

# BBSAG Bulletin 19

1975 January 6

## 52<sup>nd</sup> List of Minima of Eclipsing Binaries

The following table lists 274 minima obtained visually mainly during 1974 December by the observers

- PC Paolo Carnevali, Roma, Italy
- RD Roger Diethelm, Wetzikon, Switzerland
- AF Alain Figer, Paris, France
- RG Robert Germann, Wald, Switzerland
- JL Jean-François Le Borgne, Brest, France
- KL Kurt Locher, Grüt, Switzerland
- NM Nicolas Mauron, St.Rémy, France
- AM Alain Marot, Quimper, France
- HP Hermann Peter, Stelfingen, Switzerland
- PR Philippe Ralincourt, Nantes, France
- JR Joseph Remis, St.Avoid, France
- CS Christian Sanchez, Toulouse, France

The O-C values refer to the linear elements of the GCVS 1969, disregarding improved elements in the 1971 first supplement to the GCVS. Reductions were made using the tracing paper method.

cur- rent no.	star	minimum or- der	JD hel 244...	O - C	ob- n ser- ver	cur- rent no.	star	minimum or- der	JD hel 244...	O - C	ob- n ser- ver
6995	RT And	I	2385.281	-0.013	7 RD	7023	CZ Aqr	I	2385.347	+0.020	7 KL
6996		I	2385.292	-0.002	8 RG	7024		I	2398.280	+0.010	4 KL
6997		I	2402.258	-0.016	8 RD	7025		I	2404.321	+0.013	6 KL
6998		I	2402.265	-0.010	6 KL	7026	DX Aqr	I	2385.251	+0.001	5 KL
6999		I	2402.267	-0.008	11 RG	7027	EE Aqr	I	2384.271	+0.006	9 KL
7000	UU And	I	2402.383	+0.090	8 RD	7028		I	2385.283	-0.001	6 KL
7001		I	2402.391	+0.098	10 KL	7029	00 Aql	II	2367.254	-0.036	10 RG
7002	XZ And	I	2402.238	-0.018	7 KL	7030		I	2384.237	-0.031	10 KL
7003		I	2402.239	-0.017	8 RD	7031		I	2385.256	-0.026	7 RG
7004		I	2402.251	-0.005	10 RG	7032		II	2402.220	-0.039	6 RD
7005	AB And	I	2385.335	+0.026	7 RG	7033		II	2402.226	-0.033	5 KL
7006		I	2396.286	+0.024	7 RG	7034		II	2403.244	-0.029	8 RD
7007		I	2402.259	+0.023	8 RD	7035	V 346 Aql	I	2385.242	-0.026	6 RG
7008		I	2402.262	+0.026	10 RG	7036	TT Aur	I	2404.726	-0.002	6 RD
7009		I	2403.256	+0.024	8 RD	7037	WW Aur	II	2395.422	-0.002	10 AF
7010		I	2403.261	+0.029	9 HP	7038		II	2395.440	+0.016	16 JR
7011		I	2404.257	+0.029	7 RG	7039		II	2400.463	-0.011	8 NM
7012		I	2405.242	+0.019	8 RD	7040		I	2404.279	+0.017	13 HP
7013		I	2405.248	+0.025	9 RG	7041		II	2405.523	-0.001	11 JR
7014		I	2409.241	+0.036	4 KL	7042	AR Aur	I	2396.269	+0.010	10 KL
7015	BX And	II	2403.282	+0.009	9 RD	7043		II	2402.480	+0.019	11 KL
7016	CP And	I	2403.343	+0.048	7 KL	7044	BF Aur	II	2402.349	-0.008	12 RD
7017	CU And	I	2404.447	+0.054	6 KL	7045	HS Aur	I	2405.244	-0.001	7 KL
7018	ADS 1693 A	I	2396.248	*	6 KL	7046		I	2405.247	+0.002	9 RD
7019	(And	II	2402.208	*	8 KL	7047	UW Boo	I	2404.710	+0.007	8 KL
7020		I	2403.280	*	5 KL	7048		I	2404.715	+0.011	8 RD
7021	CX Aqr	I	2384.258	+0.008	11 KL	7049	AD Boo	I	2404.709	+0.032	6 RD
7022		I	2404.277	+0.011	6 KL						

\* ...

cur- rent no.	star	minimum or- JD hel der 244...	0 - C	n	ob- ser- ver
7050	SV Cam	I 2300.462	+0.002	15	JL
7051		I 2309.352	-0.004	9	JL
7052		I 2385.256	-0.012	8	RG
7053		I 2385.272	+0.004	4	KL
7054		I 2389.415	-0.005	7	KL
7055		I 2390.597	-0.009	7	KL
7056		I 2392.383	-0.003	4	AF
7057		I 2395.346	-0.005	5	KL
7058		I 2395.349	-0.001	12	AF
7059	WW Cam	I 2402.288	+0.055	9	RD
7060	AL Cam	I 2403.324	-0.004	14	RD
7061		I 2408.641	-0.025	10	KL
7062	TU Cnc	I 2395.517	-0.042	9	KL
7063	WY Cnc	I 2402.381	0.000	7	RD
7064	R CMa	I 2402.578	+0.023	10	KL
7065	TU CMa	I 2402.416	-0.005	10	KL
7066	AG CMi	I 2395.549	-0.106	6	KL
7067	RZ Cas	I 2246.504	+0.005	10	AM
7068		I 2252.488	+0.013	9	AM
7069		I 2258.456	+0.005	17	AM
7070		I 2301.489	+0.009	17	AM
7071		I 2301.494	+0.014	11	JL
7072		I 2307.460	+0.004	16	JL
7073		I 2307.463	+0.007	22	AM
7074		I 2313.432	-0.009	9	NM
7075		I 2319.413	+0.004	13	NM
7076		I 2362.440	+0.002	8	AF
7077		I 2386.346	+0.003	19	AF
7078		I 2392.318	-0.001	5	AF
7079		I 2398.299	+0.003	15	PR
7080		I 2398.306	+0.010	11	CS
7081		I 2404.272	+0.001	10	KL
7082		I 2404.276	+0.005	22	NM
7083		I 2404.277	+0.005	12	HP
7084		I 2404.287	+0.016	10	RG
7085		I 2405.472	+0.005	15	JR
7086		I 2405.474	+0.007	11	HP
7087	TV Cas	I 2405.569	-0.032	14	JR
7088	TW Cas	I 2405.462	-0.013	11	HP
7089	IV Cas	I 2385.339	+0.074	5	KL
7090		I 2385.339	+0.075	5	RD
7091		I 2402.303	+0.063	9	KL
7092		I 2402.311	+0.072	10	RD
7093		I 2403.306	+0.068	8	KL
7094		I 2403.311	+0.073	11	RD
7095		I 2405.293	+0.058	8	KL
7096		I 2405.302	+0.067	9	RD
7097	PV Cas	II 2402.322	+0.027	9	RD

cur- rent no.	star	minimum or- JD hel der 244...	0 - C	n	ob- ser- ver
7098	K3II 5867	I 2390.626	*	6	KL
7099	(Cas	I 2396.232	*	4	KL
7100	RS Cep	I 2402.74	-0.03	6	KL
7101	VW Cep	I 2389.294	-0.069	8	KL
7102		II 2389.401	-0.101	6	KL
7103	EG Cep	I 2385.265	+0.030	4	KL
7104		I 2389.620	+0.029	7	KL
7105		I 2395.598	+0.016	11	KL
7106	EK Cep	I 2403.276	+0.011	10	RD
7107	GK Cep	I 2402.366	-0.047	7	RD
7108	RW Cet	I 2389.338	-0.012	14	KL
7109	TW Cet	I 2385.259	-0.019	7	RG
7110		II 2385.422	-0.015	7	KL
7111		I 2395.405	-0.012	4	KL
7112		I 2396.339	-0.029	11	KL
7113		I 2398.256	-0.013	11	KL
7114		I 2402.345	-0.043	6	KL
7115		I 2403.305	-0.034	6	RD
7116		I 2403.320	-0.018	10	KL
7117		I 2404.269	-0.020	11	KL
7118		I 2405.218	-0.021	6	KL
7119	VY Cet	I 2384.265	**	6	KL
7120		I 2385.274	**	5	RD
7121		I 2385.281	**	9	KL
7122		II 2395.346	**	12	KL
7123		II 2396.367	**	11	KL
7124		I 2398.238	**	12	KL
7125		I 2402.322	**	9	RD
7126		I 2402.327	**	12	KL
7127		I 2403.360	**	10	KL
7128		II 2404.208	**	8	KL
7129		I 2404.386	**	6	KL
7130		II 2405.232	**	7	KL
7131		II 2408.291	**	7	KL
7132	AA Cet	I 2396.258	***	10	KL
7133		II 2402.413	***	6	KL
7134		I 2404.298	***	9	KL
7135	CC Com	I 2390.591	+0.085	11	KL
7136	K3II 7265	II 2404.715	****	5	KL
7137	(CrB	II 2404.718	****	5	RD
7138	W Crv	I 2390.706	-0.019	5	KL
7139		II 2402.565	+0.004	6	KL
7140		I 2404.686	-0.009	6	KL
7141		I 2404.695	0.000	5	RD
7142		II 2405.659	-0.007	11	KL
7143	V Crt	I 2395.622	+0.026	7	KL
7144	ZZ Cyg	I 2402.276	-0.039	6	KL

\* not contained in the GCVS, 0 - C according to Häussler's elements IBVS 887: +0.014 +0.012

\*\* not contained in the GCVS, 0 - C according to the elements of BOSAG Bulletin 11, page 5: -0.010 -0.024 -0.017 -0.006 -0.007 -0.011 -0.017 -0.012 -0.002 -0.006 +0.002 -0.004 -0.010

\*\*\* not contained in the GCVS, 0 - C according to Bloomer's elements IBVS 745: -0.002 -0.013 -0.004

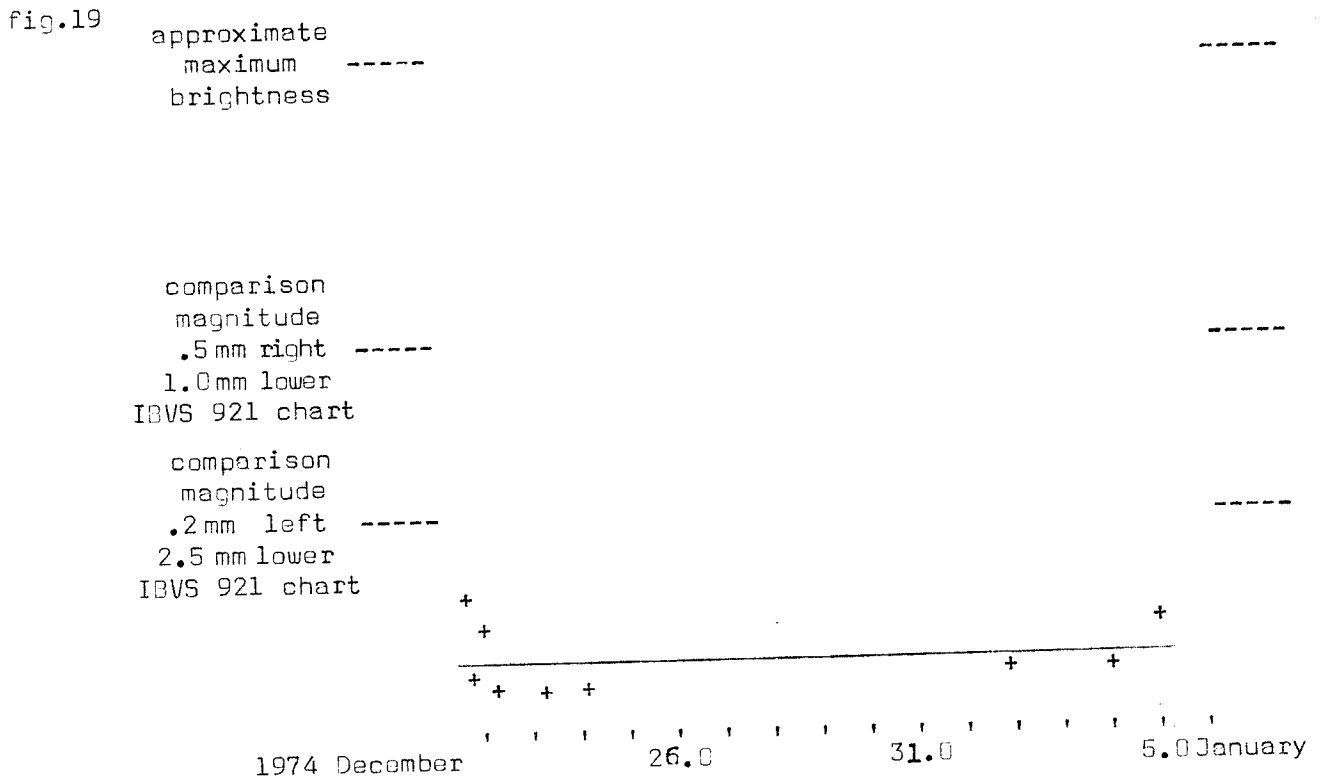
\*\*\*\*not contained in the GCVS, 0 - C according to the elements of Цесевиц and Каретников, Переменные Звёзды Приложение 1, №6, p. 459: -0.011 -0.008

current no.	star	minimum order	JD hel 244...	O - C	n	observer	current no.	star	minimum order	JD hel 244...	O - C	n	observer
7145		I	2402.290	-0.025	6	RD	7195		I	2403.346	-0.026	7	KL
7146	V728 Cyg	I	2404.275	+0.045	12	HP	7196		I	2403.359	-0.013	12	HP
7147	FZ Del	I	2405.214	-0.006	6	RD	7197		I	2405.476	-0.014	10	HP
7148	RR Dra	I	2402.370	+0.107	11	RD	7198	FO Ori	I	2405.38	+0.03	6	KL
7149		I	2402.373	+0.110	10	KL	7199	V392 Ori	I	2404.724	-0.004	7	RD
7150	RU Eri	I	2395.378	+0.017	5	KL	7200	U Peg	II	2402.290	-0.014	9	RD
7151		I	2402.334	+0.019	7	RD	7201		I	2403.220	-0.016	6	RD
7152		I	2402.347	+0.032	7	KL	7202		I	2403.240	+0.004	9	HP
7153	WX Eri	I	2389.247	+0.007	10	KL	7203		II	2405.286	-0.015	7	RD
7154		I	2403.239	+0.004	8	RD	7204	BB Peg	II	2405.259	-0.014	9	RD
7155		I	2403.248	+0.013	7	KL	7205	BN Peg	I	2385.326	-0.296	6	RD
7156	YY Eri	I	2385.355	-0.010	7	RG	7206		I	2385.334	-0.288	6	KL
7157		II	2389.372	-0.011	11	KL	7207	DI Peg	I	2403.317	-0.016	7	KL
7158		I	2389.540	-0.004	7	KL	7208		I	2403.322	-0.011	12	HP
7159		I	2396.288	-0.008	7	RG	7209		I	2403.324	-0.009	10	RD
7160		I	2403.358	-0.010	9	RG	7210	DK Peg	I	2402.277	+0.024	10	KL
7161		I	2404.335	+0.002	7	RG	7211		I	2402.292	+0.039	12	RD
7162		I	2405.290	-0.007	10	RG	7212	Z Per	I	2404.288	+0.032	6	KL
7163	RW Gem	I	2404.353	+0.003	6	KL	7213	RT Per	I	2404.334	-0.056	10	HP
7164	YY Gem	I	2403.357	-0.005	9	RD	7214	RV Per	I	2396.233	+0.017	6	KL
7165	GW Gem	I	2403.368	-0.027	11	RD	7215	WY Per	I	2402.366	-0.064	8	RD
7166		I	2403.369	-0.026	9	KL	7216		I	2402.373	-0.057	10	KL
7167		I	2404.682	-0.032	7	RD	7217	XZ Per	I	2405.365	+0.009	13	HP
7168		I	2404.688	-0.026	6	KL	7218	IU Per	I	2405.294	+0.045	10	RD
7169		I	2408.648	-0.023	6	KL	7219	KW Per	I	2403.393	+0.025	9	RD
7170	SZ Her	I	2395.252	+0.027	11	KL	7220		I	2404.337	+0.037	6	KL
7171		I	2404.251	+0.027	7	KL	7221		I	2405.262	+0.031	6	KL
7172	TX Her	I	2317.409	-0.007	15	PC	7222		I	2405.264	+0.034	9	RD
7173	SY Hya	I	2404.686	-0.102	7	KL	7223	$\beta$ Per	I	2384.264	-0.049	8	RG
7174	WY Hya	II	2390.684	-0.015	7	KL	7224		I	2404.318	-0.067	12	KL
7175		I	2402.522	+0.009	6	KL	7225		I	2404.320	-0.065	15	HP
7176	RT Lac	I	2402.332	+0.007	8	RD	7226		I	2404.327	-0.058	12	RG
7177	SW Lac	I	2385.352	-0.066	7	RG	7227	Y Psc	I	2385.358	+0.135	8	KL
7178		II	2389.353	-0.074	11	KL	7228	UV Psc	I	2385.315	+0.012	7	RD
7179		I	2402.351	-0.066	8	RD	7229	XZ Pup	I	2403.427	-0.007	6	KL
7180		I	2403.310	-0.069	10	RD	7230		I	2405.616	-0.011	12	KL
7181		I	2405.226	-0.078	8	RD	7231	AY Pup	II	2395.589	+0.058	8	KL
7182		I	2405.238	-0.064	10	HP	7232		I	2403.562	+0.059	7	KL
7183	UU Leo	I	2390.723	-0.017	8	KL	7233	RW Tau	I	2364.384	-0.070	15	AF
7184		I	2402.471	-0.027	5	KL	7234		I	2364.384	-0.070	16	JR
7185	AM Leo	II	2404.684	-0.030	6	RD	7235		I	2389.303	-0.071	10	KL
7186	BL Leo	II	2390.629	-0.004	7	KL	7236	RZ Tau	I	2405.280	+0.007	8	RD
7187		I	2395.571	+0.005	6	KL	7237	AH Tau	II	2403.247	-0.012	8	RD
7188	T LMi	I	2404.659	-0.096	7	KL	7238	CT Tau	II	2385.289	+0.026	7	RD
7189	TZ Lyr	I	2404.694	+0.027	9	RD	7239		I	2402.289	+0.021	11	RD
7190		I	2405.215	+0.019	6	RD	7240		II	2403.287	+0.019	10	RD
7191	ER Cri	II	2385.362	-0.015	8	RG	7241		II	2405.201	+0.012	9	RD
7192		I	2389.382	-0.018	13	KL	7242	GR Tau	I	2402.345	+0.047	10	RD
7193		I	2403.340	-0.032	9	RD	7243		I	2403.256	+0.010	7	RD

current no.	star	minimum order	JD hel 244...	O-C	n	observer	current no.	star	minimum order	JD hel 244...	O-C	n	observer
7244	V Tri	I	2396.239	+0.025	10	KL	7257	AH Vir	I	2401.758	+0.020	8	KL
7245	RW Tri	I	2385.245	-0.002	6	KL	7258		I	2402.590	+0.037	11	KL
7246		I	2395.222	+0.004	5	KL	7259		II	2405.633	+0.024	10	KL
7247		I	2402.408	+0.002	4	KL	7260	AK Vir	I	2405.719	+0.034	7	KL
7248	W UMa	I	2403.342	-0.094	9	RD	7261	BF Vir	I	2404.709	+0.004	7	KL
7249		I	2404.673	-0.098	5	RD	7262		I	2404.717	+0.012	7	RD
7250	UX UMa	I	2395.625	+0.001	5	KL	7263	Z Vul	I	2385.299	+0.011	7	RD
7251		I	2402.507	0.000	5	KL	7264	AX Vul	I	2403.315	-0.024	9	RD
7252		I	2404.669	-0.002	5	RD	7265		I	2403.328	-0.011	11	KL
7253		I	2404.670	-0.001	5	KL	7266	BU Vul	I	2404.288	+0.010	13	HP
7254	XZ UMa	I	2402.489	-0.057	7	KL	7267	CD Vul	I	2403.210	-0.013	5	RD
7255	RU UMi	I	2404.718	-0.014	8	RD	7268		I	2403.210	-0.013	7	KL
7256		I	2405.249	-0.008	9	RD							

probable long period eclipsing binary B V 1616 Lep :  
 Minimum lasts at least 14 days

This star has been announced by Markworth in 1974 August in IBVS 921 as an eclipsing binary with unknown but probably long period and an extreme amplitude 11.6 mag red..... >15.5 .  
 When I first looked at it on December 21 I found it at minimum, what remained unchanged until last night January 4. Figure 19 shows my survey plotted:



Two alternative interpretations are:  
 - Eclipsing binary with period close to one day. This would imply the improbable ratio  $d/p > .13$  from my observations.  
 - RCrD type variable.  
 K. Locher