

HEAD, CLIMATE RESEARCH AND SERVICES
PUNE 411 005.

PROGRESS REPORT FOR THE MONTH OF FEBRUARY 2017

1. MAIN EVENTS-

- 1.1 Dr. A.K. Sahai, Head CR&S attended inaugural function on International Workshop on Representation of Physical Processes in Weather and Climate Models (Introspect 2017) at IITM., Pune on 13.2.2017.
- 1.2 Prof. Andrew W Robertson, Sr. Research Scientist, Head of Climate Group Earth Institute' Colombia Univ, gave lecture on the topic "Sub-seasonal to Seasonal Prediction and its application with Emphasis on Jeevika-Irap Project" on 6.2.2017.
- 1.3 Prof. Jai-Ho Oh, Deptt of Environmental and Atmospheric Sciences, Pukyong National University, Busan, Korea gave lecture on topic "Ultra high resolution Agmet information from Sowing to harvesting" on 14.2.2017 at Map Discussion Hall, Pune.
- 1.4 Dr (AVM) Ajit Tyagi, Ex DG visited IMD office on 16.2.2017 and had discussion with senior officers in IMD.
- 1.5 Dr. Zaid S Hadpad, Asstt Section Manager, Group Supervisor, Jet Propulsion Lab., California Institute of Technology, NASA visited IMD office on 15.2.2017.
- 1.6 The National Science Day was celebrated on 28.2.2017.
- 1.7 ENSO bulletin and Seasonal Climate Outlook for South Asia for the month of January 2017 were issued .

(Quick Link : www.imdpune.gov.in/Clim_Pred_LRF_New/Products.html)

- 1.8 DGM was on tour and visited this office on the 1st and discussed on the undergoing project plans and status of (i) **Development of Climate Data Services Web portal** and (ii) **Data Rescue Phase II** and suggested actions to be taken by this office.
- 1.9 Under the chairmanship of Head, CRS a meeting was held on 20th to discuss with heads of various groups regarding the requirements on revised submission of the SFC for the project proposal "**Construction of Climate Building**" at IMD, Pune.

- 1.10 Dr. N. Chattopadhyay, Head (Agrimet) attended the meeting of Selection Committee for the teachers posts in the discipline of Agricultural Meteorology held at Anand Agricultural University (AAU), Anand on 8th February 2017.
- 1.11 Dr. N. Chattopadhyay, Head (Agrimet) attended the XIII Agricultural Science Congress at University of Agricultural Sciences (UAS), Bengaluru on 21st February 2017 and delivered a lecture on 'Combating Effect of Climate Change and Climate Variability on Indian Agriculture through Smart Weather Forecasting and ICT Applications'.
- 1.12 Agrimet Division took part in the exhibition organized by IMD, Pune on the occasion of National Science Day on 28.02. 2017 and explained about various activities of the Division.

2. **INTER DEPARTMENTAL MEETINGS** - NIL

3. **DEPARTMENTAL AND OTHER MEETINGS**

- 3.1 The State Level Agromet Advisory Committee meeting with officials of State Departments of Agriculture was arranged in Agrimet Division on 7th, 14th, 20th, 28th February 2017. Realised rainfall, weather forecast and relevant Agromet Advisories have been discussed in the meeting and the same were communicated to AMFUs for the preparation and dissemination of Agromet Advisories.

4. **RESEARCH** –

5(A) **SPECIAL SERVICES**

- 5.1 Five weekly and cumulative Standardized Precipitation Index (SPI) maps were prepared for the weeks ending 25.01.17, 01.02.17, 08.02.17, 15.02.17 and 22.02.17 and supplied for use in Agromet Advisory Services Bulletin.
- 5.2 Monthly and cumulative Standardized Precipitation Index (SPI) maps were prepared for the month ending JANUARY 2017 for use in Climate Diagnostic Bulletin of India.
- 5.3 Four drought outlook maps for the period 29 Jan to 4Feb, 5 to 11, 12 to 18 and 19 to 25 Feb 2016 have been prepared and uploaded on IMD Web – Site.
- 5.4 Three weekly aridity anomaly maps and reports for the period 29 Jan to 4 Feb, 5 to 11 and 12 to 18 Feb 2016 have been prepared and uploaded on IMD Web – Site.
- 5.5 **Inputs for following Lok Sabha/Rajya Sabha questions were sent to HQ:**
 - i) Lok Sabha admitted Unstarred Question No. 876 for answer on 07.02.2016

regarding "Loss of Crops.

- 5.6 Input for framing replies to the following parliamentary questions were communicated to DGM (NWFC), New Delhi :
 - a. Rajya Sabha/ provisionally starred question No. 5469 due for answer on 6th February 2017 regarding "Effect of El -Nino around Lakshadweep".
 - b. Lok Sabha priority Starred / Unstarred Question Dy. No. 2704 due for answer on 8th February 2017 regarding "Rainfall Prediction".
- 5.7 Monthly Climat Temp data (CT) for January 2017 sent to NHEC, New Delhi for National Broadcast & Monthly Checked Climat Temp data (CCT) sent to SSP section for further transmission to NCDC, USA and SAARC, Bangladesh.
- 5.8 Monthly Surface Climat Broadcast Data for 33 Indian stations for the month of January 2017 was sent to DGM (NHEC) and DGM (Telecom), New Delhi on 4-02-2017. Data received late for 3 stations 43128, 43150 and 43185. It was sent as retarded data to DGM(NHEC), New Delhi on 20/2/2017.
- 5.9 Monthly Checked Surface Climat Data of 38 Indian stations for month of December 2016 was sent to the Editor, 'Monthly Climatic data for the World' NCDC, USA and SMRC Dhaka, Bangladesh.
- 5.10 Video conference was held among RWFCs, NWFC and this office daily morning, for discussing the weather situation, forecasts and warnings.
- 5.11 Local weather forecast for Pune and neighbourhood was issued four times a day all through the month.
- 5.12 Analysed weather maps of mean sea level pressure (0300 UTC) and upper level winds (0000 UTC) were sent daily to all the forecasting offices.
- 5.13 The weather data related to the Display Unit of SAFAR project was sent to IITM group via FTP.
- 5.14 Minutes of AMR/ACR meetings-2017 were completed, obtained DGM's approval and circulated among all offices. Office-wise action sheets were also prepared and disseminated to the concerned offices for initiating necessary action.
- 5.15 Inputs for providing answers with regard to Lok Sabha priority starred/ Unstarred Question Dy. No. 2457 due to answer on 8/02/2017 regarding 'Weather forecast System.

- 5.16 Inputs for providing answers with regard to Lok Sabha priority starred/ Unstarred Question Dy. No. 5069 due to answer on 8/02/2017 regarding 'Weather forecasting centres.'
- 5.17 Developed yield forecast for (i) mustard at F3 stage for Gujarat, Haryana, Madhya Pradesh, Rajasthan, Uttar Pradesh and West Bengal (ii) Potato for Gujarat, Punjab, Uttar Pradesh and West Bengal at F2 (mid season) stage and (iii) Wheat for Bihar, Gujarat, Haryana, Punjab, Madhya Pradesh, Rajasthan and Uttar Pradesh at F2 (mid season) stage during the month for communication to Mahalanobis National Crop Forecast Centre (MNCFC), Department of Agriculture & Cooperation (DAC) & Ministry of Agriculture, New Delhi.
- 5.18 National AAS Bulletin has been issued on 3rd, 10th, 17th & 24th (every Friday) and on 7th, 14th, 21st and 28th (every Tuesday) and uploaded in Agrimet website in the month of February 2017.
- 5.19 Summary of National AAS Bulletin in Hindi and English were sent on every Friday to "Krishi Darshan Programme of Doordarshan", New Delhi. National AAS Bulletin is being sent to Crop Weather Watch Group (CWWG) every Friday.
- 5.20 Inputs for "Crop Specific Weather Based Agromet Advisories" for the country are prepared on daily basis and sent for telecasting through DD Kisan Channel, New Delhi.
- 5.21 Bulletins for DD Kisan (daily) and for Krishi Darshan (weekly) have been issued and uploaded in Agrimet Division's website in the month of February 2017.
- 5.22 Dissemination of Agromet Advisories to the users' community through SMS and IVR technology is being continued in the country through Kisan Portal and under PPP mode. At present Agromet Advisories are reaching to 20.6 million farmers in the country through SMS directly.
- 5.23 Composite Agromet Advisory Service bulletins for Maharashtra State were prepared and issued in Marathi on 7th, 10th, 14th, 17th, 20th, 24th, 28th February 2017. These AAS bulletins were sent for broadcast through All India Radio, Pune and to telecast over Doordarshan Kendra, Mumbai and Pune and also disseminated through local newspapers.
- 5.24 The composite AAS bulletins for Maharashtra State were prepared in English on the same dates mentioned above by utilizing weekly crop situation report of the State from the Chief Statistician, Department of Agriculture, Pune & district

level Agromet Advisory Service bulletins from 9 AMFUs & sent to Commissioner of Agriculture, Govt. of Maharashtra, Chief Secretary, Govt. of Maharashtra, Director, Action for Agriculture Renewal in Maharashtra (AFARM) Pune, Director, Central Institute for Research on Cotton Technology (CIRCOT), Mumbai, Director, Central Institute for Cotton Research (CICR), Nagpur, Chairman, NABARD, Mumbai, DDG, NIC, Pune, DDGM (Agrimet), Pune and National Agromet Advisory Service Centre, Pune. Bilingual composite AAS bulletins were uploaded in website of the Division.

5.25 Bytes for regional weather based agro advisory in Marathi for DD Kisan channel on every Monday, Wednesday and Friday has been given. It is telecast through DD Sahyadri channel. The byte was given by Shri. J. P. Sable, S. A. and Mrs. P. S. Kulkarni, S. A.

- A report on weather parameters over Indian Seas was prepared and uploaded on daily basis on website imd.gov.in.
- INOSHAC bulletins containing description of synoptic scale weather systems over the area 50° S- 45° N & 20° E- 155° E have been issued daily. (No. of bulletins: 28).
- Weekly ship composite charts based on day to day 00, 06, 12 & 18 UTC ship observations and the low pressure systems in West Pacific and Indian ocean were presented in the weekly map discussions.
- The statistics of Ship data from GTS is maintained and monitored with those plotted on main (00, 06, 12, 18 UTC) synoptic hours.
- Shri J.P. Sapate, S.A., presented film show and PPT presentation about Antarctica Expedition on the National Science Day on 28th Feb 2017. Exhibit presentation regarding the INOSHAC activities was made on the National Science Day on 28th Feb 2017.

1. The work of forecast verification was continued. As a part of this, Local forecast verification reports for the month of **January** 2017 were received from MCs Bangalore, Agartala, Ranchi, Bhopal, Jaipur and RMC's Chennai and New Delhi. Also, Verification of precipitation forecast for **32** subdivisions were uploaded on METNET for the month of **January** 2017 for both spatial & intensity distribution.
2. Daily upper winds of 31 stations have been collected and 32 Weekly mean and Anomaly Charts of Upper Level winds for six different levels have been prepared for the weekly map discussion presentations and uploaded on the IMD website.

3. Analyzed synoptic charts such as surface charts, Upper air (Part I and II), change charts, which depict the current state of the atmosphere and reveal characteristic weather systems such as high and low pressure area, regions of convergence and divergence, jet streams etc. were incorporated in the weekly map discussions.
4. In order to aid operational weather forecasting and extended range forecasting, INSAT images of Infrared channel and water vapour channel of Indian sector, Dundee cloud imageries, wind circulation patterns, forecasts of temperature and precipitation by IMD-NWP models and models from other institutes such as COLA and ECMWF, Pentad OLR images, SST anomalies over different NINO regions were compiled and presented in weekly map discussion.
1. Four Weekly (one for each week) and one monthly mean and anomaly Sea Surface Temperature charts were prepared and uploaded on IMD website.
2. Indian Climate broadcast for the month **January 2017** was prepared & transmitted to NHEC (Northern Hemispheric Exchange Centre), New Delhi.
3. Query of Ship Samudra Ratnakar regarding weather reporting and additional services by IMD was replied and copy of mail was forwarded to office of DDGM (SI) for necessary action at their end.
4. 12 Naval ships were recruited in IVOF by Mumbai naval office during this month.
5. The Marine Met work carried out by all the P.M.O.'s during the month **January 2017** is as follows:

PMOs	Chennai	Kochi	Kolkata	Goa	Mumbai	Visakhapatnam	Total
Marine Met Work							
No of Ships visited	Nil	4	Nil	Nil	Nil	1	5
No.of barometers compared	10	4	Nil	Nil	12	1	27

Services :-

- Inputs as required by various print and electronic Media in specified format, including the weather summary in local language were prepared and provided on a routine basis.

- Sea Surface Temperature data over the Arabian Sea and Bay of Bengal has been collected from 1143 ship observations (for the month **February 2017**).
- Surface, Pilot Balloon observations and self-recording charts along with tabulation sheets for January 2017 were sent to RMC, Mumbai.
- Radiation data for January 2017 was sent to Radiation Section, O/o ADGM (R), Pune.
- The highest PB Ascent taken by Shri P.S. Narayanan, Met-B was of 41 minutes duration and reached up to 8.2 km at 12 GMT on 13th February 2017.
- Scrutiny of 181 periods of Agromet data (CWS) pertaining to 13 stations has been completed during February 2017.
- Around 176 Agromet stations have started uploading observed data on Agromet website. Out of which 122 stations are updating regularly. Scrutiny and rectification of uploaded Agromet data has been completed.
- Proposal has been sent to Head (SI), Pune for installation of Agromet observatories at 28 AMFUs.
- Verification of climatological data of 8 Agromet stations has been completed.
- Soil thermometer of depth 10cm and 20 cm respectively were dispatched to both AMFU Faridkot and AMFU Kaul.
- Testing and calibration of thermometers was undertaken in collaboration with Surface Instrument Division, IMD, Pune.
- Bar tables I and II for station Dehradun (New site) was prepared and sent to MC Dehradun.
- Inspection Statement for the month of October and November 2016 prepared and forwarded to DGM (OS), New Delhi.

5(B) ROUTINE ACTIVITIES –

The following products have been uploaded in Agrimet Website on every Friday.

- i) Standardized Precipitation Index Maps,
- ii) NDVI Maps (National & Statewise),

iii) Contour Maps for different parameters.

Work regarding publication –

- The work related with preparation of “State Climatological Summary of Goa” is in progress.
- The work of preparation of “Climatology of Health Indices” is in progress.
- The work of preparation of “Climate of Smart Cities” is in progress.
- The work regarding verification of extreme rainfall values is in progress.
- The work of printing of e-book/CD of the publications of (i) `Extremes of Temperature and Rainfall for Indian Stations (upto 2012)” and (ii) “Daily Normals of Global and Diffuse Radiation (1971-2000)” is in progress

DETAILS OF DATA ENQUIRY / SUPPLIED:

- Departmental 19
- Commercial 08
- Registered 09
- Research 14
- Foreign -
- Free of cost 04
- No of parties to whom data supplied 50
- No of letters pending 30
- New Registrations 08

a) Radiation data for following parameters of WRDC stations have been scrutinized and processed.

Type of data (Parameters)	Period	Station Month
Global	November- 2016	7(13)
Diffuse	November- 2016	7(13)
Global	December- 2016	7(13)
Diffuse	December- 2016	7(13)

ii) Scrutiny, keying and Data processing of radiation data (Global and Diffuse parameters) of Non WRDC stations for the year 2012 is in progress.

Electronic Processing :

a) RS/RW data (SAMEER) in the New CLISYS format for MAY 2009 has been sent to NDC for archival.

- b) Work of the Fully Integrated user friendly software for Processing and Quality Control of Upper Air data is in progress.
- c) Processing of RS and RW data of 00 & 12 UTC for 35 and 34 stations respectively of July 2005 is in progress.
- d) Processing of RS/RW data (SAMEER) in the new CLISYS format for JUNE 2009 is in progress.
- e) Processing of Climat Temp data of 2016 (00 & 12 UTC) for 20 stations is in progress.

DATA PROCESSED/ MERGED / RETRIEVED / SCRUTINIZED :

- No of records processed - 88,967
 - No of records merged - 1,874
 - No of records retrieved - 37,81,301
 - No of enquiries received - 190
 - No of enquiries replied - 110
- a) Conversion work of VAX Fortran programs to PC based program is in progress (Approx. 92% work completed).
 - b) 68,830 records of Upper air data RW / RS added to CLISYS database.
 - c) Duplicate of autographic wind data completed.
 - d) 350 corrections were carried out which were received time to time from different RMCs / MCs containing daily surface data in February 2017.
 - e) Latest DRF data availability supplied to NCC (for updating imd pune website).
 - f) Approx. 7085 records were entered of daily surface T-II data of Data Rescue Scheme.
 - g) 218 errors were carried out of daily surface T-II data of data rescue scheme.

Data Archival in NDC

Following daily rainfall data received in soft form and converted into archival format and sent to NDC for archival :-

- a) M.P. (RRA) Jan to Dec.2014
- b) MC Jaipur (obsy) Feb.2016 to Dec. 2016 (Ex. April 2016)
- c) State Haryana (RRA) July 2013 to Oct. 2014.
- d) RC New Delhi (DRMS) March 2015 to Dec. 2016.
- e) MC Jaipur (DRMS) Feb.2016 to Dec. 2016 (Ex. April 2016).
- f) RC Chennai (Obsy) July 2014 to Nov. 2016.

Radiation data (Global and Diffuse parameter) of 5 Non WRDC stations for the year 2011 and 2012 has been archived in NDC.

Revenue collected :

- An amount of Rs. 3,28,278/- was collected towards the supply of data.
- Hostel Room rent collected during the month of February 2017 is Rs. 97,425/-(Rupees Ninety Seven Thousand Four Hundred Twenty Five Only)
- 22 publications were sold to five extra-departmental offices against payment of Rs. 56,697/-.

6. **WORKSHOP/SEMINARS – NIL**

7. **TRAINING :**

- 7.1 Preliminary work for conducting AMFU Scientists' course of duration 21 days For Technical officers/ Nodal officers is in progress.

METEOROLOGIST Gr II TRAINING COURSE

Final examination of Batch no. 23 (Semester-I) commenced on 27/2/2017.

ADVANCED MET. TRAINING COURSE (AMTC)

Final examination of AMTC Batch No.177, Phase I, commenced on 27/2/2017.

FORECASTERS TRAINING COURSE (FTC)

Trainees of FTC Batch No. 183 were relieved on 15/2/2017 for on the job training (OJT) .

INTERMEDIATE TRAINING COURSE

- (i) Mark-sheets of Int. Batch No. 240 prepared & issue to concerned RMCs/ offices.
- (ii) Result of Repeater Batch prepared & issued to RMCs/ offices.
- (iii) Brief Result of Batch no. 241 is declared & issued to concerned RMCs/ offices.

8. **MODERNISATION OF SUPPORT FACILITIES- NIL**

9 **TOURS/MAINTENANCE TOURS –**

- 9.1 Dr. P. Guhathakurta, Sci. "F" attended the meeting of "Handbook for Water Resources Management" sectional committee, WRD 27 on 17/2/2017 at Manak Bhavan, Bureau of Indian Standard, New Delhi – 110 002.
- 9.2 Shri K.N. Mohan, Head MTI was on tour to Ahmedabad during 21-24. February 2017 in connection with maintenance of Drishti Transmissometer.
- 9.3 Shri R. Balasubramanian, Scientist–D participated in the Stakeholders Meeting under Gramin Krishi Mausam Sewa (GKMS) scheme held at Agro Climate Research centre (ACRC), Rajendranagar, Hyderabad on 8th February,2017 and made presentation on "Establishment of District Agromet Units (DAMUs) and Block level forecast based advisory" in the meeting.
- 9.4 Stakeholders Meeting under Gramin Krishi Mausam Sewa (GKMS) scheme held on 27th February,2017 at G. H. Shankara Reddy Seminar hall, Institute of Frontier Technology, Regional Agricultural Research Station (RARS), ANARAV, Tirupati.
- 9.5 Shri A.K.Dhotre, Met-B and Shri Anil Patinge, Met-B participated in the Science Exhibition -2017 on the occasion of "Science Day" at Giant Metre wave Radio Telescope, National Centre for Radio Astrophysics, Khodad, Near Narayangaon, Taluka-Junnar, Dist.-Pune during 28 th February and 1st March, 2017.
- 9.6 Shri S.S. Mairal, Met B., participated in Farmers Awareness Programme arranged by KVK Baramati and AMFU Igatpuri under GKMS project and briefed about Agromet Advisory to farmers during 1 - 7th February 2017.

10. **IMPLEMENTATION OF OFFICIAL LANGUAGE POLICIES-NIL**

11. **MATERIAL MANAGEMENT NIL**

12. **MANPOWER MANAGEMENT :**

- 12.1 Shri S.V. Shintre, Met.A retired voluntarily w.e.f. 1.2.2017 (F/N).
- 12.2 Shri M.S. Moundekar, O.R. Vaz, Smt. U.C. Sarode, Smt. P.P. Majumdar, Smt. V.S. Advani and Ms. C.P. Vijaya Kumari, Asstt promoted as Admin Officer Gr.III w.e.f. 23.2.2017. Shri Moundekar and Shri O.R. Vaz joined in this office on transfer from DDGM(SI) Division w.e.f. 23.3.2017 and 27.3.2017 respectively.

13. **BUDGET AND PLANNING – NIL**

14. **PRINTING AND PUBLICATION** :-

14.1 Climate Diagnostics Bulletin of India for Post –Monsoon Season (Oct- Dec) 2016 has been brought out.

14.2 Climate Diagnostics Bulletin of India for December 2016 has been brought out.

14.3 The following publications were brought out:

- All India Daily Weather Summary. (1st – 28th Feb. 2017)
- Weekly Weather Reports. (4 Nos.)

15. **LIBRARY AND PUBLICATIONS**

1. No. of outsider persons to whom library facilities were extended : 01
2. 01 Books added to the Library
3. 06 publications were supplied to 04 departmental offices.
4. 128 publications were added to the library . (Binding volumes)

16. **OTHER POINTS** :

16.1 Monitoring of signals of various parameters to be used for the preparation of monsoon forecast 2017 was in progress.

16.2 Letters to schools (60) and newspapers (11) were sent regarding celebration of National Science Day on 28th February 2017 at IMD, Pune.

16.3 Information sought from all RMC's regarding existing number of part time Observatories / EMOs with annual expenditure of met allowances as desired by DGM Office.

16.4 This office has informed RMC Mumbai on the revision of met allowance to part time observatories .

16.5 Following visitors visited Central Agrometeorological Observatory (CAgMO), Pune during February :-

(a) 85 students with 4 staff members from Nowrosjee Wadia College, Pune on 2nd, 3rd and 6th February 2017.

(b) 100 students with 6 staff member from Orchid School, Baner, Pune on 9th February 2017.

© 25 Students with 5 staff member from Jai Bhavani School Mohan nagar Pune and 84 students with 4 staff member from Krantijyoti Savitribai Phule High school, Pune on 10th February 2017.

(d) 30 students with 2 staff member from Swami Vivekanand Night College of Arts & Commerce, Dombivli on 13th February 2017.

(e) 154 student with 4 staff member from St. Mary School, Pune on 15- 16 February 2017.

(f) 6 student with 4 staff member from Bal Shikshan Mandir English Medium School Pune on 17th February 2017.

(g) 18 student with 1 staff members from Modern College of Engineering, Shivajinagar, Pune on 21st February 2017.

(h) 24 students with 3 staff members from Red Cross Deaf School Pune on 22nd February 2017.

(Dr. A. K. SAHAI)
Head,
Climate Research & Services

CRS UOI NO GP-42001/

dt Pune-5; the

March, 2017

Copy to :-

D.G.M. New Delhi.

(Smt. S.S. JOSHI)
Admin Officer III
for CRS

CRS UOI NO GP-42001/

Dated Pune-5; the

March, 2017