trails are harmless. They claim that I am promoting nothing but a baseless conspiracy theory.

The fact of the matter is that these trails are admitted to be harmful to our health and environment by both sides of the "chemtrail" debate. There is no conspiracy theory here. This is a FACT. We can speculate as to who is doing this and why but that is ultimately irrelevant. While pollution from automobiles, factories, power plants, forest fires, etc. all contribute to this air pollution health crisis, the harmful effects from the aviation industry are regularly glossed over and/or omitted when this issue is discussed. However, if you dig deep enough and actually search for the information, what can be found to be admitted by official Government sources regarding the health consequences from these trails is very telling and disturbing.

Particulate Matter

- Epidemiological studies link long-term exposure to fine Particulate Matter (PM_{2.5}) to increased risk of premature mortality [Dockery et al. (1993); Pope et al. (2002); WHO (2008); Pope et al. (2009); USA EPA (2011)]
- Particulate Matter consists of particles and liquid droplets
 - Particulate Matter = PM₁₀ = diameter ≤ 10 μm (enters lungs)
 - Fine Particulate Matter = PM_{2.5} = diameter ≤ 2.5 μm (enters blood)
 - Ultrafine Particulate Matter = PM_{0.1} = diameter ≤ 0.1 μm (could enter systems)
- PM from aircraft engines:
 - Soot (a.k.a., non-volatile PM, black carbon)
 - Volatile organic compounds from engine sulfate and nitrates & atmospheric ammonia
 - Aircraft engine PM is sufficiently small to qualify as ultrafine particulate matter



<http://www3.epa.gov/airquality/particulatepollution/basic.html>

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To start with, I want to provide a quick breakdown of the negative health impact of just one component that is admitted to be found within these persistent trails left in the wake of aircrafts. This is known as particulate matter, the most dangerous of which is PM_{2.5}. From the Environmental Protection Agency (EPA), you will see that PM_{2.5} is a known toxin potentially made up of hundreds of different chemicals that is so small that it can collect deep within the lungs and even enter the bloodstream. It has been associated with cardiovascular and respiratory disease, irritation of the eyes, throat, and lungs, and premature death:

Particulate Matter (PM) Basics

What is PM, and how does it get into the air?

“PM stands for particulate matter (also called particle pollution): the term for a mixture of solid particles and liquid droplets found in the air. Some particles, such as dust, dirt, soot, or smoke, are large or dark enough to be seen with the naked eye. Others are so small they can only be detected using an electron microscope.

Particle pollution includes:

1. **PM₁₀**: inhalable particles, with diameters that are generally 10 micrometers and smaller; and
2. **PM_{2.5}**: fine inhalable particles, with diameters that are generally 2.5 micrometers and smaller.
 - How small is 2.5 micrometers? Think about a single hair from your head. The average human hair is about 70 micrometers in diameter – **making it 30 times larger than the largest fine particle.**

Sources of PM

These particles come in many sizes and shapes **and can be made up of hundreds of different chemicals.**

Some are emitted directly from a source, such as construction sites, unpaved roads, fields, smokestacks or fires.

Most particles form in the atmosphere as a result of complex reactions of chemicals such as sulfur dioxide and nitrogen oxides, which are pollutants emitted from power plants, industries and automobiles.

What are the Harmful Effects of PM?

Particulate matter contains microscopic solids or liquid droplets that **are so small that they can be inhaled and cause serious health problems.** Some particles less than 10 micrometers in diameter **can get deep into your lungs and some may even get into your bloodstream.** Of these, particles less than 2.5 micrometers in diameter, also known as fine particles or PM_{2.5}, pose the greatest risk to health.

Fine particles are also the main cause of reduced visibility (haze) in parts of the United States, including many of our treasured national parks and wilderness areas."

<https://www.epa.gov/pm-pollution/particulate-matter-pm-basics> <

<https://www.epa.gov/pm-pollution/particulate-matter-pm-basics>>

Health and Environmental Effects of Particulate Matter (PM)

Health Effects

The size of particles is directly linked to their potential for causing health problems. Small particles less than 10 micrometers in diameter pose the greatest problems, because they can get deep into your lungs, and some may even get into your bloodstream.

Exposure to such particles can **affect both your lungs and your heart.** Numerous scientific studies have linked particle pollution exposure to a variety of problems, including:

- premature death in people with heart or lung disease
- nonfatal heart attacks
- irregular heartbeat
- aggravated asthma
- decreased lung function
- increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing.

People with **heart or lung diseases, children,** and **older adults** are the most likely to be affected by particle pollution exposure.

<https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm> < **<https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm>**>



PM2.5 and other particulate matter is only part of the dangerous substances found in these persistent contrails. Other admitted substances include carbon dioxide (CO₂), volatile organic compounds (VOC), nitrogen oxides (NO_x), sulfur oxides (SO_x), black carbon soot, and other trace metals. It is simply beyond logic and reasoning to believe that the inhalation of these substances on a daily basis is not harmful to one's health.

Recently, some members of Congress were interested in addressing the health and environmental problems associated with aviation. On February 8th, 2022, the Congressional Research Service released a report describing the problem and how to address it. A few highlights showcase that aviation pollution is the fastest-growing pollutant over the past decade and that there are numerous toxic substances found within these trails:

Aviation, Air Pollution, and Climate Change

Emissions from Aircraft

“The U.S. Environmental Protection Agency (EPA) estimates that transportation—including passenger cars and light trucks, heavy-duty trucks, buses, trains, ships, and aircraft—accounted for 35% of carbon dioxide (CO₂, the principal GHG) emissions in 2018. **While CO₂ emissions from passenger cars and light trucks exceed those from aircraft in the United States, CO₂ emissions from aviation are currently experiencing a faster rate of growth. All aircraft, including military, commercial, and privately chartered, accounted for 13% of the U.S. transportation sector’s CO₂ emissions and 5% of all U.S. CO₂ emissions in 2018. Commercial aircraft, including those operated by passenger and all-cargo airlines, accounted for 11% of transportation sector and 4% of all emissions.** These estimates include emissions from U.S. domestic flights and emissions from international flights departing the United States, referred to as “international bunkering.”

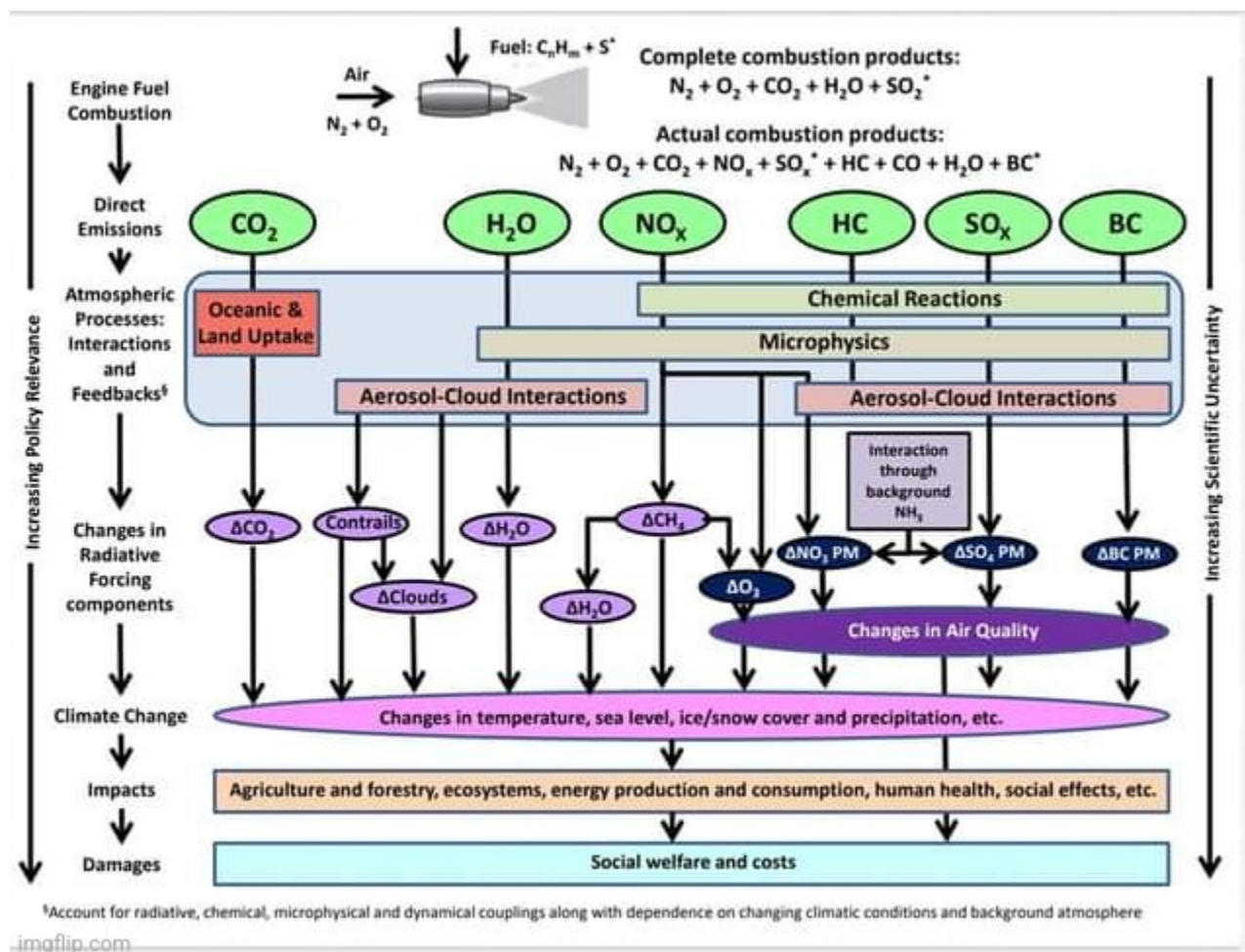
In the United States, aggregate CO₂ emissions from aircraft have fluctuated due to changes in technology, the economy, travel frequency, and military activity, among other reasons. **However, since the global financial crisis in 2009, aggregate CO₂ emissions from all aircraft types have grown steadily, increasing by almost 22% between 2009 and 2018. This increase makes aircraft one of the faster-growing sources of CO₂ emissions in the U.S. transportation sector over the past decade.** This trend is likely to be affected, at least temporarily, by reduced air travel in 2020 and 2021 due to Coronavirus Disease 2019 (COVID-19).

The effects of aircraft emissions on the atmosphere are complex, reflecting differing altitudes, geography, time horizons, and environmental conditions. **Research has shown that in addition to CO2 emissions, other factors increase the climate change impacts of aviation. These factors include the contribution of aircraft emissions to ozone production; the formation of water condensation trails and cirrus clouds; the emission of various gases and particles, including water vapor, nitrous oxides, sulfates, and particulates from jet fuel combustion; and the high altitude location of the bulk of these emissions.** In examining the warming and cooling influences of these factors, the United Nations' Intergovernmental Panel on Climate Change estimated aviation's total climate change impact could be from two to four times that of its past CO2 emissions alone.

Aside from GHG emissions, aircraft engines emit a number of criteria—or common—pollutants, **including nitrogen oxides, carbon monoxide, oxides of sulfur, unburned or partially combusted hydrocarbons (also known as volatile organic compounds [VOCs]), particulates, and other trace compounds. A subset of the VOCs and particulates are considered hazardous air pollutants.”**

<https://crsreports.congress.gov/product/pdf/IF/IF11696> <

<https://crsreports.congress.gov/product/pdf/IF/IF11696>>



In case you wanted a visual representation of how this pollution is said to form and impact our health.

As can be seen, the pollution coming from the aviation industry is a fast-growing problem that is impacting our health and environment in numerous ways. While this has been known for decades and solutions have been presented to try and reverse the impact, nothing is ever implemented to fix the problem. Solutions are only useful if they are enacted upon. While Congress gathers reports, there is little action taken in regards to those reports. It is one thing to acknowledge the negative health and environmental impact yet it is another thing entirely to actually shake up the industry by doing something about it. This seems not to be a major concern as these trails have become worse over time, increasingly contributing to erratic weather, disease, and premature death.

For further evidence of the impact that these trails have on our health and environment, we can turn once again to the EPA to provide more detail. In a document from January 11th, 2021, the EPA enacted standards that are supposed to combat greenhouse gas emissions from the aviation industry. In this document are findings from reports they had compiled in 2016 which call out the dangers these trails have on the public health and welfare:

Control of Air Pollution From Airplanes and Airplane Engines: GHG Emission Standards and Test Procedures

“In August 2016, the EPA issued two findings regarding GHG emissions from aircraft engines (the 2016 Findings).^[7] **First, the EPA found that elevated concentrations of GHGs in the atmosphere endanger the public health and welfare of current and future generations within the meaning of section 231(a)(2)(A) of the CAA. Second, EPA found that emissions of GHGs from certain classes of engines used in certain aircraft are contributing to the air pollution that endangers public health and welfare under CAA section 231(a)(2)(A).** Additional details of the 2016 Findings are described in Section III. As a result of the 2016 Findings, CAA sections 231(a)(2)(A) and (3) obligate the EPA to propose and adopt, respectively, GHG standards for these covered aircraft engines.”

III. Summary of the 2016 Findings

“On August 15, 2016,^[46] the EPA issued two findings regarding GHG emissions from aircraft engines. First, the EPA found that elevated concentrations of GHGs in the atmosphere endanger the public health and welfare of current and future generations within the meaning of section 231(a)(2)(A) of the CAA.

The EPA made this finding specifically with respect to the same six well-mixed GHGs—CO₂, methane, N₂ O, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride—that together were defined as the air pollution in the 2009 Endangerment Finding ^[47] under section 202(a) of the CAA and that together were found to constitute the primary cause of climate change. Second, the EPA found that emissions of those six well-mixed GHGs from certain classes of engines used in certain aircraft ^[48] cause or contribute to the air pollution—the aggregate group of the same six GHGs—that endangers public health and welfare under CAA section 231(a)(2)(A).”

<https://www.federalregister.gov/documents/2021/01/11/2020-28882/control-of-air-pollution-from-airplanes-and-airplane-engines-ghg-emission-standards-and-test> < <https://www.federalregister.gov/documents/2021/01/11/2020-28882/control-of-air-pollution-from-airplanes-and-airplane-engines-ghg-emission-standards-and-test>>

Contrails and Climate Impact



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Contrail Cirrus Clouds

In February of 2022, the EPA proposed standards that would reflect the importance of the control of PM emissions in aviation. They were looking to secure the highest practicable degree of uniformity in aviation regulations and standards. Within this proposal, the EPA provided plenty of insight into the potential health impacts of PM_{2.5} on human health such as cardiovascular disease, respiratory disease, neurological disorders, asthma, cancer, fertility/reproductive problems, and premature death. They also outlined the impact the chemicals in the trails have on the environment such as affecting the metabolic processes of plant foliage, altering the soil biogeochemistry and microbiology, disrupting plant and animal growth and reproduction, and the corrosion of metals and soil. They even provided more detail on the make-up of the composition of the dangerous toxins inside these trails with the addition of carcinogens such as benzene, 1,3-butadiene,

formaldehyde, acetaldehyde, acrolein, polycyclic organic matter (POM), and certain metals such as chromium, manganese, and nickel. Judging by this information alone, it should be rather clear that these trails are negatively impacting our health and environment in numerous ways:

Control of Air Pollution From Aircraft Engines: Emission Standards and Test Procedures

III. Particulate Matter Impacts on Air Quality and Health

A. Background on Particulate Matter

“Particulate matter (PM) is a highly complex mixture of solid particles and liquid droplets distributed among numerous atmospheric gases which interact with solid and liquid phases. Particles range in size from those smaller than 1 nanometer (10^{-9} meter) to over 100 micrometers (μm , or 10^{-6} meter) in diameter (for reference, a typical strand of human hair is $70 \mu\text{m}$ in diameter and a grain of salt is about $100 \mu\text{m}$). Atmospheric particles can be grouped into several classes according to their aerodynamic and physical sizes. Generally, the three broad classes of particles include ultrafine particles (UFPs, generally considered as particulates with a diameter less than or equal to $0.1 \mu\text{m}$ (typically based on physical size, thermal diffusivity or electrical mobility)), “fine” particles ($\text{PM}_{2.5}$; particles with a nominal mean aerodynamic diameter less than or equal to $2.5 \mu\text{m}$), and “thoracic” particles (PM_{10} ; particles with a nominal mean aerodynamic diameter less than or equal to $10 \mu\text{m}$). Particles that fall within the size range between $\text{PM}_{2.5}$ and PM_{10} , are referred to as “thoracic coarse particles” ($\text{PM}_{10-2.5}$, particles with a nominal mean aerodynamic diameter less than or equal to $10 \mu\text{m}$ and greater than $2.5 \mu\text{m}$).

Particles span many sizes and shapes and may consist of hundreds of

different chemicals. Particles are emitted directly from sources and are also formed through atmospheric chemical reactions between PM precursors; the former are often referred to as “primary” particles, and the latter as “secondary” particles. Particle concentration and composition varies by time of year and location, and, in addition to differences in source emissions, is affected by several weather-related factors, such as temperature, clouds, humidity, and wind. Ambient levels of PM are also impacted by particles' ability to shift between solid/liquid and gaseous phases, which is influenced by concentration, meteorology, and especially temperature.

Fine particles are produced primarily by combustion processes and by transformations of gaseous emissions (e.g., sulfur oxides (SO_x), nitrogen oxides (NO_x) and volatile organic compounds (VOCs)) in the atmosphere. The chemical and physical properties of PM_{2.5} may vary greatly with time, region, meteorology, and source category. **Thus, PM_{2.5} may include a complex mixture of different components including sulfates, nitrates, organic compounds, elemental carbon, and metal compounds. These particles can remain in the atmosphere for days to weeks and travel through the atmosphere hundreds to thousands of kilometers.**

Particulate matter is comprised of both volatile and non-volatile PM. PM emitted from the engine is known as non-volatile PM (nvPM), and PM formed from transformation of an engine's gaseous emissions are defined as volatile PM.^[35] Because of the difficulty in measuring volatile PM, which is formed in the engine's exhaust plume and is significantly influenced by ambient conditions, the EPA is proposing standards only for the emission of nvPM.

B. Health Effects of Particulate Matter

Scientific studies show exposure to ambient PM is associated with a broad range of health effects. These health effects are discussed in detail in the Integrated Science Assessment for Particulate Matter (PM ISA), which was finalized in December 2019.^[36] **The PM ISA concludes that human exposures to ambient PM_{2.5} are associated with a number of adverse health effects and characterizes the weight of evidence for broad health categories (e.g., cardiovascular effects, respiratory effects, etc.).^[37]** The PM ISA additionally notes that stratified analyses (*i.e.*, analyses that directly compare PM-related health effects across groups) provide strong evidence for racial and ethnic differences in PM_{2.5} exposures and in PM_{2.5} -related health risk. As described in Section III.D, concentrations of PM increase with proximity to an airport. Further, studies described in Section III.G report that many communities in close proximity to airports are disproportionately represented by people of color and low-income populations.

EPA has concluded that recent evidence in combination with evidence evaluated in the 2009 p.m. ISA supports a “causal relationship” between both long- and short-term exposures to PM_{2.5} and mortality and cardiovascular effects and a “likely to be causal relationship” between long- and short-term PM_{2.5} exposures and respiratory effects.^[38] Additionally, recent experimental and epidemiologic studies provide evidence supporting a “likely to be causal relationship” between long-term PM_{2.5} exposure and nervous system effects, and long-term PM_{2.5} exposure and cancer. In addition, EPA noted that there was more limited and uncertain evidence for long-term PM_{2.5} exposure and reproductive and developmental effects (*i.e.*, male/female reproduction and fertility; pregnancy and birth outcomes), long- and short-term exposures and

metabolic effects, and short-term exposure and nervous system effects resulting in the ISA concluding “suggestive of, but not sufficient to infer, a causal relationship.”

More detailed information on the health effects of PM can be found in a memorandum to the docket.^[39]

C. Environmental Effects of Particulate Matter

Environmental effects that can result from particulate matter emissions include visibility degradation, plant and ecosystem effects, deposition effects, and materials damage and soiling. These effects are briefly summarized here and discussed in more detail in the memo to the docket cited above.

PM_{2.5} emissions also adversely impact visibility.^[40] In the Clean Air Act Amendments of 1977, Congress recognized visibility's value to society by establishing a national goal to protect national parks and wilderness areas from visibility impairment caused by manmade pollution.^[41] In 1999, EPA finalized the regional haze program (**64 FR 35714 < <https://www.federalregister.gov/citation/64-FR-35714>>**) to protect the visibility in Mandatory Class I Federal areas. There are 156 national parks, forests and wilderness areas categorized as Mandatory Class I Federal areas (**62 FR 38680-38681 < <https://www.federalregister.gov/citation/62-FR-38680>>**, July 18, 1997). These areas are defined in CAA section 162 as those national parks exceeding 6,000 acres, wilderness areas and memorial parks exceeding 5,000 acres, and all international parks which were in existence on August 7, 1977. EPA has also concluded that PM_{2.5} causes

adverse effects on visibility in other areas that are not targeted by the Regional Haze Rule, such as urban areas, depending on PM_{2.5} concentrations and other factors such as dry chemical composition and relative humidity (*i.e.*, an indicator of the water composition of the particles). EPA established the secondary 24-hour PM_{2.5} NAAQS in 1997 and has retained the standard in subsequent reviews.^[42] This standard is expected to provide protection against visibility effects through attainment of the existing secondary standards for PM_{2.5} . EPA is reconsidering the 2020 decision, as announced on June 10, 2021.^[43]

1. Deposition of Metallic and Organic Constituents of PM

Several significant ecological effects are associated with deposition of chemical constituents of ambient PM such as metals and organics.^[44] **Like all internal combustion engines, turbine engines covered by this rule may emit trace amounts of metals due to fuel contamination or engine wear. Ecological effects of PM include direct effects to metabolic processes of plant foliage; contribution to total metal loading resulting in alteration of soil biogeochemistry and microbiology, plant and animal growth and reproduction; and contribution to total organics loading resulting in bioaccumulation and biomagnification.**

2. Materials Damage and Soiling

Deposition of PM is associated with both physical damage (materials damage effects) and impaired aesthetic qualities (soiling effects). **Wet and dry deposition of PM can physically affect materials, adding to the effects of natural weathering processes, by potentially promoting or accelerating the corrosion of metals, by degrading paints and by deteriorating building**

materials such as stone, concrete and marble.^[45]

D. Near-Source Impacts on Air Quality and Public Health

Airport activity can adversely impact air quality in the vicinity of airports. Furthermore, these adverse impacts may disproportionately impact sensitive subpopulations. **A recent study by Yim et al. (2015) assessed global, regional, and local health impacts of civil aviation emissions, using modeling tools that address environmental impacts at different spatial scales.^[46] The study attributed approximately 16,000 premature deaths per year globally to global aviation emissions, with 87 percent attributable to PM_{2.5}. The study concludes that about a third of these mortalities are attributable to PM_{2.5} exposures within 20 kilometers of an airport. Another study focused on the continental United States estimated 210 deaths per year attributable to PM_{2.5} from aircraft.^[47] While there are considerable uncertainties associated with such estimates, these results suggest that in addition to the contributions of PM_{2.5} emissions to regional air quality, **impacts on public health of these emissions in the vicinity of airports are an important public health concern.****

A significant body of research has addressed pollutant levels and potential health effects in the vicinity of airports. Much of this research was synthesized in a 2015 report published by the Airport Cooperative Research Program (ACRP), conducted by the Transportation Research Board.^[48] **The report concluded that PM_{2.5} concentrations in and around airports vary considerably, ranging from “relatively low levels to those that are close to the NAAQS, and in some cases, exceeding the standards.”^[49]**

Furthermore, the report states (p. 40) that “existing studies indicate that ultrafine particle concentrations are highly elevated at an airport (*i.e.*, near a runway) with particle counts that can be orders of magnitude higher than background with some persistence many meters downwind (*e.g.*, 600 m). Finally, the report concludes that **PM_{2.5} dominates overall health risks posed by airport emissions**. Moreover, one recently published study concluded that emissions from aircraft play an etiologic role in pre-term births, independent of noise and traffic-related air pollution exposures.^[50]

Since the publication of the 2015 ACRP literature review, a number of studies conducted in the U. S. have been published which concluded that ultrafine particle number concentrations were elevated downwind of commercial airports, and that proximity to an airport also increased particle number concentrations within residences. Hudda et al. investigated ultrafine particle number concentrations (PNC) inside and outside 16 residences in the Boston metropolitan area. They found elevated outdoor PNC within several kilometers of the airport. **They also found that aviation-related PNC infiltrated indoors and resulted in significantly higher indoor PNC.**^[51] In another study in the vicinity of Logan airport, Hudda et al. analyzed PNC impacts of aviation activities.^[52] They found that, at sites 4.0 and 7.3 km from the airport, average PNCs were 2 and 1.33-fold higher, respectively, when winds were from the direction of the airport compared to other directions, indicating that aviation impacts on PNC extend many kilometers downwind of Logan airport. **Stacey (2019) conducted a literature survey and concluded that the literature consistently reports that particle numbers close to airports are significantly higher than locations distant and upwind of airports, and that the particle size distribution is different from traditional road traffic, with more extremely fine particles.**^[53] Similar

findings have been published from European studies.^[54 55 56 57 58 59] Results of a monitoring study of communities near Seattle-Tacoma International Airport also found higher levels of ultrafine PM near the airport, and an impacted area larger than at near-roadway sites.^[60] The PM associated with aircraft landing activity was also smaller in size, with lower black carbon concentrations than near-roadway samples. As discussed above, **PM_{2.5} exposures are associated with a number of serious, adverse health effects. Further, the PM attributable to aircraft emissions has been associated with potential adverse health impacts.**^[61 62] For example, He et al. (2018) found that **particle composition, size distribution and internalized amount of particles near airports all contributed to promotion of reactive organic species in bronchial epithelial cells.**

Because of these potential impacts, a systematic literature review was recently conducted to identify peer-reviewed literature on air quality near commercial airports and assess the quality of the studies.^[63] The systematic review identified seventy studies for evaluation. **These studies consistently showed that particulate matter, in the form of ultrafine PM (UFP), is elevated in and around airports. Furthermore, many studies showed elevated levels of black carbon, criteria pollutants, and polycyclic aromatic hydrocarbons as well. Finally, the systematic review, while not focused on health effects, identified a limited number of references reporting adverse health effects impacts, including increased rates of premature death, pre-term births, decreased lung function, oxidative DNA damage and childhood leukemia.** More research is needed linking particle size distributions to specific airport activities, and proximity to airports, characterizing relationships between different pollutants, evaluating long-term impacts, and improving our understanding of health effects.

A systematic review of health effects associated with exposure to jet engine emissions in the vicinity of airports was also recently published.^[64] This study concluded that literature on health effects was sparse, **but jet engine emissions have physicochemical properties similar to diesel exhaust particles, and that exposure to jet engine emissions is associated with similar adverse health effects as exposure to diesel exhaust particles and other traffic emissions. A 2010 systematic review by the Health Effects Institute (HEI) concluded that evidence was sufficient to support a causal relationship between exposure to traffic-related air pollution and exacerbation of asthma among children, and suggestive of a causal relationship for childhood asthma, non-asthma respiratory symptoms, impaired lung function and cardiovascular mortality.^[65]**

F. Other Pollutants Emitted by Aircraft

“In addition to particulate matter, a number of other criteria pollutants are emitted by the aircraft which are the subject of this proposed rule. **These pollutants, which are not covered by the rule, include nitrogen oxides (NO_x), including nitrogen dioxide (NO₂), volatile organic compounds (VOC), carbon monoxide (CO), and sulfur dioxide (SO₂). Aircraft also contribute to ambient levels of hazardous air pollutants (HAP), compounds that are known or suspected human or animal carcinogens, or that have noncancer health effects. These compounds include, but are not limited to, benzene, 1,3-butadiene, formaldehyde, acetaldehyde, acrolein, polycyclic organic matter (POM), and certain metals. Some POM and HAP metals are components of PM_{2.5} mass measured in turbine engine aircraft emissions.^[70]**

The term polycyclic organic matter (POM) defines a broad class of compounds that includes the polycyclic aromatic hydrocarbon compounds (PAHs). POM compounds are formed primarily from combustion and are present in the atmosphere in gas and particulate form. **Metal compounds emitted from aircraft turbine engine combustion include chromium, manganese, and nickel. Several POM compounds, as well as hexavalent chromium, manganese compounds and nickel compounds are included in the National Air Toxics Assessment, based on potential carcinogenic risk.^[71]** In addition, as mentioned previously, deposition of metallic compounds can have ecological effects. Impacts of POM and metals are further discussed in the memorandum to the docket referenced above.”

<https://www.federalregister.gov/documents/2022/02/03/2022-01150/control-of-air-pollution-from-aircraft-engines-emission-standards-and-test-procedures> < **<https://www.federalregister.gov/documents/2022/02/03/2022-01150/control-of-air-pollution-from-aircraft-engines-emission-standards-and-test-procedures>**>

- Exposure to such particles can **affect both your lungs and your heart**
- Numerous scientific studies have **linked particle pollution exposure to a variety of problems**, including:
 1. Premature death in people with heart or lung disease
 2. Nonfatal heart attacks
 3. Irregular heartbeat
 4. Aggravated asthma
 5. Decreased lung function
 6. Increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing
- People with **heart or lung diseases, children, and older adults** are the most likely to be affected by particle pollution exposure
- According to a Congressional Research Service report from February 8th, 2022, **CO2 emissions from aviation are currently experiencing a faster rate of growth** than other sources
- All aircraft, including military, commercial, and privately chartered, **accounted for 13% of the U.S. transportation sector’s CO2 emissions and 5% of all U.S. CO2 emissions in 2018**
- Commercial aircraft, including those operated by passenger and all-cargo airlines, **accounted for 11% of transportation sector and 4% of all emissions**
- Since the global financial crisis in 2009, aggregate CO2 emissions from all aircraft types have grown steadily, **increasing by almost 22% between 2009 and 2018**
- This increase makes aircraft one of the **faster-growing sources of CO2 emissions in the U.S. transportation sector over the past decade**
- The effects of aircraft emissions on the atmosphere are **complex**, reflecting differing altitudes, geography, time horizons, and environmental conditions
- Research has shown that in addition to CO2 emissions, other factors increase the climate change impacts of aviation which include:
 1. The contribution of aircraft emissions to **ozone production**
 2. The formation of water condensation trails **and cirrus clouds**
 3. The emission of various gases and particles, **including water vapor, nitrous oxides, sulfates, and particulates from jet fuel combustion**
 4. The **high altitude location** of the bulk of these emissions
- In examining the warming and cooling influences of these factors, the United Nations' Intergovernmental Panel on Climate Change estimated aviation's total climate change impact **could be from two to four times that of its past CO2 emissions alone**
- Aside from GHG emissions, aircraft engines **emit a number of criteria—or**

common—pollutants, including:

1. Nitrogen oxides
2. Carbon monoxide
3. Oxides of sulfur
4. Unburned or partially combusted hydrocarbons (also known as volatile organic compounds [VOCs])
5. Particulates
6. Other trace compounds

- A subset of the VOCs and particulates **are considered hazardous air pollutants**
- According to a 2021 report by the EPA, they found that **elevated concentrations of GHGs in the atmosphere endanger the public health and welfare of current and future generations** within the meaning of section 231(a)(2)(A) of the CAA
- Second, EPA found that **emissions of GHGs** from certain classes of engines used in certain aircraft **are contributing to the air pollution that endangers public health and welfare** under CAA section 231(a)(2)(A)
- The EPA made this finding specifically with respect to the same six well-mixed GHGs—**CO₂, methane, N₂O, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride**—that together were defined as the air pollution in the 2009 Endangerment Finding under section 202(a) of the CAA and **that together were found to constitute the primary cause of climate change**
- The EPA found that emissions of those six well-mixed GHGs from certain classes of engines used in certain aircraft **cause or contribute to the air pollution**—the aggregate group of the same six GHGs—**that endangers public health and welfare** under CAA section 231(a)(2)(A)
- Another report by the EPA from February 2022 states that particulate matter (PM) is a highly **complex mixture of solid particles and liquid droplets** distributed among numerous atmospheric gases which interact with solid and liquid phases
- Particles span many sizes and shapes and may consist of **hundreds of different chemicals**
- Fine particles are produced primarily by combustion processes and by transformations of gaseous emissions (**e.g., sulfur oxides (SOX), nitrogen oxides (NOX) and volatile organic compounds (VOCs)**) in the atmosphere
- PM_{2.5} may include a complex mixture of different components **including sulfates, nitrates, organic compounds, elemental carbon, and metal compounds**
- These particles can remain in the atmosphere **for days to weeks and travel through the atmosphere hundreds to thousands of kilometers**

- Particulate matter is **comprised of both volatile and non-volatile PM**
- PM emitted from the engine is known as **non-volatile PM (nvPM)**, and PM formed from transformation of an engine's gaseous emissions are defined as **volatile PM**
- Because of the difficulty in measuring volatile PM, which is formed in the engine's exhaust plume and is significantly influenced by ambient conditions, **the EPA is proposing standards only for the emission of nvPM**
- *In other words, there are no standards proposed by the EPA for the transformation these chemicals go through after leaving the engine when they become lingering trails*
- Scientific studies show exposure to ambient **PM is associated with a broad range of health effects**
- The PM ISA concludes that human exposures to ambient PM_{2.5} are **associated with a number of adverse health effects** and characterizes the weight of evidence for broad health categories (**e.g., cardiovascular effects, respiratory effects, etc.**)
- EPA has concluded that recent evidence in combination with evidence evaluated in the 2009 p.m. ISA supports a “causal relationship” between both long- and short-term exposures to PM_{2.5} and **mortality and cardiovascular effects** and a “likely to be causal relationship” between long- and short-term PM_{2.5} exposures and **respiratory effects**
- Additionally, recent experimental and epidemiologic studies provide evidence supporting a “likely to be causal relationship” between long-term PM_{2.5} exposure and **nervous system effects**, and long-term PM_{2.5} exposure and **cancer**
- In addition, EPA noted that there was more limited and uncertain evidence for long-term PM_{2.5} exposure and **reproductive and developmental effects** (*i.e.*, male/female reproduction and fertility; pregnancy and birth outcomes), long- and short-term exposures and **metabolic effects**, and short-term exposure and **nervous system effects** resulting in the ISA concluding “suggestive of, but not sufficient to infer, a causal relationship”
- **Environmental effects** that can result from particulate matter emissions include:
 1. Visibility degradation
 2. Plant and ecosystem effects
 3. Deposition effects
 4. Materials damage and soiling
- PM_{2.5} emissions also **adversely impact visibility**
- Like all internal combustion engines, turbine engines covered by this rule

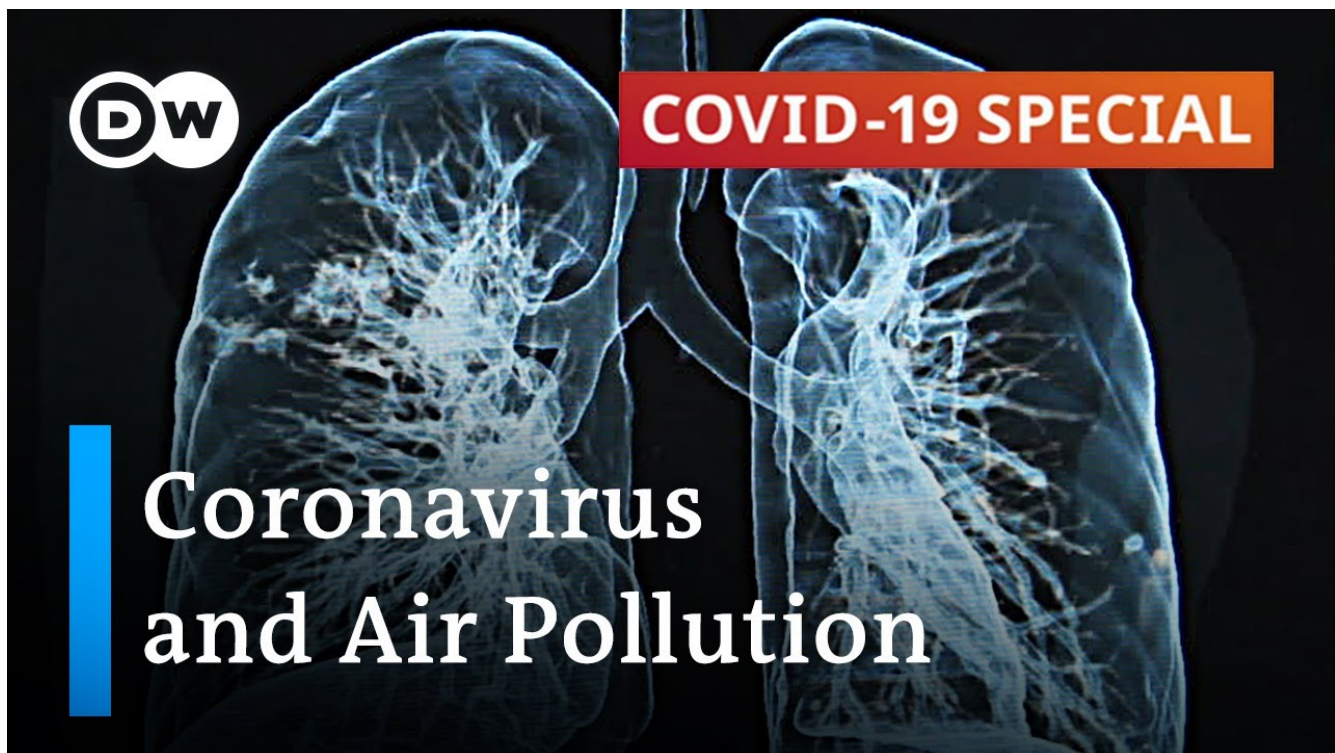
may emit trace amounts of metals due to fuel contamination or engine wear

- Ecological effects of PM include:
 1. Direct effects to **metabolic processes** of plant foliage
 2. Contribution to total metal loading resulting in **alteration of soil biogeochemistry and microbiology, plant and animal growth and reproduction**
 3. Contribution to total organics loading resulting in **bioaccumulation and biomagnification**
- Deposition of PM is associated with both **physical damage** (materials damage effects) and **impaired aesthetic qualities** (soiling effects)
- Wet and dry deposition of PM can **physically affect materials**, adding to the effects of natural weathering processes, by **potentially promoting or accelerating the corrosion of metals, by degrading paints and by deteriorating building materials** such as stone, concrete and marble
- A recent study by Yim et al. (2015) **assessed global, regional, and local health impacts of civil aviation emissions**, using modeling tools that address environmental impacts at different spatial scales
- The study **attributed approximately 16,000 premature deaths per year globally to global aviation emissions**, with 87 percent attributable to PM_{2.5}
- The study concluded that **about a third of these mortalities are attributable to PM_{2.5} exposures** within 20 kilometers of an airport
- Another study focused on the continental United States **estimated 210 deaths per year attributable to PM_{2.5} from aircraft**
- **Impacts on public health of these emissions** in the vicinity of airports are an **important public health concern**
- A 2015 report concluded that PM_{2.5} concentrations in and around airports vary considerably, ranging from “relatively low levels to those that are close to the NAAQS, **and in some cases, exceeding the standards.**”
- Furthermore, the report stated (p. 40) that “existing studies indicate that **ultrafine particle concentrations are highly elevated at an airport** (i.e., near a runway) with particle counts that can be **orders of magnitude higher** than background with some **persistence many meters downwind** (e.g., 600 m)
- Finally, the report concluded that **PM_{2.5} dominates overall health risks posed by airport emissions**
- Hudda et al. investigated ultrafine particle number concentrations (PNC) inside and outside 16 residences in the Boston metropolitan area and found that **aviation-related PNC infiltrated indoors and resulted in significantly higher indoor PNC**

- Stacey (2019) conducted a literature survey and concluded that the literature consistently reports that particle numbers close to airports are significantly higher than locations distant and upwind of airports, **and that the particle size distribution is different from traditional road traffic, with more extremely fine particles**
- PM_{2.5} exposures are **associated with a number of serious, adverse health effects** and the PM **attributable to aircraft emissions** has been associated with potential **adverse health impacts**
- He et al. (2018) found that particle composition, size distribution and internalized amount of particles near airports **all contributed to promotion of reactive organic species in bronchial epithelial cells**
- A systematic review of 70 studies consistently showed that particulate matter, in the form of ultrafine PM (UFP), **is elevated in and around airports**
- Furthermore, many studies showed **elevated levels of black carbon, criteria pollutants, and polycyclic aromatic hydrocarbons** as well
- Finally, the systematic review, while not focused on health effects, identified a limited number of references reporting adverse health effects impacts, **including increased rates of premature death, pre-term births, decreased lung function, oxidative DNA damage and childhood leukemia**
- A systematic review of health effects associated with exposure to jet engine emissions in the vicinity of airports found that jet engine emissions have physicochemical properties similar to diesel exhaust particles, **and that exposure to jet engine emissions is associated with similar adverse health effects as exposure to diesel exhaust particles and other traffic emissions**
- A 2010 systematic review by the Health Effects Institute (HEI) concluded that evidence was sufficient to support a causal relationship between exposure to traffic-related air pollution and **exacerbation of asthma among children, and suggestive of a causal relationship for childhood asthma, non-asthma respiratory symptoms, impaired lung function and cardiovascular mortality**
- Besides PM_{2.5}, other harmful pollutants, **which are not covered by the rule**, include:
 - Nitrogen oxides (NO_x)
 - Nitrogen dioxide (NO₂)
 - Volatile organic compounds (VOC)
 - Carbon monoxide (CO)
 - Sulfur dioxide (SO₂)
- Aircraft also contribute to ambient levels of hazardous air pollutants (HAP), **compounds that are known or suspected human or animal carcinogens**,

or that have noncancer health effects

- These compounds include, **but are not limited to:**
 1. Benzene,
 2. 1,3-butadiene
 3. Formaldehyde
 4. Acetaldehyde
 5. Acrolein
 6. Polycyclic organic matter (POM)
 7. Certain metals
- Some POM and HAP metals **are components of PM_{2.5}** mass measured in turbine engine aircraft emissions
- The term polycyclic organic matter (POM) **defines a broad class of compounds** that includes the polycyclic aromatic hydrocarbon compounds (PAHs)
- **Metal compounds emitted** from aircraft turbine engine combustion include:
 1. Chromium
 2. Manganese
 3. Nickel
- Several POM compounds, as well as hexavalent chromium, manganese compounds and nickel compounds are included in the National Air Toxics Assessment, **based on potential carcinogenic risk**



When dealing with a potential health threat, we tend to jump to the conclusion that we are facing a new "virus" as this well-orchestrated lie has been drilled into our collective consciousness since birth. It is second nature to blame the new invisible boogeyman while overlooking the old visible threats that have been plaguing us for years with no end in sight. It seems too easy to admit to ourselves that any perceived increase in respiratory disease could be attributable to the continued increase in air pollution.

Yet from the start, "Covid-19" has been linked to air pollution. The areas hit the hardest were those with the highest levels of these harmful toxins in the air. As travel died down during the lockdowns, cases fell along with subsiding smog. As travel and pollution rose up again, so too did the "Covid" cases. Even **small increases in air pollution** < <https://www.lung.org/blog/covid-19-mortality-and-air-pollution> > has been shown to have an impact on "Covid" case numbers and deaths.

We know for a fact that air pollution is harmful to our health and environment. We know that every single symptom of disease associated with "Covid-19" can be linked to the PM2.5 particles which make up the majority of the dirty air we breathe. We know for a fact that automobiles, factories, power plants, forest fires, volcanic eruptions, etc. all contribute to the harmful levels of toxins in the air. However, the one thing we have been told not to question as a contributor to our current problems are the lingering trails in the sky which form artificial clouds blocking out the beneficial rays of the sun. We are told that these are just regular old contrails from commercial airliners made up of ice crystals which eventually dissipate into a completely safe and harmless nothingness. Anyone questioning the trails is immediately labelled a conspiracy theorist.

It should be clear now, whether you call them chemtrails or not, that these persistent streaks in the sky are full of dangerous substances that attack the cardiovascular, respiratory, and neurological systems. Thanks to government

sources such as the EPA and the Congressional Research Service, we know that these trails are the fastest growing pollutant in the air and that they are contributing to even greater levels of smog and haze. The trails and the artificial cirrus clouds they form are a near constant sight in the sky these days and the problem is only growing worse with time. The damaging effects that these lines in the sky have on our health and environment is not even debatable. It is agreed upon by both sides of the debate. That these "persistent contrails" are harmful to our health and environment is a FACT. That the chemicals and toxins found within the vapors cause the exact same symptoms of disease as "Covid-19" is not a coincidence.

HEALTH EFFECTS OF PM2.5

Eye

- Sore eyes
- Inflammation

Respiratory system

- Stuffy nose
- Sore throat
- Coughing
- Shortness of breath
- Chest pain

Lungs

- Bronchitis
- Emphysema
- Lung disease
- Cancer

Cardiovascular system

- Arrhythmia
- Sudden cardiac arrest
- Heart attack
- Ischemic stroke
- Ischemic heart disease

Skin

- Rashes
- Dermatitis
- Urticaria

Threats to patients



Asthma, allergy



Lung disease, lung cancer

Emphysema



Coronary artery disease

BKPgraphics

Sure looks a lot like "Covid"... 🤔

Thus we are left with two choices. We can either believe the official narrative that a new "virus" of unknown origin magically leapt from animal to man or somehow escaped from a lab and infected millions of people with a disease that causes the exact same symptoms associated with allergies, the common cold, the flu, and

pneumonia. And with its rise, it has eliminated the majority of the cases of those previous ailments and can also constantly mutate (over 10 million versions now according to GISAID.org) in order to slip by every possible measure to contain it including masks, social distancing, lockdowns, quarantines, vaccines, etc.

Or we can believe that the ever-increasing and constant daily exposure to air pollution has taken a toll on the populace damaging the health and environment of everyone living within these dangerous levels of toxic fumes. While this is not the only explanation for any perceived increase in respiratory and other diseases, it is the most logical one over an invisible "virus." According to Occam's Razor, the simplest of competing theories should be preferred over those that are more complex and that explanations of unknown phenomena should be sought first in terms of known quantities. We know air pollution is harmful. We know that these trails are increasing at a faster rate than any other pollutant. We know that the chemicals residing within them are associated with the exact same symptoms of disease that are ascribed to "Covid." Unlike a "virus," we can see this boogeyman with our own two eyes.

All we have to do is look up.



From their own sources, the trails are a threat to our health and our environment. Contrary to what they want you to believe about "persistent contrails," a.k.a. chemtrails, this is NOT a conspiracy theory. It is a FACT.

You can see more of the slides from Government sources that were presented within this article here:

https://www.google.com/url?sa=t&source=web&rct=j&url=https://www.caafi.org/resources/pdf/3.2_SAJF_Benefits.pdf&ved=2ahUKEwi3yIWMoqr2AhW/kj4kEHUTrC484ChAWegQIGxAB&usg=AOvVaw2xioGCjZYmNhbvPoN7FsuK < **https://www.google.com/url?sa=t&source=web&rct=j&url=https://www.caafi.org/resources/pdf/3.2_SAJF_Benefits.pdf&ved=2ahUKEwi3yIWMoqr2AhW/kj4kEHUTrC484ChAWegQIGxAB&usg=AOvVaw2xioGCjZYmNhbvPoN7FsuK**>

29 comments



Rob Rob

April 9, 2022 at 1:06 pm

2020 showed that we had an average age of death around life expectancy. Total deaths in line with previous years. So, COVID was just a reclassification of cause of death.

However, vaccines can and do prime people for allergies, as we have learned in the vaxxed movie, with leaky gut and other issues.

Perhaps past flu shots were a part of this, as my elderly father got sick a few years ago and it was just like cv, where he was sick, got better, and then started to experience low oxygen levels needing hospitalization. Oxygen and time recovered him. Since then he avoided shots and has been doing well.

I do remember reading an article way back that having had the flu shot was connected to a higher risk of the 2020 cv sickness... But then, the most uptake of the flu shot is among seniors, so it's hard to prove the real cause.

Anyway here's the mechanism that is described, priming an allergy. No need for graphene, mrna, spike.... The lipid nanoparticles alone have been an issue pre COVID with moderna and multiple doses...

<https://northerntracey213875959.wordpress.com/2022/02/26/anaphylaxis-the-real-bio-weapon/> < **<https://northerntracey213875959.wordpress.com/2022/02/26/anaphylaxis-the-real-bio-weapon/>**>

★ < **https://virolieggy.com/2022/04/09/covid-and-chemtrails/?like_comment=2148&_wpnonce=49b1104e10**>

Liked by **1 person**



Mike Stone < <https://viroliegyhome.wordpress.com> >

April 9, 2022 at 1:17 pm

I definitely agree that "Covid" is just a reclassification. I also agree that vaccines and other factors have played a huge role in all of this. However, people seem to minimize the impact air pollution has on respiratory disease. Any sniffles, dry eyes, coughs, scratchy throat, loss of taste/smell, etc can easily be linked to air pollution. When people experience any simple common symptom, they immediately fear "Covid" and test for it due to the fear propoganda they have been bombarded with. I believe that air pollution, especially from these trails, has helped to increase common respiratory symptoms which has heightened fear and driven people to test for a fake "virus" which has kept this sick cycle going.

★ < https://viroliegy.com/2022/04/09/covid-and-chemtrails/?like_comment=2151&_wpnonce=4f7c7ea463 >

Like



Rob Rob

April 11, 2022 at 2:53 pm

Wow Dr Malone just said why diseases dropped, not vaccines but sanitation...

<https://twitter.com/spookyjay36/status/1513055711822983176?s=24&t=tJ3DBZ8dOcWw-RTqSYTWlg> < **<https://twitter.com/spookyjay36/status/1513055711822983176?s=24&t=tJ3DBZ8dOcWw-RTqSYTWlg>** >

★ < https://viroliegy.com/2022/04/09/covid-and-chemtrails/?like_comment=2187&_wpnonce=f46d1f875f >

Liked by 2 people



ClariFire

April 11, 2022 at 11:12 pm

He's either coming around to a better understanding or just following the Overton window shift.

★ < https://virolieggy.com/2022/04/09/covid-and-chemtrails/?like_comment=2195&_wpnonce=4d58492055>

Liked by 1 person



nestorseven

April 9, 2022 at 1:59 pm

Trust no bastards, especially all of the 3 letter government kind. We see pictures of pollution from China and elsewhere and then we look outside and see clear air, mostly. Without constantly testing the air we breathe, we know not what is really contained within it. No mask will make much of a difference nor will staying inside since air circulates everywhere. I guess the best thing to do is to try and avoid direct contact with known polluted air.

★ < https://virolieggy.com/2022/04/09/covid-and-chemtrails/?like_comment=2152&_wpnonce=a86e1be885>

Liked by 1 person



Mike Stone < <https://virolieggyhome.wordpress.com>>

April 9, 2022 at 2:26 pm

Yes, I definitely trust none of these agencies. Even their air pollution detectors have been shown to underscore the problem. All we can do is try and protect ourselves as much as possible and continue to raise awareness to the problem until there is a groundswell of uproar and support in order to do something about it.

★ < https://virolieggy.com/2022/04/09/covid-and-chemtrails/?like_comment=2153&_wpnonce=47593a1fc7>

Like



Jeffrey Strahl

April 10, 2022 at 5:29 am

Wuhan has some of the dirtiest air in the world. So, a bunch of people got sick in late 2019. And what did the authorities do? Check air pollutants? No, invent a virus. People getting sick around toxic waste sites such as Love Canal back in the late '70s and '80s was initially blamed on "a flu" too.

★ < https://virolieggy.com/2022/04/09/covid-and-chemtrails/?like_comment=2161&_wpnonce=556a1cc760>

Liked by 1 person



Mike Stone < https://virolieggyhome.wordpress.com >

April 10, 2022 at 1:15 pm

The sad thing was that it wasn't even a bunch of people. It was originally just 4 patients with atypical pneumonia which is common. They blamed a "new virus" and said every single symptom people normally experience was a result of this "new virus." All of these symptoms are regularly experienced by people in the winter time, especially in heavily polluted areas. The fear propaganda, the faulty tests, and the deadly treatments took care of the rest.

★ < https://virolieggy.com/2022/04/09/covid-and-chemtrails/?like_comment=2168&_wpnonce=7751734a99>

Like



Federico

April 9, 2022 at 6:28 pm

Dear Mike I agree with you about the toxicity of the so called chemtrails, except for the CO2 or others GHG responsible of the catastrophic climate change. It's is like

ONE VIRUS=ONE DISEASE; in my opinion say that climate change it's only due to CO2 (or a few others human GHG) is very simplistic. Of course, this does not mean denying the fact that localized wheater modifications are not possible. In fact in Thailand is not a conspiracy theory as you can see:

“In 1955, when the King visited northeastern provinces, he looked at the sky and saw a large number clouds moving over the vast, arid area of the Northeast. The initial conception arose from his observation that there was no rain despite heavy cloudiness. He wondered how to make the clouds heavier and turn into rain. This idea was the starting point for his efforts to conduct rainmaking operations, which proved successful in 1959.

On Nov. 14, 1955, His Majesty donated his private funds to launch the Royal Rainmaking Project. He also devoted a great deal of time and energy to develop rainmaking technology.

The project serves as a model for many Asian countries, which have asked for assistance from Thailand in rainmaking. Officials from such countries as Indonesia, Bangladesh, China, Malaysia, the Philippines, Singapore, and Sri Lanka also traveled to Thailand to train in the science of rainmaking.”

<https://www.pattayamail.com/news/chonburi-honors-late-king-father-royal-rainmaking-day-192644> < **<https://www.pattayamail.com/news/chonburi-honors-late-king-father-royal-rainmaking-day-192644>**>

Blaming just anthropogenic CO₂ and other GHG is political pseudoscience, not science. It's like to blame a scapegoat in order to hidden real pollutants, like the PM 2.5. In my opinion the global catastrophic anthropogenic climate change is 99% fake science. I read a lot of their papers. In most of the cases they base their predictions on ridiculous computer models, like the ridiculous Neil Ferguson's virus computer model predictions. They are financed by Governments and global Insistutions to create fictional computer models with extreme variables in order to have a catastrophic results and create FEAR.

An example is using the worst case scenario:

"In the lead-up to the 2014 IPCC Fifth Assessment Report (AR5), researchers developed four scenarios for what might happen to greenhouse-gas emissions and climate warming by 2100. They gave these scenarios a catchy title:

Representative Concentration Pathways (RCPs)¹. One describes a world in which global warming is kept well below 2 °C relative to pre-industrial temperatures (as nations later pledged to do under the Paris climate agreement in 2015); it is called

RCP2.6. Another paints a dystopian future that is fossil-fuel intensive and excludes any climate mitigation policies, leading to nearly 5 °C of warming by the end of the century^{2,3}. That one is named RCP8.5.

RCP8.5 was intended to explore an unlikely high-risk future². But it has been widely used by some experts, policymakers and the media as something else entirely: as a likely 'business as usual' outcome. A sizeable portion of the literature on climate impacts refers to RCP8.5 as business as usual, implying that it is probable in the absence of stringent climate mitigation. The media then often amplifies this message, sometimes without communicating the nuances. This results in further confusion regarding probable emissions outcomes, because many climate researchers are not familiar with the details of these scenarios in the energy-modelling literature.”

<https://www.nature.com/articles/d41586-020-00177-3> <

<https://www.nature.com/articles/d41586-020-00177-3>>

Once the fear is pumped up to the delirium the globalists then propose their global tyrannical solutions. REAL Climate Science is rather complex, you can read for example the Nicola Scafetta's papers; he is an italian scientist:

<https://www.researchgate.net/profile/Nicola-Scafetta> <

<https://www.researchgate.net/profile/Nicola-Scafetta>>

Here you can read the abstract of his last paper:

“Plain Language Summary The last-generation Coupled Model Intercomparison Projects (CMIP6) global circulation models (GCMs) are used by scientists and policymakers to interpret past and future climatic changes and to determine appropriate (adaptation or mitigation) policies to optimally address scenario-related climate-change hazards. However, these models are affected by large uncertainties. For example, their equilibrium climate sensitivity (ECS) varies from 1.83°C to 5.67°C, which makes their 21st-century predicted warming levels very uncertain. This issue is here addressed by testing the GCMs' global and local performance in predicting the 1980–2021 warming rates against the ERA5-T2m

records and by grouping them into three equilibrium climate sensitivity (ECS) classes (low-ECS, 1.80–3.00°C; medium-ECS, 3.01–4.50°C; high-ECS, 4.51–6.00°C). We found that: (a) all models with ECS > 3.0°C overestimate the observed global surface warming; (b) Student t-tests show model failure over 60% (low-ECS) to 81% (high-ECS) of the Earth's surface. Thus, the high and medium-ECS GCMs do not appear to be consistent with the observations and should not be used for implementing policies based on their scenario forecasts. The low-ECS GCMs perform better, although not optimally; however, they are also found unalarming because for the next decades they predict moderate warming:

$\Delta T_{\text{preindustrial} \rightarrow 2050} \lesssim 2^\circ\text{C}.$ "

<https://www.researchgate.net/publication>

[/359234414_Advanced_testing_of_low_medium_and_high_ECS_CMIP6_GCM_simulations_versus_ERA5-T2m](https://www.researchgate.net/publication/359234414_Advanced_testing_of_low_medium_and_high_ECS_CMIP6_GCM_simulations_versus_ERA5-T2m) < **https://www.researchgate.net/publication/359234414_Advanced_testing_of_low_medium_and_high_ECS_CMIP6_GCM_simulations_versus_ERA5-T2m**>

Another

CO₂ is also the food for plants:

"WASHINGTON, DC—Scientists have long suspected that a flourishing of green foliage around the globe, observed since the early 1980s in satellite data, springs at least in part from the increasing concentration of carbon dioxide in Earth's atmosphere. Now, a study of arid regions around the globe finds that a carbon dioxide "fertilization effect" has, indeed, caused a gradual greening from 1982 to 2010."

<https://wattsupwiththat.com/2013/05/31/agu-says-co2-is-plant-food/> <

<https://wattsupwiththat.com/2013/05/31/agu-says-co2-is-plant-food/>>

Naturally I can change my idea if you show me a scientific paper where there is a scientific proof (not a fictional computer model) that the anthropogenic CO₂ will lead to a global catastrophe if not removed

Scafetta found out the exact opposite, that is, that there is no such great correlation between CO₂ and climate change.

Regarding the correlation of pollutants and "covid" cases I have already told you that in Italy it took place when the basic doctors no longer administered antibiotics to the elderly residents in the most polluted areas, and only for a short period of time. Because pollution in Bergamo and Brescia is constantly very high since many years, so it has not clearly been the only cause of mortality excess in march-april 2020.

★ < https://virolieggy.com/2022/04/09/covid-and-chemtrails/?like_comment=2154&_wpnonce=cacac20ead >

Like



Jeffrey Strahl

April 9, 2022 at 7:19 pm

Don't trust (government agencies), and always verify.

The weather/climate system, which i have studied extensively (fluid mechanics, gas dynamics, thermodynamics) and taught the basic stats and math used in understanding it for over 3 decades, cannot be engineered at all, it's an indeterminate system, numerous variables, many not even known yet, others not measurable well, their interactions not fully understood, outcomes always contingent upon total circumstances. But chemtrails do exist, are harmful, and may well be part of setting up a general environment conducive to the insertion of biometric data collection devices into all of us, perhaps by creating high background levels of graphene oxide which will help potentate whatever graphene oxide can be inserted into our bodies directly.

★ < https://virolieggy.com/2022/04/09/covid-and-chemtrails/?like_comment=2155&_wpnonce=b66ff8685a >

Liked by **1 person**



Sunface



April 10, 2022 at 7:58 am

Very interesting article.

While I believe that Geoengineering is being attempted and yes that it is funded by the very same Elite that have funded the Vaccine and Pharmaceutical industry and have captured the Government regulators and indeed many politicians the notion of Chemtrails is very questionable.

Pollution is blamed again on humans, meaning normal human beings who have a desire to live freely and in peace. We do not intentionally pollute to destroy the environment or have an intention to kill ourselves and those other peace loving humans that surround us.

However there are those that believe that we are only useful to them as slaves and fodder are the ones that are so wealthy that have the desire and funding to attempt this.

The sale required to pollute the atmosphere is beyond our comprehension. Just look at volcanic eruptions and tornadoes and massive tropical storms and lightening. It is not within or puny power to achieve this.

These photos of contrails are observations but are unsubstantiated and unproven. Its very much like violiegy. It is a belief in fear that propagates it.

★ < https://virolieggy.com/2022/04/09/covid-and-chemtrails/?like_comment=2163&_wpnonce=0970908d63 >

Like



Mike Stone < https://virolieggyhome.wordpress.com >

April 10, 2022 at 1:21 pm

The trails are real and the pollutants they admit that are within them are definitely harmful to our health and environment. These effects have been regularly studied and documented. One does not need to even get into the motives or the

"conspiracy" in order to understand and acknowledge that these trails are toxic. Even if there is no geoengineering (which is admitted to be happening) or spraying program, the pollutants in the trails and the documented harmful effects of what are called contrails should be more than enough for people to realize this is a serious threat that needs to be addressed. The problem is that many can not separate the so-called "cospiracy" from the facts which are openly admitted by both sides of the debate.

★ < https://viroliegy.com/2022/04/09/covid-and-chemtrails/?like_comment=2169&_wpnonce=c7363ac9c8 >

Like



ProtonMagic < <https://protonmagic.substack.com/> >

December 17, 2022 at 4:24 am

If the EPA etc is complaining about crap in contrails then I suspect this is part of the NWO's plan to stop human air travel

They do not want humans to have free mobility, they already did this with the lockdowns, intense air security terror and now biosecurity screening, and now vax-sick pilots.

Airplane pollution serves 2 purposes, 1. Make the population sick with the problem, 2. stop air travel as the solution.

★ < https://viroliegy.com/2022/04/09/covid-and-chemtrails/?like_comment=7176&_wpnonce=f05345c50b >

Liked by **1 person**



Mike Stone < <https://viroliegyhome.wordpress.com> >

December 17, 2022 at 5:29 pm

Definitely a strong possibility.

★ < https://viroliegy.com/2022/04/09/covid-and-chemtrails/?like_comment=7181&_wpnonce=eb181d1474 >

Like



Federico

April 10, 2022 at 10:01 am

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The project serves as a model for many Asian countries, which have asked for assistance from Thailand in rainmaking. Officials from such countries as Indonesia, Bangladesh, China, Malaysia, the Philippines, Singapore, and Sri Lanka also traveled to Thailand to train in the science of rainmaking."

<https://www.pattayamail.com/news/chonburi-honors-late-king-father-royal->

[rainmaking-day-192644 < https://www.pattayamail.com/news/chonburi-honors-late-king-father-royal-rainmaking-day-192644>](https://www.pattayamail.com/news/chonburi-honors-late-king-father-royal-rainmaking-day-192644)

★ < https://viroliegy.com/2022/04/09/covid-and-chemtrails/?like_comment=2165&_wpnonce=1539a00539 >

Like



Federico

April 10, 2022 at 10:03 am

Dear Mike I agree with you about the toxicity of the so called chemtrails, except for the CO2 or others GHG responsible of the catastrophic climate change. It's is like ONE VIRUS=ONE DISEASE; in my opinion say that climate change it's only due to CO2 (or a few others human GHG) is very simplistic. Of course, this does not mean denying the fact that localized wheater modifications are not possible. In fact in Thailand is not a conspiracy theory as you can see:

<https://www.pattayamail.com/news/chonburi-honors-late-king-father-royal-rainmaking-day-192644> < <https://www.pattayamail.com/news/chonburi-honors-late-king-father-royal-rainmaking-day-192644> >

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Like



sionnab < <http://gravatar.com/sionnab> >

April 10, 2022 at 1:10 pm

I really dislike wordpress, I have now written 3 comments that it has deleted simply because of it's log in system.

★ < https://viroliegy.com/2022/04/09/covid-and-chemtrails/?like_comment=2173&_wpnonce=4e90f5a2ba >

Liked by 1 person



sionnab < <http://gravatar.com/sionnab> >

April 10, 2022 at 6:07 pm

Excellent website. Re: chemtrails I don't see any information relating to these being used for weather control, which they are. Have you checked out Frankenskies by Matt Landman? It is on vimeo for now, and it shows plenty of old tv clips of officials admitting it's for weather control. This is how they are going to create food shortages, right now in Canada the agricultural areas are undergoing extreme cold weather during the flowering season, and if the flowers are killed with frost, there will be massive food shortages. This is weather warfare. The chemtrails over the past weeks have been extreme. We have to talk about this too. We have to shout about it because the growing season starts now, and this week the weather is predicted to be 6 degrees below zero all week, and that is all it takes to kill the fruit crops in this entire region.

★ < https://virolieggy.com/2022/04/09/covid-and-chemtrails/?like_comment=2172&_wpnonce=192da5bf0f >

Liked by 1 person



Mike Stone < https://virolieggyhome.wordpress.com >

April 10, 2022 at 6:25 pm

Thank you! Yes, I definitely believe they are using these trails to alter weather patterns. I have stayed away from that mostly as I've tried to focus on the direct impact these trails are having on our health using their own sources as proof. While I have found some statements and even funding going towards geoengineering programs, it is difficult to find much in the way of evidence. Plus, people tend to use that aspect as a way of discrediting the harm these trails have. So at the moment, I have stayed away from implying motive and have focused on the fact that these trails are not normal and are admitted to contain dangerous chemicals which are linked to every single symptom people experience with "Covid" and then some.

Here in Iowa, they are poisoning our chickens and turkeys and then claim it is avian flu in order to justify killing millions of them. This is another aspect of the way they will bring about food shortages along with the environmental impacts from spraying.

★ < https://virolieggy.com/2022/04/09/covid-and-chemtrails/?like_comment=2174&_wpnonce=147255272b >

Liked by 1 person



Jeffrey Strahl

April 10, 2022 at 6:32 pm

Weather control would require knowing all the variables which go into the weather system, many are still not known. It would require being able to measure many others, which are not measurable. It would require knowing how they all interact with each other. And one would still have to deal with the fact that outcomes for a system with so many variables and so much feedback between them are highly contingent on the entire situation, slightest changes can throw off everything, as with a big rainmaker which moves in only to suck in a bunch of dry surface air and get reduced to a few showers. The very notion of "weather control" betrays a mechanistic materialism perspective, seeing everything, including the weather system, as machines or mechanisms, which act linearly and predictably, it's a paradigm which dominates science, but much to our detriment, proven totally wrong in one field of science after another.

★ < https://virolieggy.com/2022/04/09/covid-and-chemtrails/?like_comment=2175&_wpnonce=60180e327e >

Like



sionnab

April 10, 2022 at 10:30 pm

Weather modification has been going on for decades, look at the video Frankensies and see officials admitting this and discussing the methods. It may not be super accurate but when you see over a hundred chemtrails over a region in one day, that is definitely having an effect. Weather has been weaponized. Even Iran claimed that the US was affecting their weather, and Syria also. There have been plenty of things going on with our weather that makes it obvious it's not an act of nature.

★ < https://virolieggy.com/2022/04/09/covid-and-chemtrails/?like_comment=2178&_wpnonce=76cc7ffb68>

Like



Naz

April 10, 2022 at 7:32 pm

The Dimming, Full Length Climate Engineering Documentary

<https://www.geoengineeringwatch.org/the-dimming-full-length-climate-engineering-documentary/> < **<https://www.geoengineeringwatch.org/the-dimming-full-length-climate-engineering-documentary/>**>

★ < https://virolieggy.com/2022/04/09/covid-and-chemtrails/?like_comment=2176&_wpnonce=b0b23105fe>

Liked by **1 person**



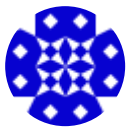
Mike Stone < **<https://virolieggyhome.wordpress.com>**>

April 10, 2022 at 9:01 pm

Awesome! Thanks 😊

★ < https://virolieggy.com/2022/04/09/covid-and-chemtrails/?like_comment=2177&_wpnonce=cd47b66f2b>

Like



PSM

April 11, 2022 at 10:23 am

i still remeber the first time i've seen a chemtrail (not knowing what it was), it was 2006 and by 2008 geoengeneering was in full swing in my area; it has been 15 year of constant spraying and blanket coverage of the whole sky and still the vast majority of the peoles, including lots and lots in the health/freedom movenent, do not believe the phenomenon is real!

how the hell are we going to talk the peoles out of the germ theory when thay will not believe what they see right above their head!?

★ < https://virolieggy.com/2022/04/09/covid-and-chemtrails/?like_comment=2181&_wpnonce=02be8fb925>

Liked by **1 person****Mike Stone** < <https://virolieggyhome.wordpress.com>>**April 11, 2022 at 6:52 pm**

It is a frustrating cognitive dissonance where people have been taught not to believe what they can see with their own eyes. Critical thought and logic have been drilled out of their brains. The only thing I can think of is to continue showing them official Government sources admitting the harmful effects of these trails on our health and environment and hope they eventually wake up.

★ < https://virolieggy.com/2022/04/09/covid-and-chemtrails/?like_comment=2190&_wpnonce=7393324d91>

Liked by **1 person**

ClariFire

April 11, 2022 at 11:28 pm

It seems like the name "chemtrails" was put out as a controlled opposition thing, because whenever anyone posts pictures of them the standard response is, "Those are just contrails," and then they argue back and forth about how "chemtrails" are different and hang in the sky longer or whatnot. That makes it sound like a conspiracy theory and easier to dismiss.

The aviation industry would be unhappy to have people saying, "Contrails are a problem." They'd much rather have people saying, "Chemtrails are a problem." They can easily diffuse the latter, but not the former.

This remains the case whether or not commercial jet exhaust has added "special sauce" for geo-engineering or not. (Point just changes from "aviation industry would be happy" to "government would be happy.")

Since there were no excess deaths in 2020 and thus no new disease, as someone pointed out above, and yet air pollution likely is getting worse (though in many places it's getting better), I think this piece of the puzzle is best for explaining Wuhan, northern Italy, and a few other hotspots (assuming there were any such hotspots, though there of course are hotspots of seasonal flu every year due to environmental differences and natural variance) or to explain why loss of smell has been getting more common in recent years (if it even has; CDC admits it's a common flu symptom as well, just says it's even more common in "covid").

If one isn't careful when making the point about air pollution, it can end up reinforcing the idea that a special number of people died in 2020, which seems a big loss when even governments' own excess death stats make a slam-dunk case that there was nothing special happening in 2020 other than massive political theater.

★ < https://virolieggy.com/2022/04/09/covid-and-chemtrails/?like_comment=2196&_wpnonce=e86f8dfb7f >

Liked by 1 person



Mike Stone < <https://viroliegyhome.wordpress.com> >

April 12, 2022 at 2:03 am

I agree. The term chemtrails has been put out there to be easily dismissed. Whether called persistent contrails or chemtrails, they are the same thing.

I also am not implying that air pollution suddenly started increasing deaths in 2020. It seems it has been the normal yearly increase with a small spike in April/May 2020 due to unnecessary invasive medical procedures, fear, lockdowns, quarantines, etc. The increased air pollution has caused the normal respiratory symptoms and maybe heightened some of these such as smell loss. People are now hyper aware due to the fear propaganda of any little symptom which they may have ignored in the past. It has caused them to flock to unnecessary and inaccurate PCR testing which has created the illusion of a pandemic.

★ < https://viroliegy.com/2022/04/09/covid-and-chemtrails/?like_comment=2198&_wpnonce=e510a85da2 >

Like



Sunface

April 30, 2022 at 1:40 am

Thanks Mike. Having again looked at this post which is fantastic if one considers that many here are not scientists and especially not Atmospheric Scientists, a lot here is emotional argumentation. It is understandable why.

The IPCC is referred to and one must take cognisance that the IPCC is not a Scientific organization, It is a political one.

Regarding greenhouse gasses and that theory is and remains a theory. One of the claims was recently proven that humans contribution Carbon Dioxide is not correct as the IPCC claims. See <https://scc.klimarealistene.com/produkt/the-impact-of-human-co2-on-atmospheric-co2/> < <https://scc.klimarealistene.com>

[/produkt/the-impact-of-human-co2-on-atmospheric-co2/>](#)

What I suggest is you contact a Dr Ed Berry who is a real scientist and Certified Consulting Meteorologist. He has been involved in this sphere of research. He is according to his Bio to be the only civilian in a top-secret weather modification project based in the Philippines. Here is the link to contact him.

<https://edberry.com/about-dr-ed-berry/dr-ed-berry/> < <https://edberry.com/about-dr-ed-berry/dr-ed-berry/>>

★ < https://viroliegy.com/2022/04/09/covid-and-chemtrails/?like_comment=2604&_wpnonce=8a8ef19ccf>

Liked by [1 person](#)



Mike Stone < <https://viroliegyhome.wordpress.com>>

[April 30, 2022 at 1:06 pm](#)

Thanks for the links! I will check them out. 😊

★ < https://viroliegy.com/2022/04/09/covid-and-chemtrails/?like_comment=2609&_wpnonce=ae10d4cfcf>

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