



RMC LAHORE TIMES

RMC LAHORE QUARTERLY BULLETIN

Vol. 1, Issue.1 JFM

MAY, 2019



"Climate change is sometimes misunderstood as being about changes in the weather. In reality it is about changes in our very way of life."

- Paul Polman



HIGHLIGHTS

- Highest Maximum 40.0° C at Bahawalnagar in Mar-2019
- Lowest Minimum -5.8°C at Rawalakot in Jan-2019
- Highest Rainfall 208.9 mm at Garhi Dupatta in Feb-2019
- Highest Snowfall 51.5 inches at Murree in Jan-2019

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Preface

The basic objective of this publication is to highlight the quarterly activities carried out at Regional Meteorological Centre (RMC) Lahore. Region Meteorological Centre is a part of Pakistan Meteorological Department (PMD) headed by Director (Mr. Muhammad Ajmal Shad) responsible for administrative, financial and technical control of all units of Pakistan Meteorological Department in the Punjab and Azad Jammu and Kashmir regions. The Region is very important and vulnerable for all natural disasters due to its geographical and geological features. The socio-economic activities in this region are heavily depended on meteorological parameters. All the meteorological parameters which are recorded at the different units of PMD are then computerized at the Regional Climate Data Processing Section (RDCDPS) at RMC after quality checks for the public, researchers, developers, economist, government and private agencies for the development, land reforms, agricultural sector, urban planning and all fields of life.

In meteorology, the human skill development is very important for accurate weather parameter reporting. This can be achieved by developing a healthy, hygienic and up to date environment to all staff at all units which has been insured at all units.

I acknowledge the efforts of all the officers and officials at respective stations and units for their contribution to maintain the observation up to the mark of the World Meteorological Organization (WMO) standard. It is the result of this same spirit that our officials has come up with a new innovation in the techniques for the better data processing and handling. Hence upgrading the systems for a bright and better future of Pakistan in the field of meteorology. Especially we appreciate the efforts of RDCS team at RMC in this regard for their extra ordinary preferential attitude.

Muhammad Ajmal Shad

Director

RMC Lahore

Contents

Summary.....	3
Brief Overview of Meteorological Office (M.O) Working	5
New Establishment of Met Observatories	5
Future Requirements for Civil Work.....	7
Regional Meteorological Centre Progress	7
Seismic Activity During The Quarter (JFM).....	8
Total events in (JFM)-2019.....	9
Seismicity of The Hindu Kush Himalaya Region	10
Director RMC Visits.....	11
Staff Trainings.....	12
Student's Internship Program.....	12
Joinings On Transfer	12
Departures On Transfer	13
Retirements	13
Resignations.....	14
Deaths	14
Climatology of The Region For First Quarter JFM-2019.....	14
Temperatures.....	14
Precipitation	17
Gallery	19
University Student's Visit.....	19
Newly Established & Minor Repaired Observatories Pictures	19

Summary

Regional Meteorological Centre (RMC), Lahore is working since 14th, August 1964, responsible for all the units of Pakistan Meteorological Department in Punjab, KPK, Gilgit – Baltistan and Azad Jammu and Kashmir. At present the region have the administrative, financial and technical control in Punjab and Azad Jammu and Kashmir .The region is very important for the prosperity of the Pakistan due to geological features .The water availability in the Pakistan is heavily depends on the rainfall in the region as the heaviest rain fall regime is falls in the region. The role of Regional Meteorological Center (RMC) for timely dissemination of precise forecast, accurate data and advisories to public and stake holders are of prime importance.

Regional Meteorological Center (RMC), Lahore has developed Regional data collection system (RDSCS) which was highly appreciated by JICA due to its quality and standard. Now the same software is in used at all Regional Meteorological Centre for data collection.

Four Aviation Meteorological Centre (Meteorological Offices) at Lahore, Multan, Sialkot and Faisalabad airport are working round the clock to facilitate the aviation movement .Fourteen Meteorological Observatories, (Bahawalpur city, Gujarat, Jhang, Kot Addu, Layyah, Sahiwal, Toba Tek Singh, Bakker, Gujranwala, Kasur, Narowal, Khanewal, Hafizabad, Attock.) and nine Pilot Balloon Observatories (PBO), (Lahore, Bahawalnagar, Sialkot, Sargodha, Kanpur, Jhelum, Okara, Multan, Dera Ismail Khan) ,four Agro Meteorological Observatories (Noor Pur Thal, Joharabad, Mandi Bahauddin, Chakwal) and two Aero Meteorological Observatories (Bahawalpur A/P, Mangla) are working in Punjab while four Meteorological units in Azad Jammu & Kashmir (AJK) at Muzaffarabad, Rawalakot, Kotli and Garhi Dupatta. The centre is also providing technical facilities/Assistance to weather Surveillance Radar (WSR) at Rahim Yar Khan and D.I. Khan.

The Directorate office of the centre is at Regional Meteorological Centre, 46-Jail, Road, where six sections are working to control the above units and to facilitate the staff working at these units.

- i- Administration Section (A.S)
- ii- Regional Main Communication Section (RMCC)
- iii- Regional Climate Data Processing Section (RCDPS)
- iv- Seismic Section (S.S)
- v- Observatories Section (O.S)
- vi- Engineering & Maintenance Section (E&MS)



Brief Overview of Meteorological Office (M.O) Working

Under RMC Lahore 04 M.O are working 24/7 hours. The M.O are specially to cater the CAA requirements.

Walton airport was the main airport at Lahore at the time of independent. In 1949 Lahore cantt airport was built and meteorological office was established in the building. In March 2003, the present building of the Allama Iqbal International Airport was built and Met Office shifted to ATC building. The SIGMET Area office Lahore is above 30° North above Pakistan. The Warning Area is 30 miles around the Lahore Airfield. All aviation product issued from the office or uploaded on the website. <http://rmcpunjab.pmd.gov.pk/molahore/MO-Lahore-intro.php>.

The sub offices of Main Met. Office (MMO) Lahore are;

a. M.O Multan

This office is responsible for the issuance of all aviation product of Multan and terminal area forecast (TAF) for Raheem Yar Khan, Bahawal Pur Airport as well as general weather forecast for farmers of south Punjab etc.

b. M. O Sialkot

This office is representing the aviation navigation and meteorological forecast around Sialkot Airfield.

c. M.O Faisalabad

This office provides the aviation meteorological facility for Faisalabad Airfield.

These airports serve the government airline, private airline, army aviation, private aviation and general weather forecast for respective stations. The Met Officer Lahore is responsible for the issuance of general weather forecast for Punjab province & Azad Jammu Kashmir (AJK) twice a day.

New Establishment of Met Observatories

One Meteorological Observatory in Attock city has been established during last three months and 03 Met Observatories repair work has been carried out during this period. Accordingly the requisite work was carried on the following stations, keeping in view the budget provision.

Sr. No.	Station Name	Brief Description of work
01	Met Observatory Attock	Newly established, Barbed wire fencing of 30x40 ft enclosure. Installation of Stevenson screen, New pillars of Anemometer, wind wane, sunshine recorder. installation of evaporation pane, provision of new ceiling fans etc.
02	RMC Lahore	Construction of ramp to facilitate disable persons, roof of garage, minor repair of roof of Old MCC building, minor repair and white wash of old hostel, complete repair of roof of H-type quarter.
03	PBO Kanpur	Repair work at PBO Kanpur carried out, Minor repair of Incharge room, observational room, gas room, and the repair of the Mosque with the help of local aid, white wash of the said rooms is under process.
04	PBO Jhelum	Repair work of Incharge room, inspector room, observational room and white wash of these room is being processed.
05	Aero Met Observatory R.Y.Khan	Enclosure at R.Y Khan airport was not representing the weather parameter of the runway, so Enclosure shifted to near runway/apron for more accuracy. Stevenson screen and enclosure barbed fencing paint newly.
06	Met Observatory Okara	Met enclosure color was faint so newly paint.
07	Met Observatory Kasur	Met enclosure color was faint so newly paint.

Correspondence to shift of Met. Observatory Kotli near Barali dam and PBO Muzaffarabad away from high rise building is under process, also the installation of soil thermometers at different observatories is under consideration depending on the availability of supply from central Met store, Karachi.

Future Requirements for Civil Work

The building structure are required major repair and minor maintenance. The plan for the major repair has already been submitted for the allocation of funds to Met Headquarter. The details of the civil work required at various stations are shown in the table.

S. No	Station Name	Required work
01	RMC Lahore	Approval of construction of 08 Cat-v, family lodges and hostel accommodation has been accorded in 2008 and PC-1 has also been submitted but the construction work has not been started so far due to non-availability of fund. There is a need for allocation/release of fund for the said work.
02	Met Observatory Mandi Bahuddin	Repair work of incharge room, observational room and white wash of building, paint of Met. Instruments as well as enclosure, shifting of main gate.
03	Met Observatory Bahawalpur City	Repairing of electric motor, white wash of building, paint of Met. Instruments as well as enclosure.
04	Met Observatory Layyah	Provision of furniture
05	Met Observatory Attock	Provision of furniture
06	Met Observatory Narowal	Provision of furniture
07	Met Observatory Kot Addu	Water bore and Provision of electric motor

Regional Meteorological Centre Progress

- I. Meteorological Data have been provided to various agencies for different stations and periods. Rs 2, 75,600/ as data charges were collected during JFM and the amount had been deposited in the treasurer.
- II. Data of different meteorological elements have been provided to almost 35 Scholars/Researchers of various Universities i.e. Punjab University, University of

Engineering & Technology, Lahore, Lahore University, Bahuddin Zikria University(BZU) etc free of cost for research purposes.

- III. The RMC Library has been re-furnished for the students, researchers and public.
- IV. To facilitate the aviation Meteorology all the aviation charts and terminal area forecast have been updated twice a day on the Regional Meteorological Centre website under the link <http://rmcpunjab.pmd.gov.pk/rmc-flightfolder.php> with effect from 01-02-2019. All the concerned agencies and the airlines have been informed in this regards.
- V. During the period the lowest minimum temperature was recorded -5.8 degree Celsius at Rawalakot on 15-01-2019. The Heaviest rainfall in 24 hours was recorded at Meteorological Observatory Narowal as 85.1 mm in a day. The heaviest Snowfall of 51.5 inches was recorded at Met observatory Murree during January2019.

Seismic Activity During The Quarter (JFM)

Regional Seismic Monitoring Centre is working round the clock at the Regional Meteorological Centre Lahore. State of the art seismometer (Medium Period Sensor “Guralp CMG-40T”) is available to record the earthquakes events in the region. The seismic activities in the region have been shown in the tables below during the period JFM-2019.

S.No	Magnitude Range	Focal Depth (Km)			Total No of Events
		Shallow Focus (0-70)	Intermediate Focus (70-300)Km	Deep Focus (300-700)Km	
1	3.0-3.9	08	04	00	12
2	4.0-4.9	09	12	00	21
3	5.0-5.9	43	11	04	58
4	6.0-6.9	07	01	02	10
5	7.0-7.9	00	00	00	00
		Total=67	Total=28	Total=06	Total =101

Table 1(a):- showing the Seismic Events in the month of January-2019 of different magnitude range and focal depth

S.No	Magnitude Range	Focal Depth (Km)			Total Events
		Shallow Focus (0-70)	Intermediate Focus (70-300)Km	Deep Focus (300-700)Km	
1	3.0-3.9	08	01	00	09
2	4.0-4.9	16	06	01	23
3	5.0-5.9	39	11	01	51
4	6.0-6.9	01	02	01	04
5	7.0-7.9	00	01	00	01
		Total=64	Total=21	Total=03	Total=88

Table 1(b):- showing the Seismic Events in the month of February-2019 of different magnitude range and focal depth

S.No	Magnitude Range	Focal Depth (Km)			Total Events
		Shallow Focus (0-70)	Intermediate Focus (70-300)Km	Deep Focus (300-700)Km	
1	3.0-3.9	03	00	00	03
2	4.0-4.9	15	09	00	24
3	5.0-5.9	26	14	02	42
4	6.0-6.9	08	01	01	10
5	7.0-7.9	00	01	00	01
		Total=52	Total=25	Total=03	Total=80

Table 1(c):- showing the Seismic Events in the month of March-2019 of different magnitude range and focal depth

Total events in (JFM)-2019

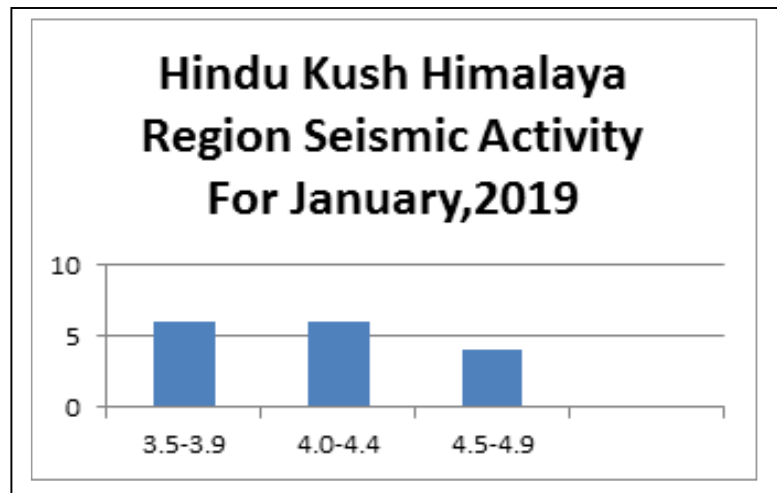
S.No	Magnitude Range	Focal Depth (Km)			Total Events
		Shallow Focus (0-70)	Intermediate Focus (70-300)Km	Deep Focus (300-700)Km	
1	3.0-3.9	19	05	00	24
2	4.0-4.9	40	27	01	68
3	5.0-5.9	108	36	07	151
4	6.0-6.9	16	04	04	24
5	7.0-7.9	00	02	00	02
		Total=183 %age=68	Total=74 %age=28	Total=12 %age=4	Total=269

Table 2:- showing the total Seismic Events of different magnitude range and focal depth

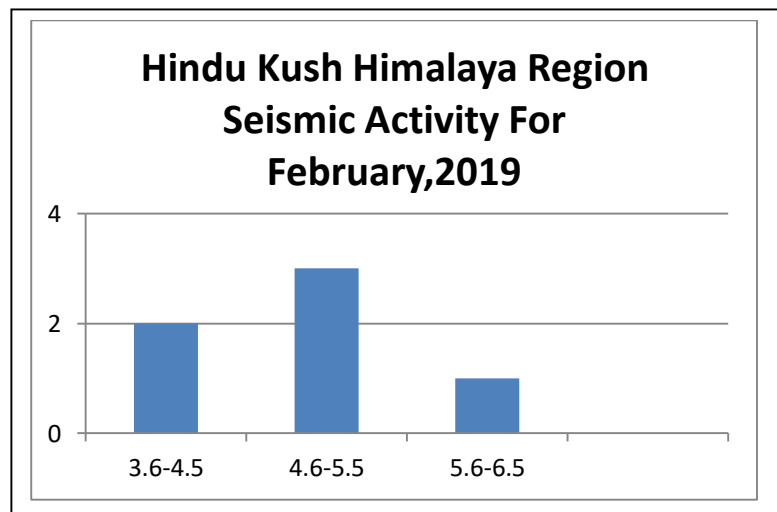
Analysis of Seismological data recorded at Seismic Observatory Lahore from January –March,2019 with different magnitude ranges and focal depths shown in table 1(a,b,c) and total events recorded in three Months (JFM) shown in Table 2 with the percentage of occurrence in different focal depth .The most frequent event was in shallow focal depth zone (0-70 Km) , which is 68% of total events while on the basis of magnitude the maximum number of events lies in the range from 5.0-5.9 Mw .

Seismicity of The Hindu Kush Himalaya Region

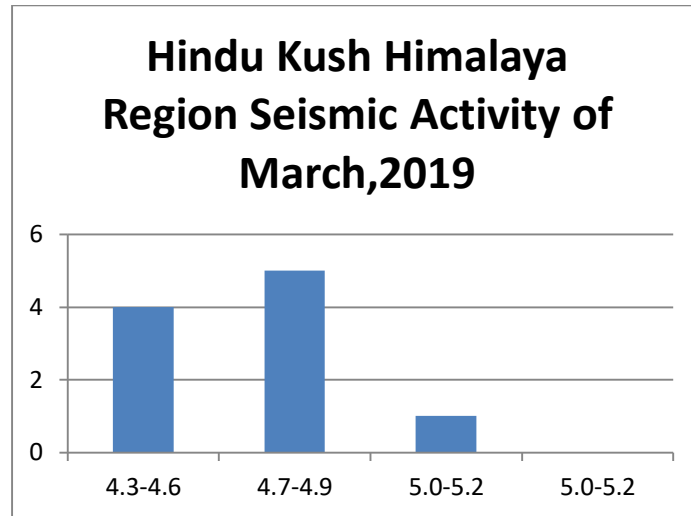
The Hindu Kush Himalaya region is the most vulnerable area for the Seismic activities due to continuous movement of Indian plate toward Eurasian plate. Resulting a movement of approximately 3mm/year which make it hazardous for seismic activities. Due to which major earthquake in the regions i.e. Pakistan, Afghanistan, Bangladesh, China, Nepal, India, Myanmar, Bhutan occurs periodically. The seismic activity for the month of January, February, March-2019 has been plotted in the graphs.



Graph-a



Graph-b



Graph-c

Graph1 (a, b, c) showing the seismic activity in (JFM)-2019

Director RMC Visits

- I. Director RMC & Mr. Sajjid Hussain Met. Assistant (Inspector of Observatories) visit M.O Faisalabad, Multan, Sialkot & Aero Met R.Y.Khan to conduct Competency Assessment test (CAT).
- II. Director RMC & Mr. Sajjid Hussain Met. Assistant (Inspector of Observatories) visit Agriculture department Attock for site selection & establishment of Met Observatory.
- III. Director RMC visit Met. Observatory Narowal to sort out administration different issues.
- IV. Director RMC visit PBO Jhelum and accorded the approval roof of Incharge room & other minor repairs.
- V. Director RMC visit Met. Observatory Mandi Bahauddin.
- VI. Director RMC attend a seminar in Nawaz Sharif university Multan and briefed the importance of met in daily life and future planning
- VII. Mr. Sajjid Hussain Met. Assistant (Inspector of Observatories) visit Met. Observatory Narowal for inspection purpose.
- VIII. Mr. Sajjid Hussain Met. Assistant (Inspector of Observatories) visit PBO Jhelum for inspection purpose.
- IX. Mr. Sajjid Hussain Met. Assistant (Inspector of Observatories) visit Met. Observatory Mandi Bahwaddin for inspection purpose.

Staff Trainings

1. Ms Sobia Ambreen, Assistant Meteorologist have received 2 months short training on “Global Seismological Observation Training Course” by JICA Tskuba Japan.
2. Mr. Muhammad Amjad, Meteorological Assistant have received 80Th (BIP-MT) PRE- MET training for 18-weeks.

Student’s Internship Program

Three university level students of Mphil have completed their internship of 6-weeks.

Joinings On Transfer

M/S

1. Aleem-Ul-Hassan, Sr.Meteorologist has submitted his charge assumption report on 14.01.2019 on a/c of transfer from NWFC, Islamabad to M.O.Multan.
2. Kanza Wali, Senior Observer, has submitted joining report on 15-01-2019 on a/c of his from RMC Lahore to WSR, Sargodha.
3. Fayyaz Ahmad, Assistant Meteorologist submitted joining report on 12-01-2019 on a/c of his transfer from M.O. Multan.
4. Irfan Ali, Senior Observer, has submitted joining report on 23-01-2019 on a/c of his from WSR, Sargodha to RMC, Lahore
5. Shahid Ghafoor, Senior.Observor submitted joining report on 04-02-2019 on a/c of his transfer from RMC, Lahore to M.O.Faisalabad.
6. Abdul Haleem Khadim, Senior.Observor submitted joining report on 05-02-2019 on a/c of his transfer from Met. Obsy, Bahawalpur to RMC, Lahore.
7. Ghulam Shabbir Met. Assistant submitted joining report on 06-02-2019 on a/c of his transfer from Met.Obsye, Kotli to PBO, Sargodha.
8. Muhammad Ashfaq, Naib Qasid submitted joining report on 08-02-2019 on a/c of his transfer from Met.HQ Islamabad to RMC,Lahore.
9. Abid Hussain, Naib Qasid submitted joining report on 01-03-2019 on a/c of his transfer from Met. Obsy. Kasur to Met. Obsy. Noorpur Thal.
10. Attaullah, Met. Assistant submitted joining report on 07-03-2019 on a/c of his transfer from FFD, Lahore to Met. Office, Multan.
11. Amir Hussain Met. Assistant submitted joining report on 11-03-2019 on a/c of his transfer from M.O. Lahore to Met. Obsy. Jhang.
12. Ehsan-ul-Haq, Radio Mechanic submitted joining report on 04-03-2019 on a/c of his transfer from FFD, Lahore to M.O. Multan.
13. Sharafat Ali, Chowkidar submitted joining report on 05-03-2019 on a/c of his transfer from RMC, Lahore to Met. Obsy. Kasur.

14. Muhammad Awais, Naib Qasid submitted joining report on 06-03-2019 on a/c of his transfer from RMC, Lahore to Met. Obsy. Hafizabad.
15. Saifullah, Naib Qasid submitted joining report on 07-03-2019 on a/c of his transfer from Met. Obsy. Noorpur Thal to Met. Obsy. T.T. Singh.
16. Abdul Majeed Munir, Met. Assistant submitted joining report on 12-03-2019 on a/c of his transfer from M.O. Multan to Met. Obsy. Sahiwal.
17. M. Abdul Hafeez, Met. Assistant submitted joining report on 12-03-2019 on a/c of his transfer from Met. Obsy. Jhang to Met. Obsy. Layyah.
18. Muhammad Wajid Amin Gill, Meteorologist submitted charge assumption report on 14-03-19 on a/c of his transfer from RMC, Peshawar to RMC, Lahore.
19. Khadim Hussain, Mali submitted joining report on 16-03-2019 on a/c of his transfer from Camp office, Karachi to Met. Obsy. Bakker.
20. Bilal Nisar, Radio Mechanic submitted joining report on 18-03-2019 on a/c of his transfer from RMC, Gilgit to M.O. Multan.
21. Mudassar Gulzar, Sr. Observer submitted joining report on 20-03-2019 on a/c of his transfer from Met. Obsy. T.T. Singh to Met. Obsy. Attock (newly established).
22. Jamshaid Iqbal, Sr. Observer submitted joining report on 21-03-2019 on a/c of his transfer from Met. Office, Lahore to Met. Obsy. T.T. Singh.
23. Muhammad Arif, Sr. Observer submitted joining report on 22-03-2019 on a/c of his transfer from Met. Obsy. Gujranwala to Met. Obsy. Attock (newly established).
24. Ashiq Hussain, Mali submitted joining report on 25-03-2019 on a/c of his transfer from RMC, Lahore to M.O. Faisalabad.

Departures On Transfer

1. Amjad Ali Khan, Assistant Electronic Engineer, M.O.Sialkot has submitted departure report on 01.02.2019 on a/c of transfer to RMC, Gilgit.
2. Rashid Mahmood, Senior Observer, RMC, Lahore has submitted departure report on 19.02.2019 on a/c of transfer to NWFC, Islamabad.
3. 3. Mr. Khalil Ahmad, Sr. Observer, Met. Obsy. Layyah submitted departure report on 18-03-2019 on a/c of his transfer to RMC, Peshawar.

Retirements

1. Mr. Ghulam Abbas, Balloon Maker, RMC, Lahore, retired from Govt. Service w.e.f 08-02-2019 at the age of superannuation.
2. Mr. Naeem Akhtar, Sr. Observer retired (compulsory) from Govt. Service w.e.f 30-05-2018 due to willful absence.
3. Mr. Rehan, Sr. Observer, Mandi Bahaudin retired from Govt. Service w.e.f 17-02-2019.
4. Mr. Nazir Hussain, Balloon Maker, Met. Obsy. Bakker retired from Govt. Service w.e.f 15-01-2019 on medical ground.

Resignations

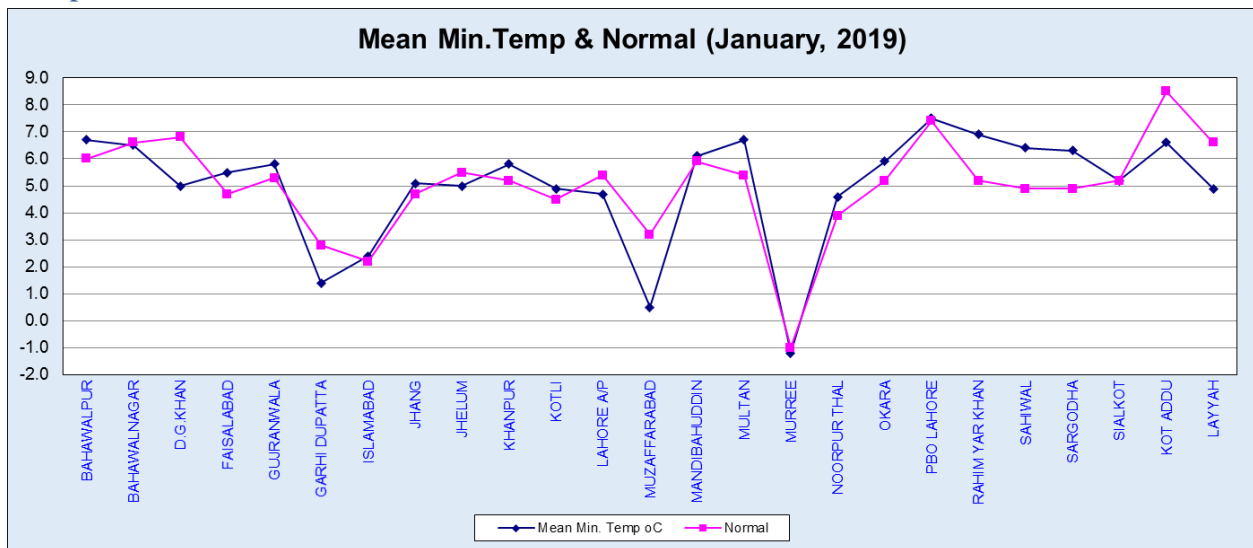
No officer/official has resigned from the service.

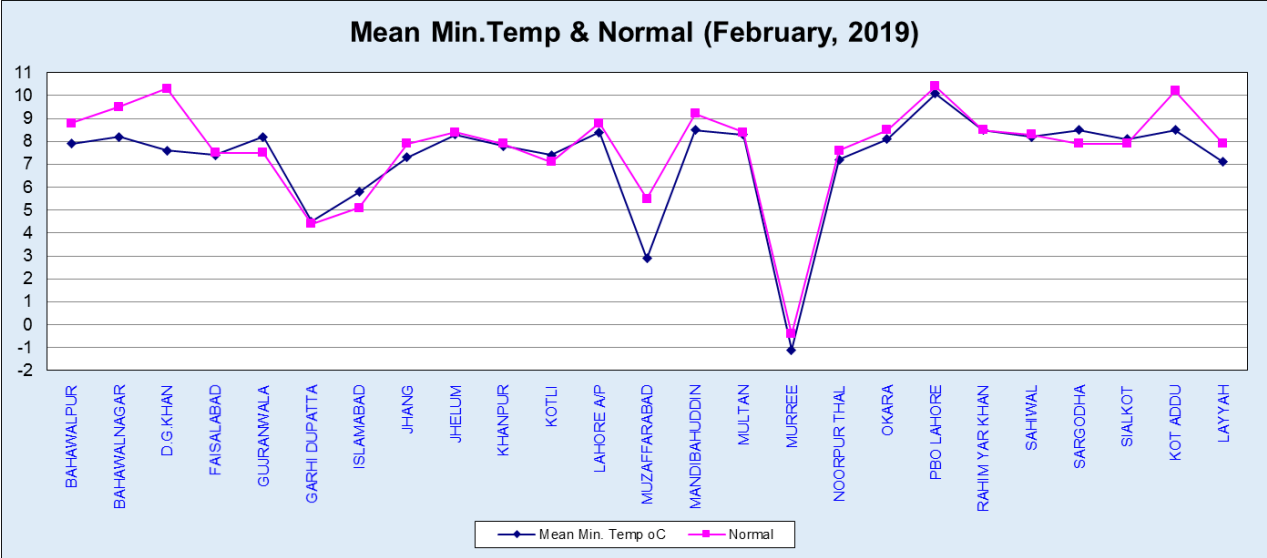
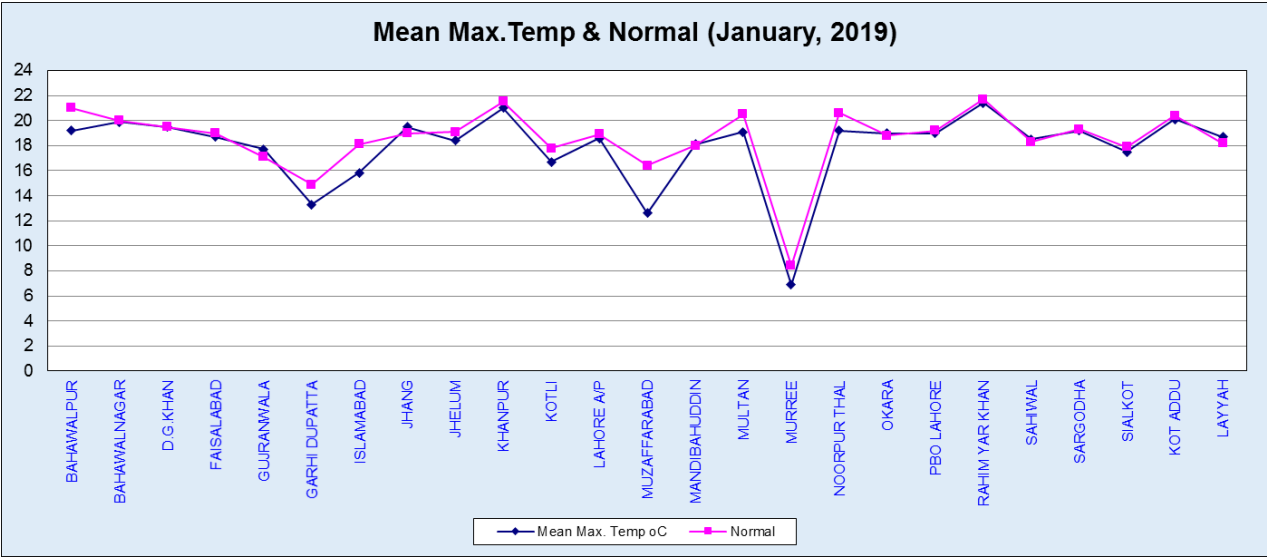
Deaths

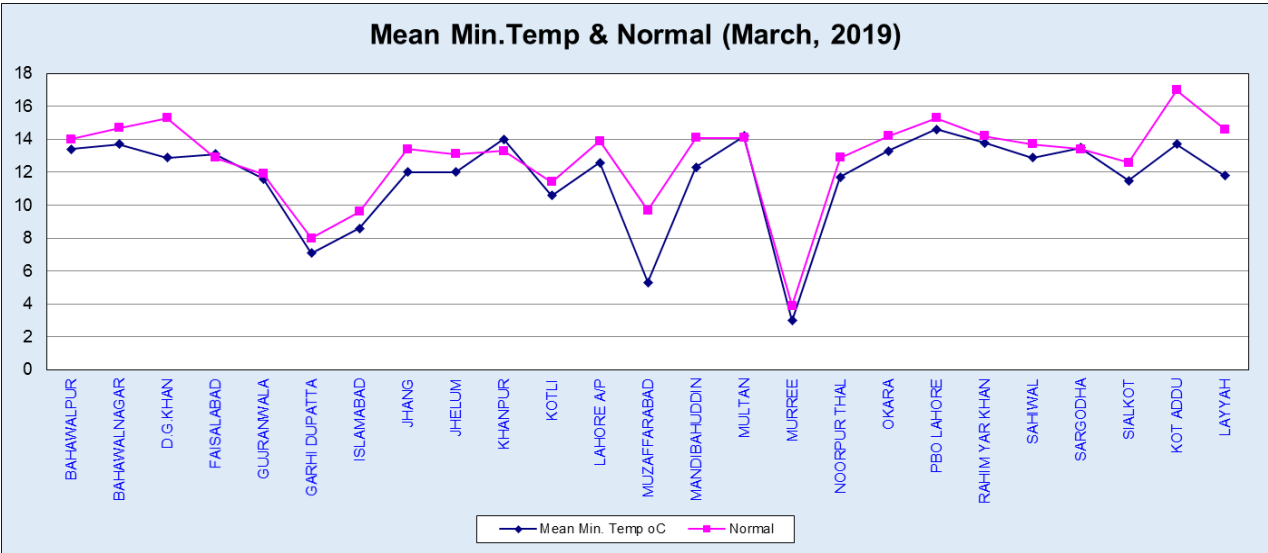
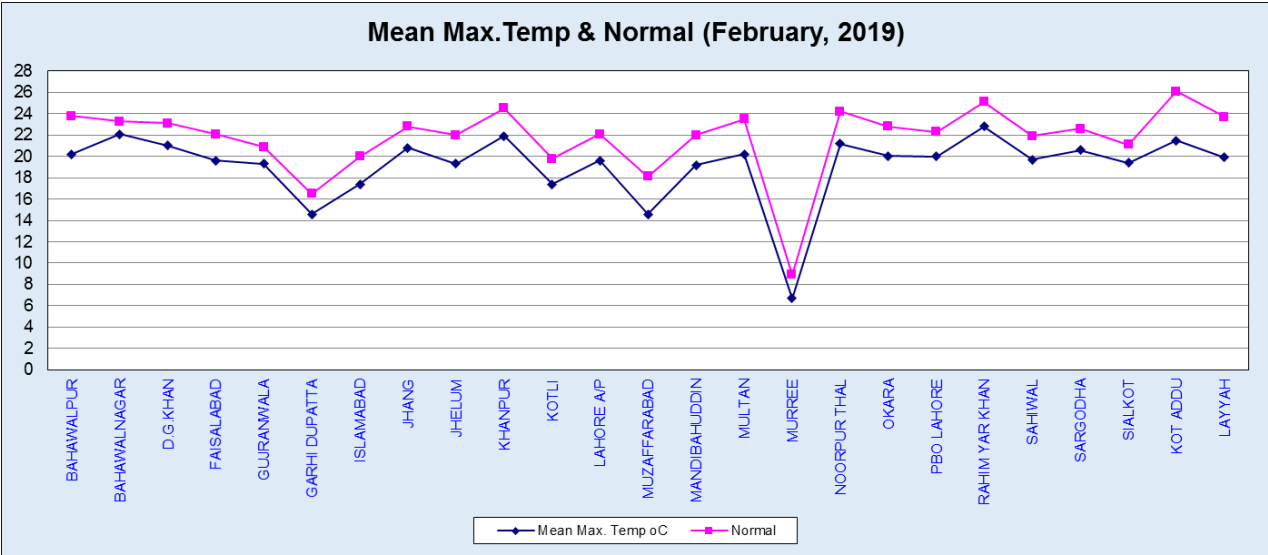
By the grace of Allah no official has died during this quarter (Jan, Feb, and March).

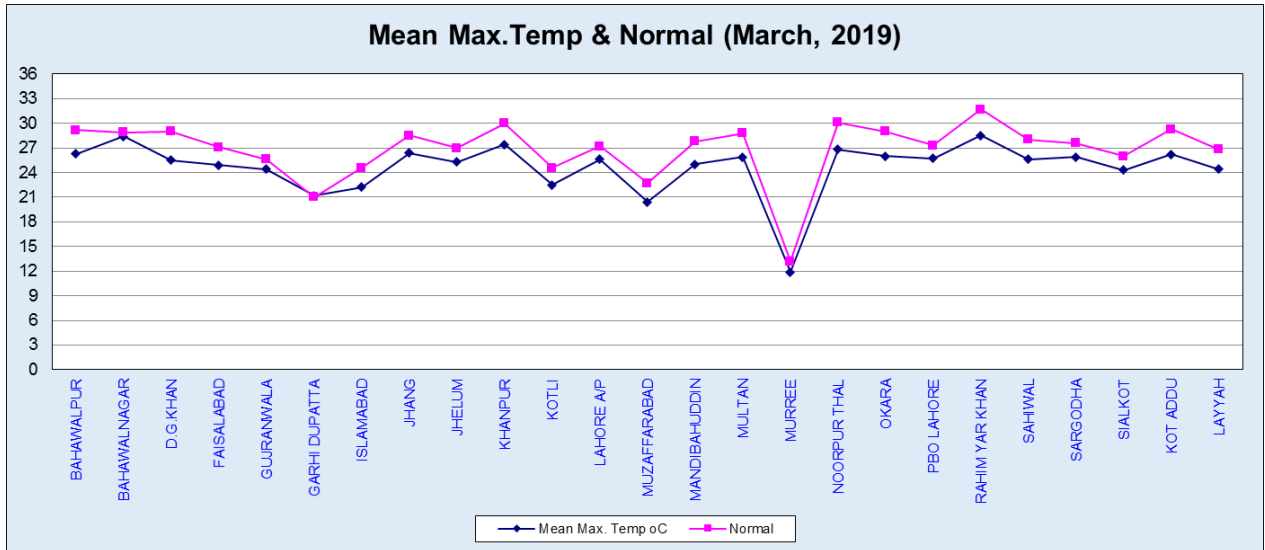
Climatology of The Region For First Quarter JFM-2019

Temperatures

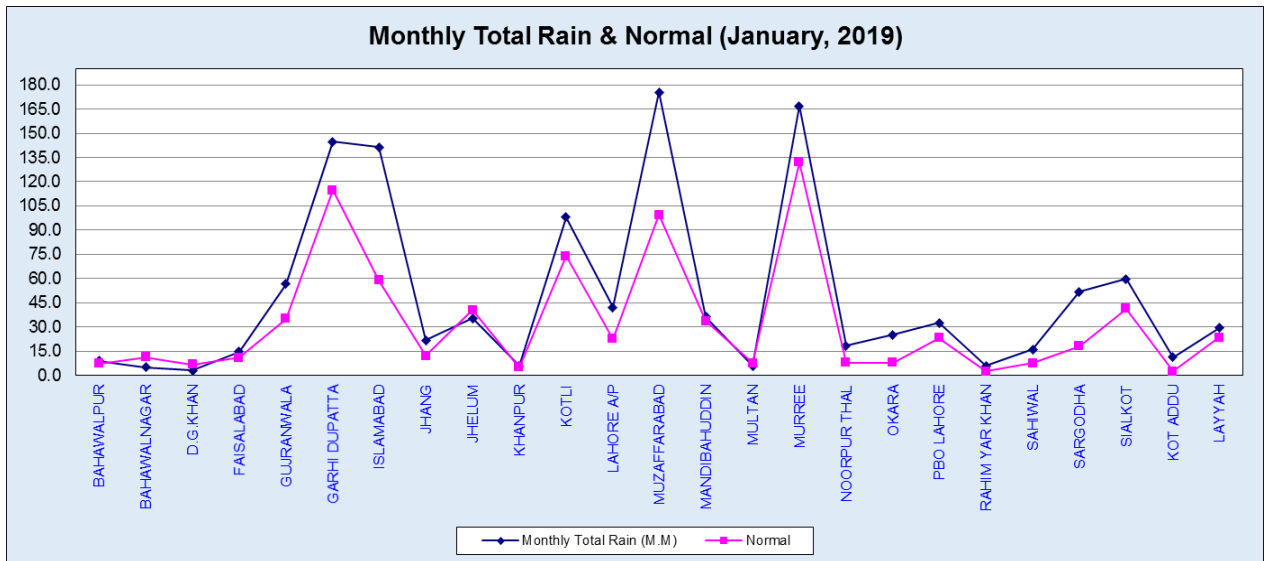


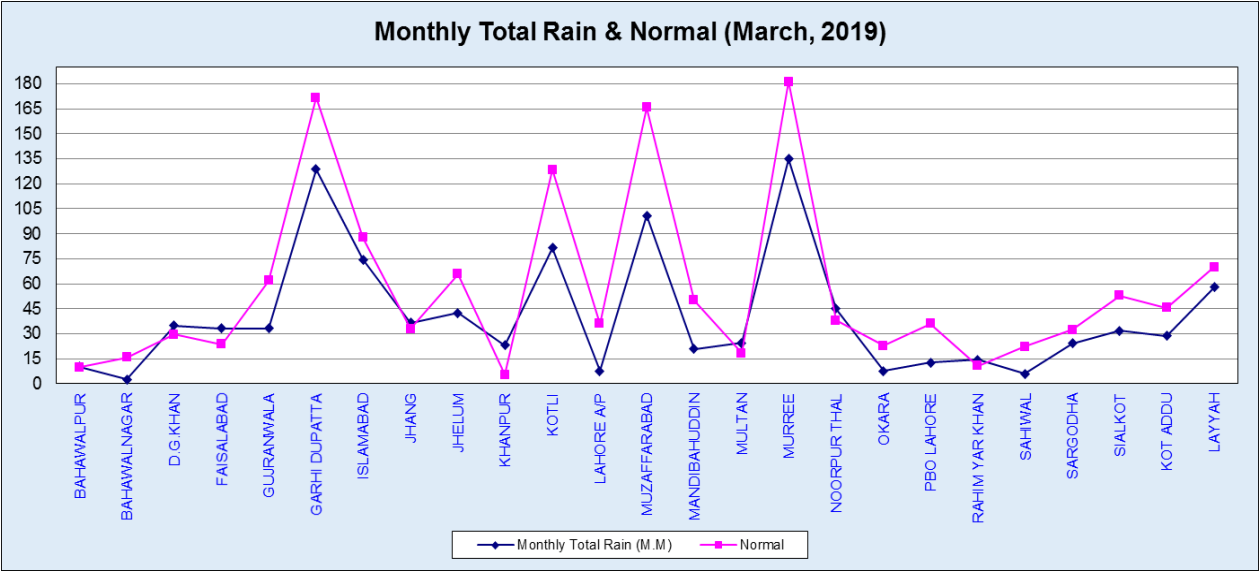
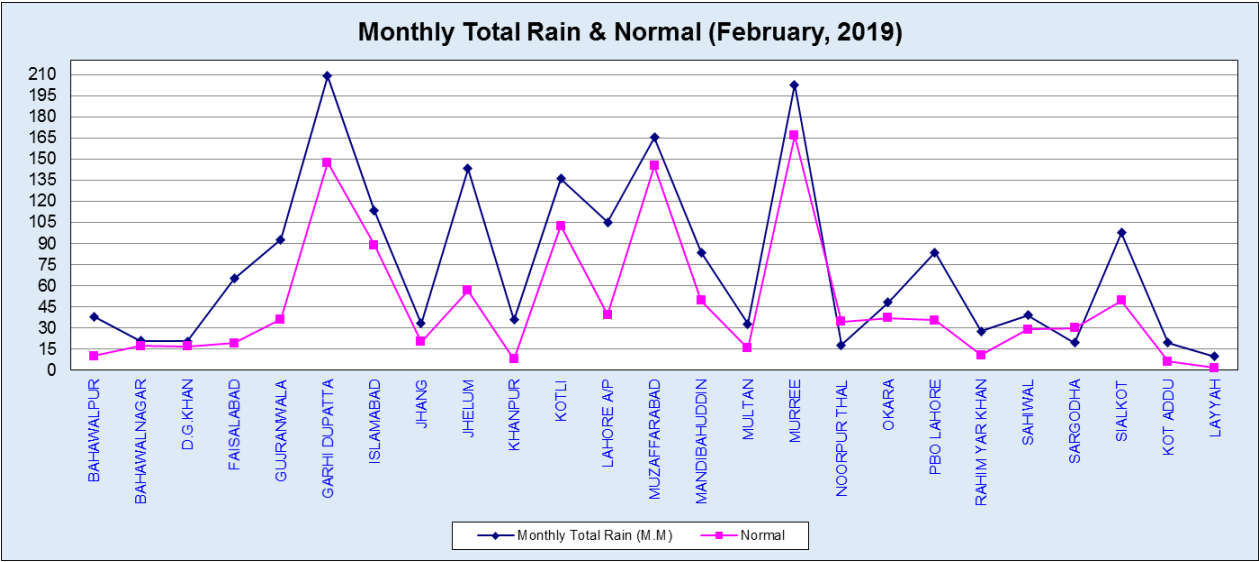






Precipitation





Gallery

University Student's Visit



Newly Established & Minor Repaired Observatories Pictures

Met Observatory Attack





Met Observatory Jhang



PBO, Lahore



Agro Met Okara

