BBSAG Bulletin 63

1982 November 6

96th List of Minima of Eclipsing Binaries

The following table lists 1 photoelectric and 145 visual monima obtained mainly during October 1982 by the observers

MA	Maria Andrakakou, Athens, Greece
(RD)	Roger Diethelm, Rodersdorf, Switzerland, photoelectric
DE	Demetrius P. Elias, Penteli, Greece
RG	Robert Germann, Wald, Switzerland
KL	Kurt Locher, Grüt, Switzerland
GM	George Mavrofridis, Athens, Greece
DM	Dimosthenis Mourikis, Pireas, Greece
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 :)

* GCVS 1969 period erroneous, O - C according to the GCVS 1976: +.016 +.006

** O - C according to the GCVS amounts to one whole period, O - C according to the elements in BBSAG Bulletin 57, page 6 : -.005 -.002

*** not contained in the GCVS 1969, O - C according to the GCVS 1976 : +.092 +.095

**** O - C according to the GCVS exceeds one period, O - C according to the elements in BBSAG Bulletin 38, page 6 : +.010

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

****** not contained in the GCVS , O - C according to the elements on page 5 of this issue : -.006 -.005 -.001 +.008 +.006 +.001 -.010

§ §§ ambiguous minimum orders due to the lack of pre-recent observations : As judged from the O - C, § should be secondary and §§ primary, but as judged from the estimated brightness, reversely.

C O N T I N U E D O N P A G E 4

current no.	star	minimum order	JD hel 244...	O-C	n	observer
19229	UU And	I	5263.528	+.125	6	KL
19230		I	5269.464	+.122	6	KL
19231	XZ And	I	5263.384	-.052	6	KL
19232	CO And	I	5269.455	+.004	12	KL
19233	EP And	II	5268.257	*	6	KL
19234		I	5269.258	*	6	KL
19235	EX And	I	5258.472	**	6	KL
19236		I	5258.474	**	6	MA
19237	GZ And	II	5257.322	***	6	KL
19238		II	5258.242	***	6	KL
19239	XZ Aqr	I	5252.318	+.107	9	DE
19240	AT Aqr	§	5253.431	+.047	10	DE
19241			5258.297	+.047	6	KL
19242		§	5259.352	+.038	7	KL
19243	AY Aqr	§	5273.321	-.002	6	KL
19244	CX Aqr	I	5230.353	+.014	9	GM
19245		I	5250.371	+.017	7	KL
19246		I	5264.274	+.020	7	RG
19247		I	5264.277	+.023	5	KL
19248	CZ Aqr	I	5251.397	+.001	6	DE
19249		I	5251.401	+.004	7	KL
19250	V 803 Aql	II	5257.230	****	7	KL
19251	RZ Aur	I	5259.472	+.073	6	KL
19252	FW Aur	I	5273.621	-.026	6	KL
19253	HL Aur	I	5253.389	+.004	6	KL
19254	AL Cam	I	5252.592	-.011	7	KL
19255	IR Cas	I	5234.494	-.111	8	DM
19256	V 389 Cas	I	5262.293	+.286	5	RG
19257	V 523 Cas	II	5244.341	*****	6	KL
19258		II	5255.558	*****	6	KL
19259		I	5268.297	*****	6	KL
19260	SU Cep	I	5249.497	+.017	8	KL
19261		I	5269.307	-.003	7	RG
19262	BR Cep	I	5273.445	-.143	7	KL
19263	NSV 8137	Cep I	5241.469	******	7	KL
19264		I	5253.287	******	8	KL
19265		I	5256.600	******	6	KL
19266		II	5257.318	******	7	KL
19267		II	5258.261	******	7	KL
19268		I	5259.439	******	7	KL
19269		II	5263.446	******	12	KL
19270	RW Cet	I	5252.509	+.014	10	KL
19271	SS Cet	I	5273.642	-.053	6	KL
19272	TW Cet	II	5250.387	-.031	6	KL
19273		I	5252.452	-.025	6	KL
19274	TX Cet	I	5252.554	+.006	6	KL
19275		I	5255.524	+.014	6	KL
19276	VY Cet	I	5252.516	§§§§§	7	KL
19277		II	5254.397	§§§§§	6	KL
19278		II	5263.420	§§§§§	6	KL
19279	AA Cet	I	5247.607	§§§§§§	6	MA
19280		I	5247.609	§§§§§§	7	KL
19281		II	5249.492	§§§§§§	6	KL
19282		I	5252.423	§§§§§§	7	KL
19283		II	5263.417	§§§§§§	6	KL
19284	WW Cyg	I	5258.329	+.038	12	HP
19285		I	5268.283	+.038	8	KL
19286	WZ Cyg	I	5263.338	+.023	6	HP
19287	BR Cyg	I	5269.303	+.004	7	RG
19288	V 456 Cyg	I	5264.258	+.015	7	RG
19289	TT Del	I	5258.258	+.071	7	HP
19290	TY Del	I	5264.279	+.022	5	KL
19291		I	5264.281	+.023	7	RG
19292	FZ Del	I	5226.342	-.018	8	GM
19293		I	5230.259	-.011	8	GM
19294		I	5258.456	-.010	7	HP
19295	Z Dra	I	5234.566	+.024	13	DM
19296	RZ Dra	I	5258.371	-.026	6	HP
19297	ZZ Eri	II	5273.428	+.006	4	KL
19298	AM Eri	I	5257.574	§§§§§	6	KL
19299	BD Gem	I	5269.667	+.059	6	KL
19300	BT Gem	I	5258.638	-.069	10	KL
19301		I	5273.506	-.044	6	KL
19302	SZ Her	I	5264.315	+.035	8	RG
19303		I	5269.224	+.035	6	KL
19304	TU Her	I	5274.308	-.066	9	KL
19305	DQ Her	I	5257.321	+.012	8	KL
19306	MT Her	I	5250.333	+.032	5	KL
19307		I	5253.268	+.041	6	KL
19308	VX Lac	I	5258.466	-.081	9	HP
19309	AU Lac	I	5251.409	-.085	6	DE
19310		I	5251.416	-.078	7	KL
19311	T LMi	I	5273.561	-.131	6	KL
19312	RS Lep	I	5249.611	-.011	10	KL
19313	UZ Lyr	I	5231.336	+.030	10	GM

* ** *** **** ***** ****** § §§ §§§ §§§§ §§§§§ see preceeding page

current no.	star	minimum order	JD hel 244...	O-C	n	observer
19314	EW Lyr	I	5258.307	+.085	8	HP
19315	TV Mon	I	5274.600	-.008	6	KL
19316	BO Mon	I	5256.617	+.178	6	KL
19317	HM Mon	I	5259.524	+.089	7	KL
19318	EQ Ori	I	5274.488	-.090	6	KL
19319	FK Ori	I	5273.500	+.352	7	KL
19320	FL Ori	I	5257.502	+.084	12	MA
19321		I	5257.503	+.085	13	KL
19322		I	5257.506	+.087	13	DE
19323	QT Ori	I	5269.501	-.338	8	KL
19324	UX Peg	I	5269.410	-.011	6	KL
19325	BY Peg	II	5263.406	+.076	6	KL
19326	DI Peg	I	5231.369	-.019	8	GM
19327	DO Peg	I	5274.252	+.190	6	KL
19328	RT Per	I	5269.366	-.073	6	KL
19329	XZ Per	I	5247.602	+.016	7	KL
19330		I	5247.612	+.026	6	MA
19331		I	5253.369	+.025	6	KL
19332	AG Per	*II	5271.382:	+.042:	7	RD
19333	KW Per	I	5263.297	+.045	9	RG
19334		I	5263.303	+.051	6	KL
19335	X PsA	II	5251.295	+.035	14	DE
19336		I	5252.288	+.034	8	DE
19337	RW PsA	II	5250.290	-.068	7	KL
19338	UZ Pup	I	5249.587	-.030	8	KL
19339	AY Pup	I	5253.648	+.041	6	KL
19340	UZ Sge	I	5274.242	+.046	6	KL
19341	RS Sct	I	5226.283	+.011	8	GM
19342		I	5228.278	+.014	9	GM
19343		I	5230.271	+.014	9	GM
19344	RT Scl	I	5250.321	-.142	7	KL
19345		I	5253.365	-.167	6	KL
19346		I	5254.401	-.154	7	KL
19347	RW Tau	I	5274.421	-.090	10	KL
19348	AC Tau	I	5256.528	+.063	11	KL
19349		I	5256.531	+.066	10	DE
19350	AH Tau	I	5269.382	-.045	6	KL
19351	AM Tau	I	5253.417	-.174	6	KL
19352	ES Tau	I	5256.433	**	7	KL
19353		I	5256.435	**	7	DE
19354	V Tri	I	5250.277	+.017	5	KL
19355		I	5252.615	+.014	6	KL
19356		I	5255.544	+.017	6	KL
19357		I	5258.469	+.016	6	HP
19358		I	5264.325	+.021	8	RG
19359	X Tri	I	5244.395	-.042	7	KL
19360	RV Tri	I	5253.259	-.034	8	KL
19361		I	5268.331	-.036	6	KL
19362	RW Tri	I	5257.584	-.002	6	KL
19363		I	5258.513	-.001	4	KL
19364	XZ UMa	I	5262.690	-.072	4	KL
19365	AW Vul	I	5244.336	-.021	6	KL
19366		I	5269.338	-.019	7	KL
19367	AX Vul	I	5258.359	-.003	7	KL
19368	BO Vul	I	5269.282	-.089	7	KL
19369	BU Vul	I	5258.358	+.013	7	HP
19370		I	5274.285	+.008	7	HP
19371	CD Vul	I	5263.296	-.035	8	RG
19372		I	5263.310	-.021	7	HP
19373		I	5263.312	-.019	6	KL
19374	GP Vul	I	5269.288	-.027	6	KL

* displaced secondary

** GCVS period erroneous, O - C according to the elements of BBSAG Bulletin 58, page 5 : -.004 -.002

E R R A T A

(3rd list after the general one in BBSAG Bulletin 54, pages 4 - 6)
(2nd list see BBSAG Bulletin 60, page 7)
(1st list see BBSAG Bulletin 58, page 5)

Corrections are underlined

Bulletin no.	page						
59	2	18254	V 389 Cas	I	5035.282	+.2<u>90</u>	6 KL
	3	18302	MX Her	I	5010.671	-.19<u>4</u>	7 KL
		18334	RY Lyn	I	5018.410	* +.0<u>37</u>	6 KL
		18335	RY Lyn	I	5058.581	* +.0<u>28</u>	6 KL
62	2	18909	AY Aqr	§§	5197.473	-.00<u>7</u>	6 KL
		18922	V 342 Aql	I	5215.340	-.1<u>0</u>9	11 KL
		18923	V 342 Aql	I	523<u>2</u>.283	-.120	7 KL
		18931	V 346 Aql	I	5225.301	-.017	7 <u>RG</u>
		18977	EG Cep	I	5200.406	+.0<u>3</u>0	7 HP
	3	19019	V 387 Cyg	I	5201.490	+.0<u>6</u>5	9 HP
	4	19100	DG Lac	I	522<u>4</u>.311	+.267	7 RG

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c o n t i n u e d f r o m p a g e 1
(footnotes to page 2) :

§§§ GCVS 1969 period erroneous, O - C according to the GCVS 1976 : -.009 -.003 -.011

§§§§ not contained in the GCVS 1969, O - C according to the GCVS 1974 : -.024 -.022 -.015 -.033 -.031

§§§§§ O - C according to the GCVS amounts to several entire periods, O - C according to the elements in BBSAG Bulletin 50, page 5 : -.019

N S V 8 1 7 C e p h e i

D e t e c t i o n o f t h e P e r i o d

The discovery of this star as a suspected variable was announced in 1935 by Morgenroth (Astronomische Nachrichten 254, page 369 - 374), where it is provisionally designed 460.1934 and guessed to be of EA type, probably because only 2 photographs had been found with distinct weakening, about one year apart.

However, my visual survey during 20 nights September and October 1982 has revealed that the minima are frequent and that the type is EB. The elements turn out to be

$$Min_{I\ hel} = 2445241.475 + .4727\,E \quad .$$

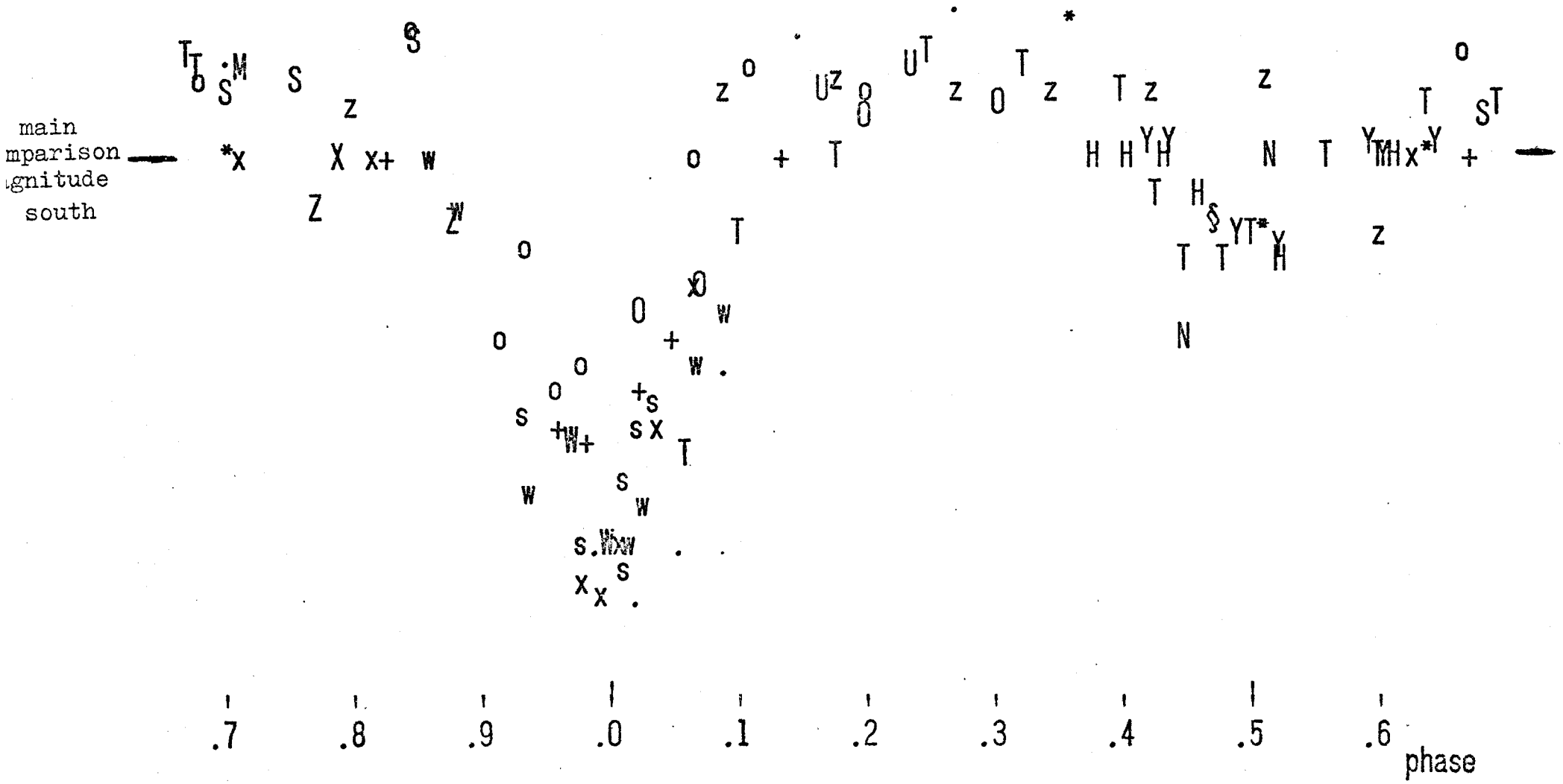
Fig. 65 plots all my observations against phase. Morgenroth's total amplitude of 1.0mpg seems to be very correct also in visual light, hence

$$(max - min_{II})_V = .20 \pm .05$$

K. Locher

Plot symbols in Fig. 65 :

JD 2445226	§
31	X
32	.•
34	Z
36	*
38	x
41	+
50	N
52	z
53	o
54	O
55	S
56	s
57	H
58	Y
59	w
62	W
63	T
64	U
65	M



ig. 65