

BBSAG Bulletin 42

1979 April 2

75th List of Minima of Eclipsing Binaries

The following table lists 147 minima obtained visually mainly during 1979 February and March by the observers

CA	Claudio Agnesoni, Siena, Italy
MA	Μαρία 'Ανδρακάκου, 'Αθήνα, Greece
AB	Alberto Buzzoni, Ferrara, Italy
LC	Luca Chiantini, Siena, Italy
RD	Roger Diethelm, Reinach, Switzerland
GD	Γεώργιος Δήμου, Κρυονέρι, Greece
RG	Robert Germann, Wald, Switzerland
KL	Kurt Locher, Grüt, Switzerland
DM	Δημοσθένης Μουρίκης, Πειραιάς, Greece
CPa	Carlo Pampaloni, Firenze, Italy
APa	'Αρίστος Παρρής, Λάρισσα, Greece
HP	Hermann Peter, Stelfingen, Switzerland
EP	Ennio Poretti, Arconate, Italy
NS	Νικόλαος Στωϊκίδης, Λάρισσα, Greece

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 the tracing paper method.

(footnotes to page 2 :)

* O-C according to the GCVS 1969 exceeds 1 period, O-C according to the elements of BBSAG Bulletin 38, p.6: +.010

** no period given by the GCVS, O-C according to the elements of BBSAG Bulletin 27, p.7: +.054

*** no period given by the GCVS, O-C according to Figer's (1st set) elements IBVS 1231: +.134

**** no period given by the GCVS, O-C according to the elements of Samolyk and Wedemayer, JAAVSO preprint 1977: -.007 +.022

cur- rent no.	star	minimum or- der	JD hel 244...	O-C	n ser- ver	ob- ser- ver	cur- rent no.	star	minimum or- der	JD hel 244...	O-C	n ser- ver	ob- ser- ver
13988	V 479 Aql	I	3957.643	+0.015	6	KL	14043	YY Eri	II	3929.373	+0.023	8	HP
13989	V 803 Aql	I	3957.621	*	7	KL	14044	RW Gem	I	3960.316	.000	6	KL
13990	RY Aur	I	3920.223	-0.004	10	KL	14045	TX Gem	I	3931.332	-0.001	9	HP
13991	TT Aur	I	3941.388	+0.018	12	HP	14046	BD Gem	I	3929.402	+0.052	9	HP
13992		I	3957.388	+0.026	9	HP	14047	BT Gem	I	3957.401	-0.045	6	KL
13993	WW Aur	I	3871.304	+0.006	33	AB	14048	DP Gem	I	3942.337	-0.114	11	KL
13994		II	3905.384	-0.001	16	CPa	14049	EF Gem	I	3925.514	+0.069	10	KL
13995		I	3929.375	+0.002	12	EP	14050	FG Gem	I	3954.338	-0.085	8	HP
13996	ZZ Aur	I	3929.338	-0.018	6	HP	14051	GW Gem	I	3931.308	-0.022	7	HP
13997		I	3941.368	-0.013	10	HP	14052	DP Her	I	3957.596	-0.188	6	KL
13998	AR Aur	I	3905.413	+0.003	26	CPa	14053	DQ Her	I	3940.505	+0.011	8	KL
13999		II	3932.289	+0.003	9	RG	14054		I	3942.634	+0.010	9	KL
14000	CL Aur	I	3931.389	+0.031	8	HP	14055	RX Hya	I	3931.407	+0.046	11	HP
14001		I	3936.370	+0.035	9	RD	14056		I	3947.370	+0.038	10	KL
14002	HL Aur	I	3929.327	+0.011	7	HP	14057		I	3947.377	+0.046	6	APa
14003		I	3957.338	+0.010	10	HP	14058		I	3947.383	+0.051	9	NS
14004	IM Aur	I	3929.399	-0.013	8	EP	14059	WY Hya	II	3929.411	+0.015	8	HP
14005		I	3949.349	-0.020	8	EP	14060		II	3957.332	+0.012	8	HP
14006	TU Boo	II	3918.504	+0.004	11	KL	14061	AE Hya	II	3940.442	-0.028	13	KL
14007		I	3920.608	+0.001	6	KL	14062		I	3942.412	-0.022	11	KL
14008		I	3957.579	+0.003	7	KL	14063	CU Hya	I	3957.380	+0.103	6	KL
14009	WX Cnc	I	3930.424	+0.127	8	HP	14064	EU Hya	I	3936.421	-0.030	6	RD
14010		I	3957.372	+0.134	11	HP	14065	PP Lac	I	3950.662	***	7	KL
14011	YZ CVn	I	3957.627	**	10	KL	14066	Y Leo	I	3932.446	+0.110	11	HP
14012	R Cma	I	3888.370	+0.007	12	CPa	14067		I	3937.511	+0.116	6	KL
14013		I	3905.416	+0.014	24	CPa	14068		I	3942.561	+0.108	7	KL
14014		I	3946.306	+0.010	10	RG	14069		I	3954.367	+0.111	8	KL
14015	AK CMi	I	3932.410	+0.020	9	HP	14070	RW Leo	I	3957.380	+0.057	6	KL
14016		I	3936.363	+0.012	7	RD	14071	UV Leo	II	3926.392	-0.017	13	EP
14017	RZ Cas	I	3880.410	+0.009	12	CPa	14072		II	3929.398	-0.011	9	EP
14018		I	3886.385	+0.007	16	CPa	14073		I	3930.310	.000	7	KL
14019		I	3892.361	+0.007	16	CPa	14074		II	3932.397	-0.013	14	EP
14020		I	3905.512	+0.010	22	CPa	14075		II	3932.408	-0.001	9	HP
14021		I	3941.364	+0.005	15	CA	14076		II	3935.400	-0.010	11	EP
14022		I	3941.364	+0.005	13	LC	14077		I	3937.509	-0.001	6	KL
14023	TV Cas	I	3888.306	-0.011	53	AB	14078		I	3955.499	-0.014	8	EP
14024	V 576 Cen	II	3940.531	+0.043	9	KL	14079		II	3956.408	-0.006	15	EP
14025		I	3941.474	+0.041	11	KL	14080		I	3957.308	-0.006	7	RG
14026	V 752 Cen	I	3918.649	-0.012	10	KL	14081	BL Leo	II	3955.348	-0.005	7	KL
14027		I	3937.533	-0.010	8	KL	14082		II	3957.316	-0.011	6	KL
14028	U Cep	I	3918.339	+0.043	8	KL	14083	RY Lyn	I	3920.621	****	6	KL
14029	RW Com	II	3932.338	-0.042	6	RG	14084		I	3926.391	****	8	KL
14030		I	3957.379	-0.042	7	RG	14085	W Lyr	I	3942.607	-0.028	10	KL
14031	CC Com	I	3954.373	+0.128	7	HP	14086	RW Mon	I	3931.427	+0.001	7	HP
14032		II	3957.359	+0.135	7	RG	14087	BM Mon	I	3917.279	+0.016	14	KL
14033	W Crv	I	3925.582	-0.002	11	KL	14088	V 449 Oph	I	3951.579	+0.059	10	KL
14034		I	3932.574	+0.003	6	KL	14089	V 501 Oph	I	3950.649	-0.006	6	KL
14035		I	3941.491	-0.005	7	GD	14090		I	3951.618	-0.005	7	KL
14036		I	3941.493	-0.003	7	KL	14091	V 508 Oph	I	3953.697	+0.013	6	KL
14037		I	3951.583	-0.003	7	KL	14092	V 913 Oph	I	3953.615	-0.100	8	KL
14038	Z Crv	I	3940.632	-0.006	8	KL	14093	V 1010 Oph	I	3917.651	-0.079	7	KL
14039	Z Dra	I	3931.409	+0.010	8	HP	14094	ER Ori	I	3926.334	-0.012	8	HP
14040	TW Dra	I	3928.596	-0.029	5	KL	14095	FK Ori	I	3941.385	+0.290	6	KL
14041		I	3942.612	-0.048	6	GD	14096	FL Ori	I	3942.289	+0.094	13	KL
14042		I	3942.618	-0.042	6	KL	14097	Z Per	I	3926.318	+0.025	7	HP

* ** *** **** see preceding page

cur- rent no.	star	minimum or- der	JD hel 244...	O-C	n ser- ver	ob- ser- ver	cur- rent no.	star	minimum or- der	JD hel 244...	O-C	n ser- ver	ob- ser- ver
14098		I	3929.372	+.022	9	HP	14116	CT Tau	II	3932.332	+.028	7	RG
14099	RT Per	I	3927.313	-.064	6	HP	14117		I	3941.348	+.042	9	HP
14100		I	3932.412	-.061	7	HP	14118		I	3957.323	+.013	7	RG
14101	WY Per	I	3916.232	-.040	5	KL	14119	RW Tri	I	3918.225	-.003	11	KL
14102	XZ Per	I	3932.426	+.005	7	HP	14120	TX UMa	I	3941.337	.000	10	HP
14103	IQ Per	I	3936.371	-.025	8	RD	14121		I	3941.339	+.002	11	EP
14104	QU Per	I	3955.294	*	6	KL	14122	UX UMa	I	3917.663	.000	8	KL
14105	β Per	I	3918.259	-.108	14	RG	14123		I	3918.643	-.003	8	KL
14106	EE Peg	I	3829.255	+.039	33	AB	14124		I	3920.612	-.001	6	KL
14107	UZ Pup	II	3931.320	-.034	7	HP	14125		I	3929.461	-.002	8	KL
14108	RZ Pyx	I	3930.365	+.176	6	KL	14126		I	3931.428	-.002	9	KL
14109		II	3937.276	+.196	7	KL	14127		I	3931.429	-.001	9	MA
14110		I	3957.297	+.201	7	KL	14128		I	3931.431	+.001	8	DM
14111	RZ Tau	II	3936.425	+.020	9	RD	14129		I	3953.653	.000	6	KL
14112	AH Tau	I	3936.362	-.033	7	RD	14130		I	3955.423	.000	6	KL
14113	AN Tau	I	3927.360	+.002	9	HP	14131	VV UMa	I	3926.417	+.096	10	HP
14114	CD Tau	II	3888.312	-.065	66	AB	14132		I	3957.349	+.093	7	RG
14115		I	3955.291	-.071	8	EP	14133	XZ UMa	I	3941.368	-.072	11	HP
							14134	AC UMa	I	3940.566	+.277	6	KL

*No period given by the GCVS. During the 6 months since the discovery of the period (BBSAG Bulletin 39, p.6) the O-C has already grown to several hours, so that an improvement is necessary now as follows: $JD_{min} I = 2443777.587 + 2.4013 E$. The actual minimum gets an O-C of $+.011$ with respect to these improved elements.

Z C o r v i : D u r a t i o n a n d D e p t h o f t h e M i n i m u m

The GCVS 1969-71-74-76 states neither the D nor the d value of this binary. My survey of the minimum JD 2443940 has yielded

$$D/p = .24 \pm .02 \qquad d/p = .06 \pm .01$$

and hence the classification EA, whereas the GCVS does not specify further than E.

With such a total primary eclipse, the photographic amplitude should be larger than visual one. However the GCVS states only 0.9 photographic amplitude, very discordant with my visual estimations as follows:

$$m_v \max \approx 14 \qquad m_v \min \approx 16.5$$

K. Locher

A c k n o w l e d g m e n t s

Further on I am greatly indebted to the directors and collaborators Σ. Πλακίδης, Γ. Κοντόπουλος, Δ. Ηλιάς, Γ. Δήμου, M. Schürer, and P. Wild for allowance and help in the use of the 120 cm-Cassegrain at Corinth-Χρυονέρι, the 63 cm-"Newall"-Refractor at Athens-Πεντέλη, and the 60 cm - Cassegrain at Berne-Zimmerwald.

K. Locher

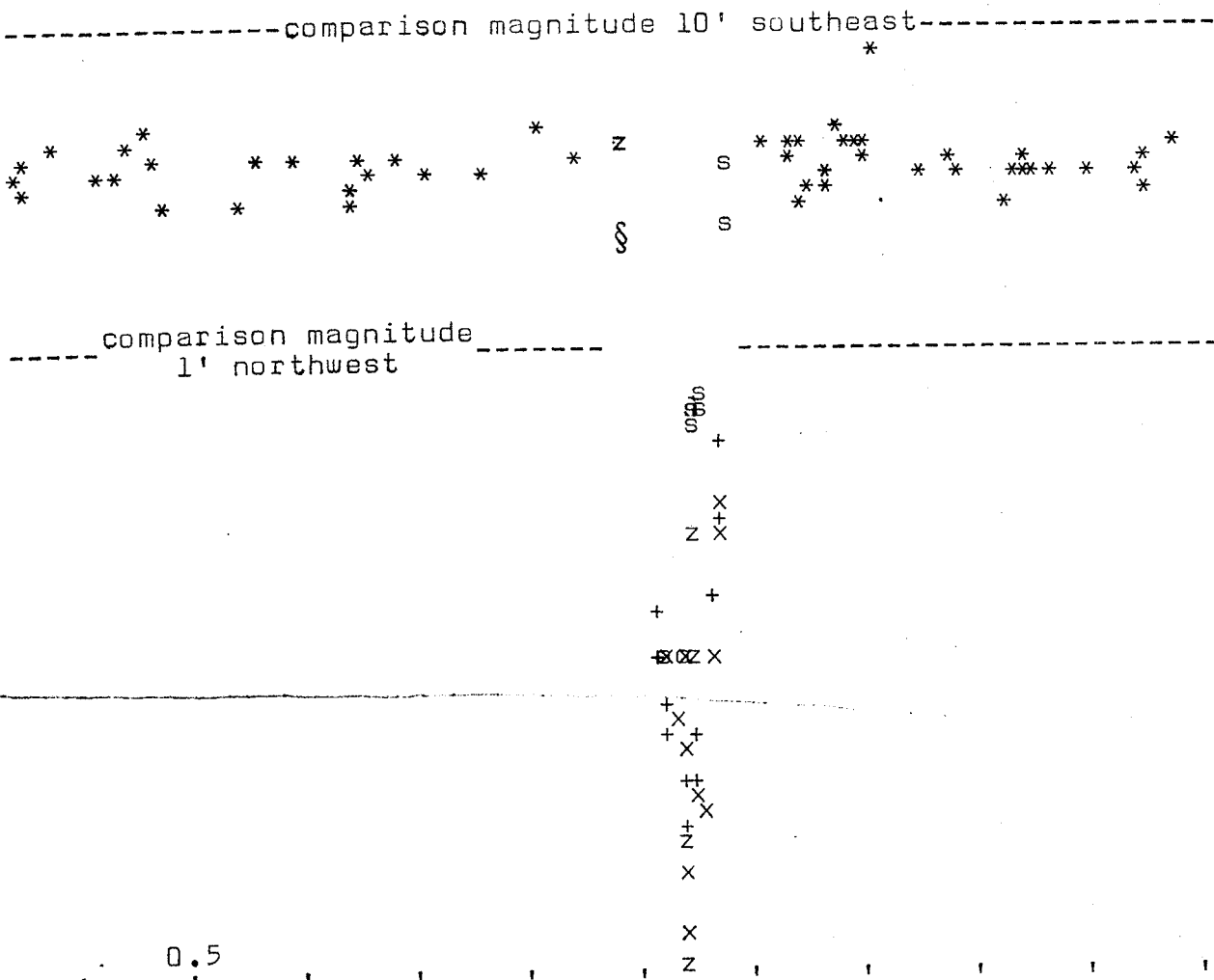
E G Sagittarii :

The GCVS Period must be halved

I survey this EA binary since 1975, and was able to register 3 minima in summer 1978 (no. 13170 f. BBSAG Bulletin 38). Suspicion of half period arose because their O-C values showed approximately this value, but the crucial phase to prove it had not yet been covered by the survey data collected until then. This gap is now filled by 2 observations in the morning of JD 2443953, a date differing from the observed minima by an odd number of half GCVS periods, when a brightness was found which is much too faint to be interpreted as a secondary minimum.

Fig. 45 plots all my observations against the new phase, i.e. calculated from the GCVS epoch 2427395.771 and half the GCVS period 2.48619885. As an accessory, O^m04 turns out to be an upper limit for the secondary amplitude in visual light. K. Locher

Fig.45



JD: (*) 42621-43951 sporadic, (§) 42869, (z)43717, (+) 43732, (x) 43742, (s) 43767, (o) 43953 crucial