

# BBSAG Bulletin 15

1974 June 4

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

The following table lists all the 203 minima obtained visually during 1974 March and April by the observers

RD Roger Diethelm, Wetzikon  
 RG Robert Germann, Wald  
 KL Kurt Locher, Grüt  
 HP Hermann Peter, Otelfingen

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

cur- rent no.	star	minimum or- der	JD hel 244...	O - C	n	ob- ser- ver	cur- rent no.	star	minimum or- der	JD hel 244...	O - C	n	ob- ser- ver
6066	CX Aqr	I	2193.558	+0.011	12	KL	6097	EG Cep	I	2157.586	+0.003	10	KL
6067	V 346 Aql	I	2139.653	-0.013	12	KL	6098	HBV 489 Cep	I	2158.504	*	11	KL
6068	V 803 Aql	I	2194.504	-0.040	10	KL	6099		I	2183.441	*	8	KL
6069	WW Aur	I	2145.441	-0.006	16	KL	6100		I	2193.410	*	6	KL
6070	TZ Boo	II	2193.503	+0.074	8	HP	6101	RW Com	II	2139.662	+0.037	10	KL
6071	ZZ Boo	II	2177.432	-0.026	6	KL	6102		II	2145.346	-0.039	11	KL
6072	AD Boo	I	2156.453	+0.032	8	RG	6103		II	2146.419	-0.044	6	RG
6073		I	2158.525	+0.035	6	RG	6104		I	2147.378	-0.034	7	RG
6074		I	2183.344	+0.028	6	RG	6105		I	2148.327	-0.035	7	RG
6075		I	2183.369	+0.054	6	RD	6106		I	2156.370	-0.061	8	RG
6076		I	2186.454	+0.035	9	HP	6107		I	2157.342	-0.039	8	RG
6077	Y Cam	I	2145.431	+0.063	15	KL	6108		I	2158.529	-0.039	6	RG
6078	SV Cam	I	2140.305	-0.025	9	RG	6109		I	2177.399	-0.038	10	HP
6079		I	2150.362	-0.051	9	HP	6110		I	2177.400	-0.037	6	RG
6080		I	2156.322	-0.021	8	RG	6111		II	2187.368	-0.038	6	RG
6081		I	2157.515	-0.014	10	RD	6112		I	2193.414	-0.044	8	RG
6082		I	2170.570	-0.007	9	KL	6113	CC Com	II	2156.337	+0.083	6	KL
6083	XZ Cam	I	2150.432	+0.096	11	KL	6114		I	2157.327	+0.080	5	KL
6084		I	2183.468	+0.088	5	KL	6115		I	2157.545	+0.076	10	RD
6085	AY Cam	I	2183.396	0.000	7	RD	6116		I	2183.364	+0.077	6	RD
6086	TU Cnc	I	2156.402	-0.015	14	HP	6117		II	2186.351	+0.084	7	KL
6087	TX Cnc	I	2158.355	-0.012	8	RD	6118	W Crv	I	2147.391	-0.007	10	KL
6088	XZ Cmi	I	2139.371	-0.011	7	RD	6119		II	2148.355	-0.013	7	KL
6089	RZ Cas	I	2141.327	+0.010	12	KL	6120		I	2150.498	-0.005	10	KL
6090		I	2160.440	-0.001	10	KL	6121		I	2152.436	-0.007	6	KL
6091		I	2179.566	+0.001	11	KL	6122		I	2152.437	-0.006	11	HP
6092		I	2185.548	+0.007	11	KL	6123		I	2157.482	-0.006	9	HP
6093	VW Cep	I	2139.353	-0.080	11	KL	6124		II	2160.399	0.000	7	KL
6094		I	2139.627	-0.085	11	KL	6125		II	2179.405	-0.009	11	KL
6095		II	2145.333	-0.084	7	KL	6126		I	2180.379	-0.006	5	KL
6096		I	2147.433	-0.071	10	KL	6127		II	2186.396	-0.004	7	KL
							6128		II	2193.378	-0.008	10	KL
							6129	V Crt	I	2139.391	+0.037	10	KL
							6130		I	2146.409	+0.034	8	RG
							6131		I	2146.411	+0.037	6	KL
							6132		I	2158.342	+0.033	6	KL
							6133		I	2179.406	+0.036	5	KL

current no.	star	minimum or-der	JD hel 244...	O - C	n	ob-ser-ver	current no.	star	minimum or-der	JD hel 244...	O - C	n	ob-ser-ver
6134	UW Cyg	I	2185.496	-0.022	12	KL	6184		II	2145.345	-0.011	9	HP
6135		I	2185.497	-0.020	16	HP	6185		II	2145.360	+0.005	5	RG
6136	WW Cyg	I	2139.614	+0.016	12	KL	6186		II	2148.351	-0.005	10	KL
6137		I	2179.434	+0.023	6	KL	6187		II	2148.354	-0.002	6	RG
6138	AE Cyg	I	2152.575	-0.017	5	KL	6188		I	2156.451	-0.006	7	RG
6139		I	2185.542	-0.003	10	KL	6189		II	2158.541	-0.016	6	RG
6140	KR Cyg	I	2144.556	-0.022	11	KL	6190		II	2160.357	-0.001	6	RG
6141		I	2193.581	-0.016	11	KL	6191		II	2177.448	-0.012	7	RG
6142	V 456 Cyg	II	2144.635	+0.004	12	KL	6192		II	2184.371	+0.010	8	RG
6143		I	2157.568	+0.015	10	KL	6193		II	2187.346	-0.015	6	RG
6144	Z Dra	I	2146.366	0.000	10	KL	6194		II	2193.359	-0.003	7	RG
6145		I	2150.432	-0.006	10	KL	6195	UZ Leo	I	2139.353	-0.105	8	RD
6146		I	2158.583	0.000	11	KL	6196		I	2139.376	-0.082	7	RG
6147	RZ Dra	I	2146.478	-0.016	10	RG	6197		II	2146.460	-0.111	7	RG
6148		I	2156.399	-0.011	10	RG	6198		II	2148.353	-0.074	7	RG
6149		I	2157.490	-0.022	8	RD	6199		I	2177.400	-0.100	7	RG
6150		I	2183.395	-0.008	7	RD	6200	AM Leo	II	2146.438	-0.021	6	RG
6151	SX Dra	I	2146.556	+0.108	12	KL	6201		I	2147.367	-0.007	6	RG
6152	TW Dra	I	2157.462	-0.029	11	HP	6202		II	2160.370	+0.011	6	RG
6153	AI Dra	I	2150.351	0.000	11	KL	6203		II	2183.378	-0.027	7	RD
6154		I	2156.351	+0.006	6	KL	6204	BL Leo	I	2148.328	+0.016	6	KL
6155	TX Gem	I	2139.316	-0.008	6	RD	6205		II	2150.427	0.000	11	KL
6156		I	2139.319	-0.006	11	KL	6206		II	2152.395	-0.005	9	KL
6157	RX Her	II	2156.622	-0.010	10	KL	6207		II	2183.407	-0.006	7	KL
6158		I	2157.519	-0.005	8	RD	6208	CE Leo	II	2148.393	+0.083	7	KL
6159	SZ Her	I	2141.639	+0.023	14	KL	6209		II	2150.494	+0.060	9	KL
6160		I	2160.456	+0.024	9	HP	6210		II	2152.340	+0.085	10	KL
6161		I	2183.361	+0.022	6	KL	6211	δ Lib	I	2183.380	+0.026	10	KL
6162		I	2187.452	+0.023	12	HP	6212	TY Lib	I	2185.492	-0.012	16	HP
6163	TU Her	I	2184.432	-0.061	7	KL	6213	UZ Lyr	I	2146.644	-0.001	6	KL
6164		I	2193.496	-0.065	16	HP	6214	FL Lyr	I	2157.469	-0.008	12	HP
6165		I	2193.496	-0.065	11	KL	6215	AO Mon	I	2139.333	-0.127	7	RD
6166	CC Her	I	2156.634	+0.042	9	KL	6216	U Oph	I	2185.516	+0.003	10	HP
6167		I	2184.381	+0.046	10	KL	6217	WZ Oph	I	2183.416	-0.003	12	HP
6168		I	2184.386	+0.050	9	HP	6218	V 391 Oph	I	2194.448	+0.005	11	KL
6169	V 338 Her	I	2193.429	+0.078	13	HP	6219	V 449 Oph	I	2186.404	+0.054	7	KL
6170	WY Hya	I	2158.349	-0.005	7	RD	6220	V 508 Oph	II	2156.457	-0.001	8	RG
6171		I	2158.359	+0.004	7	KL	6221		II	2156.467	+0.010	10	HP
6172	SW Lac	I	2193.562	-0.061	11	KL	6222		II	2158.531	+0.005	6	RG
6173		I	2194.525	-0.060	10	KL	6223		II	2159.563	+0.002	12	KL
6174	VX Lac	I	2187.558	-0.056	7	KL	6224		II	2179.565	+0.006	9	KL
6175	CM Lac	I	2158.557	-0.001	11	KL	6225		I	2180.427	+0.006	8	RG
6176	Y Leo	I	2160.356	+0.081	14	RG	6226		II	2184.387	+0.001	7	RG
6177		I	2160.360	+0.084	10	KL	6227		II	2186.459	+0.003	8	HP
6178	RW Leo	I	2160.397	+0.019	7	KL	6228	V 735 Oph	I	2170.514	-0.177	10	KL
6179	UU Leo	I	2177.385	-0.027	8	KL	6229	FT Ori	I	2158.339	+0.013	9	RD
6180	UV Leo	II	2139.346	-0.008	9	HP	6230		I	2158.339	+0.013	8	KL
6181		II	2139.346	-0.008	8	RD	6231	XZ Per	I	2139.340	+0.011	9	KL
6182		II	2139.362	+0.008	7	RG	6232	U Sct	I	2157.608	+0.029	12	KL
							6233		I	2158.572	+0.039	6	KL
							6234	AK Ser	I	2183.453	-0.005	7	KL
							6235	AO Ser	I	2156.627	-0.003	6	KL

current no.	star	minimum or-der	JD hel 244...	O - C	n	ob- server
6236		I	2157.506	-0.003	8	RD
6237		I	2179.505	+0.012	6	KL
6238	TX UMa	I	2152.402	0.000	7	KL
6239	UX UMa	I	2148.406	-0.002	6	KL
6240		I	2150.374	0.000	5	KL
6241		I	2152.344	+0.002	4	KL
6242		I	2160.405	0.000	5	KL
6243		I	2185.579	0.000	7	KL
6244	XZ UMa	I	2149.447	-0.081	8	KL
6245	ZZ UMa	I	2143.391	0.000	7	KL
6246	UW Vir	I	2152.565	+0.219	9	KL
6247	VV Vir	I	2148.427	-0.055	11	KL
6248		I	2152.442	-0.056	8	KL
6249		I	2156.459	-0.053	11	KL
6250		I	2160.473	-0.054	6	KL
6251		I	2177.424	-0.056	7	KL
6252		I	2193.475	-0.064	6	KL
6253	AH Vir	I	2150.325	+0.028	11	KL
6254		II	2179.463	+0.028	7	KL
6255	AK Vir	I	2194.452	+0.034	10	KL
6256	AZ Vir	I	2147.383	+0.014	8	RG
6257		II	2156.453	+0.011	6	RG
6258		II	2187.380	-0.002	6	RG
6259		II	2193.395	+0.063	8	HP
6260	BD Vir	I	2148.465	+0.037	10	KL
6261	BF Vir	I	2150.400	+0.004	12	KL
6262	BH Vir	I	2147.436	+0.001	7	KL
6263		I	2156.417	-0.003	10	HP
6264		I	2183.366	-0.011	7	RG
6265		I	2183.374	-0.002	9	HP
6266		I	2183.380	+0.003	8	RD
6267		I	2183.385	+0.008	6	KL
6268	Z Vul	I	2186.459	+0.021	11	HP

New Elements for RW Comae

From 92 minima observed by members of the BBSAG and published previously I deduced new light-elements for this EW type binary.

Employing the common method of least square deviations and weighing each minimum in accordance to the number of observations contained in it, the following formula was obtained:

$$\begin{aligned} \text{Min hel JD} &= 2439637.439 + 0.2373459 E \\ &\pm .015 \pm .0000004 \end{aligned}$$

Table 13 lists all the minima along with their O-C<sub>new</sub> values.

R. Diethelm

Table 13

0	O-C	new	obs.					
			40688.410	+.003	KL	41765.715	-.005	TM
39637.445	+.006	KL	688.417	+.010	RD	768.687	.000	TM
638.392	+.004	KL	692.303	-.020	RD	774.504	+.003	KL
646.461	+.003	KL	692.431	-.011	RD	792.776	-.001	TM
666.399	+.004	KL	698.383	+.008	KL	793.725	-.001	TM
670.430	.000	KL	711.429	.000	RD	794.321	+.001	KL
914.423	+.013	KL	711.542	-.006	RD	823.390	-.005	KL
935.304	-.004	KL	720.580	-.004	RD	828.500	+.002	HP
990.371	-.001	MW	725.426	-.007	RD	830.382	-.014	RG
40022.416	+.002	HP	731.469	-.016	RD	834.666	-.003	TM
024.449	-.018	RD	733.368	-.016	RD	837.399	+.001	RG
316.362	-.005	RD	735.402	+.001	RD	837.400	+.002	KL
316.365	-.002	KL	741.456	+.003	RD	841.676	+.006	TM
317.422	-.013	RD	742.403	.000	UR	847.606	+.002	TM
319.331	-.003	KL	947.702	-.005	KL	847.607	+.003	GG
319.338	+.004	RD	41059.494	-.003	KL	42004.724	-.003	KL
321.350	-.001	KL	390.477	+.001	RD	026.679	-.003	KL
321.361	+.010	RD	391.420	-.005	RD	054.696	+.008	KL
325.386	.000	KL	392.370	-.005	RD	089.456	-.003	KL
330.490	+.001	KL	436.404	+.002	HP	119.362	-.003	KL
344.490	-.002	RD	439.367	-.002	KL	132.425	+.006	RD
350.548	+.003	KL	439.372	+.003	HP	139.662	+.004	KL
353.382	-.011	RD	440.424	-.013	KL	145.346	-.008	KL
353.395	+.002	KL	471.406	-.005	RD	146.419	-.004	RG
362.411	-.001	AR	506.404	-.015	KL	147.378	+.006	RG
368.586	+.003	KL	706.620	-.001	KL	148.327	+.006	RG
381.403	+.003	KL	707.929	+.003	TM	157.342	+.002	RG
382.486	+.018	RG	747.676	-.005	TM	158.529	+.002	RG
589.547	-.005	KL	747.806	+.006	TM	177.400	+.004	RG
674.399	-.004	KL	761.443	-.004	KL	187.368	+.003	RG
682.589	-.003	KL	764.775	+.005	TM	193.414	-.003	RG

Note on the O-C of R V Lyrae

BBSAG observers never succeeded hitherto in observing an entire minimum of this EA binary of large amplitude and considerable interest. Now I was able to observe descension and bottom of the minimum of 1974 May 18/19 (JD 42186) and to estimate the O-C to be close to zero thereby.

K. Locher