

CIA Looking Into Weather Modification As A Form of Warfare

The U.S. – and Presumably Russia – Have Researched Weather Modification As Warfare For Many Decades

By Washington's Blog

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In-depth Report: Climate Change

This week, a top American climate researcher – Professor Alan Robock from Rutgers – <u>says</u> that the CIA is looking into weather modification as a form of warfare.

The Independent reports:

A senior American climate scientist has spoken of the fear he experienced when US intelligence services apparently asked him about the possibility of weaponising the weather as a major report on geo-engineering is to be published this week.

Professor Alan Robock stated that three years ago, two men claiming to be from the CIA had called him to ask whether experts would be able to tell if hostile forces had begun manipulating the US's weather, though he suspected the purpose of the call was to find out if American forces could meddle with other countries' climates instead.

During a debate on the use of geo-engineering to combat climate change, at the annual meeting of the American Association for the Advancement of Science in San Jose, California, Prof Robock said: "I got a phone call from two men who said we work as consultants for the CIA and we'd like to know if some other country was controlling our climate, would we know about it?

"I told them, after thinking a little bit, that we probably would because if you put enough material in the atmosphere to reflect sunlight we would be able to detect it and see the equipment that was putting it up there.

"At the same time I thought they were probably also interested in if we could control somebody else's climate, could they detect it?"

Professor Robock, who has investigated the potential risks and benefits of using stratospheric particles to simulate the climate-changing effects of volcanic eruptions, said he felt "scared" when the approach was made.

"I'd learned of lots of other things the CIA had done that haven't followed the rules and I thought that wasn't how I wanted my tax money spent. I think this research has to be in the open and international so there isn't any question of it being used for hostile purposes."

Professor Robock's concerns come as a major report on geo-engineering is to

be published this week by the US National Academy of Sciences. Among the report's list of sponsors is the "US intelligence community", which includes Nasa, the National Oceanic and Atmospheric Administration, and the US Department of Energy.

The professor alleges that the CIA told a colleague of his that it wanted to fund the report, but claimed that it did not want this fact to be too obvious – he added that the CIA is "a major funder" of the report which "makes me really worried about who is going to be in control".

He claimed the US government had a proven history of using the weather in a hostile way, citing the action of seeding clouds during the Vietnam War to muddy the Ho Chi Minh foot-trail and attempt to cut it off, as it was used as a supply route but the north Vietnamese.

He claimed the CIA had also seeded clouds over Cuba "to make it rain and ruin the sugar harvest".

Professor Robock may sound like a nutcase ... but he's actually sane, and his concerns are well-founded.

The Guardian reported in 2001:

During the Vietnam war, the Americans launched Project Popeye, a secret mission to seed the tops of monsoon clouds and trigger phenomenal downpours that would wash away the Ho Chi Minh Trail used for ferrying supplies.

For five years Vietnam, Cambodia and Laos were sprayed during the monsoons, and military intelligence claimed that rainfall was increased by a third in some places. It only came to an end in March 1971 when [Washington Post] journalist Jack Anderson exposed the project and caused such a public furor that the UN general assembly approved a universal treaty banning environmental warfare.

Interestingly, U.S. weather modification efforts during the Vietnam war were revealed as part of the Pentagon Papers.

The Washington Post reported on July 2, 1972:

Indochina – by the evidence of a long-ignored passage in the Pentagon Papers – has been a test battleground, the site of purposeful rain-making along the Ho Chi Minh trails.

Sen. Claiborne Pell (D-R.I.) is prominent among members of Congress who believe it has become a reality. "There is very little doubt in my mind," he says. Rep. Gilbert Gude (R-Md.) states: "There's no doubt in my mind that it's going on in Vietnam."

"I think there's no doubt rain-making was used in Laos on the trail," says a Senate committee aide well versed in defense affairs.

It is a "successful" pre-1967 use which is documented in the "senator Gravel" version of the Pentagon papers. In late February, 1967, this document discloses the Joint Chiefs of Staff prepared a list of "alternative strategies" for President Johnson.

One, titled "Laos Operations", read:

"Continue at present plus Operation Pop Eye to reduce trafficability along infiltration routes ... authorization required to implement phase of weather modification process previously successfully tested and evaluated in same area

In 1967 — according to columnist Jack Anderson, who published the first allegation of Indochina rain-making — U.S. forces started secret Project Intermediary Compatriot "to hamper enemy logistics" ... (with) claimed success in creating man-made cloudbursts ... and flooding conditions" along the Ho Chi Minh trails, "making them impassable."

The Post makes clear that cloud-seeding wasn't limited to the Vietnam war theater:

The Defense Department freely reports that it has "field capacities" for making rain. It used them in the Philippines in 1969, in a six-month "precipitation augmentation project" at the Philippines request; in India in 1967, at a similar invitation; over Okinawa and Midway Islands, and in June, July and August, 1971, over drought-stricken Texas, at the urgent request of Gov. Preston Smith.

Navy rain-makers are currently involved in two long-range California programs — one over the Pacific off Santa Barbara, an attempt to increase rainfall over a national forest; the other over the Central Sierras to try to increase the snow-pack for electric utilities that depend on water power.

The Post also quoted high-level scientists warning that enemies could modify weather as a direct form of warfare, for example, by flooding coastal areas where one's enemy resided. And – as the Post notes – even in 1972, the government was studying the affect of countermeasures to weather warfare:

ARPA Director Stephen J. Lukasik told the Senate Appropriations Committee in March: "Since it now appears highly probable that major world powers have the ability to create modifications of climate that might be seriously detrimental to the security of this country, Nile Blue [a computer simulation] was established in FY 70 to achieve a US capability to (1) evaluate all consequences of of a variety of possible actions ... (2) detect trends in in the global circulation which foretell changes ... and (3) determine if possible , means to counter potentially deleterious climatic changes ..."

"What this means," Lukasik explains, "is learning how much you have to tickle the atmosphere to perturb the earth's climate. I guess we'd call it a threat assessment."

The Boston Globe <u>noted</u> in 2005:

A few years ago, a team led by the late Edward Teller [the creator of the nuclear bomb] suggested creating a similar effect by launching a million tons of tiny aluminum balloons into the atmosphere.

The US military, unsurprisingly, was intrigued by the possibility of a godlike meteorological arsenal. According to Spencer Weart, a physicist and historian of science at the American Institute of Physics, the thinking in the Defense Department was "maybe we'll give the Russians a real Cold War, or maybe they'll give us one, so we should be ready." Pentagon money funded much of the era's climate research, helping to create the weather models we now use in forecasting. War gamers dreamed up climatological warfare scenarios like laying down a blanket of fog over an airfield or visiting drought upon an enemy's breadbasket.

A 1996 Air Force report entitled "Weather as a Force Multiplier: Owning the Weather in 2025," argued that "the tremendous military capabilities that could result from this field are ignored at our own peril."

<u>Here is a copy</u> of the Air Force study "Weather as a Force Multiplier: Owning the Weather in 2025".

The Technology Has Advanced Far Beyond Seeding Clouds With Silver Iodide

The technology has advanced a long way since the early 1970s.

For example, the Telegraph <u>reported</u> in 2011 that Abu Dhabi 'creates man-made rainstorms' by "using giant ionisers, shaped like giant lampshades, to generate fields of negatively charged particles, which create cloud formation." "There are many applications," Professor Hartmut Grassl, a former institute director, is <u>quoted</u> by the *Daily Mail* as saying. "One is getting water into a dry area. Maybe this is a most important point for mankind."

The Guardian <u>reported</u> in 2001:

The US air force planners recently came up with new proposals to launch new weather weapons. Instead of silver-iodide, the idea is to shower fine particles of heat-absorbing carbon over clouds to trigger localised flooding and bog down troops and their equipment. Lasers on aircraft would also trigger lightning onto enemy aircraft, whilst other lasers could be fired at fog to clear a path over enemy targets on the ground.

Former <u>secretary of defense</u> William Cohen <u>told</u> a conference on terrorism on April 28, 1997:

Others are engaging even in an eco-type of terrorism whereby they can alter the climate, set off earthquakes, volcanoes remotely through the use of electromagnetic waves.

The American Institute of Physics (the organization mentioned above in the Boston Globe article) provides an interesting overview of the history of weather modification:

From 1945 into the 1970s, much effort went into studies of weather modification. American entrepreneurs tried cloud-seeding to enhance local rainfall, Russian scientists offered fabulous schemes of planetary engineering, and military agencies secretly explored "climatological warfare."

At the close of the Second World War, a few American scientists brought up a troublesome idea. If it were true, as some claimed, that humans were inadvertently changing their local weather by cutting down forests and emitting pollution, why not try to modify the weather on purpose? For generations there had been proposals for rainmaking, based on folklore like the story that cannonades from big battles brought rain.

Now top experts began to take the question seriously.... At the end of 1945 a brilliant mathematician, John von Neumann, called other leading scientists to a meeting in Princeton, where they agreed that modifying weather deliberately might be possible. They expected that could make a great difference in the next war. Soviet harvests, for example, might be ruined by creating a drought. Some scientists suspected that alongside the race with the Soviet Union for ever more terrible nuclear weapons, they were entering an equally fateful race to control the weather. As the Cold War got underway, U.S. military agencies devoted significant funds to research on what came to be called "climatological warfare."

In 1953 a President's Advisory Committee on Weather Control was established to pursue the idea. In 1958, the U.S. Congress acted directly to fund expanded rainmaking research. Large-scale experimentation was also underway, less openly, in the Soviet Union.

Military agencies in the U.S. (and presumably in the Soviet Union) supported research not only on cloud seeding but on other ways that injecting materials into the atmosphere might alter weather. Although much of this was buried in secrecy, the public learned that climatological warfare might become possible. In a 1955 Fortune magazine article, von Neumann himself explained that "Microscopic layers of colored matter spread on an icy surface, or in the atmosphere above one, could inhibit the reflection-radiation process, melt the ice, and change the local climate." The effects could be far-reaching, even world-wide. "What power over our environment, over all nature, is implied!" he exclaimed. Von Neumann foresaw "forms of climatic warfare as yet unimagined," perhaps more dangerous than nuclear war itself.

As such, it is vital that weather warfare not be allowed to spiral out of control.

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