

'Rain plane' to take off from Lucknow today

INDO-UK PROJECT Research aircraft will collect data on rainfall process

HT Correspondent

■ lkoreportersdesk@hindustantimes.com

LUCKNOW: The rain chasing research aircraft will take off on its final sortie from the Lucknow airport on Monday to collect data for understanding the cloud-aerosol rainfall process in the Indian monsoon environment.

This final rain chasing sortie of the research aircraft of UK is part of the joint Indo-UK project on research in meteorology, climate variability and change, oceanography, hydrology, natural hazards and biodiversity.

The Natural Environment Research Council (NERC), UK and the Earth System Science Organisation, Ministry of Earth Science (ESSO-MoES), India, had signed an MoU on March 1, 2013, for carrying out research and collection of data. The £ 8-million British project is aimed at more accurate prediction of the monsoon.

In the final sortie, union minister of earth sciences Harsh Vardhan, would also join research teams on-board the aircraft.

Of late, the Indian monsoon is the focal point of international studies.

The summer rain is vital not only for India but also at least six south Asian countries for whom it is the main wet spell.

Under this project, two rain chasing aircraft of UK are engaged to collect weather-related data in India. In northern India, one aircraft is stationed at the Lucknow airport and another in Bangalore in southern India.

The data collection work is going on at all IMD stations in the country and IIT-Kanpur is the main centre.

There are active phases of rain followed by breaks. This will enable predictions of the sub-seasonal changes as well.

PROF SN TRIPATHI, co-principal investigator of the project

Prof SN Tripathi, co-principal investigator of the project from IIT Kanpur and in charge of the observational super site in Kanpur, said: "Data collection related to weather is going on at all IMD sites in the country. In Kanpur, eight weather balloons are released everyday for collecting data."

"Data related with aerosol, atmosphere turbulence, cloud parameter, liquid water and humidity, land use, land cover humidity and solar radiation is collected every day," Prof Tripathi told HT.

"There are currently a lot of uncertainties in weather and climate models, particularly when it comes to rainfall prediction. For instance, most climate models cannot predict the decreasing trend in monsoon rainfall over India in the past 50 years," he said.

"Relationship of monsoon rainfall with several land forcing variables like surface energy budget, soil moisture and aerosol is still not clear in the Indian scenario. These experiments will create an unprecedented database of all relevant land-atmospheric parameters, which can be used to systematically study these interactions and improve monsoon predictions in future," Prof Tripathi said.