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ANOTHER OUTBURST OF THE UG? STAR V1454 CYGNI

V1454 Cygni is listed in the Third Supplement to the General Catalog of Variable Stars (Kukarkin et al., 1976) as a suspected U Gem type star. Two outbursts had been seen: J.D. 2437869 at photographic magnitude 13.9 and J.D. 2440116 at magnitude 14.8 (Pinto and Romano, 1972). Plates in the Nantucket collection from J.D. 2439760 to J.D. 2444044 were searched for outbursts.

The second of the known outbursts was visible at magnitudes 14.3 to 15.1 on four plates taken over a period of six days. In addition a later outburst was noted on a plate taken J.D. 2441091 at magnitude 15.1. On another plate taken four days later the star was marginally visible close to the plate limit, however the reality of this image is somewhat doubtful.

In total the collection has usable plates of the region taken on 203 different nights. Five of these plates definitely show V1454 Cyg in outburst. These plates all have a limiting magnitude of 15.0 or fainter.

I feel confident that on these 203 nights I would not have missed an outburst. Therefore V1454 Cyg was seen in outburst about 2.5% of the observed time. If each outburst lasts six days, an outburst can be expected about once in 240 days according to these rough statistics.

The time intervals between observed outbursts were 2247 days and 975 days. Gaps of six days or more are common in the plate collection. Outbursts during these time intervals could easily have been missed, so these intervals give no additional information about the average interval between outbursts.

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References:

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