Recent Minima of 298 Eclipsing Binary Stars

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Abstract This paper continues the publication of times of minima for eclipsing binary stars from observations reported to the AAVSO EB section. Times of minima from observations received from August 2016 thru January 2017 are presented.

1. Recent observations

The accompanying list contains times of minima calculated from recent CCD observations made by participants in the AAVSO's eclipsing binary program. This list will be web-archived and made available through the AAVSO ftp site at ftp://ftp.aavso.org/public/datasets/gsamoj451eb.txt. This list, along with the eclipsing binary data from earlier AAVSO publications, is also included in the Lichtenknecker database administrated by the Bundesdeutsche Arbeitsgemeinschaft für Veränderliche Sterne e. V. (BAV) at: http://www.bav-astro.eu/index.php/veroeffentlichungen/service-for-scientists/lkdb-engl. These observations were reduced by the observers or the writer using the method of Kwee and Van Woerden (1956). The standard error is included when available. Column F indicates the filter used. A "C" indicates a clear filter.

The linear elements in the *General Catalogue of Variable Stars* (GCVS; Kholopov *et al.* 1985) were used to compute the O–C values for most stars. For a few exceptions where the GCVS elements are missing or are in significant error, light elements from another source are used: CD Cam (Baldwin and Samolyk 2007), AC CMi (Samolyk 2008), CW Cas (Samolyk 1992a), DV Cep (Frank and Lichtenknecker 1987), DF Hya (Samolyk 1992b), and GU Ori (Samolyk 1985) .

The light elements used for QX And, V404 And, V463 And, EF Aqr, FS Aqr, IU Cnc, AP CMi, CZ CMi, LS Del, BC Her, V728 Her, V899 Her, V1033 Her, V1034 Her, WZ Leo, V423 Oph, V1363 Ori, V351 Peg, AQ Psc, CP Psc, DS Psc, DV Psc, DZ Psc, GR Psc, V1121 Tau, V1128 Tau, V1223 Tau, HT Vir, and MS Vir are from Kreiner (2004).

The light elements used for DD Aqr, GK Aqr, V1542 Aql, XY Boo, DN Boo, GH Boo, GM Boo, GP Boo, IK Boo, CW CMi, CX CMi, V2477 Cyg, V2643 Cyg, MZ Del, KK Gem, V1092 Her, V1097 Her, V470 Hya, V474 Hya, XX Leo, CE Leo, GV Leo, HI Leo, V1853 Ori, V2790 Ori, V740 Per, VZ Psc, ET Psc, V1332 Tau, GR Vir, IR Vir, and NN Vir are from Paschke (2014).

The light elements used for MW And, V459 Aur, V348 Cyg, V382 Cyg, V2247 Cyg, V337 Gem, V390 Hya, V613 Peg, BB Per, V881 Per, HO Psc, and V495 Vul are from Nelson (2016).

The light elements used for V1470 Aql, V380 Gem, V383 Gem, V388 Gem, EU Hya, V534 Peg, V737 Per, V996 Per, and V391 Vir are from the AAVSO VSX site (Watson *et al.* 2014). O–C values listed in this paper can be directly compared with values published in the AAVSO EB monographs.

References

Baldwin, M. E., and Samolyk, G. 2007, *Observed Minima Timings of Eclipsing Binaries No. 12*, AAVSO, Cambridge, MA.

Frank, P., and Lichtenknecker, D. 1987, *BAV Mitt.*, No. 47, 1.

Kholopov, P. N., *et al.* 1985, *General Catalogue of Variable Stars*, 4th ed., Moscow.

Kreiner, J. M. 2004, "Up-to-date linear elements of eclipsing binaries," *Acta Astron.*, **54**, 207 (http://www.as.up.krakow.pl/ephem/).

Kwee, K. K., and van Woerden, H. 1956, *Bull. Astron. Inst. Netherlands*, **12**, 327.

Nelson, R. 2016, Eclipsing Binary O–C Files (https://www.aavso.org/bob-nelsons-o-c-files).

Paschke, A. 2014, "O–C Gateway" (http://var.astro.cz/ocgate/).

Samolyk, G. 1985, *J. Amer. Assoc. Var. Star Obs.*, **14**, 12.

Samolyk, G. 1992a, *J. Amer. Assoc. Var. Star Obs.*, **21**, 34.

Samolyk, G. 1992b, *J. Amer. Assoc. Var. Star Obs.*, **21**, 111.

Samolyk, G. 2008, *J. Amer. Assoc. Var. Star Obs.*, **36**, 171.

Watson, C., Henden, A. A., and Price, C. A. 2014, AAVSO International Variable Star Index VSX (Watson+, 2006–2016; https://www.aavso.org/vsx).

Table 1. Recent times of minima of stars in the AAVSO eclipsing binary program.

Star	*JD (min) Hel. 2400000 +*	*Cycle*	*O–C (day)*	*F*	*Observer*	*Error (day)*	*Star*	*JD (min) Hel. 2400000 +*	*Cycle*	*O–C (day)*	*F*	*Observer*	*Error (day)*
RT And	57607.8799	26181	–0.0127	V	G. Samolyk	0.0001	WZ And	57630.7561	24090	0.0745	V	K. Menzies	0.0001
RT And	57684.6107	26303	–0.0113	V	G. Samolyk	0.0001	WZ And	57676.6706	24156	0.0756	V	G. Samolyk	0.0001
TW And	57634.6771	4515	–0.0579	V	G. Samolyk	0.0003	XZ And	57633.7960	24797	0.1819	V	G. Samolyk	0.0001
UU And	57608.7866	10737	0.0864	V	G. Samolyk	0.0001	XZ And	57754.5949	24886	0.1831	V	G. Samolyk	0.0001
UU And	57684.5883	10788	0.0871	V	G. Samolyk	0.0001	AB And	57603.8708	64763	–0.0398	V	R. Sabo	0.0001
WZ And	57623.7991	24080	0.0741	V	G. Samolyk	0.0001	AB And	57609.8443	64781	–0.0403	V	K. Menzies	0.0001

Table continued on following pages

Table 1. Recent times of minima of stars in the AAVSO eclipsing binary program, cont.

Star	JD (min) Hel. 2400000 +	Cycle	O–C (day)	F	Observer	Error (day)
AB And	57646.6842	64892	–0.0405	V	G. Samolyk	0.0003
AB And	57690.3268	65023.5	–0.0417	V	L. Corp	0.0001
AB And	57690.4935	65024	–0.0409	V	L. Corp	0.0001
AB And	57698.6245	65048.5	–0.0413	V	G. Samolyk	0.0001
AD And	57623.7660	18882	–0.0347	V	K. Menzies	0.0001
AD And	57649.9016	18908.5	–0.0333	V	G. Samolyk	0.0001
AD And	57711.5364	18971	–0.0357	V	K. Menzies	0.0001
BD And	57642.7817	48996	0.0206	V	G. Samolyk	0.0003
BD And	57699.7154	49119	0.0173	V	G. Samolyk	0.0001
BX And	57622.8179	34574	–0.0876	V	G. Samolyk	0.0001
BX And	57649.6626	34618	–0.0879	V	N. Simmons	0.0001
CN And	57699.5678	34837	–0.1500	V	G. Persha	0.0002
DS And	57606.8394	21241	0.0043	V	G. Samolyk	0.0002
DS And	57680.6066	21314	0.0036	V	G. Samolyk	0.0001
DS And	57693.7430	21327	0.0033	V	K. Menzies	0.0001
MW And	57667.7432	12188.5	–0.0075	V	K. Menzies	0.0002
QX And	57606.8365	12390	0.0014	V	G. Samolyk	0.0002
QX And	57627.8546	12441	–0.0013	V	K. Menzies	0.0003
QX And	57680.6184	12569	0.0045	V	G. Samolyk	0.0002
QX And	57680.8213	12569.5	0.0013	V	G. Samolyk	0.0002
QX And	57711.5277	12644	0.0009	V	K. Menzies	0.0001
V404 And	57680.7620	7663	0.0007	C	G. Frey	0.0001
V463 And	57685.7127	12769	–0.0025	C	G. Frey	0.0001
RY Aqr	57634.7256	8548	–0.1339	V	G. Samolyk	0.0001
SU Aqr	57688.6788	21393	–0.0206	C	G. Frey	0.0001
CX Aqr	57608.8452	38050	0.0153	V	G. Samolyk	0.0001
CX Aqr	57666.6675	38154	0.0150	C	G. Frey	0.0001
CX Aqr	57686.6835	38190	0.0155	V	G. Samolyk	0.0001
CZ Aqr	57606.8496	16500	–0.0604	V	G. Samolyk	0.0001
CZ Aqr	57664.6536	16567	–0.0609	V	G. Samolyk	0.0001
DD Aqr	57656.6598	13634	0.0026	C	G. Frey	0.0002
EF Aqr	57698.7061	1821	0.0014	C	G. Frey	0.0001
EX Aqr	57668.6978	5811	0.0162	C	G. Frey	0.0008
FS Aqr	57663.6904	19704	–0.0009	C	G. Frey	0.0001
GK Aqr	57661.6977	33649	0.0154	C	G. Frey	0.0001
XZ Aql	57643.7342	7358	0.1794	V	G. Samolyk	0.0001
KO Aql	57622.6925	5494	0.1019	V	G. Samolyk	0.0001
OO Aql	57634.5794	37533	0.0652	V	G. Samolyk	0.0001
OO Aql	57637.6190	37539	0.0640	V	N. Simmons	0.0001
OO Aql	57647.7535	37559	0.0628	V	S. Cook	0.0004
OO Aql	57657.6375	37578.5	0.0644	V	G. Samolyk	0.0001
V343 Aql	57604.7087	15809	–0.0371	V	G. Samolyk	0.0001
V346 Aql	57648.6397	14218	–0.0134	V	S. Cook	0.0004
V609 Aql	57643.7130	35500	–0.0695	C	G. Frey	0.0002
V724 Aql	57657.7126	5110	–0.0146	C	G. Frey	0.0001
V1470 Aql	57632.3620	10937	–0.1050	V	L. Corp	0.0005
V1542 Aql	57630.7437	13217	0.0161	C	G. Frey	0.0001
RX Ari	57753.5447	18798	0.0654	V	G. Silvis	0.0001
RX Ari	57754.5725	18799	0.0636	V	G. Samolyk	0.0002
SS Ari	57643.8535	45852.5	–0.3630	V	G. Samolyk	0.0001
SS Ari	57755.4970	46127.5	–0.3678	V	G. Silvis	0.0001
SX Aur	57698.8370	14492	0.0192	V	G. Samolyk	0.0001
WW Aur	57719.7670	9811.5	0.0016	V	G. Samolyk	0.0001
AP Aur	57680.8776	26761.5	1.6121	V	G. Samolyk	0.0002
AP Aur	57702.7957	26800	1.6117	V	G. Samolyk	0.0001
AP Aur	57733.8279	26854.5	1.6164	V	K. Menzies	0.0001
AR Aur	57702.8133	4668	–0.1262	V	G. Samolyk	0.0001
CL Aur	57696.6955	19873	0.1778	V	G. Samolyk	0.0001
EM Aur	57677.8640	14647	–1.1094	V	K. Menzies	0.0003
EP Aur	57642.8721	53017	0.0190	V	G. Samolyk	0.0001
EP Aur	57719.7027	53147	0.0185	V	G. Samolyk	0.0001
EP Aur	57754.5707	53206	0.0171	V	G. Samolyk	0.0001
HP Aur	57743.6184	10533.5	0.0681	V	G. Samolyk	0.0002
IM Aur	57696.9191	13775	–0.1298	V	G. Samolyk	0.0002
V459 Aur	57719.7361	637.5	–0.0005	V	G. Samolyk	0.0002
TZ Boo	57608.6805	60491.5	0.0636	V	R. Sabo	0.0004
XY Boo	57531.7259	47435	0.0106	C	G. Frey	0.0001
DN Boo	57512.7338	5838	0.0014	C	G. Frey	0.0002
GH Boo	57510.6921	9478	–0.0070	C	G. Frey	0.0002
GM Boo	57524.7314	15295	0.0163	C	G. Frey	0.0002
GP Boo	57525.7179	7654	–0.0081	C	G. Frey	0.0002
IK Boo	57521.6857	13655	–0.0166	C	G. Frey	0.0001
SV Cam	57684.7449	25444	0.0579	V	G. Samolyk	0.0002
CD Cam	57684.7998	6441	–0.0096	V	G. Samolyk	0.0004
IU Cnc	57769.8131	12498	0.0113	V	K. Menzies	0.0001
R CMa	57712.8909	11817	0.1210	V	G. Samolyk	0.0001
UU CMa	57696.8943	6046	–0.0812	V	G. Samolyk	0.0001
XZ CMi	57669.9872	26305	0.0016	V	G. Samolyk	0.0001
YY CMi	57433.6938	26883	0.0152	C	G. Frey	0.0001
AC CMi	57432.6799	6289	0.0037	C	G. Frey	0.0001
AC CMi	57698.9155	6596	0.0038	V	G. Samolyk	0.0001
AC CMi	57745.7449	6650	0.0035	V	G. Silvis	0.0001
AP CMi	57417.6932	2273	–0.0214	C	G. Frey	0.0001
CW CMi	57431.7048	16619.5	–0.0249	C	G. Frey	0.0002
CX CMi	57445.6668	4897	0.0192	C	G. Frey	0.0001
CZ CMi	57423.7355	11547	–0.0088	C	G. Frey	0.0001
TY Cap	57611.7084	9005	0.0910	V	G. Samolyk	0.0001
RZ Cas	57673.6293	12109	0.0771	V	G. Samolyk	0.0001
RZ Cas	57673.6315	12109	0.0793	V	S. Cook	0.0003
TV Cas	57676.6760	7213	–0.0295	V	G. Samolyk	0.0001
TW Cas	57622.8332	10932	0.0079	V	N. Simmons	0.0001
ZZ Cas	57611.6796	19440	0.0197	V	G. Samolyk	0.0002
AB Cas	57640.8584	10920	0.1338	V	G. Samolyk	0.0002
AB Cas	57673.6637	10944	0.1341	V	G. Samolyk	0.0001
AB Cas	57736.5410	10990	0.1352	V	G. Samolyk	0.0001
CW Cas	57607.6551	50101.5	–0.0996	V	G. Samolyk	0.0001
CW Cas	57642.7298	50211.5	–0.1000	V	G. Samolyk	0.0001
DZ Cas	57604.8500	37165	–0.2023	V	G. Samolyk	0.0002
IR Cas	57606.6543	22393	0.0121	V	G. Samolyk	0.0001
IS Cas	57610.7344	15658	0.0702	V	G. Samolyk	0.0001
IS Cas	57728.5912	15722	0.0702	V	K. Menzies	0.0001
IT Cas	57671.6601	7419	0.0688	V	G. Samolyk	0.0001
IV Cas	57623.6960	16794	–0.1215	V	N. Simmons	0.0001
IV Cas	57649.6581	16820	–0.1210	V	G. Samolyk	0.0001
IV Cas	57684.6057	16855	–0.1217	V	G. Samolyk	0.0001
IV Cas	57702.5796	16873	–0.1213	V	G. Samolyk	0.0001
MM Cas	57604.8310	19166	0.1120	V	G. Samolyk	0.0003
MM Cas	57676.6588	19228	0.1146	V	G. Samolyk	0.0001
OR Cas	57646.6041	10786	–0.0302	V	G. Samolyk	0.0003
OX Cas	57635.8405	6574.5	0.0214	V	G. Samolyk	0.0002
PV Cas	57600.7830	9925	–0.0348	V	S. Cook	0.0002
PV Cas	57686.5559	9974	–0.0349	V	G. Samolyk	0.0001
V364 Cas	57633.6008	15100	–0.0240	V	G. Samolyk	0.0001
V364 Cas	57697.6376	15141.5	–0.0245	V	K. Menzies	0.0001
V375 Cas	57606.6633	15586	0.2404	V	N. Simmons	0.0001
V375 Cas	57634.6586	15605	0.2414	V	G. Samolyk	0.0001
V380 Cas	57686.5768	23607	–0.0719	V	G. Samolyk	0.0002
V523 Cas	57573.8554	69979	0.1117	V	B. Harris	0.0001
U Cep	57622.8289	5247	0.2056	V	G. Samolyk	0.0001
U Cep	57647.7644	5257	0.2106	V	S. Cook	0.0007
U Cep	57702.6056	5279	0.2047	V	G. Samolyk	0.0001
SU Cep	57635.6374	34735	0.0052	V	G. Samolyk	0.0002
WW Cep	57635.7111	21261	0.3465	V	G. Samolyk	0.0001
WZ Cep	57642.6077	70912.5	–0.1658	V	G. Samolyk	0.0001
XX Cep	57608.6315	5463	0.0141	V	G. Samolyk	0.0001
XX Cep	57622.6564	5469	0.0150	V	N. Simmons	0.0001
DL Cep	57601.6895	14508	0.0632	V	G. Samolyk	0.0002
DL Cep	57650.6030	14538	0.0622	V	G. Samolyk	0.0002
DV Cep	57633.6217	9355	–0.0056	V	G. Samolyk	0.0001
EG Cep	57616.6986	27583	0.0122	V	S. Cook	0.0004

Table continued on following pages

Table 1. Recent times of minima of stars in the AAVSO eclipsing binary program, cont.

Star	*JD (min) Hel. 2400000 +*	*Cycle*	*O–C (day)*	*F*	*Observer*	*Error (day)*
EK Cep	57581.7515	4196	0.0098	V	S. Cook	0.0007
SS Cet	57719.7862	5134	0.0644	V	G. Samolyk	0.0001
TT Cet	57684.7692	51731	–0.0765	V	G. Samolyk	0.0001
TT Cet	57687.6844	51737	–0.0770	C	G. Frey	0.0002
TW Cet	57640.8540	48185	–0.0328	V	G. Samolyk	0.0003
TW Cet	57697.7305	48364.5	–0.0312	V	G. Samolyk	0.0002
TW Cet	57768.5457	48588	–0.0324	V	G. Samolyk	0.0002
TX Cet	57643.8625	19655	0.0131	V	G. Samolyk	0.0001
TX Cet	57675.7177	19698	0.0122	C	G. Frey	0.0001
VV Cet	57706.7024	50495	0.1364	C	G. Frey	0.0002
RW Com	57769.9632	74775	0.0072	V	K. Menzies	0.0001
RZ Com	57748.9158	67684	0.0532	V	K. Menzies	0.0001
SS Com	57748.9577	79327	0.9046	V	K. Menzies	0.0003
SS Com	57767.9471	79373	0.9056	V	K. Menzies	0.0001
CC Com	57728.9196	82449	–0.0265	V	K. Menzies	0.0001
U CrB	57580.7408	11828	0.1317	V	S. Cook	0.0005
RW CrB	57606.6567	23203	0.0028	V	G. Samolyk	0.0001
SW Cyg	57635.6256	3448	–0.3581	V	G. Samolyk	0.0002
WW Cyg	57623.7880	5198	0.1387	V	G. Samolyk	0.0001
ZZ Cyg	57602.7903	20048	–0.0691	V	G. Samolyk	0.0001
AE Cyg	57623.7301	13452	–0.0048	V	K. Menzies	0.0001
AE Cyg	57693.5122	13524	–0.0042	V	K. Menzies	0.0001
CG Cyg	57583.7539	28771	0.0741	V	S. Cook	0.0002
CG Cyg	57607.7380	28809	0.0748	V	K. Menzies	0.0001
DK Cyg	57649.6155	41747	0.1133	V	G. Samolyk	0.0001
DK Cyg	57715.5138	41887	0.1149	V	G. Silvis	0.0001
DK Cyg	57715.5140	41887	0.1151	I	G. Silvis	0.0002
DK Cyg	57715.5141	41887	0.1152	B	G. Silvis	0.0001
DO Cyg	57575.7546	7654	–0.0321	V	B. Harris	0.0001
GO Cyg	57634.6225	33025	0.0668	B	G. Persha	0.0001
GO Cyg	57634.6225	33025	0.0668	V	G. Persha	0.0001
KV Cyg	57642.6235	9924	0.0620	V	G. Samolyk	0.0002
MY Cyg	57710.5141	5958	0.0012	V	K. Menzies	0.0002
V346 Cyg	57649.6547	8006	0.1890	V	G. Samolyk	0.0002
V348 Cyg	57607.8391	7811.5	0.0743	V	K. Menzies	0.0001
V348 Cyg	57668.6668	8025.5	0.0762	V	K. Menzies	0.0001
V382 Cyg	57636.6227	410	–0.0118	V	G. Persha	0.0002
V382 Cyg	57636.6228	410	–0.0118	B	G. Persha	0.0003
V387 Cyg	57624.5966	46268	0.0214	V	K. Menzies	0.0002
V387 Cyg	57699.5458	46385	0.0208	V	G. Samolyk	0.0002
V388 Cyg	57611.7523	18228	–0.1151	V	G. Samolyk	0.0001
V388 Cyg	57673.5988	18300	–0.1193	V	G. Samolyk	0.0001
V401 Cyg	57675.5724	23751	0.0832	V	G. Samolyk	0.0001
V456 Cyg	57637.6282	14280	0.0506	V	G. Samolyk	0.0001
V466 Cyg	57609.7370	20721.5	0.0071	V	K. Menzies	0.0001
V477 Cyg	57604.6265	5716	–0.0357	V	G. Samolyk	0.0002
V704 Cyg	57623.5975	34491	0.0368	V	G. Samolyk	0.0002
V1034 Cyg	57621.7429	15030	0.0110	V	R. Sabo	0.0001
V1073 Cyg	57638.3537	24134	–0.1659	V	G. Persha	0.0005
V2247 Cyg	57680.5592	640	–0.0116	V	K. Menzies	0.0001
V2477 Cyg	57621.6623	19691	0.0035	V	K. Menzies	0.0001
V2643 Cyg	57666.5592	10354	–0.0078	V	K. Menzies	0.0002
W Del	57650.7615	2980	0.0340	V	G. Samolyk	0.0002
TT Del	57606.8296	4310	–0.1123	V	G. Samolyk	0.0002
TY Del	57649.6824	12333	0.0695	V	S. Cook	0.0002
YY Del	57631.7268	18500	0.0091	C	G. Frey	0.0001
YY Del	57643.6244	18515	0.0103	V	G. Samolyk	0.0001
YY Del	57697.5546	18583	0.0102	V	G. Samolyk	0.0001
FZ Del	57634.7674	33593	–0.0225	V	S. Cook	0.0006
FZ Del	57642.5971	33603	–0.0249	V	G. Samolyk	0.0001
FZ Del	57671.5769	33640	–0.0240	V	N. Simmons	0.0001
LS Del	57613.4178	14053	–0.0038	V	L. Corp	0.0002
LS Del	57636.7060	14117	–0.0016	C	G. Frey	0.0004
MZ Del	57627.4107	12450	–0.0242	V	L. Corp	0.0002
MZ Del	57634.3831	12459.5	–0.0164	V	L. Corp	0.0006
TW Dra	57586.6840	4792	–0.0218	V	S. Cook	0.0009
UZ Dra	57576.7549	4908	–0.0003	V	S. Cook	0.0004
UZ Dra	57607.7415	4917.5	0.0039	V	G. Samolyk	0.0001
AI Dra	57582.7287	11921	0.0329	V	S. Cook	0.0008
BH Dra	57610.6642	9680	–0.0034	V	G. Samolyk	0.0002
S Equ	57629.7350	4375	0.0676	V	S. Cook	0.0004
TZ Eri	57701.7763	5866	0.3343	V	G. Samolyk	0.0001
TZ Eri	57761.7170	5889	0.3354	V	G. Samolyk	0.0001
YY Eri	57684.9425	50088.5	0.1588	V	G. Samolyk	0.0001
YY Eri	57760.6547	50324	0.1591	V	G. Samolyk	0.0001
RW Gem	57754.8235	13768	0.0031	V	G. Samolyk	0.0001
SX Gem	57728.8668	28311	–0.0579	V	K. Menzies	0.0001
SX Gem	57750.7374	28327	–0.0574	V	G. Samolyk	0.0002
TX Gem	57698.9625	13518	–0.0388	V	R. Sabo	0.0001
WW Gem	57701.9589	25624	0.0328	V	G. Samolyk	0.0001
AF Gem	57698.9572	24557	–0.0673	V	G. Samolyk	0.0001
EG Gem	57446.6574	23639	0.3089	C	G. Frey	0.0001
KK Gem	57437.6822	7574	0.0100	V	K. Menzies	0.0003
V337 Gem	57424.7116	1766.5	0.1082	C	G. Frey	0.0002
V380 Gem	57711.7790	18116	0.0220	V	K. Menzies	0.0001
V383 Gem	57769.7523	5842	–0.0047	V	K. Menzies	0.0001
V388 Gem	57399.7296	9656	0.0064	C	G. Frey	0.0001
RX Her	57634.6609	13755	–0.0005	V	S. Cook	0.0007
TT Her	57539.7260	19235	0.0465	V	G. Persha	0.0002
TT Her	57539.7278	19235	0.0483	B	G. Persha	0.0004
TT Her	57612.6906	19315	0.0451	V	S. Cook	0.0005
TT Her	57615.4284	19318	0.0467	V	L. Corp	0.0003
UX Her	57609.7114	11581	0.1253	V	S. Cook	0.0003
BC Her	57646.7517	1667	0.0126	C	G. Frey	0.0002
CC Her	57575.7113	10327	0.2914	V	S. Cook	0.0008
V728 Her	57607.6309	10837	0.0131	V	K. Menzies	0.0002
V899 Her	57544.7532	11977	–0.0004	C	G. Frey	0.0003
V1033 Her	57564.6960	16992	–0.0049	C	G. Frey	0.0001
V1034 Her	57562.7508	6209	–0.0034	C	G. Frey	0.0001
V1092 Her	57547.7223	13337	–0.0127	C	G. Frey	0.0002
V1097 Her	57551.7259	14101	0.0013	C	G. Frey	0.0001
WY Hya	57725.8128	23959	0.0376	V	B. Harris	0.0001
DF Hya	57754.9414	45272	0.0053	V	G. Samolyk	0.0001
EU Hya	57450.7670	29972	–0.0332	C	G. Frey	0.0002
V390 Hya	57434.6403	3060	–0.0777	C	G. Frey	0.0001
V470 Hya	57448.7317	12006	0.0074	C	G. Frey	0.0003
V474 Hya	57435.6820	9939	–0.0114	C	G. Frey	0.0001
SW Lac	57610.6711	38461.5	–0.0835	V	G. Samolyk	0.0001
SW Lac	57610.8321	38462	–0.0829	V	G. Samolyk	0.0001
SW Lac	57615.4817	38476.5	–0.0837	V	L. Corp	0.0002
SW Lac	57637.6108	38545.5	–0.0844	V	G. Samolyk	0.0002
SW Lac	57640.6621	38555	–0.0799	V	S. Cook	0.0005
SW Lac	57671.6139	38651.5	–0.0777	V	G. Persha	0.0001
SW Lac	57732.5482	38841.5	–0.0803	V	G. Silvis	0.0001
VX Lac	57606.6364	11492	0.0831	V	G. Samolyk	0.0001
VX Lac	57622.7549	11507	0.0841	V	S. Cook	0.0004
VX Lac	57623.8290	11508	0.0837	V	K. Menzies	0.0001
AR Lac	57643.6348	8093	–0.0507	V	G. Samolyk	0.0001
CM Lac	57640.6180	19078	–0.0043	V	G. Samolyk	0.0001
CO Lac	57601.7090	19496.5	–0.0123	V	G. Samolyk	0.0001
CO Lac	57604.7940	19498.5	–0.0117	V	K. Menzies	0.0001
CO Lac	57608.6684	19501	0.0071	V	G. Samolyk	0.0001
DG Lac	57633.6249	5948	–0.2263	V	G. Samolyk	0.0001
DG Lac	57633.6249	5948	–0.2263	V	N. Simmons	0.0001
DG Lac	57666.7234	5963	–0.2258	V	K. Menzies	0.0001
UV Leo	57458.6546	31692	0.0414	C	G. Frey	0.0004
VZ Leo	57463.6902	24130	–0.0576	C	G. Frey	0.0002
WZ Leo	57444.6775	3511	0.0004	C	G. Frey	0.0001
XX Leo	57502.6881	9074	–0.0116	C	G. Frey	0.0001
XZ Leo	57753.8513	26097	0.0704	V	K. Menzies	0.0001

Table continued on following pages

Table 1. Recent times of minima of stars in the AAVSO eclipsing binary program, cont.

Star	JD (min) Hel. 2400000 +	Cycle	O–C (day)	F	Observer	Error (day)
CE Leo	57473.7462	32278	–0.0080	C	G. Frey	0.0001
GV Leo	57457.7023	17633	–0.0314	C	G. Frey	0.0001
HI Leo	57492.7329	15251	0.0091	C	G. Frey	0.0001
Z Lep	57657.8969	30425	–0.1930	V	G. Samolyk	0.0001
RR Lep	57699.8977	29847	–0.0438	V	G. Samolyk	0.0002
δ Lib	57585.7528	6284	–0.0410	V	S. Cook	0.0006
RY Lyn	57753.8968	10360	–0.0219	V	K. Menzies	0.0001
UZ Lyr	57609.6679	7360	–0.0407	V	G. Samolyk	0.0001
EW Lyr	57556.7701	15937	0.2746	V	G. Samolyk	0.0001
FL Lyr	57637.6182	8914	–0.0026	V	G. Samolyk	0.0001
FL Lyr	57650.6883	8920	–0.0014	V	S. Cook	0.0008
β Lyr	57576.89	663.5	2.09	V	G. Samolyk	0.05
β Lyr	57576.94	663.5	2.15	B	G. Samolyk	0.03
β Lyr	57576.99	663.5	2.20	R	G. Samolyk	0.03
β Lyr	57583.34	664	2.08	V	G. Samolyk	0.03
β Lyr	57583.35	664	2.08	R	G. Samolyk	0.01
β Lyr	57583.41	664	2.14	B	G. Samolyk	0.01
U Oph	57608.7043	7865	–0.0097	V	S. Cook	0.0006
V423 Oph	57635.6839	4266	–0.0334	C	G. Frey	0.0002
V501 Oph	57629.7192	27603	–0.0107	C	G. Frey	0.0001
V508 Oph	57523.6519	36083	–0.0255	V	B. Harris	0.0001
V508 Oph	57625.3650	36378	–0.0261	R	L. Corp	0.0001
V508 Oph	57642.6042	36428	–0.0265	V	G. Samolyk	0.0001
V839 Oph	57614.6597	41971	0.3042	V	G. Samolyk	0.0001
CQ Ori	57474.6546	6941	–0.0060	C	G. Frey	0.0003
ER Ori	57664.8881	37880	0.1303	V	G. Samolyk	0.0002
ER Ori	57696.8557	37955.5	0.1313	V	R. Sabo	0.0001
ER Ori	57755.7090	38094.5	0.1322	V	G. Silvis	0.0001
ET Ori	57701.8975	32618	–0.0029	V	G. Samolyk	0.0001
FR Ori	57768.7205	33863	0.0409	V	G. Samolyk	0.0001
FT Ori	57768.6666	5212	0.0205	V	G. Samolyk	0.0001
FZ Ori	57684.9696	34152.5	–0.0311	V	G. Samolyk	0.0002
FZ Ori	57754.7637	34327	–0.0346	V	G. Samolyk	0.0003
FZ Ori	57769.5628	34364	–0.0350	V	G. Silvis	0.0015
GU Ori	57686.8386	31055	–0.0629	V	G. Samolyk	0.0002
GU Ori	57748.7338	31186.5	–0.0622	V	K. Menzies	0.0001
GU Ori	57750.6165	31190.5	–0.0622	V	G. Silvis	0.0001
V343 Ori	57422.7512	29443	0.2754	C	G. Frey	0.0001
V1363 Ori	57425.7344	11404	0.0273	C	G. Frey	0.0002
V1853 Ori	57416.6789	8747	0.0001	C	G. Frey	0.0001
V2790 Ori	57755.7640	21658	–0.0022	V	K. Menzies	0.0001
U Peg	57606.8290	56287	–0.1621	V	N. Simmons	0.0001
U Peg	57606.8294	56287	–0.1617	V	G. Samolyk	0.0001
U Peg	57638.8730	56372.5	–0.1619	V	B. Harris	0.0001
U Peg	57683.4724	56491.5	–0.1615	V	L. Corp	0.0001
TY Peg	57634.8264	5557	–0.4241	V	G. Samolyk	0.0002
UX Peg	57607.7926	11124	–0.0059	V	G. Samolyk	0.0001
AQ Peg	57435.9899	2922	0.5599	V	G. Samolyk	0.0001
AQ Peg	57635.7494	2958	0.5733	V	G. Samolyk	0.0002
AT Peg	57677.7280	10870	0.0213	C	G. Frey	0.0001
BB Peg	57622.8551	38336	–0.0228	V	R. Sabo	0.0001
BB Peg	57657.7413	38432.5	–0.0216	V	G. Samolyk	0.0001
BB Peg	57670.5730	38468	–0.0232	V	N. Simmons	0.0001
BG Peg	57607.8184	6185	–2.2728	V	R. Sabo	0.0003
BN Peg	57667.7330	33326	–0.0021	C	G. Frey	0.0001
BO Peg	57641.6874	20725	–0.0494	C	G. Frey	0.0002
BX Peg	57622.7867	47883.5	–0.1198	V	G. Samolyk	0.0001
BX Peg	57697.5162	48150	–0.1224	V	K. Menzies	0.0001
BX Peg	57698.6379	48154	–0.1224	V	G. Samolyk	0.0001
DF Peg	57655.7010	1643	0.1169	C	G. Frey	0.0005
DI Peg	57649.7293	17495	0.0064	V	G. Samolyk	0.0001
DI Peg	57684.6082	17544	0.0063	V	G. Samolyk	0.0001
DI Peg	57736.5709	17617	0.0063	V	G. Samolyk	0.0001
DK Peg	57700.6724	7458	0.1547	C	G. Frey	0.0001
KW Peg	57698.6328	11685.5	0.2101	V	G. Samolyk	0.0002
V351 Peg	57684.7322	15481	0.0316	C	G. Frey	0.0002
V534 Peg	57700.5856	4682	0.0141	V	K. Menzies	0.0003
V613 Peg	57748.5327	2434	0.0012	V	K. Menzies	0.0002
Z Per	57697.7321	3939	–0.3046	V	G. Samolyk	0.0001
RT Per	57675.8076	28608	0.1049	V	G. Samolyk	0.0001
RT Per	57693.6451	28629	0.1050	V	K. Menzies	0.0001
RV Per	57684.8722	7924	0.0038	V	G. Samolyk	0.0001
ST Per	57701.7103	5764	0.3146	V	G. Samolyk	0.0002
XZ Per	57696.6878	12321	–0.0736	V	G. Samolyk	0.0001
BB Per	57681.8405	3858.5	0.1099	V	K. Menzies	0.0002
IQ Per	57612.9622	7641	–0.0030	V	S. Cook	0.0009
IT Per	57667.8768	18442	–0.0401	V	K. Menzies	0.0003
IU Per	57675.7878	14077	0.0095	V	G. Samolyk	0.0002
KW Per	57707.7255	16433	0.0170	V	G. Samolyk	0.0001
V432 Per	57642.8887	67705.5	0.0435	V	G. Samolyk	0.0003
V432 Per	57693.8678	67864	0.0621	V	K. Menzies	0.0001
V432 Per	57737.5644	68000	0.0324	V	G. Samolyk	0.0002
V737 Per	57769.6378	17005	–0.0649	V	K. Menzies	0.0001
V740 Per	57724.7910	16960	0.0037	V	K. Menzies	0.0001
V881 Per	57755.6725	2007	–0.0096	V	K. Menzies	0.0001
V996 Per	57755.6421	4990	–0.0305	V	K. Menzies	0.0003
β Per	57675.7178	4197	0.1282	V	G. Samolyk	0.0001
β Per	57698.6591	4205	0.1310	V	G. Samolyk	0.0006
Y Psc	57719.5663	3209	–0.0210	V	G. Samolyk	0.0001
RV Psc	57671.8732	60092	–0.0610	V	G. Samolyk	0.0002
UV Psc	57682.6812	16580	–0.0205	C	G. Frey	0.0001
VZ Psc	57634.5067	52830	0.0021	V	L. Corp	0.0002
VZ Psc	57665.7279	52949.5	0.0029	C	G. Frey	0.0001
VZ Psc	57692.3753	53051.5	0.0018	V	L. Corp	0.0002
VZ Psc	57723.3341	53170	0.0014	V	L. Corp	0.0002
AQ Psc	57741.2984	11019.5	0.0016	V	L. Corp	0.0001
CP Psc	57673.7036	7563	0.0019	C	G. Frey	0.0001
DS Psc	57726.6456	15260	–0.0035	C	G. Frey	0.0001
DV Psc	57727.6480	16943	0.0057	C	G. Frey	0.0001
DZ Psc	57678.7019	14144	0.0126	C	G. Frey	0.0001
ET Psc	57707.6454	11564	–0.0067	C	G. Frey	0.0001
ET Psc	57753.3318	11668	–0.0072	V	L. Corp	0.0002
ET Psc	57757.2886	11677	–0.0041	V	L. Corp	0.0004
GR Psc	57703.6649	12615	–0.0005	C	G. Frey	0.0001
HO Psc	57695.6654	1155	0.0010	C	G. Frey	0.0001
AO Ser	57607.6326	26695	–0.0116	V	G. Samolyk	0.0001
CC Ser	57614.6384	39015	1.0865	V	G. Samolyk	0.0002
CC Ser	57620.5743	39026.5	1.0883	V	K. Menzies	0.0004
RW Tau	57686.8355	4335	–0.2708	V	G. Samolyk	0.0001
RW Tau	57761.5917	4362	–0.2732	V	G. Samolyk	0.0001
RZ Tau	57664.7827	48086	0.0821	V	G. Samolyk	0.0002
RZ Tau	57666.8619	48091	0.0829	V	K. Menzies	0.0001
RZ Tau	57698.8694	48168	0.0835	V	R. Sabo	0.0001
RZ Tau	57706.7673	48187	0.0835	V	K. Menzies	0.0001
RZ Tau	57726.7195	48235	0.0833	V	K. Menzies	0.0001
RZ Tau	57742.7242	48273.5	0.0846	C	G. Frey	0.0001
RZ Tau	57760.3901	48316	0.0843	V	L. Corp	0.0003
TY Tau	57696.7004	33883	0.2690	V	G. Samolyk	0.0001
WY Tau	57675.8962	29265	0.0636	V	G. Samolyk	0.0001
WY Tau	57698.7568	29298	0.0632	V	G. Samolyk	0.0001
AM Tau	57698.8116	6089	–0.0708	V	G. Samolyk	0.0001
CT Tau	57750.6561	18515	–0.0659	V	G. Samolyk	0.0002
EQ Tau	57634.8643	51037.5	–0.0337	V	G. Samolyk	0.0001
EQ Tau	57670.8753	51143	–0.0350	V	R. Sabo	0.0001
EQ Tau	57676.8497	51160.5	–0.0342	V	K. Menzies	0.0001
EQ Tau	57702.7923	51236.5	–0.0341	V	G. Samolyk	0.0001
EQ Tau	57728.7346	51312.5	–0.0343	V	K. Menzies	0.0001
EQ Tau	57731.6340	51321	–0.0363	C	G. Frey	0.0002
EQ Tau	57731.6362	51321	–0.0342	V	G. Silvis	0.0001
GQ Tau	57443.6963	13677	0.1989	C	G. Frey	0.0001

Table continued on next page

Table 1. Recent times of minima of stars in the AAVSO eclipsing binary program, cont.

Star	*JD (min) Hel. 2400000 +*	*Cycle*	*O–C (day)*	*F*	*Observer*	*Error (day)*	*Star*	*JD (min) Hel. 2400000 +*	*Cycle*	*O–C (day)*	*F*	*Observer*	*Error (day)*
HU Tau	57760.7090	8017	0.0324	V	G. Samolyk	0.0001	AZ Vir	57579.7118	38903.5	–0.0248	V	S. Cook	0.0005
V781 Tau	57724.7641	40155	–0.0509	V	G. Silvis	0.0001	BF Vir	57535.7248	17898	0.1189	C	G. Frey	0.0001
V1121 Tau	57750.6304	11223	–0.0119	C	G. Frey	0.0002	BH Vir	57783.9818	17816	–0.0118	V	G. Samolyk	0.0001
V1128 Tau	57692.5295	17003.5	0.0001	V	L. Corp	0.0001	GR Vir	57543.7320	35816.5	0.0075	C	G. Frey	0.0002
V1128 Tau	57725.5092	17111.5	–0.0004	V	L. Corp	0.0001	HT Vir	57542.7585	12369	0.0037	C	G. Frey	0.0002
V1128 Tau	57773.2988	17268	–0.0013	R	L. Corp	0.0001	IR Vir	57519.6899	20829.5	–0.0048	C	G. Frey	0.0001
V1223 Tau	57752.6897	12279	0.0016	C	G. Frey	0.0002	MS Vir	57538.7102	16127	0.0033	C	G. Frey	0.0001
V1332 Tau	57749.6602	14947	0.0122	C	G. Frey	0.0003	NN Vir	57517.7231	18759	0.0074	C	G. Frey	0.0002
V Tri	57633.8085	56663	–0.0071	V	N. Simmons	0.0001	V391 Vir	57520.7296	17671	0.0036	C	G. Frey	0.0002
V Tri	57640.8298	56675	–0.0082	V	G. Samolyk	0.0003	AW Vul	57609.6305	14042	–0.0252	V	K. Menzies	0.0001
X Tri	57614.8615	15555	–0.0895	V	G. Samolyk	0.0001	AW Vul	57697.5328	14151	–0.0261	V	G. Samolyk	0.0001
RS Tri	57680.6109	10341	–0.0560	V	G. Samolyk	0.0001	AW Vul	57697.5329	14151	–0.0260	V	K. Menzies	0.0001
RS Tri	57745.5146	10375	–0.0557	V	K. Menzies	0.0002	BE Vul	57680.6217	11320	0.1026	V	G. Samolyk	0.0001
RV Tri	57642.7453	15404	–0.0412	V	G. Samolyk	0.0001	BO Vul	57697.5274	11156	–0.0182	V	G. Samolyk	0.0001
W UMa	57760.7401	35952.5	–0.1003	V	G. Samolyk	0.0001	BS Vul	57640.6474	30189	–0.0333	V	G. Samolyk	0.0001
W UMa	57760.9062	35953	–0.1010	V	G. Samolyk	0.0001	BS Vul	57702.5248	30319	–0.0322	V	G. Samolyk	0.0001
TX UMa	57720.0013	4153	0.2256	V	G. Samolyk	0.0004	BT Vul	57607.6557	19458	0.0061	V	G. Samolyk	0.0002
TY UMa	57712.9126	51278	0.3858	V	G. Samolyk	0.0002	BT Vul	57623.6327	19472	0.0063	V	G. Samolyk	0.0001
ZZ UMa	57697.8829	9458	–0.0022	V	G. Samolyk	0.0001	BU Vul	57606.6531	42308	0.0143	V	G. Samolyk	0.0001
BM UMa	57747.8946	75213	0.0141	V	B. Harris	0.0001	CD Vul	57623.7158	16563.5	0.0005	V	G. Samolyk	0.0002
AG Vir	57491.7436	18765	–0.0123	C	G. Frey	0.0001	CD Vul	57646.6209	16597	0.0001	V	N. Simmons	0.0002
AW Vir	57505.6676	35263	0.0282	C	G. Frey	0.0001	V495 Vul	57667.5354	732.5	0.0722	V	K. Menzies	0.0001
AZ Vir	57518.6936	38729	–0.0264	C	G. Frey	0.0001							