

ACHIEVEMENTS

Shri Anand Kumar Sharma, Scientist-'E', Meteorological Centre, Dehra Dun acted as evaluator of the M.Sc. papers of the Doon University and forest Research Institute University Dehra Dun.

Dr. A. K. Srivastava, Scientist 'E' has been nominated by MoES to co-ordinate the activity for development of real time gridded merged rainfall data set in collaboration with Dr. A. K. Mitra, Scientist NCMRWF and Dr. M. Rajeevan, Scientist 'G', MoES.

Dr. S. C. Sahu, Scientist-'E' has been awarded "Chinta O Chetana National Award-2012" for his commendable service in the field of Science by 32nd National Baishakhi Festival Bhubaneswar on 17 April 2012.

Dr. S. D. Attri, Scientist 'E', conducted Viva-Voce of two M. Tech. Students at IIT Delhi.

PROJECTS EVALUATION

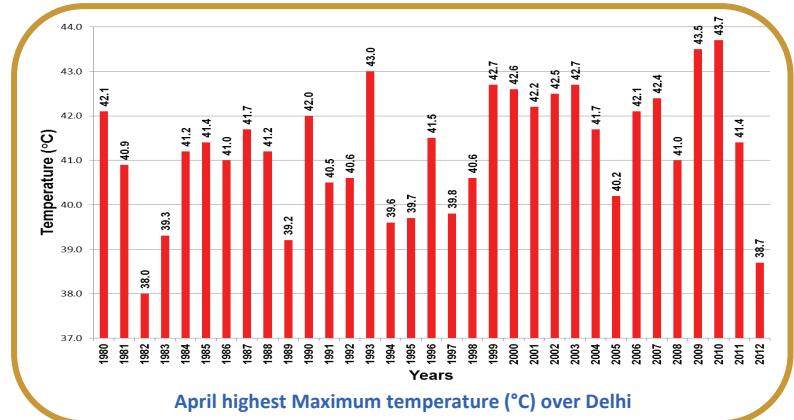
Environmental Impact Assessment of twenty three Thermal Power, ten Coal Mine and fifty two Industrial Projects referred to this Department by the Ministry of Environment & Forests, New Delhi was carried out by EMRC. One project completion report was sent to DST by PMRD.

EARTHQUAKES

Two earthquakes of great magnitude 8.5 & 8.1 with their epicenter in Sumatra region were recorded and located by the National Seismological Network (NSN) on 11th April, 2012 which were reported widely felt in parts of main land of the country. The information pertaining to these earthquakes and a brief report on the same was disseminated to various State and Central Government agencies, media press, etc. These events, however, did not generate significant tsunamis.

TEMPERATURES SCENARIO OVER DELHI DURING APRIL TO JUNE

The mean maximum and minimum temperatures over Delhi during April, 2012 were 35.7°C and 21.7°C against their normal values of 36.0°C and 21.4°C respectively. The highest maximum temperature during the month was 38.7°C recorded on 4th and lowest minimum temperature of 18.3°C was recorded on 16th instant. The highest maximum temperature in April, 2012 over Delhi is the lowest after 1982 when it was 38.0°C on 16th April, thus breaking a record of 30 years. The all-time record of Maximum temperature for the city is 45.6°C recorded on 29 April 1941.



April highest Maximum temperature (°C) over Delhi

The mean maximum and minimum temperatures during May 2012 were 40.5°C and 26.3°C against their normal values of 39.6°C and 25.9°C, respectively. The highest maximum temperature during the month was 45.4°C observed on 31 May 2012, whereas the all-time record for the city is 47.2°C recorded on 29 May 1944.

The maximum temperature during June was 45.4°C recorded on 1st, whereas, the all-time record for highest temperature is 46.7°C recorded on 17 June 1945. The mean maximum and minimum temperatures during the month were 41.9°C and 30.6°C, against their normal values of 39.1°C and 28.0°C respectively, which were highest since 1981.

ANNULAR ECLIPSE OF THE SUN

An Annular eclipse of the Sun occurred on 21 May, 2012 (31 Vaisakha, 1934 Saka Era). The annular eclipse of the Sun was visible within a narrow corridor that traverses Earth's Northern Hemisphere. The annular path of the Moon's shadow began in eastern Asia at the Chinese coast, passes through south of Japan, then crosses the North Pacific Ocean ended in the western United States. The ending of the partial phase of the eclipse was visible for a very short duration from the northeast India after the sunrise. The partial phase of this eclipse began at 2 h 26 m IST. The annular phase began at 3 h 39 m IST. and ended at 7 h 7m IST. The partial phase ended at 8h 19m IST.

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मौसम विज्ञान विभाग समाचार

IMD NEWS

INDIA METEOROLOGICAL DEPARTMENT
(Ministry of Earth Sciences)

Quarterly Newsletter
Volume 5
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APR– JUN 2012

LONG RANGE RAINFALL FORECAST - 2012



The first stage forecast for the year 2012 Southwest Monsoon Rainfall for the country as a whole was issued in press release at PIB Shastri Bhawan, New Delhi on 26th April 2012. Dr. D. S. Pai gave a presentation on LRF for SW Monsoon followed by press release and media briefing by the

Hon'ble Minister, Secretary MoES and DG, IMD. The model error of the April forecasting systems was $\pm 5\%$. For the first stage forecast following 5 predictors are used. **They are North Atlantic – SST - December + January, Equatorial South Indian Ocean – SST - February + March, East Asia - MSL Pressure - February + March, NW Europe - Land Surface Air Temperature - January & Equatorial Pacific - Warm Water Volume - February + March.**

Long Range Forecast for SW monsoon rainfall (June – September 2012) are as follows:

Southwest Monsoon seasonal rainfall for the country as a whole is most likely to be normal [96-104% of Long Period Average (LPA)] with the probability of 47%. The Probability (24%) of season rainfall to be below normal (90-96% of LPA) is also higher than its climatological value. However, the probability of season's rainfall to be deficient (below 90% of LPA) or excess (above 110% of LPA) is relatively low (less than 10%).

Quantitatively, monsoon season rainfall is likely to be 99% of the LPA with a model error of $\pm 5\%$. The LPA of the season rainfall over the country as a whole for the period 1951-2000 is 89 cm.

Updated LRF for 2012 Southwest Monsoon Rainfall

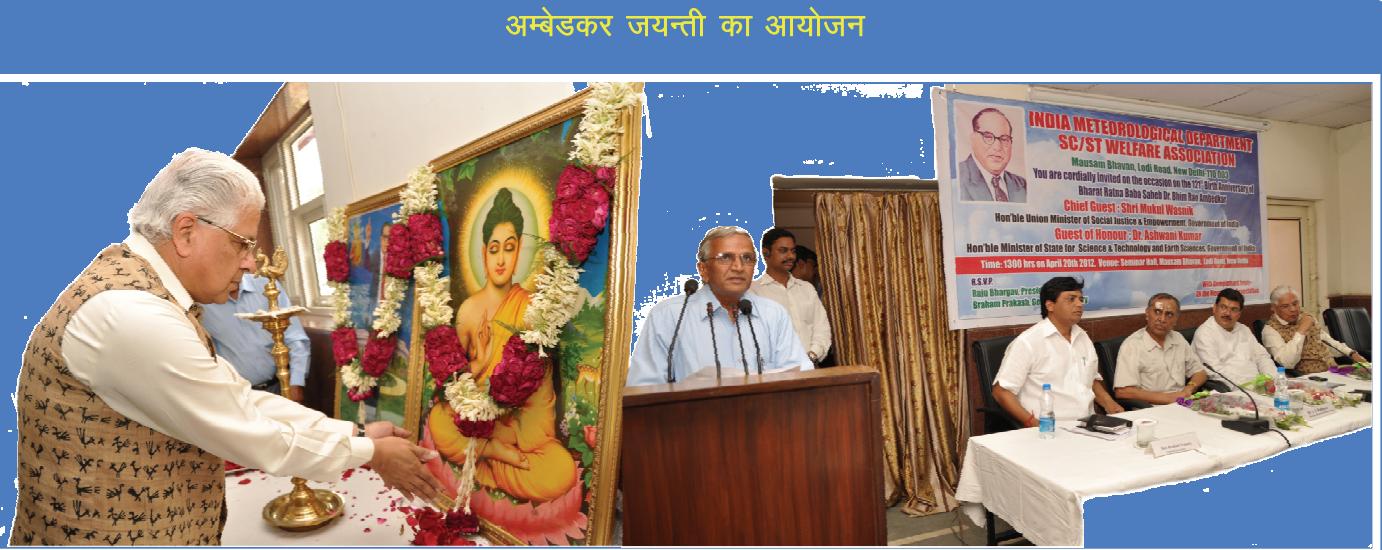
The 6 predictors used in the ensemble forecasting system for the update forecast on 22nd June 2012 for updated forecast which are **North Atlantic Sea Surface Temperature (December + January), Equatorial SE Indian Ocean Sea Surface Temperature (February + March), East Asia Mean Sea Level Pressure (February + March), Central Pacific (Nino 3.4) Sea Surface Temperature Tendency (March to May - December to February), North Atlantic Mean Sea Level Pressure (May) and North Central Pacific Zonal Wind at 850 hPa (May).**

The Updated LRF issued on 22nd June is as follows:

I. Rainfall over the country as a whole for the 2012 southwest monsoon season (June to September) is most likely to be normal (96-104% of LPA). Quantitatively, monsoon season rainfall for the country as a whole is likely to be 96% of the long period average with a model error of $\pm 4\%$. The Long period average rainfall over the country as a whole for period 1951-2000 is 89 cm.

II- Rainfall over the country as a whole for the month of July 2012 is likely to be 98% of its LPA and that for the month of August is likely to be 96% of LPA both with a model error of $\pm 9\%$.

III Over the four broad geographical regions of the country, rainfall for the 2012 Southwest Monsoon Season is likely to be 93% of its LPA over North-West India, 96% of its LPA over Central India, 95% of its LPA over South Peninsula, and 99% of its LPA over North-East India all with a model error of $\pm 8\%$.



भारत रत्न डा. बाबा साहब भीमराव अम्बेडकर की जयन्ती भारत मौसम विज्ञान विभाग में 20 अप्रैल 2012 को सभी अधिकारियों व कर्मचारियों के द्वारा पूर्ण हर्ष एवं उल्लास के साथ मनाई गई। मुख्य अतिथि माननीय श्री मुकुल वासनिक, सामाजिक न्याय एवं अधिकारिता केन्द्रीय मंत्री, विशेष अतिथि माननीय डा. अश्विनी कुमार, विज्ञान तकनीकी एवं पृथ्वी विज्ञान राज्य मंत्री, डा. एल. एस. राठोर, महानिदेशक भारत मौसम विज्ञान विभाग, डा. एल. आर. मीना, उपमहानिदेशक आदि द्वारा दीप प्रज्वलन, एवं पुष्पांजलि के पश्चात् शुभारम्भ किया गया। अतिथियों के स्वागत के बाद कार्यक्रम का संचालन श्री ब्रह्म प्रकाश, महासचिव, अ. जा./अ. ज. जा. द्वारा किया गया। डा. एल. आर. मीना ने ज्वलंत उदाहरणों द्वारा डा. अम्बेडकर के जीवन पर प्रकाश डाला, वहीं माननीय अतिथियों द्वारा संवेधानिक दायित्वों को पूर्ण करते हुए प्रेम, भाईचारा एवं सौहार्दपूर्ण माहौल में कार्य करने के लिए प्रेरणा दी। सभी के लिए न्याय, समुचित सम्मान एवं समता मूलक समाज की स्थापना से ही डा. अम्बेडकर को सच्ची श्रदांजली होगी।

VISIT OF HON'BLE MINISTER



Hon'ble Minister Shri Vilasrao Deshmukh at Pune office

The Hon'ble Minister of Science & Technology and Minister of Earth Sciences Shri Vilasrao Deshmukh, Government of India visited, IMD, Pune office on 7th April 2012. He was briefed about the on-going activities of the Agricultural Meteorology Division particularly Integrated Agromet Advisory Services, Observational network, Technical support to Agromet observatories, Training activities, Research & Development and Crop Yield Forecasting under FASAL. Dr. N. Chattopadhyay, Head Agrimet Division, Pune apprised him about mode of dissemination of agromet advisory through SMS/IVR to the farmers in the country. Hon'ble Minister also visited workshop at IMD Pune and appreciated the wide range of Meteorological instruments manufactured in the workshop.

VISIT OF MEMBER NE COUNCIL



Shri Awadesh Kumar, DDGM, RMC Guwahati and
Shri P. P. Srivastava member NE council

Shri P. P. Srivastava, Member, North East Council visited RMC Guwahati on 3 May 2012. He held a meeting with Shri Awadhesh Kumar, DDGM, RMC Guwahati and discussed about the scope of Met. services in NE region and other issues. He also interacted with officers and members of staff of RMC Guwahati and appreciated the weather services rendered by RMC Guwahati and stressed for providing such services especially related with natural calamities. Nowcasting for the ferry routes started w.e.f. 20 June 2012 and issuing location based weather forecast for locations requested by army in Arunachal Pradesh started w.e.f. 05 June 2012.

MEETING ON OPERATIONAL AGROMET SERVICES



Agricultural Meteorology Division, India Meteorological Department, Pune, World Meteorological Organisation, Geneva and SAARC Agriculture Centre, Bangladesh jointly organized the Consultation Meeting on "Operational Agrometeorological Services in SAARC and other countries in RA II region" at National Meteorological Training Institute, Pune from 20-21 April 2012. A number of high level dignitaries viz. Dr. A. K. Azad, Director, SAARC Agriculture Centre, Mr. Robert Stefanski, Chief Agricultural Meteorology Division, WMO, Geneva, Prof. R. R. Kelkar, Former DGM, AVM (Dr.) Ajit Tyagi, Former DGM, Dr. K. J. Ramesh, Sc.'G', DST, Dr. S. Sardesai, Sc.'G', NIC participated in the meeting. The objective of the meeting was to share the ideas and understanding of agromet advisories services among the agrometeorologist from SAARC and non-SAARC countries in the RA-II which will ultimate boost the agriculturist activities and also benefit both the group of countries.

INDIVIDUALS PARTICIPATION

Shri Anand Kumar Sharma, Scientist 'E', M. C., Dehradun attended a meeting on 4th April as technical expert organized by the Uttarakhand Government for GEF - World Bank funded SLEM project.

Dr. M. Mohapatra, Scientist 'E' participated in the meeting of Expert Committee for finalization of optimum Moored Buoy Network, Location and Parameters to be measured at NIOT Chennai on 9th April, 2012.

Dr. A. K. Shukla, Head (EREC) attended a meeting as a member of expert committee constituted by Bihar Government, on 17 April 2012 at Bihar State Disaster Management Authority (BSDMA) regarding setting up of Patna Seismic Observatories in Bihar state by Govt. of Bihar.

Shri P. S. Biju, Scientist 'C' attended a meeting at Vegetable and Fruits Promotion Council Keralam (VFPCK), Kochi for the technical evaluation of AWS as a committee member during April 2012.

LAC Meeting

Shri P. R. Baidya, Scientist 'E' attended two meetings of the purchase/technical committee held on 18th April 2012 & 15th May, 2012 at Thiruvananthapuram organized by Kerala State Electricity Board, Kerala in connection with automation of Seismological Observatories of Kerala State Electricity Board.

Shri S. I. Laskar, Met-I, Smt. Sarita Joshi, Senior Translator and Shri Virendra Kumar, Junior Translator attended the MoES officials language implementation committee's quarterly meeting on 7 May 2012 under the Chairmanship of the MoES Joint Secretary.

Shri B. Puttanna, Director-in-charge participated in the State level committee on Crop Weather Watch which was held at Vidhana Soudha in chamber of Additional Chief Secretary and Development Commissioner on 16th May, 2012.

Shri G. Suresh, Scientist 'E', visited Port Blair and Campbell Bay during 22-27th May, 2012 to brief Chief Secretary, Andaman & Nicobar Administration, Port Blair, on the recent seismicity in Nicobar Islands region and current seismic monitoring capabilities of IMD. He also visited Campbell Bay to address the issues related to seismic instruments functioning in the observatory.

Shri K. Santhosh, Scientist 'E' has attended the State Level Empowered Committee Meeting of NeGP-Agri. convened by Agricultural Production Commissioner, Agriculture Department, Government of Kerala on 29 May 2012.

Dr. Rajesh Prakash, Scientist 'E' attended 2nd meeting of Geoscience Advisory Council (GAC), Ministry of Mines held on 20th June, 2012 in New Delhi.

Dr. S. D. Attri, Scientist 'E' participated in "Weather programme" on Doordarshan and also attended the meeting of "Rural Advisory Committee" at Doordarshan Kendra, New Delhi on 27th June, 2012.

Shri V. K. Soni, Director and Shri Sanjay Bist, Met. Gr.-I attended the workshop on "Evaluation of Research for Planning the 32nd Indian Scientific Expedition to Antarctica on 27 & 28 June 2012 at NCAOR, Goa and they have presented a presentation on the above theme.

Dr. R. S. Dattatrayam, Scientist 'F' & Head (Seismology) attended the sixth meeting of the Programme Advisory Committee (PAC) on Geosciences of MoES on 28th June 2012 held at NGRI, Hyderabad.

LAC Meeting

91st Meeting of Library Advisory Committee (LAC) was held on 26 June 2012 under the chairmanship of Dr. L. R. Meena, Scientist 'F' ISSD. Shri A. K. Sharma, Scientist 'F', Dr. O. P. Singh, Scientist 'F', Shri S. K. Kundu, Scientist 'F', Smt. Reva Sharma, Senior Hindi Adhikari, Shri U. P. Singh, Member Secretary attended the meeting. During the meeting 7 books in English and 18 books in Hindi were recommended for procurement.

- A 4 Mbps link between IMD and INCOIS, Hyderabad has been established on 17th April, 2012 as a part of implementation of project titled "Establishment of an integrated Seismic and GPS network of stations operated by various national agencies".
- Twenty five ARG stations were installed and commissioned in Kerala region during May 2012.
- DWR at Mohanbari has been commissioned on 2 June 2012.

INSTALLATION OF AWS



- Three AWS have been installed and commissioned at – Shree Amarnathji Holy-cave, Panjtarni and Sheshnag for safe conduct of Shree Amarnath yatra. These AWS stations were installed by an installation team from the Surface Instrument Division, IMD, Pune and work was completed on 19th June 2012. All the three stations are located in a snow-bound tough hilly terrain at a height of 12000 to 13000 feet. Indian Army and Shree Amarnath Shrine Board provided the logistic support for these installations.

TELESCOPIC OBSERVATION OF VENUS



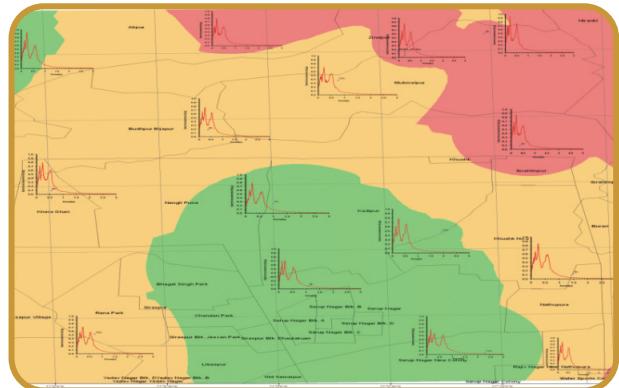
Telescope viewing of Venus at PAC, Kolkata

Observation on Transit of Venus of 6 June, 2012 a public outreach programme, was arranged by PAC, Kolkata on the roof top of the building for viewing of the event by projection method through telescope and direct viewing through telescope. Large number of people consisting of students, teachers and general public, gathered to see the event. Electronic and print media made wide coverage of the event organised by this office. Live telecast of the entire event was made by electronic media.

PUBLICATIONS

- Climate Diagnostics Bulletin of India for February, March, April, May and Winter Season (January – February) 2012 were brought out.
- The Met. Monograph entitled "Drought scenario over India – Analyses based on Standardized Precipitation Index", "Climatology No. – 24/2012 by Jayanta Sarkar, Ajit Tyagi and B. Mukhopadhyaya has been published.
- NCC Research Report No. 1/2012 entitled "Trends and variability of monthly, seasonal and annual rainfall for the districts of Maharashtra and spatial analysis of Seasonality Index in identifying the changes in rainfall regime" by P. Guhathakurta and Elizabeth Saji has been published.
- Publication entitled, "Disastrous Weather Events 2009" has been brought out.
- A research paper entitled "Large and great earthquakes in the Shillong Plateau-Assam valley area of Northeast India Region: Pop-up and transverse tectonics" was published in Tectonophysics, with Shri J. L. Gautam, as co-author.
- During the period twelve Research papers and four Letters were published in Departmental Quarterly Research Journal MAUSAM, 63, No.2, (April 2012).

SEISMIC MICROZONATION STUDY OF NCT DELHI



Presently, out of 500 sites spread over 75 toposheets, data generation and analysis have been completed for 350 sites. The available data satisfactorily meet the requirement of data for the area covered under 52 sheets, covering six districts of NCT, and partly meet the requirement of remaining part of Delhi covered under remaining 23 sheets. On the basis of available data, Preliminary Seismic Hazard Microzonation maps of NCT, Delhi for different themes have been generated. A set of 19 maps of different themes of Seismic Hazard Microzonation have also been generated for the Sheet no. 39, covering an area of about 25 sq km and printed on actual scale of 1:10000 scale which shows Response spectra (5% damping) overlaid on Peak Ground Acceleration (PGA) map at surface.

CAPACITY BUILDING TRAINING WORKSHOP

A 3 days capacity building training workshop on "Seasonal Prediction of Southwest Monsoon Rainfall" conducted at the India Meteorological Department Pune during 16-18 April, 2012. The training workshop was attended by representatives from 7 South Asian countries, namely, Bangladesh, Bhutan, India, Maldives, Myanmar, Nepal, and Sri Lanka. An expert from (SAARC Meteorological Research Centre, Dhaka Bangladesh), also participated. Experts from the IMD and the Indian Institute of Tropical Meteorology, Pune and international experts from UK Met. Office and Japan Meteorological Agency participated in the training workshop as resource persons.

SOUTH ASIAN CLIMATE OUTLOOK FORUM - 3



Third meet of South Asian Climate Outlook Forum (SASCOF-3) was organized by IMD / IITM during 19-20 April which was attended by representatives from 7 South Asian countries, experts from IMD and IITM, Pune and international experts from UK Met Office, Japan Meteorological Agency and Korea Meteorological Administration. Representatives from the WMO and scientists from C-DAC, Pune, and Centre for Mathematical Modelling and Computer Simulation, Bangalore, took active part in deliberations for finalizing the consensus outlook for the summer monsoon rainfall over South Asia. There were 42 participants from 9 countries. In addition, around 20 experts from the national agrometeorological services of the SAARC nations and an expert from the WMO also joined the forum.

AGROMET CORE COURSE

The Agromet Core course meant for university Professors, Readers, Scientists from various agricultural/agrometeorological research organizations/ICAR institutions/universities was conducted from 24th April to 14th May, 2012. Total 14 participants (Professors/Scientists) from various Agricultural Universities throughout the country joined the course. The course content included various aspects of Agricultural Meteorology including climate change impact on crops, crop simulation modeling, crop yield forecasting, and application of remote sensing in addition to operational Agromet Advisory Service.

OTHER TRAINING

On-the-job Training of Intermediate (Gen. Met.) Batch No. 226 has been imparted to trainees at RC Kolkata as per schedule of NMTH, Pune during 30 April to 5 May 2012.

TRAINING ON MKRAIN SOFTWARE



Group of Trainees along with DG, IMD and DDGM Hydrology

A training programme was arranged by Hydromet division on mkRAIN software during 3-4th May, 2012 at training centre, New Delhi. The officers from RMCs, MCs, and FMOs attended the programme. Inaugural address was given by Dr. L. S. Rathore, DGM followed by training lectures given by officers from Hydromet Division. During the period a lecture on DRMS Rainfall Data Processing through mkRAIN software was arranged.

TRAINING PROGRAM ON 'VRISHTI'

A training program on 'Vrishti', a Geographical Information System for river basin rainfall data processing was held by Hydromet division, New Delhi in three phases, during 30 May-1 June and 4-6 June at HQ, New Delhi and during 12-14 June 2012 at Kolkata. The trainee participants were from the Flood Met. Offices and also from RMCs/MCs.

AGROMET OBSERVERS' COURSE



Participants of Agromet Observers' course

Three weeks Agromet Observers' course meant for grass-root level observers, was conducted from 4 June 2012 to 22 June 2012. Eight participants from the vast network of various Agromet. and other observatories under different State Agricultural Universities/ICAR Institutions, State Department of Agriculture participated in the course.

Members of the 25th Session of WMO EC Panel of experts on Education and Training visited O/o DDGM(WF), Pune on 29th March 2012. They were briefed about activities of this office related to training.

Dr. (Mrs.) Surinder Kaur, Scientist 'F' (Hydrology) visited Japan to attend the 9th meeting of the GEOSS Asia water Cyclone Initiative International Coordination Group and 5th GEOSS AP symposium from 2-4 April 2012.

Shri A. K. Jaswal, Scientist 'E' participated in the "Eighth session of the Forum on the Regional Climate Monitoring Assessment and Prediction for Asia" from 5th to 7th April, 2012 held at Beijing, China.



Dr. S. D. Attri, Scientist 'E' visited Bangkok, Thailand during 11-12 April 2012 to participate in the regional planning workshop in climate change.

Shri Vivek Sinha, Sc. 'E' visited Bangkok, Thailand from 17 - 20 April 2012 to attend OPMET/MTP/10 and METWARN/ITF/2.

VISITORS FROM ABROAD

Dr. Robert Stefanski, Chief, Agricultural Meteorology Division, WMO, Geneva visited IMD, Pune Office. On 22nd April 2012, Dr. Medha Khole Scientist 'E' briefed him the weather forecasting services currently being provided and the utilization of SYNERGIE workstation in day-to-day weather forecast generation.



Dr. Medha Khole briefing to WMO EC Panel

Dr. A. K. Srivastava, Scientist 'E' attended 'SAARC Climate Risk' meeting on, Climate Risk in the Region, "Ways to Comprehensively address the related social, economic and environmental challenges" from 16th to 17th May 2012 held at Male, Maldives.

WMO EXECUTIVE COUNCIL MEET

The annual meeting of Executive Council of the World Meteorological Organization (WMO) was held from 25 June - 3 July to review progress in the provision of critical weather, climate and water services to meet the growing needs of society. The 64th session of the Executive Council considered WMO priorities, including: the Global Framework for Climate Services; enhanced Disaster Risk Reduction (DRR); improved observation and information systems; more efficient meteorological services for the aviation sector; and capacity-strengthening of National Meteorological and Hydrological Services (NMHSs) in developing countries. Dr. L. S. Rathore, DG, IMD represented India in this Council meet at Geneva.



Dr. S. K. Roy Bhowmik, Scientist 'F' at SMRC, Dhaka

Dr. S. K. Roy Bhowmik Sc. 'F' was on deputation to SAARC Meteorological Research Centre, Dhaka to attend Meeting of the Focal Points on "Formulation of Inter-Governmental Monsoon Initiative Programme" held in SAARC Meteorological Research Centre, Dhaka, Bangladesh during 30 to 31 May 2012.

Shri R. K. Giri, Scientist 'D' visited Kathmandu, Nepal during 23 to 25 May, 2012 to attend the HCOS project 4th regional steering committee meeting.

Shri N.K. Pangasa Scientist 'F' visited Cairo, Egypt during 29 to 31 May, 2012 to attend Seventeenth Meeting SADISOPGS (Satellite Distribution operator group system) organized by ICAO Montreal.

EXECUTIVE COMMITTEE MEET OF ISC UK



Dr. R. S. Dattatrayam, Scientist 'F' attended the annual meeting of the Executive Committee International Seismological Centre, U. K. held during 17-18th June, 2012 at Thatcham, Berkshire, UK to discuss and review the working of ISC towards suggesting improvements in the preparation and exchange of seismological bulletin data.

PRE-CYCLONE LECTURE

The pre-cyclone lecture series for the cyclone season, April-June 2012 was conducted during 11-13th April, 2012. It was attended by the officers from Indian Air force, Indian Navy, National Disaster Management, National Disaster Management Authority, Ministry of Home Affairs, National Centre for Medium Range Weather Forecasting and Centre for Atmospheric Science, IIT Delhi.

LIVE TV PROGRAMME

Shri B. Puttanna, Director participated in the Live phone-in-program at Doordarshan Kendra, Bangalore regarding pre-monsoon temperature/thundershower activity and also attended the weather enquiries of general public on earthquake in other local Kannada TV channels like i.e., TV-9, Suvarna, Kasturi, Samaya, E-TV etc. and print media on 11th April, 2012.

Shri Sonam Lotus, Scientist 'C' gave an invited Live TV talk titled " Impact of Climate Change in J&K" on DD-Kashmir in the Live Phone-in Programme "Sitaron Say Aagay" on 29th April and also another invited TV interview titled " Weather & Weather Forecasting" on DD-Leh on 06th April 2012.

ABHINAV FARMERS CLUB



Dr. N. Chattopadhyay, Head, Agrimet Division, Pune along with Officers and staff members of Agrimet Division, Pune, visited Abhinav Farmers Club supported by NABARD at Hinjewadi in Pune on 25th April 2012. Mr. Bodke, a farmer, made a presentation on the activities of Farmer's club with the support of NABARD. This visit's aim was to understand support of NABARD in Horticulture farming and make a discussion how to integrate IMD's agromet service with the activities of Farmer's Club.

Shri S. Sen, Scientist 'E' participated in live TV programme regarding Transit of Venus of 6th June, 2012 on four different TV Channels.

Dr. Sachin Parar and Dr. Sandhya from Rajyoga Education and Research Foundation delivered the talk on Art of positive thinking and anger management which was organized by DDGM (UI), New Delhi at workshop hall on 6th June, 2012.

INDIVIDUAL LECTURES

Dr. Medha Khole, Scientist 'E', delivered a lecture on the topic, "Early warning systems of IMD pertaining to Cyclones" at YASHADA, Pune on 8th May 2012 at the Maharashtra State Government's one day workshop on Monsoon Preparation and Hydro Meteorological Hazards.

Mrs. Manorama Mohanty, Met.-I delivered lecture on "Role of IMD in Forecasting & early warning to the delegates of Gujarat Institute of Disaster Management, Ahmedabad on 10th & 24th May 2012.

Shri N. T. Niyas, Met.-I was on tour to Malappuram, Kerala to deliver a guest lecture on, 'Experiences of Antarctica : Climate Change, Weather and Climate Monitoring' during 21-23 May 2012.

Shri B. Puttanna, Scientist-'E' - gave lecture on "Early Warning System in Disaster Management – Karnataka State Experience" to Group A & B level Officers of Government of Karnataka at Administrative Training Institute, Mysore on 22 May 2012.



Shri Anand Kumar Sharma, Scientist-'E', Meteorological Centre, Dehradun delivered a talk on Understanding Weather and Climate on World Environment Day (5th June 2012) at the Wild Institute of India.

Dr. A. K. Shukla, Scientist-'F', Head (EREC) attended the meeting at Ministry of Urban Development under the chairmanship of Secretary on 11th June and delivered a brief presentation about the recent product generation of Seismic Hazard Microzonation Maps of NCT Delhi on 1:10,000 scales.

Shri A. K. Sharma, Scientist-'F' delivered a lecture at International Centre for Radio Sciences, Jodhpur on "Application of Satellite images/products in Agro Meteorology" on 24th June, 2012.

Dr. N. Chattopadhyay, Head, Agrimet Division, Pune attended and presented a paper in the workshop on "Micro level Action Plan at District Level for Climate Resilient Agriculture" held during 29th - 30th June, 2012 at Anand Agricultural University, Anand, Gujarat.