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PERIODIC ERUPTIONS IN T CrB?

The recurrent nova T Coronae Borealis has been observed to erupt four times, to our knowledge, with novae or flarelike events with peak amplitude of one magnitude or greater. These eruptions are summarized in the table below. We have calculated the orbital phase of each event based on a period of 227.6 days measured for the system by spectroscopic methods (Kraft 1958).

<u>Event</u>	<u>Epoch (JD)</u>	<u>Orbital Phase(cycles)</u>
Nova T CrB 1866	2402734	(0.00)
Nova T CrB 1946	2431861	127.97
Flarelike event 1963 (Ianna 1964)	2438030	155.08
Event of 1975 (Radick 1981)	2442543	174.91

The relative phases of all three events subsequent to Nova T CrB 1866 are within 0.10 cycle of phase 0.00. The probability of such a coincidence being fortuitous is less than one per cent. T CrB does exhibit smaller outbursts throughout its orbit, but we consider only those of large amplitude here. Both the 1963 and 1975 events were observed in the ultraviolet.

Because of the suggested periodicity in these data, we recommend that T CrB be monitored in the ultraviolet by photometrists for three weeks either side of orbital phase zero. This will next occur about April 7, 1982.

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