

COMMISSION 27 OF THE I. A. U.
INFORMATION BULLETIN ON VARIABLE STARS
NUMBER 468

Konkoly Observatory
Budapest
1970 October 5

A PERIOD CORRECTION FOR KP CYGNI

The RR Lyrae-type star KP Cygni ($20^{\text{h}}02^{\text{m}}14^{\text{s}}, +40^{\circ}58'.2$, 1900) was rediscovered this summer with the new Rodman blink Comparator of the Maria Mitchell Observatory. The star was subsequently examined under the direction of Dr. Dorrit Hoffleit for a possible period correction; a period of $0^{\text{d}}855933$ had originally been found for the interval from JD 2433617 to JD 2435299 (Whitney, Balfour S., Publ.Astr. Soc. Pas. 68, 1956, p.269.) Observations were made from approximately 950 plates taken with the 7.5" refractor of the Maria Mitchell Observatory; the plates covered the years 1926 to 1969 and ranged in Julian Days from 2424684.614 to 2440508.517. The brightness of the star varied between magnitudes 12.5 and 14.05 (pg).

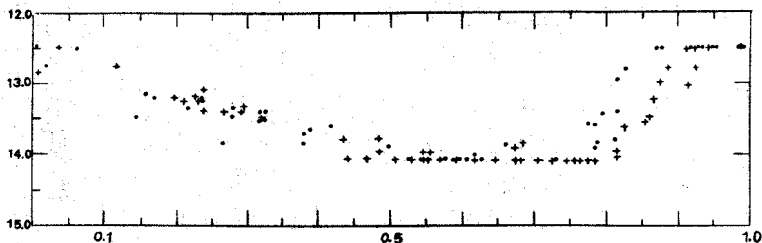


Fig. 1: Magnitude plotted against phase for the published period of $0^{\text{d}}855933$. Dots are observations for the year 1939; crosses are observations for 1969.

These more comprehensive observations suggest a period correction as shown in Figures 1 and 2 for two selected years, 1939 and 1969. The new elements thus determined are:

$$\text{Max.} = 2426178.579 + 0^{\text{d}}855936 \text{ E.}$$

Phases were computed using a reciprocal period of 1.168312.

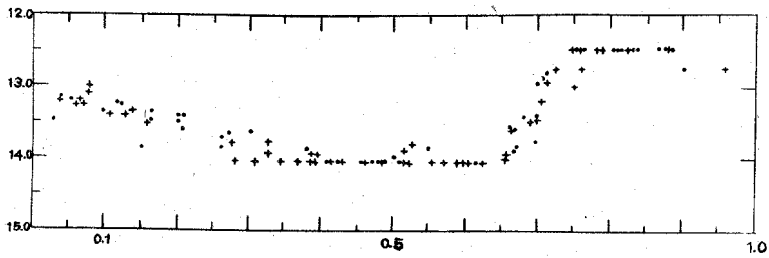


Fig. 2: Same as Figure 1 except for corrected period of 0.855936.

I am deeply grateful to the National Science Foundation for the grant that made this work possible.

Nantucket, Massachusetts
August 28, 1970

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