



# INDIAN METEOROLOGICAL SOCIETY

## AHMEDABAD CHAPTER

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### From Chairman's Desk

Since Indian agriculture system is still heavily dependent on monsoons, there is a real urgency to develop operational systems for automated forecasting of crop yield based on assessed and projected weather conditions over the subcontinent.

This highlights the importance of crop forecasting using optical and microwave observations from space. At the same time, there is a need for perfect monsoon prediction models. However, this year's record shows the seasonal predictions of monsoon, especially at regional scale, continue to be elusive.

Oceansat-2 launch has been a success and while the Mission, Data Products and Payload teams are busy in fine-tuning the parameters of mission in its operational phase, the Cal Val team and the utilization teams are gearing up for its usage in providing ocean state and practical advisories for sea faring users like fishermen. IMSA wishes the mission a great success.

Dr. P. K. Srivastava <[pradeep@sac.isro.gov.in](mailto:pradeep@sac.isro.gov.in)>

### News / Events

- ◆ The solar eclipse of July 22, 2009 was the longest total solar eclipse during the 21st century, not to be surpassed until 2132.
- ◆ World Ozone Day (September 16) was celebrated with full enthusiasm throughout the world.
- ◆ Traces of water were found at lunar surface by Chandrayaan-1.
- ◆ Country received 23% less rainfall during the summer monsoon season.
- ◆ Floods triggered by heavy rains around first week of October have killed more than 200 people in Andhra Pradesh and Karnataka and have destroyed crops and left thousands of people homeless.
- ◆ ISRO's PSLV-C14 successfully launched Oceansat-II and 6 other nano satellites into polar sun synchronous orbit on September 23, 2009. Oceansat-II is one of the few international missions exclusively aimed at studying marine biology, marine atmosphere and ocean state.

### Secretary's Report

I take this opportunity to thank all IMSA members for their continuous support in conducting various activities successfully. In this quarter, IMSA organized two activities: lectures at Kendriya Vidyalaya, SAC and *World Ozone Day* celebration at SAC Bopal campus.

On July 18, 2009 at KV-SAC, the following lectures were organised (a) *Solar Eclipse* by Dr. Satyendra M. Bhandari and (b) *Pollution due to Plastic Bags* by Dr. V. Sathiyamoorthy. After the lecture, eco-friendly cloth bags were distributed to all the students and staff members which carried the slogan 'I say NO to plastics, What about you?'

As part of the *World Ozone Day* celebration, Dr. S. Ramachandran, Scientist, PRL delivered a lecture on 'Ozone and Climate'.

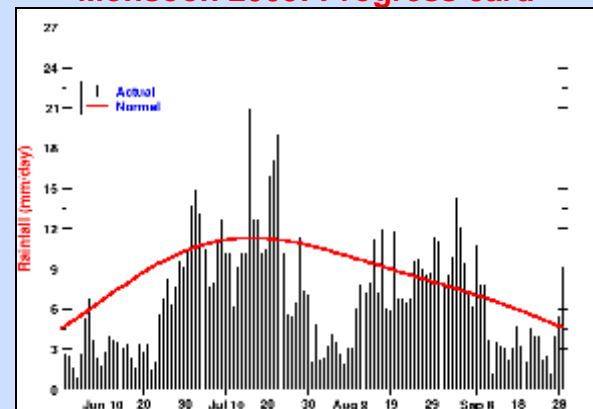
In the next quarter, IMSA plans to have 'Monsoon-2009' lecture by an eminent scientist. Please go through the announcement on *IMSA Photography Contest* and send your entries without fail.

Dr.V.Sathiyamoorthy <[v.sathiyamoorthy@gmail.com](mailto:v.sathiyamoorthy@gmail.com)>

### Photography Contest

IMSA members are invited for a photography contest on the theme *Ahmedabad and its Environment*. Best-shot picture will be awarded and will feature on the official New Year e-Greetings. Two entries from each IMSA member can be e-mailed to [sathya@sac.isro.gov.in](mailto:sathya@sac.isro.gov.in) and [bipashashukla@gmail.com](mailto:bipashashukla@gmail.com) latest by December 1, 2009

### Monsoon 2009: Progress card



Courtesy: [www.tropmet.res.in](http://www.tropmet.res.in)

### Final glance at summer monsoon-2009

The total seasonal rainfall (June 1 – Sept 30, 2009) over the country, has been 23% below average (689.8mm as compared to long period average of 892.2mm), making it the worst drought after 1972 (source: IMD). In northwest India, the rainfall deficit is even more severe, amounting to a massive 36%.

India is the world's second biggest producer of rice, wheat and sugar and millions of farmers in rural India rely on the monsoon to grow their crops. Things could have been worse, had not the rains returned to many parts of the country in August after an extremely dry period in June. Recent heavy rains in Karnataka and Andhra Pradesh have caused flooding leading to scores of deaths, displacement of thousands and severe damage to crops.

### Satellite Constellation

Satellite constellation is a group of satellites working in concert, which can be operated for optimal services in space and time. Constellations like GPS, GLONASS and Galileo are used for navigation and geodesy.

In support of common objectives of Earth Observations, a concept of *virtual space-based constellation* was proposed by CEOS. Currently existing constellations are Land Surface Imaging, Ocean Surface Topography (OST), Atmospheric Composition, Precipitation, Ocean Colour Radiometry (OCR) and Ocean Surface Vector Winds (OSVW). ISRO's newly launched satellite Oceansat-II's scatterometer and OCM will contribute to OSVW and OCR respectively; while forthcoming Megha-Tropiques and Saral-AltiKa missions are potential members of Precipitation and OST constellations.

Dr. Abhijit Sarkar <[sarkar.abhi@gmail.com](mailto:sarkar.abhi@gmail.com)>

### Photo Gallery: IMSA Lecture in KV-SAC



Chairman  
address the  
students

Distribution of  
non-plastic bags  
to students



### Superannuation



IMSA life member (LM-44) Dr. Vijay. K. Agarwal, Chief Scientist, SAC, superannuated on August 2009. He joined SAC in 1978 as senior scientist. He has published over 50 peer reviewed scientific papers at national and Inter-national levels. His area of interests includes application of satellite data for the study of earth's environment and climate change and ocean modelling. He is the recipient of many prestigious awards like IMS, SPIE, etc. IMSA wishes Dr. Agarwal a happy and healthy retired life.

### World Ozone Day Lecture

On September 16, 2009 Dr. S. Ramachandran of PRL gave a very interesting talk on *Ozone and climate* in the SAC-Bopal auditorium. He talked about ozone and its importance to climate, different sources and sinks of ozone, and its spatial and vertical distribution. He also mentioned that there is a depletion of about 4% in global ozone levels from pre-1980 period. The main causes of concern are the Arctic and Antartic ozone holes. Dr. Ramachandran also spoke about Montreal protocol and subsequent amendments to control production and consumption of ozone depleting gases due to which there is a possibility of recovery of ozone by the end of 21<sup>st</sup> century.

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