

Geoengineering



July 2026 – Rep Hodgson and Sen Rawlings

What is Geoengineering?

- Attempts by government or NGO actors to modify the global climate or temperature, aka: "**playing God" with the weather**
 - **SRM – Solar Radiation Modification** - adding material to the atmosphere to increase the amount of incoming sunlight reflected back to space, in an attempt to cool the earth
 - ***Stratospheric Aerosol Injection (SAI)*** – adding small reflective particles to the upper atmosphere (stratosphere) to reflect incoming sunlight. Sulfur dioxide (SO₂), one of the types of chemicals considered for SAI, can chemically react in the stratosphere to form reflective sulfate aerosols. Target altitude is above 50,000 feet so particles persist.
 - ***Marine Cloud Brightening (MCB)*** – adding particles, such as sea spray, to the lower atmosphere (near the surface) to increase the reflectivity of clouds over the ocean.
 - Other techniques, such as ***Cirrus Cloud Thinning (CCT)*** or space-based methods have been far less researched due to uncertainty in the processes, high potential costs, and more limited feasibility.

US EPA Recently Made Full Disclosure on Geoengineering Activities: its not new

<https://www.epa.gov/geoengineering>

- **1947 Project Cirrus:** GE Labs, the Naval Research Laboratory, and Army Signal Corps used Air Force aircraft to conduct the first hurricane cloud seeding experiment with dry ice.
- **1967 Operation Popeye:** A classified military weather modification program carried out during the Vietnam War that attempted to extend monsoon season to disrupt select supply routes in North Vietnam and Laos. Later banned by Treaty.
- **1971 Project Stormfury:** Led by NOAA and the U.S. Navy, this program sought to modify hurricane strength through seeding with silver iodide to reduce the most destructive wind speeds.

What Geoengineering is NOT:

- **Ordinary jet engine exhaust** from unadulterated fuel – vapor trails or **contrails**, the thin white lines in the sky. These are dependent on upper atmosphere humidity level and typically occur in super cold air above 30,000 feet. There are ~ 45,000 jet flights a day over the USA potentially leaving such visible trails any time conditions are right. Flying at lower altitudes makes the vapor trails invisible.
- **Contrails are not "ChemTrails"**, although they do contain typical hydrocarbon combustion pollutants and soot, similar to automotive exhaust.
- **Crop-dusting** - agricultural spraying carried out below 500 ft AGL, with appropriate federal and state permits.
- **Ground Source pollution** - smoke and exhaust plumes from factories and other earth-anchored sources.
- **Airport Fog control** - low altitude efforts to mitigate fog banks
- Interested parties have collaborated on crafting **specific exclusions** for non-targeted industry and agricultural activities over the last 2 years.

The Case for Action in KY

- **There is no prohibition on the Federal government or others from carrying out weather modification or geoengineering activities in KY.**
 - The chemical fallout of reflective materials is potentially toxic to KY farmland
 - Potential SRM results are not well understood, and could be catastrophic, affecting crop yields, solar energy production, health, etc.
 - "Cloud Seeding" operations are legal in some western states, with unproven effects, and potential toxicity of silver iodide used. The business is growing.
- **The Biden Whitehouse** published a Congressionally mandated study favorable to government experiments with geoengineering to support "green" environmental policy (available online at WH Archives)
- **The Trump Whitehouse** has curtailed such studies, and published the EPA disclosure website
- **Future federal policy is unknown. KY must act now to assert its 10th Amendment sovereignty, and forbid experimentation over the skies of KY, joining states like TN, LA and FL, among 30+ states with policies in work**

Public Concerns

- “More than seven in ten adults say they are very or somewhat concerned that solar geoengineering (74%) or cloud seeding (72%) will be used before we fully understand how they affect the earth’s ecosystems.” **Pew Research Center, June 11, 2021** <https://www.pewresearch.org/short-reads/2021/06/11/u-s-adults-have-mixed-views-on-whether-geoengineering-would-help-reduce-effects-of-climate-change/>
- Critics warn that techniques like aerosol injection may:
 - Worsen air pollution
 - Trigger severe weather events
- Although cloud seeding has been used for over 80 years, its effectiveness remains unproven by scientific standards, and questioned by experts due to lack of reliable evidence (GAO)
- Some scientists caution that cloud seeding could lead to extreme droughts or flooding under certain conditions, like the recent Texas flood tragedy, or Dubai flooding a few years ago.

KY Geoengineering Ban Forbids:

- **"Atmospheric polluting intervention"** means any manipulation or interference with earth's natural systems or processes by altering atmospheric or environmental conditions, including but not limited to:
 - (a) Stratospheric aerosol injection;
 - (b) Cloud seeding;
 - (c) Solar radiation modification; and
 - (d) The intentional release of an atmospheric contaminant, excluding any release from a ground level source such as an industrial or commercial facility, residence, vehicle, or agricultural operation, that occurs in the atmosphere and that may have harmful consequences on human health, the environment, or agriculture;

Penalties

- Detecting Geoengineering activities would most likely require whistleblowers alerting authorities so that admissible evidence could be collected from the aircraft involved – chemicals, spray equipment, etc. Most known geoengineering methods are not visible to the naked eye from the ground.
- Class D felony is necessary because a fine of any size would not be an deterrent for the Federal government or wealthy NGOs. Personal criminal liability for participants makes it more likely to get information that would lead to conviction.
- \$500,000 fine per occurrence is commensurate with the scale and scope of the equipment necessary to commit the crime, and would compensate for the costs of investigation and conviction.

Why this bill? Why now?

- In the face of clearly expressed interest and plans from parts of the US Government - Kentucky must assert its 10th Amendment sovereignty over intentional injection of pollution in the skies above our lands and waters.
- Any change in the DC power structure could see us return to the active and misguided Geoengineering path.
- NGOs and meddling billionaires may act without restraint if there is no criminal penalty for geoengineering experiments over KY.
- The public needs to be reassured that we are proactive in protecting the skies over Kentucky