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A FLARE OF "ANTIFLARE" STAR RZ Psc

RZ Psc is one of the most striking representative of the so-called "antiflare" stars, in which the intervals of relative quiescence ( $m_v \sim 11^m.5$ ) are interrupted by sharp Algol-like minima ( $m \sim 1^m.5$ ). Hoffmeister and Parenago (1,2) considered the star as being an Algol system. However, the later investigations especially by Zessewitsch (3,4) have shown the assumption to be incorrect. RZ Psc turned out to be a rapid irregular variable of spectral class KO (GCVS, III ed.).

The star was observed photoelectrically at minimum light on August 20, 1972. Modern pulse-counting technique with the 20" reflector was used. Three-colour observations reduced in the standard UBV system are listed in the Table. These data are somewhat uncertain due to a correction that must be made for differential extinction.

U.T.	$m_v$	$m_b$	$m_u$	U.T.	$m_v$	$m_b$	$m_u$
23 <sup>h</sup> 20 <sup>m</sup>	13 <sup>m</sup> .03	13 <sup>m</sup> .82	13 <sup>m</sup> .31	00 <sup>h</sup> 02	13 <sup>m</sup> .00	13 <sup>m</sup> .90	14 <sup>m</sup> .52
30	.03	.87	.74	05	12.98	14.01	.68
37	.09	.73	.29	10	13.12	.09	-
42	.04	.84	14.08	14	12.90	13.91	-
48	.00	.99	.39	19	.86	.93	13.79
55	12.78	.72	12.90	50	13.00	14.04	14.61

When the ordinary three-colour run of observations was over we launched two series of continual measuring through B filter using 15-second integration time. The results are given in the Figure. As the star was badly faint, the mean error was near 0<sup>m</sup>.04 in each instance.

The present flare strongly resembles that of UV Cet. Moreover, one can see from the Table that before the flare U-magnitudes change six times as much as B-ones do, i.e.

$$\frac{\overline{\Delta U}}{\overline{\Delta B}} \approx 6.0$$

If the ratio  $\overline{\Delta U}/\overline{\Delta B}$  within the flare is supposed to be same we can assume that the U-amplitude was about 5<sup>m</sup>.

On the basis of the form of the flare and the possibly large U-amplitude we can expect RZ Psc at minimum light to reveal usual features of a flare star.

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