

the probable migrations from northern Melanesia which have modified the northern coastal cultures. These have come on the top of Papuan cultures, the more striking features of which have probably been due to earlier cultural drifts from Indonesia. At present it is only possible to state some of the problems and to hazard conjectures as to their solu-

tion. Very much work remains to be done before the history of this fascinating island can be unravelled.

At the conclusion of the address the Huxley memorial medal was presented to the lecturer by Sir Everard im Thurn, the president of the Royal Anthropological Institute.

International Weather Telegraphy.

THE International Commission for Weather Telegraphy, appointed at the general Meteorological Conference at Paris in October, 1919, met at the Air Ministry during the week November 22-27. The delegates were welcomed at the first meeting on Monday, November 22, by Major-Gen. Sir F. H. Sykes, Controller-General of Civil Aviation, who emphasised the special need for international agreement in meteorology because nations were more interdependent in respect of that science than of any other.

During the meeting the Commission came to an agreement upon the codes for the transmission of surface observations and upper-air observations in land messages and for a new figure code for the transmission of reports from ships at sea.

It also agreed upon a time-table for the issue by radio-telegraphy of data messages for the preparation of synoptic charts and upon the distribution of stations in Europe for the issue from the Eiffel Tower of collective data messages for the whole European *réseau*.

The principal changes in the new code are:

(a) The number of figures for reporting barometric tendency is reduced from two to one, and the unit for barometric tendency is standardised as the half-millibar per three hours, or, for countries using the millimetre scale, the half-millimetre per three hours.

(b) A two-figure code for reporting the weather takes the place of the old single-figure code, and permits the intensity and character of the precipitation to be reported.

(c) Provision is made for reporting visibility up to 30 km. according to a graduated scale.

(d) One figure is allotted to reports of humidity which will be given to the nearest 10 per cent.

Prior to 1911 the code for international messages provided for reports of the temperature of the wet bulb as well as of that of the dry bulb. The temperature of the wet bulb was omitted after the introduction of barometric tendency, and thereafter no information about humidity was included in the messages. The new conditions, which permit of the international exchange of the full report for 1 p.m. and 6 p.m., and for the inclusion of humidity in the upper air for reports of surface humidity, should prove of considerable value.

(e) One five-figure group is allotted to reports of the form, amount, and height above ground of the clouds. It may be noted that the height of the clouds above ground and the visibility are at present the two elements of the greatest importance to aviation.

(f) Provision is made for reporting twice a day the hour of commencement of rainfall. This has been proved to be of great value by actual trial in Scandinavia, and it is anticipated that it will ultimately be one of the most important data in the preparation of forecasts for agriculture.

(g) A special group of five figures is allotted to a selection of stations in each country for the purpose of reporting as exactly as possible the direction and relative speed obtained by nephoscopic observations of clouds.

(h) Three special groups are allotted to selected

stations in each country for reporting the direction and speed of the upper wind as determined by observations with pilot-balloons, shell-bursts, kite-balloons, and other methods.

(i) Ten groups as a maximum have been allotted to one, two, or three stations in each country where facilities are available for obtaining the temperature and humidity of the upper air to great altitudes by means of aeroplanes or kite-balloons.

In connection with the observations of the upper air, the Commission was interested to learn from Prof. de Quervain of the proposal to establish a station in Switzerland at an altitude of 3500 metres, from which barometric observations would be of the highest value in the construction of charts for that level.

The code adopted for the reports by wireless telegraphy from ships at sea provides for the same information as that which is given in the messages on land with the omission of barometric tendency, relative humidity, and the height of clouds. A new feature is the introduction of the method of checking the reports already used in the Meteorological Service of India. The necessity for some system of this kind was emphasised at the Meteorological Conference at Innsbruck in 1905 during a discussion on the possibility of obtaining wireless messages from the Atlantic. The new code provides a simple and practical method for discovering any error which exists and for correcting it.

The Commission learned with much interest that meteorological observations were being made this winter on behalf of the Norwegian Institute in the Island of Jan Mayen, which is situated about 600 miles north-east of Iceland; and that there was a prospect in the not distant future of obtaining meteorological observations from Greenland by radio-telegraphy.

The hard work of the business meetings of the Commission was relieved by a number of social gatherings. On November 22 Sir Napier and Lady Shaw gave a reception to the delegates at 10 Moreton Gardens, S.W. On the afternoon of November 24 a visit was paid by the delegates to Croydon Aerodrome, and an opportunity afforded them of seeing the meteorological and wireless arrangements necessary at the terminus of air routes. On November 25 the delegates were entertained to luncheon at the Carlton Hotel by his Majesty's Government, when the Marquess of Londonderry, Under-Secretary of State for Air, referred in a characteristic speech to the achievements of the delegates, some of whom had come from countries so widely separated, both by distance and by climate, as Java and Iceland. On the evening of November 26 the Maharaj Rana of Jhalawar gave a dinner in honour of the delegates; they were one and all delighted with the informal hospitality of his Highness, who had assisted at the last meeting of the Commission in 1912 and had maintained his interest in meteorology, especially British meteorology, which had made notable advances under the direction of Sir Napier Shaw, the president of the International Meteorological Committee.