

The 2008 AAVSO RR Lyrae Ephemeris

The AAVSO RR Lyrae Ephemeris provides the predicted time of maximum for RR Lyrae and Delta Sct type stars in the AAVSO RR Lyrae observing program. These times appear in Universal Time in the body of the ephemeris table. The time is rounded to the nearest half hour, providing sufficient accuracy to plan observing sessions while, hopefully, leaving sufficient doubt about the exact time in order to eliminate anticipatory bias. This ephemeris is designed for use by observers at American longitudes.

The top rows of the ephemeris table list the name of the RR Lyrae type star. Directly below the star's name are its approximate maximum and minimum magnitudes. These magnitudes are taken from the 4th edition of the GCVS and may be visual, photographic, or V.

Gerard Samolyk, AAVSO RR Lyrae Committee

REFERENCE

Kholopov, P. N., *et al.* 1985, *General Catalogue of Variable Stars*, Fourth Edition, Moscow.

Below that, in the row labeled "RISE". This is the approximate time required for the star to rise from minimum to maximum, in hours.

CCD observations of RR Lyrae type stars at all phases of their lightcurves are encouraged. This ephemeris can be used as a guide to determine what portion of the lightcurve is observable on a given night.

The numbers in the left-most column are the "double date" - the evening and the following morning - for the event times listed in the corresponding row. For example, 5-6 corresponds to the evening of the 5th and the morning of the 6th of the month. January 0-1 is the evening of December 31 and the morning of January 1.

	SW	XX	AT	SW	TZ	BH	RS	ST	SW	SZ	TV	TW	UU	UY	RW	TT	RR	XZ	DM	RW	XZ	RR	TW
	AND	AND	AND	AQR	AUR	AUR	BOO	BOO	BOO	BOO	BOO	BOO	BOO	BOO	CNC	CNC	CET	CYG	CYG	DRA	DRA	GEM	HER
MAX	9.3	10.3	10.8	10.5	11.2	11.1	9.8	10.6	11.3	12.0	10.8	10.8	11.2	10.6	10.7	11.0	9.3	9.1	11.2	11.0	9.6	10.7	10.5
MIN	10.8	11.6	11.5	12.1	12.8	12.6	11.3	11.8	12.7	13.4	11.5	12.1	12.7	12.0	12.6	12.3	10.3	10.5	12.7	12.0	10.3	11.9	11.8
RISE	2	3	3	1	2	2	2	3	2	2	3	2	1	2	2	3	2	3	2	2	3	2	2
0- 1	3.5				1.0	6.5	7.5		10.5		8.0		11.5		2.0	7.0		1.5	2.5	8.5	7.0	9.0	
1- 2	0.5	7.5	1.0	0.5	5.5	4.0	10.5	6.5	11.0		6.5	6.0	9.5	9.0	4.0	10.0		11.0		6.0	6.0	4.0	9.0
2- 3		1.0	6.5		0.0	2.0		12.5	12.0		5.0	7.5	7.5		6.5		1.5	9.5		3.0	5.0	9.0	
3- 4	5.5				4.5	0.0	8.0		12.5	7.0	11.0	9.0		8.0	8.5	2.5	4.0	8.0	1.0	0.5	3.5	4.0	9.0
4- 5	3.0	5.0	3.0		8.5	9.0	11.0	9.5		8.0	9.5	11.0		11.0	5.5			6.0		8.5	2.5	8.5	
5- 6	0.0				3.5	7.0				9.0	8.0	12.5	12.0	6.5		8.5		4.5	3.5	5.5	1.5	3.5	9.0
6- 7				1.5	7.5	4.5	8.5	6.0		10.0	6.5		10.0		2.0	12.0		3.0		3.0	0.5	8.0	
7- 8	5.0	2.5	5.0		2.5	2.5	11.5	12.0		11.0	5.0		8.0		4.5	1.5	1.0	1.5		0.0	10.5	3.5	9.0
8- 9	2.5				6.5	0.5				12.5	11.0		6.0	13.0	7.0	4.5	3.5	11.0	2.0	8.0	9.5	8.0	
9-10		6.5	1.5		1.5	9.5	9.0	9.0			9.5	5.5			9.0	7.5	6.0	9.5		5.5	8.5	3.0	
10-11			7.0		5.5	7.0	12.0				8.0	7.5	12.5	11.5	11.5	10.5			8.0		2.5	7.5	7.5
11-12	5.0				0.5	5.0	6.0		5.5		6.5	9.0	10.5		0.5			6.0	0.5	10.5	6.0	2.5	
12-13	2.0	3.5	3.5	1.0	4.5	3.0	9.5	11.5	6.0		5.0	10.5	8.5	10.5	2.5	3.0	0.5	4.5		7.5	5.0	7.0	
13-14					9.0	1.0	12.5		6.5		11.0	12.0	6.5		5.0	6.0	3.0	3.0	3.0	5.0	4.0	2.5	
14-15		7.5			3.5	9.5	6.5	8.5	7.5	6.5	9.5			9.5	7.0	9.0	5.5	1.5		2.0	3.0	7.0	
15-16	4.5	1.0	5.5		8.0	7.5	10.0		8.0	7.5	8.0				9.5	12.0		11.0		10.0	1.5	2.0	
16-17	1.5				2.5	5.5	13.0		8.5	8.5	6.5		11.5	8.0	12.0	1.5		9.5	1.5	7.5	0.5	6.5	
17-18		5.0	2.0		7.0	3.5	7.0	11.0	9.5	9.5	5.0	5.5	9.0		1.0	4.5		8.0		4.5	11.0	1.5	
18-19	6.5		7.5	0.5	1.5	1.5	10.0		10.0	10.5	11.0	7.0	7.0	7.0	3.0	8.0	2.5	6.0	4.0	2.0	9.5	6.0	
19-20	4.0				6.0	10.0		8.0	10.5	12.0	9.5	8.5			5.5	11.0	5.0	4.5	0.0	10.0	8.5	1.5	
20-21	1.0	2.5	4.0		0.5	8.0	7.5		11.0	13.0	8.0	10.0			7.5			3.0		7.0	7.5	6.0	
21-22					5.0	6.0	10.5		12.0		6.5	11.5	12.0		10.0	3.5		1.5	2.5	4.5	6.5	1.0	
22-23	6.0	6.5	0.5		9.0	4.0		10.5	12.5		5.0		10.0		12.0	6.5		11.0		1.5	5.0	5.5	
23-24	3.5		6.0	1.5	4.0	1.5	8.0				11.0		8.0	12.0	1.5	9.5	2.0	9.5		9.5	4.0	0.5	
24-25	0.5				8.0	10.5	11.0	7.5			9.5				3.5	12.5	4.5	8.0	1.0	6.5	3.0	5.5	
25-26		4.0	2.5		3.0	8.5					8.0	5.0		11.0	6.0	2.0		6.0		4.0	2.0	0.5	
26-27	5.5				7.0	6.5	8.5			7.0	6.5	6.5	12.5		8.0	5.0		4.5	3.5	1.0	0.5	5.0	
27-28	3.0	8.0			2.0	4.0	11.5	10.0		8.0	5.0	8.0	10.5	10.0	10.5	8.0		3.0		9.0	11.0	0.0	
28-29	0.0	1.5	4.5		6.0	2.0				9.0	11.0	9.5	8.5		12.5	11.0	1.5	1.5		6.5	10.0	4.5	
29-30				1.0	1.0	11.0	9.0	7.0		10.0	9.5	11.0	6.5	8.5	2.0	0.5	4.0	11.0	2.0	3.5	8.5	9.0	
30-31	5.0	5.5	1.0		5.0	9.0	12.0	12.5	5.5	11.5	8.0	12.5			4.0	3.5		9.5		1.0	7.5	4.5	

	VX	AR	DL	DY	SZ	UU	DG	DH	RR	SS	TV	WW	SZ	RZ	AV	RV
	HER	HER	HER	HER	HYA	HYA	HYA	HYA	LEO	LEO	LEO	LEO	LYN	LYR	PEG	UMA
MAX	9.9	10.6	11.0	10.2	10.6	10.7	11.6	11.4	10.0	10.5	11.5	11.0	9.1	10.0	9.9	10.1
MIN	10.4	11.6	12.4	10.6	11.7	12.3	12.6	12.6	11.7	12.0	12.6	12.0	9.6	12.0	10.9	11.2
RISE	2	2	1	1	2	2	3	2	2	2	2	3	1	2	2	3
0- 1		6.0	11.0	10.5	11.0	7.5	8.0	7.5	9.5	5.0	11.0		4.5	0.5		6.5
1- 2					13.0	9.0	2.0	7.0	7.0	11.5		4.0	6.5	1.5	1.5	5.0
2- 3						10.0		6.0	5.0		11.5	9.0	8.5			3.5
3- 4	11.0	13.0	10.0		3.5	11.0	8.5	5.5	2.5	8.5			1.5		0.5	2.0
4- 5	9.0	0.5		11.0	5.5	12.0	2.5	5.0	11.0		12.0	4.5	4.0			0.5
5- 6		10.0			7.0			4.5	9.0	5.5	4.5	9.5	6.0			10.0
6- 7		8.5			9.0		9.0	4.0	6.5	11.5	12.5		8.0		3.5	8.5
7- 8		7.0			10.5	3.0	3.0	3.5	4.0		4.5	5.0	1.0			7.0
8- 9	11.5	6.0		11.0	12.5	4.0		3.0	2.0	8.5		10.0	3.0		2.0	5.5
9-10	9.0					5.5	9.0	2.5	10.5		5.0		5.5			4.0
10-11			12.5		3.0	6.5	3.5		8.0	6.0		5.0	7.5		1.0	2.5
11-12		12.5			5.0	7.5			6.0	12.0	5.5	10.0	0.5			1.0
12-13		0.0		11.5	6.5	9.0	9.5	12.5	3.5				2.5			10.5
13-14	11.5	10.0	11.5	9.0	8.5	10.0	3.5	12.0	12.0	9.0	6.0	5.5	4.5			9.0
14-15	9.5	8.5			10.5	11.0		11.5	10.0			10.5	7.0			7.5
15-16		7.0			12.0	12.0	10.0	11.0	7.5	6.0	6.5		0.0		3.0	6.0
16-17		5.5	10.5	11.5			4.0	10.5	5.5	12.0		6.0	2.0			4.5
17-18				9.0	2.5			10.0	3.0		7.0	11.0	4.0	10.0	1.5	3.0
18-19	12.0				4.5	3.0	10.5	9.5	11.5	9.0			6.0	10.5		1.5
19-20	9.5	12.5	9.5		6.5	4.0	4.5	9.0	9.5		7.5	6.0	8.5	11.0	0.5	11.0
20-21		11.0		12.0	8.0	5.5		8.5	7.0	6.5		11.0	1.5	11.5		9.5
21-22		9.5		9.5	10.0	6.5	11.0	8.0	5.0	12.5	8.0		3.5	12.0		8.0
22-23		8.0			11.5	7.5	5.0	7.5	2.5			6.5	5.5	0.5	3.5	6.5
23-24	12.0	6.5	13.0			9.0		7.0	11.0	9.5	8.5	11.5	7.5	1.0		5.0
24-25	10.0	5.5		12.5		10.0	11.5	6.5	9.0			2.0	1.0	1.5	2.5	3.5
25-26				10.0	4.0	11.0	5.5	6.0	6.5	6.5	8.5	7.0	3.0			2.0
26-27			12.0		6.0	12.0		5.5	4.0	12.5		12.0	5.0		1.0	0.5
27-28		12.5			7.5		11.5	5.0	2.0		9.0	2.5	7.0			10.0
28-29	12.0	11.0		12.5	9.5		6.0	4.5	10.5	9.5		7.0	0.5		0.0	8.5
29-30	10.0	9.5	11.0	10.0	11.5	3.0		3.5	8.0		9.5	12.0	2.5			7.0
30-31		8.0				4.5	12.0	3.0	6.0	7.0		2.5	4.5			5.5

	SW	XX	AT	SW	TZ	BH	RS	ST	SW	SZ	TV	TW	UU	UY	RW	TT	RR	XZ	DM	RW	XZ	RR	TW
	AND	AND	AND	AQR	AUR	AUR	BOO	BOO	BOO	BOO	BOO	BOO	BOO	BOO	CNC	CNC	CET	CYG	CYG	DRA	DRA	GEM	HER
MAX	9.3	10.3	10.8	10.5	11.2	11.1	9.8	10.6	11.3	12.0	10.8	10.8	11.2	10.6	10.7	11.0	9.3	9.1	11.2	11.0	9.6	10.7	10.5
MIN	10.8	11.6	11.5	12.1	12.8	12.6	11.3	11.8	12.7	13.4	11.5	12.1	12.7	12.0	12.6	12.3	10.3	10.5	12.7	12.0	10.3	11.9	11.8
RISE	2	3	3	1	2	2	2	3	2	2	3	2	1	2	2	3	2	3	2	2	3	2	2
0- 1	2.5				9.0	6.5	6.0		6.0	12.5	6.5			7.5	6.5	7.0		8.0		9.0	6.5	9.0	8.5
1- 2			12.0		4.0	4.5	9.5	9.5	6.5		5.0	3.0	11.0		8.5	10.0		6.0	0.5	6.0	5.5	4.0	
2- 3		2.5	3.0		8.0	2.5	12.5		7.5		3.5	4.5	9.0	6.5	11.0		1.0	4.5		3.5	4.0	8.5	8.5
3- 4	4.5				3.0	0.5	6.5	6.5	8.0		2.0	6.0	7.0		0.0	2.5	3.5	3.0	13.0	0.5	3.0	3.5	
4- 5	2.0				7.0	9.0	10.0	12.0	8.5	4.0	8.0	7.5	5.0	5.0	2.5	5.5		1.5		8.5	2.0	8.0	8.0
5- 6		0.0	5.0		2.0	7.0	4.0		9.5	5.5	6.5	9.0		12.5	4.5	8.5		11.0		5.5	1.0	3.5	
6- 7					6.0	5.0	7.0	9.0	10.0	6.5	5.0	11.0	11.5	4.0	7.0	11.5		9.5	1.5	3.0	11.0	8.0	8.0
7- 8	4.0	4.0	1.0		1.0	3.0	10.0		10.5	7.5	3.5	12.5	9.5	11.5	9.0	1.0	0.0	7.5		0.5	10.0	3.0	13.0
8- 9	1.5				5.0	1.0	4.5	5.5	11.0	8.5	2.0		7.5		11.5	4.0	3.0	6.0		8.0	9.0	7.5	8.0
9-10			12.5	12.5	0.0	9.5	7.5	11.5	12.0	9.5	8.0	2.5	5.5	10.0	0.5	7.0		4.5		5.5	7.5	2.5	13.0
10-11		1.5	3.5		4.0	7.5	10.5		12.5	11.0	6.5	4.0			2.5	10.0		3.0		2.5	6.5	7.5	8.0
11-12	4.0				8.5	5.5	5.0	8.5		12.0	5.0	5.5	12.5	9.0	5.0			1.5	12.5	10.5	5.5	2.5	13.0
12-13	1.0	5.5			3.0	3.5	8.0			13.0	3.5	7.5	10.5		7.5	3.0		11.0		8.0	4.5	7.0	8.0
13-14			5.5		7.5	1.0	11.0	5.0			2.0	9.0	8.0	8.0	9.5	6.0	2.0	9.5		5.0	3.0	2.0	13.0
14-15					2.0	10.0	5.0	11.0			8.0	10.5	6.0		12.0	9.0		7.5	1.0	2.5	2.0	6.5	8.0
15-16	3.5	3.0	1.5		6.5	8.0	8.5		3.5		6.5	12.0	4.0	7.0	1.0	12.0		6.0		10.0	1.0	1.5	13.0
16-17	0.5				1.0	6.0	11.5	8.0	4.0	5.0	5.0		13.0		3.0	1.5		4.5		7.5	11.5	6.5	8.0
17-18			13.0		5.5	3.5	5.5		5.0	6.0	3.5		11.0	5.5	5.5	4.5		3.0		4.5	10.0	1.5	12.5
18-19		0.5	3.5		0.0	1.5	9.0	4.5	5.5	7.0	2.0	4.0	9.0	13.0	7.5	7.5	1.5	1.5		2.0	9.0	6.0	8.0
19-20	3.0				4.5		12.0	10.5	6.0	8.0	8.0	5.5	7.0	4.5	10.0	10.5	4.0	11.0	2.0	10.0	8.0	1.0	12.5
20-21	0.0	4.5	0.0		8.5	8.5	6.0		6.5	9.0	6.5	7.0	4.5	11.5	12.5	0.0		9.5		7.0	6.5	5.5	8.0
21-22				0.0	3.5	6.0	9.5	7.5	7.5	10.5	5.0	8.5			1.5	3.0		7.5		4.5	5.5	0.5	12.5
22-23			11.5		7.5	4.0	12.5		8.0	11.5	3.5	10.0	11.5	10.5	3.5	6.0		6.0	0.5	1.5	4.5	5.5	8.0
23-24	2.5	2.0	2.0		2.5	2.0	6.5	4.0	8.5	12.5	2.0	11.5	9.5		6.0	9.0	1.0	4.5		9.5	3.5	0.5	12.5
24-25					6.5		9.5	10.0	9.5		8.0		7.5	9.5	8.0		3.5	3.0	13.0	7.0	2.0	5.0	8.0
25-26		6.0			1.5	8.5	4.0		10.0		6.5		5.5		10.5	2.0		1.5		4.0	1.0	0.0	12.5
26-27	4.5		4.0	12.5	5.5	6.5	7.0	7.0	10.5		5.0	3.5		8.5	12.5	5.0		11.0		1.5	11.5	4.5	7.5
27-28	2.0				0.5	4.5	10.0	12.5	11.5	4.5	3.5	5.0	12.0		2.0	8.0		9.5	1.0	9.0	10.5	9.5	12.5
28-29		3.0	0.5		4.5	2.5	4.5		12.0	5.5	2.0	6.5	10.0	7.0	4.0	11.0	0.5	7.5		6.5	9.0	4.5	7.5

	VX	AR	DL	DY	SZ	UU	DG	DH	RR	SS	TV	WW	SZ	RZ	AV	RV
	HER	HER	HER	HER	HYA	HYA	HYA	HYA	LEO	LEO	LEO	LEO	LYN	LYR	PEG	UMA
MAX	9.9	10.6	11.0	10.2	10.6	10.7	11.6	11.4	10.0	10.5	11.5	11.0	9.1	10.0	9.9	10.1
MIN	10.4	11.6	12.4	10.6	11.7	12.3	12.6	12.6	11.7	12.0	12.6	12.0	9.6	12.0	10.9	11.2
RISE	2	2	1	1	2	2	3	2	2	2	2	3	1	2	2	3
0- 1		6.5			2.0	5.5	6.0	2.5	3.5	13.0	10.0	7.5	6.5		12.5	4.0
1- 2		5.0	10.0	13.0	3.5	6.5	0.5	2.0	1.5	4.0		12.5	0.0			2.5
2- 3	12.5	3.5		10.5	5.5	7.5		1.5	10.0	10.0	10.5	3.0	2.0		2.0	1.0
3- 4	10.5			8.0	7.5	9.0	6.5	1.0	7.5		2.5	8.0	4.0			10.5
4- 5	8.0	12.0	9.0		9.0	10.0	0.5	0.5	5.5	7.0	11.0		6.0		0.5	9.0
5- 6		10.5			11.0	11.0			3.0		3.0	3.5	8.0	8.0		7.5
6- 7		9.0		10.5		12.5	7.0	11.0	1.0	4.0	11.5	8.5	1.5	8.5		6.0
7- 8	12.5	7.5	8.0	8.0	1.5	1.0	1.0	10.5	9.5	10.0	3.5		3.5	9.0	13.0	4.5
8- 9	10.5	6.5	12.5		3.5	2.0		10.0	7.0		12.0	3.5	5.5	9.5		3.0
9-10	8.5	5.0			5.0	3.0	7.5	9.5	5.0	7.5	4.0	8.5	7.5	10.0	12.0	1.5
10-11		3.5		11.0	7.0	4.5	1.5	9.0	2.5		12.5		1.0	10.5		11.0
11-12			11.5	8.5	8.5	5.5		8.5	0.5	4.5	4.5	4.0	3.0	11.0	1.5	9.5
12-13	13.0	12.0			10.5	6.5	8.0	8.0	9.0	10.5	12.5	9.0	5.0	11.5		8.0
13-14	10.5	10.5				7.5	2.0	7.5	6.5		5.0		7.0	12.0	0.0	6.5
14-15	8.5	9.0	10.5	11.5	1.0	9.0		7.0	4.5	7.5		4.5	0.5	13.0		5.0
15-16	6.5	7.5		8.5	3.0	10.0	8.0	6.5	2.0		5.5	9.5	2.5			3.5
16-17		6.0			4.5	11.0	2.5	6.0	10.5	4.5			4.5		12.5	2.0
17-18		4.5	9.5		6.5	12.5		5.5	8.5	10.5	6.0	4.5	6.5			0.5
18-19	11.0	3.0		11.5	8.5	1.0	8.5	5.0	6.0			9.5	8.5			10.0
19-20	9.0	13.0		9.0	10.0	2.0	2.5	4.5	3.5	8.0	6.0	0.0	2.0			8.5
20-21	6.5	11.5	8.5			3.0		4.0	1.5			5.0	4.0		1.0	7.0
21-22		10.0	12.5		1.0	4.5	9.0	3.5	10.0	5.0	6.5	10.0	6.0			5.5
22-23		8.5		12.0	2.5	5.5	3.0	3.0	7.5	11.0		0.5	8.0			4.0
23-24	11.0	7.0		9.5	4.5	6.5		2.5	5.5		7.0	5.5	1.5			2.5
24-25	9.0	6.0	11.5	7.0	6.0	8.0	9.5	1.5	3.0	8.0		10.5	3.5			1.0
25-26	7.0	4.5			8.0	9.0	3.5	1.0	1.0		7.5	1.0	5.5		12.0	10.5
26-27				12.5	9.5	10.0		0.5	9.5	5.0		5.5	7.5			9.0
27-28		12.5	10.5	9.5		11.0	10.0		7.0	11.0	8.0	10.5	1.0	7.5	1.5	7.5
28-29	11.5	11.5		7.0		12.5	4.0		5.0			1.0	3.0	8.0		6.0

	SW	XX	AT	SW	TZ	BH	RS	ST	SW	SZ	TV	TW	UU	UY	RW	TT	RR	XZ	DM	RW	XZ	RR	TW
	AND	AND	AND	AQR	AUR	AUR	BOO	BOO	BOO	BOO	BOO	BOO	BOO	BOO	CNC	CNC	CET	CYG	CYG	DRA	DRA	GEM	HER
MAX	9.3	10.3	10.8	10.5	11.2	11.1	9.8	10.6	11.3	12.0	10.8	10.8	11.2	10.6	10.7	11.0	9.3	9.1	11.2	11.0	9.6	10.7	10.5
MIN	10.8	11.6	11.5	12.1	12.8	12.6	11.3	11.8	12.7	13.4	11.5	12.1	12.7	12.0	12.6	12.3	10.3	10.5	12.7	12.0	10.3	11.9	11.8
RISE	2	3	3	1	2	2	2	3	2	2	3	2	1	2	2	3	2	3	2	2	3	2	2
0- 1					9.0		7.5	9.5		6.5	0.5	8.0	8.0		6.5	0.5		6.0		4.0	8.0	9.0	12.5
1- 2			12.0		3.5		10.5			7.5	6.5	9.5	6.0	6.0	8.5	3.5		4.5	10.0	1.0	7.0	4.0	7.5
2- 3	1.5	0.5	2.5		8.0	7.0	4.5	6.5	1.5	8.5	5.0	11.0	4.0		11.0	6.5		3.0		9.0	6.0	8.5	12.5
3- 4				11.5	2.5	5.0	8.0	12.0	2.0	10.0	3.5			5.0		9.5		1.5	12.0	6.0	4.5	3.5	7.5
4- 5		4.5			7.0	3.0	2.0	3.0	3.0	11.0	2.5	1.5	10.5	12.0	2.5			11.0	8.5	3.5	3.5	8.5	12.5
5- 6					1.5	0.5	5.0	9.0	3.5	12.0	1.0	3.0	8.5	4.0	4.5	2.0		9.0		0.5	2.5	3.5	7.5
6- 7	1.0		10.5		6.0		8.5		4.0		7.0	4.5	6.5	11.0	7.0	5.0		7.5	11.0	8.5	1.0	8.0	12.5
7- 8		2.0	1.0		0.5	7.5	2.5	6.0	5.0		5.5	6.0	4.5	2.5	9.0	8.0		6.0		6.0	11.5	3.0	7.5
8- 9					5.0	5.5	5.5	11.5	5.5	2.5	4.0	7.5	2.5	10.0	11.5			4.5		3.0	10.5	7.5	12.0
9-10			12.5	11.0	9.0	3.0	9.0	2.5	6.0	4.0	2.5	9.0	11.5		0.5	1.0		3.0	9.5	11.0	9.5	2.5	7.5
10-11	0.5		3.0		4.0	1.0	3.0	8.5	6.5	5.0	1.0	11.0	9.5	8.5	3.0	4.0	2.0	1.0		8.0	8.0	7.5	12.0
11-12					8.0		6.0		7.5	6.0	7.0	12.5	7.0		5.0	7.0		11.0	11.5	5.5	7.0	2.5	7.5
12-13		3.5			3.0	8.0	9.5	5.5	8.0	7.0	5.5	1.0	5.0	7.5	7.5	10.0		9.0		3.0	6.0	7.0	12.0
13-14	3.0				7.0	5.5	3.5	11.0	8.5	8.0	4.0	2.5	3.0		9.5			7.5		10.5	5.0	2.0	7.5
14-15			11.0	12.0	2.0	3.5	6.5	2.0	9.5	9.5	2.5	4.0	12.0	6.5	12.0	2.5		6.0	10.0	8.0	3.5	6.5	12.0
15-16		1.0	1.5	10.0	6.0	1.5	9.5	8.0	10.0	10.5	1.0	6.0	10.0		1.0	5.5	1.5	4.5		5.0	2.5	1.5	7.5
16-17		11.5			1.0		4.0		10.5	11.5	7.0	7.5	8.0	5.5	3.0	8.5		3.0		2.5	1.5	6.5	12.0
17-18	2.5				5.0		7.0	5.0	11.5		5.5	9.0	6.0		5.5			1.0	9.0	10.5	11.5	1.5	7.0
18-19			3.5		9.5	6.0	10.0	10.5	12.0		4.0	10.5	3.5	4.0	8.0	1.0		11.0		7.5	10.5	6.0	12.0
19-20					4.0	4.0	4.5			2.0	2.5	12.0		11.5	10.0	4.0		9.0	11.0	5.0	9.5	1.0	7.0
20-21		2.5		11.5	8.5	2.0	7.5	7.5		3.5	1.0		10.5	3.0		7.5	1.0	7.5		2.0	8.5	5.5	12.0
21-22	2.0				3.0		10.5		1.5	4.5	7.0	2.5	8.5	10.5	1.5			6.0		10.0	7.0	1.0	7.0
22-23			11.5		7.5		4.5	4.5	2.0	5.5	5.5	4.0	6.5		3.5			4.5	9.5	7.5	6.0	5.5	12.0
23-24			2.0		2.0	6.5	8.0	10.0	3.0	6.5	4.0	5.5	4.5	9.0	6.0	3.0		3.0		4.5	5.0	0.5	7.0
24-25					6.5	4.5	2.0		3.5	7.5	2.5	7.0	2.5		8.0	6.0		1.0	12.0	2.0	4.0	5.0	12.0
25-26	1.5	3.5			1.0	2.5	5.0	7.0	4.0	9.0	1.0	8.5	11.0	8.0	10.5	9.0		11.0		9.5	2.5	9.5	7.0
26-27				11.0	5.5		8.5		5.0	10.0	7.0	10.0	9.0					9.0		7.0	1.5	4.5	12.0
27-28			9.5		9.5		2.5	3.5	5.5	11.0	5.5	11.5	7.0	7.0	2.0	1.5		7.5	10.5	4.0	12.0	9.5	7.0
28-29		1.0	0.5		4.5	7.0	5.5	9.5	6.0	12.0	4.0		5.0		4.0	4.5		6.0		1.5	10.5	4.5	12.0
29-30	1.0	12.0			8.5	5.0	9.0		7.0		2.5	2.0	3.0	5.5	6.5	7.5		4.5		9.5	9.5	9.0	7.0
30-31			11.5		3.5	2.5	3.0	6.5	7.5		1.0	3.5	12.0		8.5			3.0	9.0	6.5	8.5	4.0	11.5

	VX	AR	DL	DY	SZ	UU	DG	DH	RR	SS	TV	WW	SZ	RZ	AV	RV
	HER	HER	HER	HER	HYA	HYA	HYA	HYA	LEO	LEO	LEO	LEO	LYN	LYR	PEG	UMA
MAX	9.9	10.6	11.0	10.2	10.6	10.7	11.6	11.4	10.0	10.5	11.5	11.0	9.1	10.0	9.9	10.1
MIN	10.4	11.6	12.4	10.6	11.7	12.3	12.6	12.6	11.7	12.0	12.6	12.0	9.6	12.0	10.9	11.2
RISE	2	2	1	1	2	2	3	2	2	2	2	3	1	2	2	3
0- 1	9.0	10.0			2.0	1.0			2.5	8.5	8.5	6.0	5.0	8.5	9.5	4.5
1- 2	7.0	8.5	9.5		4.0	2.0			11.0		0.5		7.0	9.0		3.0
2- 3	5.0	7.0		10.0	6.0	3.0	4.5		9.0	5.5	9.0	1.5	9.0	9.5		1.5
3- 4		5.5		7.5	7.5	4.5		9.5	6.5	11.5	1.0	6.5	2.5	10.0		11.0
4- 5	11.5	4.0	8.5	5.0	9.5	5.5		8.5	4.5	2.5	9.5		4.5	10.5		9.5
5- 6	9.5	2.5				6.5	5.0	8.0	2.0	8.5	1.5	2.0	6.5	11.5	11.5	8.0
6- 7	7.5	1.0		10.5		8.0		7.5	10.5		10.0	6.5	8.5	12.0		6.5
7- 8	5.0	11.0	7.5	7.5	2.0	9.0		7.0	8.5	5.5	2.0		2.0	12.5	10.5	5.0
8- 9		9.5	12.0	5.0	3.5	10.0	5.0	6.5	6.0	12.0	10.0	2.0	4.0			3.5
9-10	12.0	8.0			5.5			6.0	3.5	3.0	2.5	7.0	6.0			2.0
10-11	9.5	6.5	6.5	10.5	7.0			5.5	1.5	9.0	10.5		8.0			11.5
11-12	7.5	5.5	11.0	8.0	9.0	1.0	5.5	5.0	10.0		3.0	2.5	1.5			10.0
12-13	5.5	4.0		5.5		2.0		4.5	7.5	6.0	11.0	7.5	3.5		12.0	8.5
13-14		2.5	5.5			3.0		4.0	5.5	12.0	3.5		5.5			7.0
14-15	12.0	12.0	10.0	11.0	1.5	4.5	6.0	3.5	3.0	3.0	11.5	3.0	7.5		11.0	5.5
15-16	10.0	11.0		8.5	3.0	5.5		3.0	1.0	9.0	3.5	8.0	1.0			4.0
16-17	7.5	9.5		5.5	5.0	6.5		2.5	9.5				3.0		10.0	2.5
17-18	5.5	8.0	9.0		7.0	8.0	6.5	2.0	7.0	6.0	4.0	3.0	5.0			1.0
18-19		6.5		11.0	8.5	9.0	0.5	1.5	5.0	12.5		8.0	7.0	6.0		10.5
19-20	12.0	5.0		8.5		10.0		1.0	2.5	3.5	4.5		9.0	6.5		9.0
20-21	10.0	3.5	8.0	6.0			7.0		11.0	9.5		3.5	2.5	7.0		7.5
21-22	8.0	2.0	12.5		1.0		1.0		9.0		5.0	8.5	4.5	7.5	11.5	6.0
22-23	6.0	12.0		11.5	3.0	1.0			6.5	6.5			6.5	8.0		4.5
23-24		10.5	7.0	9.0	4.5	2.0	7.0		4.5		5.5	4.0	8.5	8.5	10.5	3.0
24-25	12.5	9.0	11.5	6.5	6.5	3.5	1.5		2.0	3.5		9.0	1.5	9.5		1.5
25-26	10.5	7.5			8.0	4.5			10.5	9.5	6.0		4.0	10.0		11.0
26-27	8.0	6.0	6.0	12.0		5.5	7.5	9.0	8.5	0.5		4.0	6.0	10.5		9.5
27-28	6.0	5.0	10.5	9.5		6.5	1.5	8.5	6.0	6.5	6.5	9.0	8.0	11.0		8.0
28-29		3.5		6.5	0.5	8.0		8.0	3.5				1.0	11.5	12.0	6.5
29-30		2.0			2.5	9.0	8.0	7.5	1.5	4.0	7.0	4.5	3.0	12.0		5.0
30-31	10.5	11.5	9.5	12.0	4.0	10.0	2.0	6.5	10.0	10.0		9.5	5.5	12.5	11.0	3.5

	SW	XX	AT	SW	TZ	BH	RS	ST	SW	SZ	TV	TW	UU	UY	RW	TT	XZ	DM	RW	XZ	RR	TW	VX
	AND	AND	AND	AQR	AUR	AUR	BOO	BOO	BOO	BOO	BOO	BOO	BOO	BOO	CNC	CNC	CYG	CYG	DRA	DRA	GEM	HER	HER
MAX	9.3	10.3	10.8	10.5	11.2	11.1	9.8	10.6	11.3	12.0	10.8	10.8	11.2	10.6	10.7	11.0	9.1	11.2	11.0	9.6	10.7	10.5	9.9
MIN	10.8	11.6	11.5	12.1	12.8	12.6	11.3	11.8	12.7	13.4	11.5	12.1	12.7	12.0	12.6	12.3	10.5	12.7	12.0	10.3	11.9	11.8	10.4
RISE	2	3	3	1	2	2	2	3	2	2	3	2	1	2	2	3	3	2	2	3	2	2	2
0- 1					7.5		6.0		8.0	3.0	7.0	5.0	10.0	4.5			1.0		4.0	7.5		7.0	8.5
1- 2			8.0	10.0	2.5		9.0	3.0	8.5	4.0	5.5	6.5	7.5			3.0	11.0	11.5	1.0	6.0	4.0	11.5	6.0
2- 3	11.0	2.5		8.0	6.5		3.5	9.0	9.5	5.0	4.0	8.0	5.5	3.5	2.5	6.5	9.0	7.5	9.0	5.0		7.0	4.0
3- 4					1.5	5.5	6.5		10.0	6.0	2.5	9.5	3.5	10.5	4.5		7.5		6.5	4.0	3.5	11.5	
4- 5			10.0		5.5	3.0	9.5	6.0	10.5	7.0	8.5	11.0	1.5	2.5	7.0		6.0	10.0	3.5	3.0		7.0	10.5
5- 6			1.0			1.0	4.0	12.0	11.5	8.5	7.0		10.5	9.5	9.0	2.0	4.5	6.0	11.5	1.5	3.0	11.5	8.5
6- 7	10.5	10.5		11.5	4.5		7.0	2.5		9.5	5.5	1.5	8.5	1.0		5.0	2.5		8.5		7.5	6.5	6.5
7- 8				9.5	8.5		1.0	8.5		10.5	4.0	3.0	6.5	8.5		8.0	1.0	8.5	6.0	11.0	3.0	11.5	4.5
8- 9					3.5	5.5	4.0		1.0	11.5	2.5	4.5	4.0		3.0		10.5		3.0	9.5	7.5	6.5	
9-10			8.5		7.5	3.5	7.5	5.5	1.5		1.0	6.0	2.0	7.5	5.0		9.0	11.0	11.0	8.5	2.5	11.5	11.0
10-11	10.0	1.5			2.5	1.5	1.5	11.0	2.5	1.0	7.0	7.5	11.0		7.5	3.5	7.5	7.0	8.5	7.5	7.0	6.5	9.0
11-12					6.5		4.5	2.0	3.0	2.5	5.5	9.5	9.0	6.0	9.5	6.5	6.0		5.5	6.5	2.0	11.5	6.5
12-13			10.5	10.5	1.5		8.0	8.0	3.5	3.5	4.0	11.0	7.0				4.5	9.5	3.0	5.0	6.5	6.5	4.5
13-14			1.5	8.5	5.5	6.0	2.0		4.0	4.5	2.5		5.0	5.0	1.0		2.5		11.0	4.0	2.0	11.5	2.5
14-15	9.5					4.0	5.0	5.0	5.0	5.5	1.0	1.0	3.0		3.5	2.5	1.0		8.0	3.0	6.5	6.5	11.0
15-16					4.5	2.0	8.5	10.5	5.5	6.5	7.0	2.5	11.5	4.0	5.5	5.5	10.5	8.0	5.5	2.0	1.5	11.5	9.0
16-17						2.5	1.5	6.0	8.0	5.5	4.0	9.5	11.0	8.0			9.0		2.5		6.0	6.5	7.0
17-18			9.0		3.5		5.5	7.5	7.0	9.0	4.0	6.0	7.5	2.5			7.5	10.5	10.5	11.0	1.0	11.5	4.5
18-19				10.0	8.0		9.0		7.5	10.0	2.5	7.5	5.5	10.0		1.0	6.0	6.5	7.5	10.0	6.0	6.5	2.5
19-20		11.0			2.5	4.5	3.0	4.5	8.0	11.0	1.0	9.0	3.5	1.5	1.5	4.0	4.5		5.0	9.0		11.0	11.5
20-21			11.0		7.0	2.5	6.0	10.0	9.0		7.0	10.5	1.5	9.0	3.5	7.0	2.5	9.0	2.0	7.5	5.5	6.5	9.0
21-22	11.5				1.5		9.0	1.0	9.5		5.5		10.0		6.0		1.0		10.0	6.5		11.0	7.0
22-23			7.5		6.0		3.5	7.0	10.0	2.0	4.0		8.0	7.5	8.5		10.5	11.5	7.5	5.5	5.0	6.5	5.0
23-24		1.5		11.0			6.5		10.5	3.0	2.5	2.5	6.0			2.5	9.0	7.5	4.5	4.0		11.0	3.0
24-25				9.0	5.0	5.0	9.5	4.0	11.5	4.0	1.0	4.0	4.0	6.5		5.5	7.5		2.0	3.0	5.0	6.5	11.5
25-26	11.0		9.5			2.5	4.0	9.5		5.0	7.0	5.5	2.0		2.0		6.0	10.0	10.0	2.0		11.0	9.5
26-27					4.0		7.0			6.0	5.5	7.0	11.0	5.5	4.0		4.5		7.0		4.5	6.5	7.5
27-28		9.5			8.0		1.0	6.5	1.0	7.5	4.0	8.5	9.0		6.5	1.5	2.5		4.5	11.0		11.0	5.0
28-29			11.5		3.0		4.0		1.5	8.5	2.5	10.0	6.5	4.0	8.5	4.5	1.0	8.5	1.5	10.0	4.0	6.0	3.0
29-30	10.5			10.5	7.0	5.0	7.5	3.5	2.5	9.5	1.0	11.5	4.5	11.5		7.5	10.5		9.5	9.0		11.0	

	AR	DL	DY	SZ	UU	DG	DH	RR	SS	TV	WW	SZ	RZ	AV	RV
	HER	HER	HER	HYA	HYA	HYA	HYA	LEO	LEO	LEO	LEO	LYN	LYR	PEG	UMA
MAX	10.6	11.0	10.2	10.6	10.7	11.6	11.4	10.0	10.5	11.5	11.0	9.1	10.0	9.9	10.1
MIN	11.6	12.4	10.6	11.7	12.3	12.6	12.6	11.7	12.0	12.6	12.0	9.6	12.0	10.9	11.2
RISE	2	1	1	2	2	3	2	2	2	2	3	1	2	2	3
0- 1	10.5		9.5	6.0			6.0	7.5	1.0	7.5		7.5			2.0
1- 2	9.0	4.0	7.0				5.5	5.5	7.0		5.0	9.5		10.0	11.5
2- 3	7.5	8.5	4.5		1.0	2.5	5.0	3.0		7.5		2.5			10.0
3- 4	6.0				2.0		4.5		4.0			4.5		9.0	8.5
4- 5	4.5		10.0		3.5		4.0	9.5	10.0	8.0	5.0	7.0			7.0
5- 6	3.0	7.5	7.5	2.0	4.5	3.0	3.5	7.0	1.0			9.0		7.5	5.5
6- 7	1.5		4.5	4.0	5.5		3.0	5.0	7.0	8.5		2.0	4.0	11.5	4.0
7- 8	11.5			5.5	6.5		2.5	2.5			5.5	4.0	4.5		2.5
8- 9	10.0	6.5	10.0	7.5	8.0	3.5	2.0		4.5	9.0		6.0	5.0	10.5	
9-10	8.5	11.0	7.5				1.5	9.0		1.0	1.0	8.5	5.5		10.5
10-11	7.0		5.0				1.0	6.5	1.5	9.5	6.0	1.5	6.0	9.5	9.0
11-12	5.5	5.5				4.0		4.5	7.5	1.5		3.5	6.5		7.5
12-13	4.5	10.0	10.5	1.5				2.0			1.5	5.5	7.5	8.5	6.0
13-14	3.0		8.0	3.5	1.0				4.5	2.0	6.5	7.5	8.0		4.5
14-15	1.5	4.5	5.5	5.0	2.0	4.0		8.5				1.0	8.5		3.0
15-16	11.5	9.0	2.5	7.0	3.5			6.0	1.5	2.5	1.5	3.0	9.0	11.0	1.5
16-17	10.0		11.0		4.5			4.0	8.0		6.5	5.0	9.5		11.0
17-18	8.5	3.5	8.0		5.5	4.5		1.5		3.0		7.0	10.0	10.0	9.5
18-19	7.0	8.0	5.5		7.0			10.0	5.0		2.0	9.0	10.5		8.0
19-20	5.5		3.0	1.5	8.0			8.0		3.5	7.0	2.5	11.0	9.0	6.5
20-21	4.0		11.0	3.0		5.0		5.5	2.0			4.5	11.5		5.0
21-22	2.5	7.0	8.5	5.0			7.0	3.0	8.0	4.0	2.5	6.5		8.0	3.5
22-23	1.0	11.0	6.0	6.5			6.5				7.5	8.5			2.0
23-24	11.0		3.5			5.5	6.0	9.5	5.0	4.5		2.0			11.5
24-25	9.5	6.0	11.5		1.0		5.5	7.0			2.5	4.0		10.5	10.0
25-26	8.0	10.0	9.0		2.0		5.0	5.0	2.0	5.0	7.5	6.0			8.5
26-27	6.5		6.5		3.5	6.0	4.0	2.5	8.5			8.0		9.5	7.0
27-28	5.0	5.0	3.5	2.5	4.5		3.5			5.0	3.0	1.5			5.5
28-29	4.0	9.0		4.5	5.5		3.0	9.0	5.5		8.0	3.5	3.5	8.5	4.0
29-30	2.5		9.0	6.0	7.0	6.0	2.5	6.5		5.5		5.5	4.0		2.5

	SW	XX	AT	SW	TZ	BH	RS	ST	SW	SZ	TV	TW	UU	UY	RW	TT	RR	XZ	DM	RW	XZ	RR	TW	
	AND	AND	AND	AQR	AUR	AUR	BOO	BOO	BOO	BOO	BOO	BOO	BOO	BOO	CNC	CNC	CET	CYG	CYG	DRA	DRA	GEM	HER	
MAX	9.3	10.3	10.8	10.5	11.2	11.1	9.8	10.6	11.3	12.0	10.8	10.8	11.2	10.6	10.7	11.0	9.3	9.1	11.2	11.0	9.6	10.7	10.5	
MIN	10.8	11.6	11.5	12.1	12.8	12.6	11.3	11.8	12.7	13.4	11.5	12.1	12.7	12.0	12.6	12.3	10.3	10.5	12.7	12.0	10.3	11.9	11.8	
RISE	2	3	3	1	2	2	2	3	2	2	3	2	1	2	2	3	2	3	2	2	3	2	2	
0- 1	8.0		8.0	8.5	2.0	3.0	1.5	9.0	3.0	10.5	7.0		2.5	3.0				9.0	11.0	6.5	8.0	4.0	6.0	
1- 2				6.5	6.0		4.5		3.5		5.5	2.0		10.5	2.5			7.5	7.0	4.0	6.5		11.0	
2- 3		11.0					8.0	6.0	4.0		4.0	3.5	9.5	2.0	4.5	3.0		6.0			5.5	3.5	6.0	
3- 4	10.0		10.0		5.0		2.0		5.0		2.5	5.0	7.5	9.0	7.0	6.0		4.5	9.5	9.0	4.5		11.0	
4- 5							5.0	3.0	5.5	2.5	8.5	6.5	5.5					2.5	5.5	6.5	3.5	3.0	6.0	
5- 6		8.5	6.5	10.0	4.0	3.5	8.5	8.5	6.0	3.5	7.0	8.0	3.0	8.0						3.5	2.0		11.0	
6- 7				8.0		1.5	2.5		7.0	4.5	5.5	9.5				1.5		10.5	8.0			3.0	6.0	
7- 8	9.5				3.0		5.5	5.5	7.5	5.5	4.0		10.0	7.0	3.0	4.5		9.0		9.0			11.0	
8- 9			8.5				8.5		8.0	7.0	2.5		8.0		5.0			7.5	10.5	6.0	10.0	2.5	6.0	
9-10					2.0		3.0	2.5	9.0	8.0	8.5	1.5	6.0	6.0	7.5			6.0	6.5	3.5	9.0		10.5	
10-11		10.0		11.0	6.5	4.0	6.0	8.0	9.5	9.0	7.0	3.0	4.0					4.0				8.0	2.0	6.0
11-12	9.0		10.5	9.0		2.0	9.0		10.0	10.0	5.5	4.5	2.0	4.5		3.5		2.5	9.0	8.5	7.0		10.5	
12-13				7.0	5.5		3.5	5.0	10.5	11.0	4.0	6.0	10.5						5.0	5.5	5.5	2.0	6.0	
13-14			7.0				6.5	11.0			2.5	7.5	8.5	3.5	3.5			10.5		3.0	4.5		10.5	
14-15					4.5		9.5	1.5			8.5	9.5	6.5	11.0	5.5			9.0	7.5	11.0	3.5	1.5	6.0	
15-16	8.5						3.5	7.5		2.0	7.0	11.0	4.5	2.5	8.0	2.0	11.0	7.5		8.0	2.5		10.5	
16-17			9.0	10.5	3.5	2.0	7.0			3.0	5.5		2.5	9.5		5.0		6.0	9.5	5.5			6.0	
17-18				8.5			10.0	4.5	1.5	4.0	4.0							4.0	6.0	2.5		6.0	10.5	
18-19	11.0	8.5		6.5	2.5		4.0	10.5	2.5	5.0	2.5	2.5	9.0	8.5	1.5			2.5		10.5	10.5		5.5	
19-20	8.0		11.0		6.5		7.5		3.0	6.5	8.5	4.5	7.0		4.0				8.5	8.0	9.0	5.5	10.5	
20-21							1.5	7.0	3.5	7.5	7.0	6.0	5.0	7.5	6.0	3.5		10.5	4.5	5.0	8.0		5.5	
21-22			7.5		5.5	2.5	4.5		4.5	8.5	5.5	7.5	3.0					9.0	10.5	2.5	7.0	5.0	10.5	
22-23	10.5			9.5			8.0	4.0	5.0	9.5	4.0	9.0		6.0				7.5	7.0	10.0	6.0		5.5	
23-24	7.5	10.0		7.5	4.5		2.0	10.0	5.5	10.5	2.5	10.5	10.0					6.0		7.5	4.5	5.0	10.5	
24-25			9.5				5.0		6.0		8.5		8.0	5.0	2.0	2.5		4.0	9.0	4.5	3.5		5.5	
25-26					3.5		8.5	6.5	7.0		7.0		5.5		4.0	5.5		2.5	5.5	2.0	2.5	4.5	10.5	
26-27	10.0		6.0			3.0	2.5		7.5	1.5	5.5	2.5	3.5	4.0	6.5					10.0			5.5	
27-28				11.0	2.5		5.5	3.5	8.0	2.5	4.0	4.0	1.5	11.0				10.5	7.5	7.0		4.0	10.5	
28-29				9.0	6.5		8.5	9.0	9.0	3.5	2.5	5.5	10.5	3.0				9.0		4.5	10.5		5.5	
29-30			8.0	7.0	1.5		3.0		9.5	4.5	8.5	7.0	8.5	10.0		4.0		7.5	10.0	1.5	9.5	4.0	10.5	
30-31	9.5				5.5		6.0	6.0	10.0	6.0	7.0	8.5	6.5	1.5	2.5			6.0	6.5	9.5	8.0		5.5	

	VX	AR	DL	DY	SZ	UU	DG	DH	RR	SS	TV	WW	SZ	RZ	AV	RV
	HER	HER	HER	HER	HYA	HYA	HYA	HYA	LEO	LEO	LEO	LEO	LYN	LYR	PEG	UMA
MAX	9.9	10.6	11.0	10.2	10.6	10.7	11.6	11.4	10.0	10.5	11.5	11.0	9.1	10.0	9.9	10.1
MIN	10.4	11.6	12.4	10.6	11.7	12.3	12.6	12.6	11.7	12.0	12.6	12.0	9.6	12.0	10.9	11.2
RISE	2	2	1	1	2	2	3	2	2	2	2	3	1	2	2	3
0- 1	9.5		4.0	6.5				2.0	4.5	2.5		3.5	7.5	4.5	7.5	
1- 2	7.5	11.0	8.0	4.0				1.5	2.0		6.0			5.5		10.5
2- 3	5.5	9.5		1.5									3.0	6.0	6.0	9.0
3- 4	3.0	8.0	3.0	9.5						5.5	6.5	3.5	5.0	6.5	10.0	7.5
4- 5		6.5	7.0	7.0	2.5				6.0				7.0	7.0		6.0
5- 6	10.0	5.0		4.5	4.0				4.0	2.5	7.0			7.5	9.0	4.5
6- 7	7.5	3.5	2.0	1.5		2.0			1.5			4.0	2.5	8.0		3.0
7- 8	5.5	2.0	6.0	10.0		3.5					7.5		4.5	8.5	8.0	
8- 9	3.5		10.5	7.0		4.5			8.0	6.0			6.5	9.0		11.0
9-10		10.5		4.5		5.5	1.5		5.5			4.5		9.5	6.5	9.5
10-11	10.0	9.0	5.0	2.0					3.0	3.0			2.0	10.0	11.0	8.0
11-12	8.0	7.5	9.5	10.0	2.0								4.0	10.5	5.5	6.5
12-13	6.0	6.0		7.5	3.5		2.0					4.5	6.0		9.5	5.0
13-14	3.5	5.0	4.0	5.0	5.5				7.0	6.0			8.0			3.5
14-15	1.5	3.5	8.5	2.5					5.0				1.5		8.5	2.0
15-16	10.5	2.0		10.5			2.5		2.5	3.0		5.0	3.5			
16-17	8.0		3.0	8.0							1.5		5.5		7.5	10.0
17-18	6.0	10.5	7.5	5.0		2.5		5.0					7.5	1.5		8.5
18-19	4.0	9.0		2.5	1.5	3.5	3.0	4.5	6.5	6.5	2.0	5.5		2.0	6.0	7.0
19-20	1.5	7.5	2.0	10.5	3.5	4.5		4.0	4.5				3.0	2.5	10.5	5.5
20-21	10.5	6.0	6.5	8.0	5.0	5.5		3.5	2.0	3.5	2.5		5.0	3.0		4.0
21-22	8.5	4.5	11.0	5.5			3.0	3.0				6.0	7.0	4.0	9.0	2.5
22-23	6.0	3.0		3.0				2.0			2.5			4.5		
23-24	4.0	1.5	5.5	11.0				1.5	6.0	6.5			2.5	5.0	8.0	10.5
24-25	2.0		10.0	8.5			3.5		4.0		3.0	6.0	4.5	5.5		9.0
25-26	10.5	10.0		6.0					1.5	3.5			6.5	6.0	7.0	7.5
26-27	8.5	8.5	4.5	3.5	3.0						3.5	1.5		6.5	11.0	6.0
27-28	6.5	7.0	9.0		4.5		4.0		8.0			6.5	2.0	7.0	5.5	4.5
28-29	4.5	5.5		9.0		2.5			5.5	7.0	4.0		4.0	7.5	10.0	3.0
29-30	2.0	4.5	3.5	6.0		3.5			3.0			2.0	6.0	8.0		
30-31	11.0	3.0	8.0	3.5		4.5	4.5			4.0	4.5		8.0	8.5	8.5	11.0

	SW	XX	AT	SW	TZ	BH	RS	ST	SW	SZ	TV	TW	UU	UY	RW	TT	RR	XZ	DM	RW	XZ	RR	TW
	AND	AND	AND	AQR	AUR	AUR	BOO	BOO	BOO	BOO	BOO	BOO	BOO	BOO	CNC	CNC	CET	CYG	CYG	DRA	DRA	GEM	HER
MAX	9.3	10.3	10.8	10.5	11.2	11.1	9.8	10.6	11.3	12.0	10.8	10.8	11.2	10.6	10.7	11.0	9.3	9.1	11.2	11.0	9.6	10.7	10.5
MIN	10.8	11.6	11.5	12.1	12.8	12.6	11.3	11.8	12.7	13.4	11.5	12.1	12.7	12.0	12.6	12.3	10.3	10.5	12.7	12.0	10.3	11.9	11.8
RISE	2	3	3	1	2	2	2	3	2	2	3	2	1	2	2	3	2	3	2	2	3	2	2
0- 1	7.0	9.0	4.5				9.0		11.0	7.0	5.5	10.0	4.5	9.0	4.5			4.0	2.5	7.0	7.0	3.5	10.0
1- 2			10.0		4.5		3.5	3.0		8.0	4.0		2.0					2.5	8.5	4.0	6.0		5.5
2- 3				10.0		10.0	6.5	8.5		9.0	2.5			7.5		2.5			5.0		5.0	3.0	10.0
3- 4	9.0	6.5	6.5	8.5	3.5		9.5		10.0	8.5	2.0	9.0						10.5		9.0	3.5		5.5
4- 5	6.5			6.5			3.5	5.5			7.0	3.5	7.0	6.5			8.5	9.0	7.0	6.5	2.5	3.0	10.0
5- 6		10.5		4.5	2.5		7.0				5.5	5.0	5.0		3.0			7.5	3.5	3.5			5.5
6- 7			8.5				10.0	2.5	2.5		4.0	6.5	3.0	5.5	5.0			5.5	9.5			2.5	10.0
7- 8	8.5					10.5	4.0	8.0	3.0	2.0	2.5	8.0						4.0	5.5	9.0	10.5		5.5
8- 9	6.0	7.5	5.0	9.5			7.5		3.5	3.0	8.5	9.5	9.5	4.5				2.5		6.0	9.5	2.0	10.0
9-10			10.5	7.5			10.5	5.0	4.5	4.0	7.0		7.5						8.0	3.5	8.5		5.0
10-11	11.0			5.5			4.5	11.0	5.0	5.5	5.5		5.5	3.0			10.5	10.5	4.5		7.0	2.0	10.0
11-12	8.0		7.0				8.0	2.0	5.5	6.5	4.0		3.5		3.5	3.0		9.0	10.5	8.5	6.0		5.0
12-13					4.0		2.0	7.5	6.5	7.5	2.5	3.0		2.0	5.5			7.5	6.5	6.0	5.0		10.0
13-14		9.0		11.0			5.0		7.0	8.5	8.5	4.5	10.5	9.5				5.5	3.0	3.0	4.0		5.0
14-15	10.5		9.0	9.0	3.0		8.0	4.5	7.5	9.5	7.0	6.0	8.5					4.0	9.0		2.5		10.0
15-16	7.5			7.0			2.5	10.5	8.0	11.0	5.5	7.5	6.0	8.0		2.0	10.0	2.5	5.0	8.0			5.0
16-17		6.5	5.5	5.0	2.0		5.5		9.0		4.0	9.5	4.0							5.5			10.0
17-18			11.0				8.5	7.0	9.5		2.5	11.0	2.0	7.0	4.0			10.5	7.5	2.5	11.0		5.0
18-19	10.0	10.5					3.0		10.0		8.5							9.0	3.5	10.5	9.5		10.0
19-20	7.0		7.5	10.0			6.0	4.0	11.0	2.5	7.5		9.0	6.0				7.5	10.0	8.0	8.5		5.0
20-21				8.0			9.0	10.0		3.5	6.0	2.5	7.0			3.5	9.5	5.5	6.0	5.0	7.5		9.5
21-22		8.0	3.5	6.0	4.0		3.0			5.0	4.5	4.5	4.5	4.5				4.0	2.5	2.5	6.5		5.0
22-23	9.5		9.5	4.0			6.5	6.5		6.0	3.0	6.0	2.5		2.0			2.5	8.5	10.5	5.0		9.5
23-24	6.5				3.0		9.5			7.0	9.0	7.5		3.5	4.5				4.5	7.5	4.0		5.0
24-25			5.5				3.5	3.5		8.0	7.5	9.0	9.5			2.0		10.5	11.0	5.0	3.0		9.5
25-26				9.5	2.0		7.0	9.5	2.5	9.0	6.0	10.5	7.5	2.5			9.0	9.0	7.0	2.0	1.5		5.0
26-27	9.0	9.5		7.5			10.0		3.0	10.5	4.5		5.5					7.5	3.0	10.0			9.5
27-28	6.0		8.0	5.5			4.0	6.0	3.5		3.0		3.5					5.5	9.5	7.0	11.0	4.0	5.0
28-29						10.0	7.5		4.5		9.0	2.5		8.5	2.5			4.0	5.5	4.5	10.0		9.5
29-30		7.0	4.0				10.5	3.0	5.0		7.5	4.0	10.0			4.5	4.0	2.5		1.5	8.5	3.5	4.5

	VX	AR	DL	DY	SZ	UU	DG	DH	RR	SS	TV	WW	SZ	RZ	AV	RV
	HER	HER	HER	HER	HYA	HYA	HYA	HYA	LEO	LEO	LEO	LEO	LYN	LYR	PEG	UMA
MAX	9.9	10.6	11.0	10.2	10.6	10.7	11.6	11.4	10.0	10.5	11.5	11.0	9.1	10.0	9.9	10.1
MIN	10.4	11.6	12.4	10.6	11.7	12.3	12.6	12.6	11.7	12.0	12.6	12.0	9.6	12.0	10.9	11.2
RISE	2	2	1	1	2	2	3	2	2	2	2	3	1	2	2	3
0- 1	9.0													9.0		9.5
1- 2	6.5		2.5	9.0							5.0	2.0	3.5	9.5	7.5	8.0
2- 3	4.5	10.0	7.0	6.5	2.5				5.0				5.5	10.5		6.5
3- 4	2.5	8.5		4.0					2.5		5.5			11.0	6.5	5.0
4- 5		7.0								4.5		2.5			10.5	3.5
5- 6	9.0	5.5	6.0	9.5									3.0		5.0	2.0
6- 7	7.0	4.0	10.5	7.0									5.0		9.5	
7- 8	4.5	2.5		4.0					4.5			3.0			4.0	10.0
8- 9	2.5		5.0			2.5			2.0						8.0	8.5
9-10			9.5	9.5	2.0	3.5				4.5			2.5	2.0		7.0
10-11	9.0	9.5		7.0								3.0	4.5	2.5	7.0	5.5
11-12	7.0	8.0	4.0	4.5					6.0					3.0		4.0
12-13	5.0	6.5	8.5	2.0				3.0	4.0					3.5	6.0	2.5
13-14	3.0	5.0		10.0				2.5				3.5	1.5	4.0	10.0	
14-15		4.0	3.0	7.5				2.0		5.0			4.0	4.5	4.5	10.5
15-16	9.5	2.5	7.5	5.0									6.0	5.0	9.0	9.0
16-17	7.5			2.0	2.0				5.5	2.0		4.0		5.5	3.5	7.5
17-18	5.0	10.5	2.0	10.5	3.5				3.5					6.0	7.5	6.0
18-19	3.0	9.5	6.5	7.5									3.0	6.5		4.5
19-20		8.0	10.5	5.0		2.5				5.0		4.5	5.5	7.0	6.5	3.0
20-21	9.5	6.5		2.5		3.5								7.5	10.5	
21-22	7.5	5.0	5.5	10.5					5.0	2.0				8.5	5.5	
22-23	5.5	3.5	9.5	8.0					2.5			4.5	2.5	9.0	9.5	9.5
23-24	3.0	2.0		5.5									4.5	9.5	4.0	8.0
24-25			4.5	3.0	3.0		2.0			5.5	2.0			10.0	8.5	6.5
25-26	10.0	10.5	8.5											10.5		5.0
26-27	7.5	9.0		8.5					4.5	2.5	2.5		2.0		7.0	3.5
27-28	5.5	7.5	3.5	6.0			2.0		2.0				4.0			2.0
28-29	3.5	6.0	7.5	3.0							3.0				6.0	
29-30		4.5								5.5					10.0	10.0

	SW	XX	AT	SW	TZ	BH	RS	ST	SW	SZ	TV	TW	UU	UY	RW	TT	RR	XZ	DM	RW	XZ	RR	TW
	AND	AND	AND	AQR	AUR	AUR	BOO	BOO	BOO	BOO	BOO	BOO	BOO	BOO	CNC	CNC	CET	CYG	CYG	DRA	DRA	GEM	HER
MAX	9.3	10.3	10.8	10.5	11.2	11.1	9.8	10.6	11.3	12.0	10.8	10.8	11.2	10.6	10.7	11.0	9.3	9.1	11.2	11.0	9.6	10.7	10.5
MIN	10.8	11.6	11.5	12.1	12.8	12.6	11.3	11.8	12.7	13.4	11.5	12.1	12.7	12.0	12.6	12.3	10.3	10.5	12.7	12.0	10.3	11.9	11.8
RISE	2	3	3	1	2	2	2	3	2	2	3	2	1	2	2	3	2	3	2	2	3	2	2
0- 1	8.5		10.0	10.5			4.5	9.0	5.5	2.0	6.0	5.5	8.0	7.5		8.5		8.0	9.5	7.5		9.5	
1- 2	6.0	11.0		8.5			8.0		6.5	3.0	4.5	7.0	6.0			11.0	10.5	4.0	7.0	6.5		4.5	
2- 3		4.0	6.0	6.5			2.0	5.5	7.0	4.5	3.0	8.5	4.0	6.5				9.0	10.5	4.0	5.5		9.5
3- 4	11.0			5.0		10.5	5.0		7.5	5.5	9.0	10.0	2.0					7.5	6.5		4.0		4.5
4- 5	8.0	8.0	2.5	3.0	2.5	8.5	8.0	2.5	8.0	6.5	7.5			5.0	3.0			5.5	2.5	9.5	3.0		9.5
5- 6	5.5		8.0				2.5	8.5	9.0	7.5	6.0		8.5				8.0	4.0	9.0	6.5	2.0		4.5
6- 7				10.0	10.5		5.5		9.5	8.5	4.5	2.0	6.5	4.0			10.5	2.5	5.0	4.0			9.5
7- 8	10.5	5.5	4.5	8.0			8.5	5.0			3.0	3.5	4.5									11.0	4.5
8- 9	7.5		10.5	6.0	9.5	11.0	3.0				9.0	5.0	2.5	3.0				10.5	7.5	9.0	10.0		9.5
9-10	5.0	9.5		4.0		9.0	6.0	2.0			7.5	6.5						9.0	3.5	6.0	9.0	2.0	4.5
10-11			6.5	2.0			9.0	8.0			6.0	8.0	9.5	1.5	3.5		7.5	7.0	10.0	3.5	7.5		9.5
11-12	10.0						3.0				4.5	9.5	7.5				10.0	5.5	6.0		6.5		4.5
12-13	7.0	7.0	3.0	9.5			6.5	4.5		2.5	3.0		5.0					4.0	2.0	8.5	5.5		9.0
13-14	4.5		8.5	7.5	2.5		9.5	10.5	2.0	4.0	9.0		3.0					2.5	8.5	6.0	4.5	11.0	4.5
14-15		11.0		5.5		9.0	3.5		2.5	5.0	7.5								4.5	3.0	3.0		9.0
15-16	9.5	4.5	5.0	3.5	11.0		7.0	7.0	3.0	6.0	6.0	3.0	10.0	6.5			7.0	10.5	10.5	11.0	2.0	10.5	4.5
16-17	6.5		10.5						3.5	7.0	4.5	4.5	8.0		4.0		9.5	9.0	7.0	8.5			9.0
17-18	4.0	8.5		10.5	10.0		4.0	4.0	4.5	8.0	3.0	6.0	6.0	5.5				7.0	3.0	5.5			4.5
18-19			7.0	8.5			7.5	10.0	5.0		9.0	8.0	4.0					5.5	9.0	3.0	10.0		9.0
19-20	9.0			6.5		9.5			5.5		7.5	9.5		4.5				4.0	5.5	10.5	9.0		4.0
20-21	6.0	6.0	3.5	4.5			4.5	6.5	6.5		6.0							2.5		8.0	8.0		9.0
21-22			9.0	2.5			7.5		7.0		4.5		8.5	3.5	2.0		9.0		8.0	5.0	6.5		4.0
22-23		10.0			2.5		2.0	3.5	7.5		3.0		6.5					10.5	4.0	2.5	5.5		9.0
23-24	8.5		5.5	10.0			5.0	9.5	8.5	2.0	9.0	2.5	4.5	2.0				9.0	10.0	10.5	4.5		4.0
24-25	5.5			8.0	1.5	10.0	8.0		9.0	3.5	7.5	4.5	2.5					7.0	6.5	7.5	3.5		9.0
25-26		7.0	2.0	6.0		8.0	2.5	6.0	9.5	4.5	6.0	6.0				2.0		5.5	2.5	5.0	2.0		4.0
26-27	11.0		7.5	4.0	10.0		5.5			5.5	4.5	7.5	9.0				8.0	4.0	8.5	2.0			9.0
27-28	8.0						8.5	3.0		6.5	3.0	9.0	7.0		2.5		11.0	2.5	5.0	10.0			4.0
28-29	5.0	4.5	4.0	11.0			2.5	9.0		7.5	9.0		5.0	7.0					11.0	7.5	10.0		9.0
29-30			9.5	9.0		10.5	6.0			9.0	7.5		3.0					10.5	7.0	4.5	9.0		4.0
30-31	10.5	8.5		7.0		8.5	9.0	5.5			6.0			6.0				9.0	3.5	2.0	8.0		9.0

	VX	AR	DL	DY	UU	RR	SS	TV	WW	SZ	RZ	AV	RV
	HER	HER	HER	HER	HYA	LEO	LEO	LEO	LEO	LYN	LYR	PEG	UMA
MAX	9.9	10.6	11.0	10.2	10.7	10.0	10.5	11.5	11.0	9.1	10.0	9.9	10.1
MIN	10.4	11.6	12.4	10.6	12.3	11.7	12.0	12.6	12.0	9.6	12.0	10.9	11.2
RISE	2	2	1	1	2	2	2	2	3	1	2	2	3
0- 1	10.0	3.5	2.5	8.5	2.5			3.5		10.5		5.0	8.5
1- 2	8.0	2.0	6.5	6.0		4.0	2.5			3.5		9.0	7.0
2- 3	6.0			3.5							2.0	3.5	5.5
3- 4	3.5	10.5									2.5	8.0	4.0
4- 5		9.0	5.5	9.0					10.0	3.0	3.0	2.5	2.5
5- 6	10.5	7.5	10.0	6.5						3.0	3.5	6.5	
6- 7	8.0	6.0		4.0		3.5	3.0				4.0	11.0	10.5
7- 8	6.0	4.5	4.5								4.5	5.5	9.0
8- 9	4.0	3.0	9.0	9.5							5.0	9.5	7.5
9-10				6.5						2.5	5.5	4.5	6.0
10-11			3.5	4.0							6.0	8.5	4.5
11-12	8.5	10.0	8.0		2.5	2.5	3.0				7.0	3.0	3.0
12-13	6.0	8.5		9.5				2.0			7.5	7.5	
13-14	4.0	7.0	2.5	7.0						2.0	8.0	2.0	11.0
14-15	2.0	5.5	7.0	4.5						4.0	8.5	6.0	9.5
15-16		4.0		2.0				2.5			9.0	10.0	8.0
16-17	8.5	3.0		10.0		2.0	3.5				9.5	5.0	6.5
17-18	6.5		6.0	7.5					10.0	10.0	10.0	9.0	5.0
18-19	4.5		10.5	4.5						3.5	10.5	4.0	3.5
19-20	2.0	10.0		2.0							11.0	8.0	1.5
20-21		8.5	5.0			4.0						2.5	
21-22	9.0	7.0	9.5	7.5			3.5					7.0	10.0
22-23	6.5	5.5		5.0	2.5					3.0		11.0	8.5
23-24	4.5	4.0	4.0	2.5								5.5	7.0
24-25	2.5	2.5	8.5									9.5	5.5
25-26				8.0		3.5					2.0	4.5	4.0
26-27	9.0	11.0	3.0	5.5			4.0			2.5	2.5	8.5	2.0
27-28	7.0	9.5	7.5	3.0							3.0	3.5	
28-29	4.5	8.0									3.5	7.5	10.5
29-30	2.5	6.5	2.0	8.5							4.0	2.0	9.0
30-31		5.0	6.5	5.5		2.5				2.0	5.0	6.5	7.5

	SW	XX	AT	SW	TZ	BH	RS	ST	SW	SZ	TV	TW	UU	UY	RW	TT	RR	XZ	DM	RW	XZ	RR	TW	
	AND	AND	AND	AQR	AUR	AUR	BOO	BOO	BOO	BOO	BOO	BOO	BOO	BOO	CNC	CNC	CET	CYG	CYG	DRA	DRA	GEM	HER	
MAX	9.3	10.3	10.8	10.5	11.2	11.1	9.8	10.6	11.3	12.0	10.8	10.8	11.2	10.6	10.7	11.0	9.3	9.1	11.2	11.0	9.6	10.7	10.5	
MIN	10.8	11.6	11.5	12.1	12.8	12.6	11.3	11.8	12.7	13.4	11.5	12.1	12.7	12.0	12.6	12.3	10.3	10.5	12.7	12.0	10.3	11.9	11.8	
RISE	2	3	3	1	2	2	2	3	2	2	3	2	1	2	2	3	2	3	2	2	3	2	2	
0- 1	7.5	2.0	6.0	5.0		6.0	3.0				4.5	2.5			11.5		7.5	7.0	9.5	9.5	7.0		4.0	
1- 2	5.0			3.5	7.0		6.5	2.5	2.0		3.0	4.0	7.5	5.0			10.0	5.5	6.0	7.0	5.5		8.5	
2- 3	2.0	6.0	2.5	1.5	11.5			8.5	2.5		1.5	5.5	5.5					4.0	2.0	4.5	4.5		4.0	
3- 4	10.0		8.0	10.5		11.0	3.5		3.0	1.5	7.5	7.0	3.5	3.5				2.5	8.0	1.5	3.5		8.5	
4- 5	7.0	10.0		8.5	10.5	8.5	7.0	5.0	3.5	3.0	6.0		1.5				4.5		4.5	9.5	2.5		4.0	
5- 6	4.5	3.5	4.5	6.5		6.5			4.5	4.0	4.5			2.5			7.0	10.5	10.5	6.5			8.5	
6- 7	1.5		10.0	4.5	9.5		4.0	2.0	5.0	5.0	3.0					11.5	9.5	8.5	6.5	4.0	11.5		4.0	
7- 8	9.5	7.5		2.5		8.5	11.0	1.5	7.5	8.0	5.5	6.0	1.5					7.0	3.0		10.5	11.5	8.5	
8- 9	6.5		6.5		8.5	11.0	1.5	6.5			7.5	2.0	4.0					5.5	9.0	9.0	9.0		4.0	
9-10	4.0	11.5		9.5		9.0	4.5	4.5	7.0		6.0	3.5	2.0					4.0	5.0	6.5	8.0	11.0	8.5	
10-11		5.0	3.0	7.5	7.5	7.0					4.5	5.0						6.5	2.5	1.5	3.5	7.0	3.5	
11-12	9.0		8.5	6.0	11.5		2.0	1.5			3.0	6.5						9.0		7.5	11.5	6.0	11.0	8.5
12-13	6.0	9.0		4.0			5.0	7.5			1.5	8.0	7.0						10.5	4.0	9.0	4.5		3.5
13-14	3.5	2.0	5.0	2.0	10.5						7.5		5.0		1.5				8.5	10.0	6.0	3.5	10.5	8.5
14-15	11.0		10.5	11.0		9.5	2.5	4.0			6.0		3.0	5.0					7.0	6.0	3.5	2.5		3.5
15-16	8.5	6.5	1.5	9.0	9.5	7.5	5.5			2.5	4.5							6.0	5.5	2.5	11.0	1.5	10.5	8.5
16-17	5.5		7.0	7.0							3.5	3.0	1.5		4.0			8.5	4.0	8.5	8.5			3.5
17-18	3.0	10.5		5.0	8.5		2.5	7.0			4.5	1.5	3.0	7.5		10.5		11.0	2.5	4.5	5.5	10.5	10.0	8.5
18-19	10.5	3.5	3.5	3.0			6.0				5.5	7.5	4.5	5.5	3.0					11.0	3.0	9.5		3.5
19-20	8.0		9.0		7.5	10.0		3.5			6.5	6.0	6.0	3.5					10.5	7.0	11.0	8.5	9.5	8.5
20-21	5.0	7.5		10.0		8.0	3.0		2.0		4.5	8.0	1.5	2.0				5.5	8.5	3.0	8.0	7.0		3.5
21-22	2.5		5.5	8.5			6.5		2.5		3.0							8.0	7.0	9.5	5.5	6.0	9.5	8.5
22-23	10.5		11.0	6.5	10.5			6.5	3.0		1.5		8.0					10.5	5.5	5.5	2.5	5.0		3.5
23-24	7.5	5.0	2.0	4.5			3.5		4.0		7.5		6.0		11.0				4.0	2.0	10.5	4.0	9.0	8.0
24-25	4.5		7.5	2.5	9.5	10.5	7.0	3.0	4.5		6.0		4.0						2.5	8.0	8.0	2.5		3.5
25-26	2.0	9.0		11.5		8.0			5.0		4.5	3.0	2.0					5.0		4.0	5.0	1.5	8.5	8.0
26-27	10.0	2.5	4.0	9.5	8.5	6.0	4.0		5.5	2.0	3.0	4.5					7.5	10.5	10.5	2.5				3.5
27-28	7.0		9.5	7.5			7.0	6.0	6.5	3.0	1.5	6.0						10.0	8.5	6.5	10.0	10.5	8.5	8.0
28-29	4.5	6.5		5.5	7.5		1.5		7.0	4.0	7.5	7.5	6.5			11.0			7.0	2.5	7.5	9.5		3.5
29-30			6.0	3.5		11.0	4.5	2.5		5.0	6.0		4.5	4.5					5.5	9.0	4.5	8.5		8.0
30-31	9.5	10.5	11.5	1.5		8.5		8.5		6.0	4.5		2.5					4.5	4.0	5.0	2.0	7.5		3.0

	VX	AR	DL	DY	RR	SS	SZ	RZ	AV	RV
	HER	HER	HER	HER	LEO	LEO	LYN	LYR	PEG	UMA
MAX	9.9	10.6	11.0	10.2	10.0	10.5	9.1	10.0	9.9	10.1
MIN	10.4	11.6	12.4	10.6	11.7	12.0	9.6	12.0	10.9	11.2
RISE	2	2	1	1	2	2	1	2	2	3
0- 1		4.0		3.0				5.5	10.5	6.0
1- 2	7.0	2.5						6.0	5.0	4.5
2- 3	5.0		5.5			1.5	8.0	6.5	9.0	2.5
3- 4	3.0			6.0			1.5	7.0	4.0	
4- 5		9.5		3.5	2.0			7.5	8.0	11.0
5- 6		8.0	4.5					8.0	3.0	9.5
6- 7	7.5	6.5	9.0					8.5	7.0	8.0
7- 8	5.0	5.0		6.5		1.5	9.5	9.0	1.5	6.5
8- 9	3.0	3.5	3.5	3.5				9.5	6.0	5.0
9-10		2.0	8.0		1.5			10.0	10.0	3.0
10-11								10.5	4.5	1.5
11-12	7.5	10.5	2.5	6.5			9.0	11.5	8.5	11.5
12-13	5.5	9.0	7.0	4.0		2.0	11.0		3.5	10.0
13-14	3.0	7.5		1.5					7.5	8.5
14-15		6.0	1.5						2.5	7.0
15-16		4.5	6.0	7.0			8.5		6.5	5.5
16-17	7.5	3.5		4.5			2.0	1.5	10.5	3.5
17-18	5.5	2.0		1.5		2.0		2.0	5.5	2.0
18-19	3.5		5.0					3.0	9.5	
19-20	1.5	10.0		7.0			8.0	3.5	4.0	10.5
20-21		9.0		4.5			1.5	4.0	8.0	9.0
21-22	8.0	7.5	4.0	2.0				4.5	3.0	7.5
22-23	6.0	6.0	8.0			2.5		5.0	7.0	6.0
23-24	3.5	4.5		7.5	2.0			5.5	2.0	4.5
24-25	1.5	3.0	3.0	5.0			9.5	6.0	6.0	2.5
25-26		1.5	7.0	2.5			11.5	6.5	10.0	
26-27	8.0							7.0	4.5	11.0
27-28	6.0	10.0	2.0	8.0				7.5	9.0	9.5
28-29	4.0	8.5	6.0	5.5	1.5		9.0	8.0	3.5	8.0
29-30	1.5	7.0		2.5			11.0	8.5	7.5	6.5
30-31		5.5						9.0	2.5	5.0

	SW	XX	AT	SW	TZ	BH	RS	ST	SW	SZ	TV	TW	UU	UY	RW	TT	RR	XZ	DM	RW	XZ	RR	TW	
	AND	AND	AND	AQR	AUR	AUR	BOO	BOO	BOO	BOO	BOO	BOO	BOO	BOO	CNC	CNC	CET	CYG	CYG	DRA	DRA	GEM	HER	
MAX	9.3	10.3	10.8	10.5	11.2	11.1	9.8	10.6	11.3	12.0	10.8	10.8	11.2	10.6	10.7	11.0	9.3	9.1	11.2	11.0	9.6	10.7	10.5	
MIN	10.8	11.6	11.5	12.1	12.8	12.6	11.3	11.8	12.7	13.4	11.5	12.1	12.7	12.0	12.6	12.3	10.3	10.5	12.7	12.0	10.3	11.9	11.8	
RISE	2	3	3	1	2	2	2	3	2	2	3	2	1	2	2	3	2	3	2	2	3	2	2	
0- 1	6.5	4.0	2.5		11.0	6.5	2.0				3.0		0.5	3.5			7.0	2.5	1.0	10.0	6.0	7.5	8.0	
1- 2	4.0		8.0	9.0	5.5	4.5	5.0	5.0			1.5	1.0				9.5	9.5	0.5	7.5	7.0	5.0		3.0	
2- 3	1.0	8.0		7.0	10.0							2.5		2.0				10.5	3.5	4.5	4.0	7.5	8.0	
3- 4	9.0	1.5	4.5	5.0		11.0	2.0	2.0				4.0	5.5	10.0				8.5	10.0	1.5	3.0	12.0	3.0	
4- 5	6.0	12.0	10.0	3.0	9.0	9.0	5.5				4.5	5.5	3.0	1.0			4.0	7.0	6.0	9.5	1.5	7.0	8.0	
5- 6	3.5	5.5	1.0	1.0		7.0					3.0		1.0				6.5	5.5	2.0	7.0	0.5	11.5	3.0	
6- 7	0.5		6.5		8.0	5.0	2.5	4.5	0.5	1.5	1.5					11.0	9.0	4.0	8.5	4.0	11.0	6.5	8.0	
7- 8	8.5	9.5		8.0					1.0	2.5							11.5	2.0	4.5	1.5	9.5	11.5	3.0	
8- 9	5.5	2.5	3.0	6.0	7.0	11.5		1.5	2.0	3.5			6.0					0.5	0.5	9.0	8.5	6.5	8.0	
9-10	3.0		8.5	4.0	11.0	9.5	3.0		2.5	4.5	4.5		4.0		10.5		3.5	10.0	7.0	6.5	7.5	11.0	3.0	
10-11	10.5	6.5		2.5	6.0	7.5			3.0		3.0	2.0	2.0			10.0	6.0	8.5	3.0	3.5	6.5		8.0	
11-12	8.0		5.0		10.0	5.5		4.0	4.0		1.5	3.5					8.5	7.0	9.5	1.0	5.0	10.5	3.0	
12-13	5.0	11.0	10.5	9.5			3.5		4.5			5.0					11.0	5.5	5.5	9.0	4.0		7.5	
13-14	2.5	4.0	1.5	7.5	9.0	12.0		1.0	5.0									4.0	1.5	6.0	3.0	10.5	3.0	
14-15	10.0		7.0	5.5		10.0	1.0				4.5		4.5		8.5		3.0	2.0	8.0	3.5	2.0		7.5	
15-16	7.5	8.0		3.5	8.0	8.0	4.0				3.0		2.5	2.5	10.5	11.5	5.5	0.5	4.0	0.5	0.5	10.0	3.0	
16-17	4.5	1.5	3.5	1.5		5.5		3.5			1.5						8.0	10.0	10.0	8.5	11.0		7.5	
17-18	2.0		9.0		7.0		1.5			1.0				1.5			10.5	8.5	6.5	6.0	10.0	9.5	3.0	
18-19	9.5	5.5		8.5	11.5		4.5			2.0		1.5						7.0	2.5	3.0	8.5		7.5	
19-20	7.0		5.5	6.5	6.0	10.5		6.5		3.0	4.5	3.0	5.0			10.0		5.5	9.0	11.0	7.5	9.5	3.0	
20-21	4.0	9.5	11.0	5.0	10.5	8.0	2.0			4.0	3.0	4.5	3.0		9.0		5.0	4.0	5.0	8.0	6.5		7.5	
21-22	1.5	3.0	2.0	3.0	5.0	6.0	5.0	3.0			1.5	6.5	1.0		11.0		7.5	2.0	1.0	5.5	5.5	9.0	2.5	
22-23	9.5		7.5	1.0	9.5	4.0											10.0	0.5	7.5	2.5	4.0		7.5	
23-24	6.5	7.0		10.0			2.0									9.0		10.0	3.5	10.5	3.0	8.5	2.5	
24-25	3.5		4.0	8.0	8.5	10.5	5.5	6.0			4.5		6.0			12.0		8.5	9.5	8.0	2.0		7.5	
25-26	1.0	11.0	9.5	6.0		8.5			0.5		3.0		3.5				4.0	7.0	6.0	5.0	1.0	8.5	2.5	
26-27	9.0	4.5		4.0	7.5	6.5	2.5	2.5	1.0		1.5	1.0	1.5		9.5		7.0	5.5	2.0	2.5	11.0		7.5	
27-28	6.0		6.0	2.0	11.5	4.5			2.0			3.0					11.5	9.5	4.0	8.0	10.5	10.0	8.0	2.5
28-29	3.5	8.5	11.5		6.5				2.5			4.5		3.0		10.5	12.0	2.0	4.5	7.5	9.0		7.5	
29-30	11.0	2.0	2.0	9.5	10.5	11.0	3.0	5.5	3.0	1.5	4.5	6.0						0.5	0.5	5.0	7.5	7.5	2.5	

	VX	AR	DL	DY	SZ	UU	DG	DH	RR	WW	SZ	RZ	AV	RV
	HER	HER	HER	HER	HYA	HYA	HYA	HYA	LEO	LEO	LYN	LYR	PEG	UMA
MAX	9.9	10.6	11.0	10.2	10.6	10.7	11.6	11.4	10.0	11.0	9.1	10.0	9.9	10.1
MIN	10.4	11.6	12.4	10.6	11.7	12.3	12.6	12.6	11.7	12.0	9.6	12.0	10.9	11.2
RISE	2	2	1	1	2	2	3	2	2	3	1	2	2	3
0- 1		4.0	5.0			10.5					6.5		6.5	3.0
1- 2	6.0	3.0		5.5		11.5	11.0				8.5		1.5	1.5
2- 3	4.0	1.5		3.0					12.0		10.5		5.5	11.5
3- 4	2.0		4.0						9.5				9.5	10.0
4- 5							11.5				6.0		4.0	8.5
5- 6		8.5									8.0		8.5	7.0
6- 7		7.0	3.0	3.5						10.0	0.5	3.0	5.5	
7- 8	4.5	5.5		0.5			12.0		11.5		12.0	1.5	7.0	3.5
8- 9	2.0	4.0										2.0	2.0	2.0
9-10		2.5	2.0		12.0						7.5	2.5	6.0	0.5
10-11		1.0	6.5	3.5							9.5	3.0	1.0	10.5
11-12				1.0		10.5					11.5	3.5	5.0	9.0
12-13	4.5		1.0			11.5			11.0			4.0	9.0	7.5
13-14	2.5	8.0	5.5								7.0	4.5	3.5	6.0
14-15		6.5		4.0				12.0			9.0	5.0	8.0	4.0
15-16		5.0		1.5				11.5			11.0	5.5	2.5	2.5
16-17		3.5	4.5		11.5			11.0				6.0	6.5	1.0
17-18	4.5	2.5						10.5	10.0		6.5	6.5	1.5	11.0
18-19	2.5	1.0		4.0							8.5	7.0	5.5	9.5
19-20			3.5	1.5						10.0	10.5	8.0	9.5	8.0
20-21												8.5	4.5	6.5
21-22		8.0						12.0			5.5	9.0	8.5	4.5
22-23	5.0	6.5	2.5	4.5		10.5		9.5	10.5	8.0	9.5	3.0	3.0	
23-24	3.0	5.0		2.0	11.0	12.0				10.0		7.5	1.5	
24-25	0.5	3.5								12.0		2.0	11.5	
25-26		2.0	1.5							10.5		6.0	10.0	
26-27		0.5	6.0	5.0				11.5			7.0		1.0	8.5
27-28	5.0			2.5							9.5		5.0	7.0
28-29	3.0		0.5							11.0	11.5		9.0	5.0
29-30	1.0	7.5	5.0									1.0	4.0	3.5

	SW	XX	AT	SW	TZ	BH	RS	ST	SW	SZ	TV	TW	UU	UY	RW	TT	RR	XZ	DM	RW	XZ	RR	TW
	AND	AND	AND	AQR	AUR	AUR	BOO	BOO	BOO	BOO	BOO	BOO	BOO	BOO	CNC	CNC	CET	CYG	CYG	DRA	DRA	GEM	HER
MAX	9.3	10.3	10.8	10.5	11.2	11.1	9.8	10.6	11.3	12.0	10.8	10.8	11.2	10.6	10.7	11.0	9.3	9.1	11.2	11.0	9.6	10.7	10.5
MIN	10.8	11.6	11.5	12.1	12.8	12.6	11.3	11.8	12.7	13.4	11.5	12.1	12.7	12.0	12.6	12.3	10.3	10.5	12.7	12.0	10.3	11.9	11.8
RISE	2	3	3	1	2	2	2	3	2	2	3	2	1	2	2	3	2	3	2	2	3	2	2
0- 1	8.5	12.5	8.0	7.5	5.5	9.0				2.5	3.0					3.5	10.0	7.0	2.0	6.5	12.5		
1- 2	5.5	6.0		5.5	9.5	7.0	0.5	2.0			1.5		2.5		7.5		6.0	8.5	3.0	10.0	5.5	7.5	2.5
2- 3	3.0		4.5	3.5	4.5	5.0	3.5				0.0		0.0	0.5	10.0	9.0	9.0	7.0	9.0	7.0	4.5	12.0	
3- 4	0.0	10.0	10.0	1.5	8.5	2.5						12.0			12.0	12.0	11.5	5.5	5.5	4.5	3.0	7.0	2.5
4- 5	8.0	3.0	0.5		3.5	11.5	1.0				12.5	1.0					0.5	3.5	1.5	1.5	2.0	11.5	
5- 6	5.0		6.5		7.5	9.5					3.5	2.5					3.0	2.0	7.5	9.5	1.0	6.5	2.5
6- 7	2.5	7.0	12.0	6.5	12.0	7.5		1.5			2.0	4.0	3.0			8.0	5.5	0.5	4.0	7.0	11.5	11.5	
7- 8	10.0	0.5	2.5	4.5	6.5	5.0	1.5				0.5		1.0		8.0	11.0	8.0	10.0	10.0	4.0	10.0	6.5	2.5
8- 9	7.5	11.5	8.5	2.5	11.0	3.0									10.5		11.0	8.5	6.0	1.5	9.0	11.0	
9-10	4.5	4.5		0.5	5.5	12.0		4.5		12.5	12.5							7.0	2.5	9.5	8.0	6.0	2.5
10-11	2.0		4.5		10.0	10.0	1.5			1.0	3.5						2.5	5.5	8.5	6.5	7.0	10.5	
11-12	9.5	8.5	10.5	8.0	4.5	7.5		1.0	11.0	2.0	2.0	11.5	3.5			9.5	5.0	3.5	4.5	4.0	5.5	6.0	2.0
12-13	7.0	2.0	1.0	6.0	9.0	5.5			11.5	3.0	0.5	0.5	1.5				7.5	2.0	1.0	1.0	4.5	10.5	
13-14	4.0		7.0	4.0	3.5	3.5	2.0		12.5			2.0			8.5		10.0	0.5	7.0	9.0	3.5	5.5	2.0
14-15	1.5	6.0	12.5	2.0	8.0	12.5		4.0	0.5		12.5	3.5			10.5			10.0	3.5	6.0	2.0	10.0	
15-16	9.0		3.0	0.0	12.0	10.0			1.5		3.5			1.0		8.0	2.0	8.5	9.5	3.5	1.0	5.0	2.0
16-17	6.5	10.0	9.0		7.0	8.0	2.5	0.5	2.0		2.0		4.0			11.5	4.5	7.0	5.5	0.5	11.5	9.5	
17-18	3.5	3.5		7.0	11.0	6.0			2.5		0.5		2.0	0.0			7.0	5.5	2.0	8.5	10.5	5.0	2.0
18-19	1.0		5.0	5.0	6.0	4.0		12.5	3.0				0.0		6.5		9.5	3.5	8.0	6.0	9.0	9.5	
19-20	9.0	7.5	11.0	3.5	10.0		3.0	3.0			12.5	11.5			9.0	7.0	12.0	2.0	4.0	3.0	8.0	4.5	2.0
20-21	6.0	1.0	1.5	1.5	5.0	10.5				12.0	3.5	0.0			11.0	10.0	1.5	0.5	0.5	0.5	7.0	9.0	
21-22	3.0	11.5	7.0		9.0	8.5	0.5	0.0		0.5	2.0	1.5					4.0	10.0	6.5	8.5	6.0		2.0
22-23	0.5	5.0			4.0	6.5	3.5			1.5	0.5	3.0	2.5				6.5	8.5	2.5	5.5	4.5	8.5	
23-24	8.5		3.5	6.5	8.0	4.5				2.5			0.5	12.0			9.0	7.0	9.0	3.0	3.5		2.0
24-25	5.5	9.0	9.5	4.5	12.0	2.0	1.0	2.5			12.5				7.0	8.5	11.5	5.5	5.0	0.0	2.5	8.5	
25-26	2.5	2.0	0.0	2.5	7.0	11.0					3.5				9.5	11.5	1.0	3.5	1.5	8.0	1.5		2.0
26-27	10.5		5.5	0.5	11.0	9.0					2.0				11.5		3.5	2.0	7.5	5.0	0.0	8.0	
27-28	8.0	6.5	11.5		6.0	7.0	1.5				0.5	11.0	3.5				6.0	0.5	3.5	2.5	10.5		2.0
28-29	5.0		2.0	7.5	10.0	4.5							1.5			7.0	8.5	10.0	10.0	10.5	9.5	8.0	
29-30	2.5	10.5	7.5	6.0	5.0	2.5		2.0			12.5	1.0				10.5	11.0	8.5	6.0	7.5	8.0	12.5	2.0
30-31	10.0	3.5		4.0	9.0	11.5	1.5		11.0		3.5	3.0		0.5	7.5		0.5	7.0	2.0	5.0	7.0	7.5	

	VX	AR	DL	DY	SZ	UU	DG	DH	RR	SS	TV	WW	SZ	RZ	AV	RV
	HER	HER	HER	HER	HYA	HYA	HYA	HYA	LEO	LEO	LEO	LEO	LYN	LYR	PEG	UMA
MAX	9.9	10.6	11.0	10.2	10.6	10.7	11.6	11.4	10.0	10.5	11.5	11.0	9.1	10.0	9.9	10.1
MIN	10.4	11.6	12.4	10.6	11.7	12.3	12.6	12.6	11.7	12.0	12.6	12.0	9.6	12.0	10.9	11.2
RISE	2	2	1	1	2	2	3	2	2	2	2	3	1	2	2	3
0- 1		6.0			10.5								6.5	1.5	8.0	2.0
1- 2		4.5		2.5	12.5	8.5		11.0				11.5	8.5	2.0	2.5	0.5
2- 3		3.0	4.0			9.5	9.5	8.5	10.5				11.0	2.5	7.0	10.5
3- 4	3.0	2.0				10.5							4.0	3.0	1.5	9.0
4- 5	1.0	0.5				12.0						11.5	6.0	3.5	5.5	7.5
5- 6			3.0	3.0			9.5						8.0	4.0	0.5	5.5
6- 7				0.5				12.0	10.0				10.0	4.5	4.5	4.0
7- 8					10.0			11.5	8.0	10.5		12.0	12.5	5.0	8.5	2.5
8- 9	3.5	6.0	2.0		12.0		10.0	11.0					5.5	6.0	3.5	1.0
9-10	1.5	4.5		3.0				10.5					7.5	6.5	7.5	11.0
10-11		3.0		0.5				10.0	12.0			12.5	9.5	7.0	2.0	9.5
11-12		1.5	1.0				10.5	9.5	9.5				11.5	7.5	6.5	8.0
12-13		0.0				8.5		9.0		11.0	10.5		5.0		1.0	6.0
13-14	3.5			3.5		9.5		8.5					7.0		5.0	4.5
14-15	1.5			1.0	10.0	10.5	11.0				11.0		9.0		9.5	3.0
15-16			4.5		11.5	12.0			11.5			8.0	11.0		4.0	1.5
16-17		5.5							9.0		11.0		4.5		8.0	0.0
17-18		4.0		4.0			11.5			11.0			6.5		3.0	10.0
18-19	4.0	3.0	3.5	1.0							11.5	8.5	8.5		7.0	8.5
19-20	1.5	1.5											10.5		1.5	6.5
20-21		11.0					12.0	11.0		12.0			4.0		6.0	5.0
21-22			2.5		9.5			8.5				9.0	6.0	0.5	0.5	3.5
22-23				1.5	11.5					11.5			8.0	1.0	4.5	2.0
23-24	4.0					8.5	12.0						10.0	1.5	8.5	0.5
24-25	2.0	5.5	1.5			9.5						9.0	12.0	2.0	3.5	10.5
25-26		4.0				10.5			10.5				5.5	2.5	7.5	9.0
26-27		2.5		2.0		12.0			8.0				7.5	3.0	2.5	7.0
27-28		1.0	0.5							11.5		9.5	9.5	3.5	6.5	5.5
28-29			4.5		9.0			12.0					11.5	4.5	1.0	4.0
29-30	2.0				11.0			11.5	12.0				5.0	5.0	5.5	2.5
30-31	0.0			2.0				11.0	9.5			10.0	7.0	5.5	0.0	1.0

	SW	XX	AT	SW	TZ	BH	RS	ST	SW	SZ	TV	TW	UU	UY	RW	TT	RR	XZ	DM	RW	XZ	RR	TW	
	AND	AND	AND	AQR	AUR	AUR	BOO	BOO	BOO	BOO	BOO	BOO	BOO	BOO	CNC	CNC	CET	CYG	CYG	DRA	DRA	GEM	HER	
MAX	9.3	10.3	10.8	10.5	11.2	11.1	9.8	10.6	11.3	12.0	10.8	10.8	11.2	10.6	10.7	11.0	9.3	9.1	11.2	11.0	9.6	10.7	10.5	
MIN	10.8	11.6	11.5	12.1	12.8	12.6	11.3	11.8	12.7	13.4	11.5	12.1	12.7	12.0	12.6	12.3	10.3	10.5	12.7	12.0	10.3	11.9	11.8	
RISE	2	3	3	1	2	2	2	3	2	2	3	2	1	2	2	3	2	3	2	2	3	2	2	
0- 1	7.5		4.0	2.0	4.0	9.5			11.5	11.5	2.0				10.0		3.0	5.5		2.0	6.0	2.5	2.0	
1- 2	4.5	7.5	9.5		8.0	7.0			12.5	12.5	0.5				12.0	6.0	5.5	3.5	4.5	10.0	5.0	7.0		
2- 3	2.0	1.0	0.5		3.0	5.0	11.0	10.5	0.5	1.0			2.0			9.0	8.0	2.0	0.5	7.5	3.5	11.5	1.5	
3- 4	9.5	11.5	6.0		7.0	3.0		1.5	1.5		12.5	9.0	11.0			12.0		0.5	7.0	4.5	2.5	7.0		
4- 5	7.0	5.0		5.0	2.0	1.0					11.0	10.5			6.0			10.0	3.0	2.0	1.5	11.5	1.5	
5- 6	4.0		2.5	3.0	6.0	9.5	11.5				2.0	12.0		12.5	8.0		2.5	8.5		9.5	0.5	6.5		
6- 7	1.5	9.0	8.0	1.0	10.5	7.5					0.5	1.0			10.5	7.5	5.0	7.0	5.5	7.0	10.5	11.0	1.5	
7- 8	9.0	2.5			5.0	5.5		10.0						11.5	12.5	10.5	7.5	5.0	1.5	4.0	9.5	6.0		
8- 9	6.5		4.5		9.5	3.5	12.0	1.0			12.5		0.5				10.0	3.5	8.0	1.5	8.5	10.5	1.5	
9-10	3.5	6.5	10.0		4.0	1.5					11.0			10.5				2.0	4.0	9.5	7.0	6.0		
10-11	1.0		1.0	4.5	8.5	10.0	0.5	13.0			2.0				6.5	6.5	2.0	0.5	0.0	6.5	6.0	10.5	1.5	
11-12	8.5	10.5	6.5	2.5	3.0	8.0	12.5			11.0	0.5				8.5	9.5	4.5	10.0	6.5	4.0	5.0	5.5		
12-13	6.0	4.0		0.5	7.5	6.0				12.0		10.0			11.0	12.5	7.0	8.5	2.5	1.0	4.0	10.0	1.5	
13-14	3.0		3.0		2.0	4.0	1.0	0.5		0.5	12.5	11.5	1.0				9.5	7.0		9.0	2.5	5.0		
14-15	0.5	8.0	8.5		6.5	1.5					11.0	0.5	10.0			5.0		5.0	5.0	6.5	1.5	10.0	1.5	
15-16	8.0	1.5		5.5	1.0	10.5		12.5	9.0		2.0	2.0			4.5	8.0	1.5	3.5	1.0	3.5	0.5	5.0		
16-17	5.5	12.0	5.0	3.5	5.5	8.5	1.5		10.0		0.5				6.5	11.0	4.0	2.0	7.5	1.0	10.5	9.5	1.5	
17-18	2.5	5.5	10.5	1.5	9.5	6.5			10.5						9.0		6.5	0.5	3.5	8.5	9.5	4.5		
18-19	10.5		1.5		4.5	4.0		0.0	11.0		12.5		1.5		11.0		9.0	10.0		6.0	8.5	9.0	1.5	
19-20	8.0	9.5	7.0		8.5	2.0	11.0		11.5		11.0		10.5				6.5		8.5	6.0	3.0	7.5	4.0	
20-21	5.0	2.5			3.5	0.0		12.0	0.0		2.0	10.0		12.0			9.5	1.0	7.0	2.0	0.5	6.0	9.0	1.5
21-22	2.0		3.5	5.0	7.5	9.0			0.5		0.5	11.5			5.0	12.5	3.5	5.0		8.5	5.0	4.0		
22-23	10.0	6.5	9.0	3.0	2.5	6.5	11.0		1.5	10.5		0.0		11.0	7.0		6.0	3.5	4.5	5.5	4.0	8.5	1.0	
23-24	7.5	0.0		1.0	6.5	4.5				11.5	12.5	1.5			9.5	5.5	8.5	2.0	0.5	3.0	3.0	3.5		
24-25	4.5	11.0	5.5		1.5	2.5				12.5	11.0		0.5		11.5	8.5		0.5	7.0	0.0	1.5	8.0	1.0	
25-26	2.0	4.0	11.0		5.5	0.5	11.5	11.5			2.0					11.5	0.0	10.0	3.0	8.0	0.5	3.0		
26-27	9.5		2.0		10.0	9.5		2.5			0.5						3.0	8.5		5.5	11.0	8.0	1.0	
27-28	7.0	8.0	7.5	4.0	4.5	7.0									5.5		5.5	7.0	5.5	2.5	9.5	3.0		
28-29	4.0	1.5		2.5	9.0	5.0	12.0				12.5	9.5			7.5	7.0	8.0	5.0	1.5	10.5	8.5	7.5	1.0	
29-30	1.5	12.0	4.0	0.5	3.5	3.0					11.0	11.0	1.0		10.0	10.0		3.5	7.5	7.5	7.5	2.5		

	VX	AR	DL	DY	SZ	UU	DG	DH	RR	SS	TV	WW	SZ	RZ	AV	RV
	HER	HER	HER	HER	HYA	HYA	HYA	HYA	LEO	LEO	LEO	LEO	LYN	LYR	PEG	UMA
MAX	9.9	10.6	11.0	10.2	10.6	10.7	11.6	11.4	10.0	10.5	11.5	11.0	9.1	10.0	9.9	10.1
MIN	10.4	11.6	12.4	10.6	11.7	12.3	12.6	12.6	11.7	12.0	12.6	12.0	9.6	12.0	10.9	11.2
RISE	2	2	1	1	2	2	3	2	2	2	2	3	1	2	2	3
0- 1								10.5	7.5				9.0		4.0	11.0
1- 2						6.0		10.0		12.0			2.5			9.5
2- 3		3.5				7.5	7.5	9.5				10.0	4.5		3.0	8.0
3- 4		2.5	2.5		7.0	8.5		9.0	11.5	9.0			6.5		7.0	6.0
4- 5	0.0	1.0			8.5	9.5		8.5	9.0				8.5		2.0	4.5
5- 6		10.5			10.5	10.5	8.0	8.0	7.0			10.5	2.0		6.0	3.0
6- 7		9.0	1.5		12.5	12.0		7.5		12.5			4.0		0.5	1.5
7- 8								7.0				6.0	6.0		5.0	0.0
8- 9				0.0			8.5	6.5	11.0	9.5	8.5	11.0	8.0			10.0
9-10	0.5		0.5						8.5				10.0		3.5	8.5
10-11		3.5			6.5				6.5		8.5	6.0	3.5		7.5	6.5
11-12		2.0			8.5		8.5			12.5		11.0	5.5		2.5	5.0
12-13		0.5		0.5	10.0	6.0			12.5		9.0		7.5	0.0	6.5	3.5
13-14		10.5			12.0	7.5			10.5	9.5		6.5	9.5	0.5	1.5	2.0
14-15	0.5	9.0				8.5	9.0		8.0		9.5	11.5	3.0	1.0	5.5	0.5
15-16						9.5			5.5				5.0	1.5	0.0	10.5
16-17				1.0		11.0				13.0	10.0	7.0	7.0	2.5	4.5	9.0
17-18						12.0	9.5		12.0			12.0	9.0	3.0		7.0
18-19		3.0			8.0			13.0	9.5	10.0	10.5		2.5	3.5	3.0	5.5
19-20	1.0	2.0	2.0		9.5			12.5	7.5			7.0	4.5	4.0	7.0	4.0
20-21		0.5		1.0	11.5		10.0	12.0			11.0	12.0	6.5	4.5	2.0	2.5
21-22		10.0						11.5					8.5	5.0	6.0	1.0
22-23			1.0					10.5	11.5		11.5	7.5	2.0		1.0	11.0
23-24					6.0	10.5	10.0	9.0	10.0			12.5	4.0		5.0	9.5
24-25	1.0			1.5		7.5		9.5	7.0		12.0		6.0			7.5
25-26		4.5	0.0		7.5	8.5		9.0				8.0	8.0		4.0	6.0
26-27		3.0			9.5	9.5	10.5	8.5			12.5	13.0	10.0			4.5
27-28		1.5			11.0	11.0		8.0	11.0				3.5		2.5	3.0
28-29		0.0		2.0	13.0	12.0		7.5	8.5	10.5	12.5	8.5	5.5		6.5	1.5
29-30	1.5	10.0					11.0	7.0	6.5				7.5		1.5	0.0

	SW	XX	AT	SW	TZ	BH	RS	ST	SW	SZ	TV	TW	UU	UY	RW	TT	RR	XZ	DM	RW	XZ	RR	TW
	AND	AND	AND	AQR	AUR	AUR	BOO	BOO	BOO	BOO	BOO	BOO	BOO	BOO	CNC	CNC	CET	CYG	CYG	DRA	DRA	GEM	HER
MAX	9.3	10.3	10.8	10.5	11.2	11.1	9.8	10.6	11.3	12.0	10.8	10.8	11.2	10.6	10.7	11.0	9.3	9.1	11.2	11.0	9.6	10.7	10.5
MIN	10.8	11.6	11.5	12.1	12.8	12.6	11.3	11.8	12.7	13.4	11.5	12.1	12.7	12.0	12.6	12.3	10.3	10.5	12.7	12.0	10.3	11.9	11.8
RISE	2	3	3	1	2	2	2	3	2	2	3	2	1	2	2	3	2	3	2	2	3	2	2
0- 1		5.5			8.0	1.0	9.5	11.0			9.5	12.5	10.0		12.0			2.0	4.0	5.0	6.5	7.0	1.0
1- 2	6.5		0.5		2.5	9.5	12.5		7.0		8.0						2.0	0.5	0.0	2.5	5.0	2.0	
2- 3	3.5	9.5	6.0		7.0	7.5			8.0	9.0	6.5				3.5	5.5	5.0	10.0		10.0	4.0	7.0	1.0
3- 4	1.0	3.0		3.5	1.5	5.5	10.0		8.5	10.0	12.5			12.5	6.0	8.5	7.5	8.5	2.5	7.5	3.0	2.0	
4- 5	8.5		2.5	1.5	6.0	3.5			9.0	11.0	11.0		12.5		8.0	11.5		6.5		4.5	2.0	6.5	1.0
5- 6	6.0	7.0	8.0		0.5	1.0		10.5	10.0	12.0	9.5	7.5	10.5	11.0	10.5			5.0	5.0	2.0	0.5	1.5	
6- 7	3.0	0.5			5.0	10.0	10.5		10.5		8.0	9.0	8.5		12.5	4.5	1.5	3.5	1.0	10.0	11.0	6.0	1.0
7- 8	0.5		4.5		9.0	8.0			11.0		6.5	10.5		10.0		7.5	4.0	2.0		7.0	10.0	1.5	
8- 9	8.0	4.5			4.0	6.0		13.0	11.5		12.5	12.0			4.0	10.5	7.0	0.5	3.5	4.5	9.0	6.0	1.0
9-10	5.5		1.0	3.0	8.0	4.0	10.5		12.5		11.0			9.0	6.5			10.0		1.5	7.5	1.0	
10-11	2.5	8.5	6.5	1.0	3.0	1.5		10.0			9.5		0.0		8.5	3.0		8.5	5.5	9.5	6.5	5.5	1.0
11-12		1.5			7.0	10.5	8.0				8.0		9.0		11.0	6.0	1.0	6.5	2.0	6.5	5.5	0.5	
12-13	7.5		3.0		2.0	8.5	11.0				6.5					9.0	3.5	5.0		4.0	4.5	5.0	0.5
13-14	5.0	6.0	8.5		6.0	6.5		12.5		8.5	12.5	7.0				12.0	6.0	3.5	4.5	1.5	3.0	0.5	
14-15	2.0				1.0	4.0	8.5			9.5	11.0	8.5			4.5			2.0	0.5	9.0	2.0	5.0	0.5
15-16		10.0	5.0	2.0	5.0	2.0	11.5	9.5		10.5	9.5	10.0	11.5		7.0	4.5		0.5		6.5	1.0	9.5	
16-17	7.0	3.0		0.0	9.0	11.0		0.0		11.5	8.0	11.5	9.5	12.5	9.0	7.5	0.5	10.0	3.0	3.5	11.0	4.5	0.5
17-18	4.5		1.5		4.0	9.0	9.0			12.5	6.5				11.5	11.0	3.0	8.5		1.0	10.0	9.0	
18-19	1.5	7.0	7.0		8.0	6.5	12.0	12.0			12.5			11.5			5.5	6.5	5.0	9.0	9.0	4.0	0.5
19-20		0.5			3.0	4.5					11.0				2.5	3.5	8.0	5.0	1.5	6.0	8.0	9.0	
20-21	7.0		3.5	3.5	7.0	2.5	9.5	8.5	7.0		9.5		12.5	10.5	5.0	6.5		3.5		3.5	6.5	4.0	0.5
21-22	4.0	4.5	9.0	1.5	2.0	0.5	12.5		8.0		8.0	6.5	10.5		7.0	9.5	0.0	2.0	3.5	0.5	5.5	8.5	
22-23	1.0				6.0	9.0			8.5		6.5	8.0	8.0	9.5	9.5	12.5	2.5	0.5		8.5	4.5	3.5	0.5
23-24		8.5	5.5		1.0	7.0	10.0	11.5	9.0		12.5	10.0			11.5		5.0	10.0		6.0	3.5	8.0	
24-25	6.5	2.0			5.0	5.0	13.0		10.0		11.0	11.5		8.0		5.0	7.5	8.5	2.5	3.0	2.0	3.5	0.5
25-26	3.5		2.0		9.5	3.0		8.0	10.5	9.0	9.5	0.0	13.0		3.0	8.0		6.5		0.5	1.0	8.0	
26-27	1.0	6.0	7.5	2.5	4.0	1.0	10.5		11.0	10.0	8.0		11.0		5.5	11.0		5.0	4.5	8.0	11.5	3.0	0.5
27-28	8.5			0.5	8.5	9.5			12.0	11.0	6.5		9.0		7.5		2.0	3.5	1.0	5.5	10.0	7.5	
28-29	6.0	10.0	4.0		3.0	7.5		11.0	12.5	12.0	12.5				10.0	3.5	4.5	2.0		2.5	9.0	2.5	0.5
29-30	3.0	3.5	9.5		7.5	5.5	10.5				11.0				12.0	6.5	7.0	0.5	3.0	10.5	8.0	7.0	
30-31	0.5		0.5		2.0	3.5					9.5	8.0				10.0		10.0		8.0	7.0	2.5	0.5

	VX	AR	DL	DY	SZ	UU	DG	DH	RR	SS	TV	WW	SZ	RZ	AV	RV
	HER	HER	HER	HER	HYA	HYA	HYA	HYA	LEO	LEO	LEO	LEO	LYN	LYR	PEG	UMA
MAX	9.9	10.6	11.0	10.2	10.6	10.7	11.6	11.4	10.0	10.5	11.5	11.0	9.1	10.0	9.9	10.1
MIN	10.4	11.6	12.4	10.6	11.7	12.3	12.6	12.6	11.7	12.0	12.6	12.0	9.6	12.0	10.9	11.2
RISE	2	2	1	1	2	2	3	2	2	2	2	3	1	2	2	3
0- 1		8.5					5.5	6.5	4.0	7.5			0.5		5.5	10.0
1- 2		7.0	12.5		5.5			6.0	12.5			8.5	2.5		0.5	8.0
2- 3				13.0	7.0		11.5	5.5	10.5				5.0		4.5	6.5
3- 4					9.0	5.0	5.5	5.0	8.0	10.5		4.0	7.0	11.5		5.0
4- 5	12.5				10.5	6.0		4.5	5.5			9.0	0.0	12.0	3.0	3.5
5- 6	10.5	1.5			12.5	7.5	12.0			7.5			2.0	0.5		2.0
6- 7		11.0				8.5	6.0		12.0			4.5	4.0	1.0	2.0	0.5
7- 8		9.5				9.5			9.5		6.5	9.5	6.5	1.5		10.5
8- 9		8.0	0.5		5.0	11.0	12.5		7.5	11.0			8.5	2.0	1.0	8.5
9-10	12.5				7.0	12.0	6.5		5.0		7.0	4.5	1.5	2.5	5.0	7.0
10-11	10.5				8.5			13.0		8.0		9.5	3.5	3.0		5.5
11-12				11.0	10.5		13.0	12.5	11.5		7.5		5.5	3.5	4.0	4.0
12-13		2.5			12.0		7.0	12.0	9.0			5.0	8.0			2.5
13-14		1.0						11.5	7.0	11.0	8.0	10.0	1.0		2.5	1.0
14-15	13.0	11.0	12.5			5.0		11.0	4.5				3.0			11.0
15-16	10.5	9.5		11.0	4.5	6.5	7.5	10.5		8.5	8.5	5.5	5.0		1.5	9.0
16-17		8.0			6.5	7.5		10.0	11.0			10.5	7.0		5.5	7.5
17-18			11.5		8.0	8.5		9.5	8.5		9.0		0.5		0.5	6.0
18-19					10.0	9.5	7.5	9.0	6.5	11.5		5.5	2.5		4.5	4.5
19-20				11.5	11.5	11.0		8.0	4.0		9.5	10.5	4.5			3.0
20-21	0.0	2.0				12.0		7.5	12.5	8.5			6.5		3.5	1.5
21-22		1.0	1.0				8.0	7.0	10.5		10.0	6.0	0.0			0.0
22-23		10.5						6.5	8.0			11.0	2.0		2.0	9.5
23-24		9.0		12.0	6.0			6.0	5.5	11.5	10.0		4.0			8.0
24-25		8.0			8.0		8.5	5.5				6.5	6.0		1.0	6.5
25-26	0.0				9.5	5.0		5.0	12.0	9.0	10.5	11.5	8.0		5.0	5.0
26-27					11.5	6.5		4.5	9.5				1.5	11.5		3.5
27-28				12.0		7.5	9.0		7.5		11.0	7.0	3.5	12.0	4.0	2.0
28-29		2.0				8.5			5.0	12.0		11.5	5.5	0.5		0.5
29-30		0.5				9.5					11.5		7.5	1.0	3.0	10.0
30-31	11.5	10.5	12.0		5.5	11.0	9.5		11.5	9.0		7.0	1.0	1.5		8.5