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THE PERIODS OF SIX RR LYRAE TYPE STARS

Students at the Maria Mitchell Observatory have obtained new or confirmed periods for six variable stars of type RRab, as tabulated. The unnamed stars had previously been discovered by Hoffleit.

For TX Comae, Pamela Bonnell independently found a period of $0^d.536477$, differing in the last place from the period found in the General Catalogue of Variable Stars. The latter period also satisfies Miss Bonnell's observations and gives better accord between the published JD of maximum and the one tabulated here.

Donna Henry found that either of two periods satisfies her observations of EL Comae on approximately 100 plates taken between 1964 and 1972, although the shorter of the two is slightly preferred.

The final variable, in Sagittarius, was found by Pamela Knight to have a changing period. The phases in decimal parts of the period, for some 500 observations from 1924 through 1972 are well represented by the relation,

$$\phi = 1.906186(JD - 31674.200) - n - 1.9 \cdot 10^{-10} n^2,$$

whence $\text{Max} = 31674.200 + 0.524608n + 10^{-10} n^2$.

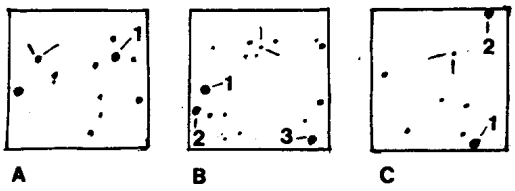
Miss Bonnell, a Vassar College student, worked under NSF Grant GP 30065 in the summer of 1971. Miss Henry and Miss Knight were NSF Undergraduate Research Participants from Wellesley College in the summer of 1972.

28 October 1972

DORRIT HOFFLEIT
Maria Mitchell Observatory
Nantucket, Mass., U.S.A.

Var	R.A. (1900)	Dec.	Max	Min	JD (max)	Period	Observer
A	$11^h56^m28^s$	$+32^\circ27'.4$	13.3	14.3	40382.627	$0^d.61031$	D.Henry
B	12 00 51	+ 28 12.6	13.7	15.8	39268.617	0.444766	D.Henry
TX Com	12 45 10	+ 31 41.0	13.5	14.8	40738.633	0.536470	P.Bonnell
C	12 46 21	+ 33 30.0	12.4	13.9	40022.531	0.57465	D.Henry
EL Com	12 46 35	+ 24 40.1	13.8	15.0	38532.557	0.343329 or 0.52362	D.Henry
77^x	18 20 13	- 21 16.8	12.5	14.3	31674.200	$0.524608+$ $+10^{-10}n$	P.Knight

[x]Number as in IBVS 660, 1972.



A 1 = BD $+32^\circ2211$
B 1 = $+28^\circ2077$
2 = 2078
3 = 2075
C 1 = $+33^\circ2278$
2 = 2277