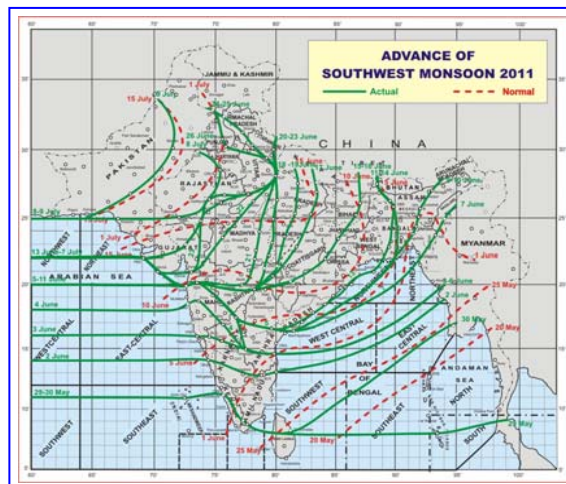


MONSOON DISTURBANCES

Two monsoon disturbances formed over the north Indian Ocean, one each over the Bay of Bengal 11-12 June 2011 and the Arabian Sea during 16-23 June, 2011.

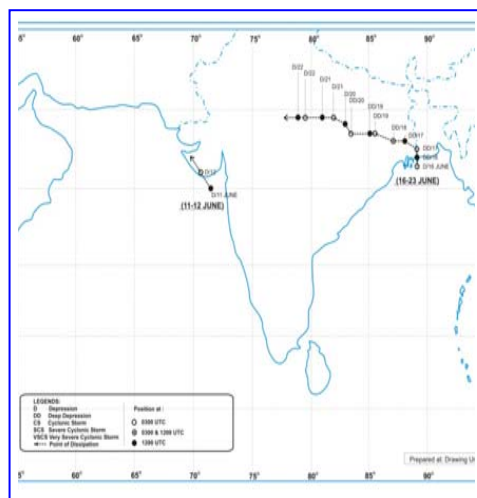
(i). A depression formed over northeast and adjoining east central Arabian Sea on 11th June, 2011. It moved north-northeastwards and crossed Saurashtra coast, about 25 km east of Diu around 2200 UTC of 11th June and weakened into a well marked low pressure area over Saurashtra and adjoining areas at 1200 UTC of 12th June.

(ii). A deep depression formed over north Bay of Bengal on 16th June. Moving northwards, it crossed west Bengal-Bangladesh coast, about 100 km east of Sagar Island between 1100 and 1200 UTC of 16th June. It then continued northward movement for some time and then moved west-northwestwards across Gangetic West Bengal, Jharkhand, North Chhattisgarh and west Madhya Pradesh during 17-23 June and weakened gradually. It weakened into a well marked low pressure area on 23rd June over west Madhya Pradesh. The tracks of these systems are shown in Fig.

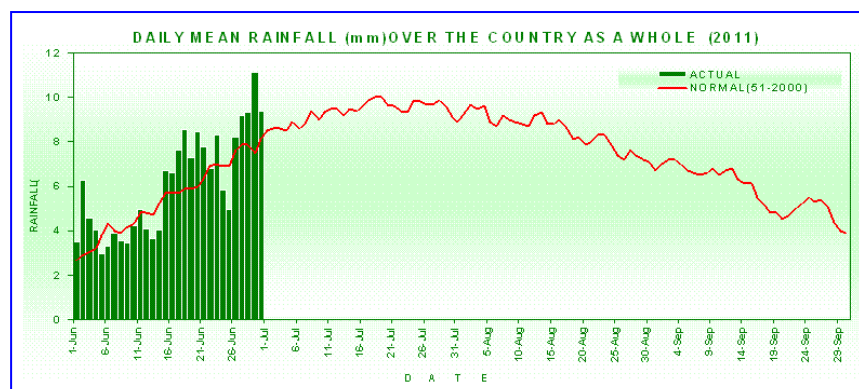


RAINFALL DURING JUNE 2011

Normal to excess rainfall was observed over most parts of the country except SE Peninsula, Assam, Meghalaya, Arunachal Pradesh, Gujarat and Lakshadweep. The country as a whole received 182 mm rainfall against the normal rainfall of 163.5 mm. Thus the rainfall was 11% above normal, which was mainly due to formation of monsoon disturbance over the Bay of Bengal during this month.



Track of the monsoon disturbances - June 2011



SEISMIC SHOCKS DURING JUNE 2011 OVER INDIA

Date	Time (UTC)	Lat. (deg. N)	Long. (deg.E)	Depth (km)	Magnitude	Region
3/06/2011	00:53:21	27.5°N	88.0°E	26	4.9	NEPAL - SIKKIM (INDIA) BORDER REGION
15/06/2011	00:59:28	30.6°N	80.1°E	10	3.4	PITHORAGARH, UTTARAKHAND
20/06/2011	06:27:18	30.5°N	179.4°E	12	4.6	CHAMOLI, UTTARAKHAND
23/06/2011	12:39:38	23.9°N	91.1°E	30	4.2	TRIPURA, INDIA- BANGLADESH BORDER REGION
24/06/2011	22:13:46	30.0°N	80.5°E	05	3.2	UTTRAKHAND (INDIA) - NEPAL BORDER REGION
30/06/2011	21:45:33	25.5°N	93.0°E	10	3.6	NORTH CACHAR HILLS, ASSAM

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मौसम विज्ञान विभाग समाचार
IMD NEWS

INDIA METEOROLOGICAL DEPARTMENT
(Ministry of Earth Sciences)

INTERNATIONAL CO-OPERATION

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16th World Meteorological Congress

The Sixteenth World Meteorological Congress was held at the International Conference Centre of Geneva (CICG) from 16 May to 3 June 2011. **Shri Pawan Kumar Bansal** Union Minister of Parliamentary Affairs, Science & Technology & Earth Sciences led the 13-member Indian delegation consisting of DG, IMD, officials from Ministry of Water Resources & Agriculture and Scientists from various disciplines of Atmospheric & Earth Sciences. The opening ceremony of Cg-XVI held on 16 May 2011. WMO President Alexander Bedritskiy and Secretary-General Michel Jarraud opened WMO's XVI Congress. More than 600 delegates, including Heads of States and Governments, Ministers, senior Government officials, heads of National Meteorological and Hydrological Services, and representatives of WMO partner organizations attended the three week meeting for determination of WMO's future direction.

The Congress considered strategic plan and budget of WMO future priorities for 2012-2015, in particular. These include the proposal for the Global Framework for Climate Services, the WMO Strategy for Capacity Development, the WMO Integrated Global Observing System, the WMO Information System, the Disaster Risk Reduction & the Aeronautical Met. Services.



Hon'ble Minister Shri P.K. Bansal and AVM (Dr.) Ajit Tyagi, DG, IMD with Mr. Michel Jarraud, Secretary General, WMO at the 16th WM Congress, Geneva

The Hon'ble Minister Shri Pawan Kumar Bansal also addressed the Congress at Geneva. He assured to support global framework for climate services. On behalf of Indian delegation he expressed appreciation and gratitude to WMO for the excellent arrangements made for the Sixteenth Congress. Further, he emphasized that the co-operation of India towards the successful outcome of WMO's objectives and programmes remains unstinted. During this session **AVM (Dr.) Ajit Tyagi**, DG, IMD was elected as the member of WMO Executive Council.

WMO EXECUTIVE COUNCIL MEET

63rd WMO Executive Council Meet was held during 6-8 June 2011. AVM (Dr.) Ajit Tyagi, DG, IMD represented India during 6-8 June 2011. The Congress decided to nominate /elect members from all six regions. It includes ten seats attributed to the President and Vice-Presidents of the Organization, and the Presidents of regional associations, as well as twenty-seven seats of Directors of Meteorological and Hydrological Services of Members of the Organization to be elected by Congress. Dr. Ajit Tyagi, DG, IMD along with other five members each from China, Korea, Japan, Saudia Arabia and Iran represented RA II region.

COMMISSION OF AGRICULTURE METEOROLOGY (CAgM)

Dr. L. S. Rathore, Head (Agro-meteorology), participated in the meeting of the management group of the Commission of Agriculture Meteorology (CAgM), WMO, held at Bratislava, Slovakia during 9-10th May 2011. Dr. Rathore is the Co-Chair of OPAG-1 which is dealing with Agrometeorological Services for Agricultural Production. The Management Group discussed at length the aspects related to (i) improving Service Quality/Delivery, (ii) advancing Science & Technology with Implementing Applications, (iii) strengthening Capacity-building, (iv) establishing closer Collaborations with related programs and (v) strengthening Good Governance. India has emerged as a leader in operational agrometeorology through its agrometeorological advisory service. The Management Group felt that the linkages with regional associations need to be strengthened for development of Regional Pilot Projects of operational Agro-Meteorology. There is also need for strengthening current system of education, training and outreach. It was expressed that CAgM should play an active role for implementation of Global Framework of Climate Services (GFCS).



AVM (Dr.) Ajit Tyagi, DGM with NCEP and IMD Scientists

PARTICIPATION OF IMD SCIENTISTS

- **Shri B. K. Bandyopadhyay**, Sc. 'F' and **Mrs. Suman Goyal**, Sc. 'E' visited to Honolulu, Hawaii, U. S. A. during 11th April to 16th April 2011 to participate in the 2nd workshop on International Best Track Archive for Climate Standard (1 BTr ACS) from 11th – 13th April 2011 and WMO International Workshop on Satellite Analysis on Tropical Cyclones (IWSATC) from 13th – 16th April 2011. Dr. Bandyopadhyay made a representation on the characteristics of Best Tracks over north Indian Ocean.
- **Dr. D. S. Pai**, Sc. 'E' was on deputation to Centre for Ocean-Land-Atmosphere Studies (COLA) Calverton, Maryland, USA from 20th May to 10th June under collaborative Research between IMD and COLA, on Prediction and Predictability of Indian Summer Monsoon Rainfall.
- **Dr. Medha Khole**, Scientist 'E' participated in the Sixteenth World Meteorological Congress in Geneva, Switzerland from 18th to 23rd May 2011.

VISIT OF SCIENTISTS FROM ABROAD

- **Dr. Simon Mason**, Chief Scientist, IRI visited IMD and delivered a talk on "Evaluation of ensembles – what is the correct ensemble spread" at DGM's office, New Delhi on 19th April 2011.
- **Dr. Zhan Zhang** and **Dr. Vijay Kumar Surya Venkata Tallapragada** Scientists NCEP, USA visited IMD (NWP Division) during 28th June to 2nd July, 2011 for installation and training programme of latest operational version of Hurricane Weather Research and Forecasting (HWRF) model for Indian region. Lectures were arranged which followed by discussions between US & IMD scientists.

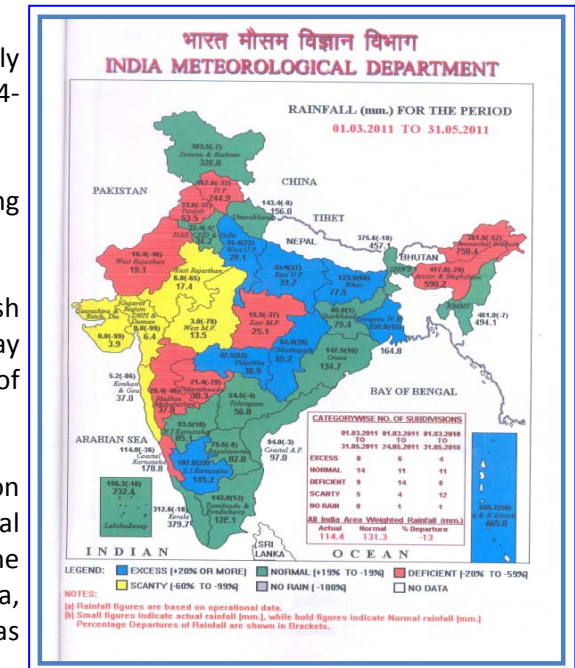


Shri A. K. Sharma with other participants at WMO Geneva

- **Shri K. C. Sai Krishnan**, Sc. 'E' and **Ms. Rekha Kandwal**, S.A. are on deputation to USA to attend 12 weeks training in software source code of 2 nos C-Band DWR system at M/S VAISHALA Boston, USA w.e.f. 31st May to 19th August 2011.
- **Shri A. K. Sharma**, Sc. 'F' attended the "Global space Based Inter-Satellite calibration system executive panel (GSICS-P10)" meeting at WMO HQ Geneva, Switzerland from 6th to 8th June 2011.

SIGNIFICANT WEATHER DURING PRE-MONSOON

- Under the influence of an intense western disturbance, fairly widespread rain/snowfall occurred over northwest India during 14-20 April, 2011.
- A thunder squall was reported over Haryana and adjoining area on 17th April, 2011
- Severe thunderstorm activities occurred over Uttar Pradesh (U.P.), Bihar, Gangetic West-Bengal and Orissa during 18-20 May 2011 leading to loss of life and property over different regions of central Bay of Bengal.
- The seasonal rainfall (March-May, 2011) during pre monsoon country as a whole received 114.4 mm rainfall against the normal of 131.3 mm. The seasonal rainfall was 13% below normal. The seasonal rainfall was deficient/scanty over west central India, Assam and Arunachal Pradesh and parts of northwest India. It was normal/excess over remaining parts of the country.



FORECAST FOR ONSET

The forecast for the date of monsoon onset over Kerala was issued on 13th May 2011. The onset forecast model suggested that the date of onset of Southwest monsoon over Kerala was likely to be on 31st May with a model error of ± 4 days.

ONSET OF SW MONSOON

Southwest monsoon entered into main land of the country and its first burst over Kerala coast on 29th May, 2011 against the normal date of 1st June. It got impetus to move further due to the formation of a vortex over the southeast Arabian Sea on 2nd June, which later formed as a LOPAR over the east central Arabian Sea on 8th June and concentrated into a depression over northeast Arabian Sea on 11th June. It helped in northward advance of monsoon along the west coast.

UPDATED LONG RANGE FORECAST (L.R.F.) DATED 21st JUNE 2011

First stage LRF was issued on 19th April 2011 later on India Meteorological Department (IMD) had organised a Press Conference on 21st June 2011 for issuing of 2nd stage Long Range Forecast for 2011 Southwest Monsoon Season Rainfall at CSIR, Anusandhan Bhawan, New Delhi. This Press Conference was addressed by the then Hon'ble Union Minister Shri Pawan Kumar Bansal for Parliamentary Affairs, Science & Technology and Earth Sciences. Updated forecast follows :

- Rainfall over the country as a whole for the 2011 southwest monsoon season (June to September) is most likely to be below normal (90-96% of LPA).
- Quantitatively, monsoon season rainfall for the country as a whole is likely to be 95% of the long period average with a model error of $\pm 4\%$.
- Rainfall over the country as a whole in the month of July 2011 is likely to be 93% of its LPA and that in the month of August is likely to be 94% of LPA both with a model error of $\pm 9\%$.
- Over the four broad geographical regions of the country, rainfall for the 2011 Southwest Monsoon Season is likely to be 97% of its LPA over North-West India, 95% of its LPA over North-East India, 95% of its LPA over Central India and 94% of its LPA over South Peninsula, all with a model error of $\pm 8\%$.

FAMILIARIZATION VISIT

Dr. G. Mohan Kumar, Additional Secretary, Ministry of Water Resources, New Delhi visited IMD on 23rd June, 2011 to familiarize with the forecasting techniques of IMD. AVM (Dr.) Ajit Tyagi, DGM welcomed Dr. G. Mohan Kumar and briefed about the working of various units of IMD and introduced him with the Senior Scientists of IMD. Shri S. C. Bhan, Scientist 'E' made a presentation of the organization and functions of IMD on this occasion.



Dr. S. K. Roy Bhowmik briefing Dr. G. Mohan Kumar

PUBLICATIONS

- Quantitative Crop Yield Forecast for Rabi Wheat for 16 Sub-divisions for April & May 2011 was prepared.
- Biweekly Aridity Anomaly Reports for Southwest monsoon season 2011 for the period 4-17 June 2011 and two weekly Aridity Anomaly maps for the period of 4-10 & 11-17 June 2011 were prepared.
- Three Drought Outlook Maps for the period of 4-10, 11-17 & 18-24 June 2011 for Southwest monsoon season 2011 were prepared.
- A paper entitled "Natural Hazards in relation with Landslides", by Dr. Arun Singh, Dr. D. M. Rase and Dr. U. S. De published in the International Journal of Meteorology, Vol. 36, No. 358, March 2011, 51-55.
- Eight research papers, four shorter contributions and two letters were published in quarterly departmental journal "MAUSAM" Vol. 62, No. 2, (April 2011).
- Synopsis on "Indian NE Monsoon as a component of Asian Winter Monsoon and its relationship with large scale global and regional circulation features" submitted by Smt. B. Geetha, S.A. Research Scholar for Ph.D degree under the guidance of Dr. Y. E. A. Raj, Supervisor has been forwarded to University of Madras.

USERS' MEET ON WEATHER SERVICES



Users' Meet on Weather services

Users' Meet on 'Weather services to Karnataka state delivered by IMD' was organized by M C Bangalore on 27th June 2011 at the Auditorium, Karnataka Veterinary Council, Hebbal, Bangalore. Dr. Y.E.A. Raj, DDGM, RMC Chennai welcomed the delegates. AVM (Dr.) Ajit Tyagi, DG IMD presided over the function and released the booklet on Met. Centre, Bangalore. Chief Guest Shri N. C. Muniyappa, IAS, Principal Secretary to Govt. of Karnataka, delivered inaugural address. Also Shri M. Naveen Kumar, IAAS, Managing Director, Bangalore and Shri K. S. Prabhakara, IAS, Secretary to Government, Revenue Department Bangalore were the Guests of honor for the function.

VISITORS

- 21 Trainee Officers from AAI, Hyderabad visited the Observatory on 20th April 2011. They were shown round the observatory and explained functions of Met. Instruments including Doppler Weather Radar.
- 100 delegates from "Gujarat Institute of Disaster Management visited M.C. Ahmedabad during the quarter. 30 Students and Teachers from Vikram Sarabhai Science Institute, Ahmedabad visited the observatory at M.C. Ahmedabad on 13th & 27th May 2011. They were shown round the RS/RW Observatory, Forecasting Section & all other instruments installed in the Campus.
- 15 teachers from different high schools visited M.C. Bhubaneswar on 26 June 2011 for field observation training and familiarise with other activities of IMD under PROBE-ORISSA programme.
- A team of scientists from the Bangladesh India Myanmar Srilanka Thailand Economic Co-operation (BIMSTEC) Nations visited NWP Division on 23rd June, 2011. They were shown various NWP Models and functioning of HPCS.

WELFARE MEASURE

A free health check up was conducted in IMD, New Delhi by Metro Hospital & Heart Institutes, New Delhi on 27-28 April 2011 for the welfare of IMD's Employees. More than 150 officials including senior officers availed this facility which shows how people are health conscious. In general, this type of campaign has been appreciated by all.



AVM (Dr.) Ajit Tyagi, Shri Rajiv Sharma & IMD officials during the health check up in IMD

BABA SAHEB DR. B. R. AMBEDKAR JAYANTI

IMD SC/ST Employees Welfare Association celebrated the 120th Birthday of Bharat Ratna Baba Saheb Dr. B. R. Ambedkar on 21 April 2011 at the premises of IMD, Mausam Bhawan, New Delhi. Chief Guest of this auspicious occasion was Hon'ble Minister of Earth Sciences Dr. Ashwini Kumar, Hon'ble Vice Chairman of National Commission for SC, Dr. Raj Kumar Verka and special guest Dr. Udit Raj, Chairman of All India SC/ST confederation. Shri L. R. Meena, Sc. 'F' welcomed the dignitaries on this occasion. A Bhandara was also arranged in the premises on this occasion.



Hon'ble Minister Dr. Ashwani Kumar, other guests & IMD Officials

SEISMIC TELEMTRY NETWORK FOR REAL TIME MONITORING OF EARTHQUAKE ACTIVITY

Earthquake Risk Evaluation Center has setup a VSAT based North-East seismic telemetry network, with objectives of near real time monitoring of seismic activity and dissemination of earthquake report to Government and disaster management authorities within shortest possible time, to initiate relief and rescue operation in the event of occurrence of any damaging earthquake and also to generate high quality data to be used for seismic hazard evaluation and research. This network consists of 20 field stations spread over different states of NE India with Central Receiving Station at IMD H.Q., New Delhi & Data Collection Center at CSO Shillong. This network has been inaugurated by Secretary, MoES on 11th May 2011 and made operational in a brief inaugural function held at Mausam Bhawan, New Delhi.



Dr. Shailesh Nayak, Secretary MoES & AVM (Dr.) Ajit Tyagi, DG, IMD & IMD officials during inaugural functions of Seismic Telemetry Network for Earthquake Activity

PROJECTS EVALUATION

IMD (EMRC) evaluated seventy four (74) Thermal Power, ninety (90) Industrial and thirty nine (39) Coal Mine projects referred to this Department by the Ministry of Environment & Forests, New Delhi. IMD (APEC) evaluated one scientific project report and expert comments have been communicated to Department of Science & Technology, New Mehrauli Road, New Delhi.

BRAINSTORMING SESSION ON WRF MODEL

A Brainstorming Session on Indian WRF Model was conducted by NWP Division during 28-29 April, 2011 at Mausam Bhavan, New Delhi to discuss the issues and conceptualize research opportunities for an Indian WRF model. The session was chaired by DGM and attended by various operational and research organizations in India such as IMD, NCMRWF, IAF, IITM, IIT Delhi, SAC Ahmedabad, NARL Gadanki, Andhra University, CDAC Pune, CMMACS Bangalore.

ACHIEVEMENTS



Smt. Aasiya receiving the prize

- **Smt. Aasiya Aasif Bhat**, S.A. of Meteorological Centre Srinagar was awarded First Prize in Hindi Reading Competition while participating in Hindi Workshop organized by Town Official Language Implementation Committee, Srinagar on 20th April 2011.
- **Dr. D. P. Dubey**, Sc. 'E' M.C. Bhopal was nominated as a panel member for selection of research fellows for Ph.D. in Physics in the Barkatullah University Bhopal on 30th April 2011.
- **Dr. S. D. Attri**, Scientist 'E' evaluated Ph.D. thesis entitled "Physico-chemical characterization of Aerosols and Precursor Gases in and around Delhi" and conducted viva-voce examination on 6th April, 2011 at Jamia Millia Islamia University, New Delhi. He also conducted Viva-voce examination of M. Tech students at IIT Delhi on 31st May, 2011 and 24th June, 2011.
- **Dr. Medha Khole**, Scientist 'E' worked as a Member of the panel of paper setters for the subject 'Earth Science', for the State Eligibility Test (SET) examination to be conducted by University of Pune.
- **Dr. V. Rajeswara Rao**, Sc-E was on tour to Andhra University, Visakhapatnam as External Examiner to conduct Examinations for M.Sc.
- **Dr. R. Suresh**, Scientist 'E' has been appointed as a member of Board of Studies in Atmospheric Science, Cochin University of Science and Technology, Kochi.

TRAINING WORKSHOP

- Nine officials of Administration, RMC Chennai were imparted a training – "Centralised e-admin support system" conducted by HQ at RMC Chennai during 18-19, April 2011.
- Three days training workshop on "DWR Products, their interpretation and utilization" was conducted from 11-13 May 2011 at DWR Kolkata. Six forecasters from RMC Kolkata and AMO Kolkata attended the workshop.
- A training on Seismic Instruments and equipments was given to the trainees of Intermediate course (Instrumentation) Meteorology Training Batch No. XXXVI by Officers from Seismology Division during 23-27 May, 2011.
- A Training Workshop on Doppler Weather Radar was organized at DWR Chennai for eight IAF personnel (JCOs and NCOs), from 20th to 24th June 2011.
- Under the auspices of M.C. Bhopal, 25 personnel from the Water Resources Deptt., Govt. of M.P. were imparted basic training in installation, inspection and validation of Met. Data. The training was arranged at Water And Land Management Institute (WALMI) Bhopal during 20-29 June 2011. The trainees were awarded certificates after undergoing meticulous training test and viva examination.

NORTH EAST TELEMTRY TRAINING



DGM with the participant trainees

A two week's training program on North East Telemetry Network highlighting the hardware and software related aspects of the field stations and Central Receiving Stations was held during 27th June to 9th July, 2011. Senior officers and staff of Seismology and EREC and a few officers from CSO, Shillong and other North East field stations participated in the training program. DGM also addressed the trainees during the course of training.

Shri G. Sudhakar Rao, Sc. 'E', **Shri Y. K. Reddy**, Sc. 'E', **Shri K. Seetaram**, Director, **Shri S. B. Tyagi**, Director and **Shri R. V. Subba Rao**, Assistant Meteorologist Gr-I delivered a lectures on Aviation and General Meteorology to ATC Trainees at Begumpet Airport on 20th & 21st April 2011.

Shri B. K. Bandyopadhyay, DDGM (S) and **Dr. M. Mohapatra**, Sc. 'E', attended the Interrelation Conference on Environmental knowledge for Disaster Risk Management, {EKDRM-2011} organized by National Institute; of Disaster, Management (NIDM) in collaboration with GIZ Germany on 10-11 May 2011 at Vigyan Bhavan, New Delhi. **Dr. M. Mohapatra**, Sc. 'E', delivered a presentation on "Cyclone Hazard Risk Profile of Coastal Districts of India".

Dr. Somenath Dutta, Sc. 'E' delivered lecture on "A Proposed Nowcasting Method of different meso-scale weather orographic barrier" in the SERC School "CONMED" at AFAC, Coimbatore on 16th May 2011.

Dr. R. Suresh, Sc. 'E' delivered a guest lecture on the topic 'Basis of Radar Meteorology and Importance in Weather Prediction' in the national level training Programme on 'Concepts of Nowcasting and Mesoscale disturbances' (CONMED-2011) held at AFAC Coimbatore on 17th May 2011.

Dr. Geeta Agnihotri, Director has delivered lecture on 'Weather Forecasting system during floods' on 18 May 2011 to the trainee officers of 63rd All India Watermanship Course at Home Guards and Civil Defence Academy, Bangalore.

Ms. Reva Sharma, Senior Hindi Officer, **Mrs. Sarita Joshi & Mrs. Anuradha**, Senior Translators, delivered lectures in Hindi Workshop organized by M. O. Palam on 20th May 2011.

Shri Anand Kumar Sharma, Sc. 'E', M C, Dehradun delivered lecture on "Concepts in meteorology and climatology, tropical and extra tropical systems and application of satellite in operational meteorology" to the participants of NNRMS-ISRO certificate course conducted by Indian Institute of Remote Sensing on 31st May 2011.

Shri S. Sudevan, Director delivered a lecture on "Role of IMD in disaster preparedness" for revenue officials in the training programme "Techno Legal Regime" on 8th June 2011.

Shri S. B. Thampi, Sc. 'E', DWR Chennai delivered five lectures on maintenance and calibration aspects of DWR in the training Workshop specifically arranged for officers and staff trained in Metstar Radar, held at MC Hyderabad on 21 - 22 June 2011.

Dr. M. Satya Kumar, Sc. 'E', **Shri K. Seetharam**, Director, **Shri S. B. Tyagi**, Director and **Shri R. V. Subba Rao**, AM - I delivered lectures on Aviation and General Meteorology to ATC Trainees of AAI, Hyderabad during the period from 23- 24 June, 2011.

Shri K. Santhosh, Sc. 'E' delivered a lecture on "Assessment and attribution of climate change and its impact on Agriculture" in project envisioning workshop on "Climate change" organized by College of Agriculture, Vellayani, Thiruvananthapuram as part of developing Vision 2030 document on 28th June 2011.

Dr. Kamaljit Ray, Director & **Mrs. Manorama Mohanty**, Meteorologist – I attended Weekly weather watch group meetings under the chairmanship of commissioner of Relief, Government of Gujarat, with representation from CWC, Agriculture, Gujarat State Disaster Management agency (GSDMA), State irrigation department, Gujarat Maritime Board on 7th & 21st June-2011.

Dr R. K. Jenamani, Scientist-E M.O. IGI Airport delivered lecture on "Synoptic system during monsoon" in the SERC School organized at CAS, IIT Delhi on 30th June 2011.



Shri A. K. Sharma delivering lecture at IIRS

MoU BETWEEN IMD AND CWC

A meeting was held between senior officers of IMD and Central Water Commission on 5th April 2011 at IMD, New Delhi. CWC, under the Union Ministry of Water Resources, collects hydro-meteorological data and issues flood forecasts on major river and their tributaries in the country. IMD under the Ministry of Earth Sciences collects rainfall data. CWC & IMD agreed upon to exchange meteorological and rainfall data being collected by each department for effective use of these data. An MoU between CWC and IMD regarding exchange of Real Time Rainfall Data was signed. On behalf of Central Water Commission, the Chairman CWC, and on behalf of IMD, DG IMD signed the memorandum.



DG, IMD, signing the MoU with CWC

MoU BETWEEN IMD AND CDAC, PUNE

A MoU between India Meteorological Department and Centre for Development of Advanced Computing (CDAC), Pune was signed by AVM (Dr.) Ajit Tyagi, Director General of Meteorology, IMD, New Delhi and Professor Rajat Moona, Director General, CDAC, Pune for Technology development for applications of weather and climate information in Agriculture, Hydrology, Aviation etc. using interdisciplinary computational technologies such as GIS, networking, Indian language software and HPC.



MoU Signing Ceremony between IMD and CDAC

MoU BETWEEN IMD AND ANDHRA UNIVERSITY

A Memorandum of Understanding (MoU) has been signed on 15th June 2011 between the Andhra University and IMD for conduct of an M. Tech course in atmospheric science for the officers of IMD. Andhra University will offer the course exclusively for the IMD officers.

The MoU is a landmark to help develop capacity building between the two institutions. The memorandum was signed by DG, IMD, AVM (Dr.) Ajit Tyagi and Registrar, Andhra University Shri P.V.G.D. Prasad Reddy. The signing took place in the presence of Vice-Chancellor Dr. B. Satyanarayana, Principal of University Colleges, Dr. V. Veeraiah, Dr. G.S.N. Raju, and Dr. S.S.V.S. Ramakrishna, and Chairman of Board of Studies Dr. K.V.S.R. Prasad.

The IMD and AU will be involved in the design of the course work, conduct of lectures/practical/field work, examination and evaluation, project guidance and other aspects of the programme in conformity with rules and regulations.



Exchange of MoU between IMD and AU

AVM (Dr.) Ajit Tyagi, Director General of Meteorology was the Chief Guest in the inaugural function of international conference on environmental knowledge for disaster risk management organized by National Institute of Disaster Management (NIDM) and delivered an inaugural address.

Shri A. K. Sharma, Sc. 'E', M. C., Dehradun participated in the workshop on "Mountain Agriculture in Himalayan Region" on 2-3 April 2011 at Central Soil and Water Conservation Research and Training Institute, Dehradun. The Workshop was inaugurated by the Union Minister of State for Agriculture Shri Harish Rawat.

Dr. Y. E. A. Raj, DDGM and Dr. S. R. Ramanan, Sc. 'E' participated in the inaugural function of the Regional Workshop on "Establishing a Co-operative mechanism for protection of Met. Ocean data and Tsunami Buoys in the North Indian ocean region" at NIOT, Chennai on 6th May 2011.

CONFERENCE FOR HINDI MEDIA

IMD organized a round table conference exclusively with Hindi Weather Media Reporters, Editors/Producers of Weather related programmes, Science Correspondents, Editors of Science Magazines etc. on the theme "Weather systems during the summer season" on 7th April at Conference Hall, Mausam Bhawan, New Delhi. About 50 media personnel attended the conference. The queries raised by them about ensuing monsoon, thunderstorms and dust storms were replied by Dr. Ajit Tyagi, D. G., IMD and Shri B. P. Yadav, Sc. 'E'.



DG, IMD briefing to Hindi media reporters

SEASONAL PREDICTION OF SW MONSOON RAINFALL

A training workshop on "Seasonal Prediction of SW Monsoon Rainfall" for participants from the south Asian countries was conducted at IMD, Pune during the period from 8-12 April, 2011. The training workshop was attended by representatives from six South Asian countries, namely Bangladesh, Bhutan, India, Maldives, Nepal, and Sri Lanka. Experts from the IMD and IITM, Pune and international experts from National Center for Environmental Prediction (NCEP), USA, Meteo France, France, International Research Institute for Climate and Society (IRI), USA, participated in the training workshop.

हिन्दी कार्यशाला का आयोजन

मौसम कार्यालय पालम में दिनांक 20 मई 2011 को दूसरी हिन्दी कार्यशाला का आयोजन किया गया। कार्यशाला का उद्घाटन डॉ. ओ. पी. सिंह, उप महानिदेशक, प्रादेशिक मौसम केन्द्र, नई दिल्ली ने किया। अपने उद्घाटन भाषण में डॉ. सिंह ने मौसम कार्यालय, पालम पर हिन्दी कार्यशाला का आयोजन करने के लिए धन्यवाद दिया एवं आशा व्यक्त की कि कार्यशाला में व्याख्यानों से प्रतिभागी लाभ उठाएंगे। कार्यशाला में पालम के 42 प्रतिभागियों एवं व्याख्यानदाताओं सहित कुल 50 कर्मियों ने भाग लिया। कार्यशाला का समापन समारोह डॉ. राजेन्द्र कुमार जेनामणी, निदेशक मौसम कार्यालय, पालम द्वारा धन्यवाद प्रस्ताव एवं कार्यशाला के आयोजन पर चर्चा और अनुशंसा के बाद हुआ।



हिन्दी कार्यशाला

ISO CERTIFICATION FOR DDGM (SI), Pune

IMD's Surface Instruments Division, headed by the DDGM(SI), manufactures, calibrates and maintains the surface met. instruments used in the met. Observatories. Bureau of Indian Standards (BIS) has authorized the laboratory of this division to calibrate met. instruments and sensors of other manufacturers in India and abroad. This division is also responsible for installation and maintenance of various observatories like surface met. Observatory, radiation station, AWS, ARG, AMO, etc. The radiation laboratory got recognition as Regional Radiation Centre for RA-II by the WMO. Recently this division has acquired ISO 9001: 2008 certification for the process of manufacturing testing calibration and supply of met. instruments.

LEASE AGREEMENT FOR INSTALLATION OF DWR

A Lease Agreement was signed between IMD and Animal Husbandry & Veterinary Services Department, Govt. of Karnataka on 16th May 2011 in connection with allotment of 20 acres land at Hesaraghatta, Bangalore for installation of DWR. The survey diagram of 20 acres of land at Hesaraghatta was signed by both Dr. Shivakumar, Director, Animal Husbandry Department and Dr. R. Asokan, Scientist 'E', Director-in-charge on 10th June 2011 and the land was taken over by IMD for installation of DWR at Bangalore.

IMPLEMENTATION OF PROJECT 'E-AGROMET'

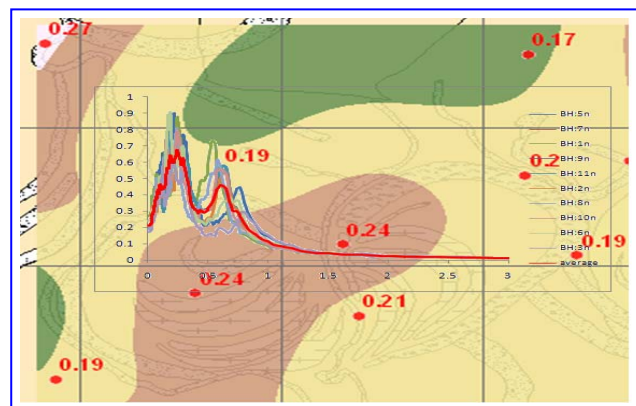
First meeting of Steering Committee on implementation of project 'e-Agromet: ICT Enabled Integrated Agro Meteorological Advisory System' was held on 18th June 2011 in IT for Agriculture Lab., IIT Hyderabad to review the progress as well as to render technical guidance for development and implementation of e-Agromet project.



Steering Committee meeting 'e-Agromet'

SEISMIC MICROZONATION

A Special presentation on Seismic Microzonation of NCT Delhi on 1:10,000 scales was made in ESO Council meeting held during 26-27 April 2011. In this presentation preliminary result generated for about 500 sq km area of North Delhi represented in 25 Topo-Sheets was made. The simulated time history of earthquake at bedrock and surface at site and average acceleration response spectra showing Peak Ground Acceleration (PGA) at different time periods was also presented.



Acceleration response spectra

MONITORING & EARLY ASSESSMENT OF DROUGHT

A meeting was held at National Remote Sensing Centre (NRSC), Hyderabad on 18th June 2011 to discuss on joint collaboration for monitoring and early assessment of drought, estimation based on remote sensing data as well as ET data generated by IMD network, development of crop yield forecasting model using remote sensing and meteorological data together for generation of agromet products for improvement of Agromet Advisory Services in the country. Dr. M. V. R. Sessa Sai, Head, Agriculture Division, LRG, NRSC, Hyderabad, Dr. C. S. Murthy, Scientist/Engineer SF Agriculture Division, NRSC, Hyderabad, Dr. K. K. Singh, Scientist-F, IMD, New Delhi, Dr. N. Chattopadhyay, Scientist-E, IMD, Pune, & Shri V. Tyagi, AM I, IMD, New Delhi attended this meeting.

PLAN REVIEW MEETING



Group of participating officers along with DGM

A Plan Review Meeting was held during 4-6 April 2011 to review the performance of various plan schemes, the current status and constraints being faced in realization of desired targets. The meeting was attended by all heads of offices and divisional heads. DGM welcomed the participants and briefed on the achievements of last year. The change of people's perceptions about IMD weather forecasting was appreciated during the meeting. The presentations by various participants were made as per programme. At the end of the meeting DGM thanked all participants for active participation in deliberations and advised them to submit revised 12th five year plan schemes.

2ND SOUTH ASIAN CLIMATE OUTLOOK FORUM MEETING

Second Meeting of South Asian Climate Outlook Forum (SASCOF), was jointly organized by IMD and IITM from 13th to 15th April 2011 at IITM Pune. Senior Officers from IMD, IITM, Experts from National Scientific institutes, Retired Scientists from IITM, invitees from USA, Japan & France delivered lectures in the forum meet. Representative from WMO also attended SASCOF-2 meet. Shri A. K. Srivastava, Scientist 'E' was the Chief Co-ordinator for this meet.



DG IMD on Dais during South Asian Climate Outlook Forum

The Forum deliberated on various observed and emerging climatic features that are known to influence the performance of the monsoon, such as sea surface temperature conditions over the equatorial Pacific and the Indian Oceans, winter and spring snow cover and surface temperature anomalies over Northern Hemisphere.

BRAINSTORMING MEET ON SOUTHWEST MONSOON



Lighting of lamp by Dr. Y. E. A. Raj & others

M. C., Thiruvananthapuram organized one day "Brainstorming meet on Southwest Monsoon" on 18th May 2011 at Thycaud, Thiruvananthapuram. The main objective of the meet was to provide a common platform for researchers, planners, hydrologists, agriculturists, disaster managers, and media professionals to share their knowledge. The session focused on all aspects of SW monsoon and experts delivered talk on various themes of SW monsoon. Dr. Y. E. A. Raj, DDGM, RMC Chennai presided over and Dr. C.T.S. Nair, Executive Vice President, Kerala State Council for Science, Technology & Environment, Thiruvananthapuram inaugurated the meet. There were seven presentations. 64 Senior Officers from 50 different organizations attended the meet.