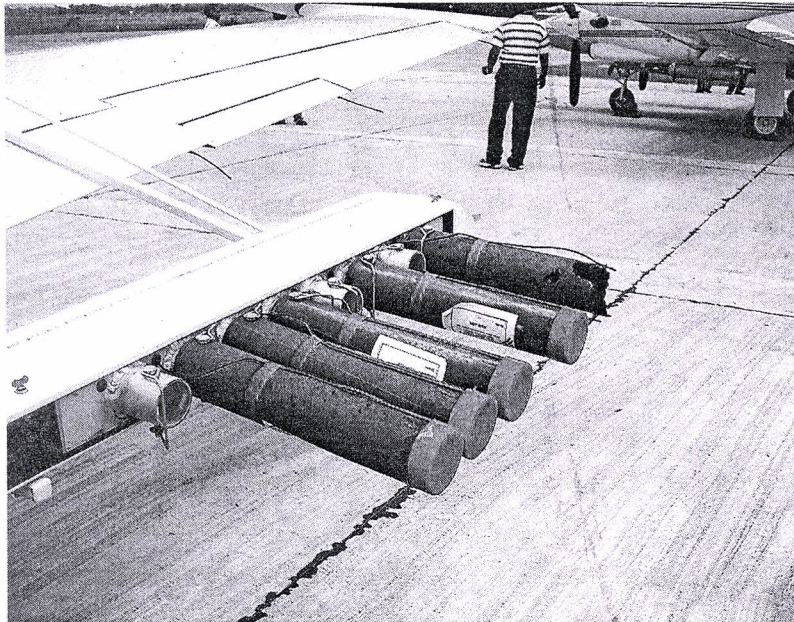


'Rainmaker' IITM to go to the clouds in MahaB

Indian Institute of Tropical Meteorology says hill station chosen for research lab because it's less polluted and move is more viable than flying aircraft for 200 hours



Chemical canisters attached to the planes for the cloud seeding process

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The Indian Institute of Tropical Meteorology's (IITM) Rs 50-crore project, Cloud Aerosol Interaction and Precipitation Enhancement Experiment (CAIPEX), is now entering its third stage, with the scientists now planning to reach for the clouds on Mahabaleshwar's hilly terrain.

THE MAHAB PLAN

Dr J R Kulkarni, scientist at IITM and programme manager of CAIPEX, said they will soon be opening up a new cloud research station at Mahabaleshwar, about 1,372 metres above sea level, to enable scientists to study the properties of clouds out there.

Talking about the decision, Dr Kulkarni said, "It is not viable to fly an aircraft for 200 hours each time. Since we get to study rain clouds at ground level at Mahabaleshwar, it will be helpful for us."

He added, "The rain clouds in Mahabaleshwar are relatively free from pollution. Therefore, this study will also help the scientists develop a more accurate model for weather forecasting, since sea temperature and winds from sea also affect the monsoon."

Chief Minister Prithviraj Chavan, who was minister of state for science & technology till six months ago, announced the setting up of the research station on Friday. India's only other such station exists in Dehradun. The work on this station will begin once land is allotted by the forest department for the purpose.

CAIPEX RECAP

CAIPEX, initiated in 2008, is to be implemented in three phases over a period of three years. The Ministry of Science and Technology has allocated Rs 50 crore for this project. Other organisations such as the Indian Institute of Technology-Kanpur, National Aerospace Laboratory-Bangalore, the Indian Air Force and the Indian Navy are also participating in the project. They are mainly providing infrastructure and apparatus.

The first phase of the experiment (May-

October 2009) involved observation of different monsoon clouds for temperature, wind, liquid water droplets and aerosol background all over the country using an aircraft with special equipment.

The second stage began last year in June-September. For this stage, of the two aircraft which were to arrive from South Africa and Israel, only one could be used. The N361 JC aircraft was flown for 200 hours for this experiment. Data, like aerosol concentration in clouds at various heights, was collected at various stations all over the country, like Pathankot, Yelahanka, Jaipur, Baramati, Nagpur, Bareilly, Kanpur and Guwahati.

The team participating in the experiment in the second phase comprised 13 core group members and associates. Almost the same team will take part in this year's experiments.

"It (experiment) was meant to test the cloud properties. The results have shown that we can carry out experiments in artificial rains in our country," said Dr Kulkarni. "It was not about positive or negative results. When need arises, we should have the technology ready for artificial rains," he added.

BEFORE CAIPEX

CAIPEX was the second such experiment for cloud seeding in Maharashtra. The first cloud seeding tests were carried out in Baramati (Project Varsha) in 2003-2004 through the US-based Weather Modification Inc. But these tests were not successful. It was discontinued from 2005 on the recommendations of a high-level committee.

During the high-level committee meeting, members, which included officials from the India Meteorological Department (IMD) and IITM, had observed the lack of 'any tangible' benefits from the experiment. It did not justify the expenditure, the committee had noted.

WHAT IS CLOUD SEEDING?

Cloud seeding is the process of introducing chemicals (either dry ice or silver iodide aerosols, potassium and sodium chloride) into the upper part of clouds to try to stimulate the precipitation process and get rain.