

**JUL – SEP 2015** 

# मौसम विज्ञान विमाग समाचार DODD NDEVYS

INDIA METEOROLOGICAL DEPARTMENT (Ministry of Earth Sciences)

Number 3

Volume 8

# राजभाषा कीर्ति और राजभाषा गौरव पुरस्कार 2015



श्री ए. के. शर्मा, महामहिम राष्ट्रपति द्वारा राजभाषा कीर्ति सम्मान प्राप्त करते हुए।

भारत मौसम विज्ञान विभाग की हिन्दी गृह पत्रिका मौसम मंजूषा में प्रकाशित 19वें और 20वें संस्करण के लिए राजभाषा गृह मंत्रालय द्वारा 'राजभाषा कीर्ति सम्मान' (द्वितीय) से सम्मानित किया गया। महामहिम राष्ट्रपति महोदय द्वारा हिन्दी दिवस समारोह—2015 के अवसर पर यह पुरस्कार मौसम विज्ञान के उपमहानिदेशक (प्रशासन एवं भंडार), श्री ए. के. शर्मा ने ग्रहण किया यह हमारे विभाग के लिए अत्यंत गर्व का क्षण रहा।



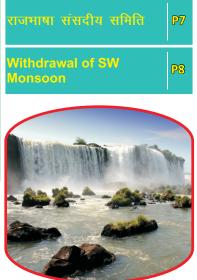
श्री के. वी. बालसुब्रहमणयन महामहिम राष्ट्रपति द्वारा राजभाषा गौरव सम्मान प्राप्त करते हुए।

भारत मौसम विज्ञान विभाग की हिन्दी गृह पत्रिका मौसम मंजूषा में प्रकाशित प्रादेशिक मौसम केन्द्र चेन्नै के तमिल भाषी अधिकारी श्री के. वी. बालसुबहमणयन, स.मौ.वि. को हिन्दी में लेख लिखने के लिए राजभाषा विभाग, गृह मंत्रालय 'राजभाषा गौरव सम्मान' के प्रथम पुरस्कार से सम्मानित किया। महामहिम राष्ट्रपति महोदय द्वारा हिन्दी दिवस समारोह–2015 के अवसर पर यह पुरस्कार श्री के. वी. बालसुबहमणयन, स. मौसम विज्ञानी ने ग्रहण किया।

# हिन्दी पखवाड़ा 2015 का आयोजन



मुख्यालय में हिन्दी दिवस समारोह 21 सिंतबर 2015 को मनाया गया। समारोह की अध्यक्षता महानिदेशक महोदय डॉ. लक्ष्मण सिंह राठौर ने की। इस समारोह की खास बात यह थी कि हमारे देश के सुप्रसिद्ध कवि श्री बालस्वरूप राही जी इस समारोह के मुख्य अतिथि थे। समारोह का शुभारम्भ महानिदेशक महोदय डॉ. लक्ष्मण सिंह राठौर, श्री ए. के. शर्मा मौ.वि.उ.म.नि.(प्र. एवं भ), डॉ. एस के पेशिन (ई.एम.आर.सी.) तथा मुख्य अतिथि श्री बालस्वरूप राही ने संयुक्त रूप से दीप प्रज्जवलित करके किया। अध्यक्ष महोदय ने सभी कार्मिकों को राजभाषा विभाग द्वारा निर्धारित किए गए लक्ष्यों को प्राप्त करने पर जोर दिया। समारोह में पखवाड़ा के दौरान आयोजित हुई हिन्दी प्रतियोगिताओं के विजेताओं को नकद पुरस्कार और प्रमाण पत्र प्रदान किए गए। इस अवसर पर माननीय गृह मंत्री श्री राजनाथ सिंह द्वारा भेजे गए संदेश को सुश्री रेवा शर्मा ने पढ़कर सुनाया। महानिदेशक महोदय द्वारा हिन्दी गृह पत्रिका 'मौसम मंजूषा' के 20वे अंक का विमोचन भी किया गया तथा हिन्दी में सर्वाधिक पत्राचार करने के लिए कल्याण अनुभाग के प्रमुख श्री शिव गणेश, वैज्ञानिक 'ई' को राजभाषा चलशील्ड देकर सम्मानित किया। समारोह में कार्मिकों द्वारा सांस्कृतिक कार्यक्रम एवं लोकगीत भी प्रस्तुत किए गए। बच्चों द्वारा भूपेन हजारिका के गीत 'गंगा तुम बहती हो क्यो' पर मनोहारी नृत्य प्रस्ततु किया जो समारोह का मुख्य आकर्षण था।



**P5** 

**Quarterly Newsletter** 

In this issue

राजभाषा कीर्ति / गौरव

Upgradation of

Publications

Radiosonde Obsy &

रस्कार

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# INSTALLATION



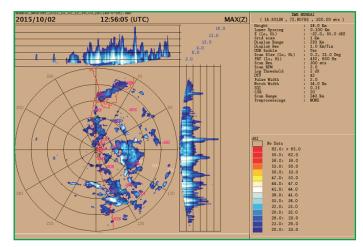
- 1. New AWS was installed at Koppal in August 2015.
- 2. Diffuse Radiation assembly and GPRS modem was installed at Okha, Bhubaneshwar and Kota from July-September 2015.
- DIWE system was installed at ICGAS Daman (Non-Departmental) during July 2015 during September 2015.
- GPS based radiosonde system under Global Upper Air Network of WMO, was installed and commissioned at Upper Air Observatory, Meenambakkam, Chennai on 6<sup>th</sup> August, 2015 in the presence of Shri D. K. Malik, Scientist 'E' and Project Manager from Grawmake, Germany.
- 5. New CWIS system installed at M.O. Bhubaneshwar during August 2015.
- 6. New modified HWSR system which has been interfaced with Pressure sensor was installed at Visakhapatnam during August 2015.
- 7. Drishti System was installed at Amritsar Airport and Jaipur Airport.
- 8. Fifeen Digital Station Barometers (DSB) were installed during July to September 2015, at Nagpur, Akola, Solapur, Palam, Safdarjung, Ayanagar, Hyderabad, Gulbarga, Ahmedabad, Aurangabad, Nasik, Vadodara, Surat, MC Bengaluru, Benguluru Airport from July to September, 2015.

# ESTABLISHMENT OF NETWORK OF SIX GLOBAL UPPER AIR STATIONS (GUAN) IN INDIA



Upper air laboratory of the O/o DDGM(UI), New Delhi has established a network of six GUAN standard observatories under the GCOS (Global Climate Observing System) scheme of WMO by installing the M/S GRAW radiosounding systems. Systems were installed at New Delhi, Chennai, Guwahati, Kolkata, Nagpur and Mumbai in the month of August, 2015. This is to ensure the availability of high quality upper air atmospheric data for use in the NWP models.

#### INDIGENOUSLY DEVELOPED AND FABRICATED TECHNOLOGY OF DWR, AT MUMBAI



The first commercial indigenous radar of India fabricated by M/s Bharat Electronics Limited, Bangalore, has been commissioned at Naval Building Colaba, Mumbai, on 25<sup>th</sup> August, 2015 after successful SAT and endurance tests. BEL acquired the Doppler Radar fabrication technology through a TOT agreement with ISRO and fabricated this radar. It is the first of the kind in meteorological radars for BEL and the discussion of BEL with IMD led to much customization on products and processing.



# UPGRADATION OF SEVEN OBSERVATORIES TO GPS BASED RADIOSOUNDING



To enable the availability of better quality upper air atmospheric data for various NWP and forecasting models, upper air laboratory of the O/o DDGM(UI), New Delhi has upgraded seven more upper air observatories of the network by installing the M/S Beijing Santel make radiosounding systems. Systems were installed at Gwalior, Patiala, Jaipur, Raipur, Jagdalpur, Bangalore and Chikalthana in the month of July–August, 2015.

All Significant Weather events that affected Delhi and NW India in association with western disturbance/other systems during August, 2015 were forecasted in advance with high accuracy of timing and intensity and weather forecast of Delhi and required stations was supplied to PM House (through NWFC) on 7 occasions for VVIP movement.

DWR generated raw data at 10 minutes interval was disseminated to central server, New Delhi and to Nowcasting system server at ACWC Kolkata.



The 25<sup>th</sup> Standing Advisory Committee meeting was held on 9<sup>th</sup> September, 2015 at Positional Astronomy Centre, Kolkata under the Chairmanship of Prof. G. M. Ballabh, Retd. Prof. of Osmania University, Hyderabad. The meeting was attended by other distinguished members of the committee. Shri B. Mukhopadhyay, Scientist 'F' Shri U. P. Singh, Scientist 'E', O/o DGM, New Delhi and Dr. G. C. Debnath, Scientist 'E' were also present in the meeting as special invitee. Shri S. Sen, Scientist 'E', Kolkata acted as Member Secretary. The committee made some important recommendations for overall improvement in the functioning of the Centre.

**Dr. S. D. Attri,** Scientist 'E' participated standing Committee meeting on Exhibition of Ministry of Earth Sciences New Delhi on 19<sup>th</sup> July, 2015.

## **TRAININGS**

IMD hosted an International Training Workshop of seven countries, on Tropical Cyclone Forecasting (ITWTCF-2015) during 3-14, August, 2015 at New Delhi. The 11 representative from Bangladesh, Maldives, Myanmar, Srilanka, Thailand, Cambodia, and Australia were participants in Workshop.

Agromet Observers' course of 2 weeks duration was conducted for newly recruited observers at various Agrometeorological Field Units (AMFUs) during  $24^{\text{th}}$  August to  $4^{\text{th}}$  September, 2015. Total 19 participants from various AMFUs have participated in this training Course.



Agro-meteorological aspects of sustainable agriculture and food security : Regional initiatives and challenges' on 8<sup>th</sup> September, 2015 in the Training programme on "Use of remote sensing and GIS for Crop Growth Monitoring and Yield Prediction" held at IIRS, Dehradun during 31<sup>st</sup> August to 20<sup>th</sup> September, 2015.



The training workshop on improvement of District Level Weather Forecast in the country held at M.C. Thiruvananthapuram during 28-29, September 2015.



A training workshop on "Improvement in District Level Weather Forecast" was organized by Meteorological Centre, Thiruvananthapuram during 28-29 September, 2015 at Thiruvananthapuram. DDGM (Agrimet), DDGM (NWP), DDGM RMC Chennai and officers involved in DLWF of all State Agro Meteorological Centres (SAMC) participated in the programme.



## **WORKSHOPS**

**Shri Anand Sharma**, Scientist 'F' attended the workshop on "Low carbon and climate change" at FRI, Dehradun on 16<sup>th</sup> July, 2015.

**Dr. P. C. S. Rao**, Scientist 'E' and Smt. Sunitha Devi, S., Scientist 'D' participated in the WMO 3<sup>rd</sup> International Monsoon Heavy Rainfall workshop held during 22-24 September, 2015 at New Delhi. Dr. Rao presented a paper entitled, "Verification of heavy rainfall forecasts in the Central region of India". Smt. Sunitha Devi presented a paper entitled, "Meteorological analysis of exceptional rainfall event over Gujarat state" during 27-28 July, 2015'.



**Shri K. Santhosh**, Scientist 'E' attended one day workshop at Bangalore on Weather Forecasting requirements for management of power systems organized by SRLDC, Power System Operation Corporation Ltd on 31<sup>st</sup> July, 2015.

#### A JOINT WORKSHOP ORGANIZED BY SRLDC AND MOU BETWEEN IMD AND POSOCO

A team of officers from RMC Chennai comprising of Shri S. B. Thampi, DDGM, Dr. S. R. Ramanan, Scientist 'E', Dr. S Balachandran, Scientist 'E' and Directors-in-charge of Meteorological Centres at Thiruvananthapuram, Bangalore and Hyderabad attended a joint workshop organized by the Southern Regional Load Distribution Centre (SRLDC) at Bangalore on 31<sup>st</sup> July, 2015, to discuss on weather information required for power grid management and to workout methodologies for delivering weather services to Power System Operation Corporation (POSOCO) as per the MoU between IMD and POSOCO.

**Smt Sunitha Devi, S.**, Scientist 'D' attended the International Training Workshop on Tropical Cyclone Forecasting (ITWTCF) held at New Delhi during 3 – 14 August, 2015.

**Shri B. Mukhopadhyay**, Scientist 'F' attended the workshop on 24<sup>th</sup> August, 2015 at POSOCO, Western Region Load Distribution Centre (WRLDC) at Andheri, Mumbai and delivered lectures on "Deployment of Meteorological Data in Power System" and "Surface Meteorological Instruments Network and Ahead" respectively.

**Dr. S. C. Sahu**, Scientist 'F' participated multi-stakeholder workshop on DRR in Bhubaneswar on 22 September, 2015.

**Dr. Geeta Agnihotri**, Scientist 'E' participated at WMO 3<sup>rd</sup> International Monsoon Rainfall Workshop held at Delhi during 22 -24 September, 2015.

## **LECTURES**

**Shri A. K. Sharma**, Scientist 'F', participated in the 2<sup>nd</sup> Regional Integrated Multi – Hazard Early Warning System (RIMES) Ministerial Conference held on10<sup>th</sup> July, 2015 at Mahika Auditorium, Prithvi Bhawan, Lodi, Road, New Delhi.

**Shri A. K. Sharma**, Scientist 'F'/DDGM(SM) attended Plan Review Meeting-2015 held during 16-17 July, 2015 held at New Delhi and gave presentation on the performance status and future requirements of various projects of Satellite Meteorology & Satellite Imageries.

**Shri Anand Sharma**, Scientist 'F', delivered an invited talk in the National Workshop jointly hosted by Central Soil and Water Conservation Research and ICAR, Dehradun on 22<sup>nd</sup> July, 2015.

**Shri Anjit Anjan**, Scientist 'D' delivered lectures on Radiation Instruments for Advance batch of Instrumentation Training during 17-19 August, 2015 at New Delhi.

Shri Man Mohan Singh, Scientist 'E' delivered a lecture on "Hydro Meteorological Hazards & Mitigation Management, Early Warning Mechanism in disaster management" on dated 25<sup>th</sup> August, 2015 in "Comprehensive Training Programme on Disaster Management to the Himachal Pradesh Administrative Services Officers" at Himachal Pradesh institute of Public Administration, Shimla.

**Dr. S. C. Sahu**, Scientist 'F', delivered lecture on "Disaster Need Assessment: Weather Forecasting, Warning and Dissemination System for Preparedness, Evacuation and other Measures" and Climate change adaptation and disaster need assessment" at The Gopabandhu Academy of Administration on 7<sup>th</sup> September, 2015.

**Shri Meenatchi Nathan**, Scientist 'D', delivered a lecture on "The Role of modern Electronics in Meteorological Weather Observation for forecast" at Bharath University, Chennai on 9<sup>th</sup> September, 2015.

**Shri B. K. Mandal**, Scientist 'E', delivered lecture on "Thunderstorm & Lightning and its protective measure" organized by Disaster Management Jharkhand at Sikrishna Institute, Kake Road, Ranchi on 10<sup>th</sup> September, 2015.

**Shri S. Bagulayan Thampi**, DDGM, RMC Chennai participated in the academic exuberance of intercollegiate fest CERENKOV 2K15 convened by Anna Adarsh College for Women and delivered guest lecture on "Remote Sensing - Weather Events" on 14<sup>th</sup> September, 2015.

**Dr. Geeta Agnihotri**, Scientist 'E', delivered a lecture on "Weather forecasting system during floods" at 72 All India Waterman Ship Course conducted by Home Guards and Civil Defence Academy, Bangalore on 15<sup>th</sup> September, 2015.



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# PRESTIGIOUS MoES AWARD 2014-2015

**Dr. A. K. Mitra**, Scientist 'D' received prestigious MoES award 2014-2015 for outstanding contributions in the field of "Atmospheric Science & Climate Change" during the MoES foundation day celebrations held in Vigyan Bhawan, New Delhi on 27<sup>th</sup> July, 2015.



The following officials of IMD were also awarded on this occasion. Shri Ram Kumar, A.M. I, Ms. Latha Sridhar A.M.II, Shri Jyotirmay De, S.A., Shri Dinesh Khanna, S.A., Shri Sudip Majumdar, Mech. Gr.I, Shri K. K. Sikdar, Staff Car Driver and Shri Mahendra Singh, Driver.

## LETTER OF APPRECIATION

**Shri Sonam Lotus** was awarded a letter of appreciation and a memento on the occasion of Buddha Purnima 2015 by LBA-Leh for providing valuable weather services to people of Ladakh during winter 2015.

## **MEDIA INTERACTION**

**Dr. S. D. Attri**, DDGM (O) participated in Rural Advisory Committee meeting of Doordarshan Kendra, New Delhi on 15<sup>th</sup> July, 2015.

**Shri Sonam Lotus,** Scientist 'C' attended a live phone-in programme of Doordarshan on 23<sup>rd</sup> July, 2015 regarding monsoon over Jammu & Kashmir.

**Dr. S. D.** Attri, DDGM (O) participated in programme on weather and agriculture in Krishi Darshan at Doordarshan Kendra, New Delhi on 27<sup>th</sup> July, 2015.

**Shri S. Bagulayan Thampi,** DDGM, RMC Chennai participated in the discussion and interview conducted by Doordarshan Kendra, Chennai on the topic 'Disaster Management, Monsoon and current status of Monsoon' on 5<sup>th</sup> August, 2015.

**Shri Surender Paul**, Scientist 'E', participated in the Programme on "Monsoon and Ground Water in Punjab" under programme "Mera Pind Mera Khet" at Doordarshan Kendra Jalandhar and All India Radio on 6<sup>th</sup> August 2015.

**Shri K. S. Hosalikar**, Scientist 'E' participated in a talk on Doordarshan, Mumbai on Rainfall situation in Mumbai on 10<sup>th</sup> August, 2015.

A programme on RMC Chennai activities telecasted in Pudhiya Thalimurai TV on 29 August, 2015 during 1030-1100 hrs IST in 'Ayutham Seivom" programme. Shri S. Bagulayan Thampi, DDGM, RMC Chennai

participated in the discussion programme in All India Radio on 22<sup>nd</sup> September, 2015 regarding Cyclone Disaster Management.

# PUBLICATIONS

A Publication entitled "Climate of Chhattisgarh" has been released on the occasion of inauguration of WMO Monsoon on Heavy Rainfall Workshop on 22<sup>nd</sup> September, 2015 at New Delhi.

A paper entitled "Monitoring of Total Precipitable Water Vapour and Rainfall Forecast using ground based GPS receiver network" was presented by Dr. N. Puviarasan, Scientist 'D' in WMO workshop on "Monsoon Heavy Rainfall" organized by NWFC during 22-24 September, 2015.

Dr. P. C. S. Rao, Scientist E presented two papers entitled "समुद्री मौसम विज्ञान सेवाएं - एक समग्र दृष्टिकोण" and "मानसून अवधियों के दौरान कम की सामान्य से अधिक और कम वर्षा – दक्षिण महासागर में मस्कारेन हाय (उच्च) की भूमिका (पी. सी. एस. राव) in National Hindi Workshop at INCOIS, Hyderabad during 28-30 September, 2015.

A research paper entitled "Active and Break Events of Indian Summer monsoon during 1901-2014" by D. S. Pai, Latha Sridhar and M. R. Ramesh Kumar was published in Climate Dynamics, 1-19, First Online : 4 September, 2015.DOI 10.1007/S00382-015-2813-9.

A Paper entitled "Long term Characterization of Aerosol Optical Thickness over Jodhpur-Implication in Radiative Forcing" by V. Vizaya Bhaskar has been published in Atmospheric Environment Journal.

A publication entitled "Monsoon 2014- A Report" edited by Dr. D. S. Pai and S. C. Bhan was published as an IMD Met. Monograph No. ESSO/IMD/SYNOPTIC MET/(2015)/17.

Daily All India Weather Summary and Weekly Weather Reports are being brought out on routine basis.

Weekly and Cumulative Standardized Precipitation Index (SPI) maps were prepared for all the weeks during July to September 2015 were supplied for use in Agromet Advisory Services Bulletin.

Climate Diagnostics Bulletin of India for May to August 2015 and Pre-Monsoon Season (March-May) have been published.

Seasonal Climate Outlook of South-Asia for the period August-November 2015 was issued.

ENSO bulletin for the month of July to September 2015 were issued.

Met. Monograph No. ESSO/IMD/CLI/01(2015)/27 entitled, "Spatial variation of Potential Evapotranspiration (PE) values over India" by P. G. Gore and V. Vizaya Bhaskar has been brought out.

Drought Outlook Maps for the month of July to September, Weekly aridity reports and maps for the month of July to September were prepared and uploaded on IMD Pune website. Biweekly Aridity anomaly reports and maps for the month of July to September have been issued.

Twenty six (26) Papers have been published in quarterly Departmental research journal MAUSAM, **66**, 3 (July, 2015) which was a special issue on "Forecasting Verification".

## MEETINGS

**Dr. Pulak Guhathakurta**, Scientist 'E', participated in the First meeting of the Expert Group on "Co-ordinated Studies on Climate change in North Eastern Region" held on 1<sup>st</sup> July, 2015 at Indira Paryavaran Bhavan, New Delhi.

**Dr. Geeta Agnihotri**, Scientist 'E' and Shri S. N. R. Gopal, AM - II visited AMS HAL on 8<sup>th</sup> July, 2015 for inspection of logistics and Met. instruments and discussed with Senior Manager (Aerodrome) / ATC incharge in connection with improvisation of logistics at AMS HAL, Bangalore.

**Shri B. Mukhopadhyay**, Scientist 'F', attended the "Annual Plan Review Meeting" during 14 - 18 July, 2015 at New Delhi.

**Shri S. Bagulayan Thampi**, Scientist 'F', attended the committee Meeting on Reassessment of Wind Power Potential of the country on 14<sup>th</sup> July, 2015 organised by Ministry of New and Renewable Energy and One day interaction meeting cum workshop with POSOCO on 15<sup>th</sup> July, 2015 held at New Delhi.

**Shri A. K. Sharma**, Scientist 'F', Shri Virendra Singh, Scientist 'E', Smt. Suman Goyal, Scientist 'E' and Dr. A. K. Mitra, Scientist 'D' attended the "IMDPS Completion Meeting" held at IMD, New Delhi on 29<sup>th</sup> July 2015 with SAC/ISRO scientists.

**Dr. Jayanta Sarkar**, Scientist 'E', attended a meeting with Chief Minister of Gujarat at Gandhinagar during 27-28 July, 2015 and with Chief Secretary, Govt. of Gujarat at Gandhinagar on 31<sup>st</sup> July, 2015 regarding monsoon scenario 2015 over Gujarat.

**Dr. N. Chattopadhyay**, Scientist 'F' and Dr. K. Ghosh, Scientist 'E' attended the meeting on 'Strategic Planning for preparation and dissemination of Block Level Agromet Advisories' during 11-12 August, 2015 organised by IMD at Indian Council of Agricultural Research (ICAR), Pusa, New Delhi.

**Dr. Medha Khole**, Scientist 'E', participated and made a presentation on Southwest Monsoon in the meeting of canal committee chaired by Guardian Minister Shri Girish Bapat which reviewed the availability of water in the dams that supply water to Pune. The meeting was held on 22<sup>nd</sup> August, 2015 at Pune.

A 'Rural Agricultural Advisory Committee' meeting of Akashvani-Pune was organized by Agrimet Division under the Chairmanship of Dr. N. Chattopadhyay, Scientist 'F' on 26<sup>th</sup> August, 2015. Representatives from various State / Central Government offices along with Deputy Director, Akashvani, Pune, attended the meeting. The programme schedule to be broadcast in the next quarter October to December 2015 was discussed and finalized in the meeting. Topic related to weather and agriculture was submitted from Agrimet Division for telecast.

**Shri R. Balasubramanian**, Scientist 'D' alongwith other officers of division had meeting with Senior consultant, D. D. Kisan at Agrimet Division, Pune during 11-12 September, 2015 in connection with Studio setup at IMD, Pune.

**Dr. A. K. Srivastava**, Scientist 'E', participated in the consultation meeting on "Hazard Risk Vulnerability Assessment for Maharashtra" organised by Government of Maharashtra at the Centre for Disaster Management, YASHADA, Pune on 28<sup>th</sup> August, 2015.

IMD NEWS

**Dr. G. Krishnakumar**, Scientist 'E', attended the Open Government Data (OGD) meeting cum one-day Workshop held at NCAOR, Goa, on 4<sup>th</sup> September, 2015 for listing the probable data sets which could be shared on OGD Platform.

**Dr. A. K. Mitra**, Scientist 'D', attended first meeting of ISRO-ASCOS Meteorological Satellites Study Team at IITM Pune on 19<sup>th</sup> September, 2015 and delivered a talk on "present status of satellite systems for weather and climate monitoring and prediction".

**Smt. Sunitha Devi**, S., Scientist 'D', attended a meeting on 19<sup>th</sup> September, 2015 at IITM, Pune in connection with ISRO, ADCOS - A study team to propose new meteorological Satellite system for the country and associated sensors.

**Dr. S. R. Ramanan**, Scientist 'E' and Dr. S. Balachandran, Scientist 'E', attended the pre-launch discussion meeting on 23<sup>rd</sup> September, 2015 at SDSC, Sriharikota to discuss dayto-day weather over SHAR for PSLV-C30 launch on 28 September, 2015.

**Shri A. K. Sen**, Scientist 'E', attended the meeting of the Site Appraisal Committee (SAC) of Labour Department, Govt. of Bihar for clearance of site for establishment of factories in Bihar, under Chairmanship of Chief Inspector of Factories, Bihar on 24<sup>th</sup> September, 2015.



IMD hosted 3<sup>rd</sup> "WMO/WWRP Monsoon Heavy Rainfall" Workshop during 22-24 September, 2015 in New Delhi which was inaugurated by Shm Y. S. Chowdary, Hon'ble Minister of State for Science & Technology and Earth Sciences.



## **FOREIGN VISITS**

IMD NEWS

Shri Narendra Nigam, Scientist 'E', was on tour to Tokyo, Japan to attend the "ICAO/WMO Asia/Pacific Meteorology/ Air Traffic Management Meeting" from 29 June to 3 July, 2015.

**Shri B. P. Yadav**, Scientist 'F' was on tour to Chicago to attend the Workshop on Development of Climate Information System for Heat Health Early Warning during 28-30 July, 2015.

**Dr. S. D. Kotal**, Scientist 'E', was on tour to Hanoi, Vietnam to attend the meeting of Regional Sub Project Management Team (RSMT) of the Severe Weather Forecasting Demonstration Project (SWFDP) for south-east Asia during 11-14 August, 2015.

**Dr. G. C. Debnath**, Scientist 'E' and Shri Surinder Paul, Scientist 'E' were on tour to Sri Lanka to attend the "SAARC Working Group on Monsoon (SWGM)" followed by two-day seminar on Monsoon Initiative during 31<sup>st</sup> August to 3<sup>rd</sup> September, 2015 under SAARC Monsoon Programme at Colombo, Sri Lanka.

**Dr. D. R. Pattaniak**, Scientist 'E', Shri Sonam Lotus Scientist 'C' and Shri Davinder Sharma, were on tour to Bangkok, Thailand to participate in the Severe Weather Forecasting Demonstration Project (SWFDP) – Regional subprojects for the Bay of Bengal and Southeast Asia – Training Workshop during 14-25 September, 2015.

**Dr. S. D. Attri**, DDGM (O) / Scientist 'F' was on tour to California, USA to participate in the 18<sup>th</sup> WMO/IAEA meeting on Carbon Dioxide, other Green House Gases and Related Tracer Measurement Techniques (GGMY2015) during 14-17 September, 2015.

**Dr. L. S. Rathore**, DGM was on tour to New York, USA to attend the "Understanding the New York Heat Health Early Warning & Response System" during 14-18 September, 2015.

**Dr. D. S. Pai**, Scientist 'F' was on deputation to attend meetings of CCI/CBS Joint Expert Team on Regional Climate Centres (ET-RCCs) and the CCI Task Team on Regional Climate Outlook Forums (TT-RCOFs) held during 21-23 September, 2015 at Melbourne, Australia.



A delegation from WMO RA-II visited Sat. Met. Division on 13 July, 2015 for carrying out the inspection to setup Regional Association-II Office of WMO in South East Asia.

## राजभाषा बुलेटिन 'न्यूजलेटर' का विमोचन

विभाग में राजभाषा हिन्दी की गतिविधियों से संबंधित न्यूजलेटर के अंक 3 का प्रकाशन किया गया। इसका विमोचन 2 जूलाई 2015 को मुख्यालय की राजभाषा कार्यान्वयन समिति की 131वीं बैठक में महानिदेशक महोदय डॉ. लक्ष्मण सिंह राठौर द्वारा अन्य सदस्यों की उपस्थिति में किया गया।



राजभाषा संसदीय समिति



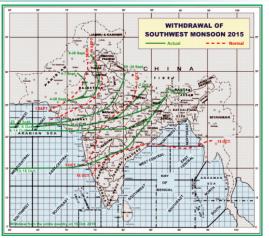
संसदीय राजभाषा समिति की दूसरी उपसमिति द्वारा दिनांक 29 सितंबर 2015 को मौसम विज्ञान के उपमहानिदेशक (उ.वा.उ.), नई दिल्ली का निरीक्षण किया गया। इस निरीक्षण में विभाग के महानिदेशक महोदय डॉ. लक्ष्मण सिंह राठौर, मौ.वि.उ.म.नि. (प्र.एवं भ.), श्री ए. के. शर्मा, डॉ. देवेन्द्र प्रधान, उपमहानिदेशक (उ.वा.उ.) तथा वरिष्ठ हिन्दी अधिकारी सुश्री रेवा शर्मा ने भाग लिया। मुख्यालय की हिन्दी अधिकारी श्रीमती सरिता जोशी तथा वरिष्ठ अनुवादक श्रीमती एम. अनुराधा भी निरीक्षण के दौरान उपस्थित रहे।

संसदीय राजभाषा समिति की दूसरी उपसमिति द्वारा दिनांक 5 सितंबर 2015 को ए.एम.ओ. कोयम्बटूर का निरीक्षण किया गया। निरीक्षण कार्यकम में मौसम विज्ञान के उपमहानिदेशक (प्रशासन एवं भंडार), श्री ए. के. शर्मा, श्री एस. बी. थम्पी, उपमहानिदेशक, और हिन्दी अधिकारी सुश्री रेवा शर्मा ने भाग लिया। हिन्दी अधिकारी श्रीमती सरिता जोशी भी निरीक्षण के दौरान उपस्थित रही।

## **CROP YIELD FORECAST**

Developed and issued crop yield forecast for (*i*) Jute at preharvest (F3) stage for Assam, Bihar, West Bengal and sugarcane at planting (F1) stage for Gujarat, Haryana, Maharashtra, Karnataka and Uttar Pradesh during kharif 2015 and communicated to Mahalanobis National Crop Forecast Centre (MNCFC) on 11<sup>th</sup> July 2015. (*ii*) Rice at planting stage (F1) and at mid-season stage (F2) for kharif 2015 for 14 states (Andhra Pradesh, Telangana, Assam, Bihar, Haryana, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Chattisgarh, Orissa, Punjab, Uttar Pradesh and West Bengal) for submission to Mahalanobis National Crop Forecast Centre (MNCFC), DAC, New Delhi.





## WITHDRAWAL OF SOUTHWEST MONSOON



The rainfall activity over the northwestern parts of Rajasthan remained subdued since last week of August. A change over in the lower tropospheric circulation pattern over the region from cyclonic to anti cyclonic indicated the beginning of the withdrawal of southwest monsoon from the region. Hence the withdrawal of southwest monsoon commenced from 4<sup>th</sup> Sept. and the withdrawal line passed through Anupgarh, Nagaur, Jodhpur and Barmer. It withdrew from some more parts of Rajasthan and some parts of Punjab and Haryana on 9<sup>th</sup> September and the withdrawal line passed through Amritsar, Hissar, Ajmer and Barmer. Further withdrawal had been stalled due to the formation of Deep Depression over Odisha and neighborhood and easterly winds associated with the above system and consequent moisture incursion from the Bay of Bengal. With the eastward extension of the ridge, more drying of the lower and middle troposphere took place over northwest India and accordingly, the southwest monsoon further withdrew from remaining parts of Rajasthan, Punjab, Haryana, Chandigarh & Delhi, entire Jammu & Kashmir, Himachal Pradesh, Uttarakhand, most parts of west Uttar Pradesh and some parts of west Madhya Pradesh, Gujarat state and north Arabian Sea on 29<sup>th</sup> September.

### **Rainfall Features**

The southwest monsoon season rainfall over the country as a whole was below normal. Moreover, it was characterized by pronounced spatial and temporal variability. Eastern/ northeastern region of the country received normal rainfall, while central, peninsula and northwestern region of the country received deficient rainfall. Rainfall deficiency over West & East Uttar Pradesh and Marathwada exceeded while that over Haryana, Chandigarh & Delhi, 40%. Punjab, Konkan & Goa and Madhya Maharashtra exceeded 30%. Also, during the first half of the season (1 June to 31 July) country received near normal rainfall (95% of its Long Period Average (LPA) value, while during second half of the season (1 August to 30 September) it received deficient rainfall (only 77% of its LPA value). During the season, out of 36 meteorological sub-divisions, only one subdivision (West Rajasthan) received excess rainfall, 18 received normal rainfall and the remaining 17 sub-divisions received deficient rainfall.

### **HYDROMETEOROLOGICAL SERVICES**

Real time rainfall statistics for the monsoon season - 2015 was prepared. The rainfall for the country as a whole for the monsoon season has been recorded as 760.6 mm against the normal rainfall for the season as 887.5 mm (departure - 14%). The subdivision-wise realtime rainfall map for the monsoon season, 2015 is given below:



Design Storm Studies for the following three (3) projects, were completed (i) Deharji Medium Project, Maharashtra (ii) Warasgaon Pumped Storage Hydro Electric Project, Maharashtra (iii) M. I. Tank Bardipada Project Maharashtra

The sub-basin-wise 11428 QPF have been issued (daily on operational basis) by different

Flood Meteorological Offices for flood forecast during July-September 2015 in flood season for flood prone river basins. From flood season 2015, 6 more sub basins namely Jhelum, Sankosh, Jaldhaka, Torsa, Pennar and Chambal have been included for similar activities. The lead time of forecast (QPF) is enhanced for issue from 2 days to 3 days and outlook from 3 days to 4 days. Hydromet Division, New Delhi has customized Sub-basinwise QPF using operational NWP model viz. WRF, MME and GFS and uploaded on IMD website for 129 flood prone sub-basins of India as a Guidance for their operational QPF by FMOs.

Sub-basinwise GFS model rainfall for day1 to day7 has been made operational (Aditya Server w.e.f.  $29^{th}$  June, 2015) and uploaded on IMD website.

