

BBSAG Bulletin 72

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1984 July 6

105th List of Minima of Eclipsing Binaries

The following table lists 9 photoelectric and 136 visual minima obtained mainly during 1984 May and June by the observers

RB Roland Boninsegna, Dourbes, Belgium
RD Roger Diethelm, Rodersdorf, Switzerland, photoelectric B
RG Robert Germann, Wald, Switzerland
MKo Michael Kohl, Uster, Switzerland
BK Bruce Krobusek, Mayfield Ohio, USA
RLe Robert Leyman, Leval-Trahegnies, Belgium
KL Kurt Locher, Grüt, Switzerland
PLo Patrick Louis, Namur, Belgium
GM George Mavrofridis, Nikea, Greece
HP Hermann Peter, Otelfingen, Switzerland
PRo Philippe Rousselot, Besançon, France
TS Thomas Schildknecht, Lyss, Switzerland
PWi Patrick Wils, Niel, Belgium

The O-C values refer to the linear elements of the GCVS 1969, disregarding improved elements in the 1971, 1974, and 1976 supplements to the GCVS. Reductions were made mainly using the tracing paper method.

(footnotes to page 2 :)

- * O-C according to the GCVS would exceed one period, O-C according to the elements of BBSAG Bulletin 38, page 6: +.001 +.008
- ** not contained in the GCVS, O-C according to the elements of BBSAG Bulletin 65, page 6: +.248
- *** no period given by the GCVS, O-C according to the elements of BBSAG Bulletin 27, page 7: +.146
- **** not contained in the GCVS 1969, O-C according to the GCVS 1976: +.015 +.017 +.015 +.031
- ***** not contained in the GCVS, O-C according to the elements of BBSAG Bulletin 63, page 6: +.127 +.126 +.148 +.157 +.140 +.122
- § no period given by the GCVS 1969, O-C according to the GCVS 1976: -.022
- §§ not contained in the GCVS, O-C according to the elements of BBSAG Bulletin 68, page 6: -.047 -.048 -.070
- §§§ not contained in the GCVS, O-C according to the elements of BBSAG Bulletin 68, page 5: -.2
- §§§§ GCVS 1969 elements incomplete, O-C according to the elements of Martins, PASP 87, page 168, 1975: -.656 -.660
- (n) not disturbed according to the criteria of Crawford and Olson, PASP 91, page 413, 1979

cur- rent no.	star	minimum or- der	JD hel 244...	O-C	n	ob- ser- ver	cur- rent no.	star	minimum or- der	JD hel 244...	O-C	n	ob- ser- ver
21357	XZ Aql	I	5854.554	+0.069	6	KL	21402	CC Com	II	5812.442	+0.182	7	HP
21358	V 340 Aql	I	5878.544	+0.047	6	KL	21403		II	5816.412	+0.180	9	HP
21359	V 346 Aql	I	5871.417	-0.018	6	HP	21404		II	5822.372	+0.181	6	RG
21360		I	5882.8411 ⁴⁸	-0.0171	7	(RD)	21405		II	5878.428	+0.185	6	HP
21361	V 479 Aql	I	5861.577	+0.015	6	TS	21406	W Crv	I	5812.434	.000	8	HP
21362		I	5861.579	+0.016	8	KL	21407	SW Cyg	I	5878.433	+0.265	10	HP
21363	V 803 Aql	I	5830.567	*	6	KL	21408	VV Cyg	I	5879.487	-0.014	6	KL
21364		II	5861.526	*	6	KL	21409	WW Cyg	I	5865.482	+0.041	8	KL
21365	V 805 Aql	II	5882.440	+0.034	7	(RD)	21410	WZ Cyg	I	5818.584	+0.026	9	MKo
21366	WW Aur	I	5747.386	-0.001	18	PRo	21411		I	5821.504	+0.024	8	MKo
21367	HL Aur	I	5812.394	-0.001	5	HP	21412		I	5869.437	+0.031	7	KL
21368	TU Boo	II	5822.380	-0.007	7	RG	21413	CG Cyg	I	5868.455	-0.022	7	RG
21369		II	5878.491	+0.002	10	HP	21414	HK Cyg	I	5861.396	§	6	KL
21370	WW Cnc	I	5791.342	-0.314	8	GM	21415	KR Cyg	I	5878.448	-0.019	8	HP
21371		I	5821.466	-0.321	12	MKo	21416	V 456 Cyg	I	5818.587	+0.023	8	MKo
21372	NSV 4187 Cnc	I	5822.368	**	6	KL	21417	V 525 Cyg	I	5830.566	+0.424	6	KL
21373	YZ CVn	I	5871.433	***	6	KL	21418	V 687 Cyg	I	5874.451	+0.012	9	HP
21374	AK CMi	I	5791.380	+0.025	5	GM	21419	V 728 Cyg	I	5869.464	+0.103	6	KL
21375	AO CMi	I	5766.366	-0.067	16	RB	21420	V 891 Cyg	I	5869.4712	+0.0211	9	(RD)
21376		I	5766.366	-0.067	19	PWi	21421	NSV 13198 Cyg	I	5830.447	§§§§	6	KL
21377	<u>neu</u>	I	5766.378	-0.055	17	PLo	21422		I	5861.510	§§§§	6	KL
21378	RZ Cas	I	5698.377	+0.004	11	RB	21423		I	5878.498	§§§§	6	KL
21379		I	5698.380	+0.007	25	RLe	21424	NSV 13250 Cyg		5869.5	§§§§	6	KL
21380		I	5698.381	+0.008	19	PLo	21425	Z Dra	I	5868.488	+0.022	8	KL
21381	AB Cas	I	5810.440	+0.007	9	MKo	21426	RZ Dra	I	5805.401	-0.017	7	MKo
21382		I	5821.375	+0.008	6	MKo	21427		I	5810.369	-0.006	7	MKo
21383	IR Cas	I	5818.538	-0.100	9	MKo	21428		II	5814.488	-0.018	9	MKo
21384	U Cep (n)	I	5830.527	+0.069	8	KL	21429		I	5870.395	-0.026	7	RG
21385	XZ Cep	II	5879.500	-0.029	7	(RD)	21430		I	5870.408	-0.013	9	HP
21386	CM Cep	I	5830.496	-0.136	7	KL	21431	UZ Dra	I	5821.379	-0.011	10	MKo
21387	EK Cep	I	5821.526	+0.007	13	MKo	21432	AI Dra	I	5811.535	+0.007	12	RB
21388		I	5830.392	+0.018	8	HP	21433		I	5811.543	+0.015	10	PLo
21389	IO Cep	I	5823.438	****	6	KL	21434	CM Dra	I	5840.405	§§§§	6	KL
21390		I	5865.458	****	6	KL	21435		I	5871.481	§§§§	6	KL
21391		I	5870.398	****	6	RG	21436	SZ Her	I	5821.438	+0.036	10	MKo
21392		I	5870.415	****	6	KL	21437		I	5830.439	+0.037	8	HP
21392	NSV 817 Cep	II	5826.568	*****	6	KL	21438	TT Her	I	5882.4498	-0.0276	7	(RD)
21393		II	5830.349	*****	6	KL	21439	TU Her	I	5861.464	-0.058	10	KL
21394		I	5865.587	*****	8	KL	21440	CC Her	I	5867.421	+0.123	12	HP
21395		I	5868.432	*****	6	KL	21441	CT Her	I	5822.376	+0.070	6	RG
21396		II	5871.488	*****	7	KL	21442		I	5822.376	+0.070	6	KL
21397		II	5878.560	*****	6	KL	21443		I	5854.520	+0.060	7	KL
21398	RW Com	II	5816.623	-0.056	9	BK	21444	DH Her	I	5878.492	-0.044	11	HP
21399		I	5837.625	-0.059	9	BK	21445	DQ Her	I	5868.387	+0.012	6	KL
21400	RZ Com	I	5812.466	+0.003	9	HP							
21401		II	5818.387	.000	8	HP							

*** ** ** & & & & & & see preceding page

cur- rent no.	star	minimum or- der	JD hel 244...	0-C n	ob- ser- ver	cur- rent no.	star	minimum or- der	JD hel 244...	0-C n	ob- ser- ver
21446	ES Her	I	5854.399	-.147	8 GM	21473	UZ Sge	I	5861.414	+.047	7 KL
21447		I	5861.436	-.148	6 KL	21474	AK Ser	I	5830.573	+.005	7 KL
21448	HS Her <i>neu</i>	I	5869.445	+.015	8 (RD)	21475	AO Ser	I	5846.378	+.006	8 GM
21449	MT Her	I	5840.478	+.040	5 KL	21476		I	5867.491	+.014	11 HP
21450		I	5861.457	+.047	7 PWi	21477		I	5868.364	+.009	6 KL
21451		I	5865.361	+.049	6 KL	21478	AU Ser	I	5810.475	****	8 MKo
21452	MX Her	I	5846.407	-.222	12 GM	21479		I	5815.499	****	6 MKo
21453	V 624 Her	II	5865.5099	*	16 (RD)	21480		I	5868.451	****	6 RG
21454	VX Lac	I	5878.452	-.084	7 HP	21481		II	5874.439	****	8 HP
21455	Y Leo	I	5812.448	+.142	7 HP	21482	LX Ser	I	5879.407	*****	6 KL
21456	AP Leo	I	5817.619	-.027	10 BK	21483	HU Tau	I	5698.432	+.026	18 RLe
21457	NSV 7060 Lib	I	5830.484	**	5 KL	21484	W UMa	I	5749.387	-.192	15 PRo
21458	RY Lyn	I	5846.378	***	7 GM	21485	RW UMa	I	5823.403	+.019	7 KL
21459	SX Lyn	I	5791.339	-.402	8 GM	21486	UX UMa	I	5823.406	-.001	6 KL
21460		I	5805.484	-.415	7 MKo	21487		I	5869.430	+.001	6 KL
21461	TZ Lyr	I	5830.424	+.036	10 HP	21488	VV UMa	I	5792.653	+.135	13 BK
21462		I	5867.414	+.009	7 HP	21489	XZ UMa	I	5816.402	-.068	12 HP
21463	EW Lyr	I	5821.507	+.100	7 MKo	21490		I	5817.637	-.055	14 BK
21464		I	5823.447	+.091	6 KL	21491	BM UMa	I	5830.445	§	6 KL
21465	RV Oph	I	5869.394	+.002	6 KL	21492	RU UMi	I	5792.445	-.002	14 BK
21466	V 449 Oph	I	5868.396	+.053	6 KL	21493	BH Vir	I	5818.463	+.011	10 HP
21467	V 501 Oph	I	5826.544	+.001	6 KL	21494	AZ Vir	II	5822.602	§§	9 BK
21468	V 508 Oph	I	5870.400	+.020	7 RG	21495	AW Vul	I	5826.594	-.022	6 KL
21469		I	5870.401	+.020	10 HP	21496	AY Vul	I	5879.459	+.045	9 KL
21470	V 511 Oph	I	5861.579	+.079	5 KL	21497	BO Vul	I	5874.454	-.088	11 HP
21471	V 566 Oph	I	5863.500	+.061	15 (RD)	21498	DR Vul	//II	5879.501	+.151	6 (RD)
21472	KW Per	I	5868.612	+.044	5 KL	21499	NO Vul	II	5854.485	§§§§	7 GM
						21500		I	5865.426	§§§§	6 KL
						21501		II	5870.443	§§§§	6 KL

// displaced secondary

* not contained in the GCVS 1969, 0-C according to the GCVS 1974: +.0052.

** not contained in the GCVS, 0-C according to the elements in BBSAG Bulletin 66, page 5: +.030

*** no period given by the GCVS, 0-C according to the elements of Samolyk and Wedemayer, JAAVSO 6, page 49, 1977: +.027

**** GCVS 1969 elements too inaccurate for reasonable reduction, 0-C according to the GCVS 1974: -.005 -.005 -.004 -.006

***** not contained in the GCVS, 0-C according to the elements of Africano, Horne, and Margon IAUC 3466: +.029

§ GCVS 1969 type and period erroneous, 0-C according to the GCVS 1976: +.028

§§ GCVS 1969 period erroneous, 0-C according to the GCVS 1976: +.023

§§§ not contained in the GCVS 1969, 0-C according to the GCVS 1976: +.016 +.017 +.031

9th Report on Visual Survey of NSV Stars Suspected to be Eclipsing

Improvements with respect to previous reports are underlined.

NSV no.	Con- stel- la- tion	catalogued am- pli- tude	* type	resulting am- pli- tude	* type	number nights sur- veyed	remarks
817	Cep	1.0p	EA	1.1v	EB	<u>88</u>	see BBSAG Bulletin 63,p.5
4399	Hya	1 p	E:	0.1v	CST:	<u>16</u>	
5501	UMa	0.6p	EW:	0.0v	CST:	<u>16</u>	
5576	CVn	1.0p	E:	<u>0.3v</u>	<u>S</u>	<u>22</u>	
5698	CVn	1.0p	E	<u>0.3v</u>	<u>SR</u>	<u>28</u>	previous 40 day cycles <u>ab-</u> <u>sent now</u>
6068	Hya	1 p	EB:	0.1v	CST:	<u>16</u>	
6181	Dra	1.2p	EA:	0.0v	CST:	<u>4</u>	
6264	CVn	4.1p	S:	0.5v	S	<u>12</u>	
8256	Oph	2 p	E:	0.0v	CST:	<u>4</u>	
11241	Oph	1.3p	S	0.4v	S	<u>22</u>	
11441	Aql	1.4p	S	0.2v	CST:	<u>11</u>	
11987	Dra	1.5p	EA	1.9v	EA	<u>14</u>	see hereafter
13198	Cyg	1.2p	S	1.0v	EA	<u>33</u>	see BBSAG Bulletin 68,p.7
13250	Cyg	1.5p	S	1.1v	EBorDCEP	<u>58</u>	see BBSAG Bulletin 68,p.6

*nomenclature as NSV page 6

K. Locher

NSV 11987 Draconis
Detection of the Period

This star had been suspected of EA binarity by Morgenroth, ASTRONOMISCHE NACHRICHTEN 254, page 369 ff., 1935, having found one distinct weakening of 1.5 photographic magnitude.

My visual survey during 14 nights 1984 May to July shows the amplitude to be somewhat larger and yields the period and the eclipse duration parameters as

$$\begin{aligned}
 \text{JD}_{\min} \text{ I} &= 2445887.472 + 1.228 \text{ E} \\
 d &= 0 \\
 \text{D/p} &= .15 \pm .01
 \end{aligned}$$

Figure 71 plots all my observations against phase.

K. Locher

Plot symbols in figure 71 :

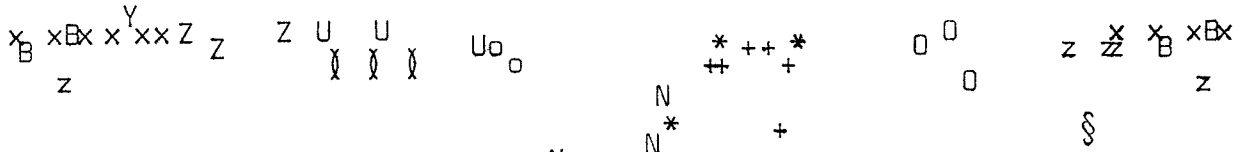
§ ¶ * x 0 + o Z z D B N U Y
 JD 24458.. ..26 61 65 68 69 70 71 78 79 82 84 87 88 89

s

photovisual Schmidt exposure by T.Schildknecht, kindly taken on a sudden request in a crucial phase at JD 2445871.5nn

figure 71

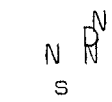
A- -A



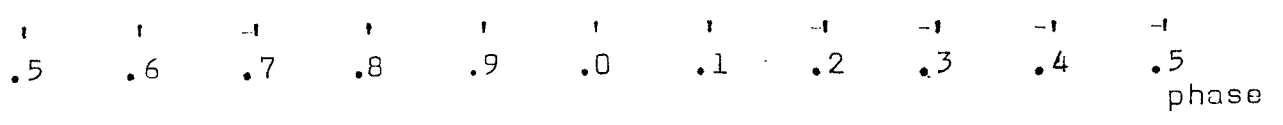
B- -B



C- -C



N



A- -A comparison magnitude 3' south
 B- -B 2' northeast
 C- -C 1' northwest