

# Variables



Retired with honours.  
Nov 21, 1972!









Designation	Name.	Julian Day & Dec.	Date	Magn.	Comp Stars.	Time GMT	Remarks
163266	R Draconis	2,439,379.3	Sept. 10-11/66	75	74	9:45 PM	2 1/2' size
005460	γ Cassiopeia	2,439,379.3	Sept. 10-11/66	24	24-28	10:15 PM	7x5 Binoculars.
115158	Z Ursae Majoris	2,439,385.3	Sept. 16-17/66	76 ?	75.76-72	9:45 PM	2 1/2' - 0.5x
194632	χ Cygni	2,479,385.3	Sept. 15/66	(9.3)	—	9:45	Invis.
005460	γ Cassiopeia	2439419.3	Oct 20, 21/66	22	22 21	9:45	
184933	B Lyrae	2439419.3	Oct 29, 21/66	35	32 36	9:45	
184933	B Lyrae	2439420.3	Oct 21, 22/66	35	32	7:30 EST	
184933	B Lyrae	2439422.3	Oct 23, 24/66	35	32 36	10:45	
184937	B Lyrae	2439423.3	Oct 24, 25/66	43	32 36 42 45	8:30	Moon!
84937	B Lyrae	2439424.3	Oct 25, 26/66	35	32 36	8:00	
184933	B Lyrae	2439425.3	Oct 26/27/66	35	32 36	8:00	
184933	B Lyrae	2439426.3	Oct 27/28/66	35	32 36	10:45	
184933	B Lyrae	2439427.3	Oct 28/29/66	35	32 36	8:30	
184933	B Lyrae	2439428.3	Oct 29/30	35	32 36	9:00	
*054920	U Orionis	2439449.8	Nov. 19/20	(71.	71	1:30 AM	18°
*060523	w γ Gem	2439449.8	Nov. 19/20	7.4	60 73 74	1:30 AM	9° F - Cold!
*060426	TU Gem	2439449.8	Nov 19, 20	7.3	73-74	1:30 AM	
*050001	W Ori	<del>2439449.8</del> 2439472.7	Dec 12/13	6.5	65-69	11:00 AM	Clear at last
*050611	RX Lep	2439472.7	Dec 12/13	61	61-63 64	1:00 AM.	

\* = sent to AAUSO



Designation	Name	J. D + Dec.	Date	Magn.	Comp Stars	Time EST	Remarks
* 052404 ✓	CK Ori ✓	2439472.7	Dec 12/13	6.5	63 65 67 55	1:00 AM 100 AM	Cold. Invis. since
* 054920 a ✓	U Ori	2439472.7	Dec 12/13	(7.1)			
* 054920 a ✓	U Ori	2439504.7	Jan 13/14	(10.5)		10:45 PM	Tenuous clouds tonight
* 052404 ✓	CK Ori	2439504.7	Jan 13/14	6.7	67	10:45 PM	
* 050611 ✓	RX Lep	2439504.7	Jan 13/14	6.2	64	10:45 PM	AURORA ↑
* 050001 ✓	W Ori	2439504.7	Jan 13/14	6.2	62 65	10:45 PM	
204019 ✓	NOVA DEL 1967	2439886.7	July 13/14	6.7	6.3 6.6	1 AM	Interesting
204019 ✓	NOVA DEL 1967	2439697.7	July 25/26	7.6	6.3 6.6	1 AM	
203847 ✓	✓ Cyg	2439685.9	July 13/14	11.0	11.1 10.9	3 AM	
201647 ✓	U Cyg	2439685.9	July 13/14	9.7		3 AM	
201647 ✓	U Cyg	2439739.7	Sept. 5/6 /67	7.4	7.2	8:50	
004047 ✓	U CAS	2439739.7	"	(12.5)		9 PM	minimum!
193449 ✓	R Cyg	2439744.7	Sept. 10/11/67	→ (11-3)			
050611 ✓	RX Lep	2439750.9	Sept. 16-17/67	{ 5.7? 5.9?	5.7 6.1	3 AM ←	Further check necessary
052404 ✓	CK Ori	2439750.9	Sept 18-17/67	6.4	6.3 6.4 6.5	3:15 AM	
* 050001 ✓	W Ori	2439750.9	Sept 16-17/67	7.0	6.9 7.1	3:30 AM	
050611 ✓	RX Lep	2439752.9	Sept. 18-19/67	5.9	5.7 6.1	4 AM	Clear!

\* - sent to AAUSO



Designation	Name	J.D. + Dec.	Date	Magnitude	Comparison Stars	Time (EST)	Remarks
20/647 ✓	U Cyg	2439821.5	Nov 26/67	(10.0)	72	7:15 PM	<u>COLD</u>
050611 ✓	RX LEP	2439824.6	Nov 29/67	6.1	60 61 63	10:20 PM	
052404 ✓	CK ORI	2439824.7	Nov 29/67	6.5	63 64 65	10:45 PM	
021403 ✓	0 cet.	2439828.6	Dec 3/67	3.5	36 27	9:00 PM	COLD +18°F Telescope nearly frozen solid.
054920 a ✓	U Ori	2439828.6	Dec 3/67	(9.5)	limit of scope	9:10 PM	
055646 a ✓	RS Aur	2439828.6	Dec 3/67	(9.5)	"	9:15 PM	
004047 ✓	U Cas	2439828.6	Dec 3/67	(8.7)	"	9:17 PM	
050001 ✓	W Ori	2439828.6	Dec 3/67	5.9	47 59 65	9:20 PM	
050611 ✓	RX Lep	2439828.6	Dec 3/67	6.1	61 63	9:25 PM	
052404 ✓	CK Ori	2439828.6	Dec 3/67	6.5	63 64 65	9:30 PM	
024312 ✓	Z Eri	2439828.6	Dec 3/67	7.3	73 74	9:40 PM	
050611 ✓	RX Lep	2439841.8	Dec 16/67	6.1	61 63	2 AM	
050611 ✓	RX Lep	2439854.5	Dec 29/67	6.1	61 63	7:15 PM	} SF COLD!
052404 ✓	CK Ori	2439854.5	Dec 29/67	6.2	63 65	7:15 PM	
024705 ✓ <small>NO SEND</small>	RR Eri	2439854.6	Dec 29/67	7.5	73 72	10:05	
060521 ✓	TV Gem	2439854.6	Dec 29/67	7.4	72 69	10:13	
053920 ✓	Y Tau	2439854.7	Dec 29/67	7.2	59 74 72	10:16	



Designation	Name	J. D. & Dec	Date	Magn.	Comp stars.	Time (EST.)	Remarks
050611 ✓	RX Lep	2439857.6	Jan 1/2/68	6.1	61 63	8:40 PM	-20°F <i>happy</i> <i>COLD!</i> <i>NEW YEAR</i>
050611 ✓	RX Lep	2439874.6	Jan 18/19/68	6.2	61 63	8 PM	
052404 ✓	CK Ori	2439874.6	Jan 18/19/68	6.2	63 65		
050001 ✓	W Ori	2439874.6	Jan 18/19/68	6.3	65 59	8 PM	
050611 ✓	RX Lep	2439886.7	Jan 30/31/68	6.3	61 63	10:30 PM	
052404 ✓	CK Ori	2439886.7	Jan 30/31/68	6.3	63 65	"	
050001 ✓	W Ori	2439886.7	Jan 30/31/68	6.3	65 67	"	
050611 ✓	RX Lep	2439891.6	Feb 4/68	6.5	61 63	18.47	
052404 ✓	CK Ori	2439891.6	Feb 4/68	6.5	63 65	19.34	
050001 ✓	W Ori	2439891.6	Feb 4/68	6.3	65 69	19.37	
060521 ✓	TV Gem	2439891.6	Feb 4/68	6.3		19.47	
053920 ✓	γ Tau	2439891.6	Feb 4/68	6.5		19.49	
050611 ✓	RX Lep	2439893.6	Feb 6/68	6.5	61 63	20:30	
050611 ✓	RX Lep	2439905.6	Feb 18/68	6.3	61 63	20:25	
052404 ✓	CK Ori	2439905.6	Feb 18/68	6.5	63 65	20:26	



Designation	Name	JD. & Dec	Date	Magn	Comp Stars	Time (EST.)	Remarks
050611 ✓	Rx Lep	2439934.5	Mar 18/19/68	6.2		20:00	33° COM FOOT
050001 ✓	W Ori	2439934.6	Mar 18-19/68	6.1		21:19	
052404 ✓	CK Ori	2439934.6	Mar 18-19/68	6.4		21:21	
054920 a ✓	U Ori	2439934.6	Mar 18-19/68	(7.0)		21:22	will 2 was at
053920 ✓	Y Tau	2439934.6	Mar 18-19/68	7.3		21:48	
103212 ✓	U Hya	2439934.6	Mar 18-19/68	5.0		22:09	
103212 ✓	U Hya	2439946.7	Mar 30-31/68	5.1		22:50	
103212 ✓	U Hya	2439963.6	April 16-17/65	5.1		21:30	
052404 ✓	CK Ori	2439966.6	April 19-20/65	6.5		20:10	
112245 ✓	ST UMa	2439966.6	April 19-20/65	6.6		21:30	
<del>124045</del> ✓	U CVn	2439966.6	April 19-20/65	7.9		22:01	
131546 ✓	U CVn	2439966.6	Apr. 19-20/65	6.3		22:03	
124045 ✓	Y CVn	2439966.6	Apr. 19-20/65			22:06	
115158 ✓	Z UMa	2439966.6	Apr. 19-20/65	7.1		22:22	
103212 ✓	U Hya	2439966.6	Apr. 19-20/65	5.1			
201647 ✓	U Cyg	2439966.6	Apr. 19-20/65	7.0		01:37	



Desig.	Variable	J D & Dec	Date	Mag.	Comp. 100	Time E.S.T.	Remarks
103212 ✓ 112245	U Hya ✓ ST Uma ✓	2439975.6 2439975.6	Apr. 28-29/65 Apr. 28-29/65	5.1 6.6	5.1 2.0	21:38 22:00	Clear
131546	V CVn ✓	2439975.6	Apr. 28-29/65	7.8	7.3	22:16	
124045	Y CVn ✓	2439975.6	Apr. 28-29/65	5.7		22:20	
115158	Z Uma ✓	2439975.7	Apr. 28-29	7.0		23:00	
	S Uma ✓	2439975.7	Apr. 28-29	Invis		23:10	NO SEND
121561	RY Uma ✓	2439975.7	Apr. 28-29	7.5		23:11	
163360	TX Dra ✓	2439975.7	Apr. 28-29	7.4		23:20	
193449	R CVs ✓	2439975.7	Apr. 28-29	9.7		23:30	
201647	U Cyg ✓	2439975.7	Apr. 28-29	7.4 ?		23:40	DOUBTFUL
184205	R Sct ✓	2439975.7	Apr. 28-29	5.2		0:25	
	Nova Vulp/68 ✓	2439982.7	May 5-6	4.5		00:00	
184205	R Sct ✓	2439982.7	May 5-6	5.3		00:05	
112245	ST Uma ✓	2440012.6	June 3-4	6.7		22:00	
201647	U Cyg ✓	2440013.7	June 4-5	8.2		00:45	
115158	Z Uma ✓	2440013.8	June 4-5	8.6		01:00	
184205	R Sct ✓	2440013.8	June 4-5	5.0		01:20	



Desig	Var.	JD & Dec.	Date	Mag	Comp	Time <sup>EST.</sup>	Remarks
	Nova Del	2440090.3	Aug 21/68	6.5	6.4	16:00	} With Patrick more at Selacy
	Nova Vul	2440090.3	Aug 21/68	9.5	9.1-9.7	16:15	
184205	R Sct ✓	2440096.8	Aug 27/68	5.9	5.7 61.63	20:17	
143227	R Boo ✓	2440096.8	Aug 27/68	(8.3)		21:30	← Miss in Binoc
050611	RX Lep ✓	2440099.9	Aug 30/68	6.0	61 63	04:45	
143227	R Boo ✓	2440114.6	Sept. 13-14/68	11.6	11.4	20:24	10" Refl.
184205	R Sct ✓	2440114.6	Sept 13-14/68	5.6	5.7 56	20:30	
184205	R Sct ✓	2440115.6	Sept 14-15/68	5.7	5.7 5.6	21:40	
004077	U Cas ✓	2440116.6	Sept 15-16/68	9.3		21:30	10" refl.
050611	RX Lep ✓	2440118.9	Sept 17-18/68	5.7	61 63 59	05:00	
184205	R Sct ✓	2440116.6	Sept 15-18/68	5.8		20:00	
052404	CK Ori ✓	2440118.9	Sept 17-18/68	6.3	63 6.5	05:20	
050001	W Ori ✓	2440118.9	Sept 17-18/68	6.2	62 63 59	05:00	
050611	RX Lep ✓	2440151.9	Oct 21-22/68	6.0	61 63 59	04:15	
052404	CK Ori ✓	2440151.7	Oct 21-22/68	6.6	67. 65	04:35	
050001	W Ori ✓	2440151.9	Oct 21-22/68	6.5	65 69	04:40	
115158	Z UMa ✓	2440151.9	Oct 21-22/68	7.1	7.2 7.0	04:45	
<del>050611</del>	<del>RX Sct</del>	2440159.7	Oct 29-30/68	5.9	5.7 6.1	20:50	
184205	R Sct ✓						



Desig.	Variable	J.D & Dec.	Date	Mag	Comp.	Time	Remarks
021403	O cet. ✓	2440159.8	Oct 29-30/68	3.8	3.6 4.1	21:20	32°F
024312	Z Eri ✓	2440159.8	Oct 29-30/68	6.9		21:30	
050611	Rx Lep ✓	2440159.8	Oct 29-30/68	6.2	61-63	22:55	
052404	CK Ori ✓	2440159.8	Oct 29-30/68	6.4	62 65 63	23:00	
050001	W Ori ✓	2440159.8	Oct 29-30/68	5.9	5.9 6.1	23:01	
184205	R sct ✓	2440160.7	Oct 30-31	5.8	61 5.7	20:00	
050611	Rx Lep ✓	2440160.8	Oct 30-31	6.1	61 63	23:20	
184205	R Sct ✓	2440161.6	Oct 31-Nov 1	6.2	61.57 63	19:00	15°F
050611	Rx Lep ✓	2440220.8	Dec 29/30	6.3	61 63	20:30	
052404	CK Ori ✓	2440220.8	Dec 29/30	6.6	63 65	20:32	
050001	W Ori ✓	2440220.8	Dec 29/30	5.9	57 63	21:35	
053920	Y Tau ✓	2440220.8	Dec 29/30	7.2	74	20:39	
060521	TV Gem ✓	2440220.8	Dec 29/30	7.4	74 69	20:41	
050611	Rx Lep ✓	2440267.6	Feb 14/69	6.1	61 63	22:00	0°F !!
052404	CK Ori ✓	2440267.6	Feb 14/69	6.6	62 65	22:05	
050001	W Ori ✓	2440267.6	Feb 14/69	5.9	5.9 5.7	22:06	
112245	ST UMa ✓	2440267.6	Feb 14/69	6.6		22:14	
115158	Z UMa ✓	2440267.6	Feb 14/69	7.8		22:15	



Desig	Variable	J.D. = Dec	Date	Mag	Comp	Time	Remarks
050611	RX Lep ✓	2440, 288.6	Mar 7-8	6.3		19:25	
050001	W Ori ✓	288.6		5.9		19:26	
052404	CK Ori ✓	288.6		6.4		19:27	
112245	ST UMa ✓	288.6		6.9		19:31	
060521	TV Gem ✓	288.6		6.2		19:40	
051920	Y Tau ✓	288.6		7.7		19:42	
050611	RX Lep ✓	2440 290.6	Mar 9-10	6.1	Standard Comparison Stars	19:30	
050611	RX Lep ✓	2440 296.6	Mar 15-16	6.0		19:30	
112245	ST UMa ✓	296.6		6.1		21:40	
184205	R Sct ✓	2440 297.9	Mar 16-17	5.3		04:00	LATE!
050611	RX Lep ✓	297.6	Mar 16-17	6.0		19:40	
050611	RX Lep ✓	2440 299.6	Mar 18-19	5.9		19:31	
123961	S UMa ✓	299.6		8.8		21:00	} 12 1/2" f4
123459	RS UMa ✓	299.6		9.0		21:05	
050611	RX Lep ✓	2440 303.6	Mar 23	5.9		19:30	
115158	Z UMa ✓	.7	Mar 22-23	7.4		0:00	
143227	R Boo ✓	.7	Mar 22-23	7.3		0:15	
E92706	S Vir ✓	.7	Mar 22-23	12.0		0:30	



Desig	Var.	ID, Dec	Date	Mag	Comp	Time	Remarks
131546	V CVn ✓	2440303.8	Mar 22-23	7.0	11 69	02:35	
184205	R Sct ✓	.8	"	5.4	52 61 50	02:40	
050611	RX Lep ✓	2440304.6	Mar 23-24	5.9	61 63	19:30	
050611	RX Lep ✓	2440312.6	MAR 31-Apr 1	5.9		19:30	
050611	RX Lep ✓	2440314.6	Apr 2	5.9		19:30	Full moon
050611	RX Lep ✓	2440319.5	Apr 7	5.8		19:50	
052404	CK Ori ✓			6.6		20:00	
050001	w Ori ✓			5.9		20:01	
055646	RS Aur ✓	2440319.6	Apr 7	9.9		20:30	
053920	Y Tau ✓			7.0		20:38	
060521	TV Gem ✓			7.2		20:42	
072708	SC Mi ✓			8.8		21:00	
103212	UHya ✓			5.2		21:14	
094622	Y Hyg ✓			7.3		21:25	
132706	S Vir ✓			11.5		22:25	
112245	ST UMa ✓			6.6		22:30	
124045	Y CVn ✓	2440319.7		5.4		22:45	
115158	Z UMa ✓			8.0		22:50	
123459	RS UMa ✓			9.9		23:30	
123160	T UMa ✓			11.3		23:38	



Desig	VAR	J-D. & Dec	Date	Mag	Comp Stars	Time	Remarks
143227	R Boo	✓ 2440 320.6	Apr. 8	7.3	6.7 7.2 8.5	20:30	Seeing Poor
050611	Rx Lep	✓ 2440 323.5	Apr 11-12	5.8		20:00	
123961	S UMa	✓ 323 .6		8.1		21:20	
153378	S UMi	✓ 323 .6		8.4		21:50	
131546	V CVn	✓ 323 .6		7.5		22:05	
151731	S CrB	✓ 323 .6		7.3		22:15	
103213	U Hya	✓ 323 .6		5.0		22:28	
185243	R Lyr	✓ 323 .8		4.8		0:40	
184205	R Set	✓ 323 .8		6.9		3:05	Surprise
193449	R Cyg	✓ 323 .9		7.8		3:50	
194078	R TCyg	✓ 323 .9		9.0		4:00	
201647	U Cyg	✓ 323 .9		8.1		4:05	
103212	U Hya	2440 356.6	May 14-15	5.2		21:10	
112245	ST UMa	✓ 356 .6		6.1		21:15	
115158	Z UMa	✓ 356 .6		7.1		21:16	



Desig.	Var	JD & Dec	Date	Mag	Comp St.	Time	Rem.
123961	S UMa ✓	2440357.6	May 15-16	8.0		22:45	
123459	RS UMa ✓	357.6		8.9		22:46	
143227	R Boo ✓	357.7		10.9		23:00	
151731	S CrB ✓	357.7		7.2		23:14	
153378	S UMi ✓	357.7		9.0		23:20	
185243	R Lyr ✓	357.7		4.7		23:22	
192150	CH Cyg ✓	357.7		7.5		23:30	
193449	R Cyg ✓	357.7		7.9		23:35	
201647	U Cyg ✓	357.7		8.2		23:40	
184205	R Sct ✓	357.7		6.7		23:45	
107212	UHya ✓	2440362.7	May 20-21	5.0		22:45	
112245	ST UMa ✓	362.7		6.0		22:46	
185243	R Lyr ✓	362.7		4.4		22:48	
192150	CH Cyg ✓	362.7		7.4		22:50	
184205	R Sct ✓	362.7		5.9		23:00	



Desig	Var	JD. & Dec.	Date	Mag.	COMP STARS	TIME	REM.
184205	R Sct. ✓	2440365.8	May 23-24	5.1		01:45	
124045	Y CVn ✓	365.8	"	5.5		01:55	
131546	V CVn ✓	365.8	"	8.1		01:56	
174048	RT Cyg ✓	365.8	"	11.0		02:20	Difficult
184205	R Sct ✓	2440367.7	May 25-26/6	5.0		23:00	
103212	L Hyas ✓	2440382.6	June 9-10	5.2		21:25	
112245	ST UMa ✓		"	6.4		21:30	
124045	Y CVn ✓		"	5.5		21:34	
185243	R Lyr ✓		"	4.3		21:37	#100
184205	R Sct ✓		"	5.0		21:40	
201647	U Cyg ✓		"	7.8		23:35	
193449	R Cyg ✓		"	8.3		23:45	
192150	CH Cyg ✓		"	7.5		23:46	
115158	Z UMa ✓		"	6.7		23:50	
123961	S UMa ✓		"	8.2		04:00	
143227	R Boo ✓		"	10.7		04:08	



Desig	Var	JD + Dec	Date	Mag	Comp Stars	Time	R
112245	ST Uma ✓	2440389.6	June 16-17/69	6.5		21:50	
192150	CH Cyg ✓			7.0		21:52	
184205	R Sct ✓			5.4		21:58	
185247	R Lyr ✓			4.5		22:05	
194048	RT Cyg ✓			9.0		22:15	
151731	S CrB ✓			8.4		22:30	
184205	R Sct ✓	2440393.6	June 20-21/69	5.4		22:07	
112245	ST Uma ✓			6.7		22:05	
184205	R Sct ✓	2440404.6	July 1-2/69	5.0		22:20	
112245	ST Uma ✓			6.4		22:21	
184205	R Sct ✓	2440408.6	July 5-6/69	5.3		21:31	B
112245	ST Uma ✓			6.4		21:39	B
193449	R Cyg ✓			8.4		22:10	10"
201647	U Cyg ✓			7.7		22:12	10" 212"
143227	R Boo ✓			11.2		22:20	10"



Desig	Var.	JD - Dec	Date	Mag.	Comp S	Time	R
192150	CH Cys ✓	2440408.6	July 5-6/09	7.3		22:27	B
185243	R Lyr ✓			4.9		22:36	
091024	R Ari ✓	2440408.8		8.3		02:04	12"
184225	R Sct ✓	2440411.6	July 8-9/09	5.7		21:00	
124045	Y Cvn ✓	2440415.6	July 12-13/09	5.5		21:55	
131546	V Cvn ✓			7.7		22:03	
115158	Z UMa ✓			7.9		22:10	10"
194048	RT Cys ✓			8.5		22:30	12"
192150	CH Cys ✓			7.8		22:40	
184205	R Sct ✓	2440415.7		5.6		22:47	
185243	R Lyr ✓			4.6		23:00	
112245	ST UMa ✓			7.0		23:02	
151731	S CrB ✓			10.3		23:17	12"
194632	X Cys ✓			6.5		23:45	
214024	RR Peg ✓	2440415.8		13.6		01:25	10"
004047	U Cas ✓			13.5		01:37	10"
233815	R Agr. ✓			10.2		02:20	10"



Des	V	JD	Date	Mag.	CS?	T	R
184205	R Sct ✓	2440416.6	Jul 13-14/05	5.5		21:40	
184205	R Sct ✓	2440417.7	Jul 14-15/05	5.7		00:00	
184205	R Sct ✓	2440423.7	July 20-21	5.4		00:00	
184205	R Sct ✓	2440424.6	July 21-22	5.4		21:45	
184205	R Sct ✓	2440437.6	Aug 3-4	5.8		22:06	B
112245	ST Uma ✓			6.7		22:09	B
151731	S CrB ✓			7.0		22:25	10 <sup>4</sup>
193449	R Cyg ✓			10.2		22:37	10 <sup>5</sup>
201647	U Cyg ✓			7.8		22:45	10 <sup>4</sup>
184205	R Sct ✓	2440439.6	Aug 5-6	5.6		20:45	B
115158	Z Uma ✓			6.9		21:05	B
143227	R Boo ✓			8.3		21:10	12 <sup>4</sup>
124045	Y CVn ✓			5.6		21:14	B
131546	V CVn ✓			7.4		21:22	10 <sup>4</sup>
185243	R Lyr ✓			5.1		21:27	B
192150	CH Cyg ✓			7.5		21:35	B
123761	S Uma ✓	2440444.6	Aug 10-11	10.8		21:50	10 <sup>4</sup>
184205	R Sct ✓			5.8		22:05	B
214024	RR Peg ✓			13.4		22:24	12 <sup>4</sup>



D	✓	JD	D	M	C.S.	T	R
004047	U Cas ✓	2440444.7	Aug 10-11	11.4		23:35	10"
233815	R Agr ✓			7.7		00:00	B
021024	R Ari ✓			9.9		00:24	10"
021403	o Cet ✓			3.2		01:15	B
023133	R Tri ✓	2440444.8		7.7		01:45	10"
184205	R Sct ✓	2440476.6	Sept. 11-12	7.1		20:30	B
143227	R Boo ✓			11.0		20:40	12"
185243	R Lyr ✓			4.7		20:50	B
192150	CH Cyg ✓			7.8		20:55	B
193449	R Cyg ✓			11.2		21:05	12"
201647	U Cyg ✓			7.9		21:07	12"
001838	R And ✓			7.3		21:12	B
004047	U Cas ✓			8.5		21:17	12"
194632	X Cyg ✓			5.3		21:30	B



D	✓	JD = Dec	Date	M	CS	T	R
123160	T UMa ✓	2440478.5	Sept 13-14	8.0		19:55	12 <sup>h</sup>
184205	R Sct ✓			7.2		20:00	B <sup>h</sup>
151731	S CrB ✓			9.7		20:05	12 <sup>h</sup>
163266	R Dra ✓	2440478.6		7.7		20:27	12 <sup>h</sup>
214024	RR Peg ✓			9.1		20:48	12 <sup>h</sup>
023133	R Tri ✓	2440478.7		9.8		00:04	12 <sup>h</sup>
021403	o Cet ✓			3.5		00:45	B
022813	U Cet ✓			7.4		00:55	B
024708	RR Eri ✓	2440478.8		7.7		01:00	B
024312	Z Eri ✓			6.4		01:02	B
055646a	RS Aur ✓			10.2		01:30	12 <sup>h</sup>
050001	W Ori ✓			6.3		01:35	B
052404	CK Ori ✓			6.6		01:39	B
050611	RX Lep ✓			6.0		02:00	B
060521	TV Gem ✓			6.2		02:05	B
053920	Y Tau ✓			6.5		02:07	B
054920 <sup>a</sup>	U Ori ✓			9.0		02:10	12 <sup>h</sup>



D	✓ T	Dec	Date	Mas	C.S. 00	TV	R R
184205 050611	R Set RX Lep	✓ 2440 482.7 ✓ 2440 482.8	Sept. 17	7.0 6.0		23:00 04:15	B B
050611	Rx Lep	✓ 2440 486.8	Sept 21-22	5.8		03:00	B
184205 185243 050611 052404	R Set R Lyr RX Lep CK Ori	✓ 2440 487.6 ✓ ✓ 2440 487.8 ✓	Sept 22-23 1.P. 8.P.	6.7 4.6 5.9 6.4		19:30 19:34 03:00 03:01	B B B B
184205	R Set	2440 493.6	Sept 28	6.2			
050001 050611 052404 060521 053920 112245 125047 124045 115158	W Ori RX Lep CK Ori TV Gem Y Tau ST UMa TU CVn Y CVn Z UMa	✓ 2440 661.7 ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	Mar 15/16 5.P. 4.P. 3.P. 2.P. 2.P. 0.P.	5.8 6.0 6.3 6.3 6.8 6.1 6.4 5.5 7.2		20:38 20:39 20:41 20:45 20:51 21:00 21:03 21:05 21:08	B B B B B B B B B
050611 050001 103212	RX Lep W Ori U Hya	✓ 2440 665.7 ✓ ✓	Mar 17-20/11 2.P. 0.P.	6.0 5.8 4.9		21:31 21:35 22:00	B B B



D	✓	JD + Dec	Date	M	C.S	T	R
050611	RX Lep ✓	2440673.6	Mar 27	5.9		19:45	B
050001	W Ori ✓			6.4		19:49	B
052404	CK Ori ✓			6.6		19:50	B
054920	U Ori ✓			11.5		19:58	T
055646	RS Aur ✓			11.7		20:10	T
						20:22	B
112245	ST UMa ✓	2440673.7	Mar 27	6.5		21:06	B
103212	U Hya ✓			4.9		21:10	T
127160	T UMa ✓			11.2		21:50	F
131546	✓ CVn ✓			8.1		21:51	B
125047	TU CVn ✓			6.1		21:52	B
124045	Y CVn ✓			6.0		21:55	B
115158	Z UMa ✓			7.6		22:06	F
094622	Y Hya ✓			7.9		00:20	F
151731	S CrB ✓			8.2		00:40	B
185243	R Lyr ✓			4.7			



D	✓	JD + Dec	Date
103212	U Hya ✓	2440674.7	Mar 28-29/70
050611	RX Lep ✓	2440675.6	Mar 29-31/70
050611	RX Lep ✓	2440676.6	Mar 30-31/70
050001	W Ori ✓		
094211	R Leo ✓	2440676.7	
103212	U Hya ✓		
125047	TU CVn ✓		
141926	RX Boo ✓		
050611	RX Lep ✓	2440684.7	Apr. 7-8/70
125047	TU CVn ✓		
103212	U Hya ✓		
050611	RX Lep ✓	2440688.6	Apr. 11-12/70
052404	CK Ori ✓		
050001	W Ori ✓		
112245	ST UMa ✓	2440688.7	
125047	TU CVn ✓		
124045	Y CVn ✓		
10.3212	U Hya ✓		

M	CSC	T	R
5.3		23:53	B
6.0		19:20	B
6.0		19:40	B
5.7		20:05	B
7.2		20:30	B
5.0		20:35	B
6.0		20:50	B
7.4		21:00	B
6.0		20:40	B
6.0		20:42	B
5.2		20:44	B
6.0		19:57	B
6.2		19:59	B
6.3		20:00	B
6.4		20:25	B
6.5		21:02	B
6.2		21:04	B
5.2		21:12	B



Des.	Var.	S.D. Dec	Date	M	C.S.C	T.V	R
112245	ST UMa	2440703.7	Apr 26-27	6.6		22:15	B
103212	U Hya			5.3		22:25	B
125047	TU CVn	2440703.8	Apr 26-27/70	6.1		22:37	B
115158	Z UMa			6.8		22:40	B
151731	S CrB			9.0		22:53	10"
185243	R Lyr			4.3		23:00	B
124045	Y CVn			6.6		23:08	B
112245	ST UMa	2440712.6	May 5-6/2.	6.8		21:17	B
103212	U Hya			5.1		21:19	B
094211	R Leo			6.0		21:30	B
115158	Z UMa			7.0		21:31	B
084917	X Cnc			6.9		21:35	B
125047	TU CVn	2440712.6		6.0		21:44	B
124045	Y CVn			6.1		21:45	B
143227	R Boo			7.3		21:57	10"
112245	ST UMa	2440727.6	May 20-21/70	6.6		21:45	B
115158	Z UMa			6.9		21:47	B
185243	R Lyr			4.9		21:53	B



Des	Var	J.D.-Dec	Date	M	CS	T	R
112245	ST UMa ✓	2440737.6	May 30-31	6.3		21:25	B
185247	R Cyr ✓			4.3		21:28	B
151731	S CrB ✓	2440737.7		6.5	— Error! <sup>2 way</sup> slur	22:45	Four''
123961	S UMa ✓			9.5		22:50	10''
123160	T UMa ✓			7.7		23:00	F
201647	U Cyg ✓			8.8		23:14	Ten
193449	R Cyg ✓			7.9		23:19	Ten
192150	CH Cyg ✓			7.8		23:21	Ten
213244	W Cyg ✓			5.5		23:29	B
125047	TU CVn ✓			6.2		23:33	B
124045	Y CVn ✓			5.5		23:35	B
184205	R Sct ✓			7.1		23:40	B
184205	R Sct ✓	2440741.6	June 3-4	7.2		22:17	B
112245	ST UMa ✓			6.6		22:20	B
125047	TU CVn ✓			6.0		22:22	B
094211	R Leo ✓	2440743.6	June 5-6	5.6		21:57	B
112245	ST UMa ✓			6.5		22:00	B
125047	TU CVn ✓			6.2		22:01	B
124045	Y CVn ✓			5.5		22:08	B



D	✓	JD - Dec	Date	M	C	T	I
131546	V CVn ✓	2440743.6	June 5-6	7.5		22:10	B
115158	Z UMa ✓			7.7		22:14	B
123160	T UMa ✓	2440743.7	June 5-6	7.3	used stars 73 70 near S	22:37	B
123961	S UMa ✓			9.0		22:55	10"
143227	R Boo ✓			6.5		23:00	B
141926	RX Boo ✓			7.7		23:05	B
151731	S CrB ✓			11.0		23:21	10"
153378	S UMi ✓			10.2		23:50	12"
184205	R Sct ✓			7.3		23:55	B
185243	R Lyr ✓			4.7		23:56	B
193449	R Cyg ✓	2440743.8	June 5-6	7.9		01:08	12"
194048	RT Cyg ✓			9.0		01:17	12"
201647	U Cyg ✓			8.9		01:24	12"
213244	W Cyg ✓			5.3		01:28	B
004047	U Cas ✓			8.8		02:45	12"
001838	R And ✓			9.5		03:00	12"
084917	X Cnc ✓	2440744.6	June 6-7	7.0		21:27	B
103212	U Hya ✓			4.9		21:34	B
125047	TU CVn ✓			6.3		21:36	B
184205	R Sct ✓	2440744.7		7.7		23:00	B
182150	CH Cyg ✓			7.0		23:07	12"



D	Var	J. Dr. Pcc	Date	Mag	Comp Stars	Time	Inst
184205	R Sct ✓	2440751.7	June 13-14	8.1		00:30	B & F
125047	TU CVn ✓	2440760.6	June 22-23	6.1		21:10	B
124045	Y CVn ✓			5.7		21:12	B
184205	R Sct ✓			7.7		21:30	F
184205	R Sct ✓	2440761.6	June 23-24	7.9		22:06	T
125047	TU CVn ✓			6.1		22:10	B
131546	V CVn ✓			7.7		22:14	B
115158	Z UMa ✓			7.1		22:15	B
112245	ST UMa ✓			6.4		22:16	B
141926	RX Boo ✓			7.2		22:18	B
143227	R Boo ✓			7.1		22:19	B
185243	R Lyr ✓			4.4		22:21	B
192150	CH Cyg ✓			7.0		22:25	B
193449	R Cyg ✓			7.3		22:27	B
217244	W Cyg ✓			5.9		22:30	B
184205	R Sct ✓	2440763.6	June 25-26	7.8		21:50	B
125047	TU CVn ✓			6.1		22:10	B
201647	U Cyg ✓			8.4		22:20	12"
125047	TU CVn ✓	2440765.6	June 27-28	6.1		22:56	B
184205	R Sct ✓	2440765.7		7.6		23:00	B
185243	R Lyr ✓			4.3		23:02	F
112245	ST UMa ✓			6.8		23:04	B
182802	Nova Ser 1970			9.6		23:26	F



D	✓	JD-D	Date	M	CS-OK	T	I
<del>184205</del> 184205	R Sct ✓	2440766.6	June 28-29	7.6		22:05	B
125047	TU CVn ✓			6.1		22:08	B
184205	R Sct ✓	2440768.6	June 30-Jul 1	7.6		22:25	F
125047	TU CVn ✓			6.2		22:29	B
192150	CH Cyg ✓			7.7		22:32	B
182802	Nova Ser 1970 ✓			9.6		22:44	10"
112245	ST UMa ✓	2440772.7	July 4/5/6	6.8		23:25	B
125047	TU CVn ✓			6.1		23:32	B
124045	Y CVn ✓			5.5		23:34	B
131546	V CVn ✓			7.7		23:36	B
184205	R Sct ✓			7.6		23:38	B
115158	Z UMa ✓			7.1		23:45	B
123160	T UMa ✓			8.0		0:00	F
185243	R Lyr ✓			4.3		0:07	B
123861	S UMa ✓	2440773.6	July 5/6	7.3		21:50	10"
143227	R Boo ✓			7.7		22:15	10"
141926	Rx Boo ✓			7.4		22:17	F
184205	R Sct ✓			7.3		22:18	B
151731	S Cr B ✓			11.5		22:30	12"



D	✓	JD & Dec	Date	M	C.S.	T	I
125047	TU CVn ✓	2440773.7	July 5-6/70	6.3		22:31	B
193449	RCyg ✓			7.8		22:47	12"
194048	RT Cyg ✓			8.2		23:00	F
192150	CH Cyg ✓			7.9		23:03	B
201647	U Cyg ✓			8.3		23:08	12"
213244	W Cyg ✓			6.2		23:17	B
194349	TU Cyg ✓			8.8		23:24	F
004047	U Cas ✓			9.5		00:00	12"
233815	RAgr ✓	2440773.8		10.1		01:45	10"
023173	R Tri ✓			11.4		01:57	10"
021024	RAri ✓			8.8		02:05	12"
02403	OCet ✓			5.8		03:10	B
184205	R Sct ✓	2440774.6	July 6-7/70	7.4		22:30	B
125047	TU CVn ✓	2440774.7		6.2		22:36	B
182802	Nova Ser ✓			9.9		22:56	12"
151632	U CrB ✓			7.5		23:05	B
194632	X Cyg ✓			7.3		00:00	10"
163266	R Dra ✓			10.3		00:34	10"



Des	Var	J.D.	Date	M	T	C.S.	Inst
213244	W Cyg ✓	2441558.6	Aug 28/72	6.5	20:30		B
185243	R Lyr ✓			4.8	20:35	5.1 4.5	B
125047	TU CVn ✓			6.2	20:40		B
162542	g Her ✓			4.9	20:55		B
155947	X Her ✓			6.5	20:59		B
163137	W Her ✓			10.3	21:20	9.5 10.1 10.5	12"
193449	RCyg ✓			7.4	21:28		12"
201647	UCyg ✓			9.9	21:36	9.8 10.0	12"
184205	R Sct ✓	2441559.5	Aug 29-30/72	5.1	20:02		B
123961	S UMa ✓	2441559.6		9.9	20:40		12"
154428	R CrB ✓			6.0	21:00		B
155526	T CrB ✓			10.3	21:09		12"
001838	R And ✓			10.8	21:52		12"
004047	U Cas ✓			9.2	21:58		12"
184205	R Sct ✓	2441564.6	Sept. 3/72	5.1	22:05		B
185243	R Lyr ✓	2441570.6	Sept. 9/72	4.7	21:30		B
125047	TU CVn ✓			6.0	21:40		B
105270	VW UMa ✓			7.3	21:45		B
154428	R CrB ✓			6.1	22:17		B
155526	T CrB ✓			10.1	22:26		12"
155947	X Her ✓			7.3	22:32		B



Desig	Var	J.D. Dec.	Mag.	Date	T	C.S.	T
162542	g Her ✓	2441570.6	5.5	Sept. 24/1942	22:37		B
163137	W Her ✓	2441570.7	10.9		22:47		12"
184205	RSCT ✓		5.4		22:50		B
192150	CH Cys ✓		7.0		22:58		B
193449	R Cyg ✓		7.4		22:59		B
194048	RT Cyg ✓		7.9		23:15		12"
201647	U Cyg ✓		9.8		23:20		12"
213244	WCyg ✓		6.7		23:40		B
004047	UCas ✓	2441570.8	8.5		01:05		12"
021024	R Ari ✓		10.4		01:30		12"
023133	R Tri ✓		9.6		01:45		12"
052404	CK Ori ✓		6.5		02:15		B
050611	RX Lep ✓		6.3		02:16		B
050001	W Ori ✓		6.0		02:20		B
060524	TV Gem ✓		6.7		02:24		B
053920	Y Tau ✓		6.6		02:26		B
054920a	U Ori ✓		7.5		02:32		12"
055646a	RS Aur ✓		11.3		02:40		12"
045514	RLep ✓		7.9		03:00		12"



Desig	Var	JD. & Dec	Date	M	T	CS.	T
184205	R Sct ✓	2441580.6	Sept. 19 <sup>20</sup> /12	5.8	22:05		B
184205	R Sct ✓	2441588.6	Sept 27 <sup>21</sup> /12	6.2	20:00	From Caledonia	B
185243	RLyr ✓			4.7	20:05		B
213244	WCys ✓			6.4	20:07		B
162542	g Her ✓			4.7	20:09		B
155947	X Her ✓			6.8	20:10		B

To New Book!