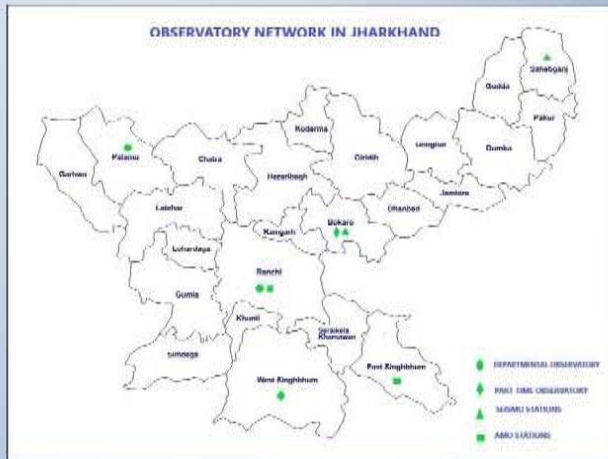


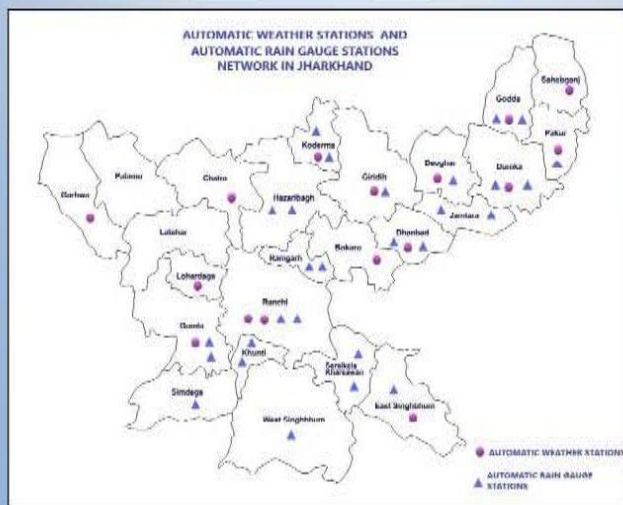
OBSERVATIONAL NETWORK

05 surface observatories (03 Departmental and 02 part-time observatories), 2 Aerodrome Meteorological Stations, 1 pilot balloon observatories, 1 RS/RW, 2 Seismology Stations, 1 Radiation observatory, 81 rain gauge stations, 16 Automatic Weather Stations and 28 Automatic Rain gauge stations throughout the state.

Different Observatories in Jharkhand



Automatic Observatories in Jharkhand



MET INSTRUMENTS



MAUSAM APP

Recently the following meteorological apps are introduced by IMD (MOES) for mobile (Android / ios) users:

- Mausam App** : Location specific forecast & warning
- Damini App** : For Lightning alert
- Meghdoot App** : For Agro Advisory services

EDUCATIONAL VISIT



CONTACT US

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Government of India



Government of India

Meteorological Centre Ranchi

Ministry of Earth Sciences

Ministry of Earth Sciences



India Meteorological Department

Established in 1875

Established in 1875

(Established in 1875)

The observatory at Ranchi has a long history; it was established on 29th September 1955 in the premises of Birla Institute of Technology, Mesra. After establishing of B. M Airport Ranchi, observatory was shifted inside the premises of Airport under the jurisdiction of Meteorological Centre Patna. Later, Meteorological office upgraded as Meteorological Center Ranchi after formation of Jharkhand state on 15th November 2000, under Regional Meteorological Centre Kolkata on 27th may 2002. It was shifted to its own RSRW/Radar building in July 2005 and rendering the meteorological services to the general public of the state of Jharkhand and concerned agencies of government. Weather forecast for optimum operation of weather sensitive activities like agriculture, irrigation, aviation, road transport etc. and warning against severe weather phenomena like heavy rains, thunderstorms, strong winds etc. which cause destruction to life and property are rendered by this Meteorological Centre under the technical advice of Regional Meteorological Centre (RMC) Kolkata.

IMD MANDATE



FORECAST AND BULLETINS

State Daily weather Report

- Report comprising of weather over the state during past 24 hours, forecast and warning for next 5 days issued at 1300 hours IST.

District forecast

- 5 days forecast and 2 days outlook for all the districts of the state issued at 1130 hours IST.

Nowcast

- District wise & Station wise nowcast for Severe weather like thunderstorm, Hailstorm, heavy rain etc. issued at three hour interval and also as and when required.

Special daily weather bulletin

- During monsoon season a special bulletin issued to all concerned district and state authorities covering current monsoon / rainfall features and weather forecast & warning.

Special Weekly Weather Bulletin

- It consists of review of weather of past week and weather outlook for next two weeks.

Weather information of Ranchi on IVRS

- Observed weather data for Ranchi districts uploaded on IMD site on 0900 and 1800 hours IST.

Press release / warnings / Alerts for severe weather

- Press release / warnings alerts are issued for disastrous weather affecting the state and sent to all stake holders as well as media.

Block level Agro Advisory for farmers

- Block level Agromet advisory bulletins issued for Jharkhand state on every Tuesday and Friday.

Weather Forecast & Warning Form

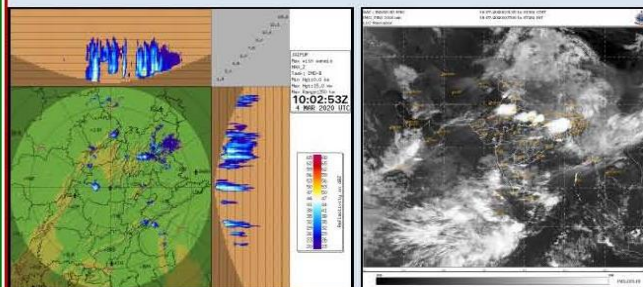
- Weather Forecast & Warning are presented in Pictorial Form

NEW INITIATIVES



FORECASTING TOOLS AND TECHNIQUES

- RADAR:** MC Ranchi uses the Radar products of S-band Doppler weather Radar installed at Patna, Paradip and Kolkata for issuing, Nowcast alert for Jharkhand.
- SATELLITE:** INSAT 3D, INSAT 3DR & HIMAWARI satellites are used for monitoring & forecast of weather systems.



- Surface and upper air data:** Realtime surface and upper air data analysis for identification of synoptic scale systems.
- NWP Model:** Various regional & global numerical weather prediction models are utilized for short range to medium range forecast.
 - **WRF, NCUM:** For short range forecast
 - **GFS, GEFS, NCUM & MME:** For medium range forecast
 - **MME (CFSV2):** Extended range forecast

Records of Ranchi at a Glance

- ❖ Highest Maximum temperature ever recorded **43.2 °C on 15th May 2017**
- ❖ Lowest minimum temperature ever recorded **01.0 °C on 04th January 1991**
- ❖ Highest rainfall in 24 hours ever recorded **224.3 mm on 28th June 1994**
- ❖ Highest monthly rainfall ever recorded **666.4 mm on July 2017**

Weather Observations in Jharkhand

Synoptic Observation

- Round the clock surface observation at three hour interval

Pilot Balloon Observation

- Upper-air Wind observation at different level of atmosphere on 0000 UTC and 1200 UTC

Radio Sonde Observation

- GPS based upper-air observation of Atmospheric Pressure, Temperature, Humidity, Wind Speed and Wind Direction at different level of atmosphere on 0000 UTC and 1200 UTC

Radiation Observation

- Automatic and Manual observation of Global, Diffused, Terrestrial, Direct (solar), Ultra Violet radiation and sunshine duration

Current Weather observation

- Round the clock meteorological services to the aviation sector at Ranchi International Airport.

Automatic Weather Station observation

- Automatic recording of surface level different meteorological elements and dissemination on hourly basis.

CLIMATOLOGICAL SERVICES

Surface and upper air observations are recorded, scrutinized and archived for Jharkhand state. The data are provided to Government, Research Institutions, Universities, Public and private sectors, industries according to the data policy of IMD.

AVIATION SERVICES

Round the clock Aviation Meteorological services at B. M. Airport Ranchi & Sonari Airport, Jamshedpur, which include upper air winds, temperatures, take off forecast, significant weather (SIG Wx) charts, Aerodrome Warnings, TAFs, METARs, etc.

AGROMET SERVICES

Agro Meteorological services were initiated in 1987 to extend meteorological services to the farming community in the state. Agro Meteorological Advisory Unit is regularly issuing Bi-weekly Agro-met Advisory Bulletins on every Tuesday and Friday. The Agro advisory services are augmented from district level to block level from monsoon season 2019.

