

53. Under Resolution XI.: That, after the last Conference, a copy of the report was sent to the Government, attention being drawn to this paragraph, with a request that precedence and promptitude be accorded to weather telegrams. A perceptible improvement had taken place since then, but he was still of opinion that further improvement in promptitude might be made if the Conference pressed the matter.

54. Under Resolution XII.: That last week a large obelisk station had been completed upon the extreme south-west point of Mount Macedon, at an altitude of 3,500 feet, for the erection of a self-registering anemograph, which would be in charge of an observer who, about 100 feet lower, has a barometer, thermometers, and all the appliances of a first-class station. This would be worked as a first-class station in about a month, with a continuous registration of the direction of the wind. The form of anemometer to be used will be a direction-vane with pressure-plate.

55. Under Resolution XIII.: That Mr. Russell, subsequent to the last Conference, communicated to Mr. Ellery some proposed improvements in or additions to the code, but the matter had not yet been discussed.

56. Under Resolutions XIV and XV: That nothing had been done in Victoria.

57. Under Resolution XVIII.: That the recommendation as to weather telegrams was carried out in the telegrams from this station to the other colonies, except that the readings of dry and wet bulbs were sent instead of the dry bulb and humidity. No synoptical report is sent from this station to other colonies, and none is received. A long time ago two or three came, and then they ceased.

58. Under Resolution XXI.: That nothing has been done in this colony in regard to the use of a coloured paper for weather telegrams.

59. Under Resolution XXII.: That the recommendation has been carried out.

60. Under Resolution XXIV.: That he will hereafter report on Nos. 1, 2, 3, 5, and 6.

61. Under Resolution XXV.: That inquiries had been made as to the best spot in which to place a tide-gauge on the south coast of Australia. That Gabo Island had been recommended as the best position on the south-east coast, and Portland as another site. It was desired to have Wilson's Promontory made a station, but there was no place for it. He hoped to get one or two of these tide-gauges erected in the course of the next eight or nine months.

Definition of First-class Station.

62. Resolved, on the motion of Mr. Russell,—XXX.: That, instead of the definition in Resolution IV., the Congress adopt the definition of the stations given at the Vienna Congress, and contained in the introduction to the Instructions for the Use of Meteorological Instruments.

The Conference adjourned to Monday next, the 25th April, at 10 o'clock a.m.

MONDAY, 25TH APRIL, 1881.

The Conference met at the Observatory at 10 o'clock a.m.

Present: Mr. Ellery (Chairman), Dr. Hector, Mr. Russell, and Mr. Todd.

The minutes of the meetings held on Thursday and Friday last were read and confirmed.

65. Mr. Todd laid before the Conference the following suggestions to be discussed hereafter, viz.:—

- (a.) That, with a view to the observations being referred to one uniform standard, a complete set of standard instruments be purchased for circulation between the four chief stations—viz., Melbourne, Sydney, Wellington, and Adelaide—the cost to be divided between the four colonies represented at this Conference. The instruments to comprise barometer, thermometer, maximum solar thermometer, anemometer, and rain-gauge.
- (b.) All readings of the several instruments to be reduced to the readings of the standards.
- (c.) That, although absolute uniformity in the form of publication of meteorological statistics is not considered essential, whatever form is adopted should give—*a.* Barometer reduced to 32° and sea-level, at least at one of the hours agreed upon at the last Conference (9 a.m., 3 p.m., 9 p.m.), and the principal turning-points, also reduced, with the times of their occurrence. *β.* The temperature of the air at the same hour or hours, also maximum and minimum. The maximum should be read at 9 p.m., and the minimum at 9 a.m. *γ.* Wet-bulb thermometer readings at same hour or hours, or humidity. *δ.* Amount and character of cloud, and upper current of cirri, or high cloud. *ε.* Direction and force of wind. *ζ.* Rain during previous twenty-four hours recorded at 9 a.m. It would be better to read the gauge at 9 a.m. and 9 p.m., and distinguish between night and day rain.
- (d.) The chief stations at Melbourne, Sydney, Wellington, and Adelaide, in addition to the foregoing, should give maximum solar thermometer; minimum on grass and wool; hours of sunshine; ozone, 9 a.m. and 9 p.m.; evaporation, read off at 9 a.m. and 9 p.m.
- (e.) In addition to this, Melbourne, Sydney, Wellington, and Adelaide should publish hourly readings of barograph (reduced to 32° and sea-level), thermograph, and anemograph.
- (f.) Carrying out Resolution XIV., passed at the previous Conference,—that curve sheets, with synoptic reports on weather, should be exchanged monthly,—it is recommended that these curves should show barometrical pressure at sea-level, temperature of air, relative humidity, direction and force of velocity of wind, and rainfall; and that the synopsis should be in sufficient detail to trace storms and other atmospheric disturbances. There should be a sufficient number of stations selected in each colony to supply data for forming isobaric maps for every day.
- (g.) The adopted mean temperature to be deduced from the minimum, 9 a.m., maximum, and 9 p.m. readings; and at the four principal stations this mean should be compared with the hourly means.