



**Supplemental Testimony in Support of H7422 – Scientific Uncertainty and Penalty Proportionality**

02-26-2026

Chair and Members of the Committee,

I respectfully submit this supplemental testimony in support of H7422.

Cloud seeding and related atmospheric intervention programs have been conducted for decades. However, federal analysis continues to acknowledge substantial uncertainty regarding their measurable effectiveness.

The 2024 Government Accountability Office (GAO) Cloud Seeding Technology report states:

“When uncertainty was considered in estimates of cloud seeding effectiveness, the estimated effect was not distinguishable from zero with a high degree of statistical confidence.”

In addition, recent scholarship in the Georgetown Environmental Law Review has observed that climate modification activities remain largely unregulated and inconsistently tracked, resulting in incomplete environmental accounting and limited transparency.

When scientific uncertainty exists and regulatory tracking remains incomplete, monitoring and meaningful deterrence are prudent.

It is also notable that telecommunications and atmospheric emissions industries have defined certain forms of electromagnetic and aerosol dispersal outputs as “pollutants” within insurance liability exclusions. The classification of these emissions as pollutants

for risk purposes underscores the importance of environmental oversight and transparency.

H7422 is a monitoring and accountability measure.

However, the civil penalty provision of \$5,000 per instance may not provide sufficient deterrence relative to the scale of potential atmospheric intervention activities.

As of current market value, \$5,000 is approximately equivalent to the price of a single ounce of gold. For activities that may influence atmospheric systems affecting entire communities and ecosystems, the Committee may wish to consider whether that level of penalty meaningfully discourages noncompliance.

For consistency and proportionality, aligning the House penalty provision with the Senate bill's \$100,000 per instance structure would provide clearer deterrence and strengthen enforcement credibility.

Environmental transparency, accountability, and proportional deterrence are foundational to public trust.

**For these reasons, I respectfully urge the Committee to advance H7422 and to consider strengthening the civil penalty provision to ensure meaningful enforcement.**

Respectfully submitted,  
Rachael L. McIntosh  
Founder & Executive Director  
The Foundation for Bioethics in Technology

The Foundation for Bioethics in Technology is a USA-based, non-political, 501(c)(3) nonprofit organization. Our mission is to ensure the next generation inherits not just convenience, but dignity and freedom because innovation without ethics is catastrophe.

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<https://www.law.georgetown.edu/environmental-law-review/wp-content/uploads/sites/18/2024/05/GT-GELR240001-BRADSHAW-and-EHRMAN.pdf>

**"Climate modification is not a conspiracy theory or a hypothetical: it is happening, and it is changing weather patterns.**

Yet, climate modification is almost wholly unregulated. Further, it is also not recorded or tracked in systemic ways. That is to say, even government agencies do not have comprehensive records of whether; how often; or how much climate modification is occurring. The data is simply not gathered, aggregated, or stored. As a result, major indicators that rely on climatic conditions—including the Environmental Protection Agency climate accounting—systemically overlook the effects of human-caused climate manipulation when accounting for changes in weather and air quality over time.

**This lack of regulation is a serious problem: climate accounting fails to measure virtually unregulated activities undertaken by a mix of public and private actors."**

**NASA Cloud Seeding Experiments** <https://dailygalaxy.com/2024/12/why-is-nasa-creating-clouds-in-the-sky-over-many-countries-around-the-world/>

"The primary chemical used in these experiments is **Tri-methyl aluminum (TMA)**"

"The primary goal of NASA's cloud seeding experiments is to **study movements in the upper atmosphere.**"

<https://pubchem.ncbi.nlm.nih.gov/compound/Trimethylaluminum>

**Data accumulated and analysis undertaken since the initiation of cloud seeding programs 80 years ago demonstrates that cloud seeding lacks provable outcomes.** In fact, according to scientific research, cloud seeding and other methods of aerosol dispersion can cause drought, flooding, and can be a contributing factor in extreme weather events.

**The 2024 GAO Cloud Seeding Technology [report](#) states: "when uncertainty was considered in estimates of cloud seeding effectiveness, the estimated effect was not distinguishable from zero with a high degree of statistical confidence."**

<https://www.gao.gov/assets/gao-25-107328.pdf>

PubChem Silver Iodide <https://pubchem.ncbi.nlm.nih.gov/compound/Silver-iodide>

FACT: Radiation is **defined** as a pollutant by both **AT&T** and **Verizon**.

**"Pollutants"** means: Any solid, liquid, gaseous, or thermal irritant or contaminant including smoke, vapor, soot, fumes, acid, alkalis, chemicals, artificially produced electric fields, magnetic field, electromagnetic field, electromagnetic pulse, sound waves, microwaves, and all artificially produced ionizing or non-ionizing radiation and waste. Waste includes materials to be recycled, reconditioned or reclaimed.

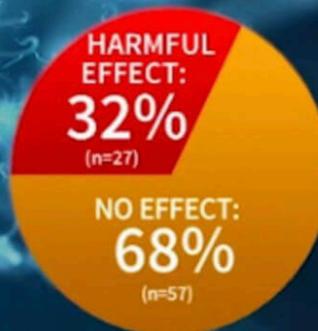
FACT: Insurance companies such as Lloyds of London **exclude liability coverage** associated with exposure to non-ionizing radiation:

## Radiofrequency Research: Does Funding Matter?

Non-industry studies



Industry studies



Data Compiled by Dr. Henry Lai, University of Washington