

	SW	XX	AT	SW	TZ	YZ	AA	BO	BR	DN	BH	RS	ST	SW	SZ	TV	TW	UU	UY	UY	RW	KV	SS	
	AND	AND	AND	AQR	AQR	AQR	AQR	AQR	AQR	AQR	AUR	BOO	BOO	BOO	BOO	BOO	BOO	BOO	BOO	BOO	CAM	CNC	CNC	CVN
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	11.9	11.2	
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	13.0	12.5	
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	4.5		3.5	7.5	5.0	5.0	6.5					6.5	4.0	4.0	2.5	7.0	2.5	5.0				2.0	3.0	
1- 2			9.0	5.5	8.5	7.5				11.0	9.0			4.5	3.5	5.5	4.0	3.0		2.0		2.0	2.0	
2- 3	10.0	7.0		3.5		10.0						4.0		5.0	4.5	4.0	5.5			4.0	2.0			
3- 4	7.0		5.5				7.5			8.5		7.0	6.5	6.0	6.0	2.5	7.0			5.5				
4- 5		11.0		10.5	5.0			7.0						6.5	7.0		9.0	8.0	5.5					
5- 6				8.5	8.5							4.5	3.0	7.0	8.0	7.0		6.0		2.5				
6- 7	9.5		7.5	6.5		7.0	9.0	9.0	10.5		9.5	7.5	9.0	8.0		5.5		4.0	4.5	4.0				
7- 8	6.5	8.5		4.5		9.5				9.5						4.0		1.5		5.5			7.5	
8- 9			4.0		5.0		11.0	9.0	10.5			5.0	6.0			2.5	2.0		3.5		2.5		6.5	
9-10			9.5		8.5		10.0			8.0		8.0					3.5	8.5		2.5			5.5	
10-11	9.0	5.5		10.0					7.0	8.0		2.0	2.5			7.0	5.5	6.5	2.5	4.0			4.5	
11-12	6.0		6.0	8.0		6.0	5.5	5.5	6.0		10.0	5.5	8.5		2.0	5.5	7.0	4.5		5.5			3.5	
12-13		10.0		6.0	5.0	8.5	11.0					8.5			3.0	4.0	8.5	2.5					2.0	
13-14				4.0	8.0	11.0		7.5				2.5	5.5		4.0	2.5				2.5				
14-15	8.5		8.0				7.0					5.5			5.5					4.0				
15-16	5.5	7.0						9.5		9.5			2.0		6.5	7.0		7.0		6.0				
16-17			4.5	9.0	5.0	5.5				10.5	3.0	8.0	2.0	7.5	5.5	2.0	5.0							
17-18			10.0	7.0	8.0	8.0	8.0			7.5		6.0		2.5	4.0	3.5	3.0	6.0	2.5					
18-19	8.0			5.5		10.5							5.0	3.5		2.5	5.0			4.5			7.5	
19-20	5.0		6.5	3.5					11.0			3.5		4.0			6.5		5.0	6.0			6.5	
20-21		8.5			4.5		9.0	6.0	10.0			6.5		4.5		7.0	8.0	8.0					5.5	
21-22	10.0		3.0	10.5	8.0				9.0		10.5		7.5	5.5		5.5		5.5	4.0	3.0			4.5	
22-23	7.5		8.5	8.5		7.0		8.0	8.0	9.0		4.0		6.0		4.0		3.5		4.5			3.5	
23-24	4.5	6.0		6.5		9.5	10.0		7.5			7.0	4.5	6.5	2.5	2.5			2.5	6.0			2.5	
24-25			5.0	4.5	4.5			10.0	6.5	6.5				7.0	3.5									
25-26	10.0	10.0	10.5		8.0		6.0					4.5		8.0	5.0	7.0	3.0	8.5		3.0				
26-27	7.0						11.0					7.5	7.0		6.0	5.5	4.5	6.5		4.5				
27-28			7.0	9.5		6.0				10.5	9.0				7.0	4.0	6.0	4.5		6.5				
28-29		7.5		8.0	4.5	8.5	7.0					5.0	4.0		8.0	2.5	7.5	2.0						
29-30	9.5		3.5	6.0	8.0			6.5		8.5		8.0								3.0			7.5	
30-31	6.5		9.0	4.0								2.0				7.0		9.0	6.5	5.0			6.5	

	RV	RZ	VW	YZ	AN	RR	RU	RV	RX	RZ	UU	S	XX	XZ	DM	RW	XZ	RX	SS	TW	VX	VZ	AR
	CAP	CAP	CAP	CAP	CAP	CET	CET	CET	CET	CET	CET	COM	CYG	CYG	CYG	DRA	DRA	FOR	FOR	HER	HER	HER	HER
MAX	10.2	12.5	12.6	11.0	12.0	9.3	10.8	10.3	11.0	11.2	11.5	10.9	11.4	9.1	11.2	11.0	9.6	11.1	9.4	10.5	9.9	10.7	10.6
MIN	11.6	13.5	13.5	11.6	13.0	10.3	12.1	11.2	11.7	12.4	12.4	12.1	12.5	10.5	12.7	12.0	10.3	12.5	10.6	11.8	10.4	12.0	11.6
RISE	2	3	2	3	5	2	3	3	3	2	3	3	1	3	2	2	3	2	2	2	2	2	2
0- 1	7.5	8.0	6.5	5.0									4.5	9.5	6.5	8.5	2.5			9.0	5.5	6.5	5.0
1- 2	5.0	3.0	5.0		4.5	8.0							9.5	8.0	2.5	6.0				4.0	3.5	3.5	3.5
2- 3		8.0				10.5	10.0		10.5		10.5	3.0	5.0	6.0	8.5	3.0				9.0			2.5
3- 4		3.0		5.0	8.0									4.5	5.0		10.5			4.0		8.5	
4- 5	8.5	8.0											5.5	3.0		8.5	9.5			9.0	8.0	5.5	10.5
5- 6	6.0	3.5	7.0				8.0	11.0	7.5						7.5	5.5	8.0			4.0	6.0	3.0	9.0
6- 7		8.0	6.0	5.5	4.5	7.5			11.0			5.5	6.0	11.0	3.5	3.0	7.0	11.0		9.0	3.5	10.5	8.0
7- 8		3.5	4.5			10.0					7.0			9.5	9.5		6.0			4.0		7.5	6.5
8- 9	9.0	8.5			8.0								7.0	8.0	6.0	8.0	5.0			8.5		5.0	5.0
9-10	6.5	3.5		5.5			10.5		8.0	9.0		4.0	2.0	6.0	2.0	5.5	3.5	10.5		4.0	8.0	2.0	3.5
10-11	4.0	8.5						11.0		9.5	7.5		7.5	4.5	8.0	2.5	2.5			8.5	6.0	9.5	2.0
11-12		3.5	6.5		4.5					10.0			2.5	3.0	4.5	10.5				4.0	4.0	6.5	
12-13	9.5	8.5	5.0	6.0		9.5	9.0			10.5		2.5	8.0			7.5				8.5	2.0	4.0	10.5
13-14	7.0	4.0			7.5				8.0	11.0	8.5		3.5	11.0	6.5	5.0	10.5			4.0			9.0
14-15	4.5	8.5											8.5	9.5	3.0	2.0	9.5			8.5	8.5	8.5	7.5
15-16		4.0		6.0				10.5					4.0	7.5	9.0	10.0	8.5			3.5	6.5	6.0	6.0
16-17	10.5	9.0	7.0		4.0					9.0	5.0		9.0	6.0	5.5	7.5	7.0			8.5	4.0	3.0	4.5
17-18	8.0	4.0	6.0			9.0			8.5				4.5	4.5		4.5	6.0			3.5	2.0		3.0
18-19	5.5	9.0	4.5	6.0	7.5								9.5	3.0	7.5	2.0	5.0			8.5		8.0	2.0
19-20		4.0					10.0				10.0	3.5	5.0		4.0	10.0	4.0			3.5	8.5	5.0	
20-21		9.0		4.0				10.0						11.0	10.0	7.0	2.5			8.5	6.5	2.0	10.0
21-22	8.5	4.0		6.5					9.0				5.5	9.5	6.0	4.5				3.5	4.5	10.0	9.0
22-23	6.0	9.0	6.5			8.5	8.0				10.5	2.0		7.5	2.5					8.5	2.0	7.0	7.5
23-24	3.5	4.5	5.0	4.5	7.0	11.0							6.0	6.0	8.5	9.5	10.5			3.5		4.0	6.0
24-25		9.0		6.5										4.5	4.5	6.5	9.5			8.5	9.0		4.5
25-26	9.5	4.5			10.5			10.0	9.5				6.5	3.0		4.0	8.5			3.5	6.5	9.0	3.0
26-27	7.0	9.5		4.5			10.5					4.5	2.0		7.0		7.5			8.5	4.5	6.0	
27-28	4.5	4.5	7.0			7.5					7.0		7.0	11.0	3.5	9.0	6.0			3.5	2.5	3.0	
28-29		9.5	6.0		7.0	10.5							2.5	9.5	9.5	6.5	5.0		11.0	8.0			10.0
29-30	10.0	4.5	4.5	4.5			9.0		9.5			3.0	7.5	7.5	5.5	3.5	4.0		11.0	3.5	9.0	8.0	8.5
30-31	7.5	9.5			10.5			9.5			7.5		3.0	6.0	2.0		3.0		10.5	8.0	7.0	5.0	7.0

all times in U.T.

	DL	DY	DY	DY	LS	RR	SS	ST	TV	VY	SZ	SZ	SZ	RR	RZ	ST	AV	BH	RU	DF	RV	TU
	HER	HER	HER	HER	HER	LEO	LEO	LEO	LEO	LMI	LYN	LYN	LYN	LYR	LYR	OPH	PEG	PEG	SCL	SER	UMA	UMA
MAX	11.0	10.2	10.2	10.2	10.8	10.0	10.5	10.8	11.5	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	12.4	10.6	10.6	10.6	11.1	11.7	12.0	12.3	12.6	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	1	1	1	1	2	2	2	2	2	2	1	1	1	2	2	3	2	3	2	2	3	3
0- 1	7.0		3.0	6.5	3.5			3.5						2.5			6.0		11.0		5.0	
1- 2		7.5		4.0	2.0			2.5						5.5		7.5		10.0	11.0	7.0	3.5	
2- 3		5.0	8.5											8.5		5.0	5.0		10.5	4.0	2.0	
3- 4	6.0	2.5	6.0		3.5							2.0				2.5	9.0	8.0	10.0			
4- 5			3.5	7.0	2.0	3.0	2.0								2.0		4.0		10.0			3.5
5- 6		8.0		4.0						3.0				4.5	2.5	8.5	8.0	6.0	9.5	6.0	8.5	
6- 7	5.0	5.0	9.0		3.5								2.0	8.0	3.0	6.5	2.5		9.0	3.0	7.0	
7- 8	9.5	2.5	6.0		2.0									11.0	3.5	4.0	7.0	4.5	9.0		5.5	
8- 9			3.5	7.0											4.0			11.0	8.5	7.5	4.0	
9-10	4.0	8.0		4.5	4.0	2.5	2.5		2.0		2.5			4.0	5.0		5.5		8.0	4.5	2.5	4.0
10-11	8.5	5.5	9.0	2.0	2.0									7.0	5.5	7.5		9.0	8.0			
11-12		3.0	6.5					3.5	2.0					10.5	6.0	5.0	4.5		7.5			
12-13	3.0		4.0	7.5	4.0			2.5							6.5	3.0	8.5	7.5		6.0	9.0	
13-14	7.5	8.5		5.0	2.0				2.5		2.0			3.0	7.0		3.5			3.0	7.5	2.0
14-15		6.0		2.0		3.0								6.5	7.5	9.0	7.5	5.5			6.0	4.5
15-16	2.0	3.0	7.0		4.0					3.0				9.5	8.0	6.5				7.5	4.5	
16-17	6.5		4.0	7.5	2.0							2.5			8.5	4.0	6.5			4.5	3.0	
17-18		8.5		5.0										2.5	9.0	2.0		10.5				
18-19		6.0		2.5	4.0									5.5	9.5		5.0					2.0
19-20	5.5	3.5	7.0		2.0		3.0						2.5	9.0	10.0	8.0	9.0	8.5		6.0		5.0
20-21	10.0		4.5	8.0								2.0			10.5	5.5	4.0			3.0	8.0	
21-22		9.0	2.0	5.5	4.0											3.0	8.0	6.5			6.5	
22-23	4.5	6.5		3.0	2.0			3.5						5.0			3.0			7.5	5.0	
23-24	9.0	4.0	7.5			3.0		2.5					2.0	8.0		9.0	7.0	5.0		4.5	3.5	2.5
24-25			5.0	8.5	4.0		3.5									6.5					2.0	
25-26	3.5		2.0	6.0	2.0					2.5						4.5	6.0					
26-27	8.0	6.5		3.0							2.5			4.0		2.0		10.0		6.0		
27-28		4.0	7.5		4.0									7.0	2.0		4.5			3.0	8.5	
28-29	2.5		5.0	8.5	2.0	2.5								10.5	2.5	8.0	8.5	8.0			7.0	3.0
29-30	7.0		2.5	6.0			3.5								3.5	5.5	3.5			7.5	5.5	
30-31		7.0		3.5	4.0						2.0			3.0	4.0	3.0	7.5	6.0		4.5	4.0	