

JOVIAN SATELLITE PHENOMENA 1962 -- Clark Chapman

Date	Pred. UT	I	II	III	IV	Tr CM	Notes
April 2	III Tr E 10:24						(seen definitely at 10:28)
April 10	I Ec. D. 9:52		9:52				
May 4	III EcD. 9:17		9:20				
June 3	I ShI. 9:21		9:25:45			10:33	
June 30	emerge 9:41				9:40		
July 12	ShE. 10:02			9:53 $\frac{1}{2}$	10:02.25		
July 12	E. 11:06						(11:02 mid-phen.)
July 23	Sh.					8:49 $\frac{1}{2}$	
July 23	II TrI. 9:12	9:11 $\frac{1}{4}$	9:13 $\frac{1}{2}$				
Aug. 4	I TrI. 8:36	8:33 $\frac{3}{4}$	8:37 $\frac{1}{4}$				
Aug. 4	I ShE. 10:13				10:12 $\frac{3}{4}$		
Aug. 4	I TrE. 10:52			10:47 $\frac{0}{4}$	10:50 $\frac{3}{4}$	3/4	
Aug. 6	I TrE. 10:18			10:13 $\frac{0}{4}$	10:17 $\frac{0}{4}$		
Aug. 10	II TrE. 5:40	5:34	5:39				
Aug. 24	II TrI. 7:26		7:28			8:23	seen later as whitish spot in north following corner of RS
Sept. 6	I OcD. 1:43	1:40 $\frac{3}{4}$	1:44 $\frac{1}{2}$				
Sept. 6	IV TrI. 3:39	3:34 $\frac{1}{4}$	3:41 $\frac{3}{4}$			5:26	
Sept. 6	IV ShI. 4:51						(4:52 mid-phenomenon)
Sept. 11	II ShE. 4:19	4:15 $\frac{0}{4}$	4:18 $\frac{0}{4}$				
Nov. 30	I ShI. 22:08		22:06 $\frac{1}{2}$			23:03	
Nov. 30	I TrE. 23:04			23:01 $\frac{1}{4}$	23:05 $\frac{0}{4}$		
Dec. 1	III ShE. 23:08			23:00 $\frac{1}{4}$	23:08 $\frac{0}{4}$		
Dec. 8	II Sh					23:09	
Dec. 8	I EcR. 23:34						(first seen, quite faint, 23:31 3/4)
Dec. 8	Initial satellite phenomenon, occn. of II by III (last contact pred. 23:32) I was not aware of what was happening. About 23:30 I began thinking the seeing was worsening because of the elongated satellite. I realized what was happening about 23:34 and timed last contact for 23:36 0/4: At 23:37 $\frac{1}{2}$ I recorded an obvious separation with the satellite on the left a bit to the north and smaller and brighter than the right satellite. At about 23:53 the satellites were separated by one diam. of the smaller.						
Dec. 8	III ShE. 23:52		23:54 3/4				(first seen, already large "bite": 23:52 $\frac{0}{4}$)

to satellite 7/29/62

1962	SPR	INTB SSTeZ	SSTeZ	STeZ	STrZ	SEBZ	EZ	NEBZ	NTrZ	NTeZ	INTeZ	NPR	1234567
Jun 8	4.2		5.7	7.2	7.4	7.5	5.3	5.9	7.0	6.8	6.2	4.0	
Jun 16	4.3			6.5	7.5	7.7	5.2		6.9	6.8	5.7	4.2	
Jul 14	3.9		5.2	6.7	7.2	7.3	5.7		6.6	6.9	3.0	4.2	
Jul 23	4.2		5.7	7.1	7.4	7.6	5.5		6.8	6.4	4.8	4.3	
Jul 31	4.1		5.6	6.9	7.3	7.2			6.8	6.6	5.9	4.3	
Aug 3	4.1	3.8	6.2	6.7	7.4	7.3			7.1	7.0	6.3	4.2	
Aug 4	4.4		6.3	6.2	7.4	7.3	5.8	7.1	7.3	6.7	5.6	4.5	
Aug 4	4.3	3.8	6.4	7.4	7.2	7.2	5.5		6.8	6.6	6.7	4.3	
Aug 10				6.9	7.3	7.2			7.0	6.8	6.6		

Date	SSSTB	SSTB	STB	SEBs	SEBn	EB	NEBs	NEBn	NTE	INTB	RS	RSH	1234567
Jun 8	3.8	3.7	3.0	5.6	2.7		3.2	3.3		3.4 n	3.6	7.6	
Jun 16			2.8										
Jun 16		3.9	3.0		2.7		3.3			3.5 n			
Jul 14		3.8	3.2		2.8		3.5			3.4	3.7		
Jul 23	4.0	3.6	2.8		3.3		3.5	3.8		4.0			
Jul 31		3.8	2.9	3.5	2.8		3.4			3.7	3.6	7.4	
Aug 3	3.6	3.6	2.9	3.5	2.7	3.9	3.0		4.5	3.6 n	3.7		
Aug 4	3.9	4.1	2.9	4.3	2.6		3.2	2.8	5.0	3.9 n			
Aug 4	3.8	3.3	2.8	4.5	2.7		3.2	2.9		3.1			
Aug 10		3.5	2.5		2.9		3.2				3.4		

SUMMARY OF JOVIAN INTENSITY ESTIMATES

This gives all my intensity estimates during 1962 on the usual scale. The approximate longitude of system 2 is given at the right edge where

- 1 means between 0° and 50°
- 2 " " 50° and 100°
- 3 " " 100° and 150°
- 4 " " 150° and 200°
- 5 " " 200° and 250°
- 6 " " 250° and 300°
- 7 " " 300° and 360°

Under INTB, "n" refers just to the northern component of the belt. There are longitudinal variations in many of the features and perhaps some variation with time, both of which should be taken into consideration in the reduction.

Clark Chapman

Reports to the ALEC and BAA Jupiter sections. Jupiter 1962-3 apparition in 1967.
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January 9, 1965. (drawing J63-1). Drawing at 22:55 UT (MI 503.0, MII 9.0). Seeing 2 - 4. Trans. var. 3. 7^m refr. at 200x at Harvard Col. Obs. SAT. PHEN.: II TrE (MI 52:35) contact IV at 22:27 3/4. BELTS PROMINENT at 22:10 (MI 500, MII 50) SEDs, close IZEs, close SIB, IZEs, IZEs, SIB. NOTES: The Red Spot is disintegrating and was mainly recognizable by its remaining light orange tint. It seems fragmented. Notice that the disturbances surround Jupiter in both the STrE and the SEdE. The equatorial regions are looking more normal in some longitudes. The STrE was brighter than the IZEs. The STrE was brighter than the SIB following the RS while the reverse was true preceding it. Note the ITrE (?). Note satellite, also its shadow over the Red Spot. 11 GI transits were timed.

January 10, 1965. (drawing J63-2 at 22:20 UT, MI 54.4, MII 160.0). Seeing 3-4, transparency 3, 7^m refr. at 200x at Harvard Col. Obs. NOTES: Equatorial regions are much more normal with a lighter EZ. The drawing is a fairly realistic representation. 7 GI transits were timed.

January 16, 1965. (drawing J63-3 at 22:45 UT, MI 355.0, MII 346.1). Seeing 5-6, transp. 3, 200x on 7^m diam. refr. at Harvard Col. Obs. NOTES: Jupiter observed with good conditions. The combined STrE-SEdE was much less prominent than the STrE-ITeE. The STrE was brilliant, however, following the Red Spot. The Red Spot is still visible, although weak with suspicions of fragmentation. The STrE oval was brilliant. Note very dark SEDs glob marking the beginning of the STrE dist. SAT. PHEN. Note satellite on drawing following Red Spot. 2nd contact was at 22:52 3/4 (22:50 MI 11). Twelve GI transits were timed. There are several photographic defects in the STrE-ITeE on the enclosed pictures.

February 3, 1965. (drawing J63-4 at 22:45 UT, MI 150.0, MII 346.4). Seeing 1-3 1/2, mostly 3. Transp. 3. 200x on 7^m refr. at Harvard Col. Obs. NOTES: The north edge of the IED was very dark. The STrE was brightest, the STrE-SEdE was very dusky. The IZ was dusky. The STrE was as prominent as the STrE-SEdE. The IED was more prominent than the SIB. The SEdE was much fainter and more northerly than it has been. The Red Spot was faint, still orange.