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REMARKS ON THREE VARIABLE STARS

V 781 Tau

First elements derived by the author (I.B.V.S. No. 1942) were found to be inaccurate. New investigations on Sonneberg Sky-Patrol plates and a revision of the former observations yielded the improved elements for the interval J.D. 2433100 - 2444000:

$$\text{Min. (hel.)} = \text{J.D. } 2443874.954 + 0.^d.3449100 \cdot E \quad (\text{EW})$$

(8.^m9-9.^m3/9.^m3 ph.)

Observed minima:

J.D. (hel.)	Epoch	O-C	Observer
2432881.460	-31873.5	-0. ^d .005	Berthold, T.
33950.515	-28774	+ .001	
34775.368	-26382.5	+ .002	
35540.371	-24164.5	- .005	
36610.285	-21062.5	- .002	
957.442	-20056	+ .003	
38088.397	-16777	- .002	
440.378	-15756.5	- .002	
39536.327	-12579	- .004	
40981.332	-8389.5	.000	
41329.345	-7380.5	- .001	
330.381	-7377.5	+ .001	
337.279	-7357.5	.000	
42839.363	-3002.5	+ .001	
43853.911 (pe)	-61	- .003	
874.954 (pe)	0	.000	

Three photoelectric times of minima obtained by Diethelm, R. (BBSAG Bull. No. 53) might indicate a decrease of the period after J.D. 2444000. Further photoelectric observations are badly needed because of the lack of Sky-Patrol plates after J.D. 2444000.

NSV 00171

NSV 00171 = Wr 63 was announced as a possible Cepheid by Weber, R. (1958, J.O. 41.4).

Estimates on 158 Hartha Sky-Patrol plates (1959-1976) confirmed the variability.

First elements could be derived:

$$\text{Max.} = \text{J.D. } 2439033.579 + 3.909691 \cdot E \quad (\text{C})$$

$$(11^{\text{m}}.71 - 12^{\text{m}}.14 \text{ ph.}, M - m = 0.25)$$

BD +63°0003

This star has been reported to be variable by Guinan, E.F. et al. (I.B.V.S. No. 2227).

The variations of BD +63°0003 were examined on 615 Hartha and Sonneberg Sky-Patrol plates from 1959-1982.

During this time slow waves with a mean period of 310^{d} and variable amplitudes of $0.3^{\text{m}} - 0.9^{\text{m}}$ ph. were found. The total amplitude was $10.1^{\text{m}} - 11.1^{\text{m}}$ ph.

Because of temporary irregularities, BD +63°0003 seems to be a SRb star.

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