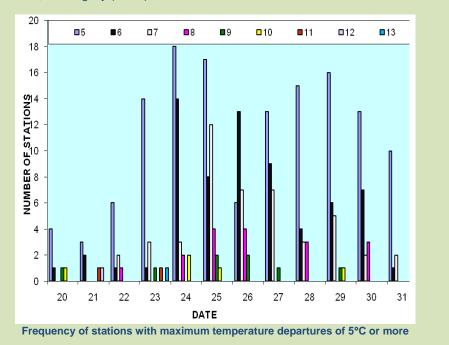
EXCEPTIONALLY HIGH TEMPERATURES

The winter season in India comprises of the two months viz. January and February. January is generally considered as the coldest month. The temperatures, particularly the minimum, are very low over North and Central India.. The weather phenomenon like fog, cold wave, cold day and frost conditions also occur on some davs causing discomfort.

During 1st week of January 2009, temperatures were usual over many parts. Thereafter, there was a gradual increase in the temperatures. During 2nd half of the month, both minimum and maximum temperatures were considerably above normal on many days. During the last ten days of January 2009, particularly from 22nd of the month, a number of stations recorded high maximum temperatures ranging as high as 13 °C above normal. Commencing from 23rd of the month, during the respective days in succession, many stations have recorded temperatures which were above the normal by 5 °C or more. Several stations have recorded abnormally above normal temperatures, surpassing the past records of extreme maximum temperatures.

On 27th alone, 12 stations broke the earlier records such as Raipur (Chhattisgarh) with 35 °C temperature which was 2.8 °C above the earlier extreme record temperature. Similarly, on 26th and 25th, 11 stations and on 29th, 8 stations surpassed the earlier records. In this spell of exceptionally high temperatures, Mukteshwar (Uttarakhand) recorded maximum departure of 13 °C on 23rd, which however, was slightly (0.2°C) short of earlier extreme.



The mean minimum temperature of January was 8.9°C against the normal of 7.3°C over Delhi which is the highest during the past 19 years. Similarly, mean maximum temperature of January was 21.7°C against the normal of 21.1°C over Delhi which is the second highest during the past 19 years. Average (mean of maximum & minimum) temperature of 15.3°C is also a record highest during the past 19 years.

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MAXIMUM TEMPERATURES BROKE THE RECORD DURING FEBRUARY 2009

February is the last month of winter season in India. This year the temperatures during February 2009 were exceptionally high.During the month, the all time record of highest maximum temperatures was broken at many of the stations. The stations recording maximum temperatures (°C) during February 2009 higher than their all time previous records are Darjeeling 19.4 (10-Feb), Shillong 29.8 (12 Feb), Imphal 31.5 (19 Feb), Panjim 39.2 (20 Feb), Honavar 38.5 (20 Feb), Karwar 39.1 (20 Feb), Visakhapatnam 38.2 (26 Feb), Adliabad 38.3 (28 Feb), Arogyavaram 37.0 (26, 27 Feb), Baptla 35.4 (28 Feb), Hyderabad 39.1 (26, 27 Feb), Kurnool 39.9 (26, 27 Feb), Medak 38.0 (28 Feb), Nalgonda 39.5 (25, 28 Feb), Tirupati 39.5 (26, 27 Feb).

TEMPERATURE OF DELHI DURING MONTH OF FEBRUARY 2009

The day temperatures remained above normal on most of the days during the month. The night temperatures were also normal to above normal on many days except for two brief spells, i.e., 08-10 and 16-18 February, when they were slightly below normal. Under the influence of Western Disturbance, the day temperatures fell steadily from 29.8°C on 05 February to 19.5°C on 12. The subsequent absence of any rainfall activity over the plains of northwest India resulted in rise in day The highest maximum temperatures. temperature of 31.0°C was recorded on 24 February 2009 against all time record of 34.1 °C (26 February 2006). The lowest minimum temperature of 7.6 °C was recorded on 09 February 2009, whereas all time record of lowest temperature for the month is 01.7 °C (11 February 1950).

The mean max.and min. temperatures during February 2009 were 26.1 °C and 11.1 °C against their normal values of 24.2 °C and 10.1 °C respectively. The mean temp. of the month was 18.6 °C. There have been 10 occasions since 1901 when the mean temperature for February was higher, the highest being 21.6 °C in 2006.



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CERTIFICATE OF MERIT

On the occasion of IMD foundation day celebration a documentary film and brochure was brought out. Certificates of merit were awarded to 19 officials of this Department for meritorious services rendered in the year 2008. RMC, New Delhi was awarded best RMC offices for excellent work



CELEBRATION OF IMD FOUNDATION DAY ON 15TH JANUARY 2009



In the history of India Meteorological Department 15th January 1875 is a momentous day as on this day Mr. H.F. Blanford took charge as the Meteorological Reporter to the Govt. of India. During 134 year of its existence, IMD has contributed immensely for the development of science of meteorology over the sub-continent region and has served the cause of safety and well being of Indian population against weather related hazards and to economic development of the country. IMD considered 15th January as an opportune moment to celebrate this day under dynamic leadership of AVM Dr. Ajit Tyaqi, Director General of Meteorology.

SAARC SCIENTIST AWARD



Dr. Dutta receiving the Award from Hon'ble Minister Shri Kapil Sibal

SAARC Senior Scientist Award for year 2006 and SAARC Junior Scientist Award for the year 2007 were conferred to Shri D. Pradhan, Director and Dr. S.N. Dutta, Director respectively, on the occasion of IMD Foundation Day.

Editorial Team

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MESSAGE FROM HON'BLE UNION MINISTER SHRI KAPIL SIBAL



I am happy to note that IMD is celebrating its foundation day on 15th January, 2009 for the first time in their 134 year of history. This should provide inspiration to all of you to rededicate yourself to the progress of the department and work towards a single objective of providing best meteorological service to the nation. I convey my warm greetings to entire IMD family on this occasion and wish them a great success in the time to come.

QUIZ CONTEST

On this occasion a school quiz contest was organized in IMD Telecom Training Centre (TTC). Six schools (Tagore International School, Hans Raj Model School, St. Francis School, Carmel Convent School, Modern Vidva Niketan School, Kendriya Vidyalaya School) were participated in the quiz contest. Ist Prize was awarded to Hans Raj Model School and 2nd Prize given to Carmel Convent School by Hon'ble Minister of MoES, Sh. Kapil Sibal on 15th January 2009





10TH ALL INDIA IMD SPORTS MEET



10th All India IMD Sports meet was organized by All India Sport Committee. It was held at M.C. Ahmedabad during 27th Feb. to 2nd March-2009 at Sports Authority of India Gandhinagar, During the meet a souvenir was released by DGM on the inaugural ceremony. The inaugural ceremony was attended by DDGM (RMC) Mumbai, Guest of Honour was Shri S.C Mathur, Chief Nautical Officer from Gujarat Maritime Board and Chief Guest was Director General of Meteorology. The Valedictory dinner was organized on 1st March 2009 and the closing ceremony on 2nd afternoon was attended by DDGM (A&S), DDGM(RMC) Mumbai and DGM.

On this occasion, Officers and Staff of IMD from all over the country alongwith counterparts IITM, CSIR, Survey of India participated and displayed their sports skill in different sports events.

SOLAR ECLIPSE



26th January 2009 ,Partial Solar Eclipse An annular eclipse of Sun occurred on 26th January 2009. The phenomenon of this partial solar eclipse was visible from southern part of India, eastern coast, Andaman & Nicobar Islands and Lakshadweep.

WORLD METEOROLOGICAL DAY

The WM day is celebrated throughout the world commemorating the formation of World Meteorological Organization (WMO) on 23 March, 1950.

The wind, temperature precipitation and other meteorological parameters play a leading role in air pollution. The green house gases have a warming effect and thus can exacerbate air pollution The air pollution is linked with respiratory and cardiovascular illness, cancer, nervous disorder as well as air borne disease and heat stroke The number of people suffering from respiratory ailment is rising alarmingly in cities.

IMD is providing advance warning forecast for sand and dust storm in order to mitigate its effect on public. In environmental related issues IMD plays a vital role towards environmental. An Interview of AVM Dr. Ajit Tyagi, Director General of Meteorology was Telecasted on Doordsarshan. National Channel as well as Broadcasted over All India Radio on Rajdhani Channel on this day. His Hindi interview was also broadcasted on All India Radio Indraprastha Channel on 21st March 2009

On the occasion of World Meteorological Day the 23rd March Indian Meteorological Society conferred upon the 50th fellowship to Dr Shailesh Nayak, Secretary, MoES for his pioneering contribution and long support to atmospheric and oceanic sciences.



Dr. Shailesh Nayak, Secretary, MoES receiving fellowship award

On this occasion Dr. B. Sengupta, former member Secretary of the Central Pollution Control Board, Delhi delivered a lecture on the topic "The Air. We Breathe" in the seminar hall of the DGM's Office. New Delhi. A press release was also issued on this occasion...



Dr. B. Sengupta, delivering lecture

On that day, the general public and the school children visited the meteorological observatories situated at different cities throughout the country. An exhibition showing the key role of IMD in issuing weather forecast progress towards modernization program, prediction of meteorological phenomena through Satellite imagery, the formation and movement of Weather systems was also organized. The visitors took keen interest in IMD activities and appreciated IMD's efforst towards attaining forecast accuracy. A film show was also arranged at conference hall for the visitors.

METEOROLOGICAL CO-OP. CREDIT SOCIETY LTD., AIRPORT NAGPUR



On the eve of completion of 50 years of Society's working Golden Jubilee celebrations held on 06th to 08th March 2009 at Nagpur. Mayor of Nagpur city Smt. Mayatai Iwanathe was the chief quest of honour, Shri S. Krishnaih, D.D.G.M. RMC, Nagpur presided over the main function and Dr. P.K.Nandankar, Director M.O. Nagpur, Dr. D.P. Dubey, Director M.C. Bhopal and other officials attended the function. Shri S.K.Konge, President of the society felicitated the dignitaries, addressed and concluded with vote of thanks.

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FOREIGN VISITORS

- > Dr. Dunne Waliser and Dr. Susan, USA visited IMD, Pune on 10th Feb. A meeting of all Heads of Offices was held with them and they were apprised of the activities of IMD.
- > Mr. Steve Coffey, Vice President, Strategic Relations, Japan visited Met. Offices, Pune on 11th Feb. and he was appraised of the activities of IMD.
- > Dr. Taiichi Hayashi, Dr. (MS) Fumie Murata and Dr. Yusuke Yamane of Disaster Prevention Research Institute, Kvoto University, Japan visited Met. Offices, Pune on 20th Feb. and they were appraised of the activities of IMD.
- > Dr. William K. M. Lau, from NASA has visited IMD, New Delhi and delivered a lecture on "Aerosol and Monsoon" on 9th January 2009 at H. Q Conference Hall.

VISIT OF CHINESE DELEGATION

A-Ten member delegation participating Indo-Chinese in Workshop from National Climate Centre (NCC), Institute of Atmospheric Physics (IAP), Climate Academy of Sciences, Beijing and Nanjing University, China has visited, IMD, New Delhi on 20th March, 2009 for familiarization with IMD facilities

After the welcome address, the delegation was shown various IMD facilities and they were taken around of NHAC & Computer/ Sat. Met. / Seismology.



Dr. M. Mohapatra, Director(CW) was on tour to Yangoon Myanmar during 9-13 February, 2009 as a member of WMO Expert mission to assist Department of Meteorology and Hydrology, Myanmar in rebuilding essential Meteorological Infrastructure following Cyclone, Nargis.

> Shri A. K. Sharma, DDGM, Sat. Met. Visited, Kathmandu, Nepal, regarding installation of INSAT / MET SAT, Digital Meteorological system in Nepal from 4 to 10 February 2009.



Met. Centre Hyderabad has conducted full day interactive session for creating awareness about Meteorology and weather prediction among student community on 8th February 2009 at IMD Campus, Hyderabad. Over 100 students from about 50 schools have attended the workshop along with many eminent scientists including Padmasree Prof. Dikshitalu from Central University Hyderabad and from NRSC, CWC, ANGARU,

INCOIS, IMD etc.

- > Dr. A. L. Koppar, DDGM (QAPPS) was on tour to attend a preparatory workshop on CAIPEEX at IITM. Pune on 4th March 2009. He also chaired the post tea session. The cloud and rain formation was two main area of thrust. He emphasized the coordination among different agencies for the experiment.
- on tour to Delhi to participated in a seminar at TERI, New Delhi on 3rd Feb 2009.
- Dr. M. Mohapatra, Director (Cyclone Warning) participated in workshop on Disaster Risk Reduction on 30th -31th March organized by NDMA.
- > Shri Dulal Roy, Dft'sman and Shri

TOURS / VISITS

dissemination (DMDD) receiving

DMDD receiving system at Kathmandu

> Dr. P. Guhathakurta, Director was

Milan Kanti Das, S. O. was on tour from RMC Kolkatta to participate in 20th Sundarban Grameen Mela at Serbaria. North 24 Parganas from 06th to 16th February 2009.

TOURS

- > Dr. A.B. Mazumdar, DDGM(WF) was on tour to O/o DGM. New Delhi to attend review a brainstorming meeting during 19-21st Feb. 2009.&presented Salient feature of monsoon 2008.
- Shri, N. Meenatchinathan, Met Gr-II participated in the orientation workshop Effective on Management titled 'Tomorrow Begins Today' organized by MoES in collaboration with centre for Marine Living Resources and Ecology (MLRE), Kochi held from 6th to 8th February.
- Shri B.K. Bandyopadhyay, DDGM(S), participated in the WMO/ESCAP Panel meeting and high level policy working group meeting at Muscat, Oman during 27 Feb.-3March, 2009.
- > Eleven Officers from IMD were deputed for twelve week Familiarization Training on operational and maintenance of DWR at Beijing with effect from 8th Feb. - 4th May, 2009.
- > Dr. A. L. Koppar, DDGM(QAPPS) Dr. A.B. Mazumdar, DDGM(WF) Shri M.K. Bhatnagar, DAS and Shri Rajeevan, Director were on tour for Audit of MWO Palam, New Delhi during 17 to 18th Feb. 2009.
- > Dr. R. Suresh, Director was on tour to AMO Hyderabad during 4 to 6th Feb to get familiarized with the functioning of Integrated CWIS .
- > Dr. S. C. Sahu, Director-I/C, M.C. Bhubaneshwar participated in state disaster management plan meeting on 20th February organized by Orissa Disaster Mitigation Authority at Bhubaneswar
- > Shri U. P. Singh, Director, Publication was on tour to attend a conference on Open Access to Science Publication : Policy perspective, opportunities and challenges at India Habitat Centre, New Delhi on 24th March which was organized by CSIR, New Delhi.
- > Dr. A, B, Mazumdar, DDGM (WF) was on tour for conducting safety audit of M.W.O, Mumbai during 29-31 March 2009.

SEMINAR / LECTURE

TRAINING COURSE ON AGROMETEOROLOGY FOR **SERVING END USERS**



A Training course on 'Agrometeorology' for AMFU scientists of 3 weeks duration was conducted from 02 March to 20 March 2009 at CTI, Pashan by Agrimet Division. AVM Dr. Aiit Tvaqi. Director General of Meteorology inaugurated the training course. Total 30 candidates in the rank of Assistant Professor, Associate Professor from different SAUs working as Technical officers, Nodal officers, Advisory Board members from different AMFUs participated in the course. 70 lectures were delivered on different topics of atmospheric sciences including Agrometeorological data processing and drought study, crops, their agroclimatic requirement. irrigation scheduling and crop simulation modeling, Advisory services for the benefit of farmers, extreme events, livestock, pests & diseases and remote sensina.

TRAINING CUM WORKSHOP ON OLB SYSTEM

A two day training workshop was held during 18-19 February 2009 on "Timely Dissemination and Briefing Aviation Weather through OLBS" at AMO Palam for officers/staff of AMO/AMS under RMC New Delhi. It was inaugurated by Mr. M. K. Bhatnagar, Director Aviation Service. There were fifteen participants from various Aerodrome Meteorological Offices/Stations from Northern India

EARLY WARNING SYSTEM

About 25 trainees from NIDM visited NHAC on 18th March 2009. They were briefed about the role of IMD during occurrence of disaster weather events. like, cyclones etc., A presentation on Early Warning System was provided by Dr. M. Mohapatra, Director.

SEMINAR & LECTURE

Dr. R. Suresh, Director delivered 4 Monsoon-Basics, lectures on Climatology and Semi permanent systems and on Tropical Cyclones to the newly recruited J.R.Fs of National Atmospheric Research Laboratory (NARL), Gadanki during 17-18.Feb.

Shri S. K. Prasad. DDGM(Trg.). delivered a lecture on "Climate Change" on 1st January 2009 on the occasion of the 28th Convocation ceremony of Deendayal Upadhayay Gorakhpur University, Gorakhpur.

Shri G. N. Raha, Meteorologist-in-Charge attended a seminar on "Flood forecasting activities on North Bengal rivers and other water resources development issues" held on 27 February 2009 at Teesta Paryatak Avas, Jalpaiguri.

Dr. H. R. Hatwar, ADGM(R), Shri A. K. Srivastava, Director, Dr D. S. Pai, Director and Shri O. P. Sreejith, Met. II attended the Climax Workshop organized by Ministry of Forest, at Tata Technologies Campus, Hinjewadi, Pune on 16th Feb.

Dr. H. R. Hatwar, ADGM(R), Dr. J. Sarkar, Director, Dr. P. Guhathakurta, Director, Shri V. K. Soni, Met.-I, Shri P. A. Kore, Met.I and Shri N.T. Niyas, Met.II attended International conference on, "Challenges and Opportunities in Agrometeorology" (INTROMET 2009) held at New Delhi during 23-25 Feb. and presented a paper.

Shri A. K. Herode, S.O. attended 2 days workshop on, 'Legal software and using Linux' at National Water Academy, Khadakwasala, Pune during 26-27 Feb.

Dr. Duane E. Waliser, Jet Propulsion Laboratory, MS 183-505 California Institute of Technology delivered a lecture on"Developing and Implementing Operational Prediction of the MJO" on 9th February 2009 at H. Q., IMD.

Shri R. Suresh. Director delivered a lecture on 'Our response to global warning whether it is truth or a myth' at SRM University, Chennai on 22nd January 2009

Shri N. Meenatchinathan, Met Gr-II participated in a workshop on Effective Management titled 'Tomorrow Begins Today' organized by MoES & Centre for Marine Living Resources and Ecology (MLRE), Kochi during 6th to 8th Feb.

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A lecture cum demonstration programme on "General Functioning of IMD System" was conducted on 10th February 2009. This was a part of the training programme by the Centre of Disaster Management, YASHDA. Dr. A. B. Mazumdar, DDGM(WF) and Dr. Medha Khole, Director, delivered a lecture on "Natural Disasters & Organization structure for Disaster Management" on the event of visit of YASHADA trainees in workshop on that day.

LECTURE AT H.Q., NEW DELHI

JANUARY 2009				
Day	Date		Speaker/ Office	
Wed	7	Monthly Weather Review for December 2008 & Weather Outlook for January 2009	DDGM(S)	
Wed	14		Dr Naresh Kumar, Met.II	
Wed	28		Sh. R.D. Ram, Dir.	

FEBRUARY 2009				
Day	Date	Subject Area	Speaker/ Office	
Wed	4	Monthly Weather Review for January 2009 & Weather Outlook for February 2009	DDGM(S)	
Wed	11	Seismological observational capabilities : Status & Future Plan	Sh. P.R. Baidya, Dir	

MARCH 2009				
Day	Date	Subject Area	Speaker/ Office	
Wed	4	Review of Winter Season (January-February 2009) & Weather Outlook for March 2009	DDGM(S)	
Wed	18	Activities of Earth Station	Shri Ram Babu Verma, Dir.	
Wed	25	Application of G.I.S. in Meteorology	Dr Rahul Saxena, Dir.	

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STEERING BOARD REVIEW MEETING

Dr. Shailesh Nayak, Secretary MoES, AVM (Dr.) Ajit Tyagi, Director General of Meteorology and Shri D. Chakraborty, DDGM visited Toulouse, Paris, France from 4 to 8 February 2009 for Steering Board Review of items under Statement of Work (SOW) Packages for commissioning of forecasting system under modernization of observation and forecast facility of IMD-phase I.



The committee was satisfied to see the hardware procurement, integration, configuration, test and development which are in progress in MFI Lab in Toulouse. It was recommended to setup NWP based Electronic Forecasting approach of Meteo France with strong emphasis on applied research to improve each forecast as a customer driven high quality product.

DATA ASSIMILATION

In order to workout a joint national science plan for mesoscale data assimilation using new observations like AWS, DWR, MODIS the first Meeting on the 'Mesoscale Data Assimilation' was held on 14th February 2009 in Mausam Bhawan, New Delhi. Various institutes participated in the meeting.

BRAIN STORMING MEETING

Review cum Brainstorming meeting in the field of Weather prediction and its R&D activities was held at IMD, New Delhi from 18-21 Feb 2009. Several senior officerS attended the meeting and gave their presentation.

हिन्दी कार्यशाला का आयोजन

मुख्यालय में दिनांक 5.3.2009 से 6.3.2009 तक र्दो दिवसीय हिन्दी कार्यशाला का आयोजन किया गया जिसमें मख्यालय, प्रादेशिक मौसम केन्द्र नई दिल्ली तथा मौ.वि.उ.म.नि. उ.वा.उ के कार्यलय के कल 23 कार्मिकों ने भाग लिया। इस कार्यशाला में भाग लेने वाले सभी कार्मिकों को प्रमाण पत्र प्रदान किए गए।

ISRO-CNES JOINT MEETING

Dr. Ajit Tyagi, Director General of Meteorology, participated in Megha Tropique International Conference held at ISRO Bangalore on 25th March 2009. He also participated in ISRO-CNES Joint Science Committee meeting there on 26th March 2009.

राष्ट्रीय राजभाषा कार्यशाला

श्री ए. बी. लाल, ज्येष्ठ हिन्दी अधिकारी एवं श्री बीरेन्द्र कुमार ने 2-3 फरवरी 2009 को इंस्टिटयुट ऑफ पब्लिक एडमिनिस्ट्रेशन, बेंगलरू द्वारा मैसर में आयोजित दो दिवसीय राष्ट्रीय आवासीय प्रयोजनमूलक राजभाषा कार्यशाला में भाग लिया।

MEETING

Shri A.K.Das, DDGM (LACD) attended a meeting on 29th January with AAI Kolkata in connection with NOC for DWR installation for Kolkata and Patna.

Shri K. Seetharam, Dir., MC Gangtok, attended a meeting on 24th January with Secretary, DST regarding climate change studies in Sikkim.

Shri A.K.Das, DDGM (LACD), had a meeting on 10th February at PAC regarding handing over of Training Unit of RMC Kolkata at PAC New Building. Salt Lake, Kolkata,

The second meeting on Revamping of training "the Atmospheric Science in IMD "was held at CTI on 11-12 Feb. 2009 under the chairmanship of Prof. J. Srinivasan, Scientist, I.I.Sc., Bangalore.

PAMC meeting of 'Forecast Demonstration Project on FOG' was held on 13th February 2009 in Mausam Bhawan, New Delhi. C-MMACS, MoES, NARL, NCMRWF, IAF, JNU, IIT-Delhi and IMD were participating institutes

Dr B Mukhopadhyay DDGM (DM) attended meeting on Development & Application of Extended Range Forecast System for Climate Risk Management in Agriculture on 7th Jan.2009 at IIT, New Delhi.

Dr. Y. V. Rama Rao, Director participated in a meeting on 22nd January, 2009 regarding the establishment of National Cyclones **Disaster Management Institute**

MEETINGS

PLAN / MONSOON REVIEW **MEETING**

3-day review meeting for 4th Plan Review. Annual Monsoon Review and Annual Cyclone Review meetings were held during $22^{nd} - 24^{th}$ Jan. 2009 in the conference hall of Assam Administrative Staff College, Guwahati. These meetings were attended by Directors-incharge of various field offices, DDGMs and ADGMs under the Chairmanship of AVM (Dr.) Ajit Tyagi, DGM. In the Annual Monsoon Review meeting, various aspects of Monsoon-2008 were elaborately discussed along with the forecast verification and in the light of these, the topics that need in-depth assessment were identified.



20^{TH} SAC – PAC MEETING

20th meeting of the Standing Advisory Committee of Positional Astronomy Centre was held on 19 and 20 March 2009 at PAC office in Kolkata under the Chairmanship of Prof. G. M. Ballabh of Osmania University, Hyderabad. The meeting was attended by Shri A.K. Bhatnagar, ADGM (EREC) and other distinguished members of SAC. The Committee made some important recommendations for overall improvement in the functioning of PAC in future. Dr. Ajit Tyagi, DGM was also present on 20 March for a discussion with Committee members regarding various aspects on future progress of Positional Astronomy Centre and observational matter related to total solar eclipse which will occur in July 2009.



PUBLICATION

Dr. R. Suresh ,Director as a co-author published a paper entitled, "Urban effects of Chennai on sea breeze induced convection and precipitation" in the Journal of Earth System Science 2008, Vol 117, p897-909.

The publication entitled "Monsoon 2008 – A Report" was published as an IMD Met. Monograph No "Synoptic Meteorology No. 7/ 2009".

The Crop Yield forecast for Rabi wheat for 16 sub-divisions for Jan. 2009 were prepared at O/o ADGM(R), Pune.

"Climate Diagnostics Bulletin of India" for the month of November & December 2008 was brought out during this quarter.

Paper entitled "A high resolution daily gridded rainfall dataset (1971-2005) for mesoscale meteorological studies" by M.Rajeevan and Jyoti Bhate was published in "current science. Vol.96,No. 25 February 2009".

Eight papers and four letters were published in departmental research journal "MAUSAM", Vol. 60, No.1 (January 2009) issue.

Rashtriya Panchang Edition 1931SE (2009-10) has been published in English, Punjabi, Assammese, Sanskrit, Kannada, Oriya and Bengali languages.

Astronomical Bulletins for the month of January, February and March were issued by PAC, Kolkata.

A report on cyclonic disturbances over the north Indian Ocean during 2008 has been published by RSMC Tropical Cyclones, New Delhi.

The follow up action report on WNO/ESCAP Panel on Tropical **Cyclones (PTC)-35** for the 36th meeting of PTC which was held during 2-6 March at Muscat and sent to PTC.

Met. Monograph No. Climatology 23/2008 entitled "A Fortran based Software-CWCDSTAT-To generate Statistics on Cyclones and Depressions of North Indian Ocean" by Y. E. A. Raj et al

TRAINING

S/Shri Manik Chandra, Director; Rakesh Kumar, Met-II and Lokesh Kumar.SO from DDGM (UI) New Delhi and A.K.Sen, Director from RMC Kolkata have been imparted familiarization training in Doppler Weather RADAR during 07-11th January.



ing in Doppler Weather Radar Kolkata

The Hydromet Supervisors Course under World Bank aided Hydrology Project was conducted by C.T.I. Pune from 9th to 20th February 2009, 8 persons from Dept. of Irrigation and Public Health, Himachal Pradesh and one from Water Resources Department, Goa participated in this course.

INSTALLATION OF AIRPORT MET INSTRUMENT

In order to overcome the manual RVR (Runway Visual Range) at Jaipur Airport (recently declared international Airport) Skypograph along with other AMI (Airport Met. Instruments) was installed and commissioned in January, 2009 to have instrumental observations.

SOUTHERN OCEAN EXPEDITION

S/shri M.R. Mahaian, SA O/o DDGM (Agrimet), Pune Suman Kumar Saha, SO O/o RMC Kolkata have been deputed on board ship R. V. Boris Petrov in the month of February, 2009 for a period of approx.60 days to participate in Southern Ocean Expedition. They will take meteorological observations during their expedition period enroute Goa to Mauritius. Shri S.S. Varpe, S.O. has successfully completed `ICARB Ocean Cruise Project' during 26th Dec. 2008 to 30th Jan. 2009.

PROJECT EVALUATION

Eight project proposals were evaluated and sent to Department of Science & Technology (DST) during the quarter.

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24TH BIENNIAL MAUSAM AWARD

"24th Biennial Mausam Award has been declared in favour of Dr. S. N. Dutta Director ,CTI PUNE for the paper entitled. "Parameterization of momentum flux and energy flux associated with orographically excited internal gravity waves in a baroclinic background flow" published in October 2007 issue of MAUSAM. This award consists of a citation and a cash prize of Rs.35,000/-.

INSTALLATION

High speed data terminal (standby system of Hyderabad) connecting PBO Hyderabad with AMSS Chennai has been activated since 19th February.

Shri R. Suresh, Dir. was on tour to Aerodrome Meteorological Station Rajamundry during 5th to 6th February for installation and calibration of digital DIWE

Availability of Images & Products for at least 2 months on the IMD website has been achieved by installing a server in the IMDPS area and updating all the Images & products as archival.

A Server Software (High Speed Data Computing Platform) has been received at M.C.Chandigarh for installation.

An IBM computer (P5/595 with 64 processors, DS 4700 storage, P5/550 with 4 processors as backup server) was installed at NHAC, IMD in January 2009 for development of forecast system to provide seasonal monthly scale prediction of precipitation and surface air temperature over meteorological subdivisions/major agro-climatic zones of the country for all four seasons of the year.

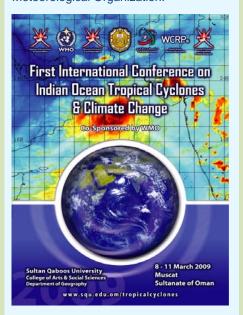
Satellite Imagery Display System (SIDS) of INSAT-3D Meteorological Data Processing System has been implemented by Space Application Centre, ISRO, Ahmedabad, 20 units have been installed at different locations as per requirement.

High Speed Data Terminal connecting at PBO, Hyderabad has been activated since 19th January 2009.

Daily Weather generator software prepared and installed at O/o DDGM(WF), Pune.

CONFERENCE ON 'INDIAN OCEAN TROPICAL CYCLONES AND CLIMATE CHANGE

The first international conference on Indian Ocean Tropical cyclones and Climate Change' was organised during 8-11 March 2009 by Sultan Qaboos University (SQU), Muscat, Sultanate of Oman in collaboration with the Ministry of Transport and Communication Director General of Meteorology and Air Navigation, the Ministry of Environment and Climate Affairs, the Ministry of Regional Municipalities and Water Resources. Oman and the World Meteorological Organization.



Dr. Ajit Tyagi, DGM chaired one of the technical sessions of the conference. He was a member of the Panel in the concluding session of the conference and presented India's views on impact of climate change on tropical cyclones. DGM alongwith four other officers from India Meteorological Deptt. attended the conference. Nine research papers from IMD were selected by the organizers for presentation in the conference.

NORTHEAST USER CONFERENCE

The NE Users' Conference on weather services was organized on 21st January 2009 along with the Annual Plan Review. in the conference hall of Assam Administrative Staff College, Guwahati.

The program started with a welcome address by Shri S. N. Roy, Deputy Director General of Meteorology, RMC Guwahati

This was followed by an address by Shri A. K. Bhatnagar, Additional Director General of Meteorology, in which he said that sharing of information plays a vital role in reducing the impact of extreme weather events and natural disasters like earthquakes. In his key note address, AVM Dr. Ajit Tyagi, Director General of Meteorology, mentioned the steps taken by IMD to meet the challenges specific to the region under various schemes/projects.

Shri V.K. Piparsania, Principal Revenue Secretary and Relief Commissioner. Government of Assam, mentioned that disasters resulting from floods and earthquakes in NE region have large weather related vulnerability.



INTROMET 2009

An International Conference (INTROMET 2009) on "Challenges and opportunities in Agro-meteorology" was organized in New Delhi during 23-25 February 2009. The conference was attended by about 300 experts from India and abroad including international organization like WMO including 28 officers from IMD.



The inaugural address was delivered by Dr. Mangala Rai, Secretary, DARE and Director General ICAR. Award ceremony was conducted by Dr. S.D. Attri, Convener INTROMET 2009 and Secretary, IMS. Dr. L. S. Rathore and Dr. H. N. Srivastava were conferred upon fellowship of IMS. Abstract volume and souvenir were also released. Sir Gilbert Walker Gold Medal was awarded to Prof. U. C. Mohanty. The Prof. A. D. Vernekar Award was given

to Prof. S. K. Dash. The Dr. B. N. Desai Award was given to Dr. O. P. Singh on this occasion.

The conference was followed by a three day meeting of the WMO Commission for Agriculture Meteorology (CAGM) implementation/coordination team on support systems for Agrometeorological services.



UTILIZATION OF DOPPLER WEATHER RADAR

A National Seminar on "Utilization of Doppler Weather Radar products in Weather Nowcasting, Aviation Safety and Numerical Weather Prediction" (SDWR -2009) was organized by Cyclone Detection Radar and Regional Meteorological Centre Kolkata at the Conference Hall of National Library, Alipore Kolkata during 20-21 March 2009. Dr. Shailesh Nayak, Hon. Secretary, MoES, inaugurated the seminar on 20th March 2009. AVM (Dr.) Ajit Tyagi, Director General of Meteorology presided over the inaugural function.

This was the first seminar on DWR applications in various fields of meteorology, Numerical Modelling and aviation. About 75 Scientists from IMD, IAF, IITM Pune, DRDO, ISRO, NESAC, IIT New Delhi and Kharagpur, C DAC Pune & Air India participated in the seminar.

