

भारत सरकार Govt. of India पृथ्वी विज्ञान मंत्रालय Ministry of Earth Sciences भारत मौसम विज्ञान विभाग India Meteorological Department क्षेत्रीय मौसम विज्ञान केन्द्र Regional Meteorological Centre लो.गो.ब.अ. हवाईअड्डा L.G.B.I. Airport गुवाहाटी - ७८१०१५ (असम) Guwahati – 781 015 (Assam)

Press Release

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Sub: 25 years of glorious service by Regional Meteorological Centre (RMC), Guwahati

Regional Meteorological Centre, Guwahati was established on 01.04.1997 by upgrading Meteorological Centre to cater the meteorological services to the north-eastern states.

Regional Meteorological Centre (RMC) Guwahati is celebrating 25 years of glorious service on 01st April 2022 and the function will be organized virtually at during 1600 to 1730 hrs IST. It is requested to participate in this function through virtual platform.

A brief on the initiatives and achievements of RMC Guwahati are given below.

Recent Achievements:

(a) Enhancement in Meteorological Observations:

- 2 Doppler Weather Radars (DWRs) maintained by IMD, installed at Mohanbari and Agartala are operational in NE region.
- 100 Automatic Weather Stations (AWS) and 155 Automatic Rain Gauges (ARG) and 18 Agro-AWS are operational in NE Region

- Installation of 15 ARGs in and around Guwahati city for monitoring of rainfall distribution and intensity.
- Establishment of seven GPS Radiosonde and three nos of pilot Balloon stations.
- Commissioning of five seismological observatories for real time monitoring of Earthquakes.

(b) Enhancement in Weather forecasting Services:

- Impact Based multi hazard weather Forecast (IBF) and Risk based Warnings valid for next five days extended to the entire north-eastern region for all types of severe weather at the major cities and for all districts of the region.
- Generation of GIS based weather forecast products for city weather, district level forecast and warnings, state level forecast and warnings, rainfall analysis maps and Quantitative Precipitation Forecast and other observation based products.
- Urban Metrological Services for Guwahati city and its neibourhood by issuing 7 days forecast and nowcast at multiple locations in and around Guwahati city.
- 24X7 nowcast issued every three hour with 3 hours validity for 78 important locations.
- Three hourly nowcast warnings for 24X7 nowcast with 3 hours validity are issued for severe weather for all 112 districts of NE region.
- Quantitative precipitation forecast (QPF) for 20 river sub-catchments of the river Brahmaputra, Barak, Manu and Gomti being issued to enable flood forecasting. The sub-catchmentwise QPF is issued with validity of 5 days.
- Issuance of operational Flash flood Guidance for all watersheds of the region at every 6 hours for Monsoon and post monsoon season.
- Generation of value-added district level and block level forecast and Agrometeorological advisory services.
- Extensive utilisation of social media platforms for dissemination of weather and climate information of the region.

(c) Outreach:

- Student Awareness Programme are organized regularly.
- Media workshops organised involving local print and electronic media persons.
- Aviation weather workshop organised service providers
- Training programmes were arranged for progressive farmers
- Social media outreach has been enhanced significantly with the presence in Facebook, Twitter, Instagram, You Tube and WhatsApp groups established by RMC Guwahati and its sub-offices (<u>https://www.facebook.com/rmc.guwahati.7</u>, <u>https://twitter.com/GuwahatiRmchttps://www.youtube.com/channel/UCZhSyg</u> PM0hhxflAhNHwheYA/videos)

• Launch of new of public friendly Uniform Websites for Regional Meteorological Centre Guwahti and its sub-offices.

(d) Improvement in Weather Forecast Accuracy:

- Probability of Detection (POD) for heavy rainfall warning with 24-hr, 48-hr, 72-hr, 96-hr and 120-hr lead period are83%, 74%, 67%, 61% and 55% respectivelyin 2021.
- Probability of Detection (POD) for thunderstorm warning with 24-hr lead period during March to June in NE region is 93% in 2021 against 68% in 2020. Critical Success Index (CSI) for thunderstorm warning with 24 hourly lead period during March to June is 64% in 2021 against 59% in 2020.
- Correctforecast for sub-basin wise QPF for NE region with 24-hr, 48-hr, 72-hr, 96-hr and 120-hr lead period are 72%, 63%, 59%, 58% and 55% with usability 98%, 98%, 97%, 97% and 97% respectively in 2021.



Fig. 1: Heavy Rainfall warnings verification for 2021



Fig. 2: Thunderstorm Verification comparison 2020 and 2021



Fig. 3: Sub-basinwsie QPF verification for 2021

(e) Future plans:

 Installation of 40AWS in Arunachal Pradesh. Expansion of AWS network for better monitoring & capturing of all-weather events. Conversion of existing AWS to Agro-AWS, wherever required as per request from various State disaster management authorities.

- Commissioning of Aviation Weather Observing Systems to all Heliport stations of NE india for unmanned and safety of landing in hilly terrain of NE region.
- Expansion of Pilot balloon network using Pilot sonde so that Upper winds can be observed four times a day at 0530,1130, 1730 and 2330 IST in a day for better prediction.
- Installation of Eight Nos of X-Band Doppler Weather Radars in Seven States of NE India.
- Data Processing server for reception, Quality checks & GIS representation of Data from all AWS/ARG/Airport & other Data of NE India.
- Expansion of Automatic Rain Gauge network to Urban cities of Agartala, Shillong, Itanagar and other developing cities of NE India for real time monitoring of special distribution of Rain at these cities.
- Establishment of Calibration Laboratory at Guwahati for calibration of all surface instruments and maintenance of data quality at NE India.
