

# U.S. Reveals Weather War In Vietnam

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The Defense Department, pressured for three years by a Senate subcommittee, yesterday, finally made public details of a top secret, five-year effort to use rain-making techniques as a weapon in Southeast Asia.

Indications that the United States has been using cloud-seeding and other weather modification techniques to try to soak and make impassable Laotian and North Vietnamese supply roads have been reported occasionally and unofficially for years.

But yesterday's release of a transcript of hearings with Pentagon witnesses held in January and March makes it official for the first time.

Also made public in those hearings—before the Senate Foreign Relations Subcommittee on Oceans and International Environment—is a letter to the full Senate committee from former Secretary of Defense Melvin R. Laird. In the letter, Laird corrects previous testimony he gave under questioning in an open hearing on the same subject on

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April 18, 1972. At that time Laird said, "We have never engaged in that type of activity over North Vietnam."

Records newly provided to the subcommittee by the Pentagon show that the rain-making techniques were used over only a portion of North Vietnam and only between March 20, 1967, and Nov. 1, 1968. That was before Laird took over as Secretary of Defense after Robert S. McNamara and Clark Clifford.

Laird, in his letter of Jan. 28, 1974, to committee Chairman J. W. Fulbright (D-Ark.) said his previous statement in public session "represented, first, my knowledge that I had never approved operations over North Vietnam, and secondly, my understanding of activities authorized by preceding Secretaries of Defense. I have just been informed that such activities were conducted over North Vietnam in 1967 and again in 1968."

Most of the rain-making efforts were over the portion of the Ho Chi Minh trail that runs from North Vietnam, principally through Laos, and into a corner of Cambodia.

The efforts directly over North Vietnam ended, according to the Pentagon, with the November, 1968, U.S. bombing halt ordered by President Johnson.

The seeding of clouds to make rain continued over the other areas, including a portion of South Vietnam, until July 5, 1972.

All told, 2,602 flights — at a cost of \$21.6 million — were made by Air Force C-130 and RF-4 aircraft dropping canisters of seeding material into cloud formations. This forms silver iodide or lead iodide crystals, which can accelerate and increase the rain-producing properties of clouds.

The pursuit of information of this highly controversial form of influencing a war was carried out over the years principally by Sen. Claiborne Pell (D-R.I.), subcommittee chairman.

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In a statement yesterday, Pell commended Defense Secretary James R. Schlesinger for declassifying and releasing the information. But Pell said the earlier decision "to proceed with the rain-making operation in Southeast Asia was made without adequate consideration of the broad, long-range implications of moving into a whole new area of weaponry."

Pell called for a "well considered national policy in this area," and offered his view that this new kind of weaponry should be outlawed.

The idea behind the project was to take advantage of the annual southwest monsoons that normally drench the Laotian trails from June through September, and increase both the rainfall and its duration. The object was to soften muddy roads further so they could not be used, to cause landslides and to wash out river crossings.

Pentagon witnesses conceded that it was impossible to measure or verify the result of what they did. Only theoretical and subjective estimates were offered to the committee. These estimated that rainfall was increased in "limited" areas up to 30 per cent above that normally predicted. The Pentagon said it thinks the seeding did help slow the flow of supplies down the trail.

Defense official Dennis Doolin denied under questioning that there was any connection between the rain-making and the extraordinarily heavy flooding that occurred occasionally in North Vietnam.

"At the time of the heavy flooding in North Vietnam there were no rain-making operations conducted," he said.

"The flooding in North Vietnam, as you will recall, generated widespread civilian suffering, and that was never the intention nor the result of this program. Rain-making in this case would have not only been inappropriate, but also would have been prohibited by the standing orders," he said.

Asked if the government of Laos had been informed, Doolin said the royal Laotian government had given approval for "interdiction efforts" against the trail. "And," he added, "we considered this to be part of the interdiction effort." Interdiction normally was understood to mean bombing or attempts to cut the trail with troops.