Feature Story - The Chemtrail Smoking Gun - Proof of Global Geoengineering Projects

illustration - by Bruce Conway / revised 6.20.03 / Lightwatcher Publishing

forward: For the past few years investigators and researchers have been searching for hard evidence on the elusive phenomena of chemtrail spraying. If one searches GoogleNews for articles on chemtrails in (with 4500 periodicals represented) not one article will be found. There is simply no coverage on this topic in the mainstream media.

Imagine our surprise when we discovered extensive proof of government involvement, funding, sponsorship, multidisciplinary research, policy making and implementation of global atmospheric modification under the classification of 'Geoengineering.' This is the chemtrail smoking gun we have been looking for.

Authorized by Congress and sponsored by the National Academy of Sciences, a monumental and in-depth study on global warming and possible corrective measures (mitigations) was undertaken in the early 1990s. Represented were senior researchers, faculty, theoreticians, atmospheric scientists, department heads and CEO's from a multitude of prestigious institutions. The Smithsonian, Harvard, General Motors, Cambridge, MIT, Yale, World Resources Institute, National Center for Atmospheric Research, the Secretary General of the United Nations, Oxford, Brookings Institution, Columbia University, Oak Ridge National Laboratory, Carnegie-Mellon University, Princeton University, Brown University, Lawrence Livermore Laboratory, and many more. This colossal study recalls the scope, expense and secrecy of the Manhattan Project, yet the goals and eventual impacts of it are far greater.

Geoengineering methods to reduce global warming

reforestation, greening of deserts, creation of algae lakes to convert CO2 to oxygen.
sequestering of CO2 in deep ocean trenches as dry ice slurry.
space based mirror arrays
dust and soot dust delivered into atmosphere with highaltitude balloons and large guns.
aluminum powder and barium oxide is sprayed into troposphere by co

oxide is sprayed into troposphere by commercial & private aircraft to increase planetary albedo and cloud cover. • ships burn sulphur to increase cloud cover, and add iron oxide to oceans to stimulate mass plankton growth.

The Chemtrail Smoking Gun

Proof of global atmospheric geoengineering by: Bruce Conway

"There are more things in heaven and Earth, Horatio, than are dreamt in your philosophy." - Shakespeare

Five years ago I founded the Chemtrails Hall of Shame web site to document and investigate the elusive Chemtrail spraying operations in the skies above my home in the Pacific NW. The site can be found at: http://www.lightwatcher.com During this time I have had the opportunity to work with and befriend several of the luminaries within this field of investigation: Diane Harvey, Brian Holmes and a very special investigator who chooses to remain anonymous in this article. Each of these individuals has contributed greatly to the subject, keeping this topic alive within the alternative media . These chemtrail spraying programs, which are apparently being conducted on a worldwide basis, are evident to anyone who has the desire to look up and perceive the evidence. Yet, definitive proof has remained elusive.

Total denial by governmental authorities, the shunning of this topic by mainstream media, the systematic discreditation of researchers, ongoing coverups by the scientific establishment, and a coordinated systematic policy of disinformation has relegated this topic to the realm of fantasy and paranoid delusion. Regardless, it continues to go on above our heads, and has now grown to become the largest coordinated global engineering project in the history of our species. How can I make such a preposterous claim?

Brian Holmes of www.holmestead.ca has investigated these eco-crimes for the past several years. Because of his efforts, many within Canada and on the net have become aware of the ongoing spraying operations. Like other serious investigators who have studied this phenomena, Brian's work has been maligned, and there are ongoing attempts to discredit him and his sources.

Some months ago, a Chemtrail insider that Brian nicknamed 'Deep Shield' came forward with specific and detailed information about this mysterious program, corresponding with him via e-mail. A transcript of the communications with Deep Shield and the Shield Project can be read online at: http://www.holmestead.ca/chemtrails/shieldproject.html. For those of us who have studied chemtrails carefully, the revealing dialog rang of the truth.

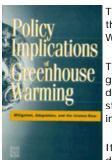
Since then we have been able to study, and verify a number of Deep Shield's primary claims. The anonymous insider gave Brian's readers some valuable clues to follow if they wished to investigate deeper into the history and hard science of chemtrails. A primary clue was to investigate the term 'geoengineering.'

One investigator took the clues provided by 'Deep Shield' and dug in. She eventually found an N.A.S. study on Geoengineering and the Mitigation of Global Warming. This study is still available online and is also available in hardcover. This massive document validates the insider information provided by Deep Shield, and has lead to an additional gold mine of evidence.

This massive research study is entitled: *Policy Implications of Greenhouse Warming: Mitigation, Adaptation, and the Science Base - Panel on Policy Implications of Greenhouse Warming*, sponsored by the National Academy of Sciences, National Academy of Engineering, and the Institute of Medicine. The results were presented in 1992 and published in book form in 2000 by the National Academy Press. This 994 page study is the textbook on greenhouse gasses, global warming, policy decisions and mitigation's (corrective measures). Included within is the hard science many chemtrails researchers have been searching for: the scientists, agencies, institutions and corporations involved, cost factors, chemical formula,

The Chemtrail Smoking Gun - Geoengineering

mathematical modeling, delivery methods, policies, recruiting of foreign governments, acquisition of materials, and the manufacturing of aerosol compounds, ect.



This entire volume can presently be read online at: <u>http://books.nap.edu/books/0309043867/html/index.html</u>. Keep in mind that this study is only the tip of the iceberg. Literally hundreds of papers on related topics have been published in scientific journals. We don't expect this featured study to remian online for long once the cat is out of the bag. So do check it out soon.

The full involvement of foremost government agencies, research firms, universities and private corporations are detailed in this global 'geoengineering' study. **Keep in mind that this was approved by and funded by Congress**. We expect that this documentation will bolster the beliefs of most hardcore chemtrail believers. It will also continue to undermining what little trust still remains in our leaders and their institutions. This documentation proves that they have lied repeatedly about their involvement and the existence of chemtrail spraying programs.

It alsp appears that we 'Chemtrail' investigators have been chasing our tails, being intentionally discredited, maligned, and fed disinformation to keep the actual truth just below the levels of media perception. The real story has been taking place in broad daylight, safely concealed under the scientific umbrella of 'Geoengineering and intentional climate change.'

Chemtrails are just one of the 'mitigations' proposed to Geoengineering our planet. Once we began sifting through the numerous studies, experiments and papers written on intentional climate change, we found a wealth of supporting evidence of well funded global atmospheric modification programs. One such paper is *Geoengineering: A Climate Change Manhattan Project* http://www.metatronics.net/lit/geo2.html#two (Jay Michaelson, published in the Stanford Environmental Law Journal, January, 1998)

The author makes a very convincing case for the pressing need of undertaking geoengineering projects. He argues that regulation, environmental laws and other stumbling blocks limit our ability to directly address the dangers that threaten us directly and immediately. He writes: "The projected insufficiency of Kyoto's emission reduction regime, and the problems of absence, cost, and incentives discussed in part II, cry out for an alternative to our present state of climate change policy myopia."

"Geoengineering--intentional, human-directed manipulation of the Earth's climatic systems--may be such an alternative. This part proposes that, unlike a regulatory "Marshall Plan" of costly emissions reductions, technology subsidies, and other mitigation measures, a non-regulatory "Manhattan Project" geared toward developing feasible geoengineering remedies for climate change can meaningfully close the gaps in global warming and avert many of its most dire consequences."

"In some ways, this phase has already begun, as geoengineering has moved from the pages of science fiction to respectable scientific and policy journals. [FN127] One of the most encouraging proposals today focuses on the creation of vast carbon sinks by artificially stimulating phytoplankton growth with iron "fertilizer" in parts of the Earth's oceans. [FN128] Another proposal suggests creating miniature, *106 artificial "Mount Pinatubos" by allowing airplanes to release dust particles into the upper atmosphere, simulating the greenhouse- arresting eruption of Mount Pinatubo in 1991. [FN129]" pp. 105-106, *Geoengineering: A Climate Change Manhattan Project.*"

In Policy Implications of Greenhouse Warming: Mitigation, Adaptation, and the Science Bases conclusion, the N.A.S. found that the **most effective** global warming mitigation turned out to be the spraying of reflective aerosol compounds into the atmosphere utilizing commercial, military and private aircraft. This preferred mitigation method is designed to create a global atmospheric shield which would increase the planet's albedo (reflectivity) using aerosol compounds of aluminum and barium oxides, and to introduce ozone generating chemicals into the atmosphere.

This method was the most cost effective, and yielded the largest benefits. It could also be conducted covertly to avoid the burdens of environmental protection and regulatory entanglements.

It is evident to anyone who cares to look up, that this mitigation is now being conducted worldwide and on a daily basis. It is certain that our leaders have already embarked on an immense geoengineering project; one in which they expect millions of human fatalities, and consider these to be acceptable losses.

This landmark study; the widespread experimentation and published papers of atmospheric theorists and scientists, combined with the visual evidence that atmospheric mitigations are being conducted in our skies, clearly shows that Chemtrail spraying has became a preferred solution to global warming mitigation.

The evidence is all around us. For example; this past week Boeing Aircraft received an enormous initial order from the Pentagon for 100 Boeing 767 tanker planes, to begin replacing the Air Force's aging fleet of KC-135s, the most commonly seen chemtrail spray plane. The final order will exceed 500 planes. There has been no mention of the usage of these aircraft.

Geoengineering is being carried on Earth on a staggering scale, without the impediment of environmental laws or regulatory constraints. This grand experiment is being conducted in full view, while being concealed in plain sight.

The following excerpts detail the preferred geoengineering Mitigations for reducing greenhouse gasses, global warming and radiation from space. Quoted from: *Policy Implications of Greenhouse Warming: Mitigation, Adaptation, and the Science Base - Panel on Policy Implications of Greenhouse Warming*

> **Evaluating Geoengineering Options** "Several geoengineering options appear to have considerable potential for offsetting global warming

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TABLE 6.1 (continued)	
Sunlight Screening	
Space Mirrors	Place 50,000 100-km ² mirrors in the earth's or bit to reflect incoming sunlight.
Stratospheric Dust ^e	Use guns or balloons to maintain a dust cloud in the stratosphere to increase the sunlight re flection.
Stratospheric Bubbles	Place billions of aluminized, hydrogen-filled bal loons in the stratosphere to provide a reflec tive screen.
Low Stratospheric Dust ^e	Use aircraft to maintain a cloud of dust in the low stratosphere to reflect sunlight.
[•] Low Stratospheric Soot ^e	Decrease efficiency of burning in engines of air craft flying in the low stratosphere to main tain a thin cloud of soot to intercept sunlight
Cloud Stimulation ^e	Burn sulfur in ships or power plants to form sulfate aerosol in order to stimulate additiona low marine clouds to reflect sunlight.
Ocean Biomass Stimulation	Place iron in the oceans to stimulate generation of CO ₂ -absorbing phytoplankton.
Atmospheric CFC Removal	Use lasers to break up CFCs in the atmosphere

and are much less expensive than other options being considered. Because these options have the potential to affect the radiative forcing of the planet, because some of them cause or alter a variety of chemical reactions in the atmosphere, and because the climate system is poorly understood, such options must be considered extremely carefully. These options might be needed if greenhouse warming occurs, climate sensitivity is at the high end of the range considered in this report, and other efforts to restrain greenhouse gas emissions fail."

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"The first set of geoengineering options screens incoming solar radiation with dust or soot in orbit about the earth or in the atmosphere. The second set changes cloud abundance by increasing cloud condensation nuclei through carefully controlled emissions of particulate matter."

"The stratospheric particle options should be pursued only under extreme conditions or if additional research and development removes the concern about these problems. The cloud stimulation option should be examined further and could be pursued if concerns about acid rain could be managed through the choice of materials for

cloud condensation nuclei or by careful management of the system. The third class increases ocean absorption of CO2 through stimulating growth of biological organisms."

Screening Out Some Sunlight

"Another option for mitigating a global warming would be to try to control the global radiation balance by limiting the amount of incoming radiation from the sun. This could be done by increasing the reflectivity of the earth, i.e., the albedo. Proposals for increasing the whiteness of roofs and surface features would have some effect, but only a fraction of incident solar radiation reaches the earth's surface and a purposeful change in albedo would have more impact if done high in the atmosphere. According to Ramanathan (1988), an increase in planetary albedo of just 0.5 percent is sufficient to halve the effect of a CO2 doubling. Placing a screen in the atmosphere or low earth orbit could take several forms: it could involve changing the quantity or character of cloud cover, it could take the form of a continuous sheet, or it could be divided into many "mirrors" or a cloud of dust. Preliminary characterizations of some of the possibilities that might be considered are provided below."

Policy Implications of Greenhouse Warming: Mitigation, Adaptation, and the Science Base (1992) http://www.nap.edu/openbook/0309043667/html/01.html, copyright 1992, 2000 The National Academy of Sciences. all rights reserved	S ".

MITIGATION

TABLE 6.3 Cost-Effectiveness Ordering of Geoengineering Mitigation Options

Mitigation Option	Net Implementation Cost	Potential Emission Mitigation (t CO ₂ equivalent per year)
Low stratospheric soot	Low	8 billion to 25 billion
Low stratospheric dust, aircraft delivery	Low	8 billion to 80 billion
Stratospheric dust (guns or balloon lift)	Low	4 trillion or amount desired
Cloud stimulated by provision of cloud condensation nuclei	Low	4 trillion or amount desired
Stimulation of ocean biomass with iron	Low to moderate	7 billion or amount desired
Stratospheric bubbles (multiple balloons)	Low to moderate	4 trillion or amount desired
Space mirrors Atmospheric CFC removal	Low to moderate Unknown	4 trillion or amount desired Unknown

Stratospheric Dust

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"Although the space dust option does not appear to be sensible, computations of the residence times of 0.2-µm dust above 20 to 40 km are of the order of 1 to 3 years (Hunten, 1975). It seems to be generally accepted that volcanic aerosols remain in the stratosphere for several years (Kellogg and Schneider, 1974; Ramaswamy and Kiehl, 1985). A screen could be created in the stratosphere by adding more dust to the natural stratospheric dust to increase its net reflection of sunlight."

Mass Estimates

"Ramaswamy and Kiehl (1985) estimate that an aerosol dust loading of 0.2 g/m2 for dust with a radius of about 0.26 µm increases the planetary albedo by 12 percent, resulting in a 15 percent decrease of solar flux reaching the surface. Since an approximately 1 percent change in solar flux is required, and their Figures 13 and 15 suggest that, at these loadings, the dust effects may reasonably be extrapolated downward linearly, estimates will be made by using a dust loading of 0.02 g/m2 with a particle radius of 0.26 µm."

"The dust in Ramaswamy and Kiehl's model is distributed between 10 and 30 km in the stratosphere, uniformly over the globe. The actual effect on radiative forcing of a global distribution of additional dust would be somewhat greater at low than at high latitudes because more of the sunlight is effective there for geometric reasons. This would decrease slightly the equator-to-pole temperature gradients and might have some effect on weather intensity. Presumably, this effect can also be studied with global climate models."

Delivery Scenarios

"Aircraft Exhaust Penner et al. (1984) suggested that emissions of 1 percent of the fuel mass of the commercial aviation fleet as particulates, between 40,000- and 100,000-foot (12- to 30-km) altitude for a 10-year period, would change the planetary albedo sufficiently to neutralize the effects of an equivalent doubling of CO2. They proposed that retuning the engine combustion systems to burn rich during the high-altitude portion of commercial flights could be done with negligible efficiency loss. Using Reck's estimates of extinction coefficients for particulates (Reck, 1979a, 1984), they estimated a requirement of about 1.168 ¥ 1010 kg of particulates, compared with the panel's estimate of 1010 kg, based upon Ramaswamy and Kiehl (1985). They then estimated that if 1 percent of the fuel of aircraft flying above 30,000 feet is emitted as soot, over a 10year period the required mass of particulate material would be emitted.

However, current commercial aircraft fleets seldom operate above 40,000 feet (12 km), and the lifetimes of particles at the operating altitudes will be much shorter than 10 years."

"An alternate possibility is simply to lease commercial aircraft to carry dust to their maximum flight altitude, where they would distribute it. To make a cost estimate, a simple assumption is made that the same amount of dust assumed above for the stratosphere would work for the tropopause (the boundary between the troposphere and the stratosphere). The results can be scaled for other amounts. The comments made above about the possible effect of dust on stratospheric ozone apply as well to ozone in the low stratosphere, but not in the troposphere. The altitude of the tropopause varies with latitude and season of the year."

"In 1987, domestic airlines flew 4,339 million ton-miles of freight and express, for a total express and freight operating revenue of \$4,904 million (U.S. Bureau of the Census, 1988). This gives a cost of slightly more than \$1 per ton-mile for freight. If a dust distribution mission requires the equivalent of a 500-mile flight (about 1.5 hours), the delivery cost for dust is \$500/t, and ignoring the difference between English and metric tons, a cost of \$0.50/kg of dust. If 1010 kg must be delivered each 83 days, (provided dust falls out at the same rate as soot), 5 times more than the 1987 total ton-miles will be required."

"The question of whether dedicated aircraft could fly longer distances at the same effective rate should be investigated."

Changing Cloud Abundance - The Approach

"Independent studies estimated that an approximately 4 percent increase in the coverage of marine stratocumulus clouds would be sufficient to offset CO2 doubling (Reck, 1978; Randall et al., 1984). Albrecht (1989) suggests that the average low-cloud reflectivity could be increased if the abundance of cloud condensation nuclei (CCN) increased due to emissions of SO2. It is proposed that CCN emissions should be released over the oceans, that the release should produce an increase in the stratocumulus cloud albedo only, and that the clouds should remain at the same latitudes over the ocean where the surface albedo is relatively constant and small."

"Albrecht (1989) estimates that a roughly 30 percent increase in CCN would be necessary to increase the fractional cloudiness or albedo of marine stratocumulus clouds by 4 percent. Albrecht's idealized stratocumulus cloud, which he argues is typical, has a thickness of 375 m, a drizzle rate of 1 mm per day, and a mean droplet radius of 100 mm, and he assumes that each droplet is formed by the coalescence of 1000 smaller droplets. The rate at which the CCN are depleted by his model is 1000/cm3 per day. Consequently, about 300/cm3 per day (30 percent of 1000) of additional CCN would have to be discharged per day at the base of the cloud to maintain a 4 percent increase in cloudiness. This assumes that the perturbed atmosphere would also remain sufficiently close to saturation in the vicinity of the CCN that additional cloud cover would be formed every time the number of CCN increased."

Mass Estimates of Cloud Condensation Nuclei

"With Albrecht's assumption in mind that cloudiness in a typical ocean region is limited by the small number of CCN, we now extrapolate to the entire globe. On the average, 31.2 percent of the globe is covered by marine stratiform clouds (Charlson et al., 1987). If no high-level clouds are present, the number n of CCN that need to be added per day is 1.8 ¥ 1025 CCN/day. The mass of a CCN is equal to 4/3pr3 ¥ density, and it is assumed that the mean radius r is equal to 0.07 ¥ 10-4 cm (Charlson et al., 1987). Because the density of sulfuric acid (H2SO4) is 1.841 g/cm3, the CCN mass is 2.7 ¥ 10-15 g. The total weight of H2SO4 to be added per day is 31 ¥ 103 t per day SO2 if all SO2 is converted to H2SO4 CCN. To put this number in perspective, a medium-sized coal-fired U.S. power plant emits about this much SO2 in a year. Consequently, the equivalent emissions of 365 U.S. coal-burning power plants, distributed homogeneously, would be needed to produce sufficient CCN."

"Cloud stimulation by provision of cloud condensation nuclei appears to be a feasible and low-cost option capable of being used to mitigate any quantity of CO2 equivalent per year. Details of the cloud physics, verification of the amount of CCN to be added for a particular degree of mitigation, and the possible acid rain or other effects of adding CCN over the oceans need to be investigated before such system is put to use. Once a decision has been made, the system could be mobilized and begin to operate in a year or so, and mitigation effects would be immediate. If the system were stopped, the mitigation effect would presumably cease very rapidly, within days or weeks, as extra CCN were removed by rain and drizzle."

"Several schemes depend on the effect of additional dust compounds in the stratosphere or very low stratosphere screening out sunlight. Such dust might be delivered to the stratosphere by various means, including being fired with large rifles or rockets or being lifted by hydrogen or hot-air balloons. These possibilities appear feasible, economical, and capable of mitigating the effect of as much CO2 equivalent per year as we care to pay for. (Lifting dust, or soot, to the tropopause or the low stratosphere with aircraft may be limited, at low cost, to the mitigation of 8 to 80 Gt CO2 equivalent per year.) Such systems could probably be put into full effect within a year or two of a decision to do so, and mitigation effects would begin immediately. Because dust falls out naturally, if the delivery of dust were stopped, mitigation effects would cease within about 6 months for dust (or soot) delivered to the tropopause and within a couple of years for dust delivered to the midstratosphere."

"Sunlight screening systems would not have to be put into practice until shortly before they were needed for mitigation, although research to understand their effects, as well as design and engineering work, should be done now so that it will be known whether these technologies are available if wanted."

"Perhaps one of the surprises of this analysis is the relatively low costs at which some of the geoengineering options might be implemented."

(end of excerpts)

Following is a partial list of those involved in this monumental study:

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The Chemtrail Smoking Gun - Geoengineering

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Papers of special interest to Chemtrail Investigators

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