

*Nautical Almanac Unit, Regional Meteorological Centre,
Indian Meteorological Department, Calcutta, India*

Calculations of geocentric longitudes and latitudes of planets, at the ending moments of *tithis*, *nakshatras* and *yogas* have been made on computer commencing from the issue for 1972 of the *Indian Ephemeris and Nautical Almanac*.

Autres rapports

J. Arias de Greiff a adressé un compte-rendu de publication de l'Annuario del Observatorio Astronomico de Bogota.

J. KOVALEVSKY
Président de la Commission

ANNEXE 1: RAPPORT DU GROUPE DE TRAVAIL
SUR LES CONSTANTES DE LA PRÉCESSION

There has been an exchange of opinions between the members of the Working Group by correspondence, and, in addition, some results have become available concerning the strength of the evidence for new values. The prevailing opinion is that:

- (1) the problems should be discussed in the Joint Discussion No. 1;
- (2) no final decisions should be made at the IAU General Assembly in Sidney;
- (3) decisions on precession should be made simultaneously with decisions on planetary masses.

On this basis, I suggest that the Working Group continues its activities beyond the XV General Assembly.

W. FRICKE
Chairman of the Working Group

ANNEXE 2: RAPPORT DU GROUPE DE TRAVAIL SUR
LES UNITÉS ET LES ÉCHELLES DE TEMPS

The Group consists of Chebotarev, Clemence, Cook, Guinot, Kovalevsky, Morrison (Secretary), Shapiro, Van Flandern and Wilkins (Chairman). In addition, D. H. Sadler and Duncombe have made many helpful comments and suggestions on the matters under consideration. The Group was asked to consider: the effects of changes in the system of precessional constants on the definition and determination of astronomical time-scales and distances; the most appropriate form for the definition of the astronomical unit of distance; the relationship between ephemeris time and atomic time; and the possible need for new definitions of the unit and epoch of ephemeris time. The Group has worked largely by correspondence, although naturally there have been oral discussions whenever any members of the Group have met.

There is still a wide divergence of opinion amongst the members of the Group on the fundamental question of whether the concepts of the astronomical unit and ephemeris time should be retained or replaced by the use of SI units of length and time (i.e. the metre and the atomic second). The Chairman considers that neither of the extreme viewpoints is likely to be generally acceptable and that we should adopt a system which allows either astronomical or SI units to be used. The relationships between the two sets of units must be clearly and unambiguously specified, even though the numerical values of some of the conversion factors will be subject to determination by observation. It is suggested that this can be achieved in the following manner, but it must be emphasised that the Group has not yet decided whether this represents the optimum system.

There are two main arguments that determine the general structure of the system. Firstly, that the practical objections to the use of ephemeris time as now defined are so great that it would be preferable to adopt a gravitational time scale that, for general astronomical purposes, is identical