

	V343	V346	SS	SS	RY	SX	WW	WW	AP	AP	AR	CL	EM	EP	HP	HP	IM	SS	SS	SS	TU	TU	TY
	AQL	AQL	ARI	ARI	AUR	AUR	AUR	AUR	AUR	AUR	AUR	AUR	AUR	AUR	AUR	AUR	AUR	BOO	BOO	BOO	BOO	BOO	BOO
MAX	10.6	9.0	10.1	10.1	11.7	8.2	5.7	5.7	10.9	10.9	6.0	11.7	11.0	10.8	10.8	10.8	7.9	10.3	10.3	10.3	11.7	11.7	11.8
MIN	12.3	10.4	11.1	11.1	14.0	9.0	6.4	6.4	11.4	11.4	6.7	13.2	11.9	11.3	11.5	11.5	8.5	11.0	11.0	11.0	12.7	12.7	12.3
DUR	4	4	3	3	6	4	5	5	4	4	5	4	4	3	3	3	4	18	18	18	3	3	3
TOT																		6	6	6			
				(S)				(S)		(S)							(S)	(2)		(3)		(S)	
0- 1									3.5												2.0	6.0	1.5
1- 2				10.0		3.0					3.0			3.5		2.5					9.0	5.0	8.0
2- 3			10.0							3.5							3.0				8.5	4.5	7.0
3- 4				10.5	1.5		2.0														7.5	4.0	5.5
4- 5			11.0						3.0				4.0	2.5							7.0	3.0	4.5
5- 6									6.5												6.5	2.5	3.5
6- 7										3.0					2.0						6.0	2.0	2.0
7- 8	10.0	6.5				4.0			6.5					1.5			2.5				5.0	9.0	8.5
8- 9		9.5						3.5	3.0			4.0									4.5	8.5	7.5
9-10	6.5								6.0												4.0	7.5	6.0
10-11										2.5											3.0	7.0	5.0
11-12										6.0				4.5		1.5					2.5	6.5	4.0
12-13									2.5								2.5	9.0			2.0	6.0	2.5
13-14							4.5	6.0				3.5									9.0	5.0	1.5
14-15				9.5					2.5					3.5							8.5	4.5	8.0
15-16			10.0						5.5				2.5								7.5	4.0	7.0
16-17				10.5					2.0												7.0	3.0	5.5
17-18		5.5	10.5						5.5					2.5			2.0				6.5	2.5	4.5
18-19		8.0		11.0		1.5				2.0		2.5									5.5	2.0	3.5
19-20		11.0								5.5											5.0	9.0	2.0
20-21	8.0								2.0					1.5					2.5	5.5	4.5	8.5	8.5
21-22									5.0												4.0	7.5	7.5
22-23	4.5				3.5					1.5							2.0				3.0	7.0	6.5
23-24										5.0		2.0			4.0						2.5	6.5	5.0
24-25						2.5			1.5					5.0							2.0	5.5	4.0
25-26									5.0												9.0	5.0	3.0
26-27																					8.5	4.5	1.5
27-28		4.5					2.0			4.5				3.5			1.5				7.5	4.0	8.0
28-29		7.0	10.0									1.5				3.5					7.0	3.0	7.0
29-30		10.0		10.0					4.5												6.5	2.5	5.5
30-31			10.5			4.0					1.5			2.5							5.5	2.0	4.5

	TY	TZ	TZ	UW	VW	VW	ZZ	AD	AD	BW	BW	Y	SV	AL	CD	CD	R	RT	TU	TZ	UU	XZ	YY
	BOO	BOO	BOO	BOO	BOO	BOO	BOO	BOO	BOO	BOO	BOO	CAM	CAM	CAM	CAM	CAM	CMA	CMA	CMA	CMA	CMA	CMI	CMI
MAX	11.8	10.6	10.6	10.4	10.5	10.5	6.8	9.8	9.8	7.1	7.1	10.6	8.6	10.5	11.6	11.6	6.2	11.4	9.7	9.8	10.0	9.7	8.5
MIN	12.3	11.1	11.1	11.4	11.0	11.0	7.6	10.4	10.2	7.5	7.5	12.4	9.4	11.3	11.8	11.8	6.8	12.9	10.7	10.5	12.5	10.2	9.1
DUR	3	3	3	3	3	3	5	4	4	5	5	10	3	5	5	5	4	5	4	4	5	3	4
TOT	(S)		(S)			(S)	(S)		(S)		(S)					(S)							
0- 1	5.5	6.5	3.0	8.0	4.0	8.5		10.5		4.0			8.5	7.5	6.5			1.5					
1- 2	4.0	3.5	7.5	8.0	5.0	9.0										10.0							
2- 3	3.0	8.0	4.5	8.0	5.5	9.5						3.5			4.0							2.0	
3- 4	2.0	5.5	2.0	8.0	6.0	2.0					7.5	8.0		8.0						2.0			
4- 5	8.0	3.0	6.5	8.0	7.0	2.5	6.0						7.0	2.0									
5- 6	7.0	7.5	4.0	8.5	7.5	3.5						2.5			5.5								
6- 7	6.0	5.0	1.5	8.5	8.0	4.0						7.0		9.0				2.0				3.0	
7- 8	4.5	2.5	6.0	8.5	8.5	4.5								3.5		2.0			2.0				
8- 9	3.5	7.0	3.5	8.5	9.5	5.0				4.5		2.0	6.5		7.0					1.5			
9-10	2.5	4.5	8.0	9.0	2.0	6.0	5.5					6.0		10.5									
10-11	9.0	1.5	5.5	9.0	2.5	6.5			3.5			10.5		5.0								4.5	3.0
11-12	7.5	6.0	2.5	9.0	3.0	7.0										8.5							
12-13	6.5	3.5	7.0	9.0	3.5	8.0						5.5	6.5		2.5								
13-14	5.5	8.0	4.5	9.0	4.5	8.5					5.5	10.0		6.0								2.0	
14-15	4.0	5.5	2.0	9.5	5.0	9.0	5.5								9.5								
15-16	3.0	3.0	6.5	9.5	5.5	1.5						4.5		4.0									
16-17	2.0	7.5	4.0	9.5	6.5	2.0						9.0	6.0	7.5						2.0			
17-18	8.5	5.0	8.5	9.5	7.0	3.0								2.0	11.0							3.0	
18-19	7.0	2.0	6.0	10.0	7.5	3.5				4.5		3.5			5.5								
19-20	6.0	7.0	3.0	10.0	8.0	4.0	5.0					8.0		9.0									
20-21	5.0	4.0	7.5	10.0	9.0	5.0			2.0	3.5				5.5	3.5								
21-22	3.5	1.5	5.0	10.0	9.5	5.5		3.0				3.0			7.0							4.5	1.5
22-23	2.5	6.0	2.5	10.0	2.0	6.0			4.0			7.5		10.5				1.5					4.0
23-24	9.0	3.5	7.0	10.5	2.5	6.5		4.5			3.5			4.5									
24-25	8.0	8.0	4.5	10.5	3.5	7.5	5.0		5.5			2.0	5.5		8.0	3.0						2.0	
25-26	6.5	5.5	2.0	10.5	4.0	8.0		6.0				6.5			2.5								
26-27	5.5	3.0	6.5	10.5	4.5	8.5			7.0		11.0	11.0		6.0									
27-28	4.5	7.5	4.0	11.0	5.0	9.5		8.0															
28-29	3.0	4.5	8.5	11.0	6.0	1.5			8.5	4.5		5.5	5.0		4.0							3.0	
29-30	2.0	2.0	5.5	11.0	6.5	2.5	5.0	9.5				10.0			7.5					2.0			
30-31	8.5	6.5	3.0	11.0	7.0	3.0			10.5	3.5					1.5	11.0							

MAS Eclipsing Binary Ephemeris for May 2015

all times in U.T.

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	AC	AK	AM	RW	TY	RZ	TV	TW	ZZ	AB	CW	CW	DZ	GT	IR	IS	IT	MM	OR	OX	PV	V364	V364
	CMI	CMI	CMI	CAP	CAP	CAS	CAS	CAS	CAS	CAS	CAS	CAS	CAS	CAS	CAS	CAS	CAS	CAS	CAS	CAS	CAS	CAS	CAS
MAX	11.0	10.1	10.0	9.8	10.5	6.4	7.3	8.3	10.7	10.2	11.8	11.8	11.6	11.9	10.8	11.6	11.0	11.3	11.4	10.1	10.0	11.2	11.2
MIN	11.5	11.5	10.7	10.8	11.6	7.8	8.4	8.9	11.1	12.2	12.5	12.5	12.3	12.8	12.1	12.6	11.8	11.9	12.4	10.9	10.6	11.7	11.7
DUR	3	4	5	5	4	4	4	5	4	4	3	3	4	5	4	5	5	5	4	5	3	4	4
TOT																							

	(S)																																	
0- 1							6.5						9.0	5.0						7.0				6.0			10.0							
1- 2					7.5								4.0	8.0	4.0	10.0				8.0	10.0	2.0												
2- 3	3.0							2.0	6.5						7.0	3.0	4.5				8.0	2.5			8.0			4.0						
3- 4	4.0									2.0						6.0	2.0						4.0								6.5			
4- 5						5.0					8.0				5.0	8.5				9.0								11.0						
5- 6							10.0				3.0			6.5	4.0	7.5	8.0																	
6- 7											2.5	6.5	3.0						10.0				1.5								8.5			
7- 8	3.0									1.5	5.5						2.0				5.0	7.5			10.0									
8- 9	5.0					10.0								8.5	4.5						11.0				9.0									
9-10	1.5							8.0	10.0	7.0	9.0	7.5	3.5	6.5				3.0								10.5	4.0			10.5				
10-11						4.5						6.0	2.5																					
11-12	2.0		1.5				6.5	9.0	3.5						5.0	9.0						4.0												
12-13	2.0										6.5				2.5	4.0	8.0	9.5				9.0			7.0									
13-14	2.5											6.5						3.0	7.0	4.5						5.0								7.0
14-15	3.0										6.5						2.0	6.0				5.0			4.0	10.0	10.0			1.5				
15-16	3.5	3.5									3.0						8.5	5.0				11.0	6.0				7.5							
16-17	4.0		4.0						4.0				5.0	7.5	4.0	8.0				1.5								4.0	9.0					
17-18	4.5										8.5						6.5	3.0	2.5				7.0				6.5							
18-19	9.5									9.5						5.5	1.5				11.0													
19-20								10.0	6.0						4.5	8.5	11.0				8.0								9.5					
20-21	3.5									5.0				7.5	3.5	7.5	6.0																	
21-22											2.5	6.0						10.5	9.0				2.5								10.0			
22-23	2.0						3.5					6.5				1.5	5.0				1.5			6.5	6.5			10.0						
23-24							8.0								8.0	4.0	9.5				10.0	10.0				10.5			4.0	8.0				
24-25	2.5										5.5	10.0	7.0	3.0	4.0	10.5	2.5																	
25-26									3.0	11.0						6.0	2.0				6.5								9.0	2.5				
26-27	10.5										5.0	8.5						3.5								10.0								
27-28							11.0				3.5	4.0	7.5	7.5	10.0				2.5			6.0												
28-29	3.5	1.5				8.5	3.0						3.0	6.5	2.5				4.5				1.5			10.0								
29-30	4.5									7.5	6.5	10.0	4.5				1.5	5.5				9.5	5.5			8.5								
30-31									10.5						8.5	4.5	11.0	10.0	5.5				9.0			4.0	6.5							

	V375	V380	U	SU	WW	WZ	WZ	XX	ZZ	DK	DL	DV	EG	EK	GK	RW	RW	RZ	RZ	SS	SS	CC	CC
	CAS	CAS	CEP	CEP	CEP	CEP	CEP	CEP	CEP	CEP	CEP	CEP	CEP	CEP	CEP	COM	COM	COM	COM	COM	COM	COM	COM
MAX	10.1	10.4	6.7	8.8	11.1	11.4	11.4	8.5	9.3	12.2	12.4	11.6	9.6	8.2	6.9	11.0	11.0	10.0	10.0	10.9	10.9	11.0	11.0
MIN	10.9	11.1	9.8	9.8	11.9	12.0	12.0	9.6	10.0	14.2	13.2	12.4	10.6	9.5	7.4	11.6	11.6	10.7	10.7	11.5	11.5	11.9	11.9
DUR	5	5	4	4	4	3	3	4	5	4	5	4	3	6	4	3	3	3	3	4	4	2	2
TOT			2																				
							(S)									(S)		(S)		(S)		(S)	
0- 1		4.0				1.5	6.5			9.5					5.0	2.5	5.5	4.0	8.0	6.0		4.0	6.5
1- 2						7.5	2.5		5.5	9.5					3.5	7.0	4.0	4.0	8.5	2.0	7.0	6.5	4.0
2- 3						3.5	8.5	8.0		9.0		2.0	2.5		2.0	6.0	3.0	4.5	8.5	7.5	2.5	3.5	6.5
3- 4	10.5		3.5			10.0	4.5		9.0	8.5	7.0	6.0	4.5			4.5	1.5	5.0	9.0	3.5	8.5	6.0	3.5
4- 5		6.0				6.0	11.0			8.5		10.0	6.5	7.5		3.5	6.0	5.5	9.5	9.0	4.0	3.5	6.0
5- 6				9.0		2.0	7.0			8.0			9.0			2.0	5.0	5.5	1.5	5.0	10.0	6.0	3.0
6- 7	9.5			7.0		8.0	3.0			7.5			11.0			6.5	4.0	6.0	2.0	10.5	5.5	3.0	5.5
7- 8				4.5		4.0	9.0			7.0						5.5	2.5	6.5	2.5	6.5	1.5	5.5	3.0
8- 9		7.5	3.5	2.0		10.0	5.0			7.0	4.0		2.0			4.0	7.0	7.0	3.0	2.5	7.0	2.5	5.5
9-10	8.0				3.0	6.0	11.0	8.0		6.5		1.5	4.5			3.0	6.0	7.0	3.0	8.0	3.0	5.0	2.5
10-11						2.0	7.0			6.0		5.5	6.5			2.0	4.5	7.5	3.5	4.0	9.0	2.5	5.0
11-12						8.0	3.0			6.0	10.5	9.5	8.5		11.0	6.0	3.5	8.0	4.0	9.5	4.5	5.0	2.0
12-13	7.0	9.0				4.0	9.0			5.5			10.5		9.5	5.0	2.0	8.5	4.5	5.5	10.5	2.0	4.5
13-14			3.0			10.0	5.0			5.0	1.5			4.0	8.0	4.0	6.5	8.5	4.5		6.0	4.5	2.0
14-15				9.5		6.0			2.0	5.0			2.0		6.0	2.5	5.5	9.0	5.0	7.0	2.0	1.5	4.5
15-16	5.5	2.5		7.0		2.5	7.5			4.5			4.0		4.5	1.5	4.0	9.5	5.5	2.5	7.5	4.0	1.5
16-17		11.0		4.5		8.5	3.5	8.5	5.5	4.0	8.0		6.0		3.0	6.0	3.0	1.5	6.0	8.5	3.5	6.5	4.0
17-18				2.5		4.5	9.5			4.0		5.0	8.5		1.5	4.5	2.0	2.0	6.0	4.0	9.0	4.0	6.5
18-19	4.0		2.5		7.5	10.5	5.5		8.5	3.5		8.5	10.5			3.5	6.5	2.5	6.5	10.0	5.0	6.5	3.5
19-20		4.0				6.5	1.5			3.0						2.0	5.0	3.0	7.0	6.0	10.5	3.5	6.0
20-21						2.5	7.5			3.0			1.5			6.5	4.0	3.0	7.0	1.5	6.5	6.0	3.5
21-22	3.0					8.5	3.5			2.5	5.5		4.0			5.5	2.5	3.5	7.5	7.5	2.5	3.0	6.0
22-23						4.5	9.5			2.0			6.0			4.5	1.5	4.0	8.0	3.0	8.0	5.5	3.0
23-24		6.0	2.5	10.0		10.5	5.5	9.0		2.0			8.0			3.0	6.0	4.5	8.5	9.0	4.0	3.0	5.5
24-25	1.5			7.5		6.5	1.5			1.5		4.0	10.5			2.0	4.5	4.5	8.5	4.5	9.5	5.5	2.5
25-26				5.0		2.5	7.5					8.0				6.5	3.5	5.0	9.0	10.5	5.5	2.5	5.0
26-27				2.5		9.0	4.0				2.5		1.5	11.0	10.5	5.0	2.0	5.5	9.5	6.0		5.0	2.5
27-28		7.5				5.0	10.0						3.5		9.0	4.0	6.5	6.0	1.5	2.0	7.0	2.0	5.0
28-29			2.0			11.0	6.0						6.0		7.5	2.5	5.5	6.0	2.0	8.0	3.0	4.5	2.0
29-30						7.0	2.0		2.0		9.0		8.0		5.5	1.5	4.5	6.5	2.5	3.5	8.5	2.0	4.5
30-31						3.0	8.0	9.0					10.0		4.0	6.0	3.0	7.0	3.0	9.5	4.5	4.5	1.5

	U	RW	TW	W	W	RV	RV	V	Y	Y	SW	WW	ZZ	AE	BR	CG	DK	KR	KV	MY	MY	V346	V387
	CRB	CRB	CRB	CRV	CRV	CRV	CRV	CRT	CYG	CYG	CYG	CYG	CYG	CYG	CYG	CYG	CYG	CYG	CYG	CYG	CYG	CYG	CYG
MAX	7.6	10.1	10.5	10.6	10.6	9.0	9.0	9.5	7.0	7.0	9.3	9.9	10.7	11.8	9.4	11.0	10.3	9.2	11.5	8.3	8.3	11.8	11.5
MIN	8.8	10.6	11.3	11.2	11.2	10.0	10.0	10.2	7.6	7.6	11.8	13.2	12.0	12.8	10.5	11.8	10.8	10.0	12.6	9.0	9.0	13.6	12.3
DUR	5	4	4	4	4	4	4	4	6	6	5	5	4	4	4	3	4	4	5	4	4	5	3
TOT											2												
				(S)		(S)			(S)											(S)			
0- 1		10.5		3.0	8.0	7.0							9.5		7.0	8.5						6.5	
1- 2		4.0	1.5	7.0	2.5			5.0	5.0					11.0								9.5	7.0
2- 3	6.5		6.0	1.5	6.5		3.5		10.5				7.0	10.0		6.0			7.0	7.0			
3- 4		8.0	10.0	5.5		6.5								9.5			10.0	9.0					5.0
4- 5		1.5			5.0					5.0			4.0	8.5	7.0		8.5	5.5			7.0	3.0	
5- 6			4.5	4.0			3.0		10.5				10.5	8.0		9.5	7.0		3.0				
6- 7		6.0	8.5	8.0	3.5	6.5		3.0						7.0						7.0			10.0
7- 8				3.0	7.5					4.5	9.0		7.5	6.5		7.0							
8- 9		10.0	3.0	7.0	2.0		3.0	5.5	10.5					5.5	7.0			11.0			7.0		8.0
9-10	4.0	3.5	7.5	1.5	6.0	6.0						3.5	5.0	5.0									
10-11				5.5						4.5			11.0			10.5		3.5		7.0			6.0
11-12		8.0	2.0		4.5		2.5		10.5				2.0				10.0						
12-13			6.0	4.0		5.5							8.0		7.0	8.0	8.5				7.0	8.5	4.5
13-14			10.5	8.0	3.0		8.5	3.5		4.5							7.0						11.0
14-15		5.5		2.5	7.0		2.0		10.5				5.5			5.5	5.5	9.0		7.0			
15-16			4.5	6.5	2.0	5.5		6.0									4.5	5.0					9.0
16-17	1.5	10.0	9.0		5.5		8.0			4.5			3.0		7.0						7.0		
17-18		3.5		5.0			2.0		10.5				9.0				9.5						7.5
18-19			3.5		4.5	5.0														7.5			
19-20		7.5	7.5	3.5	8.0		8.0			4.5		2.5	6.0			7.0	10.0	10.5	8.0				5.5
20-21				7.5	3.0		1.5	4.0	10.0						6.5		8.5	7.0			7.5		
21-22			2.0	2.0	7.0	5.0					2.0		3.5			4.0	7.0						
22-23		5.5	6.5	6.0	1.5		7.5	6.5		4.5		10.0	9.5			10.5	5.5		4.0	7.5			10.5
23-24			10.5		5.5		1.5		10.0								4.5					8.0	
24-25		9.5		4.5		4.5							7.0		6.5	8.0					7.5		8.5
25-26		3.0	5.0		4.0		7.0	2.0		4.0								8.5					
26-27	10.0		9.0	3.0	8.0				10.0							5.5		5.0		7.5			6.5
27-28		7.5		7.0	2.5	4.5		4.5					10.5				10.0						
28-29			3.5	2.0	6.5		7.0			4.0					6.5		8.5				7.5		4.5
29-30			8.0	5.5				7.0	10.0							9.0	7.0						
30-31		5.0			5.0	4.0					5.5						6.0	10.0		7.5			

	V388	V401	V456	V466	V466	V477	V548	V704	1034	W	TT	TY	YY	FZ	Z	RZ	TW	UZ	UZ	AI	BH	S	RW
	CYG	CYG	CYG	CYG	CYG	CYG	CYG	CYG	CYG	DEL	DEL	DEL	DEL	DEL	DRA	DRA	DRA	DRA	DRA	DRA	DRA	EQU	GEM
MAX	9.7	10.8	10.8	10.8	10.8	8.3	8.9	13.8	9.6	9.4	10.6	9.6	11.0	10.2	10.8	10.0	7.8	9.9	9.9	7.2	8.0	8.0	9.6
MIN	10.3	11.6	11.9	11.6	11.6	9.2	9.7	14.6	10.6	12.7	12.5	10.8	12.0	11.3	13.6	10.9	9.5	10.7	10.7	8.2	8.6	10.0	11.6
DUR	3	4	3	4	4	4	5	4	4	7	5	4	4	3	4	3	5	5	5	4	5	5	5
TOT										2							1						1
					(S)														(S)				
0- 1			10.0				5.0	3.0												11.0	3.5		
1- 2		5.0	7.0		11.0			6.5				6.5		4.5	3.0				3.0				
2- 3		9.0	4.5	3.5				10.0			8.0				5.5								
3- 4									11.0					7.5	8.0								
4- 5	9.0	3.0			5.5			3.0	10.5			10.5			10.5				9.5	1.5			
5- 6	6.0	7.0						6.5	9.5			5.5		6.0		8.0				6.0			
6- 7		11.0		8.0				10.0	9.0					11.0	2.0					11.0			
7- 8						10.0		8.5	10.5					5.5	4.5						9.5		
8- 9		5.0	10.5		10.0	4.0		3.0	8.0		7.0	10.0			7.0	3.5							
9-10		9.0	7.5				5.5	6.5	7.5			5.0		8.0	9.5		7.0				5.5		
10-11	9.5		5.0					9.5	7.0					9.0									
11-12	6.0	3.0			4.5				6.5												6.0		
12-13		7.0						3.0	6.0	5.5		9.0			3.5					11.0			
13-14		10.5		7.0				6.0	5.5					9.5	6.0								
14-15								9.5	5.0		6.0		7.0		8.5			4.5					
15-16		4.5			9.0	5.0		4.0		10.5	10.5				11.0								
16-17	10.0	8.5	11.0				11.0		3.5			8.0		3.0									
17-18	6.5		8.0	11.0				6.0					10.0		2.5		10.5	6.0					
18-19		2.5	5.5		3.5		6.0	9.5		7.5					5.0			10.5	7.5			4.0	
19-20		6.5	3.0												7.5	8.5	1.5						
20-21		10.5		6.0			1.5					7.5		4.5	10.0						3.0		
21-22								6.0			9.5		8.0										
22-23	10.0	4.5			8.0	6.0		9.5							1.5	4.0	8.0					8.5	
23-24	6.5	8.5													4.0					5.5			
24-25				10.0								6.5		6.5	6.5					10.5			
25-26			8.5					6.0						6.0	9.0								
26-27		6.5	6.0					9.0															
27-28		10.5	3.5	5.0			7.0				8.5	10.5						5.5			9.5		
28-29	10.5											5.5	9.0	8.0	3.0								
29-30	7.0	4.5			7.0	7.0	2.0	5.5							5.5					5.5	5.0		
30-31	3.5	8.5						9.0							8.0					10.5			

	DF	DI	DK	SW	SW	VX	AR	AW	CM	CO	CO	DG	GX	Y	UU	UV	VZ	WZ	XY	XZ	AM	T	SS
	HYA	HYA	HYA	LAC	LAC	LAC	LAC	LAC	LAC	LAC	LAC	LAC	LAC	LEO	LEO	LEO	LEO	LEO	LEO	LEO	LEO	LMI	LIB
MAX	11.0	11.0	10.5	9.2	9.2	10.9	7.3	10.6	8.5	10.5	10.5	10.8	10.1	9.5	11.4	9.5	10.6	11.3	9.5	10.6	9.2	10.2	10.4
MIN	11.5	12.0	11.0	10.0	10.0	12.3	8.2	11.3	9.5	11.0	11.0	12.0	10.4	12.7	12.7	10.2	11.7	12.0	9.9	11.2	9.8	12.6	11.3
DUR	4	4	4	3	3	4	6	5	4	5	5	4	6	5	4	3	4	5	2	3	3	6	6
TOT							2																
	(S)				(S)						(S)												
0- 1	3.5	2.5		8.5			7.5				4.0	6.5	4.5			2.5			3.0	4.5	2.0		
1- 2	3.5			7.5					6.5					5.0		7.5		5.5	6.5	4.0	4.5	3.0	10.0
2- 3	3.0			6.5	10.5		7.0								6.5				3.0	3.5	7.0		
3- 4	3.0	4.0		5.5	9.5	6.0					6.5					2.5			6.0	3.0			
4- 5	2.5				8.5	8.0	6.5	3.5								7.5	3.0		2.5	2.0	2.5	3.5	7.0
5- 6	2.5				7.5	10.0		7.0									5.0		6.0	1.5	5.0		
6- 7	2.5		1.5	10.5	7.0		6.5	10.5			8.5			6.5		2.5	7.0		2.5		7.5		
7- 8	2.0		2.5	9.5	6.0					3.0					7.0	7.5			5.5			4.0	4.5
8- 9	2.0	2.5	3.5	9.0			6.0											6.5	2.0		3.5		
9-10	2.0		5.0	8.0					7.0		10.5	2.5				2.5			5.5		5.5		
10-11	1.5			7.0	11.0		5.5			5.0						7.5			1.5		8.0	4.0	
11-12	1.5	4.0		6.0	10.0							7.0		7.5				2.0	5.0		1.5		
12-13					9.0		5.0	3.5								2.5			1.5		4.0		
13-14					8.0			7.0		7.0						7.5			5.0		6.0	4.5	
14-15				11.0	7.0		4.5	10.5															9.0
15-16				10.0	6.5											2.5			4.5	7.5	2.0		
16-17		2.0		9.5	5.5		4.5			9.0						7.5	2.5		8.0	7.0	4.5	5.0	
17-18				8.5		5.5			7.5		3.5						4.5		4.0	6.0	7.0		6.0
18-19			1.5	7.5		7.0	4.0							1.5		2.5	7.0	3.0	7.5	5.5			
19-20		4.0	3.0	6.5	10.5	9.0				11.0			6.0		1.5	7.5			4.0	5.0	2.5	5.5	
20-21			4.0	5.5	9.5	11.0	3.5	3.5			5.5	3.0							7.0	4.5	5.0		3.0
21-22			5.0		8.5			7.0								2.5			3.5	4.0	7.5		
22-23					7.5			10.5				8.0				7.5			7.0	3.5		6.0	
23-24				10.5	6.5						7.5			3.0					3.5	2.5	3.5		
24-25		2.0		9.5	6.0					2.0					2.5	2.5			6.5	2.0	5.5		10.5
25-26				9.0					8.0							7.5		4.0	3.0	1.5	8.0	6.5	
26-27				8.0							9.5								6.5		1.5		
27-28		3.5		7.0	11.0						4.0					2.5			3.0		4.0		7.5
28-29	6.0			6.0	10.0			3.5						4.5		7.5	2.5		6.0		6.0	7.0	
29-30	6.0				9.0			7.0							3.5		4.5		2.5				
30-31	5.5		2.0		8.0			10.5	4.0	6.0						2.5	6.5		6.0		2.0		4.5

	DELT	RY	UZ	EW	FL	RU	RW	AT	BB	BO	EP	U	SX	V501	V508	V839	1010	EF	EF	ER	ET	FH	FL
	LIB	LYN	LYR	LYR	LYR	MON	MON	MON	MON	MON	MON	OPH	OPH	OPH	OPH	OPH	OPH	ORI	ORI	ORI	ORI	ORI	ORI
MAX	4.8	11.9	9.8	11.2	8.7	10.6	9.1	10.6	10.6	10.8	10.5	5.8	10.5	10.9	10.1	8.8	6.2	12.6	12.6	9.5	11.2	10.5	10.5
MIN	5.9	13.3	11.0	13.6	9.5	11.3	11.9	11.4	11.3	12.1	11.1	6.5	11.2	11.8	10.7	9.4	7.0	14.1	12.8	10.2	12.4	11.5	13.2
DUR	7	4	5	5	4	5	5	5	4	5	5	5	5	4	3	3	4	6	6	3	5	5	3
TOT							1																
						(S)													(S)	(S)			
0- 1	1.5			3.0											4.5	9.5							
1- 2															5.5	5.0	4.0						
2- 3	9.5			2.0							3.5	6.5			6.5	10.5						1.5	
3- 4		9.5													7.0	6.5	4.0		2.0				
4- 5															8.0								
5- 6									3.5						8.5	7.5	3.5						
6- 7		6.5			5.0										9.5	3.0	11.0						
7- 8												7.0			2.0	8.5	3.0	3.0					
8- 9					9.5	2.5			1.5						3.0	4.0	11.0						
9-10	9.0	3.0								2.5					4.0	9.5	2.5						
10-11			9.0												4.5	5.0	10.5						
11-12															5.5	10.5							
12-13			6.5									8.0			6.0	6.0	10.0						
13-14															7.0								
14-15			4.0												8.0	7.5	9.5						
15-16															8.5	3.0							
16-17	8.5	7.5					3.0		3.0					11.0	9.5	8.5	9.5						
17-18					2.5						1.5	8.5		10.0	10.5	4.0							
18-19														9.0	3.0	9.5	9.0						
19-20		4.0			7.0				1.5				3.0	8.5	3.5	5.0							
20-21														7.5	4.5	10.5	8.5	2.0					
21-22				11.0									4.5	7.0	5.5	6.0							
22-23											9.5			6.0	6.0		8.0				1.5		
23-24	8.0							2.0					6.0	5.5	7.0	7.0							
24-25														4.5	8.0	3.0	7.5	3.5					
25-26				11.0				2.5			2.5		7.5	4.0	8.5	8.5							
26-27		8.5												3.0	9.5	4.0	7.5						
27-28			9.5	10.0				3.5	3.0			10.0	9.0		10.5	9.5				1.5			1.5
28-29															3.0	5.0	7.0						
29-30		5.5	7.0	8.5						3.0		2.5	10.5		3.5	10.5							
30-31	7.5				4.0										4.5	6.0	6.5						

	IU	KW	V432	BETA	Y	RV	UZ	UZ	AV	U	V505	1968	RS	AO	CC	CC	Y	RZ	TY	WY	AQ	EQ	EQ
	PER	PER	PER	PER	PSC	PSC	PUP	PUP	PUP	SGE	SGR	SGR	SER	SER	SER	SER	SEX	TAU	TAU	TAU	TAU	TAU	TAU
MAX	10.5	10.5	11.0	2.2	9.0	11.3	9.7	9.7	10.2	6.4	6.4	12.3	10.8	10.6	11.1	11.1	9.8	10.5	11.5	11.5	12.0	10.3	10.3
MIN	11.6	11.5	11.7	3.5	12.0	12.0	10.6	10.3	10.8	9.1	7.6	13.3	11.5	12.1	11.7	11.7	10.2	11.2	12.0	11.7	12.9	11.0	11.0
DUR	5	4	3	8	7	3	4	4	3	6	5	4	4	4	4	4	3	3	2	4	5	3	3
TOT										2													
								(S)								(S)							(S)
0- 1	1.5					10.0										6.0							
1- 2			2.0													7.0							
2- 3												6.0	7.0		1.5	7.5	3.5	2.5					
3- 4			9.5						1.5	7.5		9.0		8.5	2.0	8.5				3.0		1.5	
4- 5	8.5								4.0		7.0			6.0	3.0	9.0	6.0						
5- 6						10.0							7.0	3.0	3.5	10.0	2.0						
6- 7	1.5	9.5	1.5									5.0				4.5	10.5						
7- 8		8.0			10.5							8.0				5.5		4.5	2.0				
8- 9		6.5	9.0						1.5			11.0	6.5			6.0							
9-10		4.5							4.0							7.0		7.0					
10-11		3.0				9.5		4.0						9.5	7.5	1.5	3.0						1.5
11-12			10.5								9.5	6.5	6.5	6.5	8.5	2.0							
12-13	1.5						3.5					9.5	11.0	3.5	9.0	3.0	5.5	2.0		3.0			
13-14									1.5	10.5					10.0	3.5	1.5				3.0		
14-15			3.0					3.0	4.5				6.0		10.5	4.5							
15-16						9.0						5.0	11.0			5.5	4.0						
16-17			10.0	3.0			3.0					8.0				6.0							
17-18											7.5	11.0	6.0	10.5		7.0	6.0	1.5				1.5	
18-19	1.5							2.5	2.0				10.5	7.5	1.5	7.5	2.5						
19-20		10.5	2.5											4.5	2.0	8.5					1.5		
20-21		9.0				9.0	2.0			5.0		6.5	6.0	1.5	3.0	9.0	4.5						
21-22		7.0	9.5									10.0	10.5		3.5	10.0					3.5		
22-23		5.5						2.0							4.5	10.5							
23-24		4.0							2.0				5.5		5.0		3.5		1.5				
24-25	1.5	2.5	2.0				1.5			10.0	5.5	10.0	11.0	6.0							2.0		1.5
25-26						8.5					8.5		8.5	7.0			5.5						
26-27			9.5			11.0							5.5	5.5	7.5		2.0						
27-28												10.0	2.5	8.5	2.0								
28-29									2.0						9.0	3.0	4.0				1.5		
29-30			1.5									7.0	5.0		10.0	3.5							
30-31	1.5			11.0						8.5	8.0	10.0	10.0		10.5	4.5	6.5				3.5		

	HU	V	X	RS	RV	W	W	TX	TY	TY	UX	UX	VV	XZ	ZZ	AF	W	RU	VV	AG	AH	AH	AK
	TAU	TRI	TRI	TRI	TRI	UMA	UMA	UMA	UMA	UMA	UMA	UMA	UMA	UMA	UMA	UMA	UMI	UMI	VIR	VIR	VIR	VIR	VIR
MAX	6.0	10.9	8.9	10.3	11.4	9.1	9.1	6.8	11.7	11.7	12.7	12.7	10.1	10.1	9.8	10.8	8.6	10.7	11.7	8.8	9.7	9.7	10.0
MIN	6.8	11.9	12.0	11.0	12.5	9.9	9.9	8.9	12.4	12.4	13.8	13.8	11.0	11.7	11.2	11.6	9.7	11.4	13.5	9.4	10.2	10.2	11.5
DUR	6	4	4	4	4	3	3	6	3	3	1	1	3	3	4	8	7	4	4	4	4	4	4
TOT																							
							(S)			(S)													(S)
0- 1						5.0	9.0		8.5	4.0	7.5	2.5			6.5	2.5		2.0	9.5		6.0		
1- 2						5.0	9.0		1.5	5.5	2.0	7.0	4.0	5.5				3.0	6.5	5.5	1.5	6.5	
2- 3						5.0	9.0		3.0	7.0	6.5	2.0						4.5	4.0		7.0	2.0	
3- 4		10.0				5.0	9.0		4.5	9.0	1.5	6.0	5.5					5.5	1.5	3.5	2.5	7.0	3.0
4- 5						5.0	9.0		6.0	2.0	5.5	10.5					9.5	7.0	9.5		7.5	3.0	8.0
5- 6						5.0	9.0		7.5	3.5	10.0	5.5	7.0			8.5		8.0	7.0	2.0	3.0	8.0	
6- 7				10.5		5.0	9.0		9.0	5.0	5.0	9.5		3.0			2.5	9.0	4.5	9.0	8.5	3.5	
7- 8						5.0	9.0		2.0	6.5	9.5	4.5	8.5	8.5	4.0			10.5	2.0		4.0	9.0	
8- 9						5.0	9.0		3.5	8.0	4.0	9.0							10.0	7.0	9.5	4.5	
9-10					9.0	5.0	9.0		5.0	9.5	8.5	3.5	10.0		11.0				7.5		5.0		2.5
10-11		10.5				5.0	9.0		6.5	2.5	3.5	8.0	2.5					1.5	5.0	5.5		5.5	7.0
11-12						5.0	9.0		8.0	4.0	7.5	3.0					5.0	2.5	2.5		6.0		
12-13					9.0	5.0	9.0		10.0	5.5	2.5	7.5	4.0	5.5				4.0	10.5	3.5	1.5	6.5	
13-14		9.0				5.0	9.0		3.0	7.0	7.0	2.0						5.0	8.0		7.0	2.0	
14-15						5.0	9.0		4.5	8.5	1.5	6.5	5.5		1.5			6.0	5.0	2.0	2.5	7.5	
15-16					9.5	5.0	9.0		6.0	1.5	6.0	11.0						7.5	2.5	8.5	7.5	3.0	1.5
16-17						5.0	9.0		7.5	3.0	10.5	5.5	7.0		8.5		7.5	8.5			3.5	8.0	6.5
17-18		11.0				5.0	9.0		9.0	4.5	5.5	10.0		3.0				10.0	8.0	7.0	8.5	4.0	
18-19					10.0	5.0	9.0		2.0	6.0	9.5	5.0	8.5	8.5				11.0	5.5		4.0	9.0	
19-20						5.0	9.5		3.5	7.5	4.5	9.0							3.0	5.5	9.5	4.5	
20-21		9.5				5.5	9.5		5.0	9.0	9.0	4.0	10.0								5.0		
21-22					10.0	5.5	9.5		6.5	2.0	3.5	8.5	2.5			3.0	10.0	2.0	8.5	3.5		5.5	
22-23						5.5	9.5		8.0	4.0	8.0	3.5						3.0	6.0		6.0		5.5
23-24						5.5	9.5		9.5	5.5	3.0	7.5	4.0	5.5	6.0		2.5	4.5	3.5	2.0	1.5	6.5	
24-25			11.0		10.5	5.5	9.5		2.5	7.0	7.0	2.5						5.5		8.5	7.0	2.0	
25-26			10.5			5.5	1.5	2.5	4.0	8.5	2.0	7.0	5.5					6.5	9.0		2.5	7.5	
26-27			9.5			5.5	1.5		5.5	1.5	6.5	1.5				9.5		8.0	6.5	7.0	8.0	3.0	
27-28		10.0		10.5	11.0	5.5	1.5		7.0	3.0	10.5	6.0	7.0					9.0	3.5		3.5	8.5	
28-29						5.5	1.5	4.0	8.5	4.5	5.5	10.5		3.0			5.0	10.5		5.0	8.5	4.0	5.0
29-30	2.5					5.5	1.5		1.5	6.0	10.0	5.0	8.5	8.5					9.5		4.5	9.0	9.5
30-31						5.5	1.5		3.0	7.5	5.0	9.5			3.5				6.5	3.5	9.5	4.5	

	AW	AW	AX	AZ	AZ	BH	MS	MS	NY	Z	AW	AY	BE	BO	BS	BT	BU	CD	ER
	VIR	VIR	VIR	VIR	VIR	VIR	VIR	VIR	VIR	VUL	VUL	VUL	VUL	VUL	VUL	VUL	VUL	VUL	VUL
MAX	10.8	10.8	10.0	11.0	11.0	9.9	9.4	9.4	13.3	7.4	10.8	11.0	9.9	10.4	11.0	11.8	10.6	11.5	7.3
MIN	11.9	11.9	10.8	11.8	11.8	11.3	9.7	9.7	14.2	9.2	11.9	12.9	11.4	13.3	11.5	12.5	11.4	12.6	7.5
DUR	3	3	4	3	3	4	3	3	1	6	5	4	5	4	3	3	3	4	4
TOT																			
		(S)			(S)				(S)										
0- 1	9.0	5.0		4.5	8.5		7.0	3.0	1.5						5.5				8.0
1- 2	2.0	6.5	5.0	5.5	9.5		5.5	1.5	2.0					9.0	4.5			6.0	
2- 3	3.5	8.0		6.5	2.5		4.0	7.5	2.0		10.0				3.5		6.5		10.0
3- 4	5.0	9.5	7.5	8.0	3.5	8.0	2.5	6.0	2.0	7.5	5.5		5.0	8.0			10.0	7.5	
4- 5	6.5	2.5		9.0	5.0	3.5	8.5	4.5	2.5			9.0				6.0			
5- 6	8.0	4.0	10.0	2.0	6.0		7.0	3.0	2.5					6.5		9.5		8.5	5.0
6- 7	9.5	5.5	3.0	3.0	7.0		5.5	1.5	3.0		11.0		7.5		10.0		6.0		
7- 8	2.5	7.0		4.0	8.5	10.0	4.0	7.5	3.0		6.5			5.0	9.0		9.5	9.5	7.5
8- 9	4.0	8.5	5.5	5.5	9.5	5.5	2.5	6.0	3.5	5.0					8.0				
9-10	5.5	1.5		6.5	2.5		8.5	4.5	3.5			5.0	10.0	4.0	6.5			11.0	9.5
10-11	7.0	3.0	8.0	7.5	3.5		7.0	3.0	1.5						5.5		5.5		
11-12	8.5	4.5		9.0	4.5		5.5	1.5	2.0		7.0				4.5		9.0		
12-13	1.5	6.0		1.5	6.0	7.5	4.0	7.5	2.0							5.5		4.5	4.5
13-14	3.0	7.5	3.5	3.0	7.0	3.0	2.5	6.0	2.5	3.0						9.0			
14-15	4.5	9.0		4.0	8.0		8.5	4.5	2.5								5.5	6.0	7.0
15-16	6.0	2.0	6.0	5.0	9.5		7.0	3.0	2.5		8.0						8.5		
16-17	7.5	3.5		6.5	2.0	9.5	5.5	1.5	3.0			10.5		10.0				7.0	9.0
17-18	9.0	5.0	9.0	7.5	3.5	5.0	4.0	7.5	3.0				4.5		9.0				
18-19	2.0	6.5	1.5	8.5	4.5		2.5	6.0	3.5						7.5		5.0	8.5	
19-20	3.5	8.0		1.5	5.5		8.0	4.5	3.5		8.5				6.5		8.0		
20-21	5.0	9.0	4.0	2.5	7.0		6.5	3.0	1.5		4.0		7.0		5.5	5.5		9.5	
21-22	6.5	2.0		4.0	8.0	7.0	5.0	1.5	2.0			6.5			4.5	8.5			6.5
22-23	8.0	3.5	7.0	5.0	9.0	2.5	3.5	7.5	2.0								4.5	11.0	
23-24	9.5	5.0		6.0	2.0		2.0	6.0	2.5		9.5		9.5				8.0		8.5
24-25	2.5	6.5	9.5	7.5	3.0		8.0	4.5	2.5		5.0						11.0		
25-26	4.0	8.0	2.5	8.5	4.5	9.0	6.5	3.0	3.0	9.5				11.0				4.5	11.0
26-27	5.5	9.5		9.5	5.5	4.5	5.0	1.5	3.0					10.0			4.0		
27-28	7.0	2.5	5.0	2.5	6.5		3.5	7.5	3.0		10.0				9.0		7.5	5.5	
28-29	8.5	4.0		3.5	8.0		2.0	6.0	3.5		5.5				7.5	5.0	10.5		6.0
29-30	1.5	5.5	7.5	5.0	9.0		8.0	4.5	3.5						6.5	8.5		7.0	
30-31	3.0	7.0		6.0	2.0	6.5	6.5	3.0	1.5	7.5					5.5				8.0