

BBSAG Bulletin 30

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1976 November 8

63rd List of Minima of Eclipsing Binaries

The following table lists 247 minima obtained visually mainly during 1976 September and October by the observers

MB	Michel Behagle, Wattrelos, France
RB	Roland Boninsegna, Marcinelle, Belgium
JC	Jean-Pierre Clovin, Marcinelle, Belgium
RD	Roger Diethelm, Reinach, Switzerland
RG	Robert Germann, Wald, Switzerland
JL	Jean-François Le Borgne, Brest, France
KL	Kurt Locher, Grüt, Switzerland
AM	Alain Marot, Quimper, France
HP	Hermann Peter, Otelfingen, Switzerland
EP	Ennio Poretti, Arconate, Italy
PR	Philippe Ralincourt, Nantes, France
JR	Joseph Remis, Aix-en-Provence, France
AR	Alain Royer, Epinac, France
AS	Augustin Seretti, St.Avoid, France
JS	Jean Squelard, Somzée, Belgium
NZ	Nicola Zaccaria, Pisa, Italy

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.

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
10716	RT And	I	3029.307	-0.012	12 RG	10740		I	3057.254	-0.036	11 KL
10717		I	3061.379	-0.016	11 RG	10741		I	3058.286	-0.018	6 KL
10718		I	3061.384	-0.010	24 JC	10742		I	3061.311	-0.033	18 AR
10719		I	3073.324	-0.020	9 RG	10743		I	3061.314	-0.030	9 RG
10720	AB And	II	3029.369	+0.025	9 RG	10744		I	3062.319	-0.039	13 AR
10721		II	3043.305	+0.021	7 RG	10745	V 343 Aql	I	3043.439	-0.011	12 HP
10722		I	3073.342	+0.022	8 RG	10746		I	3045.286	-0.010	8 KL
10723		I	3075.336	+0.025	7 RG	10747	V 479 Aql	I	3042.357	+0.018	8 KL
10724	BX And	I	3042.335	+0.017	8 HP	10748	CL Aur	I	3040.433	+0.040	6 KL
10725		I	3059.453	+0.002	8 HP	10749	AC Boo	II	3020.375	-0.009	9 HP
10726		I	3061.302	+0.020	9 AR	10750	SV Cam	I	3046.533	-0.010	11 KL
10727	CN And	I	3055.326	+0.047	14 AR	10751		I	3058.303	-0.023	7 RG
10728	EP And	II	3041.618	*	10 KL	10752		I	3061.357	-0.013	9 RG
10729		I	3050.380	*	7 KL	10753		I	3074.410	-0.008	6 RG
10730	CX Aqr	I	3036.430	+0.010	10 HP	10754	AY Cam	I	3032.596	-0.009	6 KL
10731		I	3045.323	+0.006	8 RG	10755	AK Cmi	I	3032.629	+0.013	6 KL
10732		I	3046.440	+0.011	9 HP	10756	RZ Cas	I	2968.427	-0.001	11 JS
10733		I	3046.446	+0.018	8 KL	10757		I	2968.438	+0.010	11 RB
10734	EE Aqr	I	3040.390	+0.030	11 KL	10758		I	2975.604	+0.005	12 RB
10735		I	3042.408	+0.012	6 KL	10759		I	2981.579	+0.003	6 PR
10736	OO Aql	I	3029.376	-0.041	9 HP	10760		I	2987.556	+0.004	13 PR
10737		I	3029.386	-0.031	10 RG	10761		I	3011.458	0.000	26 EP
10738		I	3030.391	-0.039	10 KL	10762		I	3011.460	+0.003	24 AR
10739		II	3043.305	-0.049	7 RG	10763		I	3011.468	+0.010	13 JL

*GCVS 1969 period erroneous, O-C according to the GCVS 1976: +0.006 -0.003

cur- rent no.	star	minimum or- JD hel der 244...	O - C	n ser- ver	ob- ser- ver	cur- rent no.	star	minimum or- JD hel der 244...	O - C	n ser- ver	
10764		I 3017.434	+0.001	23	AR	10815	XX Cep	I 3042.399	-0.004	11	HP
10765		I 3017.435	+0.001	23	JL	10816	EG Cep	I 3040.429	+0.016	11	HP
10766		I 3017.436	+0.002	19	EP	10817		I 3045.322	+0.008	8	RG
10767		I 3017.440	+0.007	28	NZ	10818		I 3057.306	+0.010	9	HP
10768		I 3018.626	-0.002	14	JL	10819		I 3075.282	+0.014	8	RG
10769		I 3018.633	+0.005	12	AR	10820	TW Cet	I 3044.623	-0.025	10	KL
10770		I 3023.416	+0.007	16	AR	10821		II 3058.407	-0.024	7	KL
10771		I 3023.423	+0.014	14	JL	10822		I 3074.402	-0.030	7	RG
10772		I 3029.381	-0.005	11	RG	10823		II 3077.426	-0.017	6	KL
10773		I 3041.337	-0.002	11	AR	10824	VY Cet	II 3044.578	**	11	KL
10774		I 3041.339	+0.001	17	JR	10825		I 3046.443	**	6	KL
10775		I 3041.339	+0.001	18	AM	10826		II 3048.653	**	8	KL
10776		I 3041.340	+0.002	14	MB	10827		I 3077.460	**	10	KL
10777		I 3041.344	+0.006	30	EP	10828	AA Cet	I 3058.432	***	8	KL
10778		I 3042.536	+0.002	35	EP	10829		II 3077.468	***	7	KL
10779		I 3047.312	-0.002	9	RG	10830	SW Cyg	I 3029.392	+0.200	7	KL
10780	TV Cas	I 3016.433	-0.019	10	RB	10831		I 3029.402	+0.209	16	HP
10781		I 3074.441	-0.014	8	RG	10832	UW Cyg	I 3034.380	-0.023	8	KL
10782	ZZ Cas	I 3057.413	-0.007	9	HP	10833	UZ Cyg	I 3042.44	+0.05	11	HP
10783	AB Cas	I 3042.508	0.000	6	KL	10834	ZZ Cyg	I 3040.334	-0.020	8	HP
10784	IV Cas	I 3043.364	+0.084	8	KL	10835	AE Cyg	I 3040.364	-0.004	7	KL
10785		I 3046.363	+0.087	12	HP	10836		I 3040.366	-0.001	11	HP
10786		I 3076.315	+0.084	7	KL	10837	CG Cyg	I 3043.466	-0.013	11	HP
10787		I 3078.304	+0.076	6	KL	10838		I 3057.346	-0.018	10	KL
10788	V 360 Cas	I 3058.453	-0.071	6	KL	10839	KR Cyg	I 3046.356	-0.001	9	HP
10789	V 523 Cas	II 3033.634	*	6	KL	10840	V 456 Cyg	II 3014.413	-0.020	9	HP
10790	VW Cep	II 2960.512	-0.098	11	JR	10841		I 3043.423	+0.025	13	HP
10791		II 2960.514	-0.096	22	AS	10842		I 3059.452	+0.014	11	HP
10792		I 2961.496	-0.088	12	JR	10843	V 540 Cyg	I 3030.341	+0.020	8	RG
10793		II 2962.474	-0.084	6	JR	10844	V 728 Cyg	I 3057.346	+0.056	10	HP
10794		I 2975.419	-0.081	15	JR	10845	W Del	I 3059.396	+0.129	10	HP
10795		II 2975.558	-0.081	7	JR	10846		I 3059.401	+0.134	8	KL
10796		I 2978.450	-0.111	10	JR	10847	TY Del	I 3040.442	+0.007	11	HP
10797		I 2983.495	-0.076	21	PR	10848	YY Del	I 3040.409	+0.022	10	HP
10798		II 2987.522	-0.085	18	PR	10849	ET Del	I 2748.282	-0.033	7	RD
10799		II 2989.479	-0.076	21	PR	10850	FZ Del	I 3040.411	+0.005	9	HP
10800		II 2992.536	-0.080	20	PR	10851	RZ Dra	I 3043.298	-0.024	8	RG
10801		II 2994.501	-0.063	13	PR	10852	TW Dra	I 3030.381	-0.046	10	KL
10802		I 2995.453	-0.086	19	PR	10853	WW Dra	I 3043.489	+0.122	12	KL
10803		I 3017.460	-0.066	7	JL	10854		I 3057.404	+0.149	16	KL
10804		II 3017.594	-0.071	5	JL	10855		I 3071.241	+0.098	11	RG
10805		II 3018.439	-0.061	7	JL	10856	AI Dra	I 2983.533	+0.006	20	PR
10806		I 3018.569	-0.070	10	JL	10857		I 2989.527	+0.006	17	PR
10807		I 3039.429	-0.004	10	JR	10858		I 2995.516	+0.001	16	PR
10808		II 3040.407	-0.080	6	JR	10859		I 3061.434	-0.015	13	AR
10809		I 3041.379	-0.083	17	JR	10860	BS Dra***	I 3059.321	+0.050	10	RG
10810		II 3041.518	-0.083	21	EP	10861	S Equ	I 3043.439	+0.016	8	KL
10811		II 3042.353	-0.082	14	EP	10862		I 3043.442	+0.019	12	HP
10812		I 3042.492	-0.084	13	EP	10863	RU Eri	I 3032.612	-0.005	6	KL
10813		I 3073.349	-0.119	7	RG	10864	YY Eri	I 3029.633	-0.018	10	KL
10814		I 3075.319	-0.097	7	RG	10865		I 3067.576	-0.004	6	KL

* not contained in the GCVS 1969, O - C according to the GCVS 1976: +0.009

** GCVS 1969 period erroneous, O - C according to the GCVS 1976: -0.010 -0.020
-0.025 -0.016

*** not contained in the GCVS 1969, O - C according to the GCVS 1974: -0.002
0.000

**** GCVS 1969 and 1974 elements identical except for doubling of period, minimum
period 2000 days.

cur- rent no.	star	minimum or- der	JD hel 244...	0-C	n ser- ver	ob- serv- er	cur- rent no.	star	minimum or- der	JD hel 244...	0-C	n ser- ver	ob- serv- er
10866	AV Gem	I	3044.642	-0.013	7	KL	10915		I	3040.309	+0.063	11	KL
-10867	FT Gem	I	3044.625	-0.021	6	KL	10916	DI Peg	I	3040.398	-0.013	6	KL
10868	HR Gem	I	3028.596	+0.007	10	KL	10917	RT Per	I	3046.476	-0.066	6	KL
10869	Z Her	I	3028.366	+0.001	10	HP	10918		I	3058.373	-0.060	11	KL
10870	RX Her	II	3058.374	+0.002	3	RG	10919	ST Per	I	3077.479	-0.004	6	KL
10871	SZ Her	I	3042.368	+0.031	8	HP	10920	XZ Per	I	3037.604	+0.001	6	KL
10872		I	3042.372	+0.034	6	KL	10921	β Per	I	3029.396	-0.030	11	HP
10873	TX Her	II	3041.421	-0.018	17	EP	10922		I	3046.593	-0.087	10	RG
10874	UX Her	I	3047.313	-0.055	8	RG	10923		I	3072.399	-0.030	11	RG
10875		I	3061.252	-0.056	9	RG	10924		I	3075.282	-0.072	10	RG
10876	V 342 Her	I	3029.379	-0.011	11	HP	10925	Y Psc	I	3078.277	+0.154	11	KL
10877	u Her	I	2947.467	+0.001	9	RB	10926	UV Psc	I	3041.442	+0.022	12	HP
10878		I	2988.481	-0.005	12	JL	10927	UZ Pup	I	3044.659	-0.036	6	KL
10879		I	3062.333	+0.010	11	AR	10928		I	3048.634	-0.048	6	KL
10880	SW Lac	I	3029.342	-0.099	9	RG	10929	U Sge	I	2968.485	+0.008	17	RB
10881		I	3030.306	-0.096	7	RG	10930		I	3029.330	+0.001	10	RG
10882		I	3030.312	-0.090	9	HP	10931		I	3029.337	+0.009	11	KL
10883		I	3046.349	-0.090	9	HP	10932		I	3029.339	+0.011	12	HP
10884		I	3047.305	-0.096	6	RG	10933	V 505 Sgr	I	2992.466	-0.029	23	PR
10885		II	3058.370	-0.096	7	RG	10934		I	3011.397	-0.024	15	AR
10886		II	3058.383	-0.084	8	HP	10935		I	3030.308	-0.039	7	RG
10887		II	3059.324	-0.105	8	RG	10936		I	3030.318	-0.029	9	HP
10888		II	3068.308	-0.101	6	KL	10937		I	3043.310	-0.049	7	RG
10889		II	3070.560	-0.092	5	KL	10938		I	3043.323	-0.035	11	KL
10890		II	3074.407	-0.095	7	RG	10939		I	3062.262	-0.023	6	KL
10891	VX Lac	I	3036.412	-0.061	9	HP	10940	RS Sct	I	3028.349	+0.041	10	HP
10892	AU Lac	I	3041.619	-0.056	10	KL	10941	AM Tau	I	3029.617	-0.137	11	KL
10893	EM Lac	I	3044.589	-0.065	4	KL	10942	AP Tau	I	3048.642	*	11	KL
10894	UV Leo	II	3058.687	+0.002	9	KL	10943	V Tri	I	3043.465	+0.014	12	HP
10895	SX Lyn	I	3028.611	-0.312	6	KL	10944		I	3043.473	+0.022	7	KL
10896	TT Lyr	I	3041.453	+0.001	14	HP	10945	X Tri	I	3018.611	-0.032	17	AR
10897	TZ Lyr	I	3040.339	+0.026	8	HP	10946		I	3057.467	-0.037	15	HP
10898		I	3042.464	+0.035	5	KL	10947		I	3057.470	-0.034	10	KL
10899		I	3057.262	+0.026	8	HP	10948		I	3058.441	-0.035	7	KL
10900		I	3059.374	+0.023	9	RG	10949		I	3059.411	-0.036	10	KL
10901	RW Mon	I	3077.494	-0.002	10	KL	10950		I	3061.355	-0.035	12	RG
10902	U Oph	II	3028.365	-0.014	9	HP	10951		I	3062.325	-0.036	15	RG
10903	V 508 Oph	II	3036.382	+0.016	7	HP	10952	ZZ UMa	I	3028.605	-0.001	8	KL
10904		II	3046.375	+0.010	9	HP	10953	RU UMi	I	3061.406	-0.009	12	AR
10905		I	3058.272	+0.011	5	KL	10954	Z Vul	I	3060.395	+0.004	10	AR
10906	V 566 Oph	II	2983.482	+0.024	22	PR	10955	AX Vul	I	3057.371	+0.009	10	KL
10907		II	2992.501	+0.031	23	PR	10956		I	3059.388	+0.001	10	KL
10908		I	2996.364	+0.003	13	EP	10957	BO Vul	I	3076.286	-0.068	11	KL
10909	ER Ori	I	3074.449	-0.014	7	RG	10958	BU Vul	I	3076.273	+0.014	7	KL
10910		II	3080.578	-0.004	5	KL	10959	CD Vul	I	3040.462	-0.012	9	HP
10911	AT Peg	I	3043.450	-0.073	9	HP	10960	NO Vul	II	3040.358	**	6	KL
10912	BN Peg	I	3059.409	-0.277	10	KL	10961		II	3043.326	**	10	KL
-10913	BO Peg	I	3042.342	+0.152	7	HP	10962		II	3059.276	**	7	KL
10914	BY Peg	II	3036.374	+0.060	6	KL							

* GCVS 1969 elements incomplete, 0-C according to the GCVS 1976: -0.067.

** not contained in the GCVS 1969, 0-C according to the GCVS 1976: +0.016
+0.010 +0.025

E r r a t u m

BBSAG Bulletin 29, p.3 : V 3 4 2 H e r :

The star's name is misprinted V 442

Remark on the Duration of Totality of
the Secondary Minimum of DR Vulpeculae

While observing the secondary minimum of DR Vul on JD 2443016 (cf. minimum 10710, BBSAG Bulletin 29), I noticed a visually well perceptible time of totality that I estimated to be

$$d_{11} = 0.035 \pm .010 \text{ corresponding to } 0.015 \pm .004$$

R. Diethelm