

ANNUAL REPORT OF THE UNION OBSERVATORY

JOHANNESBURG

1956

(Director, Dr W. H. van den Bos, Union Astronomer)

The 26½-inch refractor has been used on 135 nights with the interferometer by Dr Finsen for the measurement of known double stars and a survey for new ones, on 68 nights by Dr Finsen for colour photography of Mars and on 68 nights with the micrometer by Mr Churms and Dr van den Bos for the measurement of known double stars.

Dr Finsen devoted much of his leisure time to the preparation of composite enlargements from the colour films of Mars obtained by him during the favourable oppositions of 1954 and 1956.

With the 9-inch refractor 109 and with the 6-inch photovisual refractor 31 occultations have been observed by Messrs Bruwer, Churms and amateur astronomers, members of the Transvaal branch of the Astronomical Society of Southern Africa, principally Messrs J. H. Botham and I. R. H. Brickett, who also made observations of planets, variable stars, etc., on 179 nights with the 9-inch refractor and rendered valuable assistance on visiting evenings and in other ways.

With the Franklin-Adams telescope at the Observatory's Annexe at Hartl)eespoort Messrs Bruwer and Churms took 178 plates for minor planets and for comets.

Counts of sunspots were made on 281 days.

The Time Service is operated by Messrs Hers and Seligmann.

During the year 1399 visitors were admitted on 37 nights.

Dr Muller was the Leiden Observer throughout the year.

Union Observatory Circular No. 115 and Annual Reports for 1953, 1954 and 1955 were distributed.

Papers by members of the staff published in other periodicals were:

W.S. Finsen: "The orbit of ϕ 307, δ Indi" (*MNASSA*, 15, 49, 1956)

"A suggestion for increasing the accuracy of position angle measurements

of double stars" (*MNASSA*, 15, 60, 1956).

- J.Hers: " The unit for frequency" (*Proc. I.R.E.*, **44**, 2, 1956).
- P.C. Seligmann: "The determination of time for field observations"
(*S.A. Survey Journal*, **8**, 6, 15).
- W. H. van den Bos: "Note on the orbit of ADS 1123" (*MNASSA*, **15**, 39, 1956)
" General catalogues of double stars " (*MNASSA*, **15**, 54, 1956).