

	SW	XX	AT	SW	TZ	YZ	AA	BO	BR	DN	BH	RS	ST	SW	SZ	TV	TW	UU	UY	UY	RW	SS	RV	
	AND	AND	AND	AQR	AQR	AQR	AQR	AQR	AQR	AQR	AUR	BOO	BOO	BOO	BOO	BOO	BOO	BOO	BOO	BOO	CAM	CNC	CVN	CAP
MAX	9.3	10.3	10.8	10.5	11.6	12.1	11.4	11.6	10.8	10.7	11.1	9.8	10.6	11.3	12.0	10.8	10.8	11.2	10.6	11.5	10.7	11.2	10.2	
MIN	10.8	11.6	11.5	12.1	12.4	12.9	13.0	12.6	11.9	11.5	12.6	11.3	11.8	12.7	13.4	11.5	12.1	12.7	12.0	11.9	12.6	12.5	11.6	
RISE	2	3	3	1	3	2	2	3	2	3	2	2	3	2	2	3	2	1	2	3	2	2	2	
0- 1				8.5				8.0	9.0			1.5	3.5	3.0		5.0	2.5	4.0		2.0			9.0	
1- 2	9.5	11.0	6.5	6.5		4.5	5.0		8.0			5.0		4.0		3.5	4.0	2.0		3.5			6.5	
2- 3	6.5			5.0	4.5	7.0	10.0	10.0	7.0		10.5	8.0		4.5	2.0	2.0	5.5		6.0	5.5		8.0	4.0	
3- 4					8.0	9.5			6.5			2.0	6.5	5.0	3.0		7.0	9.0				7.0		
4- 5		8.0	8.5				6.0			10.5		5.5		6.0	4.0	6.5	9.0	7.0	4.5	2.0		6.0	10.0	
5- 6	9.0			10.0								8.5	3.0	6.5	5.0	5.0		5.0		4.0		5.0	7.5	
6- 7	6.0		5.0	8.0	4.5					8.0		2.5	9.0	7.0	6.5	3.5		3.0	3.5	5.5		4.0	5.0	
7- 8		5.5	10.5	6.0	8.0	6.5	7.0	6.5				6.0		7.5	7.5	2.0						3.0		
8- 9				4.0		9.0							6.0	8.5			2.0		2.5	2.5		2.0	10.5	
9-10	8.5	9.5	7.0					8.5				3.0				6.5	3.5	7.5		4.0	2.0		8.0	
10-11	5.5				4.5		8.0					6.5	2.5			5.0	5.5	5.5		5.5			5.5	
11-12			3.0	9.0	8.0			10.5	11.0	9.5			8.5			3.5	7.0	3.5						
12-13		7.0	9.0	7.5		5.5			10.0			3.5				2.0	8.5					2.5		
13-14	8.0			5.5		8.0	9.0		9.0	7.5	9.5	6.5	5.5								4.0		9.0	
14-15	5.0	11.0	5.5	3.5	4.5	10.5				8.5					2.5	6.5		8.0		6.0		7.0	6.5	
15-16			11.0		8.0		5.0		7.5			4.0	2.0		3.5	5.0		6.0	6.0		2.5	6.0	4.0	
16-17	10.0			10.5			10.0	7.0	6.5			7.0	8.0		4.5	3.5	2.0	4.0		2.5		5.0		
17-18	7.5	8.5	7.5	8.5		5.0								2.0	6.0	2.0	3.5	2.0	5.0	4.5		4.0	9.5	
18-19	4.5			6.5	4.5	7.5	6.0	9.0		9.0	10.0	4.5	5.0	2.5	7.0		5.0			6.0		3.0	7.0	
19-20			3.5	4.5	8.0	10.0						7.5		3.0	8.0	6.5	6.5	9.0	4.0			2.0	4.5	
20-21	9.5	6.0	9.5					11.0		6.5				4.0		5.0	8.0	6.5		3.0				
21-22	7.0						7.0					5.0	7.5	4.5		3.5		4.5	3.0	4.5			10.0	
22-23		10.0	5.5	10.0	4.5							8.0		5.0		2.0		2.5		6.0			7.5	
23-24				8.0	8.0	6.5		5.5		10.5	10.0	2.0	4.5	6.0									5.0	
24-25	9.0			6.0		9.0	8.0					5.5		6.5		6.5				3.0				
25-26	6.5	7.5	8.0	4.0				7.5	10.5	8.5		8.5		7.0	2.0	5.0	3.0	7.5		4.5		7.0		
26-27					4.5					9.5		2.5	7.0	8.0	3.0	3.5	4.5	5.5		6.0		6.0	8.5	
27-28			4.0		7.5		9.5	9.5	8.5			6.0			4.0	2.0	6.0	3.0				5.0	6.0	
28-29	8.5		10.0	9.0	11.0	5.5			7.5		10.5		4.0		5.5		7.5		6.5	3.0		4.0		
29-30	6.0			7.0		8.0	5.0		7.0			3.0			6.5	6.5				4.5		3.0		
30-31		8.5	6.0	5.0	4.5	10.5	10.5		6.0	10.0		6.0			7.5	5.0		8.0	5.5	6.5		2.0	9.0	

	RZ	VW	YZ	AN	RR	RU	RV	RX	RZ	UU	XX	XZ	DM	RW	XZ	TW	VX	VZ	AR	DL	DY	DY	DY
	CAP	CAP	CAP	CAP	CET	CET	CET	CET	CET	CET	CYG	CYG	CYG	DRA	DRA	HER	HER	HER	HER	HER	HER	HER	HER
MAX	12.5	12.6	11.0	12.0	9.3	10.8	10.3	11.0	11.2	11.5	11.4	9.1	11.2	11.0	9.6	10.5	9.9	10.7	10.6	11.0	10.2	10.2	10.2
MIN	13.5	13.5	11.6	13.0	10.3	12.1	11.2	11.7	12.4	12.4	12.5	10.5	12.7	12.0	10.3	11.8	10.4	12.0	11.6	12.4	10.6	10.6	10.6
RISE	3	2	3	5	2	3	3	3	2	3	1	3	2	2	3	2	2	2	2	1	1	1	1

0- 1				6.5							3.5		7.0	8.0	4.0	8.0		6.0		6.0	5.5	9.0	2.0
1- 2	7.5		5.5					8.5			8.5		3.5	5.0	3.0	3.0	7.5	3.5	10.0		2.5	6.5	
2- 3		7.5		10.0						10.0	4.0	9.5	9.5	2.5	2.0	8.0	5.5		8.5			3.5	7.5
3- 4	7.5	6.0			8.0						9.0	8.0	5.5	10.0		3.0	3.5	8.0	7.0	5.0	8.5		4.5
4- 5		4.5	6.0		10.5	10.0					4.5	6.5	2.0	7.5	11.0	8.0		5.5	5.5	9.5	5.5		2.0
5- 6	7.5			6.5				9.0		10.5		5.0	8.0	4.5	10.0	3.0		2.5	4.0		3.0	6.5	
6- 7							11.0				5.0	3.0	4.0	2.0	9.0	8.0	8.0	10.0	3.0	4.0		4.0	7.5
7- 8	7.5		6.0	9.5		8.5								10.0	7.5	3.0	5.5	7.5		8.5	8.5		5.0
8- 9		6.5			7.5						5.5	11.0	6.5	7.0	6.5	8.0	3.5	4.5			6.0		2.5
9-10	8.0	5.0	4.0		10.0			9.5				9.5	2.5	4.5	5.5	3.0			9.5	3.0	3.5	7.0	
10-11	3.0	4.0	6.5	6.0					7.0	6.5	8.0	9.0		4.5	8.0			9.5	8.5	7.5		4.5	8.0
11-12	8.0					11.0	10.5					6.5	5.0	9.5	3.0	3.0	8.0	6.5	7.0		9.0	2.0	5.5
12-13	3.0		4.5	9.5							7.0	4.5		7.0	2.0	7.5	6.0	3.5	5.5	2.0	6.5		2.5
13-14	8.0	7.5	6.5					10.0		8.0	2.5	3.0	7.5	4.0		3.0	4.0		4.0	6.5	3.5	7.5	
14-15	3.5	6.0			9.5	9.0			9.0		7.5		3.5			7.5		8.5	2.5			4.5	8.0
15-16	8.0	4.5	4.5	6.0					9.5		3.0	11.0	10.0	9.0	10.0	3.0		5.5				2.0	5.5
16-17	3.5						10.5		10.0	8.5	8.0	9.5	6.0	6.5	9.0	7.5	8.5	2.5		5.5	6.5		3.0
17-18	8.5			9.0				10.0	10.5		3.5	8.0	2.0	3.5	8.0	3.0	6.0	10.5	9.5	10.0	4.0	7.5	
18-19	3.5		4.5						11.0		8.5	6.5	8.5		6.5	7.5	4.0	7.5	8.0			5.0	8.5
19-20	8.5	6.5			9.0					9.0	4.0	4.5	4.5	9.0	5.5	2.5	2.0	4.5	6.5	4.5		2.5	6.0
20-21	3.5	5.0		5.5							9.0	3.0		6.0	4.5	7.5		2.0	5.0	9.0	7.0		3.5
21-22	8.5	4.0	5.0			10.0	10.0	10.5			4.5		7.0	3.5	3.5	2.5	8.5	9.5	3.5		4.5	8.0	
22-23	4.0			9.0						10.0	9.5	11.0	3.0		2.0	7.5	6.5	6.5	2.5	3.5		5.5	9.0
23-24	8.5										5.0	9.5	9.5	8.5		2.5	4.0	4.0		8.0		2.5	6.0
24-25	4.0	7.5	5.0		8.0	8.5		7.5				8.0	5.5	6.0		7.5	2.0		10.5		7.0		3.5
25-26	9.0	6.0		5.5	11.0			11.0		10.5	5.5	6.5		3.0	10.0	2.5		8.5	9.5	2.5	4.5	8.0	
26-27	4.0	4.5					9.5					4.5	8.0		9.0	7.5	8.5	5.5	8.0	7.0	2.0	5.5	
27-28	9.0		5.0	9.0							6.0	3.0	4.0	8.0	8.0	2.5	6.5	3.0	6.5			3.0	6.5
28-29	4.0					11.0		8.0						5.5	7.0	7.5	4.5		5.0		7.5		4.0
29-30	9.0				7.5							6.5	11.0	6.5	2.5	5.5	2.5	2.5	7.5	3.5	6.0	5.0	8.5
30-31	4.5	6.5	5.5	5.5	10.0					7.0	2.0	9.5	2.5	10.5	4.5	7.5		5.0	2.0		2.5	6.0	

all times in U.T.

	LS	RR	SS	ST	TV	WW	VY	SZ	SZ	SZ	RR	RZ	ST	AV	BH	RU	DF	RV	TU
	HER	LEO	LEO	LEO	LEO	LEO	LMI	LYN	LYN	LYN	LYR	LYR	OPH	PEG	PEG	SCL	SER	UMA	UMA
MAX	10.8	10.0	10.5	10.8	11.5	11.0	13.6	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	11.1	11.7	12.0	12.3	12.6	12.0	14.6	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	2	2	2	2	2	3	2	1	1	1	2	2	3	2	3	2	2	3	3
0- 1						2.0					9.0	6.5	7.0	5.5	5.0	9.5	6.0	4.5	
1- 2	4.5									2.5		7.0	4.5			9.5	3.0	3.0	
2- 3	2.5							2.0			2.0	7.5	2.0	4.5		9.0			
3- 4			3.0								5.0	8.5		8.5	10.0	9.0	7.5		3.0
4- 5	4.5	3.0									8.5	9.0	8.5	3.5		8.5	4.5		
5- 6	2.5								2.0			9.5	6.0	7.5	8.0	8.0		8.0	
6- 7				3.5			2.0					10.0	3.5			8.0		6.5	
7- 8	4.5			2.5			3.5				4.5	10.5		6.0	6.0	7.5	6.0	5.0	
8- 9	2.5		3.0							2.5	7.5	11.0					3.0	3.5	3.5
9-10		2.5									11.0		7.0	5.0	4.0			2.0	
10-11	4.5												5.0	9.0	11.0		7.5		
11-12	3.0										3.5		2.5	4.0			4.5		
12-13										2.0	7.0			8.0	9.0			8.5	
13-14	4.5		3.5								10.0		8.5	3.0				7.0	4.0
14-15	3.0	2.0										2.0	6.0	7.0	7.5		6.0	5.5	
15-16								2.5			3.0	2.5	3.5				3.0	4.0	
16-17	4.5						2.0				6.0	3.0		5.5	5.5			2.5	
17-18	3.0			3.5			3.0				9.0	3.5					8.0		1.5
18-19				2.5						2.5		4.0	7.5	4.5			5.0		4.5
19-20	4.5							2.0			2.0	4.5	5.0	8.5	10.5		2.0	9.0	
20-21	3.0										5.5	5.0	2.5	3.5				7.5	
21-22											8.5	5.5		7.5	8.5		6.5	6.0	
22-23	4.5									2.0		6.0	8.5				3.5	4.5	2.0
23-24	3.0	3.0										7.0	6.0	6.5	6.5			3.0	5.0
24-25											4.5	7.5	4.0				8.0		
25-26	4.5									2.5	7.5	8.0		5.0	5.0		5.0		
26-27	3.0						2.0				11.0	8.5		9.5			2.0		
27-28							3.0					9.0	7.5	4.0				8.0	2.5
28-29	4.5	2.5		3.5				3.0			3.5	9.5	5.0	8.0	10.0		6.5	6.5	
29-30	3.0			2.0						2.0	7.0	10.0	2.5	3.0			3.5	5.0	
30-31					2.0						10.0	10.5		7.0	8.0			3.5	