BBSAG Bulletin 74

1984 December 4

107th List of Minima of Eclipsing Binaries

The following table lists 11 photoelectric and 316 visual minima obtained mainly during 1984 September to November by the observers

RB	Roland Boninsegna, Dourbes, Belgium
RD	Roger Diethelm, Rodersdorf, Switzerland, photoelectric B
RD	" " " " " V
RG	Robert Germann, Wald, Switzerland
SFe	Stéphane Ferrand, Bougival, France
MKo	Michael Kohl, Uster, Switzerland
KL	Kurt Locher, Grüt, Switzerland
PLo	Patrick Louis, Namur, Belgium
GM	George Mavrofridis, Nikea, Greece
APs	Anton Paschke, Rüti, Switzerland
HP	Hermann Peter, Otelfingen, Switzerland
PR	Philippe Ralincourt, Nantes, France
PRo	Philippe Rousselot, Besançon, France
TS	Thomas Schildknecht, Lyss, 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 using mainly the tracing paper method.

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(footnotes to page 2 :)

* GCVS 1969 period erroneous, O-C according to the GCVS 1976 : +.027 +.021 +.022 +.006 +.020

** not contained in the GCVS 1969, O-C according to the GCVS 1976 : +.107 +.103 +.113

*** GCVS period erroneous, O-C according to Berthold's elements IBVS 1396 : +.0405

**** not contained in the GCVS, O-C according to the elements in BBSAG Bulletin 65, page 6 : +.388 +.397

***** not contained in the GCVS 1969, O-C according to the GCVS 1976 : -.004 +.006 +.005 +.007 +.004 +.011 +.006

§ minimum very asymmetric in both colours

§§ possibly displaced secondary

(n) not disturbed according to the criteria by Crawford and Olson, PASP 91, page 413, 1979

current no.	star	minimum order	JD hel 244...	O-C	n	observer
21832	UU And	I	5999.245	+.129	6	KL
21833		I	6033.429	+.130	6	KL
21834	WZ And	I	5946.415	-.037	9	MKo
21835		I	6003.462	-.034	10	HP
21836	XZ And	I	5974.603	-.056	8	MKo
21837		I	6034.314	-.066	10	RG
21838	EP And	I	5940.500	*	7	MKo
21839		I	5946.556	*	9	MKo
21840		I	5974.440	*	7	MKo
21841		II	5998.469	*	6	MKo
21842		II	6032.428	*	5	MKo
21843	GZ And	II	5956.420	**	7	KL
21844		II	5985.392	**	8	KL
21845		II	6029.324	**	9	KL
21846	RY Aqr	I	5945.4109	-.1787	7	RD
21847		I	5945.421	-.168	7	HP
21848	BW Aqr	I	5990.327	+.037	6	RD
21849	CX Aqr	I	5946.463	+.015	9	MKo
21850		I	5969.261	+.017	5	NS
21851		I	5999.284	+.018	5	NS
21852		I	6004.291	+.021	8	HP
21853		I	6029.306	+.007	8	GM
21854	CZ Aqr	I	5987.333	+.007	7	KL
21855	XZ Aql	I	5944.398	+.068	5	MKo
21856		I	5974.346	+.056	8	MKo
21857	V 342 Aql	I	5944.394	-.110	9	MKo
21858	V 416 Aql	I	5971.377	-.028	7	KL
21859	V 479 Aql	I	5998.282	+.010	6	KL
21860	V 760 Aql	I	6007.324	+.009	6	KL
21861	SS Ari	II	5988.297	-.112	7	RG
21862		II	6005.352	-.109	7	RG
21863	TX Ari	I	6029.373	-.221	7	GM
21864	RY Aur	I	6002.422	-.005	8	KL
21865		I	6032.405	-.002	8	KL
~~21866~~	~~EO Aur~~	I	6007.419	+.042	8	RD
21867	FW Aur	I	5995.522	-.037	7	KL
21868	KO Aur	I	6005.6733	***	7	RD
21869	UW Boo	I	5946.336	+.032	8	HP
21870	SV Cam	I	5945.467	-.012	28	APs
21871		I	5973.339	-.014	34	APs
21872		I	5986.402	+.001	14	APs
21873		I	5998.252	-.010	16	APs
21874		I	6002.403	-.011	27	APs
21875		I	6005.356	-.021	17	APs
21876		I	6034.424	-.012	10	APs
21877	AQ Cam	I	6007.364	+.018	6	KL
21878	WW Cnc	I	6005.6092	-.3155	8	RD
21879		I	6033.497	-.327	7	MKo
21880	NSV 4187 Cnc	II	6032.680	****	11	KL
21881		I	6033.577	****	6	KL
21882	AK CMi	I	6012.642	+.021	5	KL
21883	TY Cap	I	5946.425	-.138	8	MKo
21884		I	5946.438	-.125	9	HP
21885	RZ Cas	I	5907.536	-.006	9	SFe
21886		I	5919.495	+.001	15	SFe
21887		I	5931.438	-.008	17	PLo
21888		I	5943.400	+.001	20	PR
21889		I	5943.403	+.004	8	SFe
21890		I	5944.590	-.004	18	SFe
21891		I	5986.429	+.002	17	APs
21892		I	5992.400	-.004	15	APs
21893		I	5998.380	.000	18	APs
21894		I	6028.261	.000	11	GM
21895		I	6029.458	+.002	8	GM
21896		I	6034.240	+.004	8	APs
21897	TV Cas	I	5907.523	-.041	15	SFe
21898		I	5987.286	-.034	31	APs
21899		I	6034.395	-.052	11	APs
21900	YZ Cas	§I	5990.3002	-.0079	7	RD
21901		§I	5990.2996	-.0085	7	RD
21902	AB Cas	I	5944.384	-.003	8	MKo
21903		I	5974.460	+.002	9	MKo
21904		I	6007.267	+.004	6	RG
21905		I	6033.243	+.009	6	MKo
21906	EY Cas	I	5946.361	-.115	6	KL
21907		II	5946.609	-.109	7	KL
21908		I	5998.409	-.129	6	KL
21909	IR Cas	I	5944.444	-.122	8	MKo
21910		I	5974.409	-.107	8	MKo
21911		I	6004.359	-.108	10	HP
21912		I	6006.381	-.128	12	HP
21913	V 389 Cas	I	5973.305	+.314	8	RG
21914		I	5988.279	+.319	7	RG
21915	V 523 Cas	II	5934.421	*****	7	MKo
21916		II	5944.480	*****	6	MKo
21917		I	5946.465	*****	8	MKo
21918		II	5972.524	*****	9	MKo
21919		II	5974.394	*****	6	MKo
21920		II	5990.467	*****	7	MKo
21921		II	5999.397	*****	5	MKo
21922	U Cep	(n)I	5987.591	+.072	7	KL
21923		(n)I	6007.534	+.071	10	KL
21924		(n)I	6032.466	+.072	11	KL
21925	SU Cep	I	5973.294	-.010	6	RG
21926	WX Cep	§§ II	5945.43:	+.03:	7	RD
21927	WY Cep	I	6032.293	+.016	15	APs
21928	WZ Cep	II	6034.405	.000	16	APs
21929	XY Cep	I	6005.348	-.049	12	APs
21930	ZZ Cep	I	5902.434	-.002	6	RD

current no.	star	minimum order	JD hel 244...	O-C	n	observer
21931	CM Cep	I	5964.337	-.138	6	KL
21932	DE Cep	I	5946.499	+.004	8	KL
21933	DK Cep	I	5971.600	+.024	6	KL
21934	DP Cep	I	5999.326	*	7	KL
21935	GS Cep	I	6033.319	-.021	15	APs
21936	NSV 817 Cep	I	5945.508	**	8	KL
21937		I	5946.465	**	10	KL
21938		I	5995.644	**	7	KL
21939		I	5998.486	**	7	KL
21940		I	6002.271	**	4	KL
21941		II	6005.344	**	8	KL
21942		II	6023.282	**	10	KL
21943		I	6032.524	**	6	KL
21944		I	6033.472	**	7	KL
21945	SS Cet	I	5972.523	-.060	8	MKo
21946	TW Cet	I	5974.556	-.028	9	MKo
21947		II	6005.439	-.038	9	MKo
21948	VY Cet	I	5989.340	***	6	KL
21949	AA Cet	I	5989.282	**** -0.027	7	KL
21950	SW Cyg	I	5974.466	+.265	11	MKo
21951	WW Cyg	I	5918.569	+.044	6	KL
21952		I	5968.336	+.044	6	NS
21953	WZ Cyg	I	5904.502	+.028	8	PWi
21954		I	6003.290	+.042	8	HP
21955	ZZ Cyg	I	5985.393	-.043	6	KL
21956		I	6004.252	-.043	8	HP
21957	CG Cyg	I	6007.291	-.038	6	RG
21958		I	6007.324	-.005	8	HP
21959	DK Cyg	II	5906.503	+.024	10	PWi
21960		I	5910.486	+.006	16	PWi
21961	EN Cyg	I	6007.382	+.094	9	KL
21962	KR Cyg	I	6004.382	-.014	8	HP
21963	MY Cyg	I	6005.358	+.008	9	MKo
21964	V 370 Cyg	I	5994.337	+.050	9	KL
21965	V 387 Cyg	I	5991.341	+.064	7	HP
21966		I	5991.349	+.072	6	RG
21967	V 456 Cyg	I	5976.327	+.022	8	RG
21968		I	5984.351	+.026	8	RG
21969		I	6034.253	+.021	7	RG
21970	V 478 Cyg	I	5990.340	+.086	6	RD
21971	V 616 Cyg	I	5994.293	-.185	8	KL
21972	V 680 Cyg	I	5904.484	-.022	10	PWi
21973		I	5910.492	-.009	9	PWi
21974	V 728 Cyg	I	6003.367	+.098	13	HP
21975	V 947 Cyg	I	5971.304	-.022	6	KL
21976	V 1034 Cyg	I	5946.418	-.018	11	HP
21977	V 1171 Cyg	I	5945.3751	*****	7	RD
21978	NSV 13198 Cyg	I	5946.561	§	7	KL
21979		I	5964.325	§	6	KL
21980		I	5998.331	§	7	KL
21981	NSV 13250 Cyg		6010.6	§§	8	KL
21982	TT Del	I	5944.448	+.072	7	MKo
21983	TY Del	I	5944.431	+.049	9	MKo
21984		I	6006.370	+.044	12	HP
21985	FZ Del	I	5974.301	-.021	6	MKo
21986		I	6003.281	-.020	7	RG
21987		I	6003.288	-.013	10	HP
21988		I	6032.268	-.012	6	MKo
21989	Z Dra	I	5940.435	+.025	11	MKo
21990		I	5974.367	+.023	6	MKo
21991	RZ Dra	I	5974.512	-.024	9	MKo
21992		I	5988.282	-.027	7	RG
21993		I	6005.364	-.022	15	APs
21994		I	6015.278	-.024	21	APs

* GCVS period erroneous as well as the one in BBSAG Bulletin 49 page 6, O-C according to the elements by Borovička and Wagner, Brno preprint 1984: +.005

** not contained in the GCVS, O-C according to the elements in BBSAG Bulletin 63, page 6: +.183 +.194 +.212 +.219 +.222 +.222 +.198 +.222 +.225

*** GCVS 1969 period erroneous, O-C according to the GCVS 1976: -.017

**** not contained in the GCVS 1969, O-C according to the GCVS 1974: -.027

***** no period given by the GCVS 1969, O-C according to the GCVS 1974: -.0177

§ not contained in the GCVS, O-C according to the elements in BBSAG Bulletin 68, page 7: -.050 -.037 -.052

§§ not contained in the GCVS, O-C according to the elements in BBSAG Bulletin 68, page 6: +.1

current no.	star	minimum order	JD hel 244...	O-C	n	observer
21995	SX Dra	I	5956.462	+.314	5	KL
21996	UZ Dra	I	5940.429	+.002	8	MKo
21997		II	6007.270	-.014	8	RG
21998	AI Dra	I	5931.396	-.013	19	PLo
21999		I	5932.612	+.004	14	PLo
22000		I	5943.402	+.005	9	SFe
22001		I	5943.411	+.014	19	PR
22002	NSV 11987 Dra	I	5946.332	*	8	KL
22003		I	5957.362	*	6	KL
22004		I	5995.387	*	17	KL
22005		I	6007.647	*	6	KL
22006		I	6033.407	*	7	KL
22007	TZ Eri	I	6005.444	-.084	10	MKo
22008	WX Eri	I	5946.598	+.008	8	MKo
22009		I	5974.592	+.011	10	MKo
22010	AM Eri	I	5995.501	**	6	KL
22011	RW Gem	I	6023.470	-.003	10	KL
22012	AF Gem	I	6032.437	-.024	8	MKo
22013	BT Gem	I	6004.524	-.058	6	KL
22014	DD Gem	I	6004.621	-.435	7	KL
22015	SZ Her	I	5984.243	+.040	7	KL
22016		I	6006.330	+.039	10	HP
22017	DH Her	I	5945.386	-.058	9	HP
22018	V 342 Her	I	5988.287	-.014	7	RG
22019	V 359 Her	I	5945.375	-.108	7	HP
22020	TW Lac	I	5971.597	-.165	5	TS
22021		I	5971.601	-.161	6	KL
22022		I	6032.347	-.164	6	KL
22023	VX Lac	I	5991.273	-.086	5	HP
22024		I	6006.314	-.088	12	HP
22025	AU Lac	I	5964.343	-.084	4	KL
22026	OO Lac	I	5971.523	***	6	KL
22027	V 364 Lac	I	5933.455	****	18	RB
22028		I	5933.463	****	28	PRo
22029		I	5933.478	****	13	PLo
22030	Z Lep	I	6004.665	-.129	6	KL
22031		I	6005.661	-.126	7	KL
22032		I	6032.487	-.131	6	KL
22033		I	6033.484	-.127	6	KL
22034	SW Lyn	I	6005.481	+.008	5	MKo
22035	TT Lyr	I	5946.473	-.004	12	MKo
22036	TZ Lyr	I	6003.366	+.053	10	HP
22037	UZ Lyr	I	5940.556	+.024	11	MKo
22038		I	6033.239	+.034	6	MKo
22039	EW Lyr	I	5940.378	+.098	11	HP
22040	FH Lyr	I	6007.335	-.037	6	KL
22041	GZ Lyr	I	5971.367	*****	6	KL
22042	PY Lyr	II	6033.306	+.074	8	KL
22043	XZ Mon	I	6007.696	+.135	7	KL
22044	BM Mon	I	6007.543	+.023	5	KL
22045		I	6007.547	+.027	4	TS
22046	V 396 Mon	I	6004.632	+.023	6	KL
22047	V 524 Mon	II	6007.678	+.008	6	KL
22048	NSV 3772 Mon	I	6029.555	§	10	KL
22049	SZ Oph	I	5971.298	+.302	6	KL
22050	V 508 Oph	II	5888.504	+.021	6	RG
22051		I	5940.381	+.007	7	MKo
22052		II	5984.348	+.013	7	RG
22053	V 566 Oph	I	5941.347	+.076	14	PRo
22054		II	5944.426	+.083	11	PRo
22055	FL Ori	I	6003.520	+.085	9	HP
22056		I	6034.549	+.099	5	KL
22057	QT Ori	I	6005.494	-.296	6	KL
22058	TY Peg	I	5940.458	-.046	10	MKo
22059		I	5960.299	-.034	8	NS
22060		I	5974.481	-.037	11	MKo
22061		I	6005.400	-.040	13	HP
22062	UX Peg	I	5944.416	-.005	7	MKo
22063		I	5992.280	-.025	7	RG
22064		I	6029.351	-.024	5	GM

* not contained in the GCVS, O-C according to the elements in BBSAG Bulletin 72, page 4: -.084 -.106 -.149 -.169 -.197

** O-C according to the GCVS amounts to several entire periods, O-C according to the elements in BBSAG Bulletin 50, page 5: -.031

*** not contained in the GCVS 1969, O-C according to the GCVS 1974: +.089

**** not contained in the GCVS, O-C according to the elements of Fernandes and Frank, IBVS 2053: -.035 -.027 -.012

***** GCVS 1969 elements incomplete, O-C according to the GCVS 1976: +.018

§ period unknown

current no.	star	minimum order	JD hel 244...	O-C	n	observer
22065	BG Peg	I	5991.322	+.437	7	RG
22066		I	6034.276	+.438	8	RG
22067	BN Peg	I	5972.506	-.278	7	MKo
22068		I	5995.329	-.281	6	HP
22069	CW Peg	I	5984.298	-.252	6	KL
22070		I	6029.368	-.260	4	KL
22071	DI Peg	I	5992.303	-.019	19	APs
22072		I	6002.261	-.026	12	APs
22073		I	6029.316	-.020	25	APs
22074	DK Peg	I	6005.315	+.037	10	RG
22075	EE Peg	I	6005.431	+.065	7	MKo
22076	Z Per	I	5946.507	.000	10	MKo
22077	RT Per	I	5940.393	-.078	8	MKo
22078		I	5974.376	-.072	9	MKo
22079	RV Per	I	5946.543	+.026	10	MKo
22080	ST Per	I	6006.516	-.041	12	HP
22081	WY Per	I	6002.360	-.021	7	KL
22082	XZ Per	I	5998.461	+.010	8	MKo
22083		I	6005.375	+.014	8	MKo
22084		I	6006.520	+.007	10	HP
22085	BY Per	I	5995.574	+.176	6	KL
22086	IU Per	I	5940.545	+.084	9	MKo
22087		I	5946.541	+.081	10	MKo
22088	KW Per	I	5995.274	+.056	10	KL
22089		I	6005.500	+.038	8	MKo
22090		I	6006.443	+.050	8	HP
22091		I	6009.237	+.050	7	KL
22092		I	6023.208	+.052	7	KL
22093		I	6033.448	+.049	8	MKo
22094	QU Per	I	5998.422	*	7	KL
22095	β Per	I	5991.325	-.165	14	RG
22096		I	6034.336	-.165	15	APs
22097	RV Psc	II	5991.294	**	8	RG
22098	SX Psc	I	5992.289	-.034	7	RG
22099		I	6029.453	-.035	6	GM
22100	UV Psc	I	6023.250	+.022	8	RG
22101	DF Pup	I	6004.663	+.133	6	KL
22102	EG Sgr	I	6002.254	***	6	KL
22103	V 505 Sgr	I	5909.439	-.017	16	SFe
22104	RS Sct	I	5946.326	+.021	6	MKo
22105		I	5946.338	+.033	7	RG
22106	AU Ser	II	5946.330	****	8	RG
22107	RW Tau	I	5944.474	-.098	7	MKo
22108		I	6005.386	-.100	6	KL
22109		I	6005.387	-.100	9	MKo
22110	AS Tau	I	6033.597	+.185	6	KL
22111	EQ Tau	I	5991.344	*****	6	RG
22112		I	6005.332	*****	8	RG
22113	ES Tau	I	5971.536	§	7	KL
22114	V Tri	I	5945.501	+.018	6	KL
22115		I	6033.272	+.007	7	RG
22116		I	6033.282	+.017	8	HP
22117	X Tri	I	5998.311	-.039	12	APs
22118		I	5999.270	-.052	5	NS
22119		I	6000.249	-.045	5	NS
22120		I	6029.397	-.042	7	GM
22121		I	6032.308	-.046	12	APs
22122		I	6032.310	-.044	8	MKo
22123		I	6033.273	-.053	9	RG
22124		I	6033.276	-.049	8	HP
22125		I	6033.280	-.046	10	APs
22126		I	6034.253	-.044	11	APs
22127		I	6034.254	-.043	10	RG
22128	RV Tri	I	6005.410	-.044	4	KL
22129		I	6029.527	-.044	6	GM
22130		I	6033.308	-.031	9	HP
22131	RW Tri	I	5995.437	-.003	7	KL
22132		I	6007.495	-.002	6	KL

* no period given by the GCVS, O-C according to the elements in BBSAG Bulletin 42, page 3, footnote *: -.368

** GCVS 1969 period too inaccurate for reasonable reduction, O-C according to the GCVS 1976: -.007

*** O-C according to the GCVS, but with half its period: -.230

**** GCVS 1969 period too inaccurate for reasonable reduction, O-C according to the GCVS 1974: -.004

***** GCVS 1969 period erroneous, O-C according to the GCVS 1976: +.014
+.006

§ GCVS period erroneous, O-C according to the elements in BBSAG Bulletin 58, page 5: +.001

current no.	star	order	minimum JD hel 244...	O-C	n	observer
22133		I	6029.291	-.003	7	KL
22134	UX UMa	I	6032.664	-.001	6	KL
22135	ZZ UMa	I	5946.371	+.004	6	HP
22136	RZ UMi	II	5957.372	*	7	KL
22137		II	6009.319	*	7	KL
22138	Z Vul	I	6033.245	-.062	11	APs
22139	VV Vul	I	5946.421	+.226	7	KL
22140	AW Vul	I	5889.484	-.035	11	PWi
22141		I	5910.467	-.020	9	PWi
22142	AX Vul	I	5991.343	-.011	9	HP
22143	AY Vul	I	6007.309	+.036	7	KL
22144	BE Vul	I	5998.289	+.006	9	RG
22145		I	6012.239	-.013	5	KL
22146	BO Vul	I	5944.496	-.098	8	MKo
22147		I	5946.443	-.097	9	MKo
22148		I	5946.453	-.087	12	HP
22149		I	5987.313	-.091	11	KL
22150	BP Vul	I	6003.248	+.014	7	RG
22151	BU Vul	I	5886.524	+.011	8	HP
22152		I	5906.451	+.023	7	MKo
22153		I	5940.583	+.015	6	MKo
22154		I	6005.438	+.006	8	HP
22155		I	6005.440	+.007	8	MKo
22156	CD Vul	I	5911.503	-.019	7	HP
22157		I	5933.385	-.017	8	HP
22158	NO Vul	I	6015.223	**	5	KL

* not contained in the GCVS, O-C according to the elements of Горанский, Переменные Звёзды Приложение 4, page 169, 1982

** not contained in the GCVS 1969, O-C according to the GCVS 1976 : +.024

11th Report on Visual Survey of NSV Stars Suspected to be Eclipsing

Improvements with respect to previous reports are underlined.

NSV no.	Constellation	catalogued amplitude	* type	resulting amplitude	* type	number nights surveyed	remarks
403	Psc	0.6p	S	0.0v	CST:	26	
817	Cep	1.0p	EA	1.1v	EB	105	see BBSAG Bulletin 63 p 5
1836	Ori	1.0p	S:	0.4v	S:	5	
1903	Aur	0.9p	S	0.4v	S:	8	
3772	Mon	2.5p	EA:	2.0v	EA	47	period $28^d.8 / n$
4187	Cnc	1.7p	S	0.8v	EW	46	see BBSAG Bulletin 65 p 6
11987	Dra	1.5p	EA	2.7v	EA	25	" " " 72 p 4
12877	Cyg	>1 p	EA	0.6v	EB:	12	rarely at minimum but often somewhat below maximum
13198	Cyg	1.2p	S	1.0v	EA	41	see BBSAG Bulletin 68 p 7
13250	Cyg	1.5p	S	1.1v	EBorDCEP	98	" " " 68 p 6
13616	Equ	0.9p	S	0.0v	CST:	16	

* nomenclature as NSV page 6