

	SW	XX	AT	SW	TZ	YZ	AA	BO	BR	DN	TZ	BH	ST	SW	SZ	TW	UU	UY	UY	RW	TT	VZ	VZ
	AND	AND	AND	AQR	AQR	AQR	AQR	AQR	AQR	AQR	AUR	AUR	BOO	BOO	BOO	BOO	BOO	BOO	CAM	CNC	CNC	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	10.6	11.3	12.0	10.8	11.2	10.6	11.5	10.7	11.0	7.2	7.2
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	11.8	12.7	13.4	12.1	12.7	12.0	11.9	12.6	12.3	7.9	7.9
RISE	2	3	3	1	3	2	2	3	2	3	2	2	3	2	2	2	1	2	3	2	3	1	1
0- 1	5.5	8.5	3.5			2.5	2.5				4.0	6.0				9.5		1.0		6.5	5.0		
1- 2	2.5	1.5									8.0	4.0	11.5			11.0		2.5	5.0	9.5	6.5		
2- 3				2.0							3.0	2.0			9.0	12.5			4.0	7.0	12.5	8.5	4.0
3- 4	7.5	5.5	5.5	0.5	3.5		3.5			2.5	7.0	11.0			10.5			12.5	6.0	9.5			5.5
4- 5	5.0										2.0	8.5			11.5		10.0		1.0	11.5	5.0		7.5
5- 6	2.0		2.0			1.5					6.0	6.5		8.0	12.5			11.5	2.5		8.0	5.0	
6- 7		3.0	7.5					1.5	4.5		1.0	4.5	11.0	9.0					4.5		11.0	6.5	
7- 8	7.0				3.5				4.0		5.0	2.5		9.5				10.5	6.0	5.5		8.0	4.0
8- 9	4.5	7.0	4.0	1.5			0.5	3.5	3.0		9.5	0.5		10.0		9.0			1.0	7.5	3.5		5.5
9-10	1.5	0.5							2.0		4.0	9.0		11.0		10.5	10.5	9.0	3.0	10.0	6.5		7.5
10-11			0.5			1.0			1.0	1.5	8.5	7.0		11.5		12.5			4.5	12.0	9.5	4.5	
11-12	6.5	4.5	6.0		3.5	3.5	1.5		0.5		3.0	5.0	10.5	12.0					6.0		13.0	6.5	
12-13	4.0										7.5	3.0							1.5	3.5		8.0	
13-14	1.0	8.5	2.5	3.0				0.0			2.0	0.5							3.0	6.0	5.5		5.5
14-15		2.0	8.0	1.0			2.5				6.5	9.5			10.0				4.5	8.0	8.5		7.0
15-16	6.0				3.5	0.0		2.0		3.5	1.0	7.5			11.0				6.0	10.5	11.5	4.5	
16-17	3.5	6.0	4.5			2.5					5.5	5.5	10.0		12.0	9.0			1.5	12.5		6.0	
17-18	0.5						3.5	4.0		1.0		3.0				10.5			3.0		4.0	8.0	
18-19			1.0								4.5	1.0				12.0		12.0	4.5	4.0	7.0		5.5
19-20	5.5	3.5	6.5	2.0	3.0			5.0			8.5	10.0	13.0						6.5	6.5	10.0		7.0
20-21	3.0			0.0				4.0			3.5	8.0					9.5	11.0	1.5	8.5		4.5	
21-22	0.0	7.5	3.0			2.0			3.0		7.5	5.5	9.5						3.0	11.0		6.0	
22-23		0.5					0.5	0.5	2.5	2.5	2.5	3.5						9.5	5.0		5.5	8.0	
23-24	5.0				3.0				1.5		6.5	1.5							0.0		8.5		5.0
24-25	2.5	4.5	5.0					2.5	0.5	0.0	1.5	10.5	12.0	8.0		8.5			1.5	4.5	12.0		7.0
25-26				1.5			1.5				5.5	8.0		9.0	9.5	10.0	10.0		3.5	7.0		4.5	8.5
26-27	7.5	8.5	1.5			1.0						6.0		9.5	10.5	11.5			5.0	9.0	4.5	6.0	
27-28	4.5	2.0	7.0		3.0	3.5					4.5	4.0		10.0	11.5				0.0	11.5	7.5	7.5	
28-29	2.0						3.0				8.5	2.0		11.0					2.0		10.5		5.0
29-30		6.0	3.5							2.0	3.5	10.5	11.5	11.5					3.5				6.5
30-31	7.0			2.5							7.5	8.5		12.0			11.0		5.0	5.0		4.0	8.5

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

	RR	GQ	TW	VZ	AR	DL	SZ	UU	DG	DH	GO	RR	SS	ST	TV	WW	AA	VY	U	SZ	SZ	SZ	RR	
	GEM	GEM	HER	HER	HER	HER	HYA	HYA	HYA	HYA	HYA	LEO	LEO	LEO	LEO	LEO	LEO	LMI	LEP	LYN	LYN	LYN	LYR	
MAX	10.7	13.6	10.5	10.7	10.6	11.0	10.6	10.7	11.6	11.4	11.6	10.0	10.5	10.8	11.5	11.0	11.3	13.6	9.8	9.1	9.1	9.1	7.1	
MIN	11.9	14.6	11.8	12.0	11.6	12.4	11.7	12.3	12.6	12.6	12.2	11.7	12.0	12.3	12.6	12.0	12.4	14.6	11.1	9.6	9.6	9.6	8.1	
RISE	2	2	2	2	2	1	2	2	3	2	3	2	2	2	2	3	2	2	2	1	1	1	2	
0- 1	2.0		0.5		10.5	12.5	10.5	12.0	5.0			10.0				11.5	12.5	12.0			3.5	6.5	3.0	
1- 2	6.5	3.5			9.0		12.0				6.5	7.5	10.0		10.0					2.5	5.5	8.5		
2- 3	1.5	7.0	0.5						11.5			5.5				7.0	7.5		4.5	4.5	7.5	2.0		
3- 4	6.0	10.5							5.5		4.5			11.0	10.5	12.0	12.5		8.0	6.5		4.0	12.5	
4- 5			0.5	0.5						11.0				10.0				4.0			3.0	6.0	2.0	
5- 6	6.0	3.5					6.5	5.0	11.5			9.5		9.0	11.0	7.0	7.5	5.5	2.0	2.0	5.0	8.0		
6- 7		7.0	0.5				8.0	6.5	6.0		9.0	7.0	10.0	7.5		12.0	12.0	7.0	6.0	4.0	7.0	1.5		
7- 8	5.5	10.0			0.5		10.0	7.5			4.5				11.0			8.0		6.0		3.5		
8- 9			0.0		10.0		11.5	8.5	12.0	11.5	6.5		7.5			7.5	7.5	9.5		8.0	2.5	5.5	1.5	
9-10	5.0	3.0						10.0	6.0	11.0					11.5	12.5	12.0	10.5	3.5	1.5	4.5	7.5		
10-11		6.5	0.0					11.0		10.5	4.5	8.5						12.0	7.5	3.5	6.5			
11-12	5.0	10.0						12.0	12.5	10.0	11.0	6.5	10.5		12.0	8.0	7.0			5.5	8.5	3.0		
12-13	9.5		0.0				6.0		6.5	9.5						13.0	12.0			7.5	2.0	5.0	0.5	
13-14	4.5	3.0					7.5		8.5	9.0			7.5		12.5				5.5		4.0	7.0		
14-15	9.0	6.5	0.0				9.5	13.0	8.0		10.5		10.5			8.0	7.0	4.0	9.5	3.0	6.0			
15-16	4.5	10.0		1.0	0.0		11.5		7.0	7.5	6.5	8.0		9.5	13.0		11.5	5.5		5.0	8.0	2.0		
16-17	9.0		0.0		10.0			5.0		7.0		6.0	10.5					6.5	3.0	7.0	1.5	4.5		
17-18	4.0	3.0						6.5		6.5	4.5				7.5		8.5	7.0	8.0	7.0		3.5	6.5	3.0
18-19	8.5	6.5						7.5	7.5	6.0	11.0		8.0				11.5	9.0		2.5	5.5	8.5		
19-20	3.5	9.5		0.0			5.5	8.5		5.5		10.0						10.5		4.5	7.5	1.5		
20-21	8.0						7.5	10.0			9.0	7.5				9.0		11.5	5.0	6.5		3.5	12.5	
21-22	3.5	3.0					9.0	11.0	8.0			5.5	11.0				11.5		9.0	8.5	3.0	6.0	2.5	
22-23	8.0	6.0					11.0	12.0			6.5									2.0	5.0	8.0		
23-24	3.0	9.5			11.0		12.5						8.0			9.5			2.5	4.0	7.0	1.0		
24-25	7.5	13.0			9.5				8.5		4.5	9.5					11.0	4.0	6.5	6.0		3.0		
25-26	2.5	2.5								11.0	7.0		10.5					5.5		8.0	2.5	5.0	1.5	
26-27	7.0	6.0		1.0							5.0	11.0	9.5	7.5	9.5			6.5		1.5	4.5	7.5		
27-28	2.5	9.5					7.0	5.0	8.5		9.0						11.0	8.0	4.5	3.5	6.5			
28-29	7.0	13.0						8.5	6.5				8.5	7.5	8.0	5.0		9.0	8.5	5.5	8.5	2.5		
29-30	2.0	2.5				12.5	10.5	7.5			6.5	9.0				10.0		10.5		7.5	2.0	4.5	0.5	
30-31	6.5	6.0		0.0			12.5	8.5	9.0	11.5		6.5			8.5		11.0	11.5	2.0		4.0	6.5		

MAS RR Lyrae Ephemeris for December 2025

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all times in U.T.

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