

20. COMMISSION POUR L'OBSERVATION DES POSITIONS ET LE CALCUL DES ÉPHÉMÉRIDES DES PETITES PLANÈTES, DES COMÈTES, ET DES SATELLITES.

PRÉSIDENT: M. A. O. LEUSCHNER, *Students' Observatory, University of California, Berkeley, California, U.S.A.*

MEMBRES: MM. Banachiewicz, Brown, Carrasco, Comas Solá, Comrie, Crawford, Crommelin, Delporte, L. Fabry, Fayet, Heinrich, K. Hirayama, Kamiński, Kepiński, Kopff, Lagrula, Michkovitch, Noumerov, Reinmuth, Silva, Stracke, E. Strömngren, Van Biesbroeck, Van der Bilt, Mlle Vinter Hansen, MM. Volta, Whipple, Wood.

In accordance with action taken by the Commission at the 1932 meeting of the Union, the President has taken steps to ascertain the general opinion of computers and observers in regard to the co-operation of the *Nautical Almanac* offices in furnishing data for the equinox of 1900. The question under discussion is that of the adoption of the standard equinox to which observations and elements should be referred, e.g. 1900, 1950, etc. The opinion is being ascertained through a questionnaire, the results of which will be reported at the meeting. In this connection Commission 4 proposes discussion of the following resolution in co-operation with Commission 20:

"That, as from 1938 January 1, the equinox used for expressing the elements of cometary orbits and for cometary ephemerides shall be that of 1950.0. Further that, as from the same date, the equinox used in giving observed positions of comets shall be that of 1950.0, unless the observer, for good reasons, used some other equinox and expressly draws attention to the equinox used."

In accordance with a resolution adopted by the Union, the President has appointed the following sub-committee, which shall concern itself with arrangements for the calculations of the orbits of periodic comets for the purpose of avoiding duplication or omissions: Messrs Crommelin, Fayet, Kepiński, Stracke, Mlle Vinter Hansen.

Consideration of the following additional topics has been proposed:

(1) Systematic correction of star positions from observations of minor planets: On the basis of papers published since the 1932 meeting by Messrs N. Dneprovski, B. Noumerov and Dirk Brouwer.

(2) The plan of numbering and designation of discoverers of minor planets proposed by the Astronomisches Rechen-Institut, Circular 980, Berlin-Dahlen, 1934 May 19.

(3) Reconsideration in co-operation with Commission 6, of the code adopted for the telegraphic description of comets: Proposed by Mr Jeffers of the Lick Observatory.

(4) Consideration of the merits of a proposal by the President to request the Rechen-Institut to adopt certain modifications of material published in *Kleine Planeten*.

(5) Consideration of a plan of co-operation for the stimulation of the development and tabulation of general perturbations on the basis of accurate osculating elements for all the minor planets, with a view to gradual abandonment, as far as practicable, of successive correction of elements, with or without special or general perturbations.

(6) Further discussion of standard epochs of osculation for elements based on accurate special perturbations.

(7) Limitation to once in five years of opposition ephemerides and corresponding elimination from annual observing lists of minor planets for which elements and general perturbations of sufficient accuracy are available to assure recovery after approximately five decades, with provision for publication of data sufficient for identification in case images of such planets appear on plates.

(8) Plan of co-operation for the measurement and statistical evaluation of images of faint minor planets appearing on plates taken with powerful telescopes.

(9) Discussion of the necessity of revision of the orbit elements of major planets, in co-operation with Commission 4.

Reports have been received from the Astronomisches Rechen-Institut, Berlin-Dahlem, the Institut Astronomique, Leningrad, and the Royal Observatory of Belgium. These will be summarised by the President at the meetings of the Commission. The report of the Rechen-Institut has since been printed in full in *A.N.* 6107.*

It is gratifying to record the systematic progress in organized observation of minor planets and in theoretical investigations pertaining to their motion.

A. O. LEUSCHNER

President of the Commission

May 25, 1935.

* See p. 318 below.