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ON FIVE W UMa VARIABLES

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Observed star(s):				
Star name	GCVS type	Coordinates (J2000)		Comp./check star(s)
		RA	Dec	
GSC 1414-851	EW	09 ^h 47 ^m 33 ^s .78	+18°21'43".1	*
GSC 2511-773	EW	10 ^h 31 ^m 26 ^s .52	+31°38'33".2	*
GSC 0876-362	EW	12 ^h 24 ^m 22 ^s .97	+10°35'14".0	*
GSC 0316-779	EW	14 ^h 05 ^m 43 ^s .23	+00°34'11".6	*
GSC 5764-892	EW	20 ^h 44 ^m 17 ^s .99	−12°48'01".5	*

* R magnitudes of about 10 USNO-A stars in the fields

Observatory and telescope:	
Les Engarouines Observatory (IAU astrometric code A14), 0.212m Newton; Village-Neuf Observatory (code 138), 0.20m Schmidt–Cassegrain.	

Detector:	KAF-1600 CCD at A14; KAF-1602E CCD at 138.
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Filter(s):	None, roughly <i>R</i> at both A14 and 138.
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Availability of the data:	
Upon request	

Method of data reduction:	
Standard CCD-frame reduction using <i>Prism</i> .	

Date(s) of the observation(s):	
GSC 1414-851	2002–04–18, 19, 20, 21; 2002–05–12 (A14)
GSC 2511-773	2002–03–09, 13; 2002–04–06, 17 (A14)
GSC 0876-362	2002–04–18, 19; 2002–05–12 (A14)
GSC 0316-779	2002–04–20, 21; 2002–05–12, 13, 14 (138) 2002–06–12, 13, 15 (A14)
GSC 5764-892	2002–08–05, 07, 14 (A14)

Table 1. Light curve parameters from the data analysis by the CourbRot software (Behrend, 2001). Uncertainties correspond to one standard-deviation.

Star name	HJD of a pr. min.	Period	Tot. var.	Type
GSC 1414-851	2452385 ^d .2621 ±0 ^d .0014	0 ^d .354076 ±0 ^d .000022	0 ^m .64 ±0 ^m .01	W UMa
GSC 2511-773	2452355 ^d .9645 ±0 ^d .0029	0 ^d .389131 ±0 ^d .000021	0 ^m .23 ±0 ^m .01	W UMa
GSC 0876-362	2452386 ^d .422 ±0 ^d .006	0 ^d .30817 ±0 ^d .00004	0 ^m .16 ±0 ^m .01	W UMa
GSC 0316-779	2452415 ^d .018 ±0 ^d .004	0 ^d .399249 ±0 ^d .000004	0 ^m .29 ±0 ^m .01	W UMa
GSC 5764-892	2452496 ^d .3652 ±0 ^d .0018	0 ^d .32275 ±0 ^d .00005	0 ^m .56 ±0 ^m .02	W UMa

Remarks:

The Simbad database reports no variable stars in the vicinity of these five objects. The period of GSC 0316-779 we obtained was refined using *V* observations by the TASS Mark III Photometric Survey (Richmond et al., 2000). GSC 0316-779 was found to be variable by Ch. D., the other stars by L. B., each time in the course of asteroidal light curve determination.

Acknowledgements:

These researches used the Simbad database, operated by the CDS at Strasbourg, France, and some data from the TASS Photometric Survey.

References:

Behrend, R., 2001, *Orion*, **304**, 12

Richmond, M. W., Droege, T. F., Gombert, G. et al., 2000, *PASP*, **112**, 397

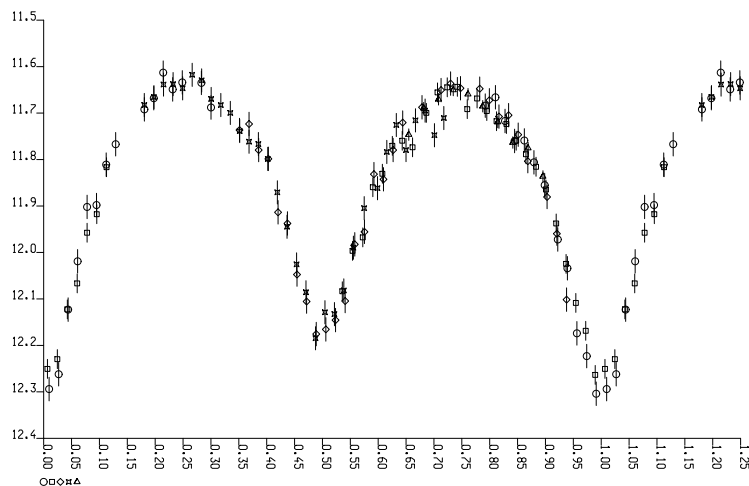


Figure 1. Unfiltered light curve of GSC 1414-851, $P = 0^d.354076$. The small labels denote the chronologic order of the series of observations in Figs. 1-5.

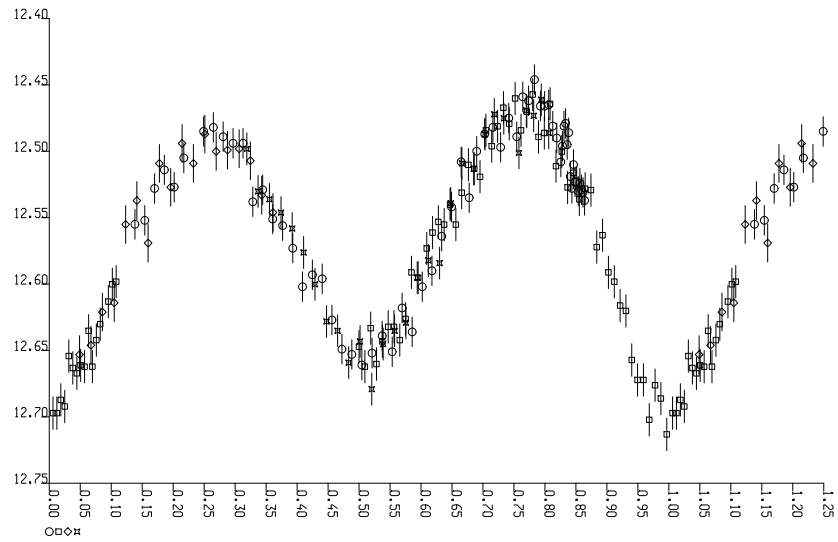


Figure 2. Unfiltered light curve of GSC 2511-773, $P = 0^d.389131$.

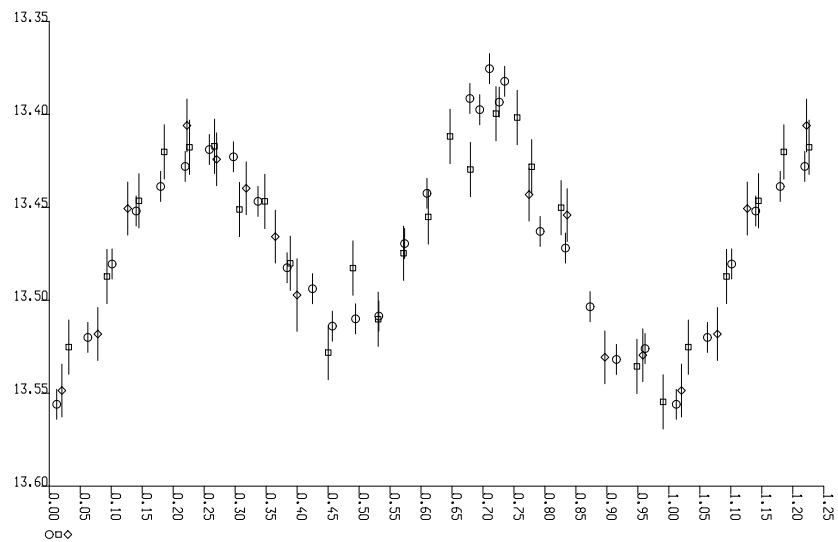


Figure 3. Unfiltered light curve of GSC 0876-362, $P = 0^d.30817$.

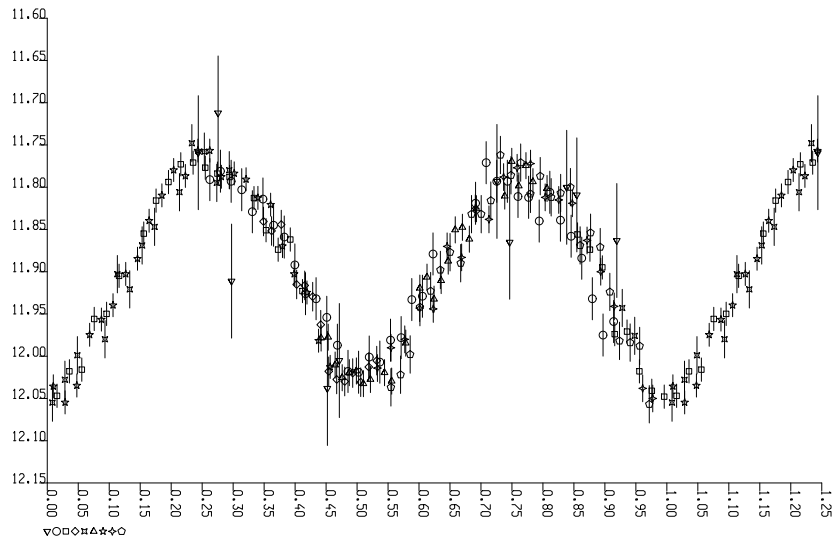


Figure 4. Unfiltered light curve of GSC 0316-779, $P = 0^{\text{d}}399249$. Triangles represent TASS' V-observations, shifted by $-0^{\text{m}}19$, made during 1998.

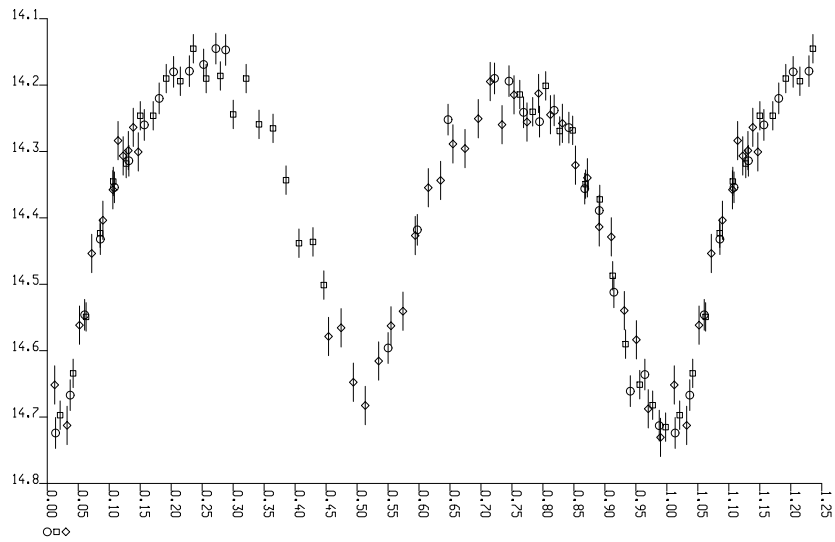


Figure 5. Unfiltered light curve of GSC 5764-892, $P = 0^{\text{d}}32275$.