

- (3) The position of the radiant point.
- (4) The character of the radiation, whether sharply defined or diffuse and scattered over an area.
- (5) If an area, find its diameter, and if possible its shape, whether elliptical or round.
- (6) The apparent brightness of the meteors, how many are equal to, or brighter than, first magnitude stars.
- (7) The duration of the active display.
- (8) The duration of the entire shower.
- (9) Does the radiant point, as derived on several nights of observation, retain a fixed position or move eastwards amongst the stars? In investigating this feature, it will be necessary to observe the place of the radiant on each night of the shower's visibility. Four or five meteors, if accurately recorded and in or near Leo, will generally be sufficient to indicate a correct position. On nights when the shower is very rich, it will be a good plan to get the radiant from successive half-hourly or hourly intervals, and then, from these independent observations, to derive a mean position for the night.
- (10) The duration of the meteor flights in individual cases.
- (11) The proportionate number of Leonids leaving streaks to the total number counted.
- (12) The time of duration of the streaks. In the case of streaks lasting for some minutes, their drift amongst the stars should be noted.
- (13) The colour of the meteors and of their streaks.

There are some other points, but these are among the most important.

As to the numerous minor showers of the period, these must be neglected if the desire is to specially observe the Leonids. Many Taurids are usually seen at the middle of November, but these are easily distinguished from the Leonids, as they move slowly and rarely leave streaks; moreover, their radiant point is placed in a different quarter of the heavens.

To adequately observe and record a meteor shower, at least two persons are necessary, for it is quite impossible for a single observer to give proper attention to all the features. He cannot register the apparent paths and count the number of meteors visible, as his attention will be frequently withdrawn from the sky, and many meteors will altogether elude him. To determine the maximum time of a shower, the observer's attention must be continuously directed to the heavens, and he must carefully note at intervals, say of five minutes, the number of meteors seen. To chart the observed tracts, to determine the radiant, and to note a few other features, quite monopolises one person's attention, and requires an extensive experience for the work to be done properly. Whenever a special meteoric display such as the Leonids is intended to be observed, the services of an assistant are necessary to reckon the visible number of meteors, and determine the time of their maximum frequency. Though the ensuing return of Leonids is not likely to be sufficiently important to call for special effort, there is need of our being prepared, as it may exceed expectation and should be suitably recorded, and it will be sure to offer many interesting facts for observation and discussion.

W. F. DENNING.

THE INTERNATIONAL METEOROLOGICAL CONFERENCE IN PARIS.

AS has already been announced, this meeting was held in September, under the presidency of Prof. Mascart, and lasted seven days (September 17-23, inclusive). The last meeting of a similar character had been held in Munich in 1891. The Paris meeting was attended by some forty members. Canada and Mexico were represented for the first time; neither Spain, Portugal, Brazil, nor the Argentine States were represented. The Weather Bureau, Washington, sent no one; Mr. Page came from the Hydrographic Office, Washington, but only in a private capacity.

Dr. Hann's absence from the meeting, on the ground of health, was universally regretted.

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The programme for discussion consisted of over forty questions, and to these Mr. Wragge, of Brisbane, proposed to add more than a score; but several of his applications were ruled as *ultra vires* for the Conference. Some of the questions on the programme were set aside as either reopening discussions which had been closed years ago, or as being impossible of acceptance; as, for instance, one as to the adoption of a period of 26'67928 days for all meteorological and magnetical phenomena.

The business really done was, briefly, as follows:—

Committees were appointed, as already announced (NATURE, October 1), to carry on investigations into (1) terrestrial magnitudes and atmospheric electricity; (2) cloud observations; (3) balloon ascents; (4) sunshine and radiation.

It was recommended, at the suggestion of Mr. Symons, that systematic comparisons of different forms of thermometer exposure be carried out generally, Assmann's apparatus for ventilating thermometers to be one of the forms tested.

The Conference declined to make any recommendation as to a standard anemometer, or as to anemometer exposure.

Several applications were made to the Conference to exert, by resolutions, pressure on Governments with the view of the obtaining of grants for investigations; but these were all ruled as *ultra vires*. Mr. Wragge's requests for stations in Tasmania, and for observations on Mount Wellington, Tasmania, and also on Mount Kosciusko, in Australia, were met by the general declaration that the Conference must welcome the establishment of good stations all over the world.

Dr. Neumayer's proposals to modify existing systems of meteorological telegraphy in Europe were not accepted.

Four questions as to the discussion of phenomena in cyclones were held to be purely theoretical, and therefore unsuitable for discussion at a Conference.

Prof. Mohn submitted some proposals as to the use of the hypsometer. No discussion ensued, but Prof. Mohn's paper will be printed in the appendix to the Report of the Conference.

Dr. Paulsen, of Copenhagen, exhibited monthly ice charts of the North Atlantic, north of the 60th parallel, and received a promise of assistance in their completion from the members present, who were in a position to obtain observations of ice.

Dr. Snellen, of Utrecht, requested the Conference to take measures for convening a new Maritime Conference, to carry on further the work done at the London Conference of 1874. This matter was referred to the International Committee.

The chief feature of the Paris meeting was the attention paid to terrestrial magnetism and atmospheric electricity. The Committee appointed for these subjects held three meetings, of which the minutes will shortly appear; and, as has already been stated, a Committee has been nominated to carry on the discussion of various points which have been raised.

Finally, the International Meteorological Committee has been reappointed with a few modifications, owing to resignations, &c. Its members now are—

Dr. von Bezold (Germany).	Prof. Mohn (Norway).
Dr. Billwiller (Switzerland).	Prof. W. L. Moore (United States).
Admiral Capello (Portugal).	Dr. Paulsen (Denmark).
Mr. Davis (Argentine Republic).	Mr. Russell (New South Wales).
Mr. Eliot (India).	Major-General Rykatcheff (Russia).
Hofrath Hann (Austria).	Mr. Scott (England), <i>Secretary</i> .
M. Hepites (Roumania).	Dr. Snellen (Holland).
Prof. Hildebrandsson (Sweden).	Prof. Tacchini (Italy).
Prof. Mascart (France), <i>President</i> .	

ROBERT H. SCOTT, *Sec. Int. Met. Committee.*