BBSAG

BULLETIN

93

1990 January 28

126. List of Minima of Eclipsing Binaries

The following table lists 6 photoelectric (**bold**) and 323 visual heliocentric minima of eclipsing binaries obtained primarily from August to December of 1989 by the following observers:

FAc	Francesco Acerbi, Codogno, Italy
CB	Christian Blanchart, Bruxelles, Belgium
CBa	Carlo Barani, Codogno, Italy
EBl	Ernst Blättler, Wald, Switzerland
RB	Roland Boninsegnia, Dourbes, Belgium
RD	Roger Diethelm, Rodersdorf, Switzerland
CF	Claire Friedlingstein, Bruxelles, Belgium
JFa	Juan Fabregat, Southampton, U.K.
KL	Kurt Locher, Grüt, Switzerland
APs	Anton Paschke, Rüti, Switzerland
CPa	Carlo Pamploni, Florence, Italy
HP	Hermann Peter, Otelfingen, Switzerland
PR	Philippe Ralincourt, Nantes, France
YT	Yvon Thirionet, Bruxelles, Belgium
JVb	Jacquline Vandenbroere, Bruxelles, Belgium

The O-C values generally refer to the linear elements of the GCVS 1985, with the remarked exceptions. For the reduction of the visual minima, the tracing paper method was employed, while the photoelectric data were reduced with the Kwee-van Woerden algorithm.

Nr	Design.	Star	Type	O	O-C	n	Obs	Remarks
26893	2308+527	RT And	p	47698.480	+0.001	7	JVb	
26894			p	47703.507	-0.003	10	JVb	
26895			p	47815.458	-0.002	10	JVb	
26896			p	47817.343	-0.004	10	JVb	
26897			p	47822.374	-0.005	7	JVb	
26898	2311+458	TT And	p	47825.322	+0.001	10	HP	
26899	0041+306	UU And	p	47824.427	+0.013	10	HP	
26900			p	47827.397	+0.011	5	KL	
26901	0058+378	WZ And	p	47823.300	-0.001	8	HP	
26902			p	47825.398	+0.010	7	HP	
26903			p	47862.269	+0.012	8	HP	
26904	0153+418	XZ And	p	47778.433	+0.014	14	RB	
26905			p	47812.361	+0.010	10	HP	
26906			p	47846.294	+0.011	8	HP	
26907			p	47854.437	+0.011	6	KL	
2690823334+483		AD And	s	47822.458	-0.036	11	HP	
26909			s	47823.448	-0.032	8	HP	
26910			s	47826.430	-0.009	7	HP	
26911	2308+516	BL And	p	47824.435	-0.008	6	HP	
26912	0108+466	CO And	p	47804.410	-0.009	12	HP	
26913	0008+418	DO And	s	47824.416	+0.008	6	KL	elem. MVS 11, p.106
26914	0139+445	EP And	s	47847.286	+0.020	6	KL	
26915	0209+444	GZ And	p	47825.419	+0.004	6	KL	
26916			p	47762.449	-0.044	17	RB	
26917			s	47763.466	+0.021	25	CF	
26918	0031+410	HS And	p	47859.392	+0.126	6	KL	
26919	2324+452	LO And	s	47767.602	-0.032	12	JFa	
26920			p	47768.537	-0.049	16	JFa	
26921			p	47770.443	-0.047	10	JFa	
26922			p	47812.337	-0.047	6	HP	
26923			s	47816.317	-0.067	8	HP	
26924			p	47846.280	-0.000	8	HP	
26925			p	47857.318	-0.007	6	HP	
26926	2217-203	AT Aqr	p	47825.308	-0.008	6	KL	
26927	2319-162	CZ Aqr	p	47822.400	-0.016	6	KL	
26928	2243+007	DD Aqr	p	47743.493	+0.043	13	APs	
26929			p	47816.307	+0.073	10	HP	
26930			p	47826.403	+0.080	6	HP	
26931			p	47854.297	-0.130	7	EBI	

Nr	Design.	Star	Type	O	O-C	n	Obs	Remarks
26932	2019-075	XZ Aql	p	47743.472	+0.047	13	APs	
26933			p	47803.377	+0.055	8	HP	
26934	1914+092	V342 Aql	p	47826.300	-0.004	8	HP	
26935	1936+126	V343 Aql	p	47743.468	-0.030	16	APs	
26936			p	47804.344	-0.026	10	HP	
26937			p	47817.258	-0.024	8	HP	
26938	2007+102	V346 Aql	p	47743.39	+0.00	9	APs	
26939			p	47815.296	-0.002	6	HP	
26940			p	47846.275	-0.002	9	HP	
26941	1928+135	V415 Aql	p	47823.314	+0.123	11	HP	
26942	1922+159	V1353 Aql	s	47812.271	+0.001	7	HP	
26943			p	47824.285	-0.010	9	HP	
26944			p	47858.260	+0.010	8	HP	
26945	0201+237	SS Ari	p	47827.422	-0.072	6	HP	
26946			p	47849.325	-0.093	7	EBI	
26947	0302+283	TX Ari	p	47886.519	-0.089	5	KL	
26948	0514+382	RY Aur	p	47858.428	+0.017	6	KL	
26949	0546+316	RZ Aur	p	47854.600	-0.038	6	KL	
26950	0542+411	ZZ Aur	p	47823.420	+0.009	8	HP	
26951	0515+337	AR Aur	p	47804.463	-0.016	7	FAc	
26952	0509+334	CL Aur	p	47857.402	+0.075	5	KL	
26953	0548+302	FW Aur	p	47838.707	-0.030	6	KL	
26954	0615+497	HL Aur	p	47822.458	-0.008	7	HP	
26955	0507+357	HP Aur	p	47824.442	+0.034	7	HP	
26956	0524+694	AS Cam	p	47893.314	-0.007	8	RD	pe, B
26957	0845+093	AE Cnc	p	47880.466	-0.019	5	KL	
26958	0620-226	RU CMa	p	47842.541	+0.035	7	KL	
26959	0656-187	UU CMa	p	47854.596	-0.042	10	KL	
26960	0615-215	EG CMa	p	47890.535	-0.024	7	KL	
26961	0646-162	EQ CMa	p	47890.610	+0.114	8	KL	elem. BBSAG Bull. 87, p.5

Nr	Design.	Star	Type	O	O-C	n	Obs	Remarks
26962	0244+694	RZ Cas	p	47767.347	+0.002	6	FAc	
26963			p	47768.548	+0.008	9	PR	
26964			p	47768.551	+0.011	15	CBa	
26965			p	47768.556	+0.015	24	JFa	
26966			p	47804.406	+0.008	11	FAc	
26967			p	47804.411	+0.013	7	CPa	
26968			p	47805.598	+0.005	10	FAc	
26969			p	47810.376	+0.002	36	CBa	
26970			p	47810.378	+0.004	10	FAc	
26971	0016+588	TV Cas	p	47803.489	-0.009	19	JVb	
26972			p	47805.325	+0.015	10	FAc	
26973	0241+655	TW Cas	p	47817.393	+0.012	9	HP	
26974			p	47870.247	+0.018	8	HP	
26975	0232+710	AB Cas	p	47818.390	+0.021	9	HP	
26976			p	47859.388	+0.013	10	HP	
26977	0123+698	AE Cas	p	47885.291	+0.072	4	KL	
26978	0028+714	CV Cas	p	47824.381	+0.354	7	KL	
26979	0042+628	CW Cas	p	47804.400	+0.015	6	HP	
26980			p	47818.422	+0.007	8	HP	
26981			p	47858.276	+0.006	7	HP	
26982	2350+572	EP Cas	p	47803.392	-0.016	6	HP	
26983			p	47825.342	-0.029	7	HP	
26984			p	47860.325	-0.023	7	HP	
26985	0000+574	EY Cas	p	47890.222	-0.064	4	KL	
26986	2304+538	IR Cas	p	47805.465	+0.012	7	HP	
26987			p	47816.362	+0.018	7	HP	
26988			p	47846.306	+0.011	9	HP	
26989	2347+528	IV Cas	p	47804.321	-0.006	8	HP	
26990			p	47860.250	+0.005	7	HP	
26991	0045+605	OR Cas	p	47825.436	-0.008	8	HP	
26992			p	47860.316	-0.007	7	HP	
26993			p	47885.225	-0.013	6	KL	
26994	0049+501	V364 Cas	s	47817.389	-0.009	9	HP	
26995	0111+487	V389 Cas	p	47824.458	+0.039	13	HP	
26996	0037+499	V523 Cas	s	47769.380	+0.012	7	EBl	
26997			p	47804.322	+0.017	8	EBl	
26998			s	47826.404	+0.015	6	HP	
26999			s	47859.348	+0.009	7	HP	
27000	0057+816	U Cep	p	47817.507	+0.039	20	JVb	
27001			p	47857.403	+0.047	7	KL	

Nr	Design.	Star	Type	O	O-C	n	Obs	Remarks
27002	2145+570	SU Cep	s	47815.325	+0.007	7	HP	
27003			p	47838.317	+0.014	8	HP	
27004	2038+754	VW Cep	p	47804.420	-0.028	5	FAc	
27005			p	47805.286	+0.004	5	FAc	
27006			p	47805.515	-0.046	5	FAc	
27007	2244+674	WY Cep	p	47803.470	+0.031	7	HP	
27008	2306+609	DP Cep	p	47857.311	-0.011	7	KL	
27009	2127+649	GI Cep	p	47859.253	-0.007	10	HP	
27010			p	47860.290	-0.008	8	HP	
27011	2130+706	GK Cep	s	47695.453	+0.065	18	APs	pe
27012			p	47804.444	-0.007	6	FAc	
27013			p	47805.387	+0.000	10	FAc	
27014	2249+567	GS Cep		47804.428		11	HP	GCVS period prob. erroneous
27015				47812.397		7	HP	
27016				47817.371		15	HP	
27017				47824.293		10	HP	
27018				47840.330		7	HP	
27019				47858.316		7	HP	
27020				47862.294		8	HP	
27021	0140+798	GW Cep	s	47823.353	+0.088	9	HP	
27022			p	47857.317	-0.006	8	HP	
27023	2109+575	IO Cep	p	47804.445	+0.015	9	HP	
27024			p	47825.449	+0.011	7	HP	
27025	0220+809	V358 Cep	p	47822.644	+0.700	7	KL	elem. BBSAG Bull. 63, p.5
27026	0146-211	TW Cet	s	47854.436	-0.005	6	KL	
27027	0147-198	VY Cet	s	47854.437	+0.006	6	KL	
27028	0156-231	AA Cet	p	47854.451	-0.013	6	KL	
27029	1205-128	W Crv	p	47874.702	+0.010	6	KL	
27030	2005+461	SW Cyg	p	47817.376	-0.088	15	HP	
27031	2021+430	UW Cyg	p	47803.403	+0.037	12	HP	
27032	2104+455	VV Cyg	p	47823.287	+0.002	6	KL	
27033	2002+414	WW Cyg	p	47816.327	+0.003	9	HP	
27034			p	47826.285	+0.007	7	KL	
27035			p	47826.285	+0.007	7	HP	
27036	2051+386	WZ Cyg	p	47803.445	+0.032	6	HP	
27037			p	47847.273	+0.024	6	KL	
27038			p	47857.225	+0.041	5	HP	

Nr	Design.	Star	Type	O	O-C	n	Obs	Remarks
27039	2022+467	ZZ Cyg	p	47815.290	-0.012	7	HP	
27040			p	47859.298	-0.007	7	HP	
27041	2111+305	AE Cyg	p	47823.329	+0.014	9	HP	
27042			p	47824.291	+0.008	8	HP	
27043			p	47857.235	-0.001	6	HP	
27044	2056+349	CG Cyg	p	47812.392	+0.037	7	HP	
27045	1952+379	CV Cyg	s	47805.411	-0.077	8	HP	
27046			p	47838.331	-0.102	6	HP	
27047	2156+523	DO Cyg	p	47825.309	-0.006	7	HP	
27048	1928+342	HK Cyg	p	47854.248	-0.048	6	KL	
27049	2007+304	KR Cyg	p	47805.398	+0.003	7	HP	
27050	2013+366	KV Cyg	p	47825.357	+0.036	7	HP	
27051	2016+361	V382 Cyg	s	47823.366	+0.019	6	HP	
27052	2113+372	V387 Cyg	p	47818.334	+0.008	6	HP	
27053			p	47859.328	+0.004	7	HP	
27054	2044+340	V398 Cyg	p	47822.411	-0.049	6	KL	elem. IBVS Nr. 3309
27055	1927+302	V401 Cyg	p	47812.359	+0.022	6	HP	
27056			s	47838.294	+0.026	6	HP	
27057	2027+389	V456 Cyg	p	47826.450	+0.007	6	HP	
27058			p	47827.344	+0.010	7	HP	
27059			p	47885.286	+0.025	5	KL	
27060	1952+328	V466 Cyg	p	47805.460	+0.010	7	HP	
27061	2003+318	V477 Cyg	p	47721.490	+0.006	15	JVb	
27062			p	47728.522	-0.004	11	JVb	
27063			p	47815.371	+0.006	10	JVb	
27064	2105+429	V525 Cyg	p	47825.317	-0.015	6	KL	
27065	2151+535	V680 Cyg	p	47812.310	+0.032	8	HP	
27066			p	47818.301	+0.027	7	HP	
27067			p	47860.247	+0.003	7	HP	
27068	1924+298	V687 Cyg	p	47805.336	+0.009	7	HP	
27069	2011+404	V726 Cyg	p	47859.337	+0.018	4	KL	
27070	2025+586	V728 Cyg	p	47816.281	-0.009	7	HP	
27071	2014+478	V787 Cyg	p	47862.291	-0.004	11	HP	
27072	2003+308	V1034 Cyg	p	47812.379	+0.011	7	HP	
27073	2117+407	V1665 Cyg	p	47825.278	-0.020	6	KL	
27074	2040+382	V1788 Cyg		47824.0	-2.8	6	KL	elem. BBSAG Bull. 68, p.6
27075	2035+181	W Del	p	47846.273	-0.010	9	HP	
27076	2041+137	RR Del	p	47855.276	+0.253	6	KL	
27077	2101+130	TY Del	p	47838.328	+0.027	8	HP	
27078	2027+138	YY Del	p	47805.304	-0.001	7	HP	
27079			p	47824.332	-0.008	7	HP	
27080			p	47859.229	-0.006	7	HP	
27081	2051+044	FZ Del	p	47849.309	-0.023	8	EBI	
27082			p	47860.277	-0.019	6	HP	
27083	1142+725	Z Dra	p	47827.258	-0.048	6	KL	
27084	1841+626	RR Dra	p	47824.391	+0.041	9	HP	
27085			p	47824.393	+0.042	7	KL	
27086	1822+588	RZ Dra	p	47775.311	-0.001	7	EBI	
27087			p	47818.298	+0.017	7	HP	
27088	1820+475	TZ Dra	p	47816.275	-0.002	7	HP	
27089	1926+688	UZ Dra	p	47812.414	-0.002	9	HP	
27090	1655+527	AI Dra	p	47722.438	-0.008	11	JVb	
27091			p	47728.443	+0.003	13	JVb	
27092			p	47740.458	+0.030	14	JFa	
27093	1922+698	DW Dra	p	47826.343	+0.000	6	KL	elem. BBSAG Bull. 84, p.6
27094	0419-061	TZ Eri	p	47824.508	+0.053	8	HP	
27095			p	47858.388	+0.055	6	KL	
27096	0427-123	AM Eri	s	47825.467	-0.033	6	KL	
27097	0558+231	RW Gem	p	47854.529	+0.001	6	KL	
27098	0631+155	BD Gem	p	47838.635	-0.009	6	KL	
27099	0622+180	BO Gem	p	47878.424	+0.199	8	KL	
27100	0608+233	BT Gem	p	47842.609	+0.000	4	KL	
27101	0637+218	CX Gem	p	47840.634	+0.013	4	KL	
27102	0640+193	DD Gem	p	47890.482	+0.046	11	KL	
27103	1737+329	SZ Her	p	47846.227	-0.013	6	HP	

Nr	Design.	Star	Type	O	O-C	n	Obs	Remarks
27104	1717+419	TX Her	p	47625.542	+0.002	26	YT	
27105			p	47625.568	+0.028	26	CB	
27106			p	47689.425	+0.031	9	JVb	
27107			p	47693.527	+0.013	14	JVb	
27108			p	47726.478	+0.007	13	JVb	
27109			p	47728.526	-0.004	10	JVb	
27110			p	47757.381	+0.014	8	JVb	
27111			p	47759.432	+0.005	20	JVb	
27112	1622+114	FN Her	p	47775.309	+0.131	7	EBI	
27113	1848+235	GL Her	p	47803.339	+0.012	9	HP	
27114	1749+500	MX Her	p	47804.308	-0.265	8	HP	
27115	1751+437	V338 Her	p	47817.272	+0.013	7	HP	
27116	1822+250	V342 Her	p	47838.228	-0.030	5	HP	
27117	1654+377	V359 Her	p	47815.290	+0.079	8	HP	
27118			p	47822.311	+0.077	8	HP	
27119	0831-144	VW Hya	p	47825.684	+0.048	7	KL	
27120	2238+380	VX Lac	p	47823.294	+0.010	9	HP	
27121			p	47838.329	+0.003	7	HP	
27122	2231+558	OO Lac	p	47822.301	+0.110	6	KL	
27123	1514-128	ES Lib	p	**47690.50**	**+0.05**	43	APs	pe, normal minimum
27124	0851+466	RY Lyn	p	47885.486	-0.020	4	KL	
27125	1814+410	TZ Lyr	p	47818.301	+0.012	7	HP	
27126	1919+378	UZ Lyr	p	47805.330	-0.021	7	HP	
27127			p	47822.378	+0.006	8	HP	
27128			p	47858.315	+0.009	7	HP	
27129	1831+377	EW Lyr	p	47805.338	+0.252	7	HP	
27130			p	47885.236	+0.253	4	KL	
27131	1910+462	FL Lyr	p	47696.518	-0.006	12	JVb	
27132			p	47720.490	+0.006	13	JVb	
27133			p	47757.524	+0.012	12	JVb	
27134	0651-041	XZ Mon	p	47825.566	+0.030	6	KL	
27135	0635+050	BZ Mon	p	47859.454	-0.048	4	KL	
27136	0700+003	HM Mon	p	47854.634	-0.024	6	KL	

Nr	Design.	Star	Type	O	O-C	n	Obs	Remarks
27137	0635+036	V396 Mon	s	47838.701	+0.006	5	KL	
27138			s	47840.667	-0.009	4	KL	
27139			s	47842.661	+0.003	6	KL	
27140			p	47859.503	-0.000	5	KL	
27141			p	47880.505	-0.005	5	KL	
27142			s	47885.464	+0.000	4	KL	
27143	0749-011	V681 Mon	p	47825.690	+0.093	6	KL	elem. BBSAG Bull. 75, p.4
27144	1713+012	U Oph	p	**47670.443**	**+0.005**	13	APs	pe
27145			s	47701.461	-0.007	10	JVb	
27146			p	47769.418	+0.017	11	JFa	
27147	1732+072	RV Oph	p	47827.243	-0.011	5	KL	
27148	1816+142	V501 Oph	p	47827.292	-0.005	6	HP	
27149	1738+078	V506 Oph	p	47823.243	+0.028	6	HP	
27150	0505-028	FL Ori	p	47886.408	+0.005	7	KL	
27151	0544+058	QT Ori	p	47854.499	-0.433	6	KL	
27152	0612+155	V645 Ori	p	47880.325	+0.018	5	KL	
27153	2355+156	U Peg	p	**47826.287**	**-0.033**	9	RD	pe, B
27154	2226+177	UX Peg	p	47827.278	-0.006	7	HP	
27155	2210+081	AT Peg	p	47859.273	+0.003	6	HP	
27156	2220+160	BB Peg	p	47804.468	-0.012	10	HP	
27157			p	47857.261	+0.001	7	HP	
27158			p	47862.330	+0.008	6	HP	
27159	2136+264	BX Peg	p	47817.300	+0.008	9	HP	
27160			p	47838.331	+0.007	7	HP	
27161			p	47854.299	-0.009	7	EBI	
27162			p	47859.360	+0.005	7	HP	
27163	2146+278	CW Peg	p	47825.392	+0.045	9	HP	
27164	2339+099	DK Peg	p	47862.339	+0.014	10	HP	
27165	2205+059	DO Peg	p	47770.526	+0.011	8	KL	
27166	2312+165	EY Peg	p	47822.398	+0.506	11	KL	elem. BBSAG Bull. 85, p.5
27167	0320+463	RT Per	p	47858.358	+0.024	10	HP	
27168	0242+479	RY Per	p	47812.391	-0.014	16	HP	
27169	0256+389	ST Per	p	47823.296	+0.115	9	HP	
27170			p	47860.370	+0.113	9	HP	
27171	0335+425	WY Per	p	47822.327	+0.009	10	HP	

Nr	Design.	Star	Type	O	O-C	n	Obs	Remarks
27172	0405+464	XZ Per	p	47858.341	-0.010	9	HP	
27173	0256+437	IU Per	p	47805.432	+0.012	6	HP	
27174	0156+529	KW Per	p	47822.401	+0.005	8	HP	
27175	2331+076	Y Psc	p	47804.294	-0.029	8	HP	
27176	0054+120	SX Psc	p	47803.445	-0.000	7	HP	
27177			p	47822.444	+0.004	8	HP	
27178	0811-238	XZ Pup	p	47853.685	+0.046	10	KL	
27179	0736-243	AY Pup	p	47822.615	-0.027	5	KL	
27180	0739-151	GK Pup	p	47890.532	+0.002	5	KL	
27181	1916+195	U Sge	p	47816.292	-0.001	8	HP	
27182	2010+191	UZ Sge	p	47822.370	+0.033	9	HP	
27183	1922+163	CU Sge	p	47817.375	+0.015	9	HP	
27184	1957+190	CW Sge	s	47822.380	+0.014	6	HP	
27185			s	47824.359	+0.013	8	HP	
27186			p	47870.240	-0.001	7	HP	
27187	1905+188	DL Sge	p	47827.327	-0.036	8	HP	
27188	1950-147	V505 Sgr	p	47740.519	+0.009	22	JFa	
27189			p	47746.431	+0.006	11	JVb	
27190	1846-102	RS Sct	s	47743.424	+0.012	12	APs	
27191	1535+190	LX Ser	p	47890.709	+0.001	6	KL	
27192	0400+279	RW Tau	p	47824.476	-0.038	10	HP	
27193	0434+015	AC Tau	p	47886.359	+0.034	7	KL	
27194	0344+249	AH Tau	p	47840.591	-0.068	6	KL	
27195	0526+287	ES Tau	p	47890.290	-0.000	6	KL	
27196	0547+269	V781 Tau	s	**47893.312**	**-0.016**	9	RD	pe, B
27197	0128+301	V Tri	p	47823.423	-0.004	8	HP	
27198			p	47857.367	-0.002	4	KL	
27199	0157+276	X Tri	p	47768.434	-0.008	16	JFa	
27200			p	47803.409	-0.008	15	JVb	
27201			p	47804.376	-0.012	7	HP	
27202	0132+293	RS Tri	p	47859.256	-0.000	7	HP	
27203	0222+278	RW Tri	p	47825.458	-0.001	7	KL	
27204	1334+521	UX UMa	p	47838.696	-0.002	6	KL	
27205	0851+651	AC UMa	p	47827.336	+0.006	6	KL	
27206	1402-099	VV Vir	p	47885.702	-0.025	6	KL	
27207	1927+273	XZ Vul	p	47823.375	-0.029	7	KL	
27208	2026+246	AW Vul	p	47815.309	+0.006	8	HP	
27209			p	47857.238	-0.001	7	HP	
27210	2033+224	AY Vul	p	47826.299	-0.002	6	KL	
27211	2023+272	BE Vul	p	47803.332	+0.021	6	HP	
27212			p	47817.306	+0.026	8	HP	
27213			p	47862.287	-0.001	7	HP	
27214	1954+237	BO Vul	p	47818.399	+0.030	7	HP	
27215			p	47822.294	+0.034	6	KL	
27216			p	47857.317	+0.031	9	HP	
27217			p	47859.266	+0.034	8	HP	
27218	2023+208	BP Vul	p	47823.313	+0.017	7	HP	
27219	1935+218	BS Vul	p	47803.306	+0.004	7	HP	
27220	2044+280	BU Vul	p	47860.349	-0.009	6	HP	
27221	2023+263	CD Vul	p	47825.312	+0.005	7	HP	

On the Period of ST Persei

ST Persei is an eclipsing binary which lends itself favorably for the visual timing of minima due to its large amplitude. In Figure 87 we present all the timings of minimum known to us. This O-C-diagram is drawn from the elements Min=2442436.508 + 2.648315 * E. As can be seen, ST Persei changes its period abruptly and has done so at least five times within the last 90 years. Two different values of the period (2.648315 and 2.648325 days) are effective for a few years alternatively.

R. Diethelm

Figure 87: