Notes and News

SECOND SESSION OF THE REGIONAL ASSOCIATION II OF THE WMO

Notification has been issued by the Secretary-General, World Meteorological Organisation, that the Second Session of the Regional Association II (Asia) of the World Meteorological Organisation will be held at Rangoon commencing from 3 November 1959. The session is expected to last for about two weeks.

The technical items on the Agenda of the session cover a wide range, the more important of which are—Regional comparison of barometers; Observational organisation for the purpose of Synoptic Meteorology; Exchange of Meteorological data and analyses etc within the region and with the neighbouring regions; Questions on Maritime Meteorology and Aeronautical Meteorology; Climatological, Hydrological and Radiation networks; Arid Zone problems; Regional aspects of climatic atlases and climatological charts for hydrological purposes; Training of meteorological personnel; Observation of atmospheric ozone; Review of the technical assistance programme and Regional aspects of the IGY programme. The session will also consider the programme of the Association between the Second and Third sessions of the Regional Association. The Reports of the different working groups which were set up at the First Session of the Association held in 1955 will also be considered at this session.

SECOND SESSION OF THE COMMISSION FOR AERONAUTICAL METEOROLOGY OF THE WMO AND THE FIFTH SESSION OF THE METEOROLOGY DIVISION OF THE ICAO

The Second Session of the Commission for Aeronautical Meteorology of the World Meteorological Organisation and the Fifth Session of the Meteorology Division of the International Civil Aviation Organisation are being simultaneously held at Montreal commencing from 1 September 1959. The technical subjects to be discussed at these sessions include the following—Exchange of Meteorological data and provision of necessary telecommunication facilities for ground to ground and ground to air channels; Provision of meteorological facilities for the planning of flights; Meteorological facilities for International Air Navigation; Review of Regional planning and other technical matters dealing with various meteorological requirements including special requirements for high level flights; Preparation of climatological statistics; Qualifications and training of meteorological personnel and Density of observational networks. There may be scientific lectures and discussions on other meteorological subjects during the session.

UNESCO SYMPOSIUM ON WATER PLANT RELATIONS IN THE ARID AND SEMI-ARID ZONES

A symposium on Water Plant Relations in the Arid and Semi-Arid Zones, organised under the auspices of the UNESCO, is being held in Madrid during September 1959.

INDIAN NATIONAL COMMITTEE FOR IGY

The Government of India has extended the tenure of the Indian National Committee for the International Geophysical Year till the end of the year 1959. The following are the members of the Committee: (1) Dr. K. S. Krishnan (*President*), (2) Professor S. K. Mitra, (3) Dr. K. R. Ramanathan, (4) Dr. Vikram Sarabhai, (5) Shri S. Basu, (6) Representative of the Central Board of Geophysics, Calcutta, (7) Deputy Director, Geodetic and Research Branch, Survey of

India, Dehra Dun, (8) Director, Kodaikanal Observatory, (9) Director, Colaba and Alibag Observatories, Colaba, (10) Chief Engineer, All India Radio, New Delhi and (11) Dr. A. P. Mitra (*Secretary*).

APPOINTMENT OF INDIAN METEOROLOGICAL OFFICER TO WMO

We have pleasure in announcing the appointment of Shri S. K. Gupta, M.Sc., Assistant Meteorologist of the Indian Meteorological Service to the post of Technical Assistant (G-6) in the WMO Secretariat at Geneva. Shri Gupta took up the appointment in the middle of August 1959 for a period of one year. He is the first Indian Meteorological Officer to be appointed in WMO Secretariat.

Shri S. K. Gupta joined India Meteorological Department in 1944 as Professional Assistant and became Assistant Meteorologist in 1949. He worked for a number of years in the General Organisation and Co-ordination Section of the H. Q. Office, which includes collaboration with outside organisations and international meteorology. He took an active part in the First Session of RA II and the Second Session of CSM of WMO.

Shri Gupta has working knowledge of French, Chinese and Russian besides his sound knowledge of English.

We wish him success in his new assignment.

CENTRAL BOARD OF GEOPHYSICS

A meeting of the Central Board of Geophysics was held at New Delhi on 6 June 1959. The meeting considered among other matters, Proposals for the Third Five Year Plan; Programme for Oceanographic research; Consideration of the recommendations of the Committee for Exploration Geophysics and Committee for Oceanography; Feasibility of setting up of Geophysical and Geochemical Laboratories; The state of implementation of the previous resolutions of the Board; and The transfer of the functions of Poles Volcanology and Ground Water Resources Committee to the Geological Survey of India. The Board also decided to constitute three additional sub-committees for (1) Meteorology, Hydrology and Glaciology; (2) Geodesy, Seismology, Volcanology and Geomagnetism; and (3) Solar Activity and Aeronomy.

CENTRAL BOARD OF IRRIGATION AND POWER

The Twentyninth Annual Research Session of the Central Board of Irrigation and Power was held at the Jubilee Hall, Hyderabad from 8 to 12 July 1959. The session was inaugurated by Shri K. Sanjeeva Reddi, Chief Minister of Andhra Pradesh and was as usual attended by a large number of Engineers and Research Workers. A representative of the Meteorological Department also attended the session. A number of interesting papers were presented by the workers from the different Research Institutes of India. The papers, particularly, in the Sections on 'Hydraulic Works' and 'Theory and practice of Model Experiments' evoked considerable discussions. Under the Section 'Hydrology' the paper 'Estimation of the Dependable yields from a catchment' by Dr. A. A. Rama Sastry was interesting for the extensive application of statistical methodology to the study of rainfall and river flow.

SYMPOSIUM ON GEOPHYSICAL EXPLORATION

A symposium on Geophysical Exploration organised by the Central Board of Geophysics was held at Baroda from 15 to 17 August 1959. The University of Baroda provided the necessary facilities for holding the symposium in the Physics Department.

The symposium was inaugurated by Prof. Humayun Kabir, Union Minister for Scientific

Research and Cultural Affairs. Fortyseven papers dealing with different branches of Geophysical Exploration were received for discussions from contributors representing various scientific departments in the Government of India and the universities. The symposium was presided by Dr. K. R. Ramanathan, Chairman of the Central Board of Geophysics. A few members of the Central Board of Geophysics also participated in the discussion. These included Dr. K. S. Krishnan, F.R.S., Director, National Physical Laboratory, New Delhi; Dr. B. C. Roy, Director, Geological Survey of India; Dr. J. N. Nanda, Naval Headquarters, New Delhi; Dr. R. C. Hoon, Central Water and Power Commission and Dr. A. N. Tandon of the India Meteorological Department.

An excursion to the test drilling site at Cambay was also organised for the delegates.

INDIAN METEOROLOGICAL SOCIETY

The Third Annual General Meeting of the Indian Meteorological Society was held at New Delhi on 16 July 1959. The meeting was preceded by a technical session in which Dr. P. R. Pisharoty read a paper on "Some aspects of pressure changes in the atmosphere". In the General Meeting, Shri S. Basu delivered his Presidential Address on the subject "Meteorology in Science Education".

Dr. K. R. Ramanathan was elected as the *President* and the following as the other members of the Council of the Society for the ensuing two-year period—

Vice-Presidents : Shri S. Basu (Retiring President), Shri P. R. Krishna Rao and Shri P. R. Ahuja; *Secretary* : Dr. P. Koteswaram; *Treasurer* : Shri S. B. Kulkarni; *Members* : Dr. R. Ananthakrishnan, Dr. M. W. Chiplonkar, Dr. L. S. Mathur, Dr. P. R. Pisharoty, Shri C. Ramaswamy, Shri A. K. Roy, Group Capt. P. K. Sen Gupta and Prof. M. S. Thacker.

The Annual Dinner of the Society was held on 16 July 1959 with Air Marshal S. Mukerjee as the Chief Guest.

SEVERE THUNDERSQUALL AT CALCUTTA

On the evening of 21 May 1959, Calcutta was hit by a thundersquall, which appeared to have some characteristics of a tornado. The thundersquall, which was accompanied by hail, developed a peak wind speed of 61 mph at Calcutta (Alipore) and 54 mph at Dum Dum. The thundersquall lasted for about half an hour and came from southwest at first and then veered to west. The storm affected very localized area and abated quickly. Its greatest force was felt in certain parts of South Calcutta, other parts of Calcutta experiencing appreciably milder weather. The thundersquall was preceded by a sharp pressure fall of about 9 mb recorded by the barograph at Alipore. Corresponding pressure fall recorded at Dum Dum was much less, suggesting development and passage of a micro-cyclone over South Calcutta.

Even though the maximum wind speed recorded by Alipore Observatory was appreciably less than the previous records, highest maximum wind speed recorded being 80 mph, the thundersquall had enough power to uproot many road-side trees, some with trunks two feet in diameter, in the southern parts of the city, thereby dislocating the traffic and communications. According to newspaper reports, nearly 100 persons suffered injuries—some 30 of whom were admitted to hospitals and 9 of whom died. Hutments at Lake Camp were literally demolished.

Considering the fury of the storm in the southern section of the city and the nature of the destruction of trees, damage to telegraph and electric poles, wires, huts, tin sheds etc., the thundersquall seemed to have been associated with unusual characteristics, which appeared as those of a tornado.

INDIA'S FIFTH WEATHER RADAR AT MADRAS

Fig. 1. Photograph of the scanner unit on the top of the Control Tower of the terminal building at Meenambakkam Airport, Madras

The radar (Decca type 41) was put into commission for 24-hour watch on weather from 21 May 1959. The main display unit has been housed on the second floor of the terminal building. Two auxiliary display units have also been installed, one in the Meteorological Briefing room and the other in the Air Traffic Control room. The maximum detectable range of this radar is about 250 miles.

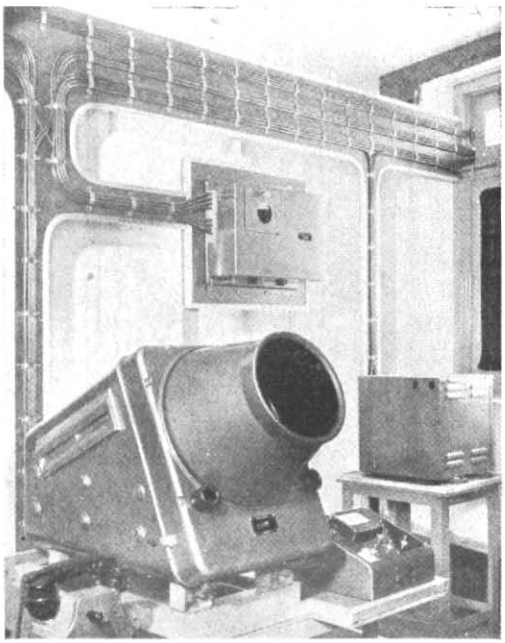
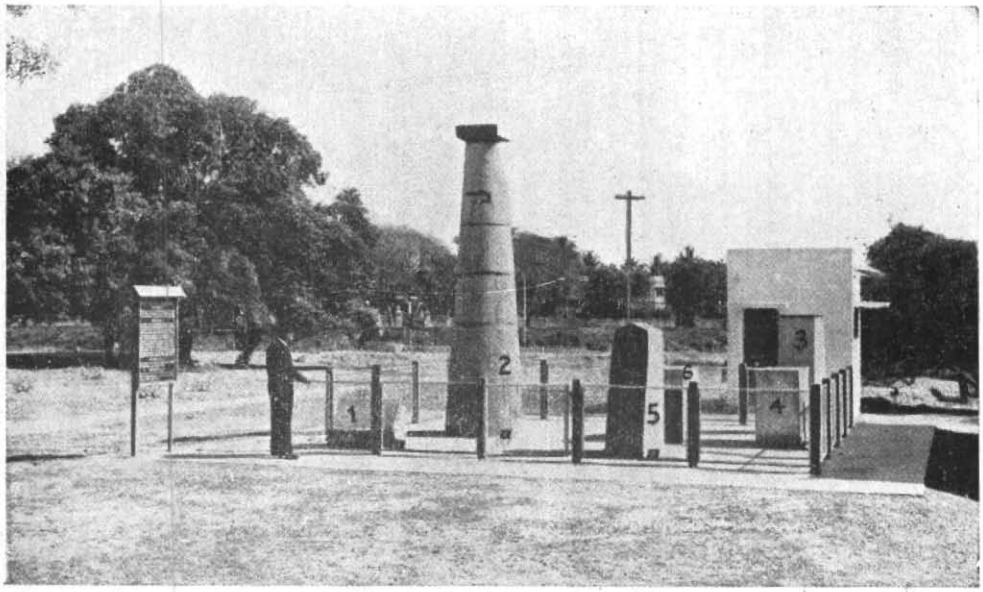


Fig. 2. A part of the installation inside the main display room

MONUMENTS OF THE ASTRONOMICAL OBSERVATORY AT MADRAS (FOUNDED IN 1792)



1. This granite slab with the inscription in Latin as quoted below was fixed in 1792 on the southern wall of the Observatory room. It was shifted to its present position near about 1948.

"ASTRONOMIAE confecratum fumptibus Societatis Anglicanæ in INDIA mercaturæ faciendæ favente CAROLO OAKELEY Bar. to Præfecto Præfidii Sancti Georgii

A. D. MDCCXCII"

2. This granite pillar more than 10 tons was erected in 1792 by Sir Charles Oakley, the then Governor of Madras. On the top of this pillar there was a 12″ Altiutde and Azimuth instrument by Troughton. The name, Michael Topping, on the pillar referes to the Chief Surveyor responsible for the architectural design of the Observatory. The Bench Mark referred to in the inscription is presumably the oldest one in India with reference to whichall Geodetic Survey measurements were made. The inscription in Tamil, Telugu and Urdu date back to 1792. They more or less correspond to the Latin inscription in Monument 1.

3 and 4. These granite pillars were constructed in 1860 for mounting a new transit circle.

5 and 6. One of these pillars was constructed in 1792 and the others presumably in 1860 for the standard clocks at the Observatory.

WEATHER—HOT WEATHER SEASON (MARCH—MAY 1959)

The chief features of weather during the period under review were—(1) good thunderstorm activity in northeast India and south Peninsula during May, (2) formation of a depression in the southeast Arabian Sea and its intensification into a severe cyclonic storm in the third week of May and (3) advance of the southwest monsoon into the south Andaman Sea on 25 May and into south Kerala on 31 May.

March—Four western disturbances moved across the northern parts of the country during March. The first one moved through Kashmir on the 2nd and caused local rain in Jammu and Kashmir. It induced a low pressure area over northwest Rajasthan and the adjoining Punjabs. The induced low pressure area moved away eastwards over the eastern Himalayas. Under its influence, rainfall occurred locally in Assam on the 3rd and 4th. Two more western disturbances passed through the extreme north of the country, causing local rain or snow in Jammu and Kashmir on the 10th and scattered rain or snow on the 11th and scattered light rain on the 17th. The fourth western disturbance which was located over the Punjab (P) on the 25th, lay on the next day as a trough of low pressure extending from the Punjab(I) to northeast Madhya Pradesh. Moving eastwards, it became unimportant in the course of the next two days. Under its influence, there were local thundershowers in Jammu and Kashmir on the 25th and fairly widespread thundershowers in Himachal Pradesh and the Punjab-Kumaon hills on the 26th and 27th.

Associated with the incursion of moist air from the Bay of Bengal into northeast India from the 5th to 9th and again on the 25th, widespread thundershowers occurred in Sub-Himalayan West Bengal on the 25th, local thundershowers in Assam from the 5th to 8th and again on the 25th and scattered thundershowers in Gangetic West Bengal and Bihar plains on the 25th.

An upper air trough passing across northeast Assam on the 13th caused scattered showers in that area the same day.

An easterly wave moved across the south Andaman Sea and caused fairly widespread or local thundershowers in the south Bay Islands from the 20th to 25th, and widespread thundershowers in the north Bay Islands on the 25th.

Day temperatures were appreciably above normal on a few days in Rajasthan, Saurashtra and Kutch, Madhya Pradesh and upper Assam and markedly above normal in southwest Rajasthan and Saurashtra and Kutch from the 21st to 23rd.

According to newspaper reports, a severe duststorm swept over Delhi on the 29th and was responsible for collapse of many houses and damage to property. The maximum wind spreed of 120 kmph (75 mph) was reported to have attained during the storm.

April—Three western disturbances passed across the northern parts of the country. The first one which was located over east Afghanistan on the 3rd moved away across Kashmir on the 5th and caused local rain or snow in Jammu and Kashmir from the 3rd to 5th. Under the influence of the other two western disturbances an incursion of moist air took place into most parts of the country causing thunderstorm activity practically over the whole country.

Fairly widespread or local thundershowers occurred in Assam on most days and in Sub-Himalayan West Bengal on a few days of the month. There was also a good thunderstorm activity in the Peninsula when fairly widespread or local thundershowers occurred in Kerala on many days and in Andhra Pradesh, Mysore and the Madras States on a few days. Gangetic West Bengal, Orissa, Jammu and Kashmir, Rajasthan, Madhya Pradesh, Vidarbha and Maharashtra also experienced a good spell of thundershowers between the 18th and 22nd. Isolated hailstorms occurred in Maharashtra on the evening of 27th.

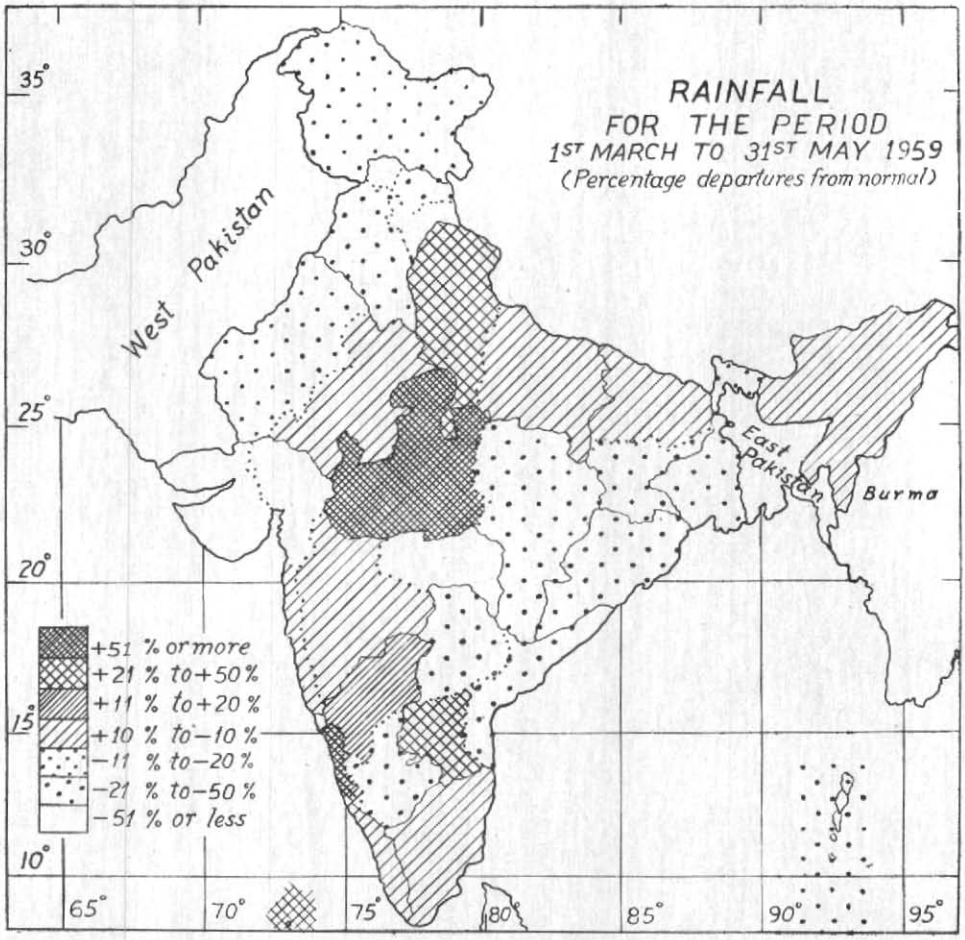

RAINFALL
FOR THE PERIOD
1ST MARCH TO 31ST MAY 1959
(Percentage departures from normal)
West Pakistan
East Pakistan
Burma
+51 % or more
+21 % to +50 %
+11 % to +20 %
+10 % to −10 %
−11 % to −20 %
−21 % to −50 %
−51 % or less
35°
30°
25°
20°
15°
10°
65°
70°
75°
80°
85°
90°
95°

Fig. 1

Day temperatures were appreciably to markedly above normal in northeast Assam, the Punjab(I), Gujarat, Saurashtra and Kutch between the 6th and 9th, in Madhya Pradesh, east Uttar Pradesh and Bihar from 11th to 14th and in Rajasthan from 8th to 17th.

May—Three western disturbances moved across the northern parts of the country, during the month and caused local or scattered thundershowers in Jammu and Kashmir on a few days, local thundershowers in Himachal Pradesh, the Punjab(I) and west Rajasthan on one or two days.

There was good thunderstorm activity in Assam and Sub-Himalayan West Bengal practically during the whole month and in the south Peninsula during the first half of the month. Thundershowers were fairly widespread in Assam on almost all days and in Sub-Himalayan West Bengal on many days. They occurred locally in Kerala on 10 days and in coastal Andhra Pradesh, north interior Mysore, south Madras State, Maharashtra and west Madhya Pradesh on one or two days.

During the last week there was also good pre-monsoon thunderstorm activity over the country. In association with the passage of a westerly wave, thunderstorms occurred in the Punjab(I), Himachal Pradesh, east Rajasthan, Uttar Pradesh and Madhya Pradesh between the 29th and 31st. According to press reports some of the thunderstorms in Rajasthan, Madhya Pradesh and Maharashtra caused uprooting of trees and collapse of hutments. Six persons were reported to have died in Jaipur due to house collapses on the 31st. It was also reported that a thunderstorm caused havoc including loss of three lives in two taluks in Maharashtra, *viz.*, Shrirampur and Kopargaon.

A low pressure wave moved into the Comorin-Maldives area on the 16th and conditions became markedly unsettled in southeast Arabian Sea by the 18th morning. A depression formed next morning centred near Lat. 10°N and Long. 70°E. It became deep and on the 20th morning was centred within one degree of Lat. 12·5°N and Long. 69·5°E. It intensified into a cyclonic storm on the 21st and moving in a northwesterly direction, became a severe cyclonic storm by the same evening. On the morning of 22nd, it was centred near Lat. 15·5°N and Long. 63·5° E. Later it gradually weakened and moved away westnorthwestwards. Under its influence fairly widespread rain occurred in the Arabian Sea Islands, Kerala, coastal Mysore and south interior Mysore during the period 18th to 22nd. Local or scattered rainfall was also reported from north interior Mysore, the Madras State, Rayalaseema, Maharastra and the Konkan on some days. According to press reports, the swells emanating from the centre of the storm caused inundation and partial destruction of many salt pans around Thana and Bassein creeks.

The southwest monsoon advanced into the south Andaman Sea and the neighbouring southeast Bay of Bengal on the 25th and extended into the north Andaman Sea and the adjoining southeast Bay of Bengal by the 27th. The Arabian Sea branch of the monsoon advanced into the Comorin–Maldives area on the 30th and into south Kerala on the 31st.

Day temperatures were appreciably above normal in Bihar from the 7th to 20th, in Gangetic West Bengal from the 13th to 20th, in Saurashtra and Kutch from the 20th to 22nd and in the Punjab(I) from the 11th to 13th. A few deaths due to sunstroke were reported from Bihar and from Saurashtra. The day temperatures were below normal in the south Peninsula on most days of the month and in northeast India on a few days.

The distribution of rainfall over the country during the period under review is given in Fig. 1.