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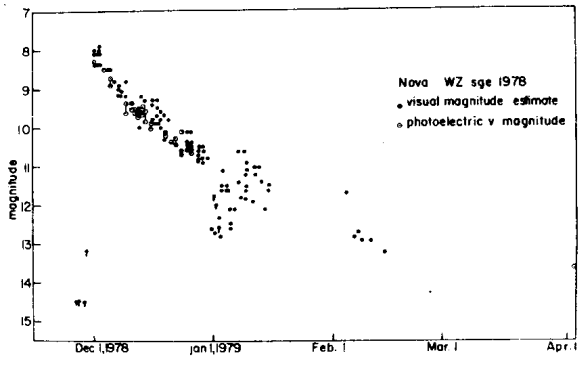
THE DEVELOPMENT OF THE 1978 OUTBURST OF WZ SAGITTAE

The December 1978 outburst of the recurrent nova WZ Sge was followed spectroscopically and photometrically at the Wise Observatory. However the entire light curve of the present outburst has not been published. In the Figure we display the curve for the first 4 months after the eruption. Most of the points have been reported by various observers in the I.A.U. Circulars and the I.B.V.S. Bulletins. A few points have been communicated directly to the author, while some represent measurements obtained with the Wise Observatory 40" reflector.



The light curve of the present outburst should be compared with those displayed after the 1913 and the 1946 eruptions (Mayall, 1946). In the table we compare the main characteristics of the outbursts, those of the previous events calculated from the plots in Mayall's paper. The range Δm was calculated assuming that at minimum the object's magnitude is 14.5.

Table: Outburst Characteristics of WZ Sge

Year	m_{Max}	Δm	t_3
1913	7.0	7.5	23^d
1946	7.7	6.8	21
1978	7.9	6.6	31

The 1978 gross photometric behaviour of WZ Sge was similar to that displayed in 1913 and 1946, namely that of a moderately fast nova. But the present eruption differs in one conspicuous detail from the previous ones. Near Jan 1.0, 1979 a sudden light drop of about 2 magnitudes occurred for about one day. This drop was followed by a one day recovery with a subsequent, shallower drop, also of about one day duration. In the next few days the magnitude variations of the object were apparently more pronounced than during the first month of the outburst. The subsequent development of the nova was characterized by a slow return to the quiet state.

Thus Jan. 1, 1979, the onset of the oscillatory behaviour, is revealed to be another important date in the recent history of WZ Sge, along with Dec. 1, 1978, the date of the outburst (Patterson, 1978), and Dec. 9 or 10, 1978, when the photometric period apparently increased by 0.8 min. (Targan, 1979; Bohusz and Udalski, 1979).

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