



मौसम विज्ञान विभाग समाचार IMD NEWS

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हिन्दी दिवस समारोह

हिन्दी दिवस समारोह 16 सितम्बर 2013 को वृष्टि सभागार में आयोजित किया गया। समारोह की अध्यक्षता मौसम विज्ञान के महानिदेशक डॉ. एल.एस. राठौड़ ने की। सुश्री रेवा शर्मा ने अध्यक्ष महोदय, अधिकारियों एवं सभागार में उपस्थित कार्मिकों का स्वागत किया। समारोह का शुभारम्भ महानिदेशक महोदय, डॉ. एल. एस. राठौड़, डॉ. एल. आर. मीणा, वैज्ञानिक 'एफ' श्री ए. के. शर्मा, वैज्ञानिक 'एफ' और डॉ. ओ.पी. सिंह, वैज्ञानिक 'एफ' द्वारा संयुक्त रूप से दीप प्रज्ज्वलित करके किया गया एवं विभागीय कलाकारों ने श्री अशोक कुमार द्वारा रचित सरस्वती वंदना का गायन किया। सरस्वती वंदना के उपरांत डॉ. एल. आर. मीणा, वैज्ञानिक 'एफ' ने अध्यक्ष महोदय, डॉ. एल. एस. राठौड़, महानिदेशक का स्वागत करते हुए भाषण दिया।



मौसम मंजूषा के 18वें अंक का विमोचन



बाल कलाकारों द्वारा प्रस्तुत देश भक्ति गीत

हिन्दी दिवस के अवसर पर माननीय गृह मंत्री श्री सुशील कुमार शिंदे द्वारा भेजे गए संदेश को सुश्री रेवा शर्मा ने सभागार में पढ़कर सुनाया और हिंदी दिवस की शुभकामनाएँ दी। इसके बाद विभागीय हिन्दी गृह पत्रिका 'मौसम मंजूषा' के 18वें अंक और पहले काव्य विशेषांक 'मौसमी ब्यार' का महानिदेशक महोदय द्वारा विमोचन किया गया। वर्ष 2012-2013 में हिन्दी में सबसे अधिक पत्राचार करने के लिए इस बार भी डॉ. ओ. पी. सिंह, मौसम विज्ञान के उपमहानिदेशक, प्रादेशिक मौसम केन्द्र, नई दिल्ली को राजभाषा चल-शील्ड प्रदान की गई। बाल कलाकारों द्वारा गणपति स्तुति – 'एकदंताय वक्रतुंडाय' मनोहर नृत्य के रूप में प्रस्तुत किया गया। स्क्रीन पर गणपति भगवान का मनोहर चित्र सकारात्मक ऊर्जा बिखेर रहा था। हिन्दी पखवाड़ा 2013 के दौरान आयोजित की गई प्रतियोगिताओं के विजेताओं को नकद पुरस्कार तथा प्रमाण-पत्र प्रदान किए गए। प्रतियोगिताओं के मूल्यांकनकर्ताओं को भी महानिदेशक महोदय ने स्मृति-चिन्ह भेंट किए।

अध्यक्ष महोदय डॉ. लक्ष्मण सिंह राठौड़ ने अपने अध्यक्षीय भाषण में कहा कि हिन्दी पखवाड़ा / हिन्दी दिवस के आयोजन का मुख्य उद्देश्य सरकारी कार्य में हिन्दी भाषा को बढ़ावा देना है। अध्यक्ष महोदय ने विभाग के सभी कार्मिकों को कार्यालय का अधिक से अधिक कार्य हिन्दी भाषा में करने की सलाह दी तथा राजभाषा विभाग द्वारा निर्धारित किए गए लक्ष्यों को प्राप्त करने के लिए और अधिक प्रयास करने का अनुरोध किया एवं राजभाषा के प्रचार-प्रसार में अपना अमूल्य योगदान देने पर भी जोर दिया।

Quarterly Newsletter

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WORKSHOPS

METEOROLOGICAL SERVICES FOR AVIATION



Workshop on "Meteorological Services in the field of Aviation"

A workshop on "Meteorological Services in the field of Aviation" was organized by MWO Kolkata on 18th September, 2013 at RMC Kolkata. Shri Shantanu Palodhi, ADG, PIB Kolkata was

the chief guest of the inaugural session. IMD officials gave presentation on the services provided by the department to the aviation sector and users' participants also presented their views and provided valuable feedback which will not only improve the quality/quantity of aviation forecast but will provide much better friendly relations between IMD and Aviation Community.

DWR AND ITS UTILIZATION IN WX PREDICTION

Five day's training workshop on "Doppler Weather Radar and its utilization in Weather Prediction" was organized by DWR, Kolkata for Indian Air Force, Indian



Workshop on "Doppler Weather Radar" in progress

Navy and IMD from 23-27 September, 2013. The workshop was inaugurated by Shri D. Pradhan, DDGM, RMC Kolkata. The lectures were delivered on the DWR products and their utilization in Nowcasting as well as Forecasting. Sufficient exposure was given in the actual occurrence of thunderstorm observed by DWR, Kolkata.

WORKSHOP ON "HIMALAYAN ENVIRONMENT AND DEVELOPMENT"

A national workshop on "Himalayan environment and development" was organized by GBPIHED, Ministry of Environment and Forests at Almora on 8-9 September, 2013. Shri Hem Pandey, Additional Secretary, Ministry of Environment and Forest appreciated the correct and timely warning under the leadership of Shri Anand Sharma, Sc. 'E'.

MEETINGS

WEATHER FORECAST FOR AGROMET ADVISORY SERVICE



Meeting on Use and requirement of Extended Range Weather Forecast

A meeting was organized at Agricultural Meteorology Division, IMD, Pune on 7th August, 2013 on the "Use and requirement of Extended Range Weather Forecast (ERFS) in Agromet Advisory Service" under the chairmanship of Shri B. Mukhopadhyay, DDGM (C), IMD, PUNE. The scientists of IMD, Pune and IITM, Pune attended the meeting.

DISSEMINATION OF AGROMET ADVISORIES

A meeting with members of central silk board, Bangalore was held on 8th August, 2013 for preparation and dissemination of a g r o m e t



Meeting with scientists from Silk Board, Bangalore

advisories to the sericulture farmers of the country. Dr. B. B. Bindroo, Director and Dr. C. J. Prabhakar Sc. 'D', Central Silk Board, Bangalore and officers of Agrimet Division participated in the meeting.

"IMPLEMENTATION OF BLOCK LEVEL WEATHER FORECAST AND AGROMET ADVISORY"



Officers of IMD and other during the meeting

Meeting on "Implementation of Block Level Weather Forecast and Agromet Advisory" was organized on 13th August, 2013 under the chairmanship of Shri S. Krishnaiah, ADGM (R). Seniors officers from the H. Q., New Delhi, ADGM (R), Pune, Agrimet Division. Surface Instruments Division and NWFC, New Delhi participated in the meeting.

USER MEET ON WEATHER SERVICES



The User Meet on the topic “**Weather Services rendered by India Meteorological Department to U/T of Puducherry**” was organised by ACWC, RMC, Chennai on 6th September, 2013 at **Conference hall, Planning & Research Department, Saram, Puducherry**. Around

40 delegates from 19 organizations who are directly benefitted by the weather services provided by IMD participated in the User Meet.

Dr. Y. E. A. Raj, Chief Guest District Collector of Puducherry & Dr. S. R. Ramanan during the Meet

REGIONAL COORDINATION COMMITTEE MEETING AT CHENNAI

Regional Coordination Committee meeting of Officers-in-charge of all sub offices and units of RMC, Chennai was conducted at RMC Chennai during 18-19 September, 2013. Dr. Y. E. A. Raj, DDGM, RMC Chennai chaired the RCC meeting on 18th September, 2013 and discussed the agenda points. Dr. L. S. Rathore, DGM presided over the meeting on 19th September, 2013 and released a booklet on RMC, Chennai.



Dr. L. S. Rathore, DGM addressing during RCC Meet

BRAINSTORMING MEET ON “ROCOIS-2013”



Dr. L. S. Rathore, DGM and Dr. M. A. Atmanand, Director NIOT Chennai

A Brainstorming Meet on Research on Tropical Cyclones over Indian Seas – RoCoIS-2013 was organised by CWRC, RMC, Chennai on 20th September, 2013 at Varuna Hall, NIOT Chennai. The meet was chaired by Dr. L. S. Rathore, DG, IMD. 27 Scientists from MOES, IMD, INCOIS, NCMRWF, IITM, NIOT, ICMAM, IGCAR and Andhra University participated in the meet. Dr. L. S. Rathore, DGM and Dr. M. Mohapatra, Sc. 'E' delivered a presentation on 'Status of operational tropical cyclone forecast and research in the meeting.

SAARC MONSOON INITIATIVE PROGRAM



National Working Group meeting

The first meeting of the National Working Group on SAARC Monsoon Initiative Program (NWGM) was organised by NWP Division on 13th September, 2013 at India

Meteorological Department, New Delhi under the chairmanship of Dr. L. S. Rathore, DG, IMD. The meeting was attended by the experts/scientist from various national organisations and user agencies, which include India Meteorological Department, National Centre for Medium Range Weather Forecast, Indian Institute of Tropical Meteorology, Ministry of Earth Sciences, Ministry of Agriculture, SAARC Disaster Management Centre, Ministry of Health and Family Planning etc.

PRE-CYCLONE EXERCISE

A meeting was conducted on 23-24 September, 2013 for the cyclone during the period October to December, 2013 at Mausam Bhavan, New Delhi. It was attended by the representatives of Disaster Management, Ministry of Home Affairs, National Disaster Management Authority, National Centre for Medium Range Forecast, Indian Air force and Indian Navy.

INDIVIDUAL PARTICIPANTS

Dr. R. S. Dattatrayam, Sc. 'F', attended the meeting of Public Accounts Committee 2013-14 on 1st July, 2013 at Parliament Library Building, New Delhi, chaired by Hon'ble Prof. Murli Manohar Joshi, to discuss the issues relating to Disaster Preparedness in India based on the report of CAG-5.

Shri A. K. Sharma, Sc. 'F', attended the first meeting of In Orbit Testing (IOT) of INSAT-3D at Space Application Centre (SAC), Ahmadabad on 9th July, 2013, CAL/VAL site for INSAT-3D.

Shri B. Mukhopadhyay, DDGM(C), chaired the meeting of 'Working Group on Climatological Monsoon Onset and Withdrawal dates' at Mausam Bhavan, New Delhi on 10th July, 2013.

Dr. N. Chattopadhyay, DDGM (Agrimet), presented on “Overview of Gramin Krishi Mausam Sewa in “IMS Consultation Meeting on Block Level Forecast System for Agricultural Operations” on 16th September, 2013 at New Delhi.

Dr. Y. E. A. Raj, DDGM participated as a chief guest in the Tamil Nadu Agricultural University, Coimbatore workshop on Representative Agricultural Pathways (RAPs) on 18th July, 2013.

AWARDS & ACHIEVEMENTS

AWARDS TO BEST EMPLOYEES



Shri Virender Singh, Sc. 'E' receiving the Award

Best Employee Award for the year 2012-13 during MoES Foundation Day on 27th July, 2013 in area of Atmospheric Sciences & Technology was conferred to three Gr. 'A' officers, two Gr. 'B' officers and two Gr. 'C' scientists and officials of the department. They are S/Shri Rahul Saxena, Virender Singh, Gajender Kumar, Lal Mohan Jyoti, Santanu Choudhury, J. K. Dudhan and Avik Dey.

APPRECIATION FOR ACCURATE WEATHER PREDICTION



Shri Sonam Lotus receiving the memento and the letter

Shri Sonam Lotus, Sc. 'C' was presented a memento & a letter of appreciation by Sh. N. N. Vohra, the Chairman SASB & Hon'ble Governor of J & K for issuing accurate weather forecast which ensured safe & smooth conduct of Amarnath Yatra, 2013 in a function attended by galaxy of state dignitaries on 23rd August, 2013 at Raj Bhavan, Srinagar.

EXHIBITION / FUNCTION



Shri V. Narayanaswami, Union minister visited the IMD stall

DWR, Karaikal got third prize in the major 3 days exhibition by Ministry of Information and Broadcasting, Govt. of India held at Karaikal, out of 64 stalls by central and state government departments. Shri P. S. Biju, Sc. 'C' got the prize in the exhibition.

RMC, Kolkata participated in the scientific exhibition "17th National Science Exhibition 2013" on the theme of "India Advancing Towards a World Power" during 21-25 September, 2013 at Belur, West Bengal.

MC Shimla participated in the "Earth Day" function at Govt. Sen. Sec. School Portmore, Shimla.

Visits

DGM's VISIT TO SATHYABAMA UNIVERSITY



Felicitation to DGM at Sathyabama University

Dr. L. S. Lathore, DGM, Dr. Y. E. A. Raj, DDGM, Dr. R. Asokan, Sc. 'E' and other senior scientists visited Climate Science Deptt., Sathyabama University on 19th September, 2013 and had discussions with their scientific team. Dr. Rathore He was felicitated by presenting a shawl at the university.

DISTINGUISHED VISITORS

Dr. H. Annamalai, Senior Researcher, International Pacific Research Centre, University of Hawaii at Manoa and Dr. Swadhin K. Behera, Ph. D, Team Leader, Japan Agency for Marine-Earth Science and Technology, Yokohama Institute for Earth Science, Japan visited RMC Chennai on 5th July, 2013 and had discussions with Dr. Y. E. A. Raj, DDGM, RMC Chennai and other senior officers.

Mr. Irshad Khan, Consultant, Environment and Climate Division, International Fund for Agriculture Development (IFAD), Rome, Italy visited this Division on 26th July, 2013 for discussion on project on "Climate change and adaptation in agriculture for South East Asia".

Officers from ICICI Lombard GIC Ltd., visited Agrimet Division on 29th August, 2013. Dr. A. Kashyapi, Sc. 'E' gave familiarization lecture on the activities of the Division. They also visited all units of the office at IMD, Pune.



Dr. Indrajeet Singh, Principal K.V., Borjhar, Guwahati, Dr. D. K. Medhi, HOD, Hindi, Gauhati University & IMD officials

Dr. Indrajeet Singh, Principal Kendriya Vidyalaya, Borjhar, Guwahati, Dr. D. K. Medhi, HOD, Hindi, Gauhati University, Sri M. K. Gupta, Sc. 'F', RMC Guwahati and Dr. S. O. Shaw, Sc. 'D', RMC Guwahati on the concluding function of Hindi Diwas at RMC Guwahati on 13th September, 2013.

Shri K. K. Bal, S. A. has been awarded Ph. D. degree from Department of Environmental Science, Fakir Mohan University, Balasore on the title Impact of Urbanization on Climate Change over Odisha under the guidance of Dr. S. C. Sahu, Sc. 'E', as Co-guide.

INFRASTRUCTURE DEVELOPMENT

WEB-BASED ANALYTICAL TOOL- TCRAIN



CWRC, RMC Chennai has developed a web based analytical tool, TCRAIN, that provides rainfall characteristics of Tropical Cyclones over North Indian Ocean from the year 2000 onwards for various intensity stages in graphical form through a menu-driven user interface and hosted in the web at the URL: www.cwrcimdchennaiatrain.in. The project was designed, developed and executed at CWRC using TRMM based rainfall data. Three products, viz., the (i) Frequency distribution of rain rates within 500 km from the TC centre (ii) Azimuthally averaged radial profiles of mean rain rates within 500 km from the TC centre and (iii) Quadrant-wise mean rain rates within 200 km from the TC centre are presented for each intensity stage of a cyclone.

FMU AT DWR, KARAIKAL

Field Maintenance Unit (FMU) is formed at DWR, Karaikal for the installation, Maintenance and Servicing of AWS/ARG/AMIS in the 11 districts of Tamilnadu. The installation of 18 ARGs under this FMU is completed in one month after its formation on 1st August, 2013.

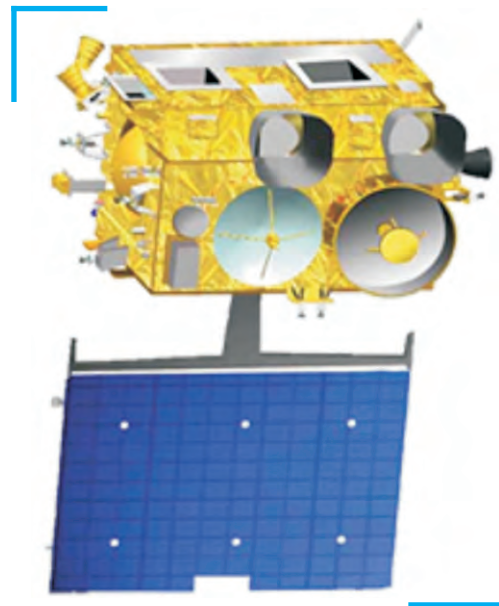
VSAT HUB ANTENNA



VSAT HUB ANTENNA

The Functional and Site Acceptance Tests of 9 meter VSAT Hub Antenna and its associated ground equipment installed in the campus of NCMRWF, Noida, have been conducted successfully on 12th July, 2013. The field station data from seismic and GPS observatories under MoES sponsored schemes and IMD seismic network shall be received at CRS through this Hub. The transmission (in frequency range 4.5 – 4.8GHz) and reception (6.725-7.025 GHz) of signals through INSAT-3A in various modes from remote field sites and VSAT HUB, performance tests of antenna subsystems and control unit, RF system, Base Band system etc., have been tested successfully.

ADVANCED METEOROLOGICAL PAYLOADS IN INSAT 3D



India's advanced weather satellite INSAT-3D is a meteorological data relay and satellite aided search and rescue satellite developed by the Indian Space Research Organization and was launched successfully on 26th July, 2013. The mission goal is to provide an operational weather forecast & storm warning system to protect life & property and also to monitor earth's surface and carryout oceanic observations and also provide data dissemination capabilities. INSAT-3D satellite is an exclusive meteorological satellite carrying advanced meteorological payloads, viz., a 6-channel imager and a 19-channel sounder. It is similar to GOES satellite of USA. INSAT-3D adds a new dimension to weather monitoring through its atmospheric Sounding System, which provides vertical profiles of temperature (for 40 levels from surface to 70 km), humidity (21 levels from surface to 15 km above) and integrated ozone from surface to the top of the atmosphere. The Imaging System of INSAT-3D has significant improvements from that of KALPANA-1 and INSAT-3A.

HUMAN RESOURCE DEVELOPMENT

Shri R. Balasubramanian, Sc. 'C' attended "Training on higher spatial resolution soil moisture map generation from satellite data" at International Centre for Radio Science, Jodhpur during 8-9 July, 2013.

Dr. K. Ghosh, Sc. 'D' and Shri Sanjay Gadre, Assistant Meteorologist Gr. I attended the familiarization training on "Indian Satellite Meteorological products" at Space Applications Centre, Ahmedabad during 8-13 July, 2013.

Dr. N. Puviarasan, Sc. 'C' attended four days training programme for INSAT-3D at SAC, Ahmedabad during 15-19 July, 2013.

Dr. Jayanta Sarkar, Sc. 'E' attended the training program organised by Gujarat Institute of Disaster Management (GIDM) on Emerging Climate Risk and Planning at Gandhinagar on 30th August, 2013. He delivered a lecture on "Impact of Climate Change on Drought, Flood and Cyclone".

INTERNATIONAL ASSIGNMENT

INTER-GOVERNMENTAL BOARD ON CLIMATE SERVICES



Group photograph of the IBCS-I

Dr. L. S. Rathore, DGM, Shri B. Mukhopadhyay, Sc. 'F', DDGM(C), Pune and Dr. Ajit Tyagi, Prof. Koteswaram, MoES, participated in the 1st Meeting of Inter-governmental Board for Climate Services (IBCS-I), Geneva, Switzerland from 1-5 July, 2013. Delegates from over 120 WMO Members around the world attended the meeting which is an international initiative launched by the World Meteorological Organization (WMO) to enhance and extend the effective use of scientifically-based climate information to enable societies and stakeholders to cope with the natural variability of our climate, as well as climate change arising from human activities.

Shri V. K. Soni, Sc. 'D', participated in International and SKYNET Workshop, Chiba, Japan from 4-5 July, 2013.



Dr. R. S. Dattatrayam, Sc. 'F' with other participants

Dr. R. S. Dattatrayam, Sc. 'F' was on deputation to Gothenburg, Sweden during 19-27 July, 2013 to attend the meetings of the Executive Committee of International Seismological Centre (ISC) and the Joint Assembly sessions of International Association of Seismology and Physics of the Earth's Interior (IASPEI).

Dr. G. Krishna Kumar, Sc. 'F', ADGM(R), Pune participated in the Natural Environment Research Council – Ministry of Earth Sciences Collaboration, U. K. on 26 July to 3 August, 2013.

Shri S. C. Bhan, Sc. 'E' attended 12th Symposium on Education and Training (SYMET-XI) Toulouse, France, from 2-6 September, 2013.

Dr. S. K. Peshin, Sc. 'F' attended the International Workshop on the Global Atmosphere Watch (GAW) Programme in Tropical Regions, Jakarta, Indonesia during 11-12 September, 2013.

Dr. A. K. Shukla, Sc. 'F', visited Nepal during 16-19 September, 2013 for participation in "International workshop for Regional Cooperation in Seismology and Earthquake Engineering in south and Central Asia", hosted by the National Society for Earthquake Technology (NSET) and co-sponsored by the United Nations Educational, Scientific and Cultural Organisation (UNESCO) and the U. S. Geological Survey (USGS). Dr. A. K. Shukla made a presentation on seismology program in India, with particular reference to the programs taken up by the Ministry of Earth Sciences.

Shri G. Suresh, Sc. 'E', visited Shanghai, China, as part of a five member delegation of MoES during 16-20 September, 2013, to attend the "Joint China - India Workshop on Earthquake Disaster Mitigation" organized by China Earthquake Administration (CEA) and delivered presentations on : (1) Current status of seismic monitoring in India and (2) Assessment of Tsunamigenic potential earthquakes in the Sumatra-Andaman region based on the ratio of broadband energy to high frequency energy.



Ms. B. Amudha, Sc. 'C' (extreme right) with other participants

Ms. B. Amudha, Sc. 'C' visited Nairobi during 20-28 September, 2013 to attend the first session of the WMO Expert Team (ET) on Regional Instruments Centre, Calibration and Traceability held in Nairobi, Kenya (23-26 September, 2013). As a member of the ET, she presented the outcome of the task assigned to her, viz., "Survey on Alternatives to dangerous and obsolete instruments" which was well-appreciated by the members.

LECTURES

Dr. Y. E. A. Raj, DDGM, RMC Chennai delivered key note address and chaired sessions in the International Conference on "Impact of Climate Change on Food, Energy & Environment (ICCFEE-2013)" organized by Sathyabama University, Chennai at the university campus during 4-6 July, 2013.

Shri Anand Sharma, Sc. 'E' Meteorological Centre, Dehradun delivered a lecture on "Role of meteorology in Disaster management with special reference to Forestry" to Forest officers and scientists at the Forest Research Institute (FRI) 16th July, 2013.

Dr. P. C. S. Rao, Sc. 'D' delivered a lecture on 'Reporting and warning Mechanism on weather phenomenon' to Executive trainees of Government of Maharashtra at Centre for Disaster Management, YASHADA, Pune on 1st August, 2013.

Dr. A. K. Srivastava, Sc. 'E' delivered two lectures on 14th August, 2013 in SERB school held at Dehradun.

Dr. S. C. Sahu, Director-in-charge, M. C. Bhubaneswar, delivered lecture on Weather Forecasting and Warning - Role of IMD in Dissemination of information relating to forthcoming Disaster and Awareness Generation at Gopabandhu Academy of Administration, Bhubaneswar on 21st August, 2013

Dr. Y. E. A. Raj, Sc. 'F' and Ms. B. Amudha, Sc. 'C' delivered lectures on "Utilisation of Automatic Weather Station data for forecasting" and "Automatic Weather Station Sensors and its maintenance" and "Constraints and challenges in establishing and maintaining automated weather network" respectively in a training programme on "International Training on agriculture weather network and its applications" to three personnel of Afghanistan Ministry of Agriculture held at Tamil Nadu Agricultural University, Coimbatore during 27-29 August, 2013.

Shri U. P. Singh, Sc. 'D' delivered a lecture on "Positional Astronomy and Calenderic system" for Integrated Meteorological Training Course at RMC, Training Centre New Delhi during August, 2013.

Dr. N. Chattopadhyay, DDGM, delivered lecture on "Agrometeorological services of India Meteorological Department" for three personnel of Afghanistan Ministry of Agriculture in the "International Training on agriculture weather network and its application" held at Agro Climate Research Centre, Tamil Nadu Agricultural University, Coimbatore on 3rd September, 2013.

Dr. M. Mohapatra, Sc. 'E' delivered lectures on various aspects of cyclones during 13-18 September, 2013 and one lecture on meteorological measurement on 9th September 2013 in the training workshop for NCMRWF officials organised by IMD at New Delhi.

Dr. R. K. Jeamani, Sc. 'E' delivered a lecture on "Development in Aviation Meteorological Services of IMD with special emphasis on Advance Systems of IGI Airport" in Fifth METOC-Navy officers conference on 16th September, 2013 which was organized via Video conferencing, at Integrated Defence HQ, Ministry Defence, New Delhi.

Shri A. K. Sharma, Sc. 'F' delivered invited lecture "Satellite Data and Products for Tropical Cyclone Research" in Brainstorming Meet on Research on Tropical Cyclones over Indian Seas-Current scenerio and potential Areas (ROCOIS-13) held at Chennai on 20th September, 2013.

Shri S. B. Thampi, Sc. 'E', DWR Chennai participated and presented a talk on "Role of Radar in Tropical Storm Research", in the brainstorming meeting on "Research On Cyclones Over India Seas" (RoCoIS-2013) held at NIOT, Chennai on 20th September, 2013.

Mrs. Suman Goyal, Sc. 'E' participated in the one day scientific programme and delivered a lecture on "Satellite Data and Products for Tropical Cyclone Research and on Tropical Cyclone over Indian Ocean – Present Scenario & potential Area" at Chennai on 20th September, 2013.

Dr. R. Suresh, Sc. 'E' inaugurated 'TOUREX 2013' at Queen Mary's College Chennai on 27th September 2013 and delivered a plenary lecture on 'Tourism and water- rainfall variability'.

PUBLICATIONS



The publication entitled 'Cyclone Warning in India', A standard Operation Procedure and Climate of Bihar were published.

'Disastrous Weather Events Report – 2011' and A Report on 'Cyclonic disturbances over north Indian Ocean during 2011' were brought out.

A book entitled "Monitoring and Prediction of Tropical Cyclones in the Indian Ocean and Climate Change" edited by U. C. Mohanty, IIT Bhubaneswar, M. Mohapatra, Sc. 'E', O. P. Singh, Sc. 'F' B. K. Bandyopadhyay, Sc. 'F' and L. S. Rathore, DG, IMD has been published jointly by Springer and Capital Publishing Company, New Delhi.

"Monsoon 2012 – A Report" by D. S. Pai and S. C. Bhan was published as Met. Monograph No. "Synoptic Meteorology No. 13/2013".

"Met Monograph" (25/2012) – "Climatology and Extreme Weather Climatology of stations in Kerala" by K. Santhosh and Elizabeth Jacob was published.

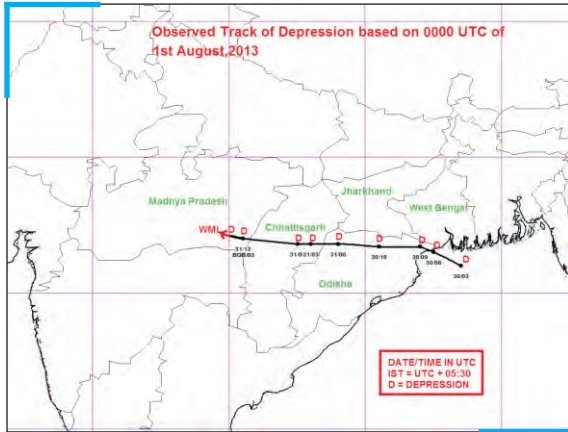
A NCC Research Report, RR No. 1/2013, "Development and Analysis of a High Spatial Resolution (0.25° × 0.25°) Long Period (1901-2010) Daily Gridded Rainfall Data Set over India" by D. S. Pai, Latha Sridhar, M. Rajeevan, O. P. Sreejith, N. S. Satbhai and B. Mukhopadhyay was brought out.

13 Research Papers and 3 Letters have been published in MAUSAM Vol. 64 No. 3, July 2013.

WEATHER HIGHLIGHTS

CYCLONIC DISTURBANCES (JULY TO SEPTEMBER 2013)

During July one low pressure area formed over land and three low pressure areas and one depression formed over the Bay of Bengal. All these low pressure areas and one depression moved northwestward along the monsoon trough and helped to maintain the monsoon activity over the region.



Track of depression over the Bay of Bengal (30th July - 01st August, 2013)

A land depression formed during 20-22 August, 2013 over Gangetic West Bengal and adjoining northwest Bay of Bengal and dissipated over east Madhya Pradesh. The depression formed over northwest Bay of Bengal on 30th July, 2013, moving west northwestwards, it crossed north Odisha and adjoining West Bengal coast between Balasore and Digha around 0700 UTC of 30th July 2013. It caused heavy to very heavy rainfall over, Odisha, Chhattisgarh, Madhya Pradesh and Maharashtra. The depression initially moved northwestward before landfall and then it moved westwards up to east Madhya Pradesh. Due to its slow westward movement over east Madhya Pradesh and adjoining Chhattisgarh, it caused very good rainfall activity over the region. The five low pressure areas formed in the month of August, were mostly of short duration.

LONG RANGE FORECAST ISSUED AND VERIFICATION

Details are as follows:

Region	Period	Date of Issue	Forecast (% of LPA)	Actual Rainfall (% of LPA)
All India	June to September	26 th April	98 ± 5	106
All India	June to September		98 ± 4	
Northwest India	June to September	22 st June	94± 8	109
Central India	June to September		98± 8	123
Northeast India	June to September		98± 8	72
South Peninsula	June to September		103± 8	115
All India	July		101± 9	106
All India	August		96± 9	98
All India	August to September	2 nd August	96± 8	94
All India	September	1 st September	96± 13	86

HIGHLIGHTS OF SW MONSOON 2013

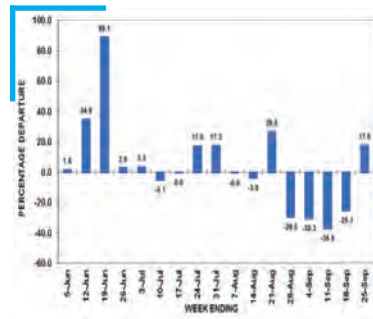
Southwest monsoon current advanced over the Andaman Sea 3 days earlier than its normal date of 20th May and set in over Kerala on its normal date of 1st June. The forecast for monsoon onset over Kerala for this year was correct, which is the ninth consecutive correct forecast for this event since issuing of forecast for the event was started in 2005. The southwest monsoon covered the entire country by 16th June, about 1 month earlier than its normal date of 15th July.

For the country as a whole, the rainfall for the season (June-September) was 106 % of its long period average (LPA). Monthly rainfall over the country as a whole was 132% of LPA in June, 106% of LPA in July, 98% of LPA in August and 86% of LPA in September.

Seasonal rainfall was 109% of its LPA over Northwest India, 123% of its LPA over Central India, 115% of its LPA over south Peninsula and 72% of its LPA over Northeast (NE) India.

Out of the total 36 meteorological subdivisions, 14 subdivisions constituting 48% of the total area of the country received excess season rainfall, 16 subdivisions (38% of the total area of the country) received normal season rainfall and the remaining 6 subdivisions (14% of the total area of the country) received deficient season rainfall.

Out of the total of 641 districts, 100 were affected by moderate meteorological drought (seasonal rainfall deficiency of 26% to 50%), while 39 were affected by severe meteorological drought (seasonal rainfall deficiency of 51% to 99%).



Week - by - Week Progress of the Monsoon Rainfall – 2013

The withdrawal of monsoon from west Rajasthan commenced on 9th September compared to its normal date of 1st September. After 19th, further withdrawal of southwest monsoon was stalled with the successive formation of two low pressure areas and their westward movement across the central parts of the country.

During the season, 2 monsoon depressions and 16 monsoon low pressure areas formed as against the normal of 6 monsoon depressions and 6 monsoon low pressure areas per season.

The operational long range forecasts for the 2013 southwest monsoon season rainfall over the country as whole and that over 3 broad geographical regions i.e. Northwest India, Central India and South Peninsula were an underestimate and for Northeast India, it was an overestimate.

However, forecast for the rainfall over the country as a whole during the monsoon months of July, August and September and that for the second half of the monsoon season were within the forecast limits and accurate.



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