

OBSERVATIONAL NETWORK

Surface Observatories - 28
(10 Departmental, 18 Part-time)

Aerodrome Met. Office - 01
Aeronautical Met. Stations - 03

Pilot Balloon Observatories - 09

RS/RW Stations - 03

Seismo Observatories - 03

Radiation Observatories - 05

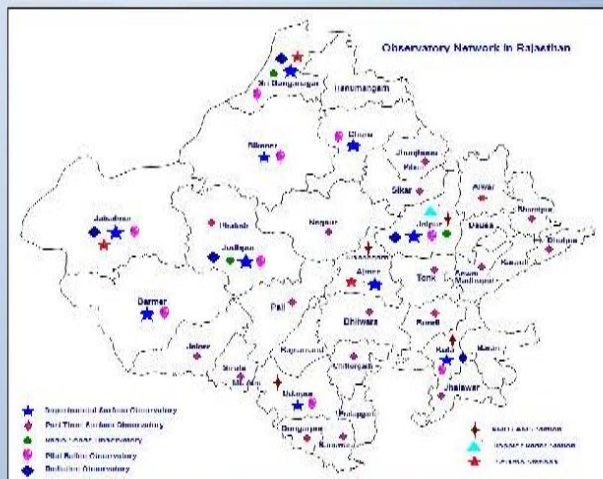
Agromet Observatories - 05

Raingauge Stations - 169

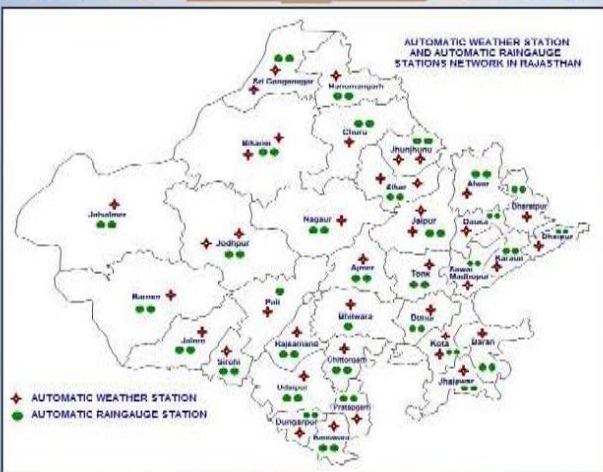
Automatic Weather Stations - 39

Automatic Raingauge stations - 64

Different Observatories in Rajasthan



Automatic Observatories in Rajasthan



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



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मौसम केंद्र जयपुर

Meteorological Centre Jaipur

पृथ्वी विज्ञान मंत्रालय

Ministry of Earth Sciences



भारत मौसम विज्ञान विभाग

India Meteorological Department

1875 से राष्ट्र की सेवा में समर्पित
(Established in 1875)

- The Meteorological Observatory in Jaipur was established in 1875 in the premises of Central Public Works Department of princely state. It was shifted to Jaipur Airport (Sanganer) on 25 October, 1947.
- Meteorological Centre, Jaipur was established in October 1972 in a rented building, moved to its own departmental building in 2001 and rendering the Meteorological services for the state.
- A nowcast weather warning tool, Doppler weather radar was installed in January, 2012. Early warning of disastrous weather events saves precious lives and property.
- Weather Forecast, Cyclone warning, wind warning, heavy rainfall warning and highway forecast are broadcasted through AIR, Doordarshan and other print & Electronic Media in addition to the website of MC Jaipur.

MANDATE

To take meteorological observations and to provide current and forecast meteorological information for optimum operation of weather-sensitive activities like agriculture, irrigation, shipping, aviation, offshore oil explorations etc.

To warn against severe weather phenomena like Tropical Cyclones, Norwesters, Duststorms, Heavy rains, Snow, Cold and Heat waves etc. which cause destruction of life and property.

To provide meteorological statistics required for different users.

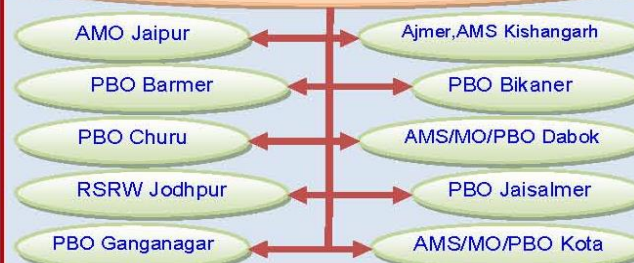
To conduct and promote research in meteorology and allied disciplines.

To detect and locate earthquake and to evaluate seismicity in different parts of the country for development projects.

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 1330 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 thunderstorm, duststorm, heavy rain etc. issued at three hour interval.
- **Probabilistic rainfall forecast**: District wise probabilistic rainfall Forecast issued at 1600 hours IST.
- **Highway forecast**: Forecast for expected weather conditions enroute the state / National highways of the state at 0700 hours IST.
- **Tourist place forecast**: Forecast issued for important tourist places of the state.
- **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.
- **Weather information of Jaipur on IVRS** : Observed weather data for Jaipur districts uploaded on IMD site on 0900 and 1800 hours IST.
- **Weather over Jaipur city** : A brief report of past month weather over capital city is uploaded on 01st date of succeeding month.
- **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.
- **Agro Advisory for farmers** : Agromet advisory bulletins issued for Rajasthan state on every Tuesday and Friday.

Organization structure of M.C. Jaipur

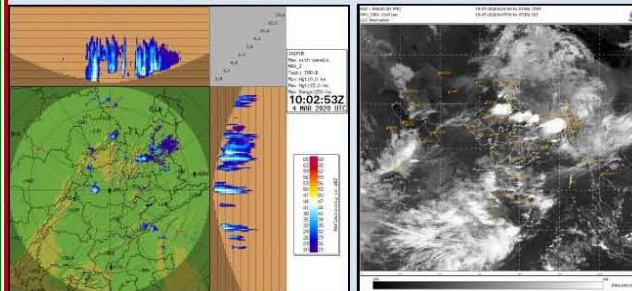


NEW INITIATIVES

- **IMPACT BASED FORECAST** : Impact Based heavy rainfall forecast for the capital city Jaipur has been initiated from monsoon season 2020 on experimental basis.
- **EXTENDED RANGE FORECAST** : Current weather status and outlook for next two weeks for the state issued on every Thursday.

FORECASTING TOOLS AND TECHNIQUES

- **RADAR**: C-band polarimetric Doppler weather radar, a powerful tool for Nowcast.
- **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 (WRF, UM, GFS, GEFS, MME, CFSV2) are utilized for short range to medium range forecast.

JAIPUR AT A GLANCE

- ❖ Highest Maximum temperature ever recorded
48.5 °C on 06th May 1980
- ❖ Lowest minimum temperature ever recorded
-2.2 °C on 31 January and 01 February 1905
- ❖ Highest rainfall in 24 hours ever recorded
326.0 mm on 19th July 1981
- ❖ Highest monthly rainfall ever recorded
956.9 mm July 1981

WEATHER OBSERVATIONS ATJAIPUR

- ❖ **Synoptic Observation**: Round the clock surface observation at three hour interval.
- ❖ **Pilot Balloon Observation**: Upper-air Wind observation at different level of atmosphere on 1200 UTC and 1800 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.
- ❖ **Doppler radar Observation**: Round the clock automatic observation with updates every 10 minutes.
- ❖ **Radiation Observation**: Automatic and Manual observation of Global, Diffused, Terrestrial, Direct (solar), Ultra Violet radiation and sunshine duration.
- ❖ **Automatic Weather Station observation**: Automatic recording of surface level different meteorological elements and dissemination on hourly basis.
- ❖ **Current Weather observation**: Round the clock meteorological services to the aviation sector at Jaipur International Airport.

CLIMATOLOGICAL SERVICES

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

AVIATION SERVICES

Aviation Weather information are provided to ATC and all Airlines at Jaipur airport (Aerodrome Meteorological office) catering to the need of about 130 flights daily, which include upper air winds, temperatures, take off forecast, significant weather (SIG WX) charts, Aerodrome Warnings, TAFs, METARs, Trend forecasts etc. Meteorological Support is also provided to Kota, Kishangarh and Udaipur Airports (Aeronautical Meteorological Stations) for aviation purposes from this office also.

AGROMET SERVICES

Agro Meteorological Advisory Unit was established 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.

