

ANNUAL REPORT OF THE UNION OBSERVATORY

1939

Union Astronomer, Dr. H.E. Wood

26½-inch Visual Refractor. - 2427 visual micrometrical measures of double stars were made during the year and 6 photographic plates were obtained. Some drawings of Mars were made near the time of opposition, and experiments on cinematographic observations of the planets were carried out.

Occultations of Stars by the Moon. - 104 observations of occultations of stars by the Moon were obtained during the year.

The results of the year's observations are given below; the second column indicates the time by which the Moon has arrived too early at any longitude, and the third column the amount by which the Moon is ahead of its tabular longitude.

	s	"
1939.08	3.8	2.1
.41	4.8	2.8
.62	3.5	2.0
.88	0.4	0.3
Mean for year 1939.57	3.3	1.9

These results are, as in former reports, deduced from disappearances at the dark limb only. In obtaining the means, each occultation is given a weight equivalent to $\cos \sim$ and no occultation is included for which the value of $\cos (Z-p)$ is less than 0.5.

Franklin-Adams Star Camera. - During the year 647 plates were taken with this instrument. The distribution of the plates was as follows:-

Variable Star Regions	252 plates
Minor Planet Regions	271 "
Comet Regions	124 "

Comet 1939a (Kosik-Peltier) was observed from February 14 to April 21, 54 positions being obtained. Comet 1939c (Pons-Winnecke) was observed from June 27 to September 4. Comet 1939e (Kopff) was observed from April 26 to May 26.

An unidentified object was discovered by Mr. C. Jackson on June 12; this was later found to be Comet 1925II Schwassmann-Wachmann and was designated Comet 1939f; it was observed from June 12 to June 21. A search was made for Comet 1939i (Kamensky) on August 5, 7 and 9, but this object could not be found. Comet 1939k (Tuttle) was observed from November 10 to December 31. Plates were exposed for Comet 1939n (Friend) on December 14, 15, 20, but the comet was then evidently too faint.

25 new minor planets were discovered during the year, and elliptic orbits were computed for 7 minor planets.

390 approximate positions and 45 accurately measured positions of minor planets were sent to the Astronomisches Rechen-Institut.

Union Observatory Circulars. - Circular No. 101 was published and distributed during the year.

Miscellaneous. - Professor E. Hertzsprung visited the Observatory from January 13 to March 14 for the purpose of installing the new twin 16-inch photographic telescope for the Leiden Rockefeller Foundation. Dr. A. de Sitter left on February 21, and Dr. W. Chr. Martin arrived from Leiden on March 4. Dr. H. van Gent also returned from Leiden on December 17.

The number of visitors to the Observatory during the year was 1517.

