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**CCD LIGHT CURVES OF ROTSE1 VARIABLES, XIX: GSC 1537:1557 Her,
 GSC 995:1646 Oph, GSC 1549:121 Her, AND GSC 3888:464 Dra**

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Observatory and telescope:
Private observatory Schüsselacher, Wald, 0.15-m Starfire refractor

Detector:	SBIG ST-7 CCD camera
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Method of data reduction:
Standard CCD-frame reduction using AIP4WIN software

Method of minimum determination:
Kwee – van Woerden algorithm

Observed star(s):				
Star name	GCVS type	Coordinates (J2000)		Comp./check star(s)
		RA	Dec	
GSC1537:1557				
ROTSE1 J172021.58+163051.9	EW	17 20 21.6	+16 30 52	GSC1537:1449 / GSC1537:2349
GSC995:1646				
ROTSE1 J172156.71+095653.7	δ Sct	17 21 56.7	+09 56 54	GSC995:1704 / GSC995:1572
GSC1549:121				
ROTSE1 J172347.30+205441.4	EW	17 23 47.3	+20 54 41	GSC1549:1020 / GSC1549:293
GSC3888:464				
ROTSE1 J172622.59+535030.6	EW	17 26 22.6	+53 50 31	GSC3888:581 / GSC3888:404

Ephemeris:				
Star name	E 2400000+	P [day]	Source	
ROTSE1 J172021.58+163051.9	52856.3954(8)	0.318275	present paper	
ROTSE1 J172156.71+095653.7	52856.3880(7)	0.444630	"	
ROTSE1 J172347.30+205441.4	52875.3912(8)	0.3976946	"	
ROTSE1 J172622.59+535030.6	52854.5659(11)	0.316904	"	

Times of minima:						
Star name	Time of min. HJD 2400000+	Error	Type	Filter	$O - C$ [day]	Rem.
GSC1537:1557 (Her)	51283.8028	11	p	none		ROTSE1
	51312.9164	12	s	none		ROTSE1
	52753.4336	10	s	none		
	52753.5923	6	p	none		
	52802.4474	6	s	none		
	52812.4734	6	p	none		
	52815.4974	8	s	none		
	52856.3962	6	p	none		
	52856.5543	6	s	none		
	52898.4072	8	p	none		
GSC995:1646 (Oph)	51325.7511	7	s	none		ROTSE1
	51359.7631	9	p	none		ROTSE1
	52753.4554	18	s	none		
	52815.4806	19	p	none		
	52835.4917	19	p	none		
GSC1549:121 (Her)	52856.3888	12	p	none		
	51286.804	3	s	none		ROTSE1
	51295.7444	15	p	none		ROTSE1
	52752.5028	10	p	none		
	52753.4969	6	s	none		
	52802.4135	14	s	none		
	52812.5538	3	p	none		
	52815.5392	7	s	none		
	52835.4255	21	s	none		
	52856.5016	6	s	none		
GSC3888:464 (Dra)	52871.4141	7	p	none		
	52875.3910	7	p	none		
	52752.5207	8	p	none		
	52753.4695	15	p	none		
	52753.6316	16	s	none		
	52802.4356	15	s	none		
	52807.5013	13	s	none		
	52831.4315	12	p	none		
52854.4050	5	s	none			
	52854.5657	15	p	none		

Explanation of the remarks in the table:

ROTSE1: Observations of Akerlof et al. (2000).
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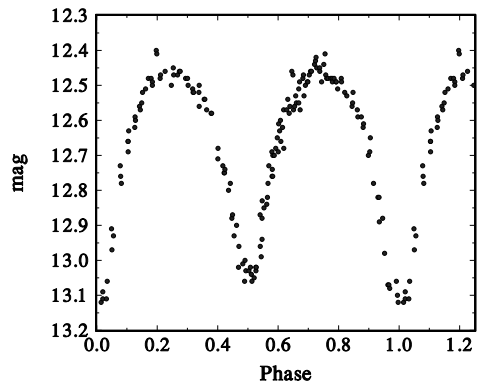


Figure 1. CCD light curve (without filter) of GSC 1537:1557

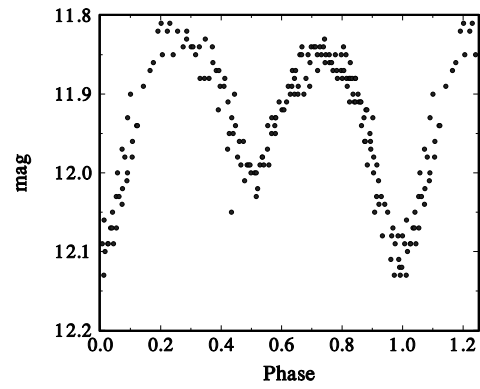


Figure 2. CCD light curve (without filter) of GSC 995:1646

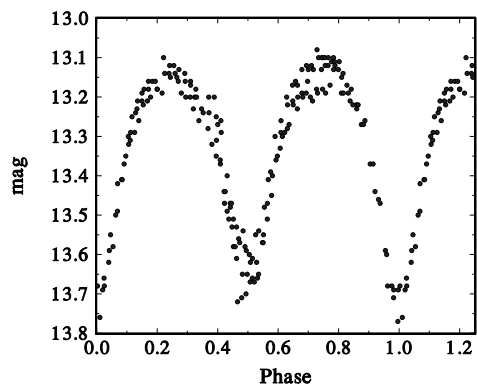


Figure 3. CCD light curve (without filter) of GSC 1549:121

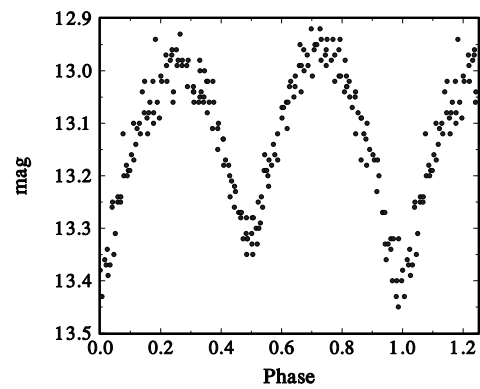


Figure 4. CCD light curve (without filter) of GSC 3888:464

Remarks:

As a byproduct of the ROTSE1 CCD survey, a large number of new variables have been discovered (Akerlof et al., 2000). In a series of papers, we report unfiltered CCD observations for some of the close binary systems (type EW) in the list of Akerlof et al. (2000). This installment contains information on four variables in the constellations Dra, Her and Oph. The four stars were observed with our CCD equipment during several nights between JD 2452752 and JD 2452898. A total of 174 CCD frames were measured of GSC 1537:1557, 183 frames of GSC 995:1646, 201 frames of GSC 1549:121 as well as 205 frames of GSC 3888:464. Figures 1 through 4 show our observations folded with the elements given in the Table of Ephemeris. These elements of variation are deduced from a linear fit to the normal minima from the ROTSE1 data and the timings of minimum derived from our data given in the table of Times of minima.

Availability of the data:

Upon request from diethelm@astro.unibas.ch

Acknowledgements:

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Reference:

Akerlof, C., Amrose, S., Balsano, R., Bloch, J., Casperson, D., Fletcher, S., Gisler, G., Hills, J., Kehoe, R., Lee, B., Marshall, S., McKay, T., Pawl, A., Schaefer, J., Szymanski, J., Wren, J., 2000, *AJ*, **119**, 1901