

BBSAG Bulletin 112

Nr	Design.	Star	Type	O	e.	O-C	n	Obs	Remarks
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BBSAG

BULLETIN

112

1996 August 15

145. LIST OF MINIMA OF ECLIPSING BINARIES

The following table lists 58 electronically recorded (CCD; underlined) and 245 visual timings of minima of eclipsing binaries obtained primarily between April and July of 1996 by the following observers:

AaB	Francesco Acerbi and Carlo Barani, Codogno, Italy
EBI	Ernst Bl�ttler, Wald, Switzerland
DDa	Davide Dalmazio, Formia, Italy
AD	Antonin Dedoch, Praha, Czech Republic
RD	Roger Diethelm, R. Szafraniec Observatory, Metzerlen, Switzerland
KL	Kurt Locher, Gr�yt, Switzerland
APs	Anton Paschke, R�yti, Switzerland
HP	Hermann Peter, Otelfingen, Switzerland
JVb	Jacqueline Vandenbroere, Bruxelles, Belgium

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The O-C values generally refer to the linear elements of the GCVS 1985, with the remarked exceptions. For the reduction of the minima, the tracing paper method was employed. For the reduction of some of the electronic observations the Kwee-van Woerden algorithm was used.

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Nr	Design.	Star	Type	O	e.	O-C	n	Obs	Remarks
33031	0041+306	UU And	p	50254.537	0.003	+0.029	6	KL	
33032	0042+284	WX And	p	<u>50014.411</u>	0.005	+0.035	32	APs	CCD
33033	2334+483	AD And	p	50290.416	0.005	-0.033	7	HP	
33034	2308+516	BL And	p	50283.420	0.005	+0.008	7	HP	
33035			p	50296.411	0.005	-0.003	6	HP	
33036	0205+405	BX And	s	<u>49998.592</u>	0.010	-0.007	21	APs	CCD
33037	0108+466	CO And	p	<u>49997.620</u>	0.007	+0.005	46	APs	CCD; see remark on page 9
33038	0139+445	EP And	s	50248.522	0.004	+0.049	6	KL	
33039	2337+474	EX And	p	<u>50061.307</u>	0.003	-0.014	20	APs	CCD
33040			p	50278.446	0.007	+0.001	8	KL	
33041	2233-009	CX Aqr	p	50232.557	0.004	-0.004	6	KL	
33042	2319-162	CZ Aqr	p	50291.602	0.004	-0.017	4	KL	
33043	1901+027	FK Aql	p	50250.458	0.006	-0.040	11	HP	
33044			p	50250.460	0.006	-0.038	8	KL	
33045	1936+064	LT Aql	p	50190.589	0.003	+0.037	6	KL	
33046	1936+126	V343 Aql	p	<u>50296.4078</u>	0.0011	-0.0210	11	RD	CCD
33047			p	50296.409	0.005	-0.020	8	HP	
33048	1931+004	V416 Aql	p	50278.544	0.009	-0.036	5	KL	
33049	1847+106	V479 Aql	p	50250.443	0.005	-0.035	6	KL	
33050	1948+075	V699 Aql	s	<u>50279.4453</u>	0.0016	+0.0191	9	RD	CCD
33051	1958+085	V760 Aql	p	50192.610	0.005	-0.012	8	KL	
33052	1908+120	V917 Aql	p	50278.428	0.007	+0.064	9	KL	
33053	1922+159	V1353 Aql	p	50287.469	0.005	+0.011	8	HP	
33054	0615+497	HL Aur	p	50192.345	0.005	+0.006	7	HP	elem. IBVS No. 4235
33055	1402+302	TU Boo	p	50188.365	0.005	-0.058	5	HP	
33056			s	50193.393	0.005	-0.056	7	HP	
33057			s	<u>50194.3520</u>	0.0005	-0.0701	19	EBI	CCD
33058			s	50240.390	0.003	-0.081	5	KL	
33059			s	50251.431	0.005	-0.066	7	HP	
33060			s	50276.392	0.005	-0.075	6	HP	
33061	1458+353	TY Boo	p	50190.396	0.005	-0.008	9	HP	elem. BAV Mitt. 68, 21
33062			p	50209.437	0.005	+0.003	7	HP	
33063			p	50281.420	0.005	-0.006	9	HP	
33064	1419+473	UW Boo	p	50234.408	0.004	-0.016	9	HP	
33065			p	50239.435	0.005	-0.013	11	HP	

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Nr	Design.	Star	Type	O	e.	O-C	n	Obs	Remarks
33066	1345+251	AR Boo	p	<u>50192.4789</u>	0.0030	+0.0774	17	RD	CCD, elem. PASP 98. 461
33067	0734+761	Y Cam	p	50234.451	0.008	-0.149	6	KL	
33068	0857+191	VY Cnc	p	49780.453	0.009	-0.016	13	JVb	
33069			s	50153.475	0.003	-0.013	13	JVb	
33070	0906+306	WW Cnc	p	50180.375	0.005	-0.392	10	HP	
33071			p	50190.414	0.005	-0.397	10	HP	
33072			p	50209.392	0.005	-0.390	9	HP	
33073	0843+330	WX Cnc	p	50189.334	0.006	+0.032	7	HP	
33074	0823+210	EH Cnc	p	50097.401	0.007	+0.035	12	JVb	elem. IBVS No. 2755
33075			s	50151.533	0.008	+0.032	7	AD	
33076			s	50152.346	0.004	+0.009	10	JVb	
33077			p	50153.416	0.003	+0.034	14	JVb	
33078			s	50157.386	0.004	+0.032	6	AD	
33079			p	50163.448	0.009	+0.033	9	AD	
33080	1354+289	YZ CVn	p	<u>50183.3751</u>	0.0011	-0.0043	18	RD	CCD
33081	1300+568	BI CVn	s	49873.418	0.004	-0.028	15	DDa	elem. GEOS Circ. 23
33082			p	49882.436	0.003	-0.038	12	DDa	
33083			p	49889.376	0.002	-0.015	14	DDa	
33084			s	50170.440	0.003	0.000	10	JVb	
33085			p	50178.302	0.003	-0.014	14	DDa	
33086			s	50195.379	0.004	-0.034	12	DDa	
33087			p	50211.329	0.003	-0.030	13	DDa	
33088			s	50218.445	0.005	-0.021	15	DDa	
33089			p	50224.396	0.008	-0.025	15	DDa	
33090			s	50248.424	0.001	-0.011	8	JVb	
33091	0737+064	RT CMi	p	<u>50014.63</u>	0.01	+0.54	12	APs	CCD
33092	0737+070	TW CMi	p	<u>50103.506</u>	0.010	-0.099	50	APs	CCD
33093	0737+048	TX CMi	s	<u>50138.509</u>	0.005	+0.001	14	APs	CCD; elem. BBSAG B. 106, 7
33094	0738+029	TY CMi	p	<u>50101.520</u>	0.005	+0.671	36	APs	CCD
33095	0738+070	TZ CMi	p	<u>50153.36</u>	0.02	+2.47	6	APs	CCD
33096	0727+107	AC CMi	p	50046.587	0.005	+0.012	12	APs	CCD; elem. PASP 98. 960
33097			p	50152.395	0.005	+0.020	13	JVb	
33098	0737+040	AK CMi	p	50179.345	0.004	-0.007	8	HP	
33099	0721+017	BL CMi	p	<u>50149.387</u>	0.020		42	APs	CCD; see remark p. 9
33100	0244+694	RZ Cas	p	<u>50026.3828</u>	0.0030	+0.0209	15	AaB	CCD
33101	0232+710	AB Cas	p	50180.373	0.006	+0.046	9	KL	
33102	2304+538	IR Cas	p	50248.446	0.005	+0.013	6	KL	

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33103	2339+514	IT Cas	p	<u>50248.546</u>	0.002	+0.050	20	RD	CCD
33104	0048+585	KL Cas	p	50280.506	0.004	-0.030	5	KL	
33105			p	50285.420	0.004	-0.010	8	HP	
33106	2307+589	PV Cas	s	<u>50286.4642</u>	0.0015	-0.0152	13	RD	CCD; displ. secondary
33107	0037+499	V523 Cas	p	50244.537	0.003	+0.035	5	KL	
33108			p	50285.431	0.005	+0.032	7	HP	
33109	0057+816	U Cep	p	50193.424	0.005	+0.083	5	KL	
33110	2145+570	SU Cep	p	50287.416	0.005	+0.005	7	HP	
33111	2157+607	DK Cep	p	50248.475	0.004	+0.037	5	KL	
33112			p	50250.448	0.005	+0.038	8	HP	
33113			p	50251.428	0.005	+0.032	7	HP	
33114	2127+649	GI Cep	p	50287.425	0.006	-0.015	8	HP	
33115	0140+798	GW Cep	p	<u>50283.447</u>	0.002	-0.008	9	RD	CCD; elem. IBVS No. 4293
33116			p	50285.380	0.005	+0.012	7	HP	
33117	2202+552	IW Cep	p	<u>50251.4391</u>	0.0017	-0.0023	10	RD	CCD
33118	2118+604	LP Cep	p	<u>50261.4366</u>	0.0019	-0.0412	13	RD	CCD; elem. IBVS No. 4234
33119	0220+809	V358 Cep	p	50192.488	0.004	+0.025	5	KL	elem. BBSAG Bull. 96, 10
33120	1230+269	RW Com	s	50190.419	0.005	-0.014	5	HP	
33121	1232+236	RZ Com	p	50188.352	0.005	+0.022	7	HP	
33122			p	50210.360	0.004	+0.026	7	HP	
33123	1247+189	SS Com	p	50180.398:	0.004	-0.058	8	HP	elem. BAV Rb. 33, 128
33124			p	50192.343:	0.006	-0.083	6	HP	
33125			s	50193.358:	0.005	-0.101	6	HP	
33126	1209+228	CC Com	s	50180.367	0.006	-0.005	6	HP	
33127			s	<u>50181.3585</u>	0.0018	-0.0065	10	RD	CCD
33128			p	50193.383	0.005	-0.010	8	HP	
33129			p	50249.442	0.004	-0.004	7	HP	
33130	1226+220	DD Com	p	<u>50190.3917</u>	0.0014	+0.0421	14	RD	CCD
33131	1604+274	TW CrB	p	50189.345	0.005	+0.014	5	HP	
33132			p	50209.370	0.005	+0.017	7	HP	
33133			p	50239.402	0.005	+0.017	7	HP	
33134			p	50249.417	0.005	+0.021	7	HP	
33135	1205-128	W Crv	p	50188.441	0.005	+0.011	8	HP	
33136			p	50190.378	0.004	+0.008	7	HP	
33137	2021+430	UW Cyg	p	50246.550	0.003	+0.032	9	KL	
33138	2104+455	VV Cyg	p	50251.538	0.004	-0.012	8	KL	

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33139	2002+414	WW Cyg	p	50281.441	0.002	+0.015	8	KL	
33140			p	50281.444	0.005	+0.017	12	HP	
33141	2051+386	WZ Cyg	p	50287.445	0.005	+0.051	7	HP	
33142	2022+467	ZZ Cyg	p	50296.431	0.005	-0.020	6	HP	
33143	1939+466	BR Cyg	p	50234.455	0.005	+0.009	9	HP	
33144			p	50282.424	0.009	+0.006	5	KL	
33145			p	50290.414	0.004	0.000	7	HP	
33146	2056+349	CG Cyg	p	50281.423	0.005	+0.045	8	HP	
33147	1924+292	DX Cyg	p	50278.578	0.002	-0.066	10	KL	
33148	2156+467	GV Cyg	p	<u>50283.4538</u>	<u>0.0006</u>	<u>-0.2726</u>	20	RD	CCD
33149	1954+375	PV Cyg	p	<u>50278.456</u>	<u>0.002</u>	<u>+0.187</u>	20	RD	CCD; see note page 9
33150	1941+326	V370 Cyg	p	50250.454	0.002	-0.009	6	KL	
33151			p	50250.461	0.006	-0.002	8	HP	
33152			p	50281.439	0.006	-0.006	8	HP	
33153	2113+372	V387 Cyg	p	50281.430	0.004	+0.011	8	HP	
33154	2026+381	V445 Cyg	p	50252.468	0.004	+0.189	8	KL	
33155	2027+389	V456 Cyg	p	50251.424	0.005	+0.048	10	HP	
33156	1952+328	V466 Cyg	p	50250.448	0.004	+0.017	8	HP	
33157			p	<u>50282.4399</u>	<u>0.0012</u>	<u>+0.0024</u>	14	RD	CCD
33158	1940+312	V541 Cyg	p	<u>50296.4906</u>	<u>0.0018</u>	<u>+0.0288</u>	24	RD	CCD
33159	1955+546	V548 Cyg	p	<u>50240.470</u>	<u>0.002</u>	<u>+0.008</u>	22	RD	CCD
33160	2011+404	V726 Cyg	p	50279.495	0.003	+0.036	12	KL	
33161	2025+586	V728 Cyg	p	50290.514	0.005	-0.012	8	HP	
33162	2129+336	V1908 Cyg	p	50276.425	0.008	-0.153	5	KL	elem. Per. Zv. 22, 359
33163	2035+181	W Del	p	50244.504	0.004	-0.023	6	KL	
33164	2027+138	YY Del	p	50296.415	0.004	+0.007	6	HP	
33165	2014+157	EX Del	s	<u>50287.5734</u>	<u>0.0002</u>	<u>-0.0789</u>	19	EBI	CCD; elem. IBVS No. 2343
33166	2051+044	FZ Del	p	50276.476	0.004	-0.031	11	HP	
33167	1142+725	Z Dra	p	<u>50061.590</u>	<u>0.003</u>	<u>-0.088</u>	20	APs	CCD
33168			p	50239.412	0.007	-0.093	8	HP	
33169	1841+626	RR Dra	p	50188.566	0.008	+0.063	6	KL	
33170			p	50290.486	0.005	+0.055	9	HP	
33171	1822+588	RZ Dra	p	50234.442	0.004	+0.029	8	HP	

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33172	1214+651	AR Dra	p	50250.415	0.004	+0.006	7	HP	
33173	1537+572	CK Dra	p	50188.41	0.02	-0.02	5	KL	
33174	1922+698	DW Dra	p	50210.389	0.002	+0.005	5	KL	elem. BBSAG Bull. 84, 6
33175	2054+048	S Equ	p	50276.480	0.005	+0.060	12	HP	
33176	0352-150	RU Eri	p	<u>50061.411</u>	0.007	<u>-0.021</u>	18	APs	CCD
33177	0409-105	YY Eri	s	<u>50045.493</u>	0.007	<u>+0.053</u>	12	APs	CCD
33178	0410-108	ZZ Eri	s	<u>50045.367</u>	0.010	<u>-0.017</u>	20	APs	CCD
33179			p	<u>50046.502</u>	0.010	<u>-0.012</u>	12	APs	CCD
33180	0733+170	TX Gem	p	50189.353	0.004	-0.011	8	HP	
33181	0631+155	BD Gem	p	50189.345	0.008	-0.020	6	HP	
33182	0644+169	FG Gem	p	50190.352	0.005	-0.018	6	HP	
33183	0749-272	GW Gem	p	50193.392	0.005	+0.009	10	HP	
33184	1737+329	SZ Her	p	50188.440	0.005	-0.015	8	HP	
33185			p	50233.427	0.002	-0.023	6	KL	
33186			p	50251.431	0.006	-0.018	9	HP	
33187			p	50287.431	0.005	-0.014	7	HP	
33188	1711+307	TU Her	p	50209.506	0.003	-0.061	6	KL	
33189			p	50234.442	0.005	-0.063	10	HP	
33190	1838+248	BO Her	p	50276.470	0.005	-0.006	10	HP	
33191	1615+090	CC Her	p	50209.442	0.006	+0.078	8	HP	
33192			p	50254.523	0.004	+0.076	6	KL	
33193	1851+242	DI Her	p	<u>50251.4775</u>	0.0010	<u>+0.0022</u>	11	RD	CCD
33194	1732+151	DP Her	p	50246.534	0.005	+0.061	8	KL	
33195	1806+458	DQ Her	p	50278.489	0.001	+0.001	8	KL	
33196	1852+247	KL Her	s	<u>50285.518</u>	0.004	<u>+0.077</u>	11	RD	CCD
33197	1819+144	MT Her	p	50210.441	0.004	+0.013	5	KL	
33198			p	<u>50232.3834</u>	0.0010	<u>+0.0086</u>	22	EBI	CCD
33199			p	50250.434	0.004	+0.014	7	HP	
33200			p	50290.431	0.006	+0.018	8	HP	
33201	1749+500	MX Her	p	50250.461	0.005	-0.367	11	HP	
33202	1751+437	V338 Her	p	50239.434	0.005	+0.029	8	HP	
33203	1736+441	V742 Her	p	<u>50240.4655</u>	0.0009	<u>+0.0147</u>	21	RD	CCD
33204	0932+055	AV Hya	p	50188.390	0.005	+0.010	9	HP	elem. BAV Rb. 43, 108

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33205	2247+447	VY Lac	p	50296.363	0.005	-0.131	7	HP	
33206	2216+542	AW Lac	p	50290.478	0.005	+0.122	9	HP	
33207	2226+535	DG Lac	p	50290.384	0.005	-0.122	6	HP	
33208	2216+544	V345 Lac	s	<u>50286.53</u>	0.02	-1.05	13	RD	CCD; displ. secondary
33209	1114-063	UX Leo	p	50179.370	0.006	+0.029	7	HP	elem. BAV Mitt. 68. 21
33210			p	50188.426	0.005	+0.021	11	HP	
33211	0924+168	VZ Leo	p	<u>50210.3834</u>	0.0017	-0.0399	27	EBI	CCD
33212	0959+172	XZ Leo	p	50192.438	0.005	+0.014	8	HP	
33213	1142+250	BL Leo	p	50189.535	0.005	-0.003	6	KL	
33214	1141+236	CE Leo	p	<u>50249.4110</u>	0.0004	-0.0082	21	EBI	CCD
33215	0941+255	DU Leo	p	50143.344	0.013	0.000	18	DDa	elem. IBVS No. 3999
33216			s	50156.400	0.021	+0.002	26	DDa	
33217			s	50211.367	0.006	+0.002	26	DDa	
33218	08513466	RY Lyn	p	<u>50194.3716</u>	0.0012	-0.0303	20	RD	CCD
33219			p	50194.377	0.004	-0.025	5	KL	
33220	0912+429	UU Lyn	p	50179.389	0.005	-0.003	6	HP	
33221			p	<u>50194.3794</u>	0.0020	-0.0032	20	RD	CCD
33222			p	50209.372	0.005	-0.002	7	HP	
33223	0900+382	UV Lyn	s	<u>50189.3691</u>	0.0021	+0.0304	15	EBI	CCD
33224	1814+410	TZ Lyr	p	50251.423	0.005	+0.001	8	HP	
33225			p	50287.390	0.004	+0.009	6	HP	
33226	1919+378	UZ Lyr	p	50239.419	0.004	-0.001	9	HP	
33227			p	50290.488	0.004	+0.004	6	HP	
33228	1901+300	DU Lyr	p	<u>50279.402</u>	0.003	+0.150	8	RD	CCD
33229	1831+377	EW Lyr	p	50190.571	0.004	+0.248	6	KL	
33230	1918+288	PY Lyr	p	<u>50245.479</u>	0.003	+0.106	19	RD	CCD
33231			s	<u>50285.4025</u>	0.0008	+0.1036	23	EBI	CCD
33232	1901+469	V361 Lyr	p	50278.422	0.002	+0.002	6	KL	elem. IBVS No. 4177
33233	1732+072	RV Oph	p	50179.633	0.008	-0.005	6	KL	
33234	1816+142	V501 Oph	p	50239.424	0.006	-0.005	8	HP	
33235	1738+078	V506 Oph	s	50239.424	0.005	+0.029	7	HP	
33236			p	50283.430	0.005	+0.027	7	HP	
33237	1756+135	V508 Oph	s	50232.538	0.003	+0.007	7	KL	

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33238			p	50234.450	0.004	+0.023	7	HP	
33239			s	50249.442	0.004	+0.016	7	HP	
33240			p	50283.391	0.005	+0.004	7	HP	
33241	1752+141	V913 Oph	p	50196.550	0.005	+0.108	8	KL	
33242			p	50290.494	0.006	+0.103	8	HP	
33243	2256+146	ZZ Peg	p	<u>50004.547</u>	0.010	+0.139	23	APs	CCD
33244	2220+160	BB Peg	p	50276.442	0.005	+0.010	6	HP	
33245	2125+047	BN Peg	p	50281.535	0.007	+0.001	7	KL	
33246	2136+278	BY Peg	p	<u>49999.387</u>	0.010	-0.031	24	APs	CCD
33247			s	<u>49999.541</u>	0.008	-0.048	18	APs	CCD
33248	2137+281	CC Peg	p	<u>49999.358</u>	0.008	+0.146	27	APs	CCD
33249	2146+278	CW Peg	p	50290.437	0.009	+0.047	7	HP	
33250	2205+059	DO Peg	p	50282.472	0.006	+0.002	6	KL	
33251	0320+463	RT Per	p	50282.557	0.004	+0.035	6	KL	
33252	0054+120	SX Psc	p	50283.546	0.006	-0.019	6	KL	
33253	1922+163	CU Sge	p	50283.456	0.006	+0.028	7	HP	
33254			p	50287.389	0.005	+0.003	6	HP	
33255	1849-063	BS Sct	p	50251.433	0.007	+0.062	6	KL	
33256	1848-057	DK Sct	p	50276.501	0.008	+0.016	12	JVb	
33257	1841-052	EZ Sct	p	<u>50285.379</u>	0.005	-0.370	18	RD	CCD
33258	1739-138	AK Ser	p	50252.522	0.004	+0.017	8	KL	
33259	1556+173	AO Ser	p	50189.485	0.005	+0.016	5	KL	
33260	1554+224	AU Ser	p	50210.354	0.005	-0.047	7	HP	
33261			s	50244.559	0.003	-0.046	5	KL	
33262			p	50249.389	0.005	-0.048	7	HP	
33263			p	50283.409	0.004	-0.040	7	HP	
33264	1553+176	BI Ser	p	50209.404	0.007	-0.522	6	HP	
33265	1534+156	CC Ser	s	<u>50278.37:</u>	0.02	-0.16:	13	RD	CCD
33266	0433+186	RZ Tau	p	<u>50012.567</u>	0.003	+0.022	23	APs	CCD
33267	0548+281	SV Tau	p	50179.314	0.006	-0.002	6	HP	
33268	0431+151	TY Tau	p	<u>50046.343</u>	0.005	+0.213	19	APs	CCD
33269	0402+223	CF Tau	p	<u>50008.509</u>	0.003	-0.092	31	APs	CCD
33270	0553+252	EN Tau	p	50179.373	0.006	+0.004	7	HP	

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Nr	Design.	Star	Type	O	e.	O-C	n	Obs	Remarks
33271	0128+301	V Tri	p	50262.568	0.008	+0.004	4	KL	
33272	1339+596	TW UMa	p	50279.472	0.008	-0.082	6	KL	
33273	1206+563	TY UMa	p	50285.419	0.004	+0.014	6	HP	elem. JAAVSO 21, 111
33274	1334+521	UX UMa	p	50194.623	0.002	0.000	4	KL	
33275	0934+562	VV UMa	p	50188.416	0.005	-0.032	8	HP	
33276			p	50210.405	0.005	-0.039	7	HP	
33277	0906+546	XY UMa	p	50188.436	0.006	+0.001	11	HP	
33278			p	50190.366	0.005	+0.015	8	HP	
33279			p	50234.428	0.005	+0.009	8	HP	
33280	0928+496	XZ UMa	p	50209.388	0.004	-0.028	8	HP	
33281	0943+459	AA UMa	s	50192.407	0.006	-0.010	7	HP	
33282	1707+803	RT UMi	p	50234.396	0.005	+0.116	8	HP	
33283	1312-172	UW Vir	p	50201.430	0.008	-0.031	5	KL	
33284	1402-099	VV Vir	p	50193.569	0.003	-0.019	5	KL	
33285	1211+120	AH Vir	p	<u>50188.3954</u>	<u>0.0006</u>	<u>+0.0875</u>	17	EBI	CCD
33286	1402-181	AK Vir	p	50252.401	0.005	-0.037	5	KL	
33287	1325+033	AW Vir	p	50180.397	0.005	+0.016	6	HP	
33288			s	50188.361	0.006	+0.016	6	HP	
33289			p	50192.432	0.005	+0.015	7	HP	
33290			p	50209.428	0.006	+0.020	8	HP	
33291			p	50249.422	0.005	+0.013	8	HP	
33292	1325+041	AX Vir	p	50190.378	0.005	-0.004	7	HP	
33293			p	50249.398	0.005	+0.003	8	HP	
33294	1340+048	AZ Vir	p	50189.381	0.004	-0.009	7	HP	
33295			p	50210.359	0.006	-0.010	7	HP	
33296	1345-003	BF Vir	p	50209.409	0.004	+0.002	8	HP	
33297	1355-014	BH Vir	p	50190.361	0.004	+0.006	6	HP	
33298			s	50192.400	0.005	+0.002	7	HP	
33299			s	50210.371	0.005	+0.002	7	HP	
33300	1442-065	GR Vir	p	50213.378	0.016	-0.078	19	DDa	elem. IBVS No. 3132
33301			s	50218.394	0.033	-0.093	21	DDa	
33302			s	50226.388	0.027	-0.079	17	DDa	
33303	1241-084	HW Vir	p	50179.319	0.002	-0.004	6	KL	
33304			p	50180.373	0.001	-0.001	6	KL	
33305			p	50181.540	0.001	-0.001	6	KL	
33306			p	50188.427	0.001	0.000	7	KL	
33307			p	50188.541	0.001	-0.003	5	KL	
33308			p	50189.360	0.001	-0.001	6	KL	

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Nr	Design.	Star	Type	O	e.	O-C	n	Obs	Remarks
33309			p	50189.478	0.001	0.000	5	KL	
33310			p	50189.594	0.001	-0.001	5	KL	
33311			p	50190.526	0.001	-0.002	6	KL	
33312			p	50193.564	0.001	+0.001	5	KL	
33313			p	50194.379	0.001	-0.001	6	KL	
33314			p	50194.613	0.001	0.000	4	KL	
33315			p	50196.363	0.001	-0.002	6	KL	
33316			p	50196.481	0.002	0.000	4	KL	
33317			p	50201.381	0.001	-0.002	5	KL	
33318			p	50209.436	0.001	-0.001	4	KL	
33319			p	50210.370	0.001	-0.001	5	KL	
33320			p	50233.364	0.001	-0.001	5	KL	
33321			p	50234.413	0.001	-0.002	6	KL	
33322			p	50241.416	0.001	-0.002	6	KL	
33323			p	50246.435	0.001	-0.002	5	KL	
33324			p	50248.420	0.001	-0.001	6	KL	
33325			p	50250.404	0.001	-0.002	7	KL	
33326			p	50252.388	0.001	-0.002	6	KL	
33327	2026+246	AW Vul	p	50281.431	0.004	-0.001	6	HP	
33328			p	50285.466	0.005	+0.002	7	HP	
33329	2030+246	AX Vul	p	50241.456	0.007	-0.029	5	KL	
33330	1954+237	BO Vul	p	50291.594	0.003	+0.026	5	KL	
33331	1935+218	BS Vul	p	50276.436	0.005	-0.014	6	HP	
33332	2044+280	BU Vul	p	50281.441	0.004	+0.018	7	HP	
33333	2023+263	CD Vul	p	50285.429	0.005	+0.007	6	HP	

CO And

The minima of this variable should be about 1.0 mag (pg) deep, last 6 hours and have a totality of more than 2 hours. Our observations (unfiltered CCD) show an amplitude of only 0.3 mag, a shorter duration of the minimum and no totality. This may explain why this star, frequently observed 20 years ago, has recently been neglected by visual observers. It merits more attention from observers employing CCD cameras or photometers.

A. Paschke

BL CMi

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Nr	Design.	Star	Type	O	e.	O-C	n	Obs	Remarks
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The minimum given in the table above is calculated from only a few data points on the descending branch of the light curve. It did occur earlier than expected. This causes additional uncertainty, but it is still the best minimum time observed by me so far.

A. Paschke

PV Cyg

According to the GCVS, no finder chart of the eclipsing binary PV Cygni is available in the literature. Since the variable is a member of a close group of stars, we reproduce here a copy of a CCD picture identifying PV Cyg.

N

20°; E

Furthermore, we would like to point out that the amplitude given in the GCVS is incorrect and must be due to a typographical error. The original detection note states an amplitude much smaller than the one given in the GCVS, and our observations support this finding.

R. Diethelm

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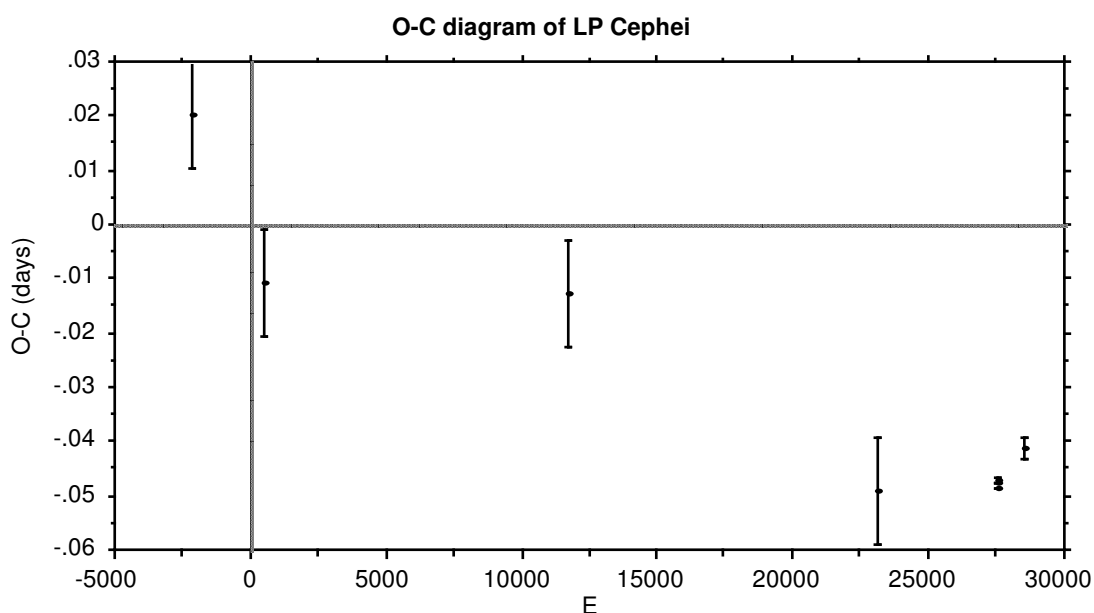
Nr Design. Star Type O e. O-C n Obs Remarks

Note on the period behaviour of LP Cephei

In a recent paper, Samec et al. (IBVS No. 4234, 1995) called attention to a possible period change in the eclipsing binary LP Cephei. We used the extensive photographic plate collection of both the "Himmels"berwachung" as well as the "Felderplan" compiled at Sonneberg Observatory, Germany. By constructing seasonal normal light curves for a sample of observing seasons from 1937 to 1985/86, we were able to deduce the following O-C values for the given mean epoch E according to the elements (1) of Samec et al. Since the variables brightness is at the limit of observability on the plates of the "Himmels"berwachung", the accuracy of our O-C determinations is of the order of 0.01 days.

year	E	O-C
1937	-2143	+0.020±0.010
1943	541	±0.011±0.010
1964	11673	±0.013±0.010
1985/86	23076	±0.049±0.010

Together with the times of minimum given by Samec et al. and the value given in the table above, the following O-C diagram results:



The diagram indicates, that after a long time of constant period, its value seems to have lengthened during the last decade. Further observations will clarify the question.

E. Bištlér

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Nr	Design.	Star	Type	O	e.	O-C	n	Obs	Remarks
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Note on some variables in Canis minor

RS CMi: The star has been observed since 1990 and on several occasions found to be a bit fainter. Observations assuming the GCVS period of 5.02775 days never revealed a minimum. A cooperation with Jan Safar, Brno, Czech Republic, based on quick communication via electronic mail, allowed us to observe whenever at least one station enjoyed good observing conditions. It was thus possible to search for minima immediately after the weakenings found. This survey yielded the result that the period must be slightly shorter than 5 days! From the totally 212 measurements we deduce the following elements of variation

$$JD(\text{min, hel}) = 2425242.565 + 2.49671 \text{ } \acute{\alpha} \text{ E} .$$

RW CMi has been observed since December 1989. It can be found on the same CCD pictures as X CMi, an RRab variable also worth intensive study (results to be published in the BAV Rundbrief). Due to this circumstance about 660 data points have been gathered so far, but only a few weakenings have been found and mentioned in previous Bulletins. Known dates of faint magnitude are:

JD	Observer
2425346.37	Hoffmeister
2425644.45	Hoffmeister
2448001.32	Paschke
2448227.655	Paschke
2448714.341	Paschke
2450046.69	Paschke

They can be fitted by the elements $JD(\text{min, hel}) = 2425346.37 + 6.08382 \text{ } \acute{\alpha} \text{ E} .$

Both these elements for RS and RW CMi are preliminary and should be considered as starting point for further observations in the coming seasons. I would appreciate to know more persons willing to cooperate (like Mrs. Safar and Zejda at Brno, using CCD cameras and e-mail). A few observations made from different sites outside ones bad weather zone at the time of a suspected minimum may speed up the period search considerably.

NSV3624 CMi: The elements given in BBSAG Bulletin No. 102 are wrong. The star obviously has a long period and a small D/P ratio. The fainting observed from JD2448673.437 until JD2448673.557 is significant.

A. Paschke

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Approximate current O-C values for little studied eclipsing binaries

Through the use of a CCD camera we are able to observe much fainter eclipsing binaries, some of which have never been followed up after their discovery. For a number of stars observations showed that the elements of variation given in the GCVS are no longer valuable or not exact enough to predict the current minima. We have therefore used the extensive plate collection of Sonneberg Observatory, Germany, in order to find recent minima for some of these stars. By constructing seasonal normal light curves we are in a position to deduce approximate O-C values for these stars in respect to the GCVS elements as an aid for an upcoming complete coverage of a minimum. The results are:

Star	Current approximate O-C value (days)
BO Cygni	$\pm 0.03^d$
V493 Cygni	+0.09:
V501 Cygni	± 0.11
V699 Cygni	+0.11
V853 Cygni	± 0.02
XX Delphini	± 0.32
EL Gemini	± 0.17
IP Gemini	± 0.03
IX Herculis	+0.41
V490 Herculis	+0.18
DN Vulpeculae	+0.76

The elements for V616 Aquilae require verification according to the remarks in the GCVS. The 73 observations secured over the last few seasons from the Sonneberg *ãFelderplan* photographic plates can not be represented by the given elements. We expect to extract the correct period value from this data set by a period finding algorithm in the near future.

R. Diethelm