

all times in U.T.

	SW	XX	AT	SW	YZ	AA	BO	TZ	BH	RS	ST	SW	SZ	TV	TW	UU	UY	UY	RW	TT	VZ	VZ	KV
	AND	AND	AND	AQR	AQR	AQR	AQR	AUR	AUR	BOO	BOO	BOO	BOO	BOO	BOO	BOO	BOO	CAM	CNC	CNC	CNC	CNC	CNC
MAX	9.3	10.3	10.8	10.5	12.1	11.4	11.6	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
MIN	10.8	11.6	11.5	12.1	12.9	13.0	12.6	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
RISE	2	3	3	1	2	2	3	2	2	2	3	2	2	3	2	1	2	3	2	3	1	1	2
0- 1								2.5		2.0		3.0	5.0	6.0	11.5	4.5	2.5	4.5	1.5	4.0	6.5	2.5	6.5
1- 2			11.5					6.5		5.0	6.0	3.5	6.0	4.5		2.5	10.0	6.0	4.0	7.0		4.0	7.0
2- 3	10.5							1.5	5.0	8.0		4.0	7.0	3.0	2.0		1.5	1.5	6.5		1.5	5.5	7.0
3- 4				10.5				6.0	2.5	2.0	3.0	5.0	8.0	1.5	3.5	9.5	9.0	3.0	8.5		3.0		7.0
4- 5						11.5				5.5	9.0	5.5	9.5		5.0	7.0		4.5		2.5	4.5		7.0
5- 6								5.0		8.5		6.0	10.5	6.0	6.5	5.0	7.5	6.0		5.5	6.5	2.0	7.0
6- 7			10.0							2.5	5.5	7.0	11.5	4.5	8.0	3.0		1.5	2.0			4.0	7.5
7- 8								4.0		6.0	11.5	7.5		3.0	10.0	1.0	6.5	3.0	4.5		1.0	5.5	7.5
8- 9							11.5		3.0	9.0	2.5	8.0	1.0	1.5	11.5	10.0		4.5	6.5	1.5	3.0		7.5
9-10		11.0		9.5				3.0	1.0	3.0	8.5	8.5	2.5			8.0	5.5	6.5		4.5	4.5		7.5
10-11								7.0		6.5		9.5	3.5	6.0	1.5	6.0		1.5			6.5	2.0	7.5
11-12								2.0			5.0	10.0	4.5	4.5	3.0	3.5	4.0	3.0				3.5	7.5
12-13					11.0			6.0		3.5	11.0	10.5	5.5	3.0	4.5	1.5	11.5	5.0	2.5		1.0	5.5	8.0
13-14									3.5	6.5	2.0	11.5	6.5	1.5	6.5	10.5	3.0		5.0	3.0	3.0	7.0	8.0
14-15			10.5	11.0				5.0	1.5		8.0		7.5		8.0	8.5	10.5	1.5	7.0	6.0	4.5		8.0
15-16				9.0		11.0				4.0			9.0	6.0	9.5	6.5	2.0	3.5			6.0	2.0	
16-17								4.0		7.0	4.5	1.0	10.0	4.5	11.0	4.5	9.0	5.0					3.5
17-18										1.5	10.5	1.5	11.0	3.0		2.5				1.5	1.0	5.0	
18-19								3.0	4.0	4.5	1.5	2.5		2.0	1.5		8.0	2.0	3.0	5.0	2.5	7.0	
19-20			9.0					7.0	2.0	7.5	7.5	3.0			3.0	9.0		3.5	5.5		4.5		
20-21				10.5				2.0		2.0		3.5	2.0	6.5	4.5	7.0	7.0	5.0	7.5		6.0	1.5	
21-22								6.0		5.0	4.0	4.0	3.0	5.0	6.0	5.0							3.5
22-23		11.0	11.0					1.0		8.0	10.0	5.0	4.0	3.5	7.5	3.0	5.5	2.0		3.5		5.0	
23-24								5.0	4.5	2.0		5.5	5.0	2.0	9.0			3.5	1.5	6.5	2.5	7.0	
24-25									2.0	5.5	7.0	6.0	6.0		10.5	10.0	4.5	5.0	3.5		4.0		
25-26	10.5							4.0		8.5		7.0	7.0	6.5		7.5			6.0		6.0	1.5	
26-27				9.5						2.5	3.5	7.5	8.5	5.0		5.5	3.5	2.0	8.0	2.0		3.0	
27-28			9.5					3.0		6.0	9.5	8.0	9.5	3.5	2.5	3.5	10.5	3.5		5.0		5.0	
28-29					11.0			7.5	4.5	9.0		9.0	10.5	2.0	4.0	1.5	2.5	5.5			2.5	6.5	
29-30						11.0		2.0	2.5	3.0	6.5	9.5	11.5		5.5	10.5	9.5		2.0		4.0		

	SS	RV	RZ	AN	S	XX	XZ	DM	RW	XZ	RX	BB	RR	GQ	TW	VX	VZ	AR	DL	DY	DY	DY	LS
	CVN	CAP	CAP	CAP	COM	CYG	CYG	CYG	DRA	DRA	ERI	ERI	GEM	GEM	HER	HER	HER	HER	HER	HER	HER	HER	HER
MAX	11.2	10.2	12.5	12.0	10.9	11.4	9.1	11.2	11.0	9.6	9.2	10.9	10.7	13.6	10.5	9.9	10.7	10.6	11.0	10.2	10.2	10.2	10.8
MIN	12.5	11.6	13.5	13.0	12.1	12.5	10.5	12.7	12.0	10.3	10.1	11.9	11.9	14.6	11.8	10.4	12.0	11.6	12.4	10.6	10.6	10.6	11.1
RISE	2	2	3	5	3	1	3	2	2	3	3	2	2	2	2	2	2	2	1	1	1	1	2
0- 1	2.5		9.0			5.0			3.5	2.0				5.0		10.0		7.5		6.5	10.0		
1- 2	1.5	10.5			4.5		11.0			1.0	1.5	1.0	5.5		5.5	8.0	10.0	6.5	8.0	4.0	7.5		
2- 3			9.0		8.5	5.5	9.5	9.5	8.5	11.5						6.0	7.0	5.0			5.0	8.5	3.5
3- 4	11.0						8.0		6.0	10.0			5.0	1.5	5.5	3.5	4.0	3.5		9.5		6.0	
4- 5	10.0		9.5		2.5	6.0	6.5		3.0	9.0				5.0				2.0	7.0	7.0	10.5		
5- 6	9.0				7.0		5.0	8.0		8.0		1.0	4.5		5.5	10.5	9.0		11.5	4.0	8.0		4.0
6- 7	8.0		9.5		11.0	6.5	3.0		8.5	7.0						8.0	6.0	10.5			5.0	8.5	
7- 8	7.0				1.0				5.5	5.5			4.5	1.5	5.5	6.0	3.0	9.0	6.0	9.5		6.0	
8- 9	5.5		9.5		5.5	7.5	11.0		3.0	4.5				5.0		4.0		7.5	10.5	7.0	10.5	3.5	4.0
9-10	4.5				9.5		9.5			3.5			4.0		5.5		8.0	6.0		4.5	8.0		
10-11	3.5					8.0	8.0	9.0	8.0	2.5						10.5	5.0	4.5	5.0		5.5	9.0	
11-12	2.5				3.5	3.0	6.5		5.0	1.0	1.0		4.0	1.5	5.0	8.5		3.0	9.5	10.0		6.5	4.0
12-13	1.5				8.0	8.5	4.5		2.5					4.5		6.5	10.0	1.5		7.5		4.0	
13-14						4.0	3.0	7.5	10.5	10.5			3.5		5.0	4.0	7.0			5.0	8.5		
14-15	11.0	10.0			2.0	9.0			7.5	9.0							4.5	10.0	8.5		6.0	9.5	4.0
15-16	10.0				6.0	4.5	11.0	10.0	5.0	8.0			3.0	1.0	5.0	11.0		8.5		10.5		7.0	
16-17	9.0				10.5	9.5	9.5		2.0	7.0				4.5		8.5	9.0	7.5		8.0		4.0	
17-18	8.0					5.0	8.0		10.0	6.0			3.0		5.0	6.5	6.5	6.0	7.5	5.0	8.5		4.0
18-19	7.0	10.5			4.5		6.5	8.5	7.5	4.5						4.5	3.5	4.5	11.5		6.0	9.5	
19-20	6.0				8.5	5.5	4.5		4.5	3.5			2.5	1.0	5.0			3.0		10.5		7.0	
20-21	5.0						3.0		2.0	2.5				4.5			8.5	1.5	6.5	8.0		4.5	4.0
21-22	4.0			11.5	3.0	6.0			9.5	1.5			2.0		5.0	9.0	5.5		10.5	5.5	9.0		
22-23	3.0				7.0		11.0		7.0							6.5		10.0			6.5	10.0	
23-24	1.5				11.5	6.5	9.5	9.0	4.5	10.5			2.0		5.0	4.5	10.0	8.5	5.5		4.0	7.5	4.0
24-25					1.5		8.0		1.5	9.5			6.5	4.0			7.5	7.0	9.5	8.5		5.0	
25-26	11.0				5.5	7.0	6.5		9.5	8.5			1.5		5.0		4.5	5.5		6.0	9.5		
26-27	10.0			11.5	9.5		4.5	8.0	6.5	7.0			6.0			9.0		4.0	4.5		7.0	10.5	4.0
27-28	9.0	9.5				7.5	3.0		4.0	6.0			1.0		5.0	7.0	9.5	2.5	8.5		4.0	7.5	
28-29	8.0				4.0	3.0			1.0	5.0			6.0	4.0	9.5	5.0	6.5	1.5		8.5		5.0	
29-30	7.0				8.0	8.0	11.0		9.0	4.0					5.0		3.5	11.0		6.0	9.5		4.0

	SZ	UU	DG	DH	GO	RR	SS	ST	TV	WW	AA	VY	U	SZ	SZ	SZ	RR	RZ	ST	AV	BH	KZ	DF
	HYA	HYA	HYA	HYA	HYA	LEO	LEO	LEO	LEO	LEO	LEO	LMI	LEP	LYN	LYN	LYN	LYR	LYR	OPH	PEG	PEG	PUP	SER
MAX	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	10.0	11.3	9.9	10.0	11.3	11.4
MIN	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	12.0	12.7	10.9	10.8	12.8	13.0
RISE	2	2	3	2	3	2	2	2	2	3	2	2	2	1	1	1	2	2	3	2	3	3	2
0- 1	5.0	6.0					8.5	3.5	3.0		2.5	5.0	1.0	2.0	5.0	8.0	10.0	11.5					6.0
1- 2		7.0			5.0	9.0		2.5		5.0	7.0	6.5		4.0	7.0	1.0							3.0
2- 3						7.0	6.0	1.5	3.5			7.5		6.0		3.0							10.5
3- 4					2.5	4.5					2.0	9.0		8.0	2.5	5.0	6.0		8.5				7.5
4- 5				6.5		2.5	3.0		4.0	5.0	7.0			1.5	4.5	7.0	9.0		6.0				4.5
5- 6	1.0		1.5	6.0			9.0	10.0						3.5	6.5					8.5			
6- 7	3.0			5.0	7.0	8.5		9.0	4.5		2.0			5.5	8.5	2.5							9.0
7- 8	4.5	1.5		4.5		6.5	6.0	8.0		5.5	6.5	1.5		7.5	2.0	4.5	5.0		9.5		10.5		6.0
8- 9	6.5	2.5	1.5	4.0	5.0	4.0		7.0	5.0			2.5			4.0	6.5	8.0		7.5				3.0
9-10		3.5		3.5		1.5	3.0	5.5		1.0	2.0	4.0		3.0	6.0		11.5						10.5
10-11		4.5		3.0	3.0		9.0	4.5	5.5	6.0	6.5	5.0		5.0	8.0	2.0		4.5					7.5
11-12		6.0	2.0	2.5		8.0		3.5				6.5		7.0	1.0	4.0		5.5					4.5
12-13		7.0		2.0		5.5	6.5	2.5	6.0	1.5	1.5	7.5			3.5	6.0	7.5	6.0	8.5	9.5			
13-14	2.5			1.5	7.0	3.5		1.5		6.5	6.5	9.0		2.5	5.5	8.0	10.5	6.5	6.0				9.0
14-15	4.5		2.5	1.0		1.0	3.5		6.0					4.5	7.5	1.5		7.0			11.5		6.0
15-16	6.0				5.0		9.5			1.5	1.5			6.5		3.5		7.5				1.0	3.0
16-17						7.5		10.0	6.5	6.5	6.0			8.5	2.5	5.5	6.5	8.0	10.0		10.0		
17-18			3.0		3.0	5.0	6.5	8.5				1.0		2.0	5.0	7.5	10.0	8.5	7.5			1.5	7.5
18-19		1.5				3.0		7.5	7.0	2.0	1.5	2.5		4.0	7.0	1.0		9.0					4.5
19-20		2.5					3.5	6.5		7.0	6.0	3.5		6.0		3.0		9.5				2.0	
20-21	2.0	3.5	3.5		7.0	9.0		5.5	7.5			5.0		8.0	2.0	5.0	6.0	10.0					9.0
21-22	4.0	4.5				7.0		4.5		2.5	1.0	6.0		1.5	4.0	7.0	9.0	10.5	9.0	9.0		2.5	6.0
22-23	5.5	6.0			5.0	4.5	7.0	3.5	8.0	7.5	6.0	7.5		3.5	6.5			11.0	6.5				3.0
23-24		7.0	3.5			2.5		2.5				8.5		5.5	8.5	2.5		11.5			11.0	3.0	
24-25					3.0		4.0	1.5	8.5	2.5	1.0			7.5	1.5	4.5	5.0						7.5
25-26						8.5				7.5	5.5		1.0		3.5	6.5	8.5		10.0			3.0	4.5
26-27			4.0	6.5		6.5	1.0							3.0	5.5	8.5	11.5		7.5				
27-28	2.0			6.0	7.0	4.0	7.0	9.5	1.0	3.0		1.0		5.0	8.0	2.0			5.5			3.5	9.0
28-29	3.5			5.5		1.5		8.5			5.5	2.5		7.0	1.0	4.0							6.0
29-30	5.5	1.5	4.5	5.0	5.0		4.0	7.5	1.5			3.5			3.0	6.0	7.5					4.0	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	7.5	2.0
1- 2	6.0	5.0
2- 3	4.5	7.5
3- 4	3.0	10.5
4- 5	1.5	
5- 6	11.0	2.5
6- 7	9.5	5.0
7- 8	8.0	8.0
8- 9	6.5	11.0
9-10	5.0	
10-11	3.5	3.0
11-12	2.0	5.5
12-13		8.5
13-14	10.0	
14-15	8.5	
15-16	7.0	3.5
16-17	5.5	6.0
17-18	4.0	9.0
18-19	2.5	
19-20		1.0
20-21	10.5	4.0
21-22	9.0	6.5
22-23	7.5	9.5
23-24	6.0	
24-25	4.5	1.5
25-26	3.0	4.5
26-27	1.5	7.0
27-28	11.0	10.0
28-29	9.5	
29-30	8.0	2.0