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मौसम विज्ञान विभाग समाचार IMD NEWS

INDIA METEOROLOGICAL DEPARTMENT
(Ministry of Earth Sciences)



JUL – SEP 2017

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Important Events / Activities

INAUGURATION OF DOPPLER WEATHER RADAR (DWR)



Inauguration of DWR Kochi

DWR Kochi

The S-band weather radar at Kochi is replaced by dual polarized Doppler Weather Radar (DWR) provided by ISRO and manufactured by M/s Bharat Electronics Limited, Bangalore. The Radar was inaugurated on 12th July, 2017 by Dr. Harsh Vardhan, Hon'ble Union Cabinet Minister for Science & Technology, Ministry of Earth Sciences, Ministry of Forest, Environment and Climate Change in the presence of Shri A. S. Kiran Kumar, Secretary, Department of Space and Chairman ISRO and Dr. K. J. Ramesh, DG, IMD.

राजभाषा गौरव पुरस्कार सम्मान



श्री आर. बी. एस. नारायण, मौसम विज्ञानी 'बी' राष्ट्रपति से राजभाषा गौरव पुरस्कार प्राप्त करते हुए

महामहिम राष्ट्रपति श्री रामनाथ कोविन्द द्वारा हिंदी दिवस के अवसर पर मौसम कार्यालय - मुंबई के अधिकारी श्री आर. बी. एस. नारायण, मौसम विज्ञानी 'बी' के मौसम मंजूषा में प्रकाशित लेख को हिंदीत्तर भाषी वर्ग प्रथम पुरस्कार के लिए चुना गया है जो भारत मौसम विभाग के लिए अत्यंत गर्व की बात है।



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हिंदी पखवाड़ा, 2017



दीप प्रज्वलित एवं मौसम मंजूषा के 25^{वें} संस्करण का विमोचन

भारत मौसम विज्ञान विभाग मुख्यालय में दिनांक 1 सितंबर, 2017 से 14 सितंबर, 2017 तक हिंदी पखवाड़ा तथा दिनांक 14 सितंबर, 2017 को हिंदी दिवस समारोह मनाया गया। समारोह की अध्यक्षता क्षेत्रीय मौसम विज्ञान के अपर महानिदेशक महोदय डॉ. डी. प्रधान ने की। इस समारोह के विशिष्ट अतिथि प्रख्यात साहित्यकार व कवि डॉ. दिविक रमेश जी रहे। इस दौरान विभिन्न हिंदी प्रतियोगिताओं जैसे हिंदी रूपांतरण, टाइपिंग, आशुभाषण, श्रुतलेखन, स्वरचित कविता पाठ, हिंदी लेखन एवं वाद-विवाद का आयोजन किया गया। समारोह का शुभारंभ अपर महानिदेशक महोदय डॉ. डी. प्रधान, डॉ. एस. के. पेशिन, वैज्ञानिक 'जी', डॉ. एस. के. राँय भौमिक, वैज्ञानिक 'एफ' तथा मुख्य अतिथि प्रसिद्ध कवि श्री डॉ. दिविक रमेश जी ने संयुक्त रूप से दीप प्रज्वलित करके किया। इस अवसर पर माननीय गृह मंत्री श्री राजनाथ सिंह द्वारा भेजे गए संदेश को सुश्री रेखा शर्मा, वरिष्ठ हिंदी अधिकारी ने समारोह में पढ़कर सुनाया। हिंदी पत्रिका मौसम मंजूषा के 25^{वें} अंक का विमोचन भी इस अवसर पर किया गया तथा हिंदी दिवस के अवसर पर वर्ष 2016-17 के दौरान हिंदी में सर्वाधिक कार्य करने के लिए कल्याण अनुभाग को राजभाषा चलशील्ड प्रदान की गई। समारोह में हिंदी पखवाड़ा के दौरान आयोजित हुई हिंदी प्रतियोगिताओं के विजेताओं को नकद पुरस्कार और प्रमाण पत्र प्रदान किए गए। समारोह में कार्मिकों एवं बच्चों द्वारा सांस्कृतिक कार्यक्रम प्रस्तुत किए गए।

हिंदी पखवाड़ा, 2017 - मौसम केन्द्र अहमदाबाद



मौसम केन्द्र अहमदाबाद में हिंदी दिवस का आयोजन

मौसम केन्द्र अहमदाबाद में हिंदी पखवाड़ा, हिंदी कार्यशाला तथा 14 सितम्बर] 2017 को हिंदी दिवस का आयोजन किया गया। जिसके दौरान कई प्रतियोगिताओं का आयोजन किया गया।

हिंदी पखवाड़ा, 2017 – आर. एम. सी. कोलकता



आर. एम. सी. कोलकता में हिंदी दिवस का आयोजन

आर. एम. सी., कोलकता में हिंदी दिवस 13 सितंबर, 2017 को मनाया गया। इस अवसर पर डी डी जी एम महोदय ने आधिकारिक भाषा अधिनियम के प्रावधानों पर प्रकाश डाला और कहा कि यह केवल कार्यालय में ही नहीं बल्कि निजी जीवन में भी हमारी राष्ट्रीय भाषा को बढ़ावा देने के प्रयास करें।

हिंदी पखवाड़ा, 2017 – एम. सी. देहरादून



एम. सी. देहरादून में हिंदी दिवस का आयोजन

मौसम विज्ञान केंद्र, देहरादून ने 14 सितंबर, 2017 को हिंदी दिवस तथा 14 से 29 सितंबर, 2017 को हिंदी पखवाड़ा मनाया गया। डॉ. राम विनय, एच ओ डी, संस्कृत विभाग, डी ए वी (पी जी) कॉलेज देहरादून, समापन समारोह में मुख्य अतिथि थे।

Important Events

Dr. Jayanta Sarkar, Scientist 'F' attended a meeting, chaired by the Hon'ble Prime Minister with regards to the current flood situation in Gujarat at community hall of Gujarat SAIL at Airport Ahmedabad on 25th July, 2017 and presented the weather scenario/forecast over Gujarat.

Shri P. S. Biju, Scientist 'D' RMC Chennai represented IMD in the Exhibition held at Parliament house, New Delhi and exhibited own design of Agro AWS working model during 27th July to 11th August, 2017 .

The officials of Agromet Advisory Services Division (AASD) Participated in MoES exhibition during 28 July to 11 August, 2017 at Parliament House, New Delhi.



The officials of AASD in MoES exhibition at parliament house

Hon'ble Prime Minister in his Maan Ki Baat dated the 31st July, 2017 appreciated weather forecasting services of India Meteorological Department and urged the public to use more and more weather forecasts to reduce losses. Excerpt of his address is "Weather forecasts are available these days and the concerned technology has become so advanced these days, and space science also plays a very big role that these weather forecasts turn out to be mostly accurate now. We should also gradually make it our nature to set our work patterns according to the weather predictions, which could safeguard us against losses".

Indo-UK meeting to develop Weather and Climate Science for Service Partnership – India



Dr. M. Mohapatra, Scientist 'G' explaining the forecasting services to team UK-Met at National Weather Forecasting Centre

Dr. M. Mohapatra, Scientist 'G' participated in the Indo-UK meeting held on 8th August, 2017 at Prithvi Bhawan to develop Weather and Climate Science for Service Partnership-India (WCSSP India) program and discuss the possible areas of collaboration. Dr. Mohapatra gave a presentation on 'Prediction of Extreme Weather Events - India Efforts'. UK Met. Office Team visited various workstations of India

Meteorological Department (IMD) including National Weather Forecasting Centre (NWFC), Satellite and Radar divisions on 10th August. Dr. Mohapatra explained various forecasting modules at NWFC and the warning services of IMD to the visiting team. Similarly, Dr. D. Pradhan, Scientist 'G' explained about the Radar and Shri Virender Singh, Scientist 'E' explained about the satellite related activities.

Dr. Surender Paul, Scientist 'E' attended Flag hosting ceremony on 15th August, 2017 organized by His Excellency, Governor of Punjab at Raj Bhawan, Chandigarh.

Dr. Sanjib Bandyopadhyay, Scientist 'F' RMC Kolkata hoisted National Flag on the occasion of Independence Day on 15th August, 2017.

71st Independence Day of India on 15th August, 2017 and Sadbhavana Divas on 18th August, 2017 were celebrated at H.Q., New Delhi and all sub-offices of IMD across the country.

"Indian National Exhibition-cum-Fair' 2017" and 21st National Science Exhibition 2017"



A picture of an exhibition at Kolkata

RMC Kolkata (Research Unit, Alipore) has participated exhibition on behalf of MoES, during "Indian National Exhibition-cum-Fair' 2017" from 17th to 20th August, 2017 & "21st National Science Exhibition 2017 from 24th to 27th August, 2017 at Kolkata.

Meteorological Science Festival, METFEST 'MUGIL' at RMC Chennai – August 2017



Meteorological Science Festival "(METFEST) MUGIL"



Under the joint auspices of Indian Meteorological Society, Chennai Chapter and Regional Meteorological Centre Chennai a Meteorological Science Festival “(METFEST) MUGIL” was organised for school and college students in August 2017 at RMC Chennai on the theme of World Meteorological Day 2017- “Understanding Clouds”. Seven events-Painting, Quiz, Presentation of models / exhibits, Oral presentation, Weather photography and Presentation of working models / schematic animations spread over two days - 19th August, 2017 and 28th August, 2017. Fifty (50) students from various schools and colleges in and around Chennai participated in the seven events held on 19th August, 2017 and 28th August, 2017. Prizes were awarded to the winners and certificates were given to all participants.

Dr. Surender Paul, Scientist ‘E’ nominated as a member of the selection/assessment committee for selection of suitable candidate(s) to the post of Assistant Agro-meteorologist (at outstation) and assessments under CAS on the basis of interview from stage IV-V in the discipline of Agro-meteorology at PAU, Ludhiana on 22nd August, 2017.

Dr. Sanjib Bandyopadhyay, Scientist 'F' attended 21st National Exhibition at Agradut Krirangan, New Barrackpore, Kolkata organized by Central Calcutta Science & Culture Organisation for Youth on 24th August, 2017. He mentored the volunteers of ‘MoES stall’ ways to make the presentations livelier and to instill scientific temperament amongst visitors.

Japan delegates participating in Bullet train project visited M. C. Ahmedabad for familiarization regarding observations and forecasting procedure and they had meeting with Dr. Jayanta Sarkar, Scientific ‘F’ on 8th September, 2017.

WMO ESCAP Panel on Tropical Cyclones

A document on Tropical Cyclone Forecasters Competency for WMO/ESCAP Panel member countries has been prepared by RSMC, New Delhi and the same has been sent to WMO as per the decision of 66th Executive Council meeting of WMO. It was presented in 44th Session of Panel on Tropical Cyclones at Bahrain during 10 -14 September, 2017.



Dr. M. Mohapatra, Scientist ‘G’ chairing the 44th Session of WMO ESCAP Panel on Tropical Cyclones at Bahrain

Dr. M. Mohapatra, Scientist ‘G’ Chaired the above 44th Session of WMO ESCAP Panel on Tropical Cyclones and elected as Chairman of the WMO/ESCAP Panel on Tropical Cyclones for the year 2017-18. During the meeting Dr. M. Mohapatra gave presentations on Activities of RSMC New Delhi, Tropical Cyclone Activity during 2016 and Tropical cyclone Forecasting Competency. WMO in particular appreciated efforts by Dr. M. Mohapatra in updating the Tropical Cyclone Operational Plan (TCP-21).

Swachhta Pakhwada was celebrated during 16th September, 2017 to 2nd October, 2017 and Swachhta Hi Sewa (SHS) pledge was administered amongst officers and staff members of IMD on 25th September, 2017 at H.Q., New Delhi and all sub-offices of IMD.

Post-Monsoon Pre-Cyclone Exercise

Post-Monsoon Pre-Cyclone Exercise was conducted on 21st September, 2016 at Seminar Hall, MSO Building, Alipore under the chairmanship of Dr. Sanjib Bandyopadhyay, Scientist ‘F’, RMC Kolkata. High level Central and State Government



Dr. Sanjib Bandyopadhyay, Sc. 'F' and officers of other departments during the seminar

concerned authorities Like Coast Guard, All India Radio, Doordarshan, Eastern and South-eastern railways, Disaster Management Department, Govt. of West Bengal, DVC, representatives from office of the DMs and SPs of coastal districts, several NGOs and others took part in the exercise. Shri G. K. Das, Scientist ‘D’ presented “Cyclone Warning Preparedness and Dissemination”. Shri H. R. Biswas, Scientist ‘D’ presented “Monitoring of Cyclone through Satellite” and Shri A. Chanda, Scientist ‘E’ presented “Application of DWR in Cyclone Monitoring” at the seminar.

Outreach

India International Science Festival (IISF-2017)

RMC, Chennai organized jointly by Ministry of Science and Technology, Ministry of Earth Sciences, Vijnana Bharati and National Institute of Ocean Technology in connection with Third India International Science Festival (IISF) a outreach programme on 26th September, 2017 to popularize the event



Outreach programme on 26th September, 2017 at RMC Chennai

amongst school and college students. About 35 UG/PG Physics students from Women's Christian College Chennai and about 45 school students from KRM Public School, Chennai attended the programme. Officers, Staff, retired officers of RMC Chennai and members of IMS Chennai Chapter also attended the programme. Dr. N. P Rajive, Vijnana Bharathi (VIBHA), New Delhi emphasized the need on National Meet on Social Organisation and Institutions and delivered lecture extemporarily on the subject. Dr. Sekar Raghavan, Director, Rain Centre, Chennai delivered key note address on "Rain Water Harvesting" and Shri N. S. Chidambaram, a retired science teacher and Editor of Ariviyali - A science magazine in Tamil - spoke on the importance of popularizing science and technology in the society. Later the dignitaries planted tree samplings in the campus. Tamil Nadu Forest Department, Chennai supplied 20 tree saplings free of cost and were planted in the Office campus and Residential Quarters. An exhibition was arranged for the school and college students.

Human Resource Development Activities

Shri Surender Paul, Scientist 'E' attended training programme on Public Procurement for Government Officers at National Institute of Financial Management, Faridabad during 3-8 July, 2017.

Training programme on "Introductory Crop Micrometeorology"



Dr. N. Chattopadhyay, Sc. 'F' & others during training programme

Dr. N. Chattopadhyay, Scientist 'F' as Chief guest inaugurated the Training programme on "Introductory Crop Micro-

meteorology" organized by Mahatama Phule Krishi Vidyapeeth, Department of Agriculture Meteorology, Pune held on 7th September, 2017 at Pune.

Workshop and Seminar

Dr. Sanjib Bandyopadhyay, Scientist 'F' Attended workshop cum interactive session on weather information for power sector on 7th July, 2017 organised by Power System Operation Corporation Limited (A Govt. of India Enterprise) at 14, Golf Club Road Kolkata.

Dr. S. Balachandran, Scientist 'F' RMC Chennai attended Workshop on Climate Information Services for the Health Sector of Tamil Nadu on 17th July, 2017 conducted by RIMES at Public Health Department Training Centre, Chennai.

Shri Bikram Singh, Scientist-'E' attended a workshop on "Strengthening resilience to Climate Change related Disaster Risks" on 21st July, 2017 organized by Disaster Management Department, Govt. of Uttarakhand and UNDP. The chief guest of the event was honorable Chief Minister of Uttarakhand and the Guest of Honor was Chief Secretary, Govt. of Uttarakhand.

Dr. S. Balachandran, Scientist 'F' and Shri B. Arul Malar Kannan, Scientist 'D' participated as IMD representatives in the Command Control Centre Collaborative (CCC) Workshop/Meet for Chennai Smart City for Disaster Management System on 7th August, 2017 at Chennai.

Dr. A. K. Srivastava, Scientist 'F' attended workshop from 22-23 August, 2017 on "Implementation of Climate Smart Village (CSV) Approach in Maharashtra and delivered a lecture on "Understanding Climate Variation and Factors in Maharashtra".

Workshop on "Urban Climate : Science, Impacts and adaptation"



Dr. K. J. Ramesh, DG, IMD during the workshop

Dr. K. J. Ramesh, Director General of Meteorology, New Delhi was guest of honour at the DST's National Workshop on "Urban Climate : Science, Impacts and Adaptation" organized by School of Earth Ocean and Climate Sciences of IIT,



Bhubaneswar on 21st September, 2017 . D.R. Pattanaik and other officers of IMD participated in the the above workshop

Dr. A.K. Sahai, Scientist 'G', Dr. D.R. Pattanaik, Scientist 'E' and Dr. V.K. Soni, Scientist 'E' participated and delivered talks in the DST's National Workshop on "Urban Climate : Science, Impacts and adaptation" on 21-22 September, 2017 at Bhubaneswar, Odisha.

Dr. S. C. Sahu, Scientist 'D', M. C. Bhubaneswar, attended DST's National Workshop on 'Urban Climate : Science, Impacts and Adaptation' organized by School of Earth Ocean & Climate Sciences of IIT, Bhubaneswar on 21-22 September, 2017.

Lectures

Dr. D. S. Pai, Scientist 'F' delivered a special talk on the "Seasonal Prediction Activities of MoES" in the colloquium organized jointly by IMS Cochin Chapter and Department of Atmospheric Sciences' CUSAT, Cochin on 5th July, 2017.

Dr. K. V. Balasubramanian, Meteorologist 'B' delivered lecture on "Disaster Management and Mitigation Measures" to 20 State Government Disaster Management officials from Anna Institute of Management on 13th July, 2017.

Dr. G. C. Debnath, Scientist 'D', AMO Kolkata delivered lecture on Early Warning System in a Training programme on 18th July, 2017 in the District Administrative Building at Barasat regarding "Flood Risk Management & Mitigation".

Shri ViginLal F., Scientist 'B' delivered lecture on "Flood Forecasting and Reservoir Operation" to South Gujarat irrigation department staff at WALMI, Surat on 19th July, 2017.

Shri M. Balaji, Met. 'B' delivered lecture on "Disaster Management and Mitigation Measures" to 17 State Government Disaster Management officials from Anna Institute of Management on 17th August, 2017 and Ms. N. Usha Nandini, S. A demonstrated various instruments to the trainees.

Shri Surender Paul, Scientist 'E' attended lecture on advances in climate change delivered by Dr. Akhilesh Gupta, Adviser, Head Climate Change, Department of Science & Technology, Chandigarh at Mahatma Gandhi State Institute of Public Administration, Chandigarh on 17th August, 2017.

Dr. S. C. Sahu, Director In Charge, M. C. Bhubaneswar, Delivered lecture under three day Training Course on the subject "Disaster Risk Reduction and Dissemination of Early Warning : Role of NGOs and CSOs" and Climate Change and its Coping Mechanism, Reinforcing Community Action" at Gopabandhu Academy of administration , Bhubaneswar on dated 5th September, 2017 .

Shri B. Arul Malar Kannan, Scientist 'D' delivered lecture on "Cyclone Disaster Management" to 25 Headmasters and school

teachers from Anna Institute of Management on 21st September, 2017.

Dr. K. K. Singh and Dr. S. D. Attri participated in "2017 Asia Pacific Agriculture Insurance Forum" held in New Delhi during 26-27 September, 2017. Dr S. D Attri delivered lead talk on "Advances in Meteorological Observations and Services".

Awards/Honours & Recognitions

MoES AWARD 2017



Dr. R. R. Mali, Sc. 'F' receiving the award from **Dr. Harsh Vardhan, Hon'ble Minister of Earth Sciences**



Dr. S. I. Laskar, Sc. 'D' receiving the award from **Dr. Harsh Vardhan, Hon'ble Minister of Earth Sciences**

The Ministry of Earth Science celebrated its Foundation Day on 27th July, 2017 at Vigyan Bhawan, New Delhi. On this occasion, Dr. Dr. Rajesh Ramdas Mali, Scientist 'F' and Dr. S. I. Laskar, Scientist 'D' received certificate of merit for their outstanding contributions in the field of "Atmospheric Science & Climate Change" for the year 2015-2016. The awards were also given to the following best employees of the department : Dr. Sumit Kumar Bhattacharya, Met. 'A', DGM's Office (NWP), Shri Roshan Kumar Chhetri, S.A. RMC, Kolkata, M.C. Gangtok, Ms. T. Amudha, UDC, RMC, Chennai, Shri Banwari Singh, MTS, ISSD, DGM's Office, New Delhi and Shri Aditya Kumar Das, MTS, RMC, Guwahati, M.O. Tezpur.

The Chief Secretary, Government of Uttarakhand, appreciated the weather forecast issued by M. C. Dehradun towards Hourly Weather forecast and Warnings during VVIP-1 visit to Haridwar, Sri Badrinath ji and Sri Kedarnath ji on 22nd and 23rd

September, 2017 to the Chief Secretary, Government of Uttarakhand, Secretary, Protocol and other Senior Officers of Govt. of Uttarakhand.

Infrastructure Development & Installations

Two AGRO-AWS stations have been installed at CagMo- with Soil moisture sensors(Delta T) of depth 5 cm and 20 cm using 2 Astra Dataloggers in GPRS mode by AWS Lab

Out of 200 DSB delivered to different RMCs, two numbers of DSBs were transported for installation at M. O. Tezu and M.O. Chitradurg.

Dr. S. Balachandran, Scientist 'F' RMC Chennai attended the inaugural function of DWR Kochi held on 12th July, 2017.

Shri M. M. Saklani, Met. 'B' and Shri D. K. Verma, Met. 'B' were on AWS tour from 15-22 July, 2017 and Five AWS viz., Nainital, Matela, Kapkot, Pithoragarh & Champawat were upgraded with new GPRS based data logger and are now working satisfactorily.

Shri R. M. Kamble, Met. 'B', Shri P. R. Rasal, S. A. and Shri P. R. Mhetre, S. A. were on tour to Kishangarh Airport, Ajmer for installation of DCWIS system from 10-to 22 July, 2017.

Shri Rakesh Sahai, Met. 'A' and Shri Sanjay Kadam, Met. 'A' were on tour to Hyderabad (Begumpet), Shamsabad for servicing and maintenance of CWIS system from 17-21 July, 2017.

Shri S. M. Natu, Met. 'B' and Shri A. B. Sakhare, Met. 'B' were on tour to INS UTKROSH, Port Blair for installation of DIWE system from 18- 23 July, 2017.

Shri R. M. Kamble, Met. 'B', Shri. R. G Patil, Met. 'A' and Shri Ravindra More, S. A. were on tour to Gannavaram Airport, for installation of CWIS system from 1-11 August, 2017.

Shri P. R. Mhetre, S. A. was on tour to Gaya Airport, for servicing and maintenance of DWIE system from 11-25 September, 2017.

Shri. A. M. Paralikar, Met 'B' and Shri. P. S. Budhkar, Met 'A' were on tour to HAL Hyderabad from 12-15 September, 2017 for calibration & servicing of Barometers, DPI and Manometers.

Shri Manish Ranalkar, Scientist 'D' and Shri Uday Shende, Scientist 'D' were on tour to Adani Airport, Mundra for rectification of fault of DCWIS system from 13-16 September, 2017.

Shri R. M. Kamble, Met 'B' and Shri Ravindra More, S. A. were on tour to Nagpur Airport for installation of DIWE system from 18-27 September, 2017.

Shri Rakesh Kumar, Scientist 'B' and Shri A. B. Sakhare, Met. 'B' were on tour to Shirdi Airport for installation of CWIS system from 19-20 September, 2017.

Shri P. R. Mhetre, S. A. was on tour to Udaipur Airport, for servicing and maintenance of DWIE system from 25-29 September, 2017.

Inter-Agency Meetings

A discussion meeting on 'State Level Climate Services - Forecasting Kerala State' was hosted at Thiruvananthapuram by M. C. Thiruvananthapuram on 2nd July, 2017. Shri A. S. Kati, Joint Secretary, MoES, Dr. K. J. Ramesh, Director General of Meteorology, Dr. A. K. Sahai, Scientist 'G', Dr. D. S. Pai, Scientist 'F', Dr. A. K. Srivastava, Scientist 'F' Shri S. B. Thampi, Scientist 'F', RMC Chennai, Dr. S. Balachandran, Scientist 'F', Shri S. Sudevan, Scientist 'E', M. C. Thiruvananthapuram along with other dignitaries from IMD and other scientific institutions participated in the meeting.

Shri S. M. Metri, Scientist 'E' attended the Meeting on registration of farmers for providing SMS on crop and location specific agromet advisories free of cost Convened under the chairmanship of the Additional Chief Secretary and Development Commissioner, Bengaluru on 4th July, 2017.

Shri S. M. Metri, Scientist 'E', Dr Geeta Agnihotri, Scientist 'E', Shri G. Raja Ramesh, Met.'B' attended meeting at Southern Regional Load Despatch Centre (SRLDC), Bengaluru Familiarization of web portal exclusively created by IMD, New Delhi for Power System Operation Co-operation (POSOCO) use and interpretation of weather data on 12th July, 2017

Presentation on Disaster Preparedness



Shri Bikram Singh, Scientist-'E' during the presentation

Shri Bikram Singh, Scientist-'E' attended a meeting on 14th July, 2017 on Disaster Preparedness and gave a presentation on "Monsoon-2017 forecast & Performance of Monsoon-2017 till date and operational products being generated by M. C. Dehradun" in the meeting chaired by the Chief Minister, Government of Uttarakhand and attended by other ministers, the Chief Secretary and the Secretaries/Heads of various departments of Government of Uttarakhand.



Dr. S. Balachandran, Scientist 'F', RMC Chennai attended three Executive Committee meetings at NIOT on 15th July, 1st August and 7th September, 2017 regarding conducting Indian International Science Festival held at Chennai during 13-16 October, 2017.

1st Meeting of Expert Committee for development of Decision Support System (DSS) on Cyclones was held at Indian National Centre for Ocean Information Service (INCOIS), Hyderabad on 19th July to develop DSS on cyclones in line with Tsunami Warning System. Dr. M. Mohapatra, Scientist 'G' gave a presentation on Cyclone Warning Services of India Meteorological Department. Recommendations of the meeting were circulated to all the members on 23rd July, 2017.

Ms B. Amudha, Scientist 'D' was nominated as one of the members of Techno Commercial Committee constituted by National Institute of Technology (NIOT), Chennai for procurement of Wind Tunnel for calibration of meteorological and oceanographic sensors and attended the first meeting of the Committee convened on 24th July, 2017 at NIOT, Chennai.

Dr K. K. Singh, Scientist 'F' and Shri Anand Sharma, Scientist 'F', AASD attended the meeting for Drought manual revision based on the observations from National Disaster Management Center, Government of Karnataka, Meeting was organized by MNCFC, Department of Agriculture & Cooperation on 25th July, 2017.

Shri Surender Paul, Scientist 'E' attended a meeting organized by Disaster Management Revenue Rehabilitation, Govt. of Haryana regarding forecast for the remaining part of monsoon season. Meeting was chaired by Shri M. S. Marwa, Member, NDA, Government of India at Mini Secretariat, Chandigarh on 27th July, 17.

Smt. S. Stella, Scientist 'D', AMO Chennai attended Regional Connectivity Scheme (RCS) meeting organised by Airport Authority of India and Government of Tamil Nadu at Chennai on 27th July, 2017 in connection with the flight operations to airports under UDAN scheme.

Dr. Sanjib Bandyopadhyay, Scientist 'F', RMC, Kolkata met with officials of PAO, IMD, Kolkata on 1st August, 2017 to discuss issue relating to SBI e-Z cards (Imprest Cards) for solving outstation imprest payments.

Ms. B. Amudha, Scientist 'D' has been nominated as an expert committee member of Technical Bid Evaluation Committee constituted by Director General, Nation Institute of Wind Energy (NIWE) for setting up of SRRA station in Chandrapur, Maharashtra and attended the meeting on 8th August 2017 at NIWE, Chennai.

Dr. K. J. Ramesh, Director General of Meteorology had meeting with Ms Rita Sharma of United Kingdom Met. Office on 9th August, 2017 at British High Commission, New Delhi.

Dr. M. Mohapatra, Scientist 'G' participated in the 1st meeting of Working Group 5, NITI Aayog on "Data/Information for Informed Decision Making by Multiple Stake holders" to discuss the current progress of working task force and decide roadmap to progress ahead at Indian National Science Academy, New Delhi on 18th August, 2017. He made a presentation on Data and services of IMD over the Himalayan region.

Shri H. R. Biswas, Scientist 'D' attended meeting on Monitoring & Management of the situation under recent Flood and water logging condition in several districts of West Bengal at NABANNA ON 24th August, 2017. He also, attended meeting and gave a presentation on Users meet for safety of Fisherman organized by Weather Section, Kolkata, on 29th August, 2017.

Additional Secretary, Disaster Management Department, Government of Uttarakhand, visited Meteorological Centre Dehradun on 26th August, 2017 and he was briefed by Sh. Bikram Singh, Scientist 'E' about the activities and services being provided by Meteorological Centre, Dehradun.

Shri S. Sengupta, Scientist 'E' MC Patna accompanied by Shri Anand Shankar, Scientist 'B' attended Bihar State Disaster Management Authority annual meeting under chairmanship of Hon'ble Chief Minister of the state on 6 September, 2017. He also met with Director AAI, Patna on 6th September, 2017 as requested regarding expansion of Patna Airport terminal building etc and minutes & letter received in this respect already sent to H. Q for getting necessary instruction.

Dr. S. C. Sahu, Scientist 'F' M.C. Bhubaneswar attended Meeting on Vector Borne Diseases at Directorate of Public Health, Bhubaneswar on 12th September, 2017.

Dr. S. C. Sahu, Director, M. C. Bhubaneswar, attended the Expert Committee Meeting of State Drought Monitoring Cell (SDMC) organized by Odisha State Disaster Management Authority, Bhubaneswar at Rajiv Bhawan, Bhubaneswar on dated 13th September, 2017.

Dr. S. Balachandran, Scientist 'F' attended a meeting on "Achievements of the previous Plan Schemes and Future strategy for the schemes approved for implementation during 2017-20 and beyond" convened by Secretary, MoES at New Delhi in 15th September, 2017. Also S/Shri Y. K. Reddy, Scientist 'F', M.C. Hyderabad, S. M. Metri, Scientist 'E' M.C. Bengaluru and S. Sudevan, Scientist 'E' participated in the meeting.

Shri Surender Paul, Scientist 'E' attended a meeting with Secretary MoES, New Delhi to discuss the achievement of previous schemes and future strategy for schemes approved for implementation during 2017-20 at New Delhi on 15th September, 2017.

Dr. S. Balachandran, Scientist 'F' RMC Chennai participated in the meeting to "Kick-off" the project, "A Platform for Integrated Governance in Metropolitan Chennai : Developing Resilience Scenarios and Strategies through Participatory Simulations" under the Chairmanship of the Principal Secretary/Commissioner, Revenue Administration and Disaster Management and Mitigation Department, Chennai at Chennai on 18th September, 2017.

Dr. S. Balachandran, Scientist 'F' RMC Chennai participated in the meeting on preparedness of North East Monsoon, convened by the Chief Secretary, Government of Tamil Nadu at Secretariat on 22nd September, 2017.

Dr. Shashikant, Scientist 'B' attended the 2nd meeting for the year 2017-18 of the State Executive Committee constituted under the Disaster Management Act, 2005 at Odisha Secretariat on dated 25th September, 2017.

Shri Bikram Singh, Scientist 'E' attended a meeting on 25th September, 2017 at ITM, DRDO, Mussoorie in connection with installation of DWR at ITM campus, Mussoorie. The meeting was chaired by Shri Ashwagosh Ganju, Director, SASE and Shri Sanjay Tandon, Director, ITM, Mussoorie was also present as member secretary.

Research & Publications

15 research papers were published in quarterly research journal **MAUSAM Vol. 68 No. 3 (July, 2017)**.

The Preliminary reports on the (i) depression over the Bay of Bengal during 18-19 July, 2017 and depression over Jharkhand (26-27 July, 2017) has been prepared and uploaded in RSMC New Delhi website

Paper entitled "**Study of crop evapotranspiration and crop coefficient of soybean (Glycine max L.Merrill) on weekly basis in Bengaluru, Karanataka**" by C. S. Patil, Scientist 'D' and Rajavel Manickam, Scientist 'C' for publication in the 'Journal of Agrometeorology', **19, 3, 2017**.

Research paper "**Climate change, Environmental impacts and sustainable development**", U. S. De and D. M. Rase, J. Ind. Geophysics Union **21, 5, 425-430 (September 2017)**.

Paper entitled "**Forecasting of Hailstorm over Dehradun**" by Shri Bikram Singh, Scientist 'E' and Shri Rohit Thapliyal, Scientist 'B' has been accepted for oral presentation in International Tropical Meteorology Symposium 2017 (Intromet-2017).

Paper entitled "**Analysis of cloud burst events over Uttarakhand**" by Shri Rohit Thapliyal, Scientist 'B' and Shri Bikram Singh, Scientist 'E' has been accepted for Poster presentation in International Tropical Meteorology Symposium 2017 (Intromet-2017).

ENSO bulletin and Seasonal Climate Outlook for South Asia for the month of July to September were issued. (Quick Link : [www.imdpune.gov.in /Clim Pred LRF New/Products.html](http://www.imdpune.gov.in/Clim_Pred_LRF_New/Products.html))

Weekly and cumulative Standardized Precipitation Index (SPI) maps were prepared for the months July to September and supplied for use in Agromet Advisory Services Bulletin.

Drought outlook maps for the months July to September have been prepared and uploaded on IMD Web-site.

Weekly Aridity anomaly maps & reports for the months July to Sept. have been prepared and uploaded on IMD Web-site.

Media Interaction

Dr. S. C. Sahu, Scientist 'D', M. C. Bhubaneswar, participated in panel discussion in Kalinga TV live telecast for creating massive public awareness campaign on the safety awareness on lightning on 29th July, 2017.

Dr. M. Mohapatra, Scientist 'G' participated as a Panelist in the live Panel Discussion Programme in Hindi organized by Lok Sabha TV during 1900-2000 hrs IST of 30th July, 2017 on the theme, "Rain, Flood and Disaster"

Forecast was issued on 8th August, 2017 for moderate to rather heavy rain with moderate to severe thunderstorm at a few places over Ariyalur district. As per press reports, a bridge built across a river broke due to flash floods caused by heavy rains near Sendurai in Ariyalur district on 9th August, 2017.

Forecast was issued on 16th August 2017 for moderate to heavy rain with moderate to severe thunderstorm at a many places over Namakkal district. As per press reports, a woman was burnt to death due to severe thunderstorm and lightning near Kolli Hills in Namakkal district on 17th August, 2017.

Shri S. S. Mairal, Met 'B' attended quarterly meeting on "Gramin Sallagar Karyakrem" of All India Radio (AIR) on 25th September, 2017 Symbiosis International University, Hinjewadi, Pune. He discussed the mechanism of preparation composite Agromet Advisory Bulletins for Maharashtra state and assured the officers of AIR for forwarding of bulletin within time i.e. 1700 hours for its editing in order to broadcast early morning on next day.

Foreign Visit

Dr A. K. Das, Scientist 'D' was on foreign deputation to Japan during 2-29 July, 2017 to attend the knowledge co-creation program on 'Capacity Development for Flood Risk Management with Integrated Flood Analysis System (IFAS)' organized by Japan International Cooperation Agency (JICA) under the International Co-operation Program of the Government of Japan.



Dr. K. J. Ramesh, DG, IMD was on foreign deputation to Papua New Guinea during 22-25 August, 2017 to attend 9th meeting of Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES).

Shri G. K. Sawaisarje, Scientist 'D', was on deputation to participate in the Training Development Workshop for Regional Training Institutions in WMO Regional Associations II and V (RA-II & RA-V) held at Melbourne, Australia from 28th August to 1st September, 2017.

Dr Siddharth Singh, Scientist 'D' was on foreign deputation to Melbourne (Australia) during 28 August, 2017 to 1 September, 2017 to participate in the 16th WMO-GAW Brewer Operator Course-Asia/Pacific.

Dr. D. S. Pai, Scientist 'F' was on foreign deputation to Guayaquil, Ecuador to participate in WMO International Workshop on Global Review of Regional Climate Outlook Forums (RCOF) during 5-7 September, 2017.

Dr. Mrutyunjay Mohapatra, Scientist 'G' was on foreign deputation to Bahrain to participate in the Forty-fourth Session of WMO/ ESCAP Panel on Tropical Cyclones (PTC-44) held during 10-14 September, 2017.

Shri Narendra Nigam, Scientist 'F' was on foreign deputation to Beijing, China to participate in the International Training Course on Aeronautical Meteorology Services organised by WMO Regional Training Centre (RTC) during 11-22 September, 2017.

Dr. K. K. Singh, Scientist 'F' and **Dr. N. Chattopadhyay**, Scientist 'F' was on foreign deputation to Dhaka, Bangladesh to participate in the Workshop on Participatory Development and Delivery of Agricultural Climate Services during 17-19 September, 2017.

Dr. A. K. Sahai, Scientist 'G' was on foreign deputation to Entebbe (Uganda) to participate in the Initial Planning Meeting on WMO Global Hydrological Status and Outlook Systems (HYDROSoS) during 25- 30 September, 2017.

Dr. D. S. Pai, Scientist 'F' was on deputation to Male, Maldives to attend the 11th Session of South Asian Climate Outlook Forum (SASCOF-11) from 25- 27 September, 2017.



Dr. D. S. Pai, Scientist 'F' and other participants

Visits / Visitors

Dr. Jayanta Sarkar, Scientist 'F' attended "Training programme on Public Procurement for Government Officers" at National Institute of Financial Management, Pali, Faridabad, Haryana, during 10-15 July, 2017.

Dr. M. Mohapatra, Scientist 'G' participated in the training workshop on "Review and Updation of Disaster Management Plan of Central Ministries" organised by National Institute of Disaster Management (NIDM), Ministry of Home Affairs (MHA) at New Delhi on 17th July, 2017.

Dr. M. Mohapatra, Scientist 'G' visited Goa University as an External Examiner to conduct viva voce of a Ph.D. student at the University on 21st July, 2017.

Ms. Dilshanie Perera Ph. D scholar, from Stanford University, USA visited India Meteorological Department during 7-15 August, 2017. During her visit, Dr. M. Mohapatra, Scientist 'G' explained to her various aspects of forecasting services and role of IMD in disaster management within the country and among various WMO/ESCAP Panel member countries. She was also briefed about various observational aspects including satellite, radar, telecommunication and numerical weather prediction models for cyclone monitoring.

Three Japanese researchers, Dr. Yusuke Yamane from Tokoha University, Dr. Azusa Fukushima from Kobe Gakuin University and Dr. Toru Terrao from Kagawa University visited IMD, Pune on 21st August, 2017 to discuss about the data rescue of old observational data.

The following visitors were visited O/o CRS, Pune :

(i) 70 Students from Doorstep School and SSRBM School Bavdhan, Pune visited MTI, Pashan.

(ii) Students from Vishwakarma Institute of Technology, Pune visited Electronic Lab in first week of September.

(iii) FTI, Pune students visited Electronic Lab on 5th September, 2017.

(iv) IAF officer trainees visited Electronic Lab on 11th September, 2017.

(v) 30 JCO/NCO from College of Military Engineering, Dapodi visited MTI, Pashan on 11th September, 2017.

(vi) 69 students with 3 faculty from D.Y. Patil Engineering, Ambi, Talegaon visited MTI, Pashan on 21st September, 2017.

(vii) 140 students from D. Y. Patil Engineering, Warle, Talegaon visited MTI on 22nd September, 2017.

(viii) 72 Students from Kamalnayan Bajaj Engineering College, Baramati visited MTI, Pashan on 30th September, 2017.

(ix) Tour programmes/briefing of 3059 visitors visiting IMD, Pune offices from different organizations / institutions were arranged.

National / International Collaboration

A Letter of Agreement (LoA) was signed on 24th July, 2017 between IMD and Collector Diu Administration (CDA) for the provision of Meteorological Aviation Services at Diu Airport.

Weather Summary

**Depression over the Bay of Bengal
(18-19 July 2017)**

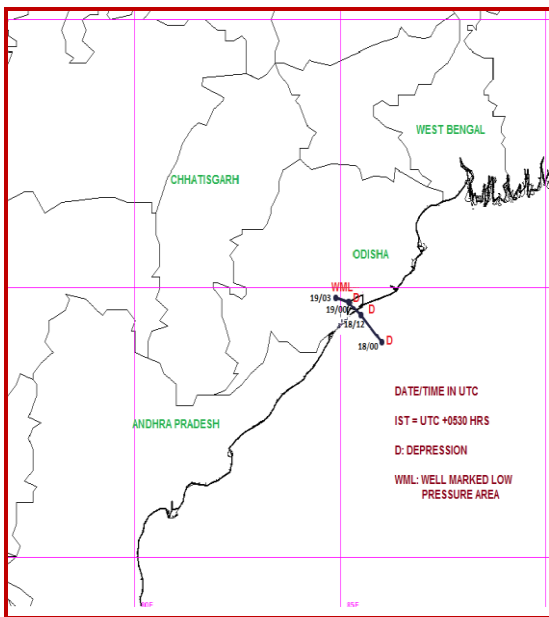


Fig. 1. Observed track of the system

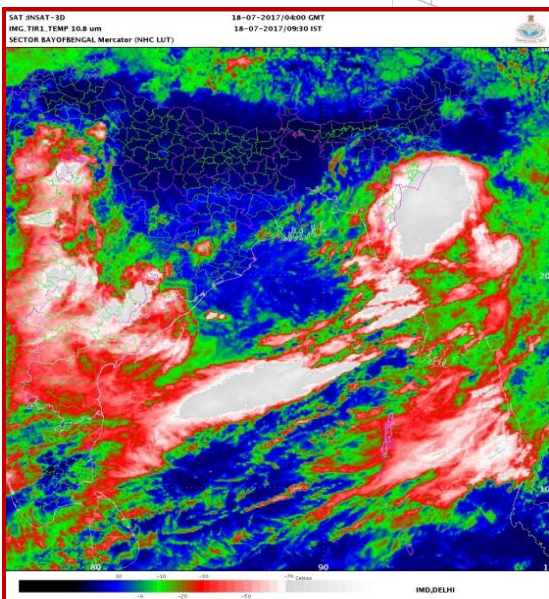
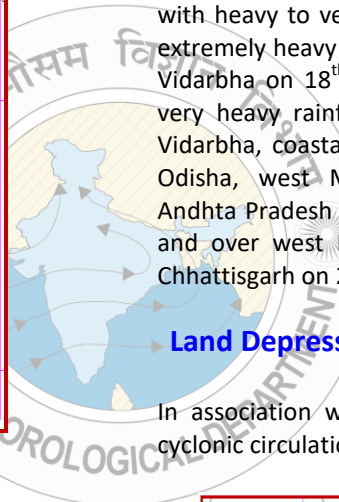


Fig. 2. Typical satellite imagery of the system

In association with active monsoon conditions, an upper air cyclonic circulation developed over eastern parts of Gangetic West Bengal & neighbourhood in the morning of 12th July, 2017. Under its influence, a low pressure area formed over northwest Bay of Bengal (BoB) off north Odisha & Gangetic West Bengal coast on 15th morning. It lay as a well marked low pressure area over northwest & adjoining west-central BoB and coastal areas of Odisha & north Andhra Pradesh in the morning of 17th. It concentrated into a depression over northwest & adjoining westcentral BoB and coastal areas of Odisha in the morning of 18th. It moved west-northwestwards and crossed Odisha coast near Puri around 2030 hours IST on the same day. It weakened into a well marked low pressure area in the morning of 19th over interior Odisha and neighbourhood and into a low pressure area over interior Odisha and adjoining Chhattisgarh in the evening of 19th July, 2017. The observed track of the system is shown in Fig. 1. The typical satellite imagery of the system is shown in Fig. 2.



सत्यमेव जयते



Realized Weather

Under the influence of the Depression, rainfall at most places with heavy to very heavy rainfall at a few places and isolated extremely heavy rainfall occurred over Chattisgarh on 17th and Vidarbha on 18th July. Rainfall at most places with heavy to very heavy rainfall at isolated places occurred over Odisha, Vidarbha, coastal Andhra Pradesh, Telengana on 17th, over, Odisha, west Madhya Pradesh, Chhattisgarh and coastal Andhta Pradesh on 18th, Vidarbha and Chhattisgarh on 19th and over west Madhya Pradesh, east Madhya Pradesh and Chhattisgarh on 20th July.

Land Depression over Jharkhand (26-27 July 2017)

In association with active monsoon condition, an upper air cyclonic circulation developed over south Bangladesh and

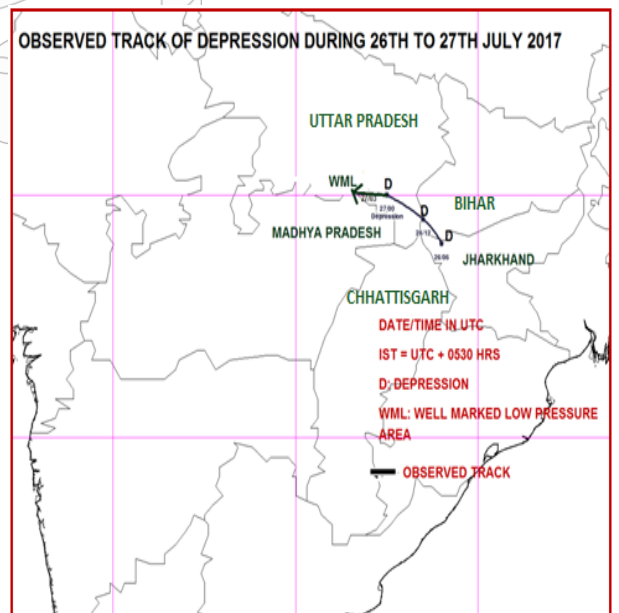


Fig. 3. Observed track of the system during 26-27 July, 2017



morning of 22nd July, 2017. Under its influence, a low pressure Gangetic West Bengal and adjoining north Bay of Bengal in the area formed over Gangetic West Bengal and adjoining Jharkhand in the evening of 23rd. It lay as a well marked low pressure area over Gangetic West Bengal and adjoining Jharkhand in the morning of 24th. It concentrated into a depression over northwest Jharkhand & neighbourhood in the morning of 26th. It moved north-westwards and maintained the intensity of depression till early morning of 27th. It then weakened into a well marked low pressure area over northeast Madhya Pradesh and neighbourhood in the morning of 27th July, 2017. The observed track of the system is presented in Fig 3. and typical satellite imagery is presented in Fig. 4.

The rainfall during August is likely to be $99 \pm 9\%$ of LPA. The seasonal (June to Sept) rainfall over the country as a whole is likely to be normal (96% - 104% of LPA) as predicted in June.

Forecast performance

IMD issued warning bulletins to the concerned central and state disaster management authorities & press and media. The verification of heavy rainfall warnings issued by IMD for depression during 26-27 July is presented in Table 1. It can be found that the occurrence of heavy rainfall in association with the system could be predicted well in advance.

TABLE 1

Verification of heavy rainfall warning issued by IMD for Deep Depression over Bay of Bengal (26-27 July, 2017)

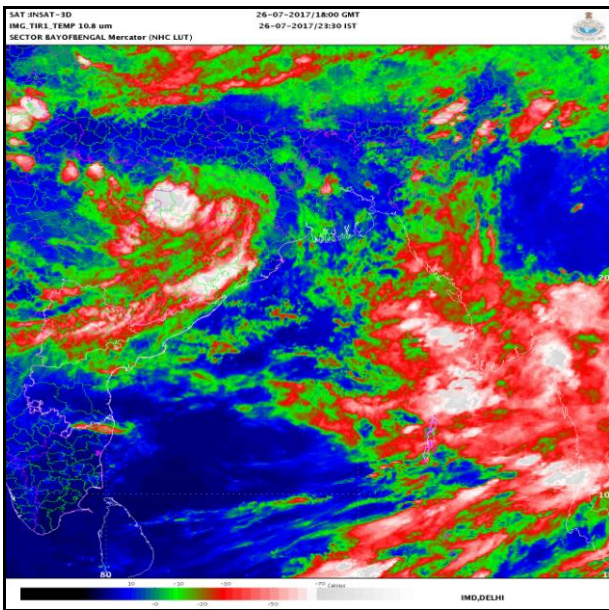


Fig. 4. Typical satellite imagery of the system during 26-27 July, 2017

Realised weather

Under the influence of this depression, rainfall at most places with heavy to very heavy rainfall at a few places and isolated extremely heavy rainfall occurred over Jharkhand on 25th and over west Madhya Pradesh on 27th. Rainfall at most places with isolated heavy to very heavy rainfall occurred over Chhattisgarh and east Uttar Pradesh on 25th, Chhattisgarh, east and west Uttar Pradesh, east and west Madhya Pradesh on 26th, and over west Uttar Pradesh, east and west Madhya Pradesh on 27th.

Forecast for the Rainfall during the Second Half (August–September) of the 2017 Southwest Monsoon Rainfall and Updates for the Seasonal Forecasts were issued on 8th August. Summary of the forecasts are as follows:

The rainfall over the country as a whole during second half of south-west monsoon season (August to September) is most likely to be normal (94% - 106% of LPA). Quantitatively, the rainfall for the country as a whole during the second half of the season is likely to be 100 % of LPA with a model error of $\pm 8\%$.

Date/Time of issue	Heavy rainfall warning	Realised heavy rainfall (7cm or more) ending at 0830 hrs IST of date
0830 IST of 26 th July 2017	Heavy to very heavy rainfall (7-20 cm) at a few places and isolated extremely heavy rainfall (21 cm or more) is very likely over Jharkhand, north Chhattisgarh & Northeast Madhya Pradesh and isolated heavy falls over southeast Uttar Pradesh during next 24 hrs. Isolated heavy to very heavy rainfall very likely over East Madhya Pradesh and isolated heavy rainfall over East Uttar Pradesh, West Madhya Pradesh & Chhattisgarh on 27 th .	26th July: Jharkhand: Latehar-27, Mandar-25, Hindgir, Ranchi-21 each, Kuru-19, Lohardaga-17, Gomia, Maheshpur-14 each, Ramgarh, Daltonganj-13 each, Jamshedpur-12, Pupunki, Dhanbad, Koner-10 each, Putki-9, Panchet, Tenughat, Maithon, Topchanchi, Jaridih, Palkot-8 each, Raidih, Nandadih, Giridih, Dumri, Bokaro, Torpa, Barhi, Barkisurayia, Gumla-7 each, Chhattisgarh: Ramanujganj-9 East Uttar Pradesh: Ghorawal-9
0830 IST of 27 th July 2017	27.07.2017: Isolated heavy to very heavy rainfall with isolated extremely heavy rainfall is very likely over Madhya Pradesh; isolated heavy to very heavy falls likely over East Rajasthan & Chhattisgarh and isolated heavy falls over southeast Uttar Pradesh & Vidarbha. 28.07.2017: Rainfall at most places with isolated heavy to very heavy rainfall with extremely heavy rainfall is very likely over East Rajasthan; isolated heavy to very heavy is very likely over West Madhya Pradesh & West Rajasthan and isolated heavy over East Madhya Pradesh.	27th July Jharkhand: Daltonganj-10, Lohardaga, Kurdeg, Ramgarh-9 each Chhattisgarh: Ambikapur-13, Pathalgaon-11, Surajpur, Jashpurnagar-9 each East Uttar Pradesh: Dudhi-10 West Uttar Pradesh: Deoband-7 West Madhya Pradesh: Khandwa-AWS-9 East Madhya Pradesh: Singrauli-AWS-8, 28th July West Uttar Pradesh: Lalitpur-9 East Madhya Pradesh: Panna-AWS-8, Tendukheda-7. West Madhya Pradesh: Narsingarh-23, Raisen-AWS-21, Bareli & Agar-12 each, Suvasara-11, Guna-AWS-10, Khilchipur & Ashoknagar-AWS- 9 each, Biaoara, Chanderi & Isagarh-8 each, Manasa, Vidisha-AWS, Sarangpur & Udaipura-7 each 29th July: West Madhya Pradesh: Agar & Neemuch-AWS-11 each, Jawad-10, Mandsaur-AWS-9, Bhanpura-7. East Rajasthan: Pratapgarh-24, Rashmi SR-16, Nimbahera & Bakani SR-15 each, Chhotisadri, Dug, Kapasan SR, Chittorgarh, Pachpahar SR, Asnawar SR-13 each, Jhalarapatan SR, Pindwara, Mangliawas SR-12 each, Dunga SR, Badesar SR, Kotda SR, Bari-Sadri, Chambal/R.B.Dam-11 each, Banera SR, Mount Abu, Mounntabu Tehsil, Khanpur, Arnod SR-10, Bhainsroadgarh, Bhopalsagar SR, Begu Sr, Nasirabad & Sheoganj- 9 each, Gangdhar SR & Ramganjmandi SR-8 each, Sirohi, Mandal SR, Nayanagar/Beawar, Aklera, Gangrar, Salumber & Bhilwara Tehsil SR-7 each.