

many observations as possible be obtained in the southern hemisphere. The President of the Commission has been delegated to organize systematic work on Jupiter among the observers of the southern hemisphere.

Frequent micrometer measures (timed to a fraction of a day) should be made of the distance of the two edges of Saturn's ring A and of the outer edge of ring B from the globe of the planet in order to study the eccentricity of the rings. The results obtained hitherto have been discordant. For this work telescopes of long focus should be used.

An extended use of the improved forms of energy measuring devices now available, such as the photoelectric cell and thermocouple, is very desirable in planetary research. It is desirable also that the large amount of photographic material which is being obtained be used for the measurement of the position, form, and brightness of planetary details.

It will be useful to continue for a number of years the study of the polarization of the planets which have an atmosphere, since the polarization appears to be subject to important variations, particularly in the case of Mars and the polar caps of Saturn.

Interferometer measures of the four great satellites of Jupiter should be continued.

It is important that the spectra of the major planets be studied further.

Extended studies of the light of the asteroids (433) Eros, 1932 EA, and 1932 HA, should be made. At future oppositions Eros should be observed with the largest telescopes of the world in order to determine its length and shape.

Observers having the use of large telescopes should pay attention to the stellar nuclei of comets and endeavour to determine their dimensions by photometric methods. The spectrum, hitherto unidentified, of the light of the gases immediately enveloping the stellar nuclei of comets should be studied with the greatest possible dispersion in order to obtain the exact wave-lengths.

In view of the conclusions of von der Pahlen and Kohlschütter based on a study of the structure of the coronal tufts on certain eclipse plates and its resemblance to that of the tails of comets, and the theories of their explanation ("Untersuchungen über die Sonnenkorona," von E. v. d. Pahlen und A. Kohlschütter, *Veröffentlichungen der Universitäts-Sternwarte zu Bonn*, Nr. 24, 1930), it is desirable that photographs of comets, especially those of large scale, be studied systematically in relation to the possible explanation of the formations reproduced on the plates by Brédichin's hypothesis of repulsive forces and by the magnetic hypothesis of Störmer.

(A clear statement of work which is urgent on comets will be found in a paper on "The Organization of the Physical Observations of Comets," by N. T. Bobrovnikoff, to be published in *Popular Astronomy* within the next few months.)

Commission 17. (LUNAR NOMENCLATURE.)

PRESIDENT: Prof. E. W. Brown.

SECRETARY: Dr F. E. Wright.

The report of the President of the Commission was read and accepted without change.

On the motion of Sir Frank Dyson, seconded by Dr W. S. Adams, it was unanimously voted that:

"Commission 17 recommends to the Executive Committee that the list of

designations for lunar formations agreed upon by the Commission (item 5 of the President's report) be printed and that an appropriation not to exceed two hundred pounds be made for the purpose.

"It is expected that this sum, with the addition of thirty pounds appropriated at the Leyden meeting for the expenses of Commission 17 will be adequate for the printing of this list together with the corrections to Miss Blagg's *Collated List of Lunar Formations*, issued in 1913."

The President, in commenting on the situation, stated that the new collated list prepared by the sub-committee, consisting of Miss Blagg and Prof. K. Mueller, covered 151 pages of manuscript and contained the names of lunar formations on which the sub-committee had agreed definitively. It was for the preparation of this list that Commission 17 was appointed. The proposed publication will also contain the corrections to Miss Blagg's *Collated List of 1913*. With the publication of the new list it is hoped that the work of Commission 17 will be concluded at the next meeting of the Union.

In addition to this list Prof. Mueller has prepared a collated list of the formations designated in six other catalogues. Professor Brown stated that this list should also be published, but that at present funds are not available for the purpose.

The reference maps prepared by Miss Blagg and Mr Wesley are not to be reproduced at present, but may be printed later together with a new series of photographic maps now in course of preparation by the Committee of the Carnegie Institution of Washington on Study of the Surface Features of the Moon. A brief description of the proposed photographic maps was given by Drs W. S. Adams and F. E. Wright.

Prof. W. H. Pickering called attention to a letter which he had written to the President of Commission 17 in which he recommended that many of the names, especially of formations near the Lunar North Pole, be deleted; also that certain names of men who had contributed effectively to selenography be substituted for less meritorious names now attached to prominent lunar formations. The President stated that copies of this letter had been sent to the members of the sub-committee with power to act.

On the motion of Dr W. S. Adams, seconded by Dr F. E. Wright, it was voted that a letter expressing the appreciation and grateful thanks of the Commission for the arduous and painstaking labour done by the sub-committee in preparing the new collated list of lunar formations be sent to Miss Blagg and to Prof. Mueller.

Commission 18. (LONGITUDES.)

PRESIDENT: M. le Général Perrier.

SECRETARY: M. A. Lambert.

Le Président rend hommage à la mémoire de son prédécesseur le Général Ferrié, dont le rôle de premier plan, dans les travaux de la Commission, est présent à tous les esprits, il rappelle aussi le souvenir de M. G. Bigourdan, disparu au cours de l'année. Les éloges de l'un et de l'autre ont été prononcés en séance plénière.

Le Rapport présenté à la Commission des Longitudes par son Président et son Secrétaire a été photocopié, puis distribué avant la séance à tous les membres présents à Cambridge, en même temps qu'un certain nombre de documents annexes. Aussi le Président se contente-t-il de rappeler les points essentiels du document qui traite de l'Opération mondiale des Longitudes à exécuter en octobre-novembre 1933.