

**Winter Fog Experiment (WIFEX 2016-17)**

Fog is a visible mass consisting of cloud water droplets suspended in the air or near the Earth's surface. The presence of heavy and extended period fog in the northern regions of India is one of the major weather hazards, impacting aviation, road transportation, economy and public life in the world's most densely populated region. Maximum fog occurrence over the Northwest India is about 48 days (visibility < 1000m) per year, and occurs mostly during the December-February time period.

The objectives of the Winter Fog Experiment (WIFEX) are to develop better now-casting (next 6 hours) and forecasting of winter fog on various time and spatial scales, and help reduce its adverse impact on aviation, transportation and economy, and loss of human life due to accidents. We need a reliable forecasting system for Fog occurrence. The physical and chemical characteristics of fog, meteorological factors responsible for its genesis, sustenance, intensity and dissipation are poorly understood. Similarly, meteorological conditions like humidity, wind and synoptic conditions are also not well studied. Improved understanding on above aspects is required to develop reliable forecasting models and observational techniques for accurate prediction of Fog events.

WIFEX was conducted in a pilot mode at IGIA during last winter, and will be continued during December 2016 till February 2017. The main scientific objective of this project is to study the characteristics and variability of fog events and associated dynamics, thermodynamics and fog microphysics, with the aim to achieve better understanding of fog life cycle and ultimately improve capability in fog prediction.

Source : Ministry of Earth Sciences  
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