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JUPITER
CENTRAL MERIDIAN TRANSIT OBSERVATIONS

VOLUME II

OPPOSITION: JULY 25, 1961 (CONT.) (7·7 A/h)

← III

✓ 02:05.8 1 cont } → r.f. S-1
02:10.8 2 cont } T-1-3 240x

✓ 03:15 Sat trans C.M.? otherwise D = (proj)
edge SEB n (318)

T_2: 4:26
T_1: 2:09
2:17
1:08
3:17

341 SEPT 8/9, 1961

8" REFL. 240x

5-2-1-4-T-3-0-4

		U.T.	I	II
—	Obs. comm.	23:55	—	—
298	D f (proj) S edge NEB	23:57	30	—
299	W f (elong oval) S edge NEB	00:05	34	—
300	D r (proj) S edge NEB	00:09	37	—
301	D f (proj) S edge NEB	00:17	42	—
302	W f (gap) NEB n	00:21	—	231
303	W r (gap) NEB n	00:30	—	236
304	W f (gap) NEB n	00:40	—	242
—	Clouds intermittently	00:47	—	—
305	D r (dusky area) EZ	01:12	75	—
306	W r (oval) STB	01:34	—	275
307	W f (oval) STB	01:50	—	285
308	D r (proj) S edge NEB	01:55	102	—
309	D f (proj) S edge NEB	02:13	112	—
310	D r (proj) S edge NEB	02:21	117	—
311	W f (oval) S edge NEB	02:25	120	—
312	D f (proj) S edge NEB	02:27	121	—
313	W r (oval) S edge NEB	02:36	126	—
—	Telescope switched E of pier.	02:40	—	—
☆ 314	W f (oval) S edge NEB	02:49	134	—
315	D r (ft fest) EZ	02:52	136	—
316	W f (oval) STB (f end indef)	03:01	—	328

03:36. I suspect a festoon from the SEB on to the h end of the RS.

04:08 Sh. on C.M.

~~04:15.5~~

04:20.4 1 cont } Sat eg. S-3 240X
04:26.5 2 cont } T-4

SEPT. 8/9, 1961, CONT.

		U.T.	I	II
317	W τ (oval) S edge NEB	03:04	144	—
318	D τ (small proj) S edge NEB	03:26	156	—
319	RS h	03:42	—	352
320	D h (cond) NEB	03:49	171	357
321	D τ (cond) NEB	03:54	174	0
322	D f (cond) NEB	03:58	176	2
323	W h (gap) NEB m	04:00	—	3
324	D h (proj) S edge NEB	04:00	178	—
325	RS τ	04:03	—	5
326	W τ (gap) NEB m	04:10	—	10
327	RS f	04:23	—	17
328	W f (gap) NEB m	04:24	—	18
329	W h (sect) SSTeZ	04:29	—	21
330	D f (proj) S edge NEB	04:30	196	—
331	D τ (proj) N edge NEB	04:33	—	23
—	Obs. disc.	04:34	—	—

4h 39m

FM Multiplex on QXR

02:29 IV ec a pred

00:00 BC on p limb.

00:45 Int est comm.

√NPR = 3·8 √SPR = 4·2

√STB = 2·5 √SEBZ = 7·5

√NEBs = 2·~~7~~8 √STrZ = 7·2

√SEBn = 3·0 √STeZ = 7·0

√SSTB = 3·8 √EZ = 6·5

√NNTB = 3·3 √NTe-TrZ = 7·8

√SEBs = ~~4·8~~ 5·0

00:50 $\omega_1 = 18°$ $\omega_2 = 189°$

00:55 Int est comp S - ~~3~~ T - 2

√ 02:22·4 1 cont } IV ec r. S - 2 T - 2 see below

02:33·0 2 cont }

Observating hampered all evening by ~~w~~ gusts of wind shaking telescope. (But mild compared to what Prof. Haas must be getting!!)

Program Guide

WQXR

NY 36

Re. Sat Phen.

Remarks: 1 cont. was when satellite was first seen definitely; it had been suspected for a couple of minutes prior to this.

342 SEPT 10/11, 1961
8" REFL 240X
S-2-3 T-2-3

		U.T.	I	II
—	Obs. comm.	23:58	—	—
332	D f (proj) S edge NEB.	00:07	351 VV	—
333	W r (oval) S edge NEB	00:17	358 VV	—
334	D h (proj) S edge NEB	00:21	0 VV	—
335	D r (proj) S edge NEB	00:28	4 VV	—
336	D f (proj) S edge NEB	00:35	8 VV	—
337	D r (small proj) S edge NEB	00:52	19 VV	—
338	D h (proj) S edge NEB	01:11	30 V	—
339	D r (proj) S edge NEB	01:24	38 V	—
340	D f (proj) S edge NEB	01:35	45 V	—
341	W h (notch) N edge NEB	01:55	—	228 V
342	W r (notch) N edge NEB	02:07	—	~~236~~ V
343	D h (proj) S edge NEB	02:16	70 V	—
344	W f (notch) N edge NEB	02:18	—	242 V
345	D r (proj) S edge NEB	02:29	78 V	—
346	W h (oval) S edge NEB	02:37	83 V	—
347	D f (proj) S edge NEB	02:40	85 V	—
348	W h (oval) S edge STB (DE)	02:51	—	262 V
349	W r (oval) S edge NEB	02:53	93 V	—
350	W r (oval) S edge STB	03:12	—	275 V
—	Obs disc. due to barge	03:13	—	—

3h 15m

23:33 R3 just past C.M.
Wind shaking telescopes. Possible timing error of $d \pm 1^m$

343 SEPT 14/15, 1961 N.B. Add 3 minutes to all times ✓

8" REFL. 240X

S-2-0 T-3-0-3

		U.T.	I	II
—	Obs. comm.	23:36 ~~23:33~~	—	—
351	D c (proj) S edge NEB	39 ~~23:36~~	246 ✓	—
352	D f (proj) N edge NEB	42 ~~23:39~~	—	29 ✓
353	W h (gph) NEB n	44 ~~23:41~~	—	30 ✓
354	D f (proj) S edge NEB	48 ~~23:45~~	251 ✓	—
355	W c (gph) NEB n	52 ~~23:49~~	—	35 ✓
356	W f (gph) NEB n	00:01 ~~23:58~~	—	40 ✓
—	~~Overcast~~	~~00:01~~ ~~23:59~~	—	—
—	Clear	~~00:22~~ ~~00:14~~	—	—
357	D c (proj) S edge NEB	26 ~~00:27~~	274 ✓	—
358	D f (long low proj) S edge SEB n	33 ~~00:30~~	279 ✓	—
359	D f (proj) S edge NEB	36 ~~00:33~~	280 ✓	—
—	Obs. disc due to hopeless seeing	50 ~~00:47~~	—	—

0h 58m

344 SEPT 15/16, 1961
8" REFL 240 x
S - 2-0-2T-3-4

		U.T.	I	II
—	Obs. comm	00:57	—	—
360	W c (oval) S edge NEB	01:01	94 ✓	—
361	W f (gash) NEB m	01:03	—	228 ✓
362	W c (gash) NEB m	01:13	—	234 ✓
363	W f (gash) NEB m	01:23	—	240 ✓
—	Obs disc	01:25	—	—
—	Obs comm	01:47	—	—
364	W f (oval) S edge STB (DE)	02:00	—	262 ✓
365	W c (oval) S edge STB	02:16	—	272 ✓
366	W f (oval) S edge STB	02:31	—	281 ✓
—	Obs. disc.	02:45	—	—

1h 26m

345 SEPT 18/19, 1961

6" REFR. 220x

S-2 T-3

		U.T.	I	II
—	Obs. comm	00:16	—	—
367	Dh (lg proj) S edge NEB	00:18	181	—
368	Dr (lg proj) S edge NEB	00:30	188	—
369	Df (lg proj) S edge NEB	00:44	197	—
370	Wh (oval) S edge STB (FA)	01:06	—	320
—	Obs disc.	01:18	—	—

1h02m

02:44 Even DE is getting hard to distinguish as STB appears to be broadening (in the longitudes in which it is visible at all).

346 SEPT 22/23, 1961
8" REFL 240x
S-3-0 T-3-2

		U.T.	I	II
—	Obs. comm	02:04	—	—
371	W f (gah) NEB ∧	02:07	—	238
372	W h (oval) S edge STB	02:33	—	254
373	D h (lg proj) S edge NEB	02:39	178	—
374	W f (oval) S edge NEB	02:42	180	—
375	W r (oval) S edge STB	02:55	—	267
376	D r (lg proj) S edge NEB	02:59	190	—
—	Obs. disc.	03:07	—	—

$1^h 03^m$

23:45 At moments of superb seeing, the SEB2 appears mottled.

Temperature 46°

347 SEPT 29/30, 1961

8" REFL 240x

S-5 T-3-4

		U.T.	I	II
—	Obs com	23:23	—	—
377	Wf (oval) S edge STB	23:24	—	111
378	Wh (oval) S edge NEB	23:26	85	—
379	Df (proj) S edge NEB	23:32	89	—
380	Dc (proj) S edge STB	23:34	—	117
381	Dh (low proj) S edge NNTB	23:42	—	122
382	Wc (oval) S edge NEB	23:46	98	—
383	Dh (proj) S edge NEB	23:56	104	—
384	Dc (low proj) S edge NNTB	23:57	—	131
385	Wf (oval) S edge NEB	00:03	108	—
386	Wh (shallow bay) N edge NEB	00:05	—	136
387	Df (low proj) S edge NNTB	00:09	—	138
388	Dc (veiled area) EZ	00:16	116	—
389	Wc (shallow bay) N edge NEB	00:23	—	147
390	Wh (oval) S edge NEB	00:31	125	—
391	Wf (shallow bay) N edge NEB	00:37	—	155
392	Wc (oval) S edge NEB	00:43	132	—
393	Dc (small proj) S edge NEB	00:55	140	—
—	Id switched E of pier.	01:02	—	—
100 394	Df (proj) S edge NEB	01:14	151	—
395	Wc (nodule) EZ	01:24	157	—
396	Dc (proj) S edge NEB	01:34	163	—

SEPT 29/30, CONT.

		U.T.	I	II
397	W f (oval) S edge NEB	01:37	165	—
398	W r (oval) S edge NEB	01:48	172	—
399	D r (ft proj) S edge SEB m	01:51	174	—
400	D f (lg proj) S edge NEB	02:01	180	—
401	W f (oval) S edge NEB	02:04	182	—
402	D r (lg proj) S edge NEB	02:14	188	—
403	D f (lg proj) S edge NEB	02:26	195	—
404	D f (notch) S edge NEB	02:28	—	222
—	Obs disc.	02:29	—	—

$3^h 06^m$

01:41 - 01:51

Mut phen

23:07:1 I & II first seen as distinctly separate
360x S-2 T-3 } colours & surface to about the same

23:35 Sect of STB & BC seems to be becoming more conspicuous

348 OCT. ~~SEPT.~~ 6/7, 1961

8" REFL 240x

S-2 T-3

		U.T.	I	II
—	Obs. comm.	22:50	—	—
—	First able to concentrate on transits	23:25	—	—
405	D f (proj) S edge NEB	23:29	112	—
406	W f (oval) S edge STB (BC)	23:32	—	87
407	W c (dusky oval) S edge NEB	23:38	117	—
408	D f (proj) S edge NEB	23:45	121	—
409	W c (oval) S edge STB	23:49	—	97
410	D c (proj) S edge NEB	23:50	124	—
411	D f (proj) S edge NEB	23:56	128	—
412	D f (proj) S edge STB	23:58	—	102
413	W c (oval) S edge NEB	00:05	134	—
414	W f (oval) S edge STB	00:09	—	109
415	D c (proj) S edge NEB	00:13	138	—
416	D c (proj) S edge STB	00:14	—	112
417	W c (oval) S edge NEB	00:23	144	—
418	D f (proj) S edge ~~NEB~~ STB	00:24	—	118
419	D f (rod sect) NNTB	00:27	—	120
420	D f (proj) S edge NEB	00:29	148	—
421	D c (proj) S edge NEB	00:36	152	—
422	D f (proj) S edge NEB	00:42	156	—
423	D c (rod) NNTB	00:45	—	131
424	D f (rod) NNTB	00:57	—	138

01; 41.1 slight dimming suspected
" 45.9 mid contact estimated, II appears about
" 2 mags dimmer than I
48.2 ~~I cont~~ es, sat appear equal again.
Egress definitely more rapid than ingress.
Poor seeing did not permit good disks to
be observed. S-2 T-3 360x

OCT 6/7, 1961, CONT.

		U.T.	I	II
425	W c (elong oval) S edge NEB	01:02	168	—
426	D f (proj) S edge NEB	01:28	184	—
427	D c (proj) S edge NEB	01:35	188	—
—	Switch to 360x for mt. sat phen.	01:35	—	—
—	Back to 240x	01:53	—	—
428	W c (oval) S edge NEB	02:00	204	—
—	Obs. disc.	02:02	—	—

2h 35m

349 OCT. 8/9, 1961
8" REFL 240X
S-1-2-0 T-1

		U.T.	I	II
—	Obs. comm.	23;42	—	—
429	Dc (proj) S edge NEB	23;47	78	—
430	Wc (bay) N edge NEB	23;49	—	37
431	Wf (oval) S edge NEB	23;56	83	—
432	Df (low proj) N edge NEB	23;59	—	43
433	Df (proj) S edge NEB	00;02	87	—
434	Wc (oval) S edge NEB	(E) 00;16	96	—
—	Obs. disc.	00;17	—	—

$0^h 35^m$

01:09.5	1 cont	Ge Dis	S-0-1
01:14.9	2 cont		T-3
01:33.5	1 cont	Ge Dis	S-1
01:37.9	2 cont		T-3

350 OCT 9/10, 1961
8" REFL 240X
S-2-0 T-4-3

		U.T.	I	II
—	Obs. ~~spot~~	00:29	—	—
435	D h (tall proj) S edge NEB	00:34	264	—
436	W h (gap) NEB n	00:36	—	216
437	D c (tall proj) S edge NEB	00:43	270	—
438	W c (gap) NEB n	00:47	—	223
439	D f (tall proj) S edge NEB	00:56	278	—
440	W f (gap) NEB n	00:59	—	230
441	W c (oval) S edge NEB	01:18	291	—
442	W h (oval) S edge STB (DE)	01:23	—	244
443	D h (tall proj) S edge NEB	01:25	296	—
444	D c (tall proj) S edge NEB	01:35	302	—
—	~~Obs. disc.~~	~~01:41~~	—	—
445	D f (tall proj) S edge NEB	01:45	308	—
—	Obs. disc.	01:49	—	—

1h 20m

Temperature = 42° Wind shaking telescope.

351 OCT 22/23, 1961
8" REFL 240x
S-2-1-0 T-3

		U.T.	I	II
—	Obs comm base fest	22:09	—	—
446	Dh (~~base fest proj~~) S edge NEB	22:14	70	—
447	Dh (base fest) N edge SEBn	22:22	75	—
448	Dc (base fest) S edge NEB	22:24	76	—
449	Df (base fest) S edge NEB	22:31	80	—
450	Dc (proj) S edge STB	22:36	—	295
451	Dc (base fest) N edge SEBn	22:37	84	—
452	Wh (oval) S edge STB (FA)	22:42	—	299
—	Obs disc.	22:47	—	—
—	Obs. comm	22:52	—	—
453	Df (base fest) N edge SEBn	22:53	94	—
454	Wz (oval) S edge NEB	23:01	99	—
—	Obs. disc.	23:07	—	—
—	Obs. comm.	23:39	—	—
455	Dc (low proj) S edge SEBn	00:00	135	—
456	RSh	00:12	—	353
457	Df (low proj) S edge SEBn	00:24	149	—
458	RSc	00:37	—	8
—	Obs. disc.	00:37	—	—

1h 51m

23:26 ~~Beg~~ NEB/proj approaching CM seems to have a white nodule within it. Seeing deteriorating rapidly.

Temperature = 42°. Wind shaking telescope.

352 OCT 23/24, 1961
8" REFL 240X
S-B4-0 T-3

		V.T.	I	II
—	Obs comm.	22:22	—	—
459	W f (oval) S edge STB (BC)	22:26	—	79
460	D r (lg proj) S edge NEB	22:30	237	—
461	W r (oval) S edge STB	22:43	—	89
462	D f (lg proj) S edge NEB	22:44	246	—
463	W f (oval) S edge STB	22:57	—	98
464	D r (proj) S edge STB	23:05	—	103
465	D h (lg proj) S edge NEB	23:17	266	—
466	D r (proj) S edge NEB	(E)23:31	275	—
—	Obs. disc.	23:31	—	—

1h 9m

353 OCT 24/25, 1961
8" REFL. 240×
S-3 T-3

		U.T.	I	II
—	Obs com	22:12	—	—
467	Wf (gap) NEB n	22:13	—	221 ✓
468	W r (oval) S edge NEB	22:21	30 ✓	—
469	W p (oval) S edge STB (DE)	22:26	—	229 ✓
470	D p (lg proj) S edge NEB	22:28	34 ✓	—
471	D r (lg proj) S edge NEB	22:47	46 ✓	—
472	W r (oval) S edge STB	22:50	—	244 ✓
—	Obs disc.	22:51	—	—
—	Obs com.	23:17	—	—
473	W r (oval) S edge NEB	23:20	66 ✓	—
474	D p (tall proj) S edge NEB	23:25	69 ✓	—
475	D r (tall proj) S edge NEB	23:35	75 ✓	—
476	D f (tall proj) S edge NEB	23:43	80 ✓	—
—	Obs. disc.	23:57	—	—

1h 19m

Temperature = 28°

354 NOV 10/11, 1961
8" REFL 240x
S-2-1 T-~~4~~3

		U.T. I	II
—	Obs comm.	22:15	— —
477	Dc (lg proj) S edge NEB	22:17 188 ✓	—
478	Df (lg proj) S edge NEB	22:29 196 ✓	—
—	Obs disc	22:42	— —

$0^h 27^m$

Temperature = 38°

355 NOV 15/16, 1961
8" REFL 240x
S-3 T-3-4

		U.T.	I	II
—	Obs. comm	21:49	—	—
479	Df (proj) N edge SEB n	21:51	241	—
480	Df (proj) S edge NEB	22:00	246	—
481	Dc (proj) N edge SEB n (f base EZ feat)	22:03	248	—
482	Wf (oval) S edge STB (FA?)	22:12	—	282
483	Df (proj) N edge SEB n	22:15	255	—
484	Wc (white area) EZ	22:21	259	—
485	Wc (oval) S edge STB (indef)	22:31	—	294
486	Df (tall proj) S edge NEB	22:35	268	—
487	Wf (white area) EZ	22:45	274	—
488	Dc (tall proj) S edge NEB	22:51	277	—
489	Df (oval) S edge STB (indef)	22:52	—	306
490	Wf (oval) S edge NEB	22:57	281	—
—	Obs fin.	23:00	—	—

1h 11m

22:45.0 1 cont.
22:48.6 2 cont.
II T. I. S-2 / T-3 360X
Temperature = 28°

356 NOV 19/20, 1961

8" REFL 240X

S-4-3 T-3

		U.T.	I	II
—	Obs com	21:42	—	—
491	Dc (ball proj) S edge NEB	21:43	147✓	—
492	Df (ball proj) S edge NEB	21:53	153✓	—
493	Wc (oval) S edge NEB	22:02	158✓	—
800 494	Dc (~~proj~~ base ft fest) S edge NEB	22:17	167✓	—
495	Wc (oval) S edge NEB	(E) 22:30	175✓	—
496	Df (lg proj) S edge NEB	22:42	183✓	—
497	Dc (lg proj) S edge NEB	22:50	188✓	—
498	Df (lg proj) S edge NEB	22:58	192✓	—
499	Wf ~~(gap) NEB n~~ (notch) N edge NEB	(E) 23:12	—	199✓
500	Wc ~~(gap) NEB n~~ (notch) N edge NEB	23:24	—	206✓
501	Wf (notch) N edge NEB	23:35	—	213✓
502	Wf (oval) S edge STB (DE)	23:36	—	213✓
—	Obs disc.	23:37	—	—

1h 55m

TEMPERATURE =34°

? O.K.

357 NOV 25/26, 1961
8" REFL 240X
S-3-0 T-3

		U.T.	I	II
—	Obs comm	21:33	—	—
503	Wf (ruft) NEB	21:34	7	320
504	Wc (ruft) NEB	21:48	16	328
505	Wf (oval) S edge NEB Δ	21:50	17	—
506	Df (proj) N edge NEB n	21:59	—	335
507	Wf (ruft) NEB	22:04	26	338
508	Wc (oval) S edge NEB Δ	22:06	27	—
509	Dc (proj) N edge NEB n	22:10	—	341
510	Wf (oval) S edge NEB Δ	22:22	36	—
511	Dc (lg proj) S edge NEB Δ	22:24	41	—
512	RSf.	22:33	—	355
513	Df (lg proj) S edge NEB Δ	22:45	50	—
514	RSc	22:54	—	8
—	Obs. disc.	22:55	—	—

1h 22m

Summary
514 transits in $66^h 46^m$ on an average of 7.7 transits per hour.

10 - very brightest
9 - extremely bright
8 - very bright
7 - bright
6 - slightly shaded
5 - dull
4 - dusky
3 - dark
2 - very dark
1 - extremely dark
0 - black, shadow

8.0-8.5	very bright zone
6.0-7.5	ordinary bright zone
5.0-5.5	dull zone
3.5-4.5	polar region
2.5-3.5	ordinary dark belt
1.5-2.5	very dark belt
0	shadow

JUNE 3/4

H.S.E. 1-12

12:25 - 12:~~30~~ EDT

5-20 dec

H.S.F.

211.0
118.9
329.9

JUNE 17 I

83.7
139.6
223.3

ROYAL ASTRONOMICAL SOCIETY OF CANADA
Montreal Centre

PLANETARY OBSERVATIONS
Central Meridian Transits

Date SEPT. 18/19, 1961 Planet JUPITER.

Period of Observation 00:16 - 01:18 U.T.

Telescope 6" REFR. Power 220X

Seeing(0 worst-10 best) 2 Transparency (0 worst-5 best) 3

Observer G. GAHERTY

Serial No	Description of Feature	Transit Time U.T.	Longitude I	Longitude II
367	Dh (lg proj) S edge NEB	00:18		—
368	Dc (lg proj) S edge NEB	00:30		—
369	Df (lg proj) S edge NEB	00:44		—
370	Wh (oval) S edge STB (BC)	01:06	—	