

MAS RR Lyrae Ephemeris for January 2016

all times in U.T.

Page 1

	SW	XX	AT	SW	YZ	AA	BO	BR	DN	TZ	BH	RS	ST	SW	SZ	TV	TW	UU	UY	UY	RW	TT	VZ
	AND	AND	AND	AQR	AQR	AQR	AQR	AQR	AQR	AUR	AUR	BOO	BOO	BOO	BOO	BOO	BOO	BOO	BOO	BOO	CAM	CNC	CNC
MAX	9.3	10.3	10.8	10.5	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	7.2
MIN	10.8	11.6	11.5	12.1	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	7.9
RISE	2	3	3	1	2	2	3	2	3	2	2	2	3	2	2	3	2	1	2	3	2	3	1
0- 1	3.0		5.5						0.5	8.0	10.5	10.0	12.0			11.0	8.0		12.0	3.5	3.5	9.0	8.5
1- 2	0.0	8.0				2.5	1.5	4.0		3.0	8.5					9.5	9.5	12.0		5.0	6.0	12.0	1.5
2- 3		1.5	2.0	0.5				3.0		7.0	6.5	7.5	8.5		6.5	8.0	11.0	10.0	11.0	0.5	8.0	1.5	3.5
3- 4	5.0		7.5		1.0			2.0		2.0	4.0	10.5			8.0	6.5	12.5	8.0		2.0	10.5	4.5	5.0
4- 5	2.5	5.5						1.0		6.0	2.0				9.0	5.0			10.0	3.5	12.5	7.5	6.5
5- 6			4.0					0.5	2.0	1.0	0.0	8.0	11.5		10.0	11.0				5.0	1.5	11.0	8.5
6- 7										5.0	9.0	11.0		5.0	11.0	9.5		12.5	8.5	0.5	4.0		1.5
7- 8	4.5	3.0	0.5	2.0						9.5	6.5		8.0	6.0	12.0	8.0	6.0	10.5		2.0	6.5	3.5	3.0
8- 9	2.0		6.0		0.5					4.0	4.5	8.5		6.5		6.5	7.5	8.5	7.5	3.5	8.5	6.5	5.0
9-10		7.0				0.5				8.5	2.5	11.5		7.0		5.0	9.0	6.5		5.5	11.0	9.5	6.5
10-11		0.0	2.5				2.0			3.0	0.5		11.0	8.0		11.0	10.5		6.5	0.5		12.5	8.0
11-12	4.0									7.5	9.5	9.0		8.5		9.5	12.5			2.0	2.0	2.0	1.5
12-13	1.5	4.0				1.5			1.5	2.0	7.0	12.0	7.5	9.0		8.0		11.0		4.0	4.5	5.0	3.0
13-14			4.5	1.0						6.5	5.0	6.0		10.0	6.0	6.5		9.0	12.5	5.5	6.5	8.0	4.5
14-15	6.5	8.0			2.0					1.0	3.0	9.5		10.5	7.5	5.0		7.0		0.5	9.0	11.0	6.5
15-16	3.5	1.5	1.0			3.0		3.0		5.5	1.0	12.5	10.5	11.0	8.5	11.0	5.5		11.5	2.5	11.5	0.5	8.0
16-17	1.0		6.5					2.5		0.0	9.5	6.5		11.5	9.5	9.5	7.5			4.0	0.5	3.5	1.0
17-18		5.5					0.5	1.5		4.5	7.5	10.0	7.0	12.5	10.5	8.0	9.0	11.5	10.5	5.5	2.5	7.0	3.0
18-19	6.0		3.0					0.5		8.5	5.5	13.0	13.0		11.5	6.5	10.5	9.5		1.0	5.0	10.0	4.5
19-20	3.5			0.5	1.5		2.5		1.0	3.5	3.5	7.0			13.0	5.0	12.0	7.5	9.0	2.5	7.0	13.0	6.0
20-21	0.5	3.0								7.5	1.0	10.0	9.5			11.0				4.0	9.5	2.5	8.0
21-22			5.0							2.5	10.0					9.5			8.0	5.5	11.5	5.5	1.0
22-23	5.5	7.0								6.5	8.0	7.5	6.5			8.0		12.5		1.0	1.0	8.5	2.5
23-24	3.0	0.5	1.5			0.5				1.5	6.0	10.5	12.5			6.5	5.5	10.5	7.0	2.5	3.0	11.5	4.5
24-25	0.0		7.0	1.5	0.5				2.5	5.5	3.5					5.0	7.0	8.0		4.0	5.5	1.0	6.0
25-26		4.5								0.5	1.5	8.0	9.0	5.5	7.0	11.0	8.5	6.0		6.0	7.5	4.0	8.0
26-27	5.0		3.5			2.0	1.0		0.0	4.5	10.5	11.0		6.0	8.0	10.0	10.0		13.0	1.0	10.0	7.0	9.5
27-28	2.5	8.5								9.0	8.5		6.0	6.5	9.0	8.5	11.5	13.0		2.5	12.0	10.0	2.5
28-29		2.0						3.5		3.5	6.5	8.5	12.0	7.0	10.0	7.0		11.0	12.0	4.5	1.5		4.5
29-30			5.5					2.5		8.0	4.0	11.5		8.0	11.0	5.5		9.0		6.0	3.5	3.0	6.0
30-31	4.5	6.0		1.0	2.5			1.5		2.5	2.0		8.5	8.5	12.5	11.5		7.0	10.5	1.0	6.0	6.0	7.5

MAS RR Lyrae Ephemeris for January 2016

all times in U.T.

Page 2

	VZ	KV	SS	RV	RZ	VW	YZ	RR	RU	RV	RX	RZ	UU	XX	XZ	DM	RW	XZ	RX	SV	BB	RX	SS
	CNC	CNC	CVN	CAP	CAP	CAP	CAP	CET	CET	CET	CET	CET	CET	CYG	CYG	CYG	DRA	DRA	ERI	ERI	ERI	FOR	FOR
MAX	7.2	11.9	11.2	10.2	12.5	12.6	11.0	9.3	10.8	10.3	11.0	11.2	11.5	11.4	9.1	11.2	11.0	9.6	9.2	9.6	10.9	11.1	9.4
MIN	7.9	13.0	12.5	11.6	13.5	13.5	11.6	10.3	12.1	11.2	11.7	12.4	12.4	12.5	10.5	12.7	12.0	10.3	10.1	10.2	11.9	12.5	10.6
RISE	1	2	2	2	3	2	3	2	3	3	3	2	3	1	3	2	2	3	3	5	2	2	2
0- 1	4.0	9.0	9.0					1.5	1.5	4.0	1.0	3.5		4.5	8.0		8.0	4.0	7.5		8.0		5.0
1- 2	6.0	9.0	7.5		0.5			4.0				4.5	4.0	1.5	9.5	6.5		5.5	3.0		2.0		4.5
2- 3	7.5	9.0	6.5							1.0		4.5			5.0	5.0	1.0	3.0	2.0	2.0	1.5	2.0	4.5
3- 4	9.0	9.0	5.5		0.5							5.0			0.5	3.0		0.0	0.5	6.0	5.0	4.5	4.5
4- 5	2.5	9.5	4.5						4.0		1.0	5.5	2.0	5.5	1.5	3.0	8.0	11.0			8.0		4.0
5- 6	4.0	9.5			0.5			1.0		3.5		6.0		1.0	11.0		5.0	10.0	0.5			2.0	4.0
6- 7	5.5	9.5						3.5				6.5		6.0	9.5		2.5	9.0	4.5	1.5	1.0		3.5
7- 8	7.5	9.5			0.5	0.0		6.0	2.5	0.5			2.5	1.5	8.0	1.5	10.5	7.5			4.5		3.5
8- 9	9.0	9.5	12.0									1.5		7.0	6.5		7.5	6.5		5.0	7.5	1.5	3.0
9-10	2.0	10.0	11.0											2.0	5.0	4.0	5.0	5.5	3.0			6.0	3.0
10-11	4.0	10.0	10.0				0.0	0.5	0.5	3.5			3.5	7.5	3.0	0.0	2.0	4.0	7.0		1.0		3.0
11-12	5.5	10.0	9.0					3.0	5.0					2.5	1.5		10.0	3.0		1.5	4.0	1.0	2.5
12-13	7.5	10.0	8.0	0.0				5.5		0.5	2.0			8.0	11.0	2.5	7.5	2.0	1.5		7.5	6.0	2.5
13-14	9.0	10.0	7.0				0.5			6.0				3.5	9.5		4.5	1.0	5.5	5.0			2.0
14-15	2.0	10.5	6.0						3.0					8.5	8.0		2.0	11.0			0.5	1.0	2.0
15-16	4.0	10.5	5.0							3.0				4.0	6.5	1.0	9.5	10.0			4.0	5.5	1.5
16-17	5.5	10.5		0.5			0.5	2.5			2.5			9.0	4.5		7.0	9.0	4.0	1.5	7.0		1.5
17-18	7.0	10.5						5.0	1.5					4.5	3.0	3.5	4.0	8.0	8.5			0.5	1.0
18-19	9.0	10.5				0.0				6.0		0.5	0.5	9.5	1.5		1.5	6.5		5.0	0.5	5.0	1.0
19-20	2.0	11.0	12.0				1.0					1.0		5.0	11.0		9.5	5.5	2.5		3.5		1.0
20-21	3.5	11.0	11.0							3.0	2.5	1.5		0.5	9.5	2.0	6.5	4.5	7.0		7.0	0.0	0.5
21-22	5.5	11.0	10.0					2.0	4.0			2.0	1.5	5.5	8.0		4.0	3.5		1.5		5.0	0.5
22-23	7.0	11.0	9.0				1.0	4.5				2.5		1.0	6.5		1.0	2.0	1.0				0.0
23-24	8.5	11.0	8.0							5.5		3.0		6.0	4.5	0.5	9.0	1.0	5.5	5.0	3.5		
24-25	2.0	11.5	7.0						2.5		3.0	3.5	2.0	1.5	3.0		6.5	11.5			6.5	4.5	
25-26	3.5	11.5	6.0				1.0			2.5		4.0		6.5	1.5	3.0	3.5	10.0					
26-27	5.0	11.5	5.0					1.5				4.5		2.0	11.0		1.0	9.0	4.0	1.5			
27-28	7.0	11.5	4.0					4.0	0.5			5.0	2.5	7.0	9.5		8.5	8.0	8.0		3.0	4.0	
28-29	8.5	11.5							5.0	5.5	3.5	5.5		2.5	8.0	1.5	6.0	7.0		5.0	6.5		
29-30	1.5	12.0		0.5		0.0						6.0		7.5	6.5		3.0	5.5	2.0				
30-31	3.5	12.0	12.5							2.0		6.5	3.5	3.0	4.5	4.0	0.5	4.5	6.5			4.0	

	RR	GQ	TW	VX	VZ	AR	DL	DY	DY	DY	LS	SZ	UU	DG	DH	RR	SS	ST	TV	WW	AA	VY	U
	GEM	GEM	HER	HER	HER	HER	HER	HER	HER	HER	HER	HYA	HYA	HYA	HYA	LEO	LEO	LEO	LEO	LEO	LEO	LMI	LEP
MAX	10.7	13.6	10.5	9.9	10.7	10.6	11.0	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	13.6	9.8
MIN	11.9	14.6	11.8	10.4	12.0	11.6	12.4	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	14.6	11.1
RISE	2	2	2	2	2	2	1	1	1	1	2	2	2	3	2	2	2	2	2	3	2	2	2
0- 1	0.5	1.5	10.5		8.0	5.5		9.0	12.5		8.5	10.5	11.0	7.0	2.5	11.0		10.0				11.5	
1- 2	5.5	4.5							10.0		12.0	12.5	12.0			8.5	7.0	9.0	10.0	4.0	7.0	0.0	0.0
2- 3	0.5	8.0	10.5		13.0					11.0	10.0					6.5		8.0		9.0	12.0	1.5	4.0
3- 4	5.0	11.5		12.0	10.0	12.5	12.5	12.0			8.5	3.0		7.5	12.5	4.0		7.0	10.5			2.5	8.0
4- 5	0.0	1.0	10.5	10.0		11.0		9.0	13.0		12.0	5.0	3.0		12.0	2.0	10.5	6.0		4.5	7.0	4.0	
5- 6	4.5	4.5				9.5			10.0		10.0	6.5	4.0		11.5	10.5		5.0	11.0	9.5	11.5	5.0	2.0
6- 7	9.0	8.0	10.5		12.0	8.0	11.5			11.0	8.5	8.5	5.0	8.0	11.0	8.0	7.5					6.5	6.0
7- 8	4.5	11.5			9.0	6.5		12.0			12.0	10.5	6.5		10.5	6.0			11.5	5.0	7.0	7.5	
8- 9	9.0	1.0	10.5	12.5		5.0		9.5			10.0	12.0	7.5		10.0	3.5	4.5			9.5	11.5	9.0	
9-10	4.0	4.5		10.5			10.5		10.5		8.5		8.5	8.5	9.5	12.0	10.5	12.0	12.0			10.0	3.5
10-11	8.5	8.0	10.5		11.0					11.5	12.0	3.0	10.0	2.5	9.0	10.0		11.0		5.0	6.5	11.5	7.5
11-12	3.5	11.0			8.5	12.0		12.5		9.0	10.0	4.5	11.0		8.5	7.5	7.5	10.0	12.5	10.0	11.5	0.0	
12-13	8.0	1.0	10.5			10.5	9.5	10.0			8.5	6.5	12.0	8.5	8.0	5.5		9.0	4.5			1.5	1.5
13-14	3.5	4.5		12.5		9.0			11.0		12.0	8.0		3.0	7.5	3.0	5.0	8.0	13.0	5.5	6.5	2.5	5.0
14-15	8.0	7.5	10.5	10.5	10.5	7.5				12.0	10.0	10.0			7.0	11.5	11.0	7.0	5.0	10.5	11.0	4.0	
15-16	3.0	11.0		8.5		6.0		13.0		9.0	8.5	11.5	3.0	9.0	6.5	9.5		5.5				5.0	
16-17	7.5	0.5	10.5				13.0	10.0			12.0		4.0	3.0	6.0	7.0	8.0	4.5	5.5	6.0	6.5	6.5	3.0
17-18	2.5	4.0			12.0				11.0		10.0		5.0		5.5	4.5				11.0	11.0	7.5	7.0
18-19	7.5	7.5	10.5	13.0	9.5					12.0	8.5	4.0	6.5	9.5	4.5	2.5	5.0		6.0			9.0	
19-20	2.5	11.0		10.5		0.5	12.0			9.5	12.0	6.0	7.5	3.5	4.0	11.0	11.0	13.0		6.0	6.0	10.0	1.0
20-21	7.0	0.5	10.5	8.5		10.5		10.5			10.0	7.5	8.5		3.5	8.5		12.0	6.5	11.0	11.0	11.5	4.5
21-22	2.0	4.0			11.5	9.0			11.5		8.5	9.5	10.0	10.0	3.0	6.5	8.0	11.0				0.0	
22-23	6.5	7.5	10.0		8.5	7.5	11.0		9.0	12.5	12.0	11.5	11.0	4.0	2.5	4.0		10.0	7.0	6.5	6.0	1.5	
23-24	1.5	10.5				6.0				10.0	10.0		12.0			2.0	5.5	8.5		11.5	10.5	2.5	2.5
24-25	6.5	0.5	10.0	11.0				11.0			8.5			10.5		10.5	11.5	7.5	7.5	2.0		4.0	6.5
25-26	1.5	4.0		9.0	10.5		10.0		12.0		12.0	4.0		4.5	13.0	8.0		6.5		7.0	6.0	5.0	
26-27	6.0	7.0	10.0			13.0			9.0	12.5	10.0	5.5	3.0		12.5	6.0	8.5	5.5	7.5	12.0	10.5	6.5	0.5
27-28	1.0	10.5				0.0				10.0	8.5	7.5	4.0	10.5	11.5	3.5		4.5		2.0		7.5	4.0
28-29	5.5	0.5	0.5		12.5	10.0		11.0			12.0	9.0	5.5	5.0	11.0	12.0	5.5		8.0	7.0	5.5	9.0	8.0
29-30	0.5	3.5		11.0	9.5	8.5			12.0		10.5	11.0	6.5		10.5	10.0	11.5			12.0	10.5	10.0	
30-31	5.5	7.0	0.5	9.0		7.0			9.5		8.5	12.5	7.5	11.0	10.0	7.5		13.0	8.5	2.5		11.5	2.0

	SZ	SZ	SZ	RR	RZ	ST	AV	BH	RU	DF	RV	TU
	LYN	LYN	LYN	LYR	LYR	OPH	PEG	PEG	SCL	SER	UMA	UMA
MAX	9.1	9.1	9.1	7.1	10.0	11.3	9.9	10.0	9.3	11.4	10.1	9.2
MIN	9.6	9.6	9.6	8.1	12.0	12.7	10.9	10.8	10.8	13.0	11.2	10.2
RISE	1	1	1	2	2	3	2	3	2	2	3	3
0- 1	7.5	1.5	4.5	10.5				2.0		7.5	9.5	
1- 2	0.5	3.5	6.5	0.0			2.0				8.0	3.5
2- 3	2.5	5.5	8.5							12.0	6.5	6.5
3- 4	4.5	7.5	2.0			11.5	0.5			9.0	5.0	9.0
4- 5	6.5	1.0	4.0	9.5					3.5		3.5	12.0
5- 6	0.0	3.0	6.0	13.0					3.0		2.0	
6- 7	2.0	5.0	8.0	2.5			3.5		2.5	10.5	0.5	4.0
7- 8	4.0	7.0	1.5			12.5		3.0	2.5	7.5	10.0	7.0
8- 9	6.0	0.5	3.5		10.0		2.5		2.0		8.5	9.5
9-10	8.0	2.5	5.5	12.0	10.5			1.0	2.0	12.0	7.0	12.5
10-11	1.5	4.5	7.5	2.0	11.0		1.0		1.5	9.5	5.5	
11-12	3.5	6.5	0.5		11.5				1.0		4.0	4.5
12-13	5.5	8.5	3.0		12.0	11.5	0.0		1.0		2.5	7.0
13-14	7.5	2.0	5.0	11.5	0.5				0.5	11.0	1.0	10.0
14-15	1.0	4.0	7.0	1.0	1.0			4.5	0.0	8.0	10.5	13.0
15-16	3.0	6.0	0.0		1.5		3.0				9.0	
16-17	5.0	8.0	2.0			13.0		2.5		12.5	7.5	5.0
17-18	7.0	1.5	4.5	10.5		10.5	2.0			9.5	6.0	7.5
18-19	0.5	3.5	6.5	0.0				0.5			4.5	10.5
19-20	2.5	5.5	8.5				0.5				3.0	
20-21	4.5	7.5	1.5							11.0	1.5	2.5
21-22	6.5	1.0	3.5	10.0		11.5				8.0	11.0	5.5
22-23	8.5	3.0	6.0				3.5				9.5	8.0
23-24	2.0	5.0	8.0	2.5				3.5		12.5	8.0	11.0
24-25	4.0	7.0	1.0				2.5			9.5	6.5	
25-26	6.0	0.5	3.0					2.0			5.0	3.0
26-27	8.0	2.5	5.0	12.0		10.5	1.5				3.5	6.0
27-28	1.5	4.5	7.5	2.0						11.0	2.0	8.5
28-29	3.5	6.5	0.5				0.0			8.0	0.5	11.5
29-30	5.5	8.5	2.5								10.0	
30-31	7.5	2.0	4.5	11.5	9.5	12.0				12.5	8.5	3.5