

ROYAL ASTRONOMICAL SOCIETY OF NEW ZEALAND.

VARIABLE STAR SECTION.

CIRCULAR No. 198

RS MICROSCOPII.

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SUMMARY:- A period of 228.5 days is found for the Mira type variable, RS Mic during the interval 2,437,401 to 2,440,173. The mean maximum magnitude is 10.27v and minimum brightness is <14v.

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DISCUSSION:- Observers have used charts 207 & 208 (1) for which V and B-V magnitudes appeared in Circ. 187 (2). RS Mic is listed in the GCVS (3rd Edition) with a range of 10p to 15.5p but without any period.

Observations totalling 110 have been made between JD 2,737,401 (1961 Apr 11) and 2,440,173 (1968 Nov. 11). These are not well distributed in time. Table 1 lists, in the usual form, observed dates of maxima within this interval.

It will be noticed from the table that only three maxima are considered to be reliably determined. These are those with assigned weights of 5 or 4. The remainder have in the main being only observed during part of the curve and are of low weight.

The simple mean of the intervals between successive maxima is 224 days whilst the three best determined maxima give a period of 228.5 days. This latter is considered to be the best determination with Epoch 2,437,567 (Max). Maximum magnitude ranges from 9.6 to 11.2 with a mean of 10.27v. Nothing can be said about the minima since this is obviously well below the limits of the instruments in use.

Observers are requested to pay more attention to RS Mic so that its period can be better determined. With very steep rises, falls somewhat less steep and a comparatively short period RS Mic is an interesting star to follow.

ACKNOWLEDGEMENTS: Observers are thanked for their records. We also express thanks to the Trustees of the Auckland Observatory for allocation of telescope time to Gordon and Menzies for the sequence programme.

1972 December 31

18 POOLES ROAD,
GREERTON,
TAURANGA.
NEW ZEALAND

REFERENCES:

- (1) 1970. Bateson, F.M., Jones, A.F. & Stranson, I. "Charts for Southern Variables---Series 6." Published by F.M. Bateson.
- (2) 1972. Circ. 187, VSS, RASNZ.

TABLE 1.

OBSERVED MAXIMA OF RS MICROSCOPII.

<u>J.D.</u>	<u>MAG.</u> v	<u>INT.</u> d	<u>Wt.</u>
2,437,567	10.2	...	5
797	11.2?	230	1
2,438,028?	10.7?	231	1
254	10.6	226	4
480?	9.8?	226	1
699	9.8	219	3
938	9.9	239	4
2,439,170?	?	232	1
369	9.6	199	3
610	10.3	241	2
805	10.5	195	1
2,440,033	10.2	228	2

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