

Application of Space Technology for the benefit of the common man

**Weather forecasting, cyclone prediction and
continuous weather and ocean data
availability**

MOSDAC: A DECADE OF SERVICE TO THE NATION

2006-2016

MAJOR BENEFITS TO SOCIETY

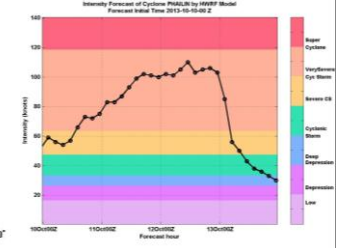
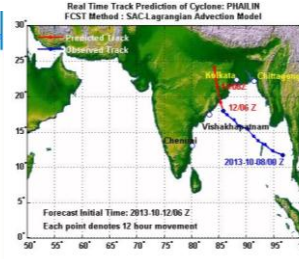
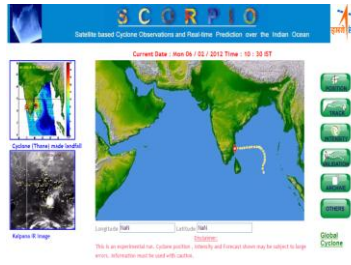
- Advanced alerts related to cyclone and heavy rain events to civil administrators and users
- Heavy rain and cloud burst related Nowcasting over Western Himalayan region
- Weather, heat / cold wave forecasting

MAJOR HIGHLIGHTS

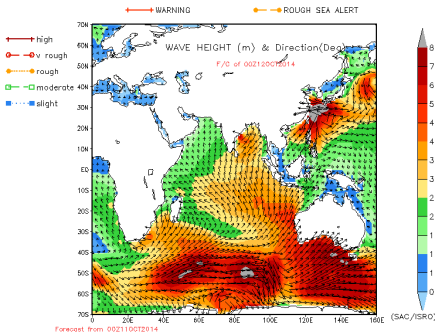
- A Storehouse for Space based Weather and Ocean Data
- Near Real time Meteorological and Oceanographic data dissemination
- Free data to scientific and academic community
- Web and email alerts for extreme weather events
- Freely available tools and utilities for data analysis



CYCLONE: Track and Intensity forecast over Indian Ocean

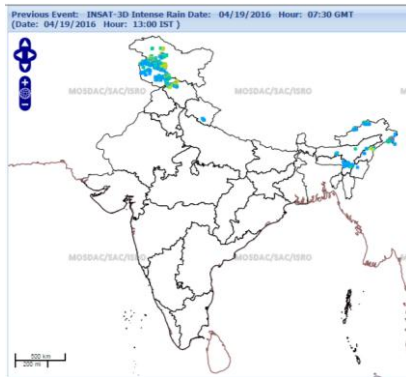
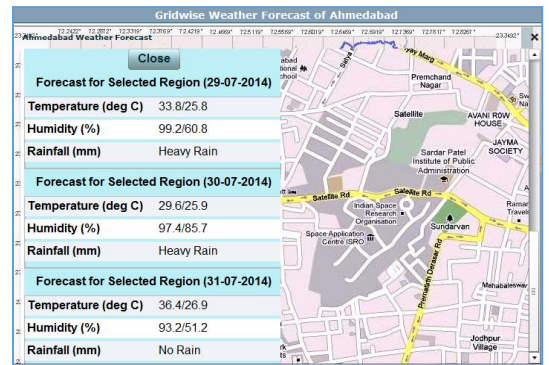


Applications
Cyclone Monitoring, Heavy Rain and Cloud Burst
Nowcasting, Heat Wave and Weather Prediction

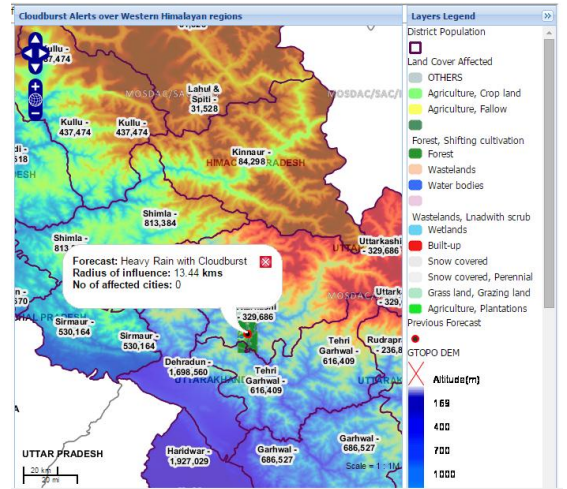


SEA STATE FORECAST (6 hourly) for 5 days in terms of wave height, wind speed, sea surface temperature and swell height

WEATHER FORECAST for 24, 48 and 72 hours (Temperature, Pressure, Humidity, Rain, Winds, Clouds) over India at 5 km resolution



INTENSE RAINFALL Half hourly maps over India at 4 km resolution

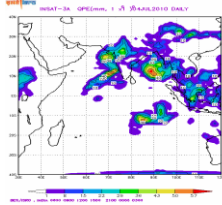


CLOUD BURST: Half hourly ALERTS

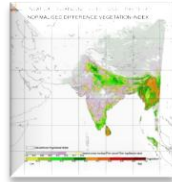


M O S D A C

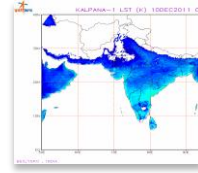
KALPANA-1 & INSAT-3A: Half hourly data of land, ocean and atmosphere, covering India and its neighborhood for weather and ocean state forecasting



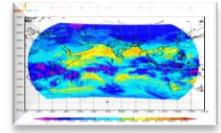
Rainfall



ND Vegetation Index

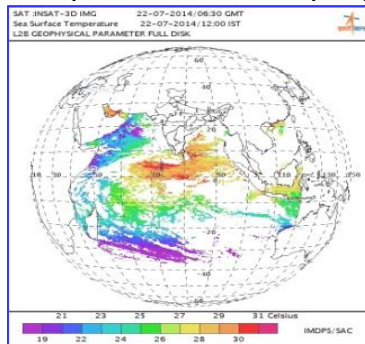


Land surface temp

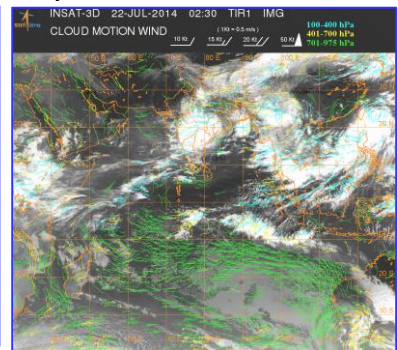


Outgoing long Wave radiation

INSAT-3D IMAGER: Provides an operational, environmental and storm warning system to protect life and property

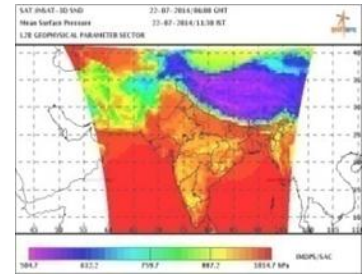
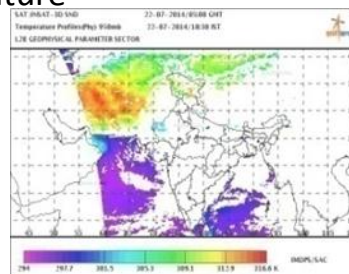


Sea Surface Temp

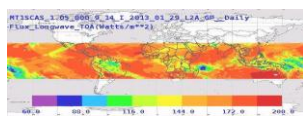


AMV

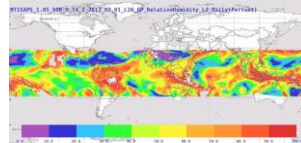
INSAT-3D SOUNDER: Profiles of Temperature, Humidity, Ozone, Surface Skin Temperature



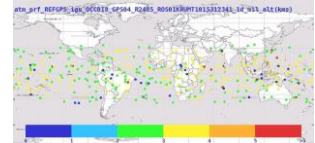
MEGHA-TROPIQUES: Measurements for understanding of tropical meso scale convective systems and hydrological cycle



SCARAB – Longwave Flux

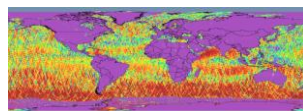


SAPHIR– Atmospheric humidity profile

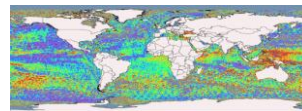


ROSA – Locations of Occultation

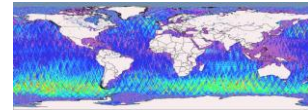
SARAL: Observations for the study of sea level, climate and ocean circulation



Wind Speed



Sea Surface Height Anomaly



Significant Wave Height

Operational Missions and Data Products

