

BBSAG Bulletin 60

1982 June 7

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93rd List of Minima of Eclipsing Binaries

The following table lists 14 photoelectric and 242 visual minima obtained mainly during 1982 April and May by the observers

BBi Barbara Biedermann, Bäretswil, Switzerland
RB Roland Boninsegna, Dourbes, Belgium
(RD) Roger Diethelm, Flüh, Switzerland, photoelectric
DE Demetrius P. Elias, Penteli, Greece
SFe Stéphane Ferrand, Bougival, France
RG Robert Germann, Wald, Switzerland
(NH) Niklaus Hasler, Volketswil, Switzerland, photoelectric
AK Andreas Kaiser, Grüt, Switzerland
MKo Michael Kohl, Uster, Switzerland
RLe Robert Leyman, Leval - Trahegnies, Belgium
JLi Jean - Pierre Liégeois, Lodelinsart, Belgium
KL Kurt Locher, Grüt, Switzerland
PLo Patrick Louis, Namur, Belgium
GM George Mavrofridis, Athens, Greece
DM Dimosthenis Mourikis, Pireas, Greece
HP Hermann Peter, Otelfingen, Switzerland
TS Thomas Schildknecht, Evilard, Switzerland

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.

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(footnotes to page 2 :)

- * GCVS 1969 period erroneous, O - C according to the GCVS 1976 : +.012
 - ** O - C according to the GCVS amounts to one whole period, O - C according to the elements of BBSAG Bulletin 57, page 6 : -.004 +.003
 - *** not contained in the GCVS 1969, O - C according to the GCVS 1976 : +.088 +.082
 - **** O - C according to the GCVS exceeds one period, -O - C according to the elements of BBSAG Bulletin 38, page 6 : +.005 -.001
 - ***** no period given by the GCVS, O - C according to the elements of BBSAG Bulletin 27, page 7 : +.102 +.115 +.112 +.111
- (n) not
(v) very slightly) disturbed according to the criteria of Crawford and Olson, PASP 91, page 413, 1979, 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
18419	TT And	I	5115.481	-.064	6 KL	18467		I	5007.511	-.009	26 SFe
18420	EP And	II	5119.541	*	6 KL	18468		I	5013.492	-.004	15 SFe
18421	EX And	I	5080.529	**	6 KL	18469		I	5037.399	-.002	21 SFe
18422		I	5111.554	**	6 KL	18470		I	5049.348	-.005	13 GM
18423	GZ And	I	5061.350	***	6 KL	18471		I	5074.454	.000	20 RLe
18424		I	5101.604	***	10 KL	18472	AB Cas	I	5031.314	.000	7 GM
18425	XZ Aql	I	5116.533	+.063	6 KL	18473		I	5087.366	+.011	5 KL
18426	V 346 Aql	I	5092.541	-.012	6 KL	18474	V 523 Cas II	I	5119.542	-.004	6 KL
18427		I	5112.451	-.017	8 GM	18475	U Cep (v)	I	5092.576	+.058	8 KL
18428	V 479 Aql	I	5115.509	+.016	7 KL	18476	(n)	I	5097.556	+.052	10 KL
18429		I	5115.513	+.019	6 TS	18477	CM Cep <i>new</i>	I	5105.544	-.102	6 KL
18430	V 688 Aql	I	5103.529	-.012	6 (RD)	18478	RW Com	I	5101.380	-.054	7 RG
18431	V 760 Aql	I	5101.494	+.025	6 KL	18479		I	5115.384	-.053	7 RG
18432	V 803 Aql	I	5075.594	****	6 KL	18480		I	5120.365	-.057	7 RG
18433		I	5104.564	****	7 KL	18481	RZ Com	I	5061.327	+.009	8 RG
18434	WW Aur	I	5040.385	+.004	14 RLe	18482		II	5076.363	-.018	11 HP
18435	TU Boo	I	5077.340	+.001	6 KL	18483		II	5100.416	+.001	8 HP
18436		I	5077.342	+.003	6 RG	18484	SS Com	I	5079.367	-.102	12 (RD)
18437		II	5079.444	-.002	7 HP	18485	CC Com	I	5076.350	+.169	7 HP
18438		I	5100.365	+.002	6 KL	18486		II	5077.326	+.151	7 RG
18439		II	5103.444	.000	7 HP	18487		I	5100.401	+.165	7 HP
18440		II	5105.391	+.002	8 RG	18488		II	5101.390	+.161	7 RG
18441		II	5115.451	+.009	8 HP	18489		II	5103.368	+.153	8 RG
18442	UW Boo	I	5115.435	+.026	11 HP	18490		I	5104.367	+.158	8 HP
18443		I	5116.433	+.019	10 HP	18491		I	5115.398	+.156	7 RG
18444	AC Boo	I	5079.3615	+.0151	10 (RD)	18492		II	5116.384	+.149	8 RG
18445		II	5101.366	-.008	6 RG	18493	U CrB	I	5097.475	+.010	12 GM
18446	AD Boo	I	5074.5133	+.0528	14 (RD)	18494		I	5104.359	-.010	8 GM
18447		I	5100.390	+.069	8 HP	18495	W Crv	I	5061.495	-.002	6 KL
18448		I	5101.407	+.052	8 HP	18496		II	5071.391	-.003	8 HP
18449	Y Cam	I	5064.312	+.165	8 RG	18497		I	5079.351	+.002	6 KL
18450		I	5097.396	+.194	9 KL	18498		I	5082.450	-.004	7 KL
18451	SV Cam	I	5097.379	-.007	13 GM	18499		I	5103.408	-.003	5 BBi
18452	WW Cnc	I	5070.430	-.297	13 HP	18500		I	5103.408	-.002	6 MKo
18453	YZ CVn	I	5061.470	*****	6 KL	18501		I	5103.410	-.001	7 KL
18454		I	5075.588	*****	8 KL	18502		I	5103.412	+.001	5 AK
18455		I	5101.447	*****	10 KL	18503		II	5104.375	-.005	8 HP
18456		I	5115.552	*****	6 KL	18504		II	5116.416	+.005	12 HP
18457	TU CMa	I	5031.324	-.009	7 GM	18505	WZ Cyg	I	5064.613	+.017	6 KL
18458		I	5049.370	-.008	6 GM	18506	BR Cyg	I	5097.403	+.005	6 KL
18459	AK CMi	I	5061.371	+.020	6 KL	18507		I	5121.401	+.016	8 KL
18460		I	5070.425	+.020	10 HP	18508	CG Cyg	I	5077.626	-.028	6 KL
18461		I	5078.344	+.016	8 KL	18509	V 698 Cyg	I	5064.5	+.1	6 KL
18462		I	5078.348	+.020	9 HP	18510	TT Del	I	5120.448	+.073	6 KL
18463	TY Cap	I	5116.574	-.109	6 KL	18511	Z Dra	I	5067.598	+.021	6 KL
18464	RZ Cas	I	4982.423	+.003	28 SFe	18512		I	5078.455	+.019	10 HP
18465		I	4988.403	+.007	11 SFe	18513		I	5093.383	+.015	7 KL
18466		I	4994.373	+.001	22 SFe	18514		I	5093.387	+.019	10 HP
						18515		I	5116.463	+.018	12 HP
						18516	RZ Dra	I	5101.370	-.027	7 RG
						18517	TW Dra	I	5065.354	-.054	8 KL

cur- rent no.	star	minimum or- JD hel der 244...	0-C n	ob- ser- ver	cur- rent no.	star	minimum or- JD hel der 244...	0-C n	ob- ser- ver
18518		I 5079.400	-.042	9 HP	18558	DE Hya	I 5079.373	+.023	6 KL
18519		I 5079.404	-.039	10 (RD)	18559	EX Hya	I 5061.507	+.020	6 KL
18520	AI Dra	I 5075.458	+.002	11 JLi	18560		I 5075.414	+.008	6 KL
18521		I 5075.463	+.007	15 RB	18561		I 5101.414	+.010	6 KL
18522		I 5075.468	+.012	8 PLo	18562	TW Lac	I 5078.606	-.132	6 KL
18523	CM Dra	I 5079.380	*	5 KL	18563	VX Lac	I 5100.520	-.074	6 KL
18524		I 5103.475	*	6 KL	18564	AU Lac	I 5067.617	-.074	7 KL
18525	S Equ	I 5077.615	+.037	7 KL	18565	Y Leo	I 5082.374	+.137	9 HP
18526	U Gem	I 5056.325	+.010	17 DE	18566		I 5082.374	+.138	7 KL
18527	TX Gem	I 5065.345	+.007	9 KL	18567		I 5087.429	+.134	8 KL
18528		I 5079.334	-.004	8 HP	18568	UZ Leo	I 5079.402	-.143	10 (RD)
18529		I 5093.325	-.013	6 KL	18569	AM Leo	I 5103.355	-.042	5 HP
18530	GW Gem	I 5079.375	-.049	10 HP	18570	BL Leo	I 5078.407	-.022	6 KL
18531	RX Her	I 5104.610	-.009	6 RG	18571	T LMi	I 5101.415	-.141	11 HP
18532	SZ Her	I 5056.521	+.036	8 DM	18572		I 5104.433	-.143	7 KL
18533		I 5092.515	+.034	6 KL	18573		I 5104.437	-.139	10 HP
18534		I 5115.426	+.039	10 HP	18574	TY Lib	I 5105.422	-.011	8 HP
18535	TT Her	I 5103.5372	-.0238	15 (RD)	18575		I 5105.427	-.005	8 KL
18536		I 5115.374	-.044	7 RG	18576	RY Lyn	I 5061.442	**	5 KL
18537	TX Her	II 5074.4832	+.0117	12 (RD)	18577		I 5084.410	**	6 KL
18538	UX Her	I 5085.604	-.059	5 KL	18578		I 5107.373	**	6 KL
18539	BO Her	I 5093.502	+.020	5 KL	18579	SX Lyn	I 5077.404	-.374	8 RG
18540	CC Her	I 5064.569	+.101	10 KL	18580		I 5077.406	-.372	7 KL
18541		I 5078.436	+.096	6 KL	18581	TZ Lyr	I 5115.467	+.050	9 HP
18542		I 5078.440	+.100	8 HP	18582	UZ Lyr	I 5104.601	+.010	7 RG
18543		I 5104.447	+.098	9 HP	18583	EW Lyr	I 5061.486	+.086	6 KL
18544		I 5111.384	+.099	9 GM	18584		I 5100.458	+.084	8 KL
18545	CT Her	I 5077.456	+.064	8 KL	18585	GZ Lyr	I 5120.516	***	6 KL
18546		I 5093.518	+.049	6 KL	18586	BO Mon	I 5056.342	+.169	9 GM
18547	DQ Her	I 5101.486	+.012	6 KL	18587	HM Mon	I 5061.410	+.094	6 KL
18548	ES Her	I 5111.470	-.143	6 KL	18588	RZ Oph	I 5084.4	-.5	8 RG
18549	MT Her	I 5080.607	+.030	10 TS	18589	SZ Oph	I 5077.550	+.293	7 KL
18550		I 5080.612	+.036	9 KL	18590		I 5103.491	+.275	8 MKb
18551	V 359 Her	I 5074.520	-.094	11 (RD)	18591	V 391 Oph	I 5101.586	-.020	6 KL
18552	TT Hya	I 5079.438	+.157	8 KL	18592	V 449 Oph	I 5101.423	+.058	6 KL
18553	VY Hya	I 5056.421	-.033	9 GM	18593	V 501 Oph	I 5104.444	-.007	8 HP
18554		I 5056.427	-.027	8 DM	18594	V 502 Oph II	5103.5499	-.0652	14 (RD)
18555		I 5072.436	-.028	6 KL	18595	V 508 Oph	I 5064.616	+.014	7 KL
18556		I 5078.452	-.016	6 KL	18596		I 5092.551	+.020	6 KL
18557	WY Hya	I 5070.365	+.014	9 HP					

* GCVS elements incomplete, 0 - C according to Martins' elements PASP 87, p.168, 1975 : -.521 -.531

** no period given by the GCVS, 0 - C according to the elements of Samolyk and Wedemayer, JAAVSO 6, p.49, 1977 : +.019 +.028 +.031

*** no period given by the GCVS 1969, 0 - C according to the GCVS 1976: +.004

current no.	star	minimum or-der	JD hel 244...	O-C	n	ob-ser-ver	current no.	star	minimum or-der	JD hel 244...	O-C	n	ob-ser-ver
8597		I	5104.602	+0.003	6	RG	18633		I	5101.420	****	5	RG
8598		I	5105.471	+0.010	5	HP	18634		II	5103.368	****	8	RG
8599		II	5115.468	+0.008	10	HP	18635		II	5120.388	****	7	RG
8600	V 511 Oph	I	5115.594	+0.081	6	KL	18636	UX UMa	I	5061.306	.000	6	KL
8601	V 913 Oph	I	5067.583	-0.117	7	KL	18637		I	5080.383	.000	8	TS
8602		I	5115.515	-0.119	14	HP	18638		I	5080.383	.000	9	KL
8603	UX Peg	I	5119.562	-0.029	6	KL	18639	VV UMa	I	5085.344	+0.122	5	HP
8604	BY Peg	I	5116.542	+0.072	6	KL	18640		I	5120.381	+0.105	7	RG
8605	KW Per	I	5111.506	+0.049	6	KL	18641	XZ UMa	I	5112.349	-0.068	9	GM
8606	XY Sgr	I	5061.579	-0.010	6	KL	18642	ZZ UMa	I	5093.339	-0.002	6	RG
8607	V 1961 Sgr	I	5092.622	+0.020	7	KL	18643		I	5093.342	.000	8	KL
8608		I	5111.561	.000	7	KL	18644		I	5093.342	.000	8	HP
8609		I	5120.546	+0.016	11	KL	18645	AC UMa	I	5078.516	+0.324	10	KL
8610	AK Ser	I	5061.533	-0.007	7	KL	18646	BH UMa	I	5093.348	-0.034	6	RG
8611		I	5111.534	+0.006	8	KL	18647		II	5101.381	-0.036	6	RG
8612	AU Ser	II	5067.425	*	6	KL	18648		II	5115.365	-0.025	6	RG
8613		II	5077.486	*	6	KL	18649	BM UMa	II	5061.393	*****	6	KL
8614		II	5079.410	*	10	HP	18650		I	5075.365	*****	7	KL
8615		I	5087.346	*	6	KL	18651	UW Vir	I	5082.399	+0.367	6	KL
8616		II	5101.442	*	9	HP	18652		I	5111.373	+0.369	9	GM
8617		I	5103.562	*	11	RD	18653	VV Vir	I	5079.536	*****	6	KL
8618		II	5115.364	*	6	RG	18654	AG Vir	I	5074.457	+0.046	12	RD
8619	LX Ser	I	5061.579	**	6	KL	18655	AK Vir	I	5092.514	+0.047	7	KL
8620		I	5104.514	**	6	KL	18656		I	5104.440	+0.037	12	HP
8621		I	5115.447	**	12	TS	18657		I	5116.379	+0.040	8	RG
8622		I	5115.447	**	11	KL	18658	AZ Vir	I	5115.401	*****	6	RG
8623	AM Tau	I	5061.297	-0.161	6	KL	18659	BD Vir	I	5079.336	+0.156	6	KL
8624	ES Tau	I	5075.387	***	7	KL	18660	BF Vir	I	5078.424	-0.046	9	HP
8625	HU Tau	I	5003.393	+0.015	12	RL	18661		I	5078.425	-0.045	6	KL
8626	W UMa	I	5053.4234	-0.1684	42	NH	18662		I	5092.519	-0.043	7	KL
8627		I	5097.471	-0.162	7	GM	18663		I	5103.411	-0.041	9	HP
8628	TX UMa	I	5056.336	-0.021	10	GM	18664	BH Vir	I	5078.372	+0.005	8	HP
8629		I	5105.367	-0.002	7	RG	18665	AW Vul	I	5093.520	-0.030	6	KL
8630		I	5105.368	-0.001	8	HP	18666	AX Vul	I	5104.465	-0.009	6	KL
8631		I	5111.485	-0.011	14	MK	18667	AY Vul	I	5119.532	+0.032	7	KL
8632	TY UMa	I	5077.323	****	7	RG	18668	BO Vul	I	5078.584	-0.090	6	KL

* GCVS 1969 period too inaccurate for reasonable reduction, O - C according to the GCVS 1974: -.006 +.007 -.002 +.010 -.001 -.007 +.007

** not contained in the GCVS, O - C according to the elements of Africano, Horne, and Margon, IAUC 3466: +.014 +.015 +.015 +.015

*** GCVS period erroneous, O - C according to the elements of BBSAG Bulletin 58, page 5: .000

**** GCVS period erroneous, O - C according to the elements of Broglia & Conconi IBVS 1949: .000 -.012 -.014 -.011

***** GCVS 1969 type and period erroneous, O - C according to the GCVS 1976: +.049 +.053

***** O - C according to the GCVS exceeds two periods, O - C according to the elements of BBSAG Bulletin 31, page 6: +.002

cur- rent no.	star	minimum or- der	JD hel 244...	O-C	n	ob- ser- ver
18669		I	5080.531	-.089	10	KL
18670		I	5080.533	-.087	13	TS
18671	DR Vul	*II	5116.479	+.164	14	(RD)
18672	GP Vul	I	5056.596	-.024	8	DM
18673	NO Vul	I	5077.555	**	7	KL
18674		II	5111.474	**	6	KL

* displaced secondary

** not contained in the GCVS 1969, O-C according to the GCVS 1976 : +.028 +.022

I N D E X O F S T A R N A M E S BBSAG Bulletins 1 through 60

We do not continue the extensive index previously given after each decade of Bulletins, but give now for each star after a :-sign the latest Bulletin no. where a minimum has been published. Wherever photoelectric minima exist, the whole entry is underlined, and visual minima are completely ignored.

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Ant S:26 SW:57

Aqr RY:57 XZ:56 AM:17 AT:57 AU:56 AY:57 BW:10 BX:23 CQ:23 CR:57 CX:58 CZ:57 DD:23 DX:23 EE:57 EK:6

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CMA R:53 RR:57 RU:57 RX:59 TU:60 TX:21 UU:59 UX:26 EE:58 EG:59

CMi TY:37 XZ:37 YY:59 AG:53 AK:60

Cap TY:60 UW:29 WZ:23

Cas RZ:60 TV:58 TW:53 ZZ:30 AB:60 AL:50 BM:31 CW:52 EP:50 IR:57 IS:51 IV:59 KT:59 LR:53 MN:32 OR:57 OX:23 PV:57 V345:58 V355:58 V360:30 V364:26 V374:26 V389:59 V459:35 V523:60

Cen V576:42 V752:46

Cep U:60 RS:19 SU:58 VW:31 WW:36 WX:56 WY:57 WZ:21 XX:57 ZZ:57 AH:52 BR:57 CM:60 CW:57 DP:56 EE:22 EG:57 EK:57 GI:59 GK:38 GS:23 GW:29 IO:49 NN:34 NU:38

Cet SS:58 TW:58 TX:58 VY:57 XY:17 AA:57

Col RS:20

Com RW:60 RZ:60 SS:60 UX:3 CC:60 DD:26

CrB U:54 RW:48 TW:56

Crv W:60 Z:52 RV:3

Crt V:59

Cyg Y:44 SW:58 UW:57 UZ:51 WW:57 WZ:60 ZZ:58 AE:57 BR:60 CG:50 CV:28 DK:23 DL:44 DO:50 GO:44 KR:58 KV:39 MR:44 MY:50 V370:57 V382:56 V387:57 V388:49 V401:40 V444:44 V456:57 V463:44 V470:56 V477:57 V498:39 V525:57 V541:34 V548:57 V687:57 V698:60 V700:56 V728:56 V836:56 V909:57 V1034:50 V1068:35 V1073:23 V1143:47 V1425:23

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Dra Z:60 RR:56 RZ:60 SX:59 TW:60 TZ:55 UZ:57 WW:39 AI:60 BF:50 BH:46 BS:49 CM:60

Equ S:60 RZ:57

Eri RU:53 TT:57 TZ:53 UX:7 WX:58 YY:53 ZZ:58 AK:53 AM:59 AS:20 BL:39 BZ:58