

BBSAG Bulletin 77

1

1985 August 14

110th List of Minima of Eclipsing Binaries

The following table lists 9 photoelectric (underlined>) and 205 visual minima obtained mainly during 1985 May to July by the observers

FA Francesco Acerbi, Codogno, Italy
RD Roger Diethelm, Rodersdorf, Switzerland
DE Demetrius P. Elias, Penteli, Greece
SF ϵ Stéphane Ferrand, Bougival, France
RG Robert Germann, Wald, Switzerland
MKo Michael Kohl, Uster, Switzerland
KL Kurt Locher, Grüt, Switzerland
GM George Mavrofridis, Nikea, Greece
APa Aristos Parris, Larisa, Greece
APs Anton Paschke, Rüti, Switzerland
HP Hermann Peter, Otelfingen, Switzerland
GSc Gabrielle Schneider, Gockhausen, Switzerland
JSi Jindřich Šilhán, Zďanice, Czechoslovakia
NS Nikolaos Stoikidis, Larisa, Greece
PSv Petr Svoboda, Prostějov, Czechoslovakia
CV Constantin Vafiadis, Pireas, Greece

The columns mean

- 1 current number
 - 2 1950 right ascension hours and minutes
 - 3 1950 declination degrees and tenths
 - 4 star name
 - 5 p for a primary, s for a secondary minimum
 - 6 observed heliocentric Julian date of the minimum, minus 2400000
 - 7 observed minus computed date of the minimum, computed by means of the elements of the GCVS....
....1985 for stars alphabetically prior to Cygnus
....1969 otherwise
- Exceptions are denoted and were specified in BBSAG Bulletin 76 , page 1, cipher 7
- 8 number of observations used, systematically weighted only in the case of the observer APs
 - 9 observer, abbreviated as above

Reductions were made mainly using the tracing paper method.

1	2	3	4	5	6	7	8	9
22432	0154+419 XZ And			P	46270.477	-0.006	8 MKO	
22433	0139+445 EP And			S	46270.454	+0.015	5 KL	
22434				S	46270.455	+0.016	5 GSC	
22435				P	46271.470	+0.021	10 KL	
22436	2233-196 BF Aqr ^{1/2}			P	46286.605		a 7 KL	
22437	2233-010 CX Aqr			P	46264.492	+0.005	6 RG	
22438				P	46269.499	+0.007	9 HP	
22439	2320-162 CZ Aqr			P	46262.540	-0.018	8 KL	
22440				P	46268.584	-0.013	6 KL	
22441	2113+023 EX Aqr			P	46260.545	+0.021	8 KL	
22442				P	46261.439	+0.025	5 KL	
22443				P	46268.561	+0.032	6 KL	
22444				P	46269.443	+0.025	5 KL	
22445	2020-075 XZ Aql			P	46267.431	+0.041	7 KL	
22446	1902+027 FK Aql			P	46271.512	-0.021	11 HP	
22447	1946+092 OO Aql			S	46232.540	+0.006	10 APS	
22448				S	46260.405	-0.002	16 APS	
22449	1915+093 V342 Aql			P	46239.373	+0.002	7 GM	
22450				P	46249.546	+0.002	5 KL	
22451				P	46266.512	+0.014	6 KL	
22452	1936+126 V343 Aql			P	46271.479	-0.026	9 MKO	
22453	2008+102 V346 Aql			P	46204.439	+0.005	6 CV	
22454				P	46204.440	+0.006	6 GM	
22455				P	46235.404	-0.009	6 NS	
22456	1917+162 V889 Aql _{1,2,3}			S	46264.441	-1.607 ^b	8 RD	
22457	1922+159 V1353 Aql			P	46252.447	-0.008	21 JSi	
22458				P	46252.445	-0.001	24 PSV	
22459				P	46269.445	+0.012	10 MKO	
22460	1403+302 TU Boo			P	46199.360	-0.011	5 KL	
22461				P	46269.404	-0.012	11 HP	
22462				P	46269.413	-0.004	7 RG	
22463	1419+473 UW Boo			P	46174.407	+0.019	7 MKO	
22464	1525+371 +37 ^o 2641 Boo			P	46212.483	+0.003 ^c	4 KL	
22465				P	46245.500	.000 ^c	9 KL	
22466				S	46248.458	-0.006 ^c	7 KL	
22467	0631+823 SV Cam			P	46209.392	+0.016	10 APS	

a Period unknown
b Displaced secondary
c Elements according to BBSAG Bulletin 77, p.6
d Elements according to BBSAG Bulletin 63, p.5

1	2	3	4	5	6	7	8	9
22501	1231+270 RW Com			S	46210.369	-0.011	8 RK6	
22502				P	46249.403	-0.020	7 RK6	
22503	1210+228 CC Com			P	46210.453	+0.007	8 RK5	
22504	1516+318 U CrB			P	46219.450	+0.036	7 RD5	
22505	1537+298 RW CrB			P	46219.427 ¹	-0.001 ⁷	7 RD5	

1	2	3	4	5	6	7	8	9
22506	2005+462	SW	Cyg	p	46285.428	+.261	7	KL
22507	2021+431	UW	Cyg	p	46212.583	+.038	8	RG
22508	2002+414	WW	Cyg	p	46240.386	+.038	5	NS
22509	2051+386	WZ	Cyg	p	46270.390	+.040	6	HP
22510	2022+468	ZZ	Cyg	p	46191.571	-.052	6	KL
22511				p	46259.469	-.044	6	HP
22512	1939+467	BR	Cyg	p	46235.423	+.016	5	NS
22513				p	46239.421	+.013	6	GM
22514				p	46259.402	+.009	7	HP
22515				p	46271.397	+.011	5	MKo
22516	2056+350	CG	Cyg	p	46260.390	-.027	7	RG
22517	1924+293	DX	Cyg <u>uu</u>	p	46211.437	-.050	7	KL
22518	2007+304	KR	Cyg	p	46271.448	-.014	7	MKo
22519				p	46271.459	-.004	10	HP
22520	1942+327	V 370	Cyg	p	46210.428	+.044	8	RG
22521	2114+373	V 387	Cyg	p	46260.401	+.075	7	RG
22522	2027+390	V 456	Cyg	p	46204.480	+.030	4	CV
22523				p	46204.492	+.043	5	GM
22524				p	46269.540	+.034	8	HP
22525				p	46270.416	+.018	7	MKo
22526				p	46270.440	+.042	9	HP
22527	2003+318	V 477	Cyg	p	<u>46219.4095</u>	<u>-.0274</u>	7	RD
22528	2119+355	V 836	Cyg	p	46235.457	+.011	6	MKo
22529	2117+406	SVS 2194	Cyg	p	46270.537	+.125 *	14	DE
22530				p	46283.441	+.127 *	18	KL
22531				p	46283.442	+.128 *	22	DE
22532	2102+130	TY	Del	p	46219.578	+.041	6	KL
22533	2051+045	FZ	Del	p	46259.394	<u>-017</u>	7	HP
22534	1143+725	Z	Dra	p	46191.562	+.025	6	KL
22535				p	46210.566	+.025	6	KL
22536				p	46255.360	+.024	6	NS
22537				p	46259.433	+.024	8	HP
22538	1841+626	RR	Dra	p	46261.481	+.252	14	HP
22539	1822+589	RZ	Dra	p	46228.468	-.023	9	APs
22540				p	46249.403	-.021	7	RG
22541				p	46260.410	-.031	6	RG
22542				p	46271.442	-.017	11	HP
22543				p	46271.444	-.015	6	MKo
22544	1533+641	TW	Dra	p	46255.475	-.046	6	KL
22545	1926+688	UZ	Dra	p	46191.550	+.002	8	KL
22546				s	46271.437	-.012	7	MKo
22547	1922+698	NSV 11987	Dra	p	46201.411	-.429 *	5	KL
22548				p	46212.443	-.449 *	6	KL
22549	1828+126	RX	Her	s	<u>46270.4729</u>	<u>-.0001</u>	8	RD
22550	1738+330	SZ	Her	p	46176.493	+.038	6	GM
22551				p	46204.309	+.038	4	CV
22552				p	46202.309	+.038	7	GM
22553				p	46235.393	+.035	8	NS
22554				p	46262.383	+.028	6	AP ^a
22555				p	46262.385	+.030	7	NS
22556				p	46271.392	+.038	10	HP
22557	1712+308	TU	Her	p	46176.560	-.071	7	GM
22558				p	46269.502	-.074	12	MKo
22559				p	46259.523	-.053	19	HP
22560	1615+091	CC	Her	p	46212.490	+.131	9	KL

*elements according to Aq 949 (1977)

*elements according to BBSAG Bulletin 78, 4

1	2	3	4	5	6	7	8	9
22561				p	46264.504	+.126	6	RG
22562				p	46264.514	+.135	13	HP
22563				p	46271.452	+.138	15	HP
22564				p	46271.452	+.138	7	MKo
22565	1618+186	CT	Her	p	46240.375	+.060	5	NS
22566	1845+228	DH	Her	p	46270.372	-.056	9	HP
22567	1806+458	DQ	Her	p	46256.400	+.008	27	DE
22568	1822+251	V 342	Her	p	<u>46210.584</u>	<u>-.018</u>	5	RD
22569	2228+544	TW	Lac	p	46211.562	-.162	6	KL
22570	1036+145	UV	Leo	p	46164.429	+.001	13	APS
22571				p	46173.414	-.016	10	APS
22572	0852+467	RY	Lyn	p	46176.436	+.041 *	5	GM *elements accord- ing to JAAVSO 197 49
22573	1914+323	RV	Lyr	p	46235.443	+.079	6	KL
22574	1814+411	TZ	Lyr	p	46261.414	+.035	6	HP
22575				p	46270.419	+.050	7	MKo
22576	1920+378	UZ	Lyr	p	46239.383	+.030	8	GM
22577				p	46256.417	+.043	7	MKo
22578				p	46271.532	+.027	8	HP
22579	1913+338	NV	Lyr <i>neu</i>	p	46211.470	-.036	8	KL
22580	1848+333	B	Lyr	p	46260.54	+.25	4	RG
22581	1732+073	RV	Oph	p	46245.480	+.002	5	KL
22582	1704+078	WZ	Oph	p	46241.431	+.006	13	SFe
22583				s	46243.508	-.008	16	SFe
22584	1827+109	V 451	Oph	s	<u>46210.530</u>	<u>+.004</u>	5	RD
22585	1839+006	V 502	Oph	p	46235.44	-.01		APS
22586	1757+135	V 508	Oph	p	46264.492	+.015	7	RG
22587				p	46264.501	+.023	8	HP
22588	1754+050	V 566	Oph	p	46235.45	+.06		APS
22589				p	46260.435	+.054	12	APS
22590	1807+091	V 839	Oph	p	46143.497	+.047	29	SFe
22591				p	46259.452	+.051	8	MKo
22592				p	<u>46270.4904</u>	<u>+.0466</u>	8	RD
22593	2226+178	UX	Peg	p	46239.416	-.028	7	GM
22594	2126+048	BN	Peg	p	46258.536	-.279	6	KL
22595				p	46263.532	-.276	6	KL
22596	0256+437	IU	Per	p	46270.500	+.086	7	MKo
22597	0305+408	B	Per	p	46266.591	-.168	11	RG
22598	2332+076	Y	Psc	p	46290.489	+.168	6	KL
22599	2207-273	RW	PsA	s	46258.485	-.060	6	KL
22600				p	46260.473	-.055	6	KL
22601				s	46263.537	-.055	6	KL
22602				s	46271.470	-.051	7	KL
22603	1846-103	RS	Sct	p	46270.457	+.004	13	HP
22604				p	46270.474	+.021	7	MKo
22605	1849-063	BS	Sct	p	46235.505	+.080	10	KL
22606				p	46258.450	+.088	12	KL
22607	1739-139	AK	Ser	p	46255.462	+.007	7	KL
22608	1556+174	AO	Ser	p	46261.431	+.007	9	HP
22609				p	46261.434	+.010	5	MKo
22610	1555+224	AU	Ser	s	46259.392	-.008 *	5	HP *elements accord- ing to GCVS 1974
22611				s	46264.422	-.003 *	8	HP
22612				s	46269.429	-.021 *	8	RG
22613				s	46269.444	-.005 *	6	MKo
22614				p	46270.416	.000 *	6	MKo

1	2	3	4	5	6	7	8	9
22615	1554+177	BI	Ser	<u>11v</u>	p 46264.414	+ .476	7	HP
22616	1534+190	LX	Ser		p 46183.440	+ .036	* 30	DE *elements accord-
22617					p 46186.450	+ .036	* 19	DE ing to IAUC 3466
22618					p 46252.358	+ .037	* 19	DE
22619	0158+276	X	Tri		p 46262.558	- .050	8	KL
22620					p 46263.529	- .051	6	KL
22621					p 46264.497	- .054	8	RG
22622					p 46264.504	- .047	9	HP
22623	1207+563	TY	UMa		p 46181.356	- .004	* 7	RG *elements accord-
22624					p 46210.424	- .008	* 6	RG ing to IBVS 1949
22625	1335+522	UX	UMa		p 46200.424	- .002	6	KL
22626	0928+497	XZ	UMa		p 46118.322	- .059	10	APs
22627					p 46201.412	- .086	9	RG
22628	0944+460	AA	UMa		p 46118.341	- .058	* 11	APs *elements accord-
								ing to SAC 51, 198
22629	1551+724	RS	UMi	<u>neu</u>	p 46175.435	- .010	12	APs
22630	1504+869	RZ	UMi		s 46219.487	- .029	* 7	KL *elements accord-
								ing to ¶.3. ¶. 4,
								169 (1982)
22631	1158+133	AG	Vir		p 46180.409	+ .002	12	APs
22632	1341+049	AZ	Vir		s 46260.373	+ .014	* 6	RG *elements accord-
								ing to GCVS 1976
22633	1927+273	XZ	Vul		p 46204.455	+ .382	9	GM
22634	2027+246	AW	Vul		p 46264.502	- .017	10	HP
22635	2031+247	AX	Vul		p 46238.395	+ .011	6	GM
22636	2023+272	BE	Vul		p 46271.460	+ .016	8	HP
22637	1954+238	BO	Vul		p 46269.451	- .107	11	RG
22638					p 46269.469	- .089	9	MKo
22639					p 46269.473	- .085	16	HP
22640					p 46271.417	- .086	9	HP
22641	2044+281	BU	Vul		p 46212.564	+ .018	7	RG
22642					p 46261.490	+ .021	10	HP
22643					p 46269.455	+ .009	7	MKo
22644					p 46269.458	+ .013	8	HP
22645	2023+263	CD	Vul		p 46270.469	- .019	7	HP

1 2th Report on Visual Survey of NSV Stars Suspected to be Eclipsing

Improvements with respect to previous reports are underlined.

	Con-	catalogued	resulting	number	remarks
	stel-	am-	am-	nights	
	la-	pli-	pli-	sur-	
	tion	tude	tude	veyed	
		* type	* type		
817	Cep	1.0p EA	1.1v EB	<u>117</u>	now <u>V 358 Cep</u> ✓
3880	Lyn	1.2p S:	0.6v E:	4	
4187	Cnc	1.7p S	0.8v EW	<u>53</u>	now <u>EF Cnc</u> ✓
4281	Cnc	1.4p E	0.6v E	12	
4399	Hya	1 p E:	<u>0.3v</u> <u>L:</u>	<u>24</u>	
4882	Vel	1.0p EA	<u>0.9v</u> <u>L:</u>	<u>7</u>	
7060	Lib	0.7p E/RR	0.8v EB	18	now <u>GY Lib</u> ✓
13198	Cyg	1.2p S	1.0v EA	41	now <u>V 1787 Cyg</u> ✓
13478	Cap	0.9p EW	0.5v EW	16	now <u>AQ Cap</u> ✓
13250	Cyg	1.5p S	1.1v **	<u>115</u>	now <u>V 1788 Cyg</u> ✓**EB or DCEP

* nomenclature as NSV page 6

B D + 3 7 ⁰ 2 6 4 1 Bootis
 Detection of the Period

After my note on its amplitude in BBSAG Bulletin 76, page 5, my visual survey of this suspected EA binary during 24 nights May to July 1985 has quickly resulted in the elements

$$JD_{hel \min I} = 2446189.62 + .84667 E$$

where the last two digits of the period are based on the assumption that the descending branch registered by Peniche, González and Peña (IBVS 2690) took place at E = -1313. Possible correction of this number by ± 1 would affect both final digits of the period.

The remaining photometric parameters are yielded as

$$\frac{D_1}{p} \approx \frac{D_{11}}{p} = .10 \pm .01 \quad d_1 \approx d_{11} \approx 0 \quad \max - \min I \approx 1.3 \quad \max - \min II \approx .9$$

Figure 73 plots all my observations against phase.

K. Locher

Figure 73

