

MAS RR Lyrae Ephemeris for April 2015

all times in U.T.

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	SW	XX	AT	SW	TZ	YZ	AA	BO	BR	DN	TZ	BH	RS	ST	SW	SZ	TV	TW	UU	UY	UY	RW	TT
	AND	AND	AND	AQR	AQR	AQR	AQR	AQR	AQR	AQR	AUR	AUR	BOO	BOO	BOO	BOO	BOO	BOO	BOO	BOO	CAM	CNC	CNC
MAX	9.3	10.3	10.8	10.5	11.6	12.1	11.4	11.6	10.8	10.7	11.2	11.1	9.8	10.6	11.3	12.0	10.8	10.8	11.2	10.6	11.5	10.7	11.0
MIN	10.8	11.6	11.5	12.1	12.4	12.9	13.0	12.6	11.9	11.5	12.8	12.6	11.3	11.8	12.7	13.4	11.5	12.1	12.7	12.0	11.9	12.6	12.3
RISE	2	3	3	1	3	2	2	3	2	3	2	2	2	3	2	2	3	2	1	2	3	2	3
0- 1	11.5					10.5							8.5	10.5	7.0	4.5	2.5	3.5	1.0	5.5	2.0		
1- 2			7.5	10.5							4.0		2.5	1.5	8.0	5.5	8.5	5.0	10.0		4.0		
2- 3		10.0		8.5					11.0		8.0	6.0	5.5	7.5	8.5	6.5	7.0	7.0	8.0	4.5	5.5	2.5	2.5
3- 4					9.0						3.0	3.5	9.0		9.0	8.0	5.5	8.5	6.0	11.5	7.0	4.5	6.0
4- 5	11.0		9.5								7.5	1.5	3.0	4.0	10.0	9.0	4.0	10.0	4.0	3.0	2.5	7.0	
5- 6											2.0		6.0	10.0	10.5	10.0	2.5	11.5	2.0	10.5	4.0	9.0	
6- 7											6.5		9.0	1.0	11.0	11.0	8.5		10.5	2.0	5.5		1.5
7- 8		11.0	11.5	10.0				11.0			1.0		3.5	7.0			7.0	1.5	8.5	9.5	7.0		4.5
8- 9	10.5										5.5	4.0	6.5				5.5	3.5	6.5	1.0	2.5	3.0	7.5
9-10			8.0				10.0			11.5		2.0	9.5	3.5		2.0	4.0	5.0	4.5	8.0	4.0	5.0	
10-11											4.5		4.0	9.5	1.5	3.0	2.5	6.5	2.5		5.5	7.5	
11-12		2.0				11.0					8.5		7.0		2.0	4.0	8.5	8.0	11.5	7.0	1.0	9.5	3.0
12-13	10.0		10.0	11.0			11.0				3.5		1.0	6.5	2.5	5.0	7.0	9.5	9.5		2.5		6.0
13-14			1.0	9.0							7.5	4.5	4.0		3.5	6.0	5.5	11.0	7.0	6.0	4.0	1.0	
14-15											2.5	2.5	7.5	3.0	4.0	7.5	4.0		5.0		6.0	3.0	
15-16		10.0							11.5		6.5		1.5	9.0	4.5	8.5	2.5	1.5	3.0	5.0	1.0	5.5	1.5
16-17	9.5				10.5						1.5		4.5		5.5	9.5	1.0	3.0	1.0		2.5	7.5	5.0
17-18			8.5								5.5		8.0	6.0	6.0	10.5	7.0	4.5	10.0	3.5	4.5		8.0
18-19				10.5								5.0	2.0	11.5	6.5	11.5	5.5	6.0	8.0	11.0	6.0		
19-20				8.5							4.5	3.0	5.0	2.5	7.5		4.0	7.5	6.0	2.5	1.0	1.5	
20-21		11.5	10.5								8.5		8.5	8.5	8.0	1.5	2.5	9.0	3.5	10.0	3.0	3.5	3.5
21-22			1.5								3.5		2.5		8.5	2.5	1.0	10.5	1.5	1.5	4.5	6.0	6.5
22-23											7.5		5.5	5.0	9.0	3.5	7.0		10.5	8.5	6.0	8.0	
23-24	11.5			11.5			10.0				2.5	5.5	8.5	11.0	10.0	4.5	5.5	1.0	8.5		1.5		
24-25		2.0		9.5							6.5	3.0	3.0	2.0	10.5	5.5	4.0	2.5	6.5	7.5	3.0		2.0
25-26			9.0								1.5	1.0	6.0	8.0	11.0	7.0	2.5	4.0	4.5		4.5	2.0	5.0
26-27							11.0				5.5		9.0			8.0	1.0	5.5	2.5	6.5	6.0	4.0	
27-28	11.0				11.5								3.5	4.5		9.0	7.0	7.0	11.0		1.5	6.5	
28-29		10.5	11.0						11.5		4.5	5.5	6.5	10.5		10.0	5.5	8.5	9.0	5.0	3.0	8.5	
29-30				11.0							9.0	3.5	9.5	1.5	1.5	11.0	4.0	10.5	7.0		4.5		4.0

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	VZ	VZ	KV	SS	RV	RZ	VW	YZ	AN	XX	XZ	DM	RW	XZ	RX	SV	BB	RR	TW	VX	VZ	AR	DL
	CNC	CNC	CNC	CVN	CAP	CAP	CAP	CAP	CAP	CYG	CYG	CYG	DRA	DRA	ERI	ERI	ERI	GEM	HER	HER	HER	HER	HER
MAX	7.2	7.2	11.9	11.2	10.2	12.5	12.6	11.0	12.0	11.4	9.1	11.2	11.0	9.6	9.2	9.6	10.9	10.7	10.5	9.9	10.7	10.6	11.0
MIN	7.9	7.9	13.0	12.5	11.6	13.5	13.5	11.6	13.0	12.5	10.5	12.7	12.0	10.3	10.1	10.2	11.9	11.9	11.8	10.4	12.0	11.6	12.4
RISE	1	1	2	2	2	3	2	3	5	1	3	2	2	3	3	5	2	2	2	2	2	2	1
0- 1	7.5	3.5	7.0	5.5	11.0		11.5			1.5	1.0	8.0	7.0	6.0			2.0	2.5		7.0	3.0	6.0	11.0
1- 2		5.0	7.0	4.0			10.0	10.5		6.5	10.5		4.0	5.0	2.0			7.0	7.5	4.5	11.0	4.5	
2- 3	2.5	6.5	7.0	3.0						2.0	9.0	10.5	1.5	4.0				2.0		2.5	8.0	3.5	5.5
3- 4	4.0		7.0	2.0						7.0	7.5	6.5	9.5	2.5				7.0	7.5	11.5	5.0	2.0	10.0
4- 5	6.0	1.5	7.5	1.0	11.5			10.5		2.5	6.0		6.5	1.5			1.5	2.0		9.0	2.0	11.5	
5- 6	7.5	3.0	7.5	11.5	9.0					8.0	4.5	9.0	4.0					6.5	7.5	7.0	10.0	10.5	4.5
6- 7		5.0	7.5	10.5			11.0			3.0	2.5		1.0	11.0				1.5		5.0	7.0	9.0	9.0
7- 8	2.5	6.5	7.5	9.5			9.5	10.5		8.5	1.0	11.5	9.0	9.5				6.0	7.5	3.0	4.0	7.5	
8- 9	4.0		7.5	8.5						4.0	10.5	7.5	6.0	8.5			1.5	1.0		11.5		6.0	
9-10	5.5	1.5	8.0	7.5	9.5					9.0	9.0		3.5	7.5				6.0	7.5	9.5	9.0	4.5	8.0
10-11	7.5	3.0	8.0	6.5				11.0		4.5	7.5	10.0	11.5	6.5				1.0		7.5	6.0	3.0	
11-12		4.5	8.0	5.5		8.0	11.5			9.5	6.0		8.5	5.0	1.5			5.5	7.5	5.0	3.5	1.5	
12-13	2.0	6.5	8.0	4.5			10.0			5.0	4.5		6.0	4.0			1.0			3.0	11.0	11.5	7.0
13-14	4.0		8.0	3.5	10.5	8.5		11.0		10.0	2.5	8.5	3.0	3.0				5.0	7.5	12.0	8.0	10.0	11.0
14-15	5.5	1.0	8.5	2.5						5.5	1.0		11.0	2.0						9.5	5.5	8.5	
15-16	7.0	3.0	8.5	1.5		8.5		9.0		10.5	10.5	11.0	8.5					5.0	7.5	7.5	2.5	7.0	6.0
16-17		4.5	8.5	11.5				11.5		6.0	9.0	7.0	5.5	11.0						5.5	10.0	5.5	10.0
17-18	2.0	6.5	8.5	10.5	11.0	8.5	10.5			1.5	7.5		3.0	10.0				4.5	7.5	3.0	7.5	4.5	
18-19	3.5	8.0	9.0	9.5			9.5	9.5	11.5	6.5	6.0	9.5	10.5	8.5	2.5						4.5	3.0	5.0
19-20	5.5	1.0	9.0	8.5		8.5		11.5		2.0	4.5		8.0	7.5				4.0	7.5	10.0		1.5	9.0
20-21	7.0	2.5	9.0	7.5						7.0	2.5		5.5	6.5						7.5	9.5	11.0	
21-22		4.5	9.0	6.5		9.0		9.5		2.5	1.0	8.0	2.5	5.5	1.0			4.0	7.0	5.5	6.5	10.0	4.0
22-23	2.0	6.0		5.5	9.5		11.5	11.5		7.5	10.5		10.5	4.0						3.5	3.5	8.5	8.0
23-24	3.5	8.0		4.5		9.0	10.0		11.5	3.0	9.0	10.5	7.5	3.0				3.5	7.0		11.0	7.0	
24-25	5.0	1.0		3.5				9.5		8.0	7.5	6.5	5.0	2.0		1.5				10.0	8.5	5.5	
25-26	7.0	2.5		2.5		9.0				3.5	6.0		2.0					3.0	7.0	8.0	5.5	4.0	7.0
26-27		4.5		1.5	10.0					8.5	4.0	9.0	10.0	11.0				8.0		6.0	2.5	2.5	11.5
27-28	1.5	6.0				9.0		10.0		4.0	2.5		7.5	10.0				3.0	7.0	3.5	10.5	1.0	
28-29	3.5	7.5		11.0			10.5		11.0	9.5	1.0	11.5	4.5	9.0	2.0			7.5			7.5	11.0	6.0
29-30	5.0			10.0		9.5	9.5			4.5	10.5	7.5	2.0	7.5		1.5		2.5	7.0	10.5	4.5	9.5	10.5

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	DY	DY	DY	LS	SZ	UU	DG	DH	RR	SS	ST	TV	WW	AA	U	SZ	SZ	SZ	RR	RZ	ST	AV	BH
	HER	HER	HER	HER	HYA	HYA	HYA	HYA	LEO	LEO	LEO	LEO	LEO	LEO	LEP	LYN	LYN	LYN	LYR	LYR	OPH	PEG	PEG
MAX	10.2	10.2	10.2	10.8	10.6	10.7	11.6	11.4	10.0	10.5	10.8	11.5	11.0	11.3	9.8	9.1	9.1	9.1	7.1	10.0	11.3	9.9	10.0
MIN	10.6	10.6	10.6	11.1	11.7	12.3	12.6	12.6	11.7	12.0	12.3	12.6	12.0	12.4	11.1	9.6	9.6	9.6	8.1	12.0	12.7	10.9	10.8
RISE	1	1	1	2	2	2	3	2	2	2	2	2	3	2	2	1	1	1	2	2	3	2	3
0- 1	6.0	9.5		5.5				7.0	9.5	2.0	2.5		1.5	7.5		3.0	6.0	8.5		4.0		11.0	
1- 2	3.5	7.0	10.5	3.5				6.5	7.0	8.0	1.5	5.5	6.5			5.0	8.0	2.0		4.5			9.0
2- 3	11.5	4.5	8.0	7.0			6.0	6.0	5.0					3.0		7.0	1.0	4.0	5.0	5.5	10.0	10.0	
3- 4	9.0		5.5	5.5	1.5	1.0		5.0	2.5	5.0	10.5	6.0	2.0	7.5		9.0	3.0	6.0	8.0	6.0	7.5		
4- 5	6.5	10.0	3.0	3.5	3.5	2.0		4.5			9.5		7.0			2.5	5.5	8.0	11.5	6.5	5.0	9.0	
5- 6	4.0	7.5	11.0	7.0	5.0	3.5	6.5	4.0	9.0	2.5	8.5	6.5		2.5	1.0	4.5	7.5	1.5		7.0			
6- 7		5.0	8.5	5.5	7.0	4.5		3.5	6.5	8.5	7.5		2.5	7.5		6.5	9.5	3.5	4.0	7.5	11.0	7.5	
7- 8	9.5		6.0	3.5		5.5		3.0	4.5		6.5	7.0	7.0			8.5	2.5	5.5	7.5	8.0	8.5	12.0	
8- 9	7.0	10.5	3.0	7.0		7.0	7.0	2.5	2.0	5.5	5.5			2.5		2.0	4.5	7.5	10.5	8.5	6.5		10.0
9-10	4.0	7.5	11.5	5.5		8.0	1.0	2.0			4.5	7.5	2.5	7.0		4.0	7.0	1.0		9.0		10.5	
10-11		5.0	8.5	3.5	1.5			1.5	8.5	2.5	3.5		7.5			6.0	9.0	3.0	3.5	9.5			
11-12	9.5		6.0	7.0	3.0		7.5	1.0	6.0	8.5	2.5	7.5		2.5		8.0	2.0	5.0	6.5	10.0	10.0	9.5	
12-13	7.0	10.5	3.5	5.5	5.0		1.5		4.0		1.0		3.0	7.0		1.5	4.0	7.0	10.0	10.5	7.5		
13-14	4.5	8.0	11.5	3.5	6.5			1.5	6.0		8.0	8.0				3.5	6.0	9.0		11.0	5.0	8.5	
14-15		5.5	9.0	7.5		1.0			10.0		10.5			2.0		5.5	8.5	2.5		11.5			
15-16	10.0	3.0	6.5	5.5		2.0	2.0		8.0	3.0	9.5	8.5	3.5	7.0		7.5	1.5	4.5	6.0		11.0		11.5
16-17	7.5	11.0	4.0	3.5		3.5		5.5	9.0	8.5			8.0		2.0	9.5	3.5	6.5	9.0		9.0	11.5	
17-18	5.0	8.5		7.5	1.0	4.5		3.5		7.5	9.0			2.0		3.0	5.5	8.5			6.5		9.5
18-19		6.0	9.5	5.5	2.5	5.5	2.5		1.0	6.0	6.5	1.0	3.5	6.5		5.0	7.5	2.0				10.0	
19-20	10.5	3.0	6.5	3.5	4.5	7.0			9.5		5.5	9.5	8.5			7.0	1.0	4.0	5.0				
20-21	7.5	11.5	4.0	7.5	6.5	8.0			7.5	3.0	4.0	1.5		2.0		9.0	3.0	6.0	8.0		10.0	9.0	
21-22	5.0	8.5		5.5			2.5		5.0	9.0	3.0		4.0	6.5		2.0	5.0	8.0	11.5		7.5		
22-23		6.0	9.5	3.5				7.0	2.5		2.0	2.0				4.5	7.0	1.5		4.0	5.5	8.0	
23-24	10.5	3.5	7.0	7.5				6.5		6.5	1.0			1.5	1.5	6.5	9.0	3.5	4.0	4.5			
24-25	8.0	11.5	4.5	5.5			3.0	6.0	9.0			2.5	4.5	6.5		8.5	2.5	5.5	7.5	5.0	11.5		11.0
25-26	5.5	9.0		3.5	2.5	1.0		5.5	6.5	3.5	10.5					1.5	4.5	7.5	10.5	5.5	9.0	10.5	
26-27	3.0	6.5	10.0	7.5	4.0	2.0		5.0	4.5	9.5	9.5	3.0		1.5		3.5	6.5	9.5		6.0	6.5		9.0
27-28	11.0	4.0	7.5	5.5	6.0	3.5	3.5	4.5	2.0		8.5		4.5	6.0		6.0	8.5	3.0	3.5	6.5		9.5	
28-29	8.5		4.5	3.5		4.5		4.0		6.5	7.5	3.5		11.0		8.0	2.0	5.0	6.5	7.0			
29-30	5.5	9.5		7.5		5.5		3.0	8.5		6.0			1.5		1.0	4.0	7.0	10.0	7.5	10.5	8.5	

	KZ	DF	RV	TU
	PUP	SER	UMA	UMA
MAX	11.3	11.4	10.1	9.2
MIN	12.8	13.0	11.2	10.2
RISE	3	2	3	3

0- 1	4.5	9.0	4.0	2.5
1- 2		6.0	2.5	5.5
2- 3	4.5	3.0	1.0	8.5
3- 4		10.5	11.0	11.0
4- 5	5.0	7.5	9.5	
5- 6		4.5	8.0	3.0
6- 7	5.5	1.5	6.0	6.0
7- 8		9.0	4.5	8.5
8- 9		6.0	3.0	11.5
9-10		3.0	1.5	
10-11		11.0	11.5	3.5
11-12		8.0	10.0	6.5
12-13		5.0	8.5	9.0
13-14		2.0	6.5	
14-15		9.5	5.0	1.5
15-16		6.5	3.5	4.0
16-17		3.5	2.0	7.0
17-18	11.0			9.5
18-19		8.0	10.5	
19-20		5.0	9.0	2.0
20-21		2.0	7.0	4.5
21-22		9.5	5.5	7.5
22-23		6.5	4.0	10.0
23-24		3.5	2.5	
24-25	11.0	1.0	2.0	
25-26		8.0	11.0	5.0
26-27		5.0	9.5	8.0
27-28		2.0	7.5	10.5
28-29		9.5	6.0	
29-30		6.5	4.5	2.5