

# BBSAG Bulletin 66

1983 June 6

## 99<sup>th</sup> List of Minima of Eclipsing Binaries

The following table lists 132 visual minima obtained mainly during 1983 April and May by the observers

MA	Maria Andrakakou, Athens, Greece
RB	Roland Boninsegna, Dourbes, Belgium
RDe	Robert Dequinze, Velaine-sur-Sambre, Belgium
DE	Demetrius P. Elias, Penteli, Greece
RG	Robert Germann, Wald, Switzerland
KL	Kurt Locher, Grüt, Switzerland
PLo	Patrick Louis, Namur, Belgium
CPa	Carlo Pampaloni, Firenze, Italy
HP	Hermann Peter, Otelfingen, Switzerland
NS	Nikolaos Stoikidis, Larisa, Greece
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.

( continued footnotes to page 2 : )

§ period unknown

§§ not contained in the GCVS, O-C according to the elements of BBSAG Bulletin 63, page 5 : +.039 +.060 +.068 +.069  
+.062 +.076 +.055 +.066

§§§ not contained in the GCVS, O-C according to Шырапов's elements *Астрономический Циркуляр* 949, 1977 : +.102

§§§§ GCVS 1969 elements incomplete, O-C according to Martin's elements *PASP* 87, p. 168, 1975 : -.594

(v) very slightly ) disturbed according to the criteria of Crawford and Olson, *PASP* 91, page 413, 1979,  
(n) not ) but no correction applied to the symmetric tracing paper solution.

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
20011	V 803 Aql	I	5432.535	*	6 KL	20044	SU Cep	I	5449.591	.000	6 KL
20012		I	5432.538	*	6 MA	20045	NSV 817 Cep	I	5427.285	§§§§§	6 KL
20013	WV Aur	I	5396.407	-.002	23 RDe	20046		I	5433.451	§§§§§	7 KL
20014		I	5396.410	+.001	14 PLo	20047		I	5433.459	§§§§§	7 MA
20015		I	5406.508	-.001	17 RB	20048		I	5459.459	§§§§§	5 KL
20016	SU Boo	I	5428.449	+.022	18 PWi	20049		I	5460.391	§§§§§	6 KL
20017	TU Boo	II	5464.370	-.005	6 KL	20050		I	5466.556	§§§§§	6 KL
20018	TW Cnc	I	5440.8	+.1	11 HP	20051		II	5471.499	§§§§§	8 KL
20019	WX Cnc	I	5440.366	+.161	11 HP	20052		I	5485.454	§§§§§	6 KL
20020	WY Cnc	I	5440.379	+.011	8 PWi	20053	RW Com	I	5428.456	-.042	7 PWi
20021	NSV 4187 Cnc	I	5428.399	**	6 KL	20054		II	5441.377	-.057	6 RG
20022		II	5430.447	**	4 KL	20055	CC Com	I	5439.381	+.181	6 HP
20023		II	5436.421	**	9 KL	20056		I	5441.370	+.183	6 RG
20024		I	5437.286	**	7 KL	20057		I	5471.374	+.175	7 RG
20025		I	5460.355	**	5 KL	20058	W Crv	I	5431.339	.000	6 KL
20026	YZ CVn	I	5430.598	***	8 KL	20059		I	5436.386	+.002	6 KL
20027	R CMa	I	5400.320	+.023	18 CPa	20060		I	5460.403	-.001	6 KL
20028	AK CMi	I	5439.385	+.016	11 HP	20061	Z Crv	I	5459.424	-.020	8 KL
20029	RZ Cas	I	5357.726	-.001	10 RB	20062	V Crt	I	5428.421	+.037	7 KL
20030	TV Cas	I	5396.377	-.032	10 PLo	20063		I	5466.338	+.045	6 KL
20031		I	5396.390	-.019	24 RDe	20064	SW Cyg	I	5471.424	+.253	7 KL
20032	AB Cas	I	5430.440	-.001	18 DE	20065	V 370 Cyg	I	5471.530	+.057	6 KL
20033	IR Cas	I	5449.586	-.117	7 KL	20066	SVS 294 Cyg	I	5441.561	§§§§§	32 DE
20034	V 523 Cas	I	5486.558	****	6 KL	20067	Z Dra	I	5450.391	+.017	7 KL
20035	V 752 Cen	I	5428.406	*****	7 KL	20068	RR Dra	I	5471.530	+.213	6 KL
20036		II	5430.456	*****	7 KL	20069	CM Dra	I	5460.521	§§§§§	9 KL
20037		I	5431.372	*****	7 KL	20070	U Gem	I	5439.329	+.013	19 DE
20038		II	5436.357	*****	6 KL	20071		I	5439.330	+.014	9 KL
20039		I	5438.400	*****	6 KL	20072	GW Gem	I	5439.450	-.031	7 HP
20040	NSV 6044 Cen		5437.438	§	6 KL	20073	TU Her	I	5428.462	-.068	7 KL
20041			5438.435	§	6 KL	20074		I	5471.538	-.064	8 KL
20042	U Cep (v)	I	5466.534	+.060	10 KL	20075	UX Her	I	5449.582	-.063	7 KL
20043	(n)	I	5471.523	+.063	8 KL	20076	CC Her	I	5430.446	+.109	8 KL

\* 0 - C according to the GCVS exceeds one period, 0 - C according to the elements of BBSAG Bulletin 38, page 6 : +.005 +.008

\*\* not contained in the GCVS, 0 - C according to the elements of BBSAG Bulletin 65, page 6 : +.018 -.004: +.058 +.036 +.040

\*\*\* no period given by the GCVS, 0 - C according to the elements of BBSAG Bulletin 27, page 7 : +.124

\*\*\*\* not contained in the GCVS 1969, 0 - C according to the GCVS 1976 : +.001

\*\*\*\*\* not contained in the GCVS 1969, 0 - C according to the GCVS 1974 : -.049 -.034 -.045 -.058 -.051

§ § § § § § § § § § (v) (n) see preceeding page

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
20077	DQ Her	I	5459.460	+.012	6 KL	20106	V 501 Oph	I	5436.457	-.002	5 KL
20078	ES Her	I	5466.491	-.166	6 KL	20107	V 508 Oph	II	5437.515	+.020	6 KL
20079	MT Her	I	5460.539	+.032	6 KL	20108		I	5484.578	+.019	4 KL
20080	WY Hya	II	5427.300	+.020	6 KL	20109	V 913 Oph	I	5464.472	-.120	6 KL
20081		I	5428.361	+.007	6 KL	20110	XZ Per	I	5405.376	+.016	5 NS
20082		II	5437.326	+.022	7 KL	20111		I	5435.319	+.016	5 NS
20083	XZ Hya	I	5439.341	+.079	11 KL	20112	RZ Pyx	I	5427.351	+.210	8 KL
20084		I	5439.356	+.094	12 DE	20113		II	5428.326	+.201	8 KL
20085	DK Hya	I	5436.360	-.237	6 KL	20114		I	5431.274	+.195	8 KL
20086		I	5437.399	-.242	9 KL	20115	AO Ser	I	5474.413	+.005	6 KL
20087	EX Hya	I	5435.345	+.008	17 DE	20116	AU Ser	I	5441.374	****	7 RC
20088		I	5437.457	+.005	21 DE	20117	LX Ser	I	5432.469	*****	9 KL
20089		I	5459.360	+.005	13 DE	20118		I	5432.470	*****	18 DE
20090	Y Leo	I	5431.397	+.144	6 KL	20119		I	5432.470	*****	9 M
20091		I	5436.453	+.142	8 KL	20120		I	5439.441	*****	18 DE
20092	UU Leo	I	5439.456	-.023	14 HP	20121		I	5439.441	*****	8 KL
20093	NSV 7060 Lib	I	5438.534	*	7 KL	20122		I	5442.449	*****	17 DE
20094		I	5464.490	*	8 KL	20123		I	5459.404	*****	20 DE
20095	<i>new</i>	I	5465.531	*	4 KL	20124	NSV 7533 Ser		5466.495: §		8 KL
20096		I	5466.574	*	9 KL	20125	AM Tau	I	5435.328	-.177	5 NS
20097		II	5471.494	*	9 KL	20126	CT Tau	II	5441.358	+.023	7 RI
20098	NSV 7087 Lib		5466.515: **		4 KL	20127	RW UMA	I	5464.329	+.029	6 KL
20099			5471.500: **		6 KL	20128	TW UMA	I	5447.509	-.137	7 KL
20100	SX Lyn	I	5439.424	-.392	9 HP	20129	TY UMA	II	5471.375	§§	7 RI
20101	GZ Lyr	I	5459.510	***	6 KL	20130	UX UMA	I	5459.370	+.001	8 K
20102	BO Mon	I	5432.392	+.164	19 DE	20131	VV UMA	I	5428.348	+.133	10 Pw
20103	SZ Oph	I	5485.459	+.271	6 KL	20132		I	5441.395	+.120	8 R
20104	V 449 Oph	I	5434.560	+.050	12 KL	20133	XZ UMA	I	5436.267	-.063	4 N
20105		I	5464.403	+.060	6 KL						

\* not contained in the GCVS , O - C according to the elements on pag 5 of this issue : .000 +.001 +.004 +.008 -.003

\*\* period unknown

\*\*\* no period given by the HCVS 1969 , O - C according to the GCVS 1976 -.007

\*\*\*\* GCVS 1969 elements too inaccurate for reasonable reduction , O - C according to the GCVS 1974 : +.003

\*\*\*\*\* not contained in the GCVS , O - C according to the elements of Alricano , Horne , and Margon IAUC 3466 : +.021 +.021 +.022 +.022 +.022 +.020 +.022

§ period unknown

cur- rent no.	star	minimum or- JD hel der 244...	O-C	n ser- ver
20134	BM UMa	II 5433.521	*	6 KL
20135	UW Vir	I 5464.472	+0.385	6 KL
20136	VV Vir	I 5460.514	**	6 KL
20137	AK Vir	I 5431.476	+0.027	7 KL
20138		I 5437.460	+0.044	7 KL
20139		I 5474.455	+0.037	7 KL
20140	BD Vir	I 5474.355	+0.106	6 KL
20141	AW Vul	I 5447.568	-0.015	6 KL
20142	BE Vul	I 5484.570	+0.015	4 KL
20143	GP Vul	I 5464.437	-0.022	6 KL
20144	NO Vul	I 5466.478	***	6 KL

\* GCVS 1969 type and period erroneous, O - C according to the GCVS 1976 : +.050

\*\* O - C according to the GCVS would exceed 2 periods, O - C according to the elements of BBSAG Bulletin 31, page 6 : -.019

\*\*\* not contained in the GCVS 1969, O - C according to the GCVS 1976 : +.016

3<sup>rd</sup> Report on Visual Survey of NSV Stars Suspected to be Eclipsing

Improvements with respect to 1<sup>st</sup> and 2<sup>nd</sup> Report are underlined

N S V 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>43</u>	see BBSAG Bulletin 63,p.5
4187	Cnc	1.7p	S	0.8v	EW	<u>22</u>	" " " 65,p.6
4882	Vel	1.0p	EA	0.0v	CST:	4	
5519	UMa	1.0p	EA	0.1v	CST:	<u>24</u>	
5698	CVn	>1.0p	E	0.3v	L	<u>20</u>	period 40 ± 5 days, or S type such that this is the beat period with the sidereal day period 2 <sup>d</sup> 00/n
6044	Cen	1.0p	EA	0.3v	EW:	6	
6068	Hya	1.0p	EB:	0.1v	CST:	11	
7060	Lib	0.7p	E/RR	0.8v	EB	18	see page 5 of this issue
7087	Lib	0.6p	E/RR	0.3v	EW:	11	minima no. 20098 20099

7476 Sco 0.9p S 0.1v CST: 8  
 7533 Ser 0.7p E 0.4v EW: 8 minimum no. 20124  
 11241 Oph 1.3p S 0.2v CST: 8  
 \* nomenclature as NSV page 6

K. Locher

N S V 7 0 6 0 Librae :  
 Detection of the Period

Suspicion of E or RR type and of 0.<sup>m</sup>7 photographic amplitude is based on a study by Ashbrook, Harvard Annals 109, no. 7, 1942. My visual survey during 18 nights April to June 1983 yields about this amplitude and the elements

$$\text{Minimum}_I \text{ JD hel} = 2445438.534 + .5191 E$$

for a probable EB type.

Figure 67 plots all my observations against phase.

K. Locher

Figure 67

