

ROYAL ASTRONOMICAL SOCIETY OF NEW ZEALAND.

VARIABLE STAR SECTION.

CIRCULAR No. 194

V442 CENTAURI

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SUMMARY: Twenty-eight maxima of the U Gem type variable, V442 Cen, are published for the interval JD 2,440,039 to 2,440,952. This list continues that published in Circular 156. The mean cycle between successive maxima during the foregoing interval was 25.86 days.

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DISCUSSION: Observations of V442 Cen from JD 2,434,824 to 2,440,038 were discussed in Circular 156 (1). That publication included in its first table a list of observed maxima. This list is extended in Table 1 of the present Circular to cover the interval JD 2,440,039 (1968 July 1) to 2,440,952 (1970 December 31). Table 1 is in the same form as the previous table and reference to Circular 156 should be made for explanations.

Since Circular 156 reliable V and B-V magnitudes for the sequence stars have been published in Circular 187 (2). These have been used in the present table. In the previous paper preliminary magnitudes, derived from step estimates, were used. These differ very little from the accurate values since determined.

During the interval now reviewed a total of 566 observations have been made by members of the V.S.S., R.A.S.N.Z. The mean cycle between successive maxima in Table 1 is 25.86 days from the 22 maxima between which there was no interval during which a maximum could have been missed. The remaining six maxima in Table 1 fall within intervals during which one, or more, maxima could have gone unobserved.

ACKNOWLEDGEMENTS: Observers are thanked for their consistent records which have enabled the star to be well followed. The Trustees of the Auckland Observatory are thanked for allowing time with their instrument and equipment for the sequence programme which has enabled reliable sequence magnitudes to be determined by Gordon and Menzies.

1972 January 21

18 POOLES ROAD,  
GREERTON.  
TAURANGA.  
NEW ZEALAND.

REFERENCES:-

- (1) 1970. Circular 156, VSS, RASNZ.
- (2) 1972. Circular 187, VSS, RASNZ.

CIRCULAR No. 194 (cont).

TABLE 1.

OBSERVED MAXIMA OF V442 CENTAURI.

<u>No.</u>	<u>JD.</u>	<u>MAG.</u>	<u>INT.</u> v d	<u>PREMAX</u> d	<u>POST MAX</u> d	<u>TOTAL TIME</u> <u>ABOVE 13.0v</u> d	<u>WT.</u>	<u>GAPS.</u>
164	2,440,063.8	12.4	29.8	0.6	2.0	2.6	3	
165	099	12.2	(35.2)	?	?	?	1	072082
166	131	12.6?	32	?	?	?	1	101-118
167	152	12.6?	21	?	?	?	1	132-148
168	180?	?	28	?	?	?	1	163-178
169	216.2	11.6	(36.2)	1.2	6.8	8.0	3	193-205
170	262.9	12.5	46.7	0.9	0.9	1.8	3	
171	295.9	12.2	33.0	0.1	1.1	1.2	5	
172	324.9	12.2	29.0	0.4	6.0	6.4	5	
173	360.0	12.0	35.1	0.5	1.3	1.8	3	
174	386.9	11.6	26.9	0.9?	1.8	2.7	2B	
175	405.8	11.6	18.9	0.5	2.0	2.5	5	
176	425	12.5?	19.2	?	?	?	1	416-421
177	445.0	12.0	20.0	2.1	4.0	6.1	4	
178	519.2	11.6?	(74.2)	?	?	?	1	450-504
179	535	12.5	15.8	0.8	2.0	2.8	3	520-528
180	569	12.4	(34)	?	?	?	1	542-560
181	601	12.4	(32)	?	2.2	?	2B	570-576
182	626.2	12.5	25.2	0.3	1.9	2.2	5	
183	649.0	12.4	22.8	1.2	1.9	3.1	5	
184	667	12.4	18	?	?	?	1	
185	694.5	11.8	27.5	0.5	1.5	2.0	4	
186	724	12.5?	29.5	?	?	?	1	
187	747.2	12.2	23.2	0.9	1.0	1.9	3	
188	773.0	12.2	25.8	0.3	1.2	1.5	5	
189	793.5	12.5	20.5	0.6	0.4	1.0	3	776-785
190	814.4	12.3	20.9	0.9	1.5	2.4	3	808-812
191	883	12.5?	(68.6)	?	?	?	1	(822-880 (890-912 (923-941

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