FIFTEENTH GENERAL ASSEMBLY OF THE I. A. U.

Fifteenth General Assembly of the International Astronomical Union held at Sydney between August 21-30, 1973, was the first in the southern hemisphere. It attracted about seven hundred participants from fortysix countries. The attendance was rather small compared to the last General Assembly at Brighton, Sussex, partly due to the Extraordinary General Assembly, to be held later in Warsaw, Poland, from 4 to 12 September 1973 to commemorate the quincentenary of N. Copernicus.

The meeting consisted of the Inaugural Ceremony, two sessions of the General Assembly, three invited discourses (J.P. Wild : A New Look at the Sun ; C. H. Townes : Intersteller Molecules ; and D. W. Sciama : Early Stages of the Universe), six joint discussions (1. Precession, Planetary Ephemerides and Time Scale ; 2. Stellar Infrared Spectroscopy ; 3. The Kinematics and Ages of Stars near the Sun ; 4. Origins of the Moon and Satellites ; 5. Very Short Time Scale Phenomena ; and 6. The Outer Layers of Novae and Supernovae.), and the meetings of the thirty-nine commissions. Three I.A.U. symposia were held just before and three just after the meeting of the General Assembly.

The General Assembly elected as the new President, Professor L. Goldberg, Vice-Presidents, Mr. J. G. Bolton and Professor Ch. Fehrenback, General Secretary, Professor G. Contopoulas and Assistant General Secretary, Professor E. A. Müller. Professor B. J. Bok, Sir B. Lovell and Professor E. A. Mustel will be the continuing Vice-Presidents.

It was decided to hold the Sixteenth General Assembly at Grenoble, France, in 1976.

First Results from Skylab—Apollo Telescope Mount

During the IAU General Assembly Meeting at Sydney, Professor L. Goldberg presented the preliminary results from the Apollo Telescope Mount (ATM) on August 28, 1973. ATM has facilities of spectroscopic and filtergram observations of astronomical objects covering a wide spectral band in the X-Ray region and almost the entire ultraviolet. The complex equipment is operated by the scientific crew of the orbiting station ; some of the simpler instruments may be operated in the unmanned automatic mode. The first results presented consist of whole disc spectra and filtergrams of the Sun in the XUV and X-ray regions. Although these pertain to a period of reduced solar activity, the ATM crew have been able to photograph two big flare events. The appearance of the solar disc in these radiations are similar to those obtained earlier from space vehicles ; the advantage of the manned space station being the presence of scientific personnel on board, concentrated attention could be provided for such rare events. Inspite of the high cost of putting the observing personnel in orbit, this arrangement has already proved to be very effective. On a couple of occasions, the crew-members had stepped out and repaired malfunctions of the equipment, which would not have been possible in remote controlled satellites.

The next team to ATM will carry special instrumentation to study the forthcoming bright comet Kohou-Tek. The team's departure is being delayed to coincide with the brightest phase of the comet in December. Interesting results on the measurement of the comet are expected early next year.

J. C. Bhattacharya.

Indian Institute of Astrophysics
Kodaikanal.

Report on the I. A. U. Symposium No. 61 on " New Problems in Astrometry "

The symposium was held at Perth, Western Australia, between August 13-17, 1973. Nearly 60 delegates from all over the world attended the Symposium, including W. Fricke, S. Vasilevskis, K. Aa. Strand and B. Bok. More than 30 papers were read dealing with the current and future programmes. One morning session was spent wholly for radio astrometric work. Important conclusions of the Symposium are :

(1) All optical observations of proper motions should be referred to one standard fundamental system.

(2) Use of faint stars and external galaxies as reference systems should be continued to be pursued.

(3) Radio astronomers working on accurate position of sources, should try to observe as many radio stars as possible, whose positions are optically known accurately. This will give a common frame of reference for optical and radio work.

(4) Radio astronomers should be careful in choosing their sources for the standard frame of reference as many of these galactic and extra-galactic objects are complex and not compact.

(5) Radio astronomers should give accurate positions of their objects bearing in mind the effects of astronomical refraction and frequency of observation on the computed coordinates.

At the end of symposium three resolutions were passed to be placed before the IAU Commissions. The important ones are

(1) The great accuracy of radio positions and the potentiality of new optical and space techniques should be fully exploited.

(2) The symposium urges, as the first priority, the compilation by 1980 of an FK5 catalogue. The new reference system must be extended to faint stars and extragalactic objects.

M. B. K. Sarma.

Centre for Advanced Study in Astronomy
Osmania University
Hyderabad 500 007