INDIAN JOURNAL
OF
METEOROLOGY AND GEOPHYSICS

VOL. 6 | APRIL 1955 | NO. 2

The First Session of the Regional Association II (Asia) of the World Meteorological Organisation

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The First Session of the Regional Association for Asia of the World Meteorological Organisation was held at New Delhi from 2 to 14 February 1955. The Association is one of the six Regional Associations set up by the WMO at its first Con[illegible]s held at Paris in 1951 to continue the work performed by the six Regional Commissions of the former International Meteorological Organisation. The functions of the Regional Associations, generally speaking, are to promote the execution of the resolutions of the Congress and the Executive Committee of the WMO, to discuss matters of general meteorological interest and to co-ordinate meteorological and associated activities in their respective regions and to make recommendations to the Congress and the Executive Committee of the WMO. The Regional Associations are composed of Member States and territories of the Organisation, the network of which lie in or extend into one of the six regions of the world, whose geographical boundaries are defined by the Congress of the WMO. The following nine countries are at present Members of the Regional Association for Asia: Burma, Ceylon, Hongkong, India, Iraq, Japan, Pakistan, Thailand and U.S.S.R.

The First Session of this Association was attended by delegates from all the member countries except Ceylon. Dr. D. T. Dassanayake, Director of the Meteorological Service of Ceylon, however, sent a message assuring full co-operation with the work of the Association. France, Israel, Lebanon, U.S.A., Viet-Nam and Nationalist China as well as several international organisations, *viz.*, United Nations, ICAO, UNESCO, IUGG and FAO sent observers to this Session. Mr. J. R. Rivet, Deputy Secretary General, World Meteorological Organisation, attended the Session on behalf of the Secretariat of the Organisation. Mr. J. L. Galloway, Chief of the Technical Assistance Unit of the WMO was also present for a part of the Session.

The opening meeting of the Session took place on 2 February 1955 in the Central Hall of the Parliament under the Presidentship of Mr. S. Basu, Director General of Observatories, India, who is also the President of the Association. He welcomed the delegates and guests and reviewed the growth of international co-operation in meteorology under the old IMO and the WMO with special reference to the collaboration between the Meteorological Services under the aegis of the Regional Association II.

Shri Jagjivan Ram, Minister for Communications, India, in inaugurating the conference welcomed the delegates on behalf of the Government of India. He described the wide range of human activities for which an efficient meteorological service is indespensable and referred to its important role in planning for water power, flood control projects and aviation.

The opening meeting was also addressed by Shri Raj Bahadur, Deputy Minister for Communications, India, who emphasised the contribution of meteorology towards a higher standard of living for man and in particular to the increase of food production, and expressed the hope that in future the meteorologist may not only forecast the weather but harness and exercise a certain amount of control on it.

Dr. A. A. Solotoukhin, Director, Hydrometeorological Service of the U.S.S.R. and Vice-President of the Association and Mr. J. R. Rivet, Deputy Secretary General of the WMO also addressed the gathering and expressed their good wishes for the success of the Session.

The business meetings of the Association were held in the premises of the Meteorological Office, New Delhi, the secretariat for the Session being provided by that Department. The agenda which had been previously circulated to the members was adopted with a few additions. There were in all 52 items on the agenda and excluding those relating to procedural and administrative questions, there were 42 items which concerned technical matters. Most of these could be grouped broadly under four heads, *viz.*, Instruments, Observations, Codes and Meteorological Telecommunications. Other items not coming under these categories included such subjects as the International Geophysical Year, arid zone problems, water resources development, Technical Assistance Programme, facilities for meteorological research and climatological atlases and maps. As is customary at international meetings of this kind, two Working Committees were set up for preliminary study of the technical questions on the agenda. Dr. L. A. Ramdas and Dr. B. N. Desai, Delegates from India, were elected as chairmen of these two committees. The first committee dealt with questions relating to instruments, observations, networks, climatology and publications and the second committee dealt with codes and transmissions. In addition, the usual drafting committee and the credentials committee were established.

In all 29 resolutions and 10 recommendations were passed by the Association. A brief summary of the discussions on the important

items of the agenda and the main resolutions and recommendations adopted is given below:—

Instruments

The need for a comparison of national standard barometers within the Region with a single standard was recognised as urgent and Calcutta was designated as the main centre at which the sub-Regional standard barometers for this purpose should be compared from time to time. A working group consisting of representatives from India, Japan, Pakistan and U.S.S.R. was formed to undertake the task of planning and implementing the programme for these regional comparisons. A resolution was also passed urging the comparison of radiosondes used by the National Meteorological Services in the Region. The importance of standardisation of other meteorological instruments was emphasised and a recommendation to secure periodical comparison of the instruments with sub-standards and for exchange of information regarding standards and techniques developed by National Meteorological Services for calibrating and standardising instruments was adopted.

Observations

The most important item under this head was the study of the network of observatories in the Region. The existing network was reviewed and it was noted that while in some parts of the Region a sufficiently good network existed and there were plans for improving the same, there were many areas which were meteorologically under-developed. A basic network to meet the requirements of various interests was drawn up. Particular attention was given to establishment of observatories in the islands of the Region. In the case of the countries within the Region which have at present no meteorological network and which may experience difficulty in implementing the recommended basic network, the Association recommended that the Second Congress of the WMO to be held in April 1955 may study ways and means to overcome the difficulties standing in their way and consider the possibility of launching assistance programmes for this purpose. The Meteorological Services of maritime countries in the Region were requested to recruit as many voluntary ships as possible in order to obtain more observations from the sea areas and to equip some of these ships to undertake pilot balloon observations as these observations from the sea areas would be of inestimable value. In regard to aircraft weather observations, the Association felt that their number showed an alarmingly decreasing trend in spite of definite procedures laid down by the ICAO for reporting in-flight meteorological conditions. It was, therefore, decided that the WMO should take up the matter with the ICAO and other appropriate authorities.

A resolution was passed for the setting up of an adequate organisation for Agricultural Meteorological observations for the systematic study of weather in relation to crops and for the regular provision of weather forecasts, warnings and other services to the farmers. A standing working group was formed for effecting co-ordination in Agricultural Meteorology in the Region. The recording

and exchange of hydrological observations and forecasting of river levels and floods were considered as of vital concern and a resolution was adopted for the establishment of networks of hydrological stations by those Meteorological Services which have not already done so and for the development of techniques for flood forecasting to serve national needs. A working group with representatives from India, Pakistan, Thailand and U.S.S.R. was constituted for ensuring progress in hydrological researches and techniques within the Region. The importance of measurement of solar radiation with a view to possible utilisation of the solar energy was discussed and it was recommended that countries within the Region should take urgent steps to set up suitable networks of stations for recording solar radiation before the International Geophysical Year in 1957-58.

Codes

A number of important points relating to meteorological codes was considered and regional agreement was reached on these points. A regional code for reporting special meteorological phenomena was also adopted. There were 9 resolutions dealing with codes.

Meteorological Tele-communications

The regular and rapid transmission of meteorological observations is one of the most important problems in the operation of Meteorological Services. Meteorological tele-communication system has, therefore, rightly been described as the life blood of synoptic meteorology. One of the most important tasks of the conference was to establish a co-ordinated and detailed plan for the organisation of meteorological transmissions from the Region. The working of the three existing sub-continental broadcast centres at New Delhi, Tokyo and Khabarovsk was reviewed and a fourth station in the southwest of the Region, possibly at Teheran, was recommended. In accordance with the directives of the Executive Committee and the Commission for Synoptic Meteorology of the WMO, the establishment of two continental broadcast centres at New Delhi and Tokyo with a desirable range of about 9000 miles was recommended. The geographical limits of territories from which meteorological information is to be included in the broadcasts from these two proposed continental transmitters were also defined. Resolutions were passed to ensure uniformity in the practice of transmission of meteorological data in the Region and a high standard in the quality and contents of all meteorological broadcasts in the Region. The problem of the improvement of tele-communication systems for meteorological services in the Region was considered as a project for continuous study and a working group composed of meteorologists and telecommunication engineers representing Members of the Regional Association was established for the purpose.

It was recommended that the Meteorological Services within the Region which have not yet instituted CLIMAT broadcasts should do so to enable preparation of complete climatic charts for the Region. The desirability of compiling CLIMAT information from oceanic

areas was accepted and it was recommended that such information in respect of the Indian ocean and Pacific ocean areas may be broadcast from New Delhi and Tokyo respectively, as early as practicable.

Questions concerning maritime meteorology which had been referred to the Association were considered at the Session. The sea areas which had been allocated to different countries in the Region for issue of forecasts to shipping were reviewed and suitable modifications in these allocations were made.

Other question

Members of the Association were urged to give the highest priority to the preparation of a climatological atlas on a national basis utilising all the available data as a preliminary to the preparation of a regional atlas.

Delegates to the Session heard with interest an account given by Dr. K. R. Ramanathan, President of the International Union of Geodesy and Geophysics, of the meteorological aspects of the work proposed for the forthcoming International Geophysical Year. The emphasis during the Geophysical Year would be on the study of the higher layers of the atmosphere (*i.e.*, the higher troposphere and the lower stratosphere), magnetic phenomena, the ionosphere, solar activity, etc. Problems of radiation, ozone content in the atmosphere, etc were also to be specially studied. He considered that a reasonable network of radiosonde and radio-wind observations giving information up to 100 to 50 mb should be made available during the International Geophysical Year along selected meridional and zonal sections and emphasised that it was very important to have such a section passing through the middle of Asia, approximately along longitude 75°E ± 5° as far as possible up to the poles. He referred to the possibility of the India Meteorological Department setting up some stations along this longitude within their area and hoped that with the help of U.S.S.R., it would be possible to extend the section right up to the polar region.

Dr. W. J. Ellis of UNESCO Science Cooperation Office for South Asia outlined UNESCO's Arid Zone Programme. He mentioned that a guide for workers in the field of arid zone problems was under preparation. He drew attention to the recommendation of the UNESCO Arid Zone Advisory Committee for collection of solar energy data and mentioned the working arrangements between WMO and UNESCO in matters touching the meteorological aspects of arid zone problems. The big blanks in the network of solar observations in the Region were mentioned during the discussions on this subject and the importance of associating an experienced meteorologist or climatologist in the researches conducted on arid zone problems was pointed out. The work done or proposed to be done in India, Pakistan and U.S.S.R. on these problems was described.

The meteorological aspects of water resource development was discussed at the Session. The important role to be played by Meteorological Services by providing statistical data, weather forecasts and warnings in the various stages of projects connected with water resource development was emphasised and it was recommended that a meteorological

representative be co-opted in all such projects.

Mr. J. L. Galloway, Chief of the Technical Assistance Unit of the WMO described the activities of the WMO in the field of technical assistance to meteorologically underdeveloped countries under the Expanded Programme of Technical Assistance of the United Nations. Mr. V. H. Davey, representative of the ICAO also spoke about ICAO's Technical Assistance Programme in the field of meteorology in the countries of the Region.

The need for exchange of information, coordination and co-operative effort in the furtherance of meteorological research was recognised and a Working Group was formed to facilitate the study of major research problems through co-operative effort between the countries in the Region. Working Groups on Sferics and Cloud Studies were also set up.

At the end of the Session, Mr. S. Basu, Director General of Observatories, India, was unanimously re-elected as the President of the Association and Mr. S. N. Naqvi, Director, Pakistan Meteorological Service was elected as the Vice-President. The visiting delegates paid generous tributes to the Government of India and the India Meteorological Department for the facilities made available to them for the Session and the hospitality extended to them during their stay at New Delhi.

The social functions in the course of the Session included a reception and a dinner by Shri Jagjivan Ram, Union Minister for Communications at the Rashtrapati Bhavan, a dinner by His Excellency Mr. M. A. Menshikov, Ambassador of the U.S.S.R. in India and an 'At home' by the Officers of the India Meteorological Department at New Delhi. The delegates were also taken round on a conducted sight seeing tour of the historic monuments and other places of tourist interest in Delhi.

Fig. 1. Shri S. Basu, Director General of Observatories, welcoming the delegates and guests at the opening meeting (Photo: *Gopal Chitra Kuteer, New Delhi*)

Fig. 2. Shri Jagjivan Ram, Minister for Communications, inaugurating the Conference at the opening meeting (Photo: *Press Information Bureau, New Delhi*)

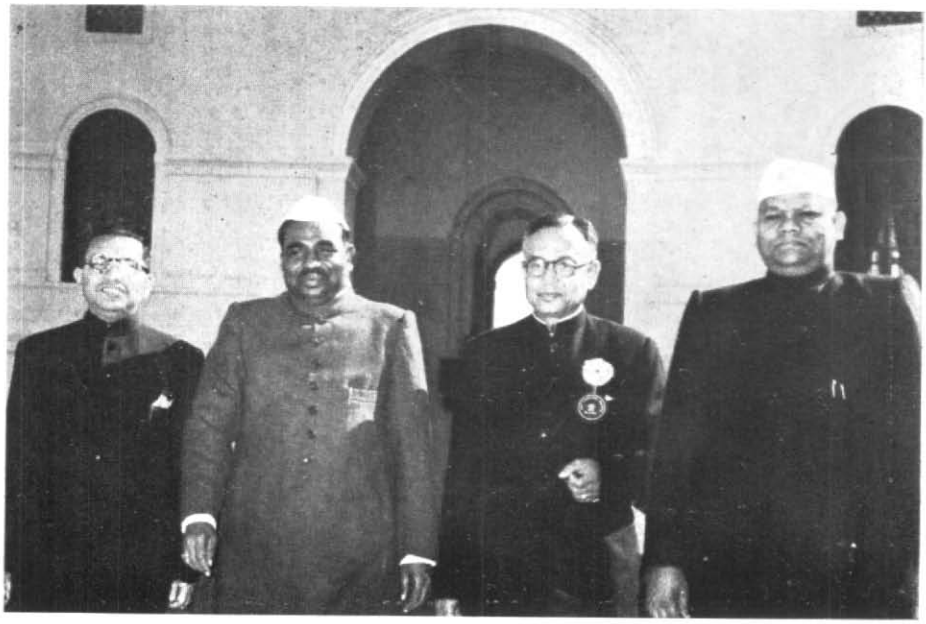

Fig. 3. Shri D. C. Das, Joint Secretary, Ministry of Communications, Shri Jagjivan Ram, Minister for Communications, Shri S. Basu, Director General of Observatories and Shri Raj Bahadur, Deputy Minister for Communications before the camera just after the opening session of the meeting (Photo : *Punjab Photo Service, New Delhi*)

Fig. 4. President and Vice-President of Regional Association II of WMO

Left to Right: V. V. Kreptogorski, N. V. Petrenko (*USSR*), A. A. Solotoukhine (*Vice-President*), S. Basu (*President*), V. P. Zigoun (*USSR*), L. S. Mathur (*India*)

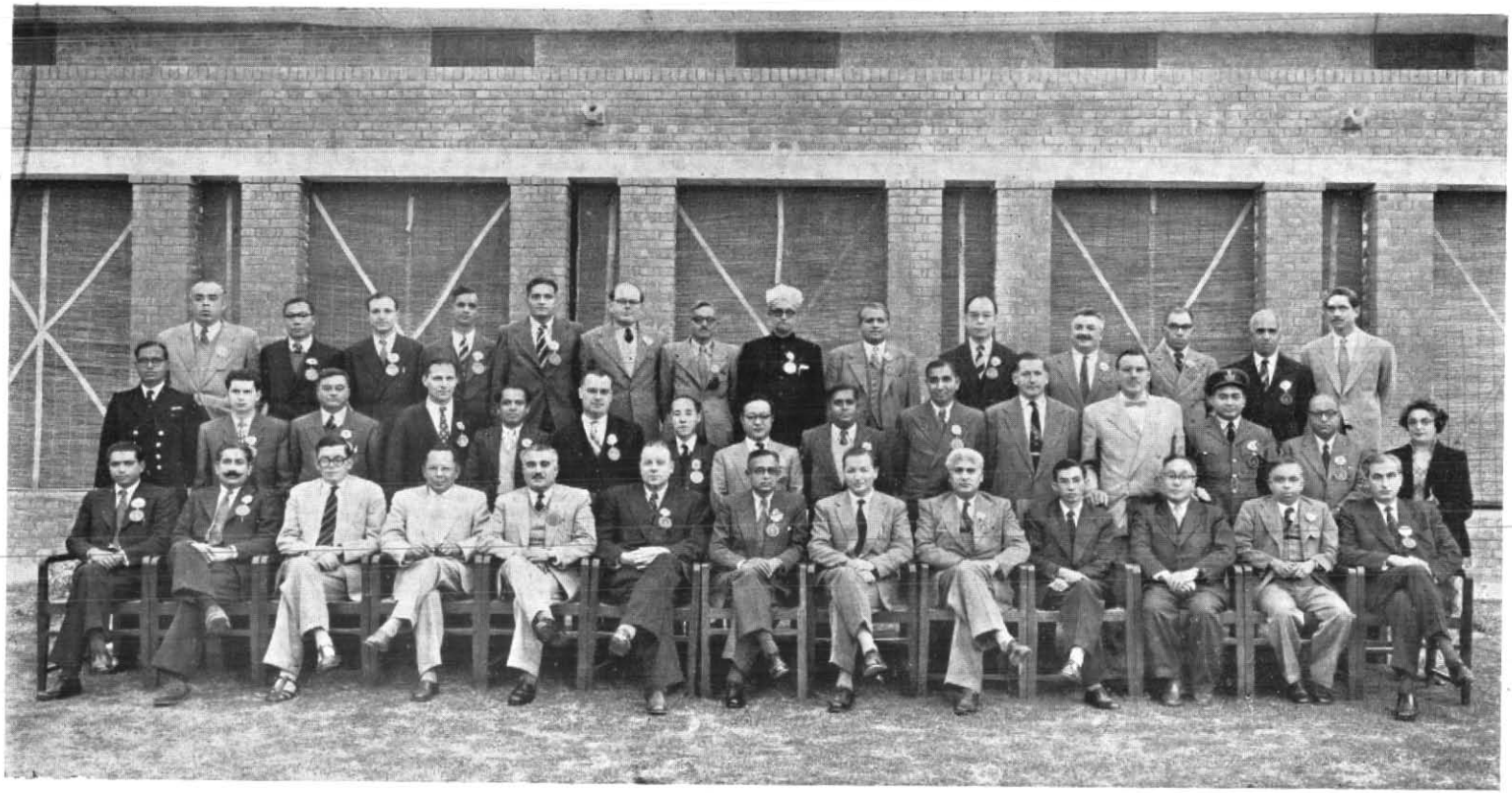

Fig. 5. A group photograph of delegates and observers who attended the Regional Association meeting

Front row: A. W. Khan, A. M. Quadir, N. Lawrence, C. V. Bunnag, T. Fattah, A. A. Solotoukhine, S. Basu, J. R. Rivet, S. N. Naqvi, P. Soontarotok, T. C. Cheng, L. A. Ramdas, A. Tosbat.

Second row: Lt/Comr. Arogyaswami, V. V. Kroptogorski, B. N. Desai, N. V. Petrenko, K. Das, V. P. Zigoun, K. Takahashi, T. Yamanaka, S. K. Das, S. Mull, A. W. Johnson, V. H. Davey, Sqn/Ldr. S. Das Sarma, P. R. Krishna Rao, Mrs. M. Sinha.

Third row: S. Kassas, Do Dinh Cuong, R. Attar, S. C. Bose, N. H. Limaye, G. Doron, S. S. Lal, B. N. Sreenivasaiah, L. S. Mathur, H. F. Tchen, P. de Martin de Vivies, R. Ananthakrishnan, N. Mahalingam, S. V. Tipnis.

Fig. 6. A section of the conference hall

Fig. 7(a). The delegates

Fig. 7(b). The delegates

Fig. 7(c). The delegates

Fig. 7(d). The delegates

Fig. 8. Dinner at Rashtrapati Bhavan, New Delhi