

	SW	XX	AT	BR	TZ	BH	RS	ST	SW	SZ	TV	TW	UU	UY	UY	RW	TT	VZ	VZ	KV	SS	RR	RU
	AND	AND	AND	AQR	AUR	AUR	BOO	BOO	BOO	BOO	BOO	BOO	BOO	BOO	CAM	CNC	CNC	CNC	CNC	CNC	CVN	CET	CET
MAX	9.3	10.3	10.8	10.8	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	7.2	11.9	11.2	9.3	10.8
MIN	10.8	11.6	11.5	11.9	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	7.9	13.0	12.5	10.3	12.1
RISE	2	3	3	2	2	2	2	3	2	2	3	2	1	2	3	2	3	1	1	2	2	2	3
0- 1	3.0		3.0	0.5	3.5	2.5	6.5		4.0	11.0	4.0		7.0		0.0	9.5	4.0	7.5	3.5	0.5	4.0	3.5	
1- 2	0.5	3.0			8.0	0.5		10.0	5.0	12.0			5.0	6.0	2.0	12.0	7.0	1.0	5.0	0.5			
2- 3					2.5				5.5						3.5	1.0	10.0	2.5	7.0	0.5			
3- 4					7.0	7.5	7.0	7.0	6.0		7.0	5.0		5.0	5.0	3.0		4.0	8.5	1.0			
4- 5	2.5	0.0			1.5	5.0		13.0	7.0		5.5	6.5	10.0	12.0	0.5	5.5	2.5	6.0	1.5	1.0	11.5	0.5	
5- 6			1.5		6.0	3.0			7.5		4.0	8.0	8.0		2.0	7.5	6.0	7.5	3.5	1.0	10.5	3.0	
6- 7		4.5			0.5	1.0	7.5	9.5	8.0	5.0		9.5	5.5	11.0	3.5	10.0	9.0	0.5	5.0	1.0	9.0		
7- 8					5.0				8.5	6.0		11.0			5.5	12.0		2.5	6.5	1.0	8.0		
8- 9	2.5		3.5		9.0	7.5		6.5	9.5	7.5	7.0	12.5		10.0	0.5	1.5	1.5	4.0	8.5	1.5	7.0		
9-10		1.5			4.0	5.5	8.0	12.5	10.0	8.5	5.5		10.5		2.0	3.5	4.5	6.0	1.5	1.5	6.0		0.5
10-11					8.0	3.5			10.5	9.5	4.0		8.5	8.5	4.0	6.0	7.5	7.5	3.0	1.5	5.0	2.5	
11-12					3.0	1.5	5.0	9.0	11.5	10.5		4.5	6.5		5.5	8.0	10.5	0.5	5.0	1.5	4.0		
12-13	2.0				7.0		8.5		12.0	11.5		6.0		7.5	0.5	10.5	0.0	2.5	6.5	1.5			
13-14			2.0		2.0	8.0		6.0			7.5	7.5			2.5	12.5	3.0	4.0	8.0	2.0			
14-15		3.0		0.0	6.0	6.0	5.5	12.0			6.0	9.0		6.5	4.0	2.0	6.0	5.5	1.5	2.0			
15-16					1.0	4.0	8.5				4.5	10.5	9.0		5.5	4.0	9.0	7.5	3.0	2.0	11.5	1.5	
16-17	1.5		4.0		5.0	2.0		8.5				12.0	7.0	5.5	1.0	6.5		0.5	4.5	2.0	10.5		1.0
17-18		0.5			9.0		6.0						5.0	12.5	2.5	8.5	1.5	2.0	6.5	2.0	9.5		
18-19			0.0		4.0	8.5		5.5		5.5	7.5				4.0	11.0	5.0	4.0	8.0	2.5	8.5		
19-20	3.5	4.5			8.0	6.5		11.5	4.0	7.0	6.0	4.0		11.5	5.5	0.0	8.0	5.5	1.0	2.5	7.5		
20-21	1.0				3.0	4.5	6.5		5.0	8.0	4.5	5.5	9.5		1.0	2.5	11.0	7.0	3.0	2.5	6.5	1.0	
21-22			2.5		7.0	2.0		8.0	5.5	9.0		7.0	7.5	10.0	2.5	4.5	0.5	0.5	4.5	2.5	5.0		
22-23		2.0			2.0	0.0			6.0	10.0		8.5	5.5		4.0	7.0	3.5	2.0	6.5	2.5	4.0		
23-24	3.0				6.0		7.0		7.0	11.0	7.5	10.5		9.0	6.0	9.0	6.5	3.5	8.0	3.0	3.0		
24-25	0.5				1.0	7.0		11.0	7.5	12.5	6.0	12.0			1.0	11.5	9.5	5.5	1.0	3.0			
25-26					5.0	4.5			8.0		4.5		10.5	8.0	2.5	0.5		7.0	3.0	3.0		0.5	
26-27			0.5		9.5	2.5	7.5	7.5	9.0				8.5		4.5	2.5	2.0	0.0	4.5	3.0		3.0	0.5
27-28	2.5	3.5		0.5	4.0	0.5			9.5				6.0	7.0	6.0	5.0	5.0	2.0	6.0	3.0	10.5		

	RV	RX	RZ	TY	UU	XX	XZ	DM	RW	XZ	RX	SV	BB	RX	SS	RR	GQ	VX	VZ	AR	DL	DY	DY
	CET	CET	CET	CET	CET	CYG	CYG	CYG	DRA	DRA	ERI	ERI	ERI	FOR	FOR	GEM	GEM	HER	HER	HER	HER	HER	HER
MAX	10.3	11.0	11.2	11.4	11.5	11.4	9.1	11.2	11.0	9.6	9.2	9.6	10.9	11.1	9.4	10.7	13.6	9.9	10.7	10.6	11.0	10.2	10.2
MIN	11.2	11.7	12.4	11.9	12.4	12.5	10.5	12.7	12.0	10.3	10.1	10.2	11.9	12.5	10.6	11.9	14.6	10.4	12.0	11.6	12.4	10.6	10.6
RISE	3	3	2	2	3	1	3	2	2	3	3	5	2	2	2	2	2	2	2	2	1	1	1
0- 1				0.5		1.0			4.0	2.0		1.0				0.5	8.0					9.5	
1- 2		1.0								0.5	3.5			1.5		5.0		10.5					10.5
2- 3			0.0			1.5			9.5	11.0			0.5			9.5	1.0	10.0	7.5	10.5	8.5		8.0
3- 4	2.5		0.5						6.5	10.0			4.0			4.5	4.5	8.0		9.0	13.0		
4- 5			1.0			2.0	0.5		4.0	8.5	2.0			1.0		9.0	8.0			7.5		10.0	
5- 6			1.5			7.5	10.0	0.5		7.5		1.0				4.0			9.5	6.0			
6- 7			2.0			2.5	8.5		9.0	6.5			0.5			9.0	1.0				12.0		8.5
7- 8			2.5	3.5		8.0			6.0	5.5	0.5		3.5	1.0		4.0	4.0	10.0					
8- 9	2.0		3.0	2.5						4.0	4.5					8.5	7.5	8.0				10.5	
9-10			3.5	2.0		8.5				3.0						3.5			8.5		11.0	7.5	
10-11				1.5					8.5	2.0		1.0	0.0	0.5		8.0	0.5			10.0			8.5
11-12				0.5		9.0	0.5		6.0	1.0	3.0		3.5			3.5	4.0			8.5			
12-13						10.0				11.0						1.5	8.0	7.5	10.5	10.5	7.0	10.0	10.5
13-14	1.5				0.5	9.5	8.5	0.0		10.0				0.0		1.5	3.0		8.0	7.5	5.5		8.0
14-15									8.5	9.0	1.5					1.5	7.5	0.5					9.0
15-16						0.5			5.5	8.0		1.0	3.0			1.0	2.5	4.0			9.0		
16-17										6.5						1.0	7.0	7.5		9.5			
17-18						1.0				5.5	0.0					0.5	2.5		10.5		11.0		8.5
18-19	1.5						0.5	1.0	8.0	4.5	4.5					0.5	7.0	0.5	8.5		10.0		9.5
19-20				3.0		1.5	10.0		5.0	3.5			3.0		0.0	2.0	4.0				8.5	12.0	
20-21				2.0			8.5			2.0		1.0				6.5	7.0		8.5	7.0			
21-22				1.5		2.0			10.5	1.0	3.0					1.5					5.5		8.5
22-23				0.5		7.0			7.5	11.5		4.5				6.0	0.5	11.0			11.0		9.5
23-24	1.0			0.0		2.5			5.0	10.0			2.5			1.5	3.5	8.5					
24-25						7.5				9.0	1.5					6.0	7.0		8.0				
25-26							0.5		10.0	8.0	5.5	1.0				1.0				11.0	10.0	9.0	
26-27			0.0			8.0	10.0	0.5	7.5	7.0						5.5	0.0			9.5			10.0
27-28			0.5				8.5		4.5	5.5		4.0	2.5			0.5	3.5		10.0	8.0			

	DY	SZ	UU	DG	DH	RR	SS	ST	TV	WW	AA	VY	U	SZ	SZ	SZ	RR	RZ	ST	AV	BH	KZ	DF
	HER	HYA	HYA	HYA	HYA	LEO	LEO	LEO	LEO	LEO	LEO	LMI	LEP	LYN	LYN	LYN	LYR	LYR	OPH	PEG	PEG	PUP	SER
MAX	10.2	10.6	10.7	11.6	11.4	10.0	10.5	10.8	11.5	11.0	11.3	13.6	9.8	9.1	9.1	9.1	7.1	10.0	11.3	9.9	10.0	11.3	11.4
MIN	10.6	11.7	12.3	12.6	12.6	11.7	12.0	12.3	12.6	12.0	12.4	14.6	11.1	9.6	9.6	9.6	8.1	12.0	12.7	10.9	10.8	12.8	13.0
RISE	1	2	2	3	2	2	2	2	2	3	2	2	2	1	1	1	2	2	3	2	3	3	2
0- 1		5.5	4.0	2.0		7.5	7.0	8.0	10.5		4.5	8.5	4.0	5.0	8.0	2.0		11.5					
1- 2		7.5	5.0			5.0		7.0		4.0	9.0	9.5		7.0	1.0	4.0		12.0					9.5
2- 3		9.0	6.0	8.5	10.0	3.0	4.0	5.5	10.5	9.0		11.0		0.5	3.0	6.0	11.0						6.5
3- 4	9.0		7.5	2.5	9.5	0.5	10.0	4.5			4.0	12.0	1.5	2.5	5.0	8.0							
4- 5			8.5		9.0	9.0		3.5	11.0	4.5	9.0	0.5		4.5	7.0	1.5					1.5		
5- 6		1.5	9.5	9.0	8.5	7.0	7.5		3.5	9.5		2.0		6.5	0.5	3.5			0.5				8.0
6- 7		3.5	10.5	3.0	8.0	4.5			11.5		4.0	3.0		8.5	2.5	5.5	10.0						
7- 8	9.5	5.0			7.5	2.5	4.5		4.0	5.0	9.0	4.5	3.5	2.0	4.5	7.5							
8- 9		7.0		9.0	7.0		10.5	11.0	12.0	9.5		5.5		4.0	6.5	1.0		10.5					9.5
9-10		8.5	1.5	3.5	6.5	8.5		10.0	4.0		4.0	7.0		6.0	0.0	3.0							6.5
10-11		10.5	2.5		6.0	6.5	7.5	9.0	12.5	5.0	8.5	8.0	1.0	8.0	2.0	5.0	9.5						
11-12	9.5		4.0	9.5	5.5	4.0		7.5	4.5	10.0		9.5	5.0	1.5	4.0	7.0	12.5						
12-13			5.0	3.5	5.0	1.5	4.5	6.5			3.5	10.5		3.5	6.0	0.5							8.0
13-14		3.0	6.0		4.0	10.5	11.0	5.5	5.0	5.5	8.5	12.0		5.5	8.0	2.5		9.0		1.0			
14-15		5.0	7.5	10.0	3.5	8.0		4.5		10.5		0.5	3.0	7.5	1.5	4.5	8.5						
15-16	10.0	6.5	8.5	4.0	3.0	6.0	8.0	3.5	5.5	1.0	3.5	2.0		0.5	3.5	6.5	11.5						10.0
16-17		8.5	9.5		2.5	3.5				6.0	8.5	3.0		3.0	5.5	8.5							7.0
17-18		10.0	10.5	10.5	2.0	1.0	5.0		6.0	10.5		4.5	0.5	5.0	7.5	2.0		8.5	10.5			0.5	
18-19				4.5	1.5	10.0	11.0			1.0	3.5	5.5	4.5	7.0	1.0	4.0		9.0					
19-20	10.0				1.0	7.5		10.5	6.5	6.0	8.0	7.0		0.0	3.0	6.0	11.0	9.5				1.0	8.5
20-21	7.5	2.5	1.5			5.0	8.0	9.5		11.0	13.0	8.0		2.0	5.0	8.0		10.0					
21-22		4.5	2.5	5.0		3.0		8.5	7.0	1.5	3.0	9.5	2.5	4.5	7.0	1.5		10.5	0.5			1.5	
22-23		6.0	4.0			0.5	5.0	7.5		6.5	8.0	10.5		6.5	0.5	3.5		11.0	9.5		0.0		10.0
23-24	10.5	8.0	5.0			9.0	11.5	6.5	7.5	11.5	12.5	12.0		8.5	2.5	5.5	10.0	12.0				2.0	7.0
24-25	8.0	10.0	6.0	5.5	10.0	7.0		5.5		2.0	3.0	0.5	0.0	1.5	4.5	7.5							
25-26			7.5		9.5	4.5	8.5	4.5	8.0	7.0	8.0	2.0	4.0	3.5	6.5	1.0						2.5	
26-27			8.5		9.0	2.5		3.5			12.5	3.0		6.0	8.5	3.0		10.5					8.5
27-28		2.0	9.5	5.5	8.5		5.5		8.0	2.0	3.0	4.5		8.0	2.0	5.0	9.5					3.0	

all times in U.T.

	RV	TU
	UMA	UMA
MAX	10.1	9.2
MIN	11.2	10.2
RISE	3	3

0- 1	9.5	8.0
1- 2	8.0	11.0
2- 3	6.5	
3- 4	5.0	3.0
4- 5	3.5	5.5
5- 6	2.0	8.5
6- 7		11.5
7- 8	10.0	
8- 9	8.5	3.5
9-10	7.0	6.0
10-11	5.5	9.0
11-12	4.0	11.5
12-13	2.5	
13-14		4.0
14-15	10.5	6.5
15-16	9.0	9.5
16-17	7.5	12.0
17-18	6.0	1.5
18-19	4.5	4.5
19-20	3.0	7.0
20-21	1.5	10.0
21-22	11.0	12.5
22-23	9.5	2.0
23-24	8.0	5.0
24-25	6.5	7.5
25-26	5.0	10.5
26-27	3.5	
27-28	2.0	2.5