

ANNUAL REPORT OF THE UNION OBSERVATORY

1934

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26½-inch Grubb Visual Refractor. - The number of visual micro-metrical measures of double stars made during the year was 2959. With the eyepiece interferometer 207 measures of suitable double stars were obtained; 22 photographic plates of double stars and star clusters were taken.

Franklin-Adams Star Camera. - During the year 1261 plates were obtained with this instrument. The distribution of the plates was as follows: -

Minor planet regions and star maps	392	plates
Variable star regions	833	"
Comet regions	36	"

A search was made for Comet Tuttle-Giacobini in January and February, but the comet was not found. Attempts were made to photograph Comet Encke between October 5 and November 4, but the comet was too badly placed for successful observations.

76 new minor planets were discovered during the year. On a plate taken on March 27 a nebulous trail was found which was thought to be the image of a comet. Later photographs gave sharp trails and a computation of the orbit showed that the object was a new minor planet (1934FG).

Elliptic orbits for 12 new minor planets were computed during the year. 486 approximate positions and 105 accurately measured positions of minor planets were forwarded to the Astronomisches Rechen-Institut.

Occultations of Stars by the Moon. - The programme of the last few years has been maintained without alteration, and 143 occultations were observed during the year.

The results of the year's observations are as follows:-

	s	"
1934.18	5.2	2.8
.35	3.8	2.1
.63	3.4	1.9
.88	4.6	2.5

mean for year .59 3.9 2.1

These results are, as in former reports, from disappearances at the dark limb only. 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.

A number of occultations observed by Messrs. G.E. Ensor and H.J.F. Burroughs, both of Pretoria, have been reduced and forwarded to Professor E.W. Brown.

Union Observatory Circulars. - Circulars Nos. 90, 91 and 92 were distributed during the year. Forty-five southern star maps were issued with the circulars.

The present state of the star map project is as follows:-

Maps already issued	507
Maps in hands of the Government printer	26
Maps still to be prepared	23
Total	<hr/> 556

Miscellaneous. Dr. H. van Gent of the Leiden Observatory has continued his work on variable stars throughout the year. A new building to house the twin 16-inch photographic refractor of the Leiden Observatory Foundation has been erected and is awaiting the telescope which is now undergoing final tests at Newcastle-on-Tyne.

The number of visitors to the observatory during the year was 1723.