

# BBSAG Bulletin 47

1980 May 5

## 80<sup>th</sup> List of Minima of Eclipsing Binaries

The following table lists 170 visual and 1 photoelectric minima obtained mainly during 1980 March and April by the observers

MA	Μαρία 'Ανδρακίου, 'Αθήνα, Greece
GB	Guy Boistel, Sautron, France
AB	Alberto Buzzoni, Ferrara, Italy
LC	Luca Chiantini, Siena, Italy
(RD)	Roger Diethelm, Flüh, Switzerland, photoelectric
RD	" " " " visual
LF	Luciano Ficola, Roma, Italy
RG	Robert Germann, Wald, Switzerland
KL	Kurt Locher, Grüt, Switzerland
DM	Δημοσθένης Μουρίκης, Πειραιάς, Greece
PM	Patrizio Mugnaini, Siena, Italy
CPa	Carlo Pampaloni, Firenze, Italy
HP	Hermann Peter, Otelfingen, 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 : )

- \*  $O - C$  according to the GCVS 1969 exceeds 1 period,  $O - C$  according to the elements of BBSAG Bulletin 38, p.6:  $+0.010$
- \*\* no period given by the GCVS,  $O - C$  according to the elements of BBSAG Bulletin 27, p.7:  $+0.065 +0.071$
- \*\*\* not contained in the GCVS 1969,  $O - C$  according to the GCVS 1976:  $+0.001$
- \*\*\*\* GCVS elements incomplete,  $O - C$  according to Martins' elements PASP 87, p.168, 1975:  $-0.413$

current no.	star	minimum or-der	JD hel 244...	O-C	n	ob-serve	current no.	star	minimum or-der	JD hel 244...	O-C	n	ob-serve
15257	TT And	I	4360.594	-.063	6	KL	15300	CW Cas	I	4304.343	+.072	9	RD
15258	V 479 Aql	I	4343.604	+.021	6	KL	15301	V 523 Cas	I	4304.318	***	9	KL
15259	V 803 Aql	II	4341.564	*	6	KL	15302	EG Cep	I	4358.421	+.027	6	KL
15260	WW Aur	II	4309.384	-.005	13	CPa	15303	EK Cep	I	4143.385	-.002	33	AB
15261	ZZ Aur	I	4336.368	-.011	10	HP	15304	RW Com	II	4316.361	-.048	8	RG
15262		I	4339.370	-.016	12	HP	15305		I	4337.375	-.038	6	RG
15263		I	4342.373	-.019	8	HP	15306		I	4342.343	-.055	8	RG
15264	AH Aur	I	4303.473	+.038	6	RD	15307		II	4343.409	-.057	7	RD
15265	AR Aur	II	4242.386	+.002	30	CPa	15308		II	4358.362	-.057	6	KL
15266	CL Aur	I	4303.455	+.032	6	KL	15309	RZ Com	I	4303.402	-.001	8	HP
15267	HL Aur	I	4341.410	-.004	8	HP	15310		II	4316.435	.000	6	KL
15268	TU Boo	II	4303.429	+.001	6	KL	15311		II	4339.449	-.005	10	HP
15269		I	4304.396	-.005	4	KL	15312	SS Com	II	4342.422	-.008	8	RD
15270		I	4336.344	+.001	6	KL	15313	CC Com	II	4336.494	+.142	9	HP
15271		I	4341.373	+.004	7	RG	15314		II	4337.379	+.144	6	RG
15272		II	4342.336	-.007	7	RG	15315		I	4339.472	+.140	9	HP
15273		II	4342.349	+.006	11	KL	15316		I	4342.342	+.142	7	RG
15274	TY Boo	I	4303.461	+.042	5	RD	15317		II	4342.439	+.128	9	RD
15275		I	4342.438	+.010	11	RD	15318	W Crv	I	4335.391	-.007	11	KL
15276	VW Boo	II	4343.400	-.100	6	RD	15319		II	4339.477	+.004	11	HP
15277	AR Boo	II	4343.442	+.094	8	RD	15320		I	4340.440	-.003	8	HP
15278	AC Boo	I	4341.352	-.008	8	RG	15321		I	4342.379	-.005	11	KL
15279	SV Cam	I	4316.301	-.010	7	RG	15322	V Crt	I	4316.408	+.047	7	KL
15280		I	4342.377	-.028	8	RG	15323		I	4337.452	+.030	9	HP
15281		I	4358.414	-.004	7	KL	15324	WW Cyg	I	4342.622	+.032	9	KL
15282	TX Cnc	II	4303.496	+.040	7	RD	15325	ZZ Cyg	I	4317.679	-.034	6	KL
15283	WX Cnc	I	4339.446	+.139	8	HP	15326		I	4360.432	-.028	7	KL
15284	WY Cnc	I	4341.451	.000	10	HP	15327	V 1143 Cyg	I	4115.328	+.055	33	AB
15285	VW CVn	I	4343.411	-.054	6	RD	15328	Z Dra	I	4303.352	+.015	8	KL
15286	YZ CVn	I	4304.411	**	9	KL	15329		I	4341.362	+.016	9	HP
15287		I	4344.384	**	11	KL	15330	CM Dra	I	4342.431	****	8	KL
15288	R CMa	I	4281.403	+.005	24	CPa	15331	TX Gem	I	4337.329	-.005	7	HP
15289	AK CMi	I	4340.408	+.007	11	HP	15332	YY Gem	II	4303.495	+.005	7	RD
15290	RZ Cas	I	4143.359	+.003	33	AB	15333		II	4343.388	-.002	7	RD
15291		I	4235.397	+.007	10	LF	15334	AF Gem	I	4316.408	-.019	9	HP
15292		I	4241.369	+.002	10	LC	15335	EY Gem	I	4303.491	+.016	7	RD
15293		I	4247.362	+.020	12	CPa	15336	FG Gem	I	4339.328	-.087	9	HP
15294		I	4271.250	+.002	25	CPa	15337	GW Gem	I	4316.424	-.022	9	HP
15295		I	4278.421	+.002	9	CPa	15338	SZ Her	I	4354.595	+.035	7	KL
15296		I	4321.446	-.002	51	GB	15339	TU Her	I	4342.568	-.083	11	KL
15297		I	4339.380	+.003	10	HP	15340	BO Her	I	4341.488	+.024	7	KL
15298	TW Cas	I	4242.290	-.012	10	CPa	15341	CC Her	I	4320.657	+.065	6	KL
15299	AB Cas	I	4342.414	+.006	6	HP	15342		I	4360.562	+.089	11	KL

cur- rent no.	star	minimum or- JD hel der 244...	0-C	ob- n ser- ver	cur- rent no.	star	minimum or- JD hel der 244...	0-C	ob- n ser- ver
15343	DP Her	I 4341.435	-.190	6 KL	15377	ER Ori	II 4303.363	-.021	9 HP
15344	DQ Her	I 4341.493	+.010	8 KL	15378	RT Per	I 4316.336	-.069	8 HP
15345		I 4343.428	+.010	8 KL	15379		I 4316.338	-.067	7 KL
15346	ES Her	I 4343.533	-.120	6 KL	15380	XZ Per	I 4311.316	+.007	5 KL
15347	V 502 Her	II 4320.548	+.145	6 KL	15381	XZ Pup	I 4317.366	-.020	7 KL
15348	SX Hya	I 4344.444	+.215	11 KL	15382	U Sge	I 4354.539	+.008	7 KL
15349	WY Hya	II 4340.393	+.010	10 HP	15383	UZ Sge	I 4343.638	+.051	7 KL
15350		I 4354.355	+.010	5 KL	15384	EG Sgr	I 4341.563	***	6 KL
15351	TW Lac	I 4343.556	-.109	6 KL	15385	AU Ser	I 4303.504	****	7 KL
15352	Y Leo	I 4303.392	+.120	11 HP	15386		I 4320.517	****	7 KL
15353		I 4335.426	+.119	11 KL	15387		I 4340.610	****	5 KL
15354		I 4340.485	+.120	10 HP	15388		I 4341.377	****	7 RG
15355	UU Leo	I 4317.383	-.025	6 KL	15389		I 4344.482	****	6 DM
15356	UV Leo	II 4331.455	-.012	6 KL	15390		I 4344.485	****	5 MA
15357		II 4331.457	-.010	6 MA	15391		II 4360.520	****	7 KL
15358		II 4337.450	-.018	8 HP	15392	RW Tau	I 4316.401	-.081	6 KL
15359		I 4341.360	-.008	7 HP	15393	AH Tau	I 4304.301	-.034	7 RD
15360		I 4341.366	-.002	8 RG	15394	AM Tau	I 4317.304	-.149	8 KL
15361		I 4359.361	-.010	7 RG	15395	AS Tau	I 4316.322	+.276	11 KL
15362		I 4359.364	-.006	7 KL	15396	CD Tau	I 4295.376	-.066	16 CPa
15363	UZ Leo	I 4304.387	-.083	8 RD	15397	CT Tau	I 4303.423	+.030	12 HP
15364	XY Leo	II 4304.289	-.053	6 RD	15398	HU Tau	I 4271.340	+.004	18 CPa
15365	XZ Leo	I 4303.515	+.036	7 RD	15399	V 407 Tau	I 4304.325	+.060	8 RD
15366	T LMi	I 4334.366	-.127	9 HP	15400	TW UMa	I 4303.463	-.091	7 RD
15367		I 4337.382	-.131	10 HP	15401	TX UMa	I 4336.483	-.012	9 HP
15368		I 4337.394	-.118	11 KL	15402	TY UMa	I 4304.287	+.090	5 RD
15369		I 4340.409	-.124	11 HP	15403	UX UMa	I 4303.334	-.001	6 KL
15370	TY Lib	I 4343.421	-.013	6 KL	15404		I 4336.376	.000	6 KL
15371	RY Lyn	I 4342.510	*	8 KL	15405		I 4343.456	.000	6 KL
15372		I 4345.394	*	5 KL	15406	VV UMa	I 4337.470	+.102	10 HP
15373	SX Lyn	I 4359.412	-.356	6 KL	15407	XZ UMa	I 4337.383	-.086	6 RG
15374	UV Lyn	I 4342.467	**	11 RD	15408		I 4337.393	-.077	9 HP
15375	EW Lyr	I 4336.539	+.070	7 KL	15409		I 4359.401	-.071	6 KL
15376	RZ Oph	I 4299.39	+.29	9 RG					

\* no period given by the GCVS, 0 - C according to the elements of Samoylik and Wedemayer, JAAVSO preprint 1977: -.003 +.012

\*\* GCVS 1969 period erroneous, 0 - C according to the GCVS 1976: +.023

\*\*\* 0 - C according to the GCVS but with half its period (cf. BBSAG Bulletin 42 p. 4): -.140

\*\*\* GCVS 1969 period too inaccurate for reasonable reduction, 0 - C according to the GCVS 1974: -.007 -.001 -.005 -.005 +.001 +.005 .000

cur- rent no.	star	minimum or- der	JD hel 244...	O-C	n	ob- ser- ver
15410	AA UMa	I	4342.387	*	8	RD
15411	AC UMa	I	4317.582	+0.277	6	KL
15412	AW UMa	I	4341.453	-0.007	17	RD
15413	UW Vir	I	4345.413	+0.329	7	KL
15414		I	4354.467	+0.330	6	KL
15415	VV Vir	I	4342.520	**	6	KL
15416	AH Vir	I	4316.347	+0.071	10	RG
15417		II	4341.397	+0.059	9	RG
15418		I	4342.397	+0.040	7	RD
15419	AZ Vir	II	4342.465	***	8	RD
15420	BF Vir	I	4342.420	-0.028	8	HP
15421	BH Vir	I	4337.470	+0.004	7	HP
15422		I	4342.369	+0.002	7	RG
15423		I	4354.626	+0.007	4	KL
15424	BO Vul	I	4360.554	-0.086	6	KL
15425	NO Vul	II	4317.655	****	6	KL
15426		I	4335.641	****	11	KL
15427		I	4354.550	****	6	KL

\* GCVS period probably erroneous, O - C according to the element list of the Rocznik Astronomiczny Obserwatorium Krakowskiego 51, 1980 : -.018

\*\* O - C according to the GCVS exceeds 2 periods, O - C according to the elements of BBSAG Bulletin 31, page 5 : +.003

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

\*\*\*\* not contained in the GCVS 1969, O - C according to the GCVS 1976: +.017 +.021 +.020

## E R R A T A

star concerned	bulletin no.	minimum no.	misprinted entry	misprinted value	correct value
TX Cnc	46	15026	O - C	+0.067	+0.036
GW Gem	46	15128	O - C	-0.055	-0.033
TU Her	37	12717	O - C	-0.003	-0.083
TY Lib	43	14249	O	4010.502	4010.460
			O - C	+0.042	.000
BH UMa	46	15248	O - C	-0.018	-0.009

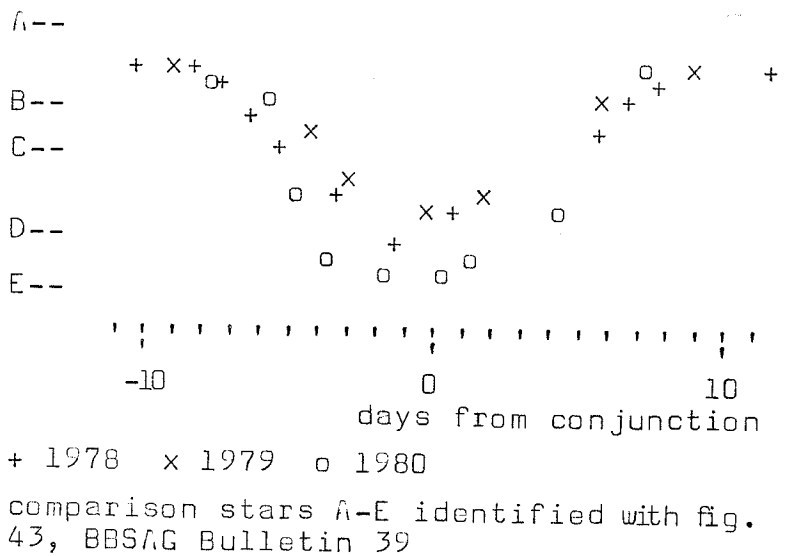
R Z Ophiuchi

Confirmation of the Reduced d Value

After observation of the 2 preceding minima I drew attention to the fact of an eclipse narrower than expected in respective notes in BBSAG Bulletins 39 p.7 and 44 p.6 . Since no plot was published in the latter case, and since the recent third minimum confirms again the same statement, I superplot all 3 visual surveys in figure 49.

R. Germann

Fig.49



R R Corvi

Some photometric Parameters

are unknown according to the GCVS 1969-71-74-76. My visual survey during 14 nights 1979-80 yields the plot of Fig.50 and therefrom

$$D/p = .17 \pm .02$$

$$d/p = .01 \pm .01$$

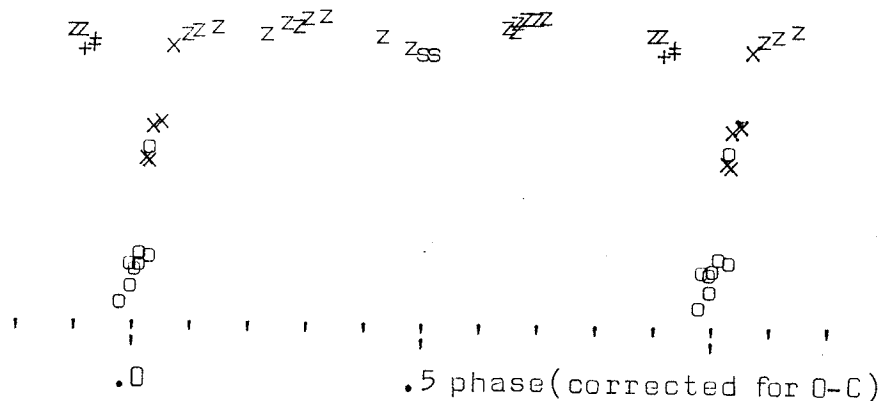
$$(max-min_1)/(max-min_2) = 10 \pm 1$$

An O-C value against the elements of the GCVS 1969 is estimated as +.48 day.

K. Locher

Fig.50

comparison  
magnitude---  
3' west  
comparison  
magnitude---  
10' east  
comparison  
magnitude---  
4' north



z sporadic, 10 nights JD 43979 to 44342  
o JD 44294      x JD 44320      + JD 44335      s JD 44343