

EXTRACT FROM SECTION G

The following pages replace those in the printed almanac for 2005. This is necessary due to an unpredictable error in the transit times. Mostly the times are in error by 0^m1 or 0^m2; occasionally, the error reached 0^m4. The astrometric right ascension, declination and magnitude are also tabulated but are unchanged.

	PAGE
Notes	G1
Geocentric ephemeris, magnitude, time of ephemeris transit for:	
Ceres	G5
Pallas	G6
Juno	G7
Vesta	G8
Hebe	G9
Iris	G10
Flora	G11
Hygiea	G12
Eunomia	G13
Psyche	G14
Europa	G15
Cybele	G16
Davida	G17
Interamnia	G18



This symbol indicates that these data or auxiliary material may also be found on *The Astronomical Almanac Online* at <http://asa.usno.navy.mil> and <http://asa.hmnao.com>

Note

A daily geocentric astrometric ephemeris is tabulated for those of the 15 larger minor planets (Ceres, Pallas, Juno, Vesta, Hebe, Iris, Flora, Metis, Hygiea, Eunomia, Psyche, Europa, Cybele, Davida and Interamnia) that have an opposition date occurring between 2005 January 1 and January 31 of the following year. The daily ephemeris of each object is centred about the opposition date, which is repeated at the bottom of the first column and at the top of the second column. The highlighted dates indicate when the object is stationary in right ascension. It is very occasionally possible for a stationary date to be outside the period tabulated.

Linear interpolation is sufficient for the magnitude and ephemeris transit, but for the right ascension and declination second differences are significant. The tabulations are similar to those for Pluto, and the use of the data is similar to that for major planets.

GEOCENTRIC POSITIONS FOR 0^h TERRESTRIAL TIME

Date	Astrometric				Vis. Mag.	Ephem- eris Transit	Date	Astrometric				Vis. Mag.	Ephem- eris Transit								
	R.A.		Dec.					R.A.		Dec.											
	h	m	s	°				'	"	h	m			s	°	'	"				
2005 Mar. 10	15	38	30.3	-	9	25	18	8.1	4	27.0	2005 May 8	15	13	40.9	-	8	29	23	7.0	0	10.3
11	15	38	48.2	-	9	25	14	8.1	4	23.4	9	15	12	45.2	-	8	29	02	7.0	0	05.4
12	15	39	04.6	-	9	25	06	8.0	4	19.7	10	15	11	49.3	-	8	28	45	7.0	0	00.6
13	15	39	19.5	-	9	24	54	8.0	4	16.0	11	15	10	53.6	-	8	28	33	7.0	23	50.8
14	15	39	32.7	-	9	24	38	8.0	4	12.3	12	15	09	57.8	-	8	28	26	7.0	23	46.0
15	15	39	44.4	-	9	24	19	8.0	4	08.6	13	15	09	02.3	-	8	28	24	7.0	23	41.1
16	15	39	54.6	-	9	23	55	8.0	4	04.8	14	15	08	06.9	-	8	28	27	7.0	23	36.3
17	15	40	03.1	-	9	23	28	8.0	4	01.0	15	15	07	11.9	-	8	28	36	7.0	23	31.5
18	15	40	10.1	-	9	22	58	7.9	3	57.2	16	15	06	17.1	-	8	28	51	7.1	23	26.6
19	15	40	15.4	-	9	22	24	7.9	3	53.4	17	15	05	22.8	-	8	29	11	7.1	23	21.8
20	15	40	19.1	-	9	21	47	7.9	3	49.5	18	15	04	28.9	-	8	29	37	7.1	23	17.0
Mar. 21	15	40	21.3	-	9	21	06	7.9	3	45.6	19	15	03	35.5	-	8	30	09	7.1	23	12.2
22	15	40	21.8	-	9	20	23	7.9	3	41.7	20	15	02	42.7	-	8	30	47	7.1	23	07.4
23	15	40	20.6	-	9	19	36	7.8	3	37.7	21	15	01	50.6	-	8	31	31	7.2	23	02.6
24	15	40	17.9	-	9	18	47	7.8	3	33.7	22	15	00	59.1	-	8	32	21	7.2	22	57.8
25	15	40	13.5	-	9	17	55	7.8	3	29.7	23	15	00	08.3	-	8	33	17	7.2	22	53.1
26	15	40	07.4	-	9	17	00	7.8	3	25.7	24	14	59	18.3	-	8	34	19	7.2	22	48.3
27	15	39	59.8	-	9	16	02	7.8	3	21.6	25	14	58	29.1	-	8	35	28	7.3	22	43.6
28	15	39	50.5	-	9	15	02	7.8	3	17.5	26	14	57	40.8	-	8	36	43	7.3	22	38.9
29	15	39	39.5	-	9	14	00	7.7	3	13.4	27	14	56	53.4	-	8	38	04	7.3	22	34.2
30	15	39	26.9	-	9	12	56	7.7	3	09.3	28	14	56	06.9	-	8	39	31	7.3	22	29.5
31	15	39	12.7	-	9	11	49	7.7	3	05.1	29	14	55	21.4	-	8	41	05	7.3	22	24.8
Apr. 1	15	38	56.9	-	9	10	40	7.7	3	00.9	30	14	54	37.0	-	8	42	46	7.4	22	20.2
2	15	38	39.4	-	9	09	30	7.7	2	56.7	31	14	53	53.6	-	8	44	33	7.4	22	15.5
3	15	38	20.3	-	9	08	17	7.6	2	52.4	June 1	14	53	11.4	-	8	46	26	7.4	22	10.9
4	15	37	59.5	-	9	07	03	7.6	2	48.1	2	14	52	30.2	-	8	48	26	7.4	22	06.3
5	15	37	37.2	-	9	05	48	7.6	2	43.8	3	14	51	50.3	-	8	50	33	7.5	22	01.7
6	15	37	13.3	-	9	04	31	7.6	2	39.5	4	14	51	11.6	-	8	52	46	7.5	21	57.2
7	15	36	47.8	-	9	03	13	7.6	2	35.2	5	14	50	34.1	-	8	55	06	7.5	21	52.6
8	15	36	20.7	-	9	01	54	7.5	2	30.8	6	14	49	58.0	-	8	57	33	7.5	21	48.1
9	15	35	52.2	-	9	00	34	7.5	2	26.4	7	14	49	23.1	-	9	00	06	7.6	21	43.6
10	15	35	22.1	-	8	59	13	7.5	2	21.9	8	14	48	49.6	-	9	02	45	7.6	21	39.2
11	15	34	50.5	-	8	57	52	7.5	2	17.5	9	14	48	17.4	-	9	05	32	7.6	21	34.7
12	15	34	17.5	-	8	56	31	7.5	2	13.0	10	14	47	46.6	-	9	08	24	7.6	21	30.3
13	15	33	43.1	-	8	55	10	7.4	2	08.5	11	14	47	17.2	-	9	11	23	7.6	21	25.9
14	15	33	07.2	-	8	53	48	7.4	2	04.0	12	14	46	49.2	-	9	14	29	7.7	21	21.5
15	15	32	30.1	-	8	52	27	7.4	1	59.4	13	14	46	22.7	-	9	17	41	7.7	21	17.2
16	15	31	51.6	-	8	51	07	7.4	1	54.8	14	14	45	57.6	-	9	20	59	7.7	21	12.9
17	15	31	11.8	-	8	49	47	7.3	1	50.3	15	14	45	33.9	-	9	24	24	7.7	21	08.6
18	15	30	30.8	-	8	48	28	7.3	1	45.6	16	14	45	11.7	-	9	27	55	7.8	21	04.3
19	15	29	48.5	-	8	47	10	7.3	1	41.0	17	14	44	51.0	-	9	31	31	7.8	21	00.0
20	15	29	05.1	-	8	45	53	7.3	1	36.4	18	14	44	31.8	-	9	35	14	7.8	20	55.8
21	15	28	20.6	-	8	44	37	7.3	1	31.7	19	14	44	14.1	-	9	39	03	7.8	20	51.6
22	15	27	35.1	-	8	43	23	7.2	1	27.0	20	14	43	57.8	-	9	42	58	7.8	20	47.4
23	15	26	48.4	-	8	42	10	7.2	1	22.3	21	14	43	43.0	-	9	46	58	7.9	20	43.3
24	15	26	00.9	-	8	41	00	7.2	1	17.6	22	14	43	29.8	-	9	51	04	7.9	20	39.1
25	15	25	12.3	-	8	39	51	7.2	1	12.8	23	14	43	18.0	-	9	55	16	7.9	20	35.0
26	15	24	22.9	-	8	38	45	7.2	1	08.1	24	14	43	07.6	-	9	59	33	7.9	20	30.9
27	15	23	32.7	-	8	37	41	7.1	1	03.3	25	14	42	58.8	-	10	03	55	7.9	20	26.9
28	15	22	41.7	-	8	36	39	7.1	0	58.5	26	14	42	51.4	-	10	08	23	8.0	20	22.9
29	15	21	49.9	-	8	35	41	7.1	0	53.8	27	14	42	45.5	-	10	12	56	8.0	20	18.8
30	15	20	57.5	-	8	34	45	7.1	0	49.0	28	14	42	41.1	-	10	17	34	8.0	20	14.9
May 1	15	20	04.5	-	8	33	52	7.1	0	44.1	29	14	42	38.1	-	10	22	17	8.0	20	10.9
2	15	19	10.9	-	8	33	02	7.0	0	39.3	June 30	14	42	36.6	-	10	27	05	8.0	20	07.0
3	15	18	16.8	-	8	32	16	7.0	0	34.5	July 1	14	42	36.6	-	10	31	58	8.1	20	03.1
4	15	17	22.2	-	8	31	33	7.0	0	29.7	2	14	42	38.0	-	10	36	56	8.1	19	59.2
5	15	16	27.3	-	8	30	55	7.0	0	24.8	3	14	42	40.9	-	10	41	59	8.1	19	55.3
6	15	15	32.1	-	8	30	20	7.0	0	20.0	4	14	42	45.2	-	10	47	06	8.1	19	51.5
7	15	14	36.6	-	8	29	49	7.0	0	15.1	5	14	42	51.0	-	10	52	18	8.1	19	47.6
May 8	15	13	40.9	-	8	29	23	7.0	0	10.3	July 6	14	42	58.2	-	10	57	34	8.2	19	43.8

Second transit for Ceres 2005 May 10^d 23^h 55^m7

PALLAS, 2005
GEOCENTRIC POSITIONS FOR 0^h TERRESTRIAL TIME

Date	Astrometric						Vis. Mag.	Ephem- eris Transit	Date	Astrometric						Vis. Mag.	Ephem- eris Transit						
	R.A.			Dec.						R.A.			Dec.										
	h	m	s	°	'	"				h	m	s	°	'	"			h	m				
2005 Jan. 23	12	37	12.4	-	9	11	54	8.2	4	27	-1	2005 Mar. 23	12	28	07.3	+	9	11	50	7.1	0	26	-0
24	12	37	48.5	-	9	02	19	8.2	4	23	-8	24	12	27	24.3	+	9	34	12	7.1	0	21	-4
25	12	38	23.1	-	8	52	23	8.2	4	20	-4	25	12	26	41.2	+	9	56	20	7.1	0	16	-7
26	12	38	56.2	-	8	42	05	8.2	4	17	-1	26	12	25	58.0	+	10	18	14	7.2	0	12	-1
27	12	39	27.7	-	8	31	27	8.2	4	13	-6	27	12	25	14.9	+	10	39	53	7.2	0	07	-4
28	12	39	57.7	-	8	20	26	8.1	4	10	-2	28	12	24	31.9	+	11	01	16	7.2	0	02	-8
29	12	40	26.1	-	8	09	04	8.1	4	06	-7	29	12	23	49.0	+	11	22	21	7.2	23	53	-5
30	12	40	52.9	-	7	57	20	8.1	4	03	-2	30	12	23	06.3	+	11	43	09	7.3	23	48	-9
31	12	41	18.0	-	7	45	14	8.1	3	59	-7	31	12	22	23.9	+	12	03	38	7.3	23	44	-2
Feb. 1	12	41	41.6	-	7	32	46	8.1	3	56	-2	Apr. 1	12	21	41.9	+	12	23	47	7.3	23	39	-6
2	12	42	03.5	-	7	19	55	8.0	3	52	-6	2	12	21	00.3	+	12	43	35	7.3	23	35	-0
3	12	42	23.7	-	7	06	42	8.0	3	49	-0	3	12	20	19.2	+	13	03	02	7.4	23	30	-4
4	12	42	42.2	-	6	53	06	8.0	3	45	-4	4	12	19	38.6	+	13	22	08	7.4	23	25	-8
5	12	42	59.0	-	6	39	07	8.0	3	41	-7	5	12	18	58.6	+	13	40	51	7.4	23	21	-2
6	12	43	14.2	-	6	24	45	8.0	3	38	-0	6	12	18	19.2	+	13	59	11	7.5	23	16	-6
7	12	43	27.6	-	6	10	01	7.9	3	34	-3	7	12	17	40.6	+	14	17	07	7.5	23	12	-1
8	12	43	39.3	-	5	54	54	7.9	3	30	-6	8	12	17	02.8	+	14	34	39	7.5	23	07	-5
9	12	43	49.2	-	5	39	23	7.9	3	26	-8	9	12	16	25.8	+	14	51	46	7.6	23	03	-0
10	12	43	57.5	-	5	23	31	7.9	3	23	-0	10	12	15	49.7	+	15	08	29	7.6	22	58	-5
11	12	44	04.0	-	5	07	15	7.9	3	19	-2	11	12	15	14.5	+	15	24	46	7.6	22	54	-0
12	12	44	08.7	-	4	50	37	7.8	3	15	-3	12	12	14	40.3	+	15	40	38	7.6	22	49	-5
13	12	44	11.8	-	4	33	37	7.8	3	11	-4	13	12	14	07.2	+	15	56	03	7.7	22	45	-0
Feb. 14	12	44	13.1	-	4	16	15	7.8	3	07	-5	14	12	13	35.2	+	16	11	03	7.7	22	40	-6
15	12	44	12.7	-	3	58	31	7.8	3	03	-6	15	12	13	04.3	+	16	25	37	7.7	22	36	-2
16	12	44	10.6	-	3	40	26	7.7	2	59	-6	16	12	12	34.5	+	16	39	44	7.8	22	31	-8
17	12	44	06.7	-	3	22	00	7.7	2	55	-6	17	12	12	06.0	+	16	53	26	7.8	22	27	-4
18	12	44	01.2	-	3	03	12	7.7	2	51	-6	18	12	11	38.6	+	17	06	41	7.8	22	23	-0
19	12	43	54.0	-	2	44	05	7.7	2	47	-5	19	12	11	12.6	+	17	19	30	7.9	22	18	-7
20	12	43	45.2	-	2	24	37	7.7	2	43	-5	20	12	10	47.8	+	17	31	53	7.9	22	14	-3
21	12	43	34.7	-	2	04	51	7.6	2	39	-3	21	12	10	24.3	+	17	43	51	7.9	22	10	-0
22	12	43	22.5	-	1	44	45	7.6	2	35	-2	22	12	10	02.2	+	17	55	22	7.9	22	05	-8
23	12	43	08.8	-	1	24	21	7.6	2	31	-0	23	12	09	41.4	+	18	06	28	8.0	22	01	-5
24	12	42	53.4	-	1	03	39	7.6	2	26	-9	24	12	09	22.0	+	18	17	09	8.0	21	57	-3
25	12	42	36.5	-	0	42	40	7.5	2	22	-6	25	12	09	03.9	+	18	27	24	8.0	21	53	-1
26	12	42	18.0	-	0	21	25	7.5	2	18	-4	26	12	08	47.3	+	18	37	14	8.0	21	48	-9
27	12	41	58.0	+	0	00	06	7.5	2	14	-1	27	12	08	32.0	+	18	46	40	8.1	21	44	-7
28	12	41	36.4	+	0	21	52	7.5	2	09	-8	28	12	08	18.2	+	18	55	42	8.1	21	40	-6
Mar. 1	12	41	13.4	+	0	43	52	7.4	2	05	-5	29	12	08	05.8	+	19	04	19	8.1	21	36	-5
2	12	40	49.0	+	1	06	05	7.4	2	01	-2	30	12	07	54.9	+	19	12	33	8.2	21	32	-4
3	12	40	23.1	+	1	28	31	7.4	1	56	-8	May 1	12	07	45.3	+	19	20	23	8.2	21	28	-3
4	12	39	55.9	+	1	51	08	7.4	1	52	-4	2	12	07	37.3	+	19	27	49	8.2	21	24	-3
5	12	39	27.4	+	2	13	55	7.4	1	48	-0	3	12	07	30.7	+	19	34	53	8.2	21	20	-2
6	12	38	57.5	+	2	36	52	7.3	1	43	-6	4	12	07	25.5	+	19	41	34	8.3	21	16	-2
7	12	38	26.4	+	2	59	57	7.3	1	39	-2	5	12	07	21.8	+	19	47	53	8.3	21	12	-3
8	12	37	54.2	+	3	23	09	7.3	1	34	-7	6	12	07	19.6	+	19	53	50	8.3	21	08	-3
9	12	37	20.7	+	3	46	28	7.3	1	30	-2	May 7	12	07	18.8	+	19	59	26	8.3	21	04	-4
10	12	36	46.2	+	4	09	51	7.2	1	25	-7	8	12	07	19.6	+	20	04	40	8.4	21	00	-5
11	12	36	10.7	+	4	33	18	7.2	1	21	-2	9	12	07	21.7	+	20	09	33	8.4	20	56	-6
12	12	35	34.2	+	4	56	47	7.2	1	16	-6	10	12	07	25.4	+	20	14	06	8.4	20	52	-8
13	12	34	56.8	+	5	20	17	7.2	1	12	-1	11	12	07	30.4	+	20	18	19	8.4	20	49	-0
14	12	34	18.5	+	5	43	48	7.2	1	07	-5	12	12	07	36.9	+	20	22	12	8.5	20	45	-1
15	12	33	39.5	+	6	07	17	7.2	1	03	-0	13	12	07	44.9	+	20	25	46	8.5	20	41	-4
16	12	32	59.8	+	6	30	43	7.1	0	58	-4	14	12	07	54.3	+	20	29	01	8.5	20	37	-6
17	12	32	19.4	+	6	54	05	7.1	0	53	-8	15	12	08	05.1	+	20	31	58	8.5	20	33	-9
18	12	31	38.4	+	7	17	23	7.1	0	49	-2	16	12	08	17.3	+	20	34	37	8.6	20	30	-2
19	12	30	57.0	+	7	40	34	7.1	0	44	-5	17	12	08	30.8	+	20	36	58	8.6	20	26	-5
20	12	30	15.1	+	8	03	37	7.1	0	39	-9	18	12	08	45.8	+	20	39	01	8.6	20	22	-8
21	12	29	32.8	+	8	26	32	7.1	0	35	-3	19	12	09	02.1	+	20	40	48	8.6	20	19	-2
22	12	28	50.2	+	8	49	16	7.1	0	30	-6	20	12	09	19.7	+	20	42	18	8.6	20	15	-6
Mar. 23	12	28	07.3	+	9	11	50	7.1	0	26	-0	May 21	12	09	38.6	+	20	43	33	8.7	20	12	-0

Second transit for Pallas 2005 March 28^d 23^h 58^m1

JUNO, 2005
GEOCENTRIC POSITIONS FOR 0^h TERRESTRIAL TIME

G7

Date	Astrometric				Vis. Mag.	Ephem- eris Transit	Date	Astrometric				Vis. Mag.	Ephem- eris Transit
	R.A.		Dec.					R.A.		Dec.			
	h	m s	°	' "				h	m s	°	' "		
2005 Oct. 11	5 24	01.4	+	5 42 12	8.4	4 05-1	2005 Dec. 9	5 14	07.5	-	1 58 50	7.6	0 03-1
12	5 24	47.1	+	5 32 23	8.4	4 01-9	10	5 13	17.2	-	1 59 33	7.6	23 53-6
13	5 25	31.0	+	5 22 30	8.4	3 58-7	11	5 12	26.9	-	1 59 54	7.6	23 48-8
14	5 26	13.0	+	5 12 33	8.4	3 55-4	12	5 11	36.7	-	1 59 53	7.6	23 44-0
15	5 26	53.1	+	5 02 32	8.3	3 52-2	13	5 10	46.8	-	1 59 30	7.6	23 39-3
16	5 27	31.3	+	4 52 28	8.3	3 48-9	14	5 09	57.2	-	1 58 45	7.6	23 34-5
17	5 28	07.6	+	4 42 21	8.3	3 45-5	15	5 09	08.0	-	1 57 39	7.6	23 29-8
18	5 28	41.9	+	4 32 11	8.3	3 42-2	16	5 08	19.3	-	1 56 11	7.6	23 25-1
19	5 29	14.3	+	4 21 59	8.3	3 38-8	17	5 07	31.2	-	1 54 21	7.6	23 20-4
20	5 29	44.6	+	4 11 44	8.2	3 35-3	18	5 06	43.8	-	1 52 10	7.6	23 15-6
21	5 30	12.9	+	4 01 28	8.2	3 31-9	19	5 05	57.1	-	1 49 38	7.6	23 11-0
22	5 30	39.2	+	3 51 11	8.2	3 28-4	20	5 05	11.2	-	1 46 46	7.6	23 06-3
23	5 31	03.4	+	3 40 53	8.2	3 24-8	21	5 04	26.2	-	1 43 32	7.7	23 01-6
24	5 31	25.5	+	3 30 34	8.2	3 21-3	22	5 03	42.2	-	1 39 59	7.7	22 57-0
25	5 31	45.5	+	3 20 15	8.1	3 17-6	23	5 02	59.3	-	1 36 05	7.7	22 52-3
26	5 32	03.4	+	3 09 56	8.1	3 14-0	24	5 02	17.4	-	1 31 52	7.7	22 47-7
27	5 32	19.2	+	2 59 38	8.1	3 10-3	25	5 01	36.8	-	1 27 19	7.7	22 43-2
28	5 32	32.8	+	2 49 22	8.1	3 06-6	26	5 00	57.4	-	1 22 27	7.7	22 38-6
29	5 32	44.3	+	2 39 07	8.1	3 02-9	27	5 00	19.3	-	1 17 17	7.8	22 34-1
30	5 32	53.6	+	2 28 55	8.0	2 59-1	28	4 59	42.7	-	1 11 49	7.8	22 29-5
31	5 33	00.8	+	2 18 46	8.0	2 55-3	29	4 59	07.5	-	1 06 03	7.8	22 25-0
Nov. 1	5 33	05.8	+	2 08 40	8.0	2 51-4	30	4 58	33.8	-	1 00 00	7.8	22 20-6
Nov. 2	5 33	08.7	+	1 58 38	8.0	2 47-5	31	4 58	01.6	-	0 53 40	7.8	22 16-1
3	5 33	09.4	+	1 48 40	8.0	2 43-6	2006 Jan. 1	4 57	31.1	-	0 47 04	7.9	22 11-7
4	5 33	07.9	+	1 38 48	8.0	2 39-7	2	4 57	02.3	-	0 40 12	7.9	22 07-3
5	5 33	04.4	+	1 29 02	7.9	2 35-7	3	4 56	35.1	-	0 33 05	7.9	22 03-0
6	5 32	58.7	+	1 19 21	7.9	2 31-6	4	4 56	09.8	-	0 25 43	7.9	21 58-7
7	5 32	50.9	+	1 09 48	7.9	2 27-6	5	4 55	46.2	-	0 18 07	7.9	21 54-4
8	5 32	41.0	+	1 00 22	7.9	2 23-5	6	4 55	24.4	-	0 10 18	8.0	21 50-1
9	5 32	29.1	+	0 51 04	7.9	2 19-3	7	4 55	04.5	-	0 02 16	8.0	21 45-9
10	5 32	15.1	+	0 41 55	7.8	2 15-2	8	4 54	46.5	+	0 05 59	8.0	21 41-7
11	5 31	59.1	+	0 32 55	7.8	2 11-0	9	4 54	30.4	+	0 14 25	8.0	21 37-5
12	5 31	41.2	+	0 24 05	7.8	2 06-7	10	4 54	16.1	+	0 23 03	8.1	21 33-4
13	5 31	21.3	+	0 15 26	7.8	2 02-5	11	4 54	03.8	+	0 31 51	8.1	21 29-3
14	5 30	59.5	+	0 06 57	7.8	1 58-2	12	4 53	53.4	+	0 40 49	8.1	21 25-2
15	5 30	35.8	-	0 01 20	7.8	1 53-8	13	4 53	45.0	+	0 49 57	8.1	21 21-1
16	5 30	10.3	-	0 09 25	7.7	1 49-5	14	4 53	38.5	+	0 59 14	8.1	21 17-1
17	5 29	42.9	-	0 17 18	7.7	1 45-1	15	4 53	34.0	+	1 08 40	8.2	21 13-1
18	5 29	13.8	-	0 24 57	7.7	1 40-7	Jan. 16	4 53	31.4	+	1 18 14	8.2	21 09-2
19	5 28	43.0	-	0 32 22	7.7	1 36-2	17	4 53	30.8	+	1 27 55	8.2	21 05-3
20	5 28	10.6	-	0 39 33	7.7	1 31-8	18	4 53	32.1	+	1 37 43	8.2	21 01-4
21	5 27	36.5	-	0 46 29	7.7	1 27-3	19	4 53	35.3	+	1 47 38	8.3	20 57-6
22	5 27	00.8	-	0 53 09	7.7	1 22-8	20	4 53	40.6	+	1 57 40	8.3	20 53-7
23	5 26	23.7	-	0 59 33	7.6	1 18-2	21	4 53	47.7	+	2 07 47	8.3	20 50-0
24	5 25	45.1	-	1 05 40	7.6	1 13-6	22	4 53	56.8	+	2 17 59	8.3	20 46-2
25	5 25	05.2	-	1 11 30	7.6	1 09-0	23	4 54	07.9	+	2 28 16	8.4	20 42-5
26	5 24	23.9	-	1 17 03	7.6	1 04-4	24	4 54	20.8	+	2 38 38	8.4	20 38-8
27	5 23	41.5	-	1 22 17	7.6	0 59-8	25	4 54	35.7	+	2 49 03	8.4	20 35-1
28	5 22	57.8	-	1 27 12	7.6	0 55-1	26	4 54	52.5	+	2 59 32	8.4	20 31-5
29	5 22	13.1	-	1 31 48	7.6	0 50-5	27	4 55	11.2	+	3 10 05	8.4	20 27-9
30	5 21	27.5	-	1 36 04	7.6	0 45-8	28	4 55	31.7	+	3 20 40	8.5	20 24-3
Dec. 1	5 20	40.9	-	1 40 01	7.6	0 41-1	29	4 55	54.2	+	3 31 18	8.5	20 20-8
2	5 19	53.6	-	1 43 36	7.6	0 36-3	30	4 56	18.5	+	3 41 57	8.5	20 17-3
3	5 19	05.5	-	1 46 51	7.6	0 31-6	31	4 56	44.7	+	3 52 39	8.5	20 13-8
4	5 18	16.8	-	1 49 45	7.6	0 26-9	Feb. 1	4 57	12.7	+	4 03 21	8.6	20 10-4
5	5 17	27.6	-	1 52 17	7.5	0 22-1	2	4 57	42.5	+	4 14 05	8.6	20 07-0
6	5 16	37.9	-	1 54 28	7.5	0 17-4	3	4 58	14.1	+	4 24 49	8.6	20 03-6
7	5 15	48.0	-	1 56 17	7.5	0 12-6	4	4 58	47.5	+	4 35 33	8.6	20 00-3
8	5 14	57.8	-	1 57 44	7.5	0 07-9	5	4 59	22.6	+	4 46 17	8.7	19 56-9
Dec. 9	5 14	07.5	-	1 58 50	7.6	0 03-1	Feb. 6	4 59	59.4	+	4 57 00	8.7	19 53-6

Second transit for Juno 2005 December 9^d 23^h 58^m3

VESTA, 2005
GEOCENTRIC POSITIONS FOR 0^h TERRESTRIAL TIME

Date	Astrometric					Vis. Mag.	Ephem- eris Transit	Date	Astrometric					Vis. Mag.	Ephem- eris Transit			
	R.A.		Dec.						R.A.		Dec.							
	h	m	s	°	'				"	h	m	s	°			'	"	
2005 Nov.	7	7 36	19.4	+19	37	26	7.6	4 30.8	2006 Jan.	5	7 07	59.7	+22	46	30	6.3	0 10.5	
	8	7 36	40.2	+19	38	04	7.6	4 27.2		6	7 06	52.5	+22	51	11	6.2	0 05.5	
	9	7 36	59.4	+19	38	47	7.6	4 23.6		7	7 05	45.2	+22	55	50	6.3	0 00.5	
	10	7 37	16.9	+19	39	36	7.5	4 20.0		8	7 04	37.9	+23	00	26	6.3	23 50.4	
	11	7 37	32.8	+19	40	29	7.5	4 16.3		9	7 03	30.7	+23	05	01	6.3	23 45.3	
	12	7 37	47.0	+19	41	29	7.5	4 12.6		10	7 02	23.7	+23	09	32	6.4	23 40.3	
	13	7 37	59.6	+19	42	33	7.5	4 08.9		11	7 01	16.8	+23	14	02	6.4	23 35.3	
	14	7 38	10.4	+19	43	44	7.5	4 05.1		12	7 00	10.3	+23	18	28	6.4	23 30.2	
	15	7 38	19.5	+19	45	00	7.4	4 01.3		13	6 59	04.2	+23	22	51	6.4	23 25.2	
	16	7 38	26.9	+19	46	21	7.4	3 57.5		14	6 57	58.6	+23	27	11	6.5	23 20.2	
	17	7 38	32.5	+19	47	49	7.4	3 53.7		15	6 56	53.6	+23	31	27	6.5	23 15.2	
	18	7 38	36.4	+19	49	22	7.4	3 49.8		16	6 55	49.2	+23	35	40	6.5	23 10.2	
Nov.	19	7 38	38.4	+19	51	02	7.4	3 45.9		17	6 54	45.6	+23	39	49	6.5	23 05.2	
	20	7 38	38.7	+19	52	48	7.4	3 42.0		18	6 53	42.7	+23	43	54	6.6	23 00.3	
	21	7 38	37.1	+19	54	39	7.3	3 38.0		19	6 52	40.7	+23	47	55	6.6	22 55.3	
	22	7 38	33.7	+19	56	37	7.3	3 34.0		20	6 51	39.7	+23	51	52	6.6	22 50.4	
	23	7 38	28.5	+19	58	41	7.3	3 30.0		21	6 50	39.8	+23	55	46	6.6	22 45.5	
	24	7 38	21.3	+20	00	51	7.3	3 25.9		22	6 49	40.9	+23	59	34	6.6	22 40.6	
	25	7 38	12.4	+20	03	08	7.3	3 21.8		23	6 48	43.2	+24	03	19	6.7	22 35.8	
	26	7 38	01.5	+20	05	31	7.2	3 17.7		24	6 47	46.7	+24	06	59	6.7	22 30.9	
	27	7 37	48.7	+20	08	00	7.2	3 13.6		25	6 46	51.6	+24	10	35	6.7	22 26.1	
	28	7 37	34.1	+20	10	35	7.2	3 09.4		26	6 45	57.8	+24	14	07	6.7	22 21.3	
	29	7 37	17.5	+20	13	17	7.2	3 05.2		27	6 45	05.4	+24	17	34	6.8	22 16.5	
	30	7 36	59.1	+20	16	05	7.1	3 00.9		28	6 44	14.6	+24	20	57	6.8	22 11.8	
Dec.	1	7 36	38.7	+20	18	59	7.1	2 56.7		29	6 43	25.3	+24	24	15	6.8	22 07.0	
	2	7 36	16.5	+20	21	59	7.1	2 52.4		30	6 42	37.6	+24	27	29	6.8	22 02.3	
	3	7 35	52.4	+20	25	06	7.1	2 48.0		31	6 41	51.5	+24	30	38	6.8	21 57.7	
	4	7 35	26.4	+20	28	18	7.1	2 43.7		Feb.	1	6 41	07.2	+24	33	43	6.9	21 53.0
	5	7 34	58.5	+20	31	37	7.0	2 39.3		2	6 40	24.5	+24	36	43	6.9	21 48.4	
	6	7 34	28.8	+20	35	01	7.0	2 34.9		3	6 39	43.7	+24	39	40	6.9	21 43.8	
	7	7 33	57.2	+20	38	31	7.0	2 30.4		4	6 39	04.7	+24	42	31	6.9	21 39.3	
	8	7 33	23.8	+20	42	06	7.0	2 25.9		5	6 38	27.6	+24	45	19	6.9	21 34.8	
	9	7 32	48.7	+20	45	47	7.0	2 21.4		6	6 37	52.3	+24	48	02	7.0	21 30.3	
	10	7 32	11.7	+20	49	33	6.9	2 16.8		7	6 37	18.9	+24	50	41	7.0	21 25.8	
	11	7 31	33.1	+20	53	25	6.9	2 12.3		8	6 36	47.5	+24	53	16	7.0	21 21.4	
	12	7 30	52.7	+20	57	21	6.9	2 07.7		9	6 36	18.0	+24	55	47	7.0	21 17.0	
	13	7 30	10.6	+21	01	22	6.9	2 03.0		10	6 35	50.4	+24	58	14	7.0	21 12.6	
	14	7 29	26.8	+21	05	27	6.8	1 58.4		11	6 35	24.8	+25	00	37	7.1	21 08.3	
	15	7 28	41.4	+21	09	37	6.8	1 53.7		12	6 35	01.2	+25	02	56	7.1	21 04.0	
	16	7 27	54.4	+21	13	51	6.8	1 49.0		13	6 34	39.6	+25	05	11	7.1	20 59.8	
	17	7 27	05.9	+21	18	09	6.8	1 44.2		14	6 34	20.0	+25	07	22	7.1	20 55.5	
	18	7 26	15.8	+21	22	30	6.8	1 39.5		15	6 34	02.3	+25	09	29	7.1	20 51.3	
	19	7 25	24.3	+21	26	56	6.7	1 34.7		16	6 33	46.7	+25	11	33	7.2	20 47.2	
	20	7 24	31.3	+21	31	24	6.7	1 29.9		17	6 33	33.1	+25	13	34	7.2	20 43.0	
	21	7 23	37.0	+21	35	55	6.7	1 25.1		18	6 33	21.4	+25	15	30	7.2	20 38.9	
	22	7 22	41.4	+21	40	29	6.7	1 20.2		19	6 33	11.8	+25	17	23	7.2	20 34.9	
	23	7 21	44.4	+21	45	05	6.6	1 15.3		20	6 33	04.2	+25	19	13	7.2	20 30.9	
	24	7 20	46.3	+21	49	44	6.6	1 10.4		21	6 32	58.5	+25	20	59	7.2	20 26.9	
	25	7 19	47.0	+21	54	24	6.6	1 05.5		22	6 32	54.9	+25	22	42	7.3	20 22.9	
	26	7 18	46.6	+21	59	06	6.6	1 00.6		Feb.	23	6 32	53.2	+25	24	22	7.3	20 19.0
	27	7 17	45.2	+22	03	49	6.5	0 55.6		24	6 32	53.5	+25	25	58	7.3	20 15.1	
	28	7 16	42.9	+22	08	34	6.5	0 50.7		25	6 32	55.8	+25	27	31	7.3	20 11.2	
	29	7 15	39.7	+22	13	19	6.5	0 45.7		26	6 33	00.1	+25	29	01	7.3	20 07.4	
	30	7 14	35.7	+22	18	04	6.5	0 40.7		27	6 33	06.3	+25	30	27	7.4	20 03.6	
	31	7 13	30.9	+22	22	50	6.4	0 35.7		28	6 33	14.4	+25	31	51	7.4	19 59.8	
2006 Jan.	1	7 12	25.6	+22	27	36	6.4	0 30.7		Mar.	1	6 33	24.5	+25	33	11	7.4	19 56.1
	2	7 11	19.7	+22	32	21	6.4	0 25.7		2	6 33	36.5	+25	34	28	7.4	19 52.3	
	3	7 10	13.4	+22	37	05	6.3	0 20.6		3	6 33	50.3	+25	35	42	7.4	19 48.7	
	4	7 09	06.7	+22	41	48	6.3	0 15.6		4	6 34	06.1	+25	36	53	7.4	19 45.0	
Jan.	5	7 07	59.7	+22	46	30	6.3	0 10.5		Mar.	5	6 34	23.7	+25	38	01	7.5	19 41.4

Second transit for Vesta 2006 January 7^d 23^h 55^m4

HEBE, 2005
GEOCENTRIC POSITIONS FOR 0^h TERRESTRIAL TIME

G9

Date	Astrometric					Vis. Mag.	Ephem- eris Transit	Date	Astrometric					Vis. Mag.	Ephem- eris Transit	
	R.A.		Dec.						R.A.		Dec.					
	h	m	s	°	'				"	h	m	s	°			'
2005 Feb.	13	14 17	16.1	+	1 50	07	10.8	2005 Apr.	13	13 57	07.4	+	9 39	09	9.9	0 32.2
	14	14 17	34.7	+	1 55	38	10.8		14	13 56	15.9	+	9 46	17	9.9	0 27.4
	15	14 17	52.0	+	2 01	18	10.7		15	13 55	24.0	+	9 53	14	9.9	0 22.6
	16	14 18	08.0	+	2 07	07	10.7		16	13 54	31.9	+	10 00	01	9.9	0 17.8
	17	14 18	22.7	+	2 13	04	10.7		17	13 53	39.7	+	10 06	37	9.9	0 13.0
	18	14 18	36.0	+	2 19	10	10.7		18	13 52	47.3	+	10 13	02	9.9	0 08.2
	19	14 18	47.9	+	2 25	25	10.7		19	13 51	54.9	+	10 19	16	10.0	0 03.4
	20	14 18	58.5	+	2 31	48	10.7		20	13 51	02.5	+	10 25	17	10.0	23 53.8
	21	14 19	07.7	+	2 38	19	10.6		21	13 50	10.2	+	10 31	07	10.0	23 49.0
	22	14 19	15.5	+	2 44	58	10.6		22	13 49	18.0	+	10 36	44	10.0	23 44.2
	23	14 19	21.9	+	2 51	46	10.6		23	13 48	25.9	+	10 42	08	10.0	23 39.4
	24	14 19	26.8	+	2 58	41	10.6		24	13 47	34.0	+	10 47	20	10.0	23 34.6
	25	14 19	30.4	+	3 05	45	10.6		25	13 46	42.4	+	10 52	18	10.0	23 29.9
	26	14 19	32.5	+	3 12	56	10.6		26	13 45	51.1	+	10 57	03	10.0	23 25.1
Feb.	27	14 19	33.2	+	3 20	14	10.5		27	13 45	00.2	+	11 01	35	10.0	23 20.3
	28	14 19	32.4	+	3 27	40	10.5		28	13 44	09.7	+	11 05	54	10.0	23 15.6
Mar.	1	14 19	30.2	+	3 35	13	10.5		29	13 43	19.6	+	11 09	58	10.1	23 10.8
	2	14 19	26.6	+	3 42	53	10.5		30	13 42	30.0	+	11 13	49	10.1	23 06.1
	3	14 19	21.4	+	3 50	40	10.5		May 1	13 41	41.0	+	11 17	26	10.1	23 01.3
	4	14 19	14.8	+	3 58	34	10.5		2	13 40	52.6	+	11 20	49	10.1	22 56.6
	5	14 19	06.8	+	4 06	34	10.4		3	13 40	04.9	+	11 23	57	10.1	22 51.9
	6	14 18	57.2	+	4 14	40	10.4		4	13 39	17.8	+	11 26	52	10.1	22 47.2
	7	14 18	46.2	+	4 22	52	10.4		5	13 38	31.5	+	11 29	32	10.1	22 42.5
	8	14 18	33.7	+	4 31	09	10.4		6	13 37	46.0	+	11 31	57	10.2	22 37.8
	9	14 18	19.7	+	4 39	32	10.4		7	13 37	01.3	+	11 34	09	10.2	22 33.2
	10	14 18	04.3	+	4 48	00	10.4		8	13 36	17.4	+	11 36	06	10.2	22 28.5
	11	14 17	47.4	+	4 56	33	10.3		9	13 35	34.5	+	11 37	48	10.2	22 23.9
	12	14 17	29.0	+	5 05	10	10.3		10	13 34	52.5	+	11 39	16	10.2	22 19.3
	13	14 17	09.3	+	5 13	51	10.3		11	13 34	11.5	+	11 40	30	10.2	22 14.7
	14	14 16	48.0	+	5 22	35	10.3		12	13 33	31.5	+	11 41	30	10.2	22 10.1
	15	14 16	25.4	+	5 31	23	10.3		13	13 32	52.5	+	11 42	15	10.3	22 05.5
	16	14 16	01.4	+	5 40	14	10.3		14	13 32	14.7	+	11 42	47	10.3	22 01.0
	17	14 15	36.0	+	5 49	07	10.2		15	13 31	37.9	+	11 43	04	10.3	21 56.5
	18	14 15	09.3	+	5 58	03	10.2		16	13 31	02.3	+	11 43	08	10.3	21 52.0
	19	14 14	41.2	+	6 07	00	10.2		17	13 30	27.8	+	11 42	58	10.3	21 47.5
	20	14 14	11.8	+	6 15	58	10.2		18	13 29	54.5	+	11 42	34	10.3	21 43.0
	21	14 13	41.1	+	6 24	58	10.2		19	13 29	22.4	+	11 41	57	10.4	21 38.6
	22	14 13	09.1	+	6 33	57	10.2		20	13 28	51.4	+	11 41	07	10.4	21 34.2
	23	14 12	35.9	+	6 42	57	10.1		21	13 28	21.8	+	11 40	04	10.4	21 29.7
	24	14 12	01.4	+	6 51	57	10.1		22	13 27	53.3	+	11 38	48	10.4	21 25.4
	25	14 11	25.7	+	7 00	56	10.1		23	13 27	26.2	+	11 37	20	10.4	21 21.0
	26	14 10	48.9	+	7 09	53	10.1		24	13 27	00.3	+	11 35	39	10.4	21 16.7
	27	14 10	10.9	+	7 18	50	10.1		25	13 26	35.6	+	11 33	46	10.4	21 12.3
	28	14 09	31.9	+	7 27	43	10.1		26	13 26	12.3	+	11 31	40	10.5	21 08.0
	29	14 08	51.7	+	7 36	35	10.1		27	13 25	50.2	+	11 29	23	10.5	21 03.8
	30	14 08	10.5	+	7 45	23	10.0		28	13 25	29.5	+	11 26	54	10.5	20 59.5
	31	14 07	28.3	+	7 54	09	10.0		29	13 25	10.1	+	11 24	14	10.5	20 55.3
Apr.	1	14 06	45.1	+	8 02	50	10.0		30	13 24	51.9	+	11 21	22	10.5	20 51.1
	2	14 06	01.0	+	8 11	27	10.0		31	13 24	35.1	+	11 18	19	10.5	20 46.9
	3	14 05	16.0	+	8 19	59	10.0		June 1	13 24	19.7	+	11 15	05	10.6	20 42.7
	4	14 04	30.2	+	8 28	25	10.0		2	13 24	05.5	+	11 11	41	10.6	20 38.5
	5	14 03	43.6	+	8 36	46	10.0		3	13 23	52.8	+	11 08	05	10.6	20 34.4
	6	14 02	56.2	+	8 45	01	10.0		4	13 23	41.3	+	11 04	20	10.6	20 30.3
	7	14 02	08.0	+	8 53	09	10.0		5	13 23	31.2	+	11 00	24	10.6	20 26.2
	8	14 01	19.3	+	9 01	10	10.0		6	13 23	22.4	+	10 56	18	10.6	20 22.2
	9	14 00	29.9	+	9 09	03	9.9		7	13 23	15.0	+	10 52	02	10.6	20 18.1
	10	13 59	40.0	+	9 16	47	9.9		8	13 23	08.9	+	10 47	37	10.7	20 14.1
	11	13 58	49.6	+	9 24	24	9.9		9	13 23	04.1	+	10 43	03	10.7	20 10.1
	12	13 57	58.7	+	9 31	51	9.9		10	13 23	00.7	+	10 38	19	10.7	20 06.2
Apr. 13		13 57	07.4	+	9 39	09	9.9		June 11	13 22	58.6	+	10 33	26	10.7	20 02.2

Second transit for Hebe 2005 April 19^d 23^h 58^m6

IRIS, 2005
GEOCENTRIC POSITIONS FOR 0^h TERRESTRIAL TIME

Date	Astrometric			Vis. Mag.	Ephem- eris Transit	Date	Astrometric			Vis. Mag.	Ephem- eris Transit
	R.A.	Dec.					R.A.	Dec.			
	h m s	° ' "	h m				h m s	° ' "	h m		
2005 Apr. 5	17 19 26.3	-25 09 11	10.6	4 25.5	2005 June 3	16 47 25.8	-23 24 06	9.2	0 01.6		
6	17 19 37.5	-25 08 50	10.6	4 21.7	4	16 46 22.3	-23 20 38	9.2	23 51.6		
7	17 19 47.2	-25 08 26	10.6	4 18.0	5	16 45 18.9	-23 17 08	9.2	23 46.6		
8	17 19 55.4	-25 08 01	10.6	4 14.2	6	16 44 15.4	-23 13 35	9.2	23 41.6		
9	17 20 01.9	-25 07 33	10.5	4 10.3	7	16 43 12.1	-23 10 00	9.3	23 36.7		
10	17 20 06.9	-25 07 02	10.5	4 06.5	8	16 42 09.0	-23 06 24	9.3	23 31.7		
11	17 20 10.2	-25 06 29	10.5	4 02.6	9	16 41 06.1	-23 02 45	9.3	23 26.7		
Apr. 12	17 20 11.9	-25 05 54	10.5	3 58.7	10	16 40 03.5	-22 59 06	9.4	23 21.8		
13	17 20 12.0	-25 05 17	10.5	3 54.8	11	16 39 01.4	-22 55 25	9.4	23 16.8		
14	17 20 10.5	-25 04 37	10.4	3 50.8	12	16 37 59.6	-22 51 42	9.4	23 11.9		
15	17 20 07.4	-25 03 54	10.4	3 46.8	13	16 36 58.4	-22 47 59	9.4	23 06.9		
16	17 20 02.6	-25 03 10	10.4	3 42.8	14	16 35 57.8	-22 44 16	9.5	23 02.0		
17	17 19 56.1	-25 02 22	10.4	3 38.8	15	16 34 57.8	-22 40 32	9.5	22 57.1		
18	17 19 48.0	-25 01 32	10.4	3 34.7	16	16 33 58.5	-22 36 47	9.5	22 52.2		
19	17 19 38.3	-25 00 39	10.3	3 30.6	17	16 33 00.0	-22 33 03	9.5	22 47.3		
20	17 19 26.9	-24 59 44	10.3	3 26.5	18	16 32 02.2	-22 29 19	9.5	22 42.4		
21	17 19 13.8	-24 58 46	10.3	3 22.3	19	16 31 05.4	-22 25 35	9.6	22 37.6		
22	17 18 59.1	-24 57 45	10.3	3 18.1	20	16 30 09.5	-22 21 52	9.6	22 32.7		
23	17 18 42.7	-24 56 42	10.3	3 13.9	21	16 29 14.5	-22 18 10	9.6	22 27.9		
24	17 18 24.7	-24 55 35	10.2	3 09.7	22	16 28 20.5	-22 14 29	9.6	22 23.1		
25	17 18 05.0	-24 54 26	10.2	3 05.4	23	16 27 27.7	-22 10 49	9.7	22 18.3		
26	17 17 43.7	-24 53 14	10.2	3 01.1	24	16 26 35.9	-22 07 11	9.7	22 13.5		
27	17 17 20.7	-24 51 59	10.2	2 56.8	25	16 25 45.2	-22 03 34	9.7	22 08.8		
28	17 16 56.1	-24 50 40	10.2	2 52.5	26	16 24 55.8	-21 59 59	9.7	22 04.0		
29	17 16 29.8	-24 49 19	10.1	2 48.1	27	16 24 07.5	-21 56 27	9.7	21 59.3		
30	17 16 01.9	-24 47 54	10.1	2 43.7	28	16 23 20.5	-21 52 56	9.8	21 54.6		
May 1	17 15 32.4	-24 46 26	10.1	2 39.3	29	16 22 34.9	-21 49 28	9.8	21 50.0		
2	17 15 01.2	-24 44 55	10.1	2 34.8	30	16 21 50.5	-21 46 03	9.8	21 45.3		
3	17 14 28.5	-24 43 20	10.0	2 30.4	July 1	16 21 07.6	-21 42 41	9.8	21 40.7		
4	17 13 54.2	-24 41 42	10.0	2 25.9	2	16 20 26.0	-21 39 22	9.8	21 36.1		
5	17 13 18.3	-24 40 00	10.0	2 21.3	3	16 19 45.9	-21 36 06	9.9	21 31.5		
6	17 12 40.9	-24 38 15	10.0	2 16.8	4	16 19 07.2	-21 32 53	9.9	21 27.0		
7	17 12 02.0	-24 36 26	10.0	2 12.2	5	16 18 30.1	-21 29 44	9.9	21 22.4		
8	17 11 21.6	-24 34 34	9.9	2 07.6	6	16 17 54.4	-21 26 39	9.9	21 17.9		
9	17 10 39.7	-24 32 38	9.9	2 03.0	7	16 17 20.3	-21 23 38	9.9	21 13.5		
10	17 09 56.4	-24 30 38	9.9	1 58.3	8	16 16 47.8	-21 20 41	9.9	21 09.0		
11	17 09 11.7	-24 28 34	9.9	1 53.7	9	16 16 16.8	-21 17 48	10.0	21 04.6		
12	17 08 25.7	-24 26 27	9.8	1 49.0	10	16 15 47.4	-21 14 59	10.0	21 00.2		
13	17 07 38.4	-24 24 16	9.8	1 44.2	11	16 15 19.7	-21 12 15	10.0	20 55.8		
14	17 06 49.8	-24 22 01	9.8	1 39.5	12	16 14 53.6	-21 09 35	10.0	20 51.5		
15	17 05 59.9	-24 19 42	9.8	1 34.7	13	16 14 29.1	-21 07 00	10.0	20 47.2		
16	17 05 08.9	-24 17 19	9.7	1 30.0	14	16 14 06.2	-21 04 30	10.1	20 42.9		
17	17 04 16.7	-24 14 53	9.7	1 25.2	15	16 13 45.0	-21 02 04	10.1	20 38.6		
18	17 03 23.4	-24 12 23	9.7	1 20.4	16	16 13 25.4	-20 59 43	10.1	20 34.4		
19	17 02 29.1	-24 09 49	9.7	1 15.5	17	16 13 07.5	-20 57 28	10.1	20 30.2		
20	17 01 33.8	-24 07 11	9.6	1 10.7	18	16 12 51.2	-20 55 17	10.1	20 26.0		
21	17 00 37.5	-24 04 29	9.6	1 05.8	19	16 12 36.6	-20 53 11	10.1	20 21.9		
22	16 59 40.4	-24 01 44	9.6	1 00.9	20	16 12 23.7	-20 51 09	10.2	20 17.7		
23	16 58 42.4	-23 58 55	9.6	0 56.0	21	16 12 12.4	-20 49 13	10.2	20 13.6		
24	16 57 43.7	-23 56 02	9.5	0 51.1	22	16 12 02.7	-20 47 22	10.2	20 09.6		
25	16 56 44.2	-23 53 05	9.5	0 46.2	23	16 11 54.7	-20 45 37	10.2	20 05.5		
26	16 55 44.0	-23 50 05	9.5	0 41.3	24	16 11 48.2	-20 43 56	10.2	20 01.5		
27	16 54 43.2	-23 47 02	9.4	0 36.3	25	16 11 43.5	-20 42 20	10.2	19 57.5		
28	16 53 41.9	-23 43 55	9.4	0 31.4	26	16 11 40.3	-20 40 49	10.3	19 53.6		
29	16 52 40.1	-23 40 44	9.4	0 26.4	July 27	16 11 38.8	-20 39 23	10.3	19 49.6		
30	16 51 37.8	-23 37 31	9.3	0 21.5	28	16 11 38.8	-20 38 03	10.3	19 45.7		
31	16 50 35.2	-23 34 14	9.3	0 16.5	29	16 11 40.5	-20 36 47	10.3	19 41.8		
June 1	16 49 32.3	-23 30 54	9.3	0 11.5	30	16 11 43.7	-20 35 36	10.3	19 38.0		
2	16 48 29.1	-23 27 31	9.2	0 06.6	31	16 11 48.6	-20 34 31	10.3	19 34.1		
June 3	16 47 25.8	-23 24 06	9.2	0 01.6	Aug. 1	16 11 55.0	-20 33 30	10.4	19 30.3		

Second transit for Iris 2005 June 3^d 23^h 56^m6

FLORA, 2005
GEOCENTRIC POSITIONS FOR 0^h TERRESTRIAL TIME

G11

Date	Astrometric		Vis. Mag.	Ephem- eris Transit	Date	Astrometric		Vis. Mag.	Ephem- eris Transit
	R.A.	Dec.				R.A.	Dec.		
	h m s	° ' "				h m s	° ' "		
2004 Nov. 16	8 10 48.4	+17 26 35	9.7	4 28.9	2005 Jan. 14	7 46 34.4	+21 49 17	8.4	0 12.6
17	8 11 25.5	+17 26 44	9.7	4 25.5	15	7 45 25.0	+21 56 06	8.4	0 07.5
18	8 12 00.7	+17 27 00	9.7	4 22.2	16	7 44 15.8	+22 02 51	8.4	0 02.5
19	8 12 33.7	+17 27 25	9.7	4 18.8	17	7 43 06.9	+22 09 32	8.5	23 52.3
20	8 13 04.7	+17 27 59	9.6	4 15.4	18	7 41 58.4	+22 16 07	8.5	23 47.3
21	8 13 33.6	+17 28 42	9.6	4 11.9	19	7 40 50.4	+22 22 38	8.6	23 42.2
22	8 14 00.4	+17 29 34	9.6	4 08.4	20	7 39 43.0	+22 29 03	8.6	23 37.2
23	8 14 25.1	+17 30 35	9.6	4 04.9	21	7 38 36.3	+22 35 23	8.6	23 32.2
24	8 14 47.6	+17 31 46	9.6	4 01.3	22	7 37 30.5	+22 41 36	8.7	23 27.1
25	8 15 07.9	+17 33 06	9.5	3 57.7	23	7 36 25.6	+22 47 42	8.7	23 22.2
26	8 15 26.0	+17 34 36	9.5	3 54.1	24	7 35 21.8	+22 53 42	8.7	23 17.2
27	8 15 41.9	+17 36 16	9.5	3 50.4	25	7 34 19.0	+22 59 35	8.8	23 12.2
28	8 15 55.5	+17 38 06	9.5	3 46.7	26	7 33 17.5	+23 05 21	8.8	23 07.3
29	8 16 06.9	+17 40 06	9.5	3 42.9	27	7 32 17.3	+23 10 59	8.8	23 02.4
30	8 16 15.9	+17 42 17	9.4	3 39.2	28	7 31 18.5	+23 16 30	8.9	22 57.5
Dec. 1	8 16 22.7	+17 44 37	9.4	3 35.3	29	7 30 21.1	+23 21 52	8.9	22 52.7
2	8 16 27.1	+17 47 09	9.4	3 31.5	30	7 29 25.3	+23 27 07	8.9	22 47.8
Dec. 3	8 16 29.2	+17 49 50	9.4	3 27.6	31	7 28 31.1	+23 32 14	9.0	22 43.0
4	8 16 28.9	+17 52 43	9.4	3 23.6	Feb. 1	7 27 38.6	+23 37 13	9.0	22 38.3
5	8 16 26.3	+17 55 46	9.3	3 19.6	2	7 26 47.8	+23 42 04	9.0	22 33.5
6	8 16 21.3	+17 58 59	9.3	3 15.6	3	7 25 58.9	+23 46 47	9.1	22 28.8
7	8 16 13.8	+18 02 24	9.3	3 11.6	4	7 25 11.9	+23 51 21	9.1	22 24.1
8	8 16 04.0	+18 05 59	9.3	3 07.5	5	7 24 26.8	+23 55 47	9.1	22 19.5
9	8 15 51.8	+18 09 45	9.3	3 03.3	6	7 23 43.7	+24 00 05	9.2	22 14.9
10	8 15 37.2	+18 13 41	9.2	2 59.2	7	7 23 02.6	+24 04 14	9.2	22 10.3
11	8 15 20.2	+18 17 48	9.2	2 54.9	8	7 22 23.6	+24 08 15	9.2	22 05.7
12	8 15 00.7	+18 22 05	9.2	2 50.7	9	7 21 46.8	+24 12 08	9.2	22 01.2
13	8 14 39.0	+18 26 33	9.2	2 46.4	10	7 21 12.1	+24 15 53	9.3	21 56.7
14	8 14 14.8	+18 31 11	9.1	2 42.0	11	7 20 39.7	+24 19 29	9.3	21 52.3
15	8 13 48.3	+18 36 00	9.1	2 37.7	12	7 20 09.5	+24 22 57	9.3	21 47.9
16	8 13 19.6	+18 40 57	9.1	2 33.3	13	7 19 41.5	+24 26 17	9.4	21 43.6
17	8 12 48.5	+18 46 05	9.1	2 28.8	14	7 19 15.9	+24 29 29	9.4	21 39.2
18	8 12 15.2	+18 51 22	9.1	2 24.3	15	7 18 52.5	+24 32 33	9.4	21 34.9
19	8 11 39.7	+18 56 48	9.0	2 19.8	16	7 18 31.4	+24 35 30	9.5	21 30.7
20	8 11 02.0	+19 02 23	9.0	2 15.2	17	7 18 12.6	+24 38 18	9.5	21 26.5
21	8 10 22.1	+19 08 06	9.0	2 10.6	18	7 17 56.1	+24 40 59	9.5	21 22.3
22	8 09 40.2	+19 13 57	9.0	2 06.0	19	7 17 41.9	+24 43 32	9.5	21 18.2
23	8 08 56.3	+19 19 56	9.0	2 01.4	20	7 17 30.0	+24 45 57	9.6	21 14.1
24	8 08 10.3	+19 26 03	8.9	1 56.7	21	7 17 20.4	+24 48 16	9.6	21 10.0
25	8 07 22.4	+19 32 16	8.9	1 51.9	22	7 17 13.1	+24 50 26	9.6	21 06.0
26	8 06 32.7	+19 38 36	8.9	1 47.2	23	7 17 08.1	+24 52 30	9.6	21 02.0
27	8 05 41.1	+19 45 03	8.9	1 42.4	Feb. 24	7 17 05.2	+24 54 27	9.7	20 58.1
28	8 04 47.7	+19 51 35	8.8	1 37.6	25	7 17 04.7	+24 56 16	9.7	20 54.2
29	8 03 52.7	+19 58 12	8.8	1 32.7	26	7 17 06.3	+24 57 59	9.7	20 50.3
30	8 02 56.1	+20 04 54	8.8	1 27.9	27	7 17 10.1	+24 59 35	9.8	20 46.5
31	8 01 57.9	+20 11 40	8.8	1 23.0	28	7 17 16.1	+25 01 04	9.8	20 42.7
2005 Jan. 1	8 00 58.2	+20 18 31	8.7	1 18.0	Mar. 1	7 17 24.3	+25 02 26	9.8	20 38.9
2	7 59 57.2	+20 25 24	8.7	1 13.1	2	7 17 34.6	+25 03 42	9.8	20 35.2
3	7 58 54.9	+20 32 21	8.7	1 08.1	3	7 17 47.0	+25 04 51	9.9	20 31.5
4	7 57 51.5	+20 39 20	8.7	1 03.1	4	7 18 01.5	+25 05 54	9.9	20 27.8
5	7 56 46.9	+20 46 20	8.7	0 58.1	5	7 18 18.1	+25 06 51	9.9	20 24.2
6	7 55 41.3	+20 53 22	8.6	0 53.1	6	7 18 36.7	+25 07 41	9.9	20 20.6
7	7 54 34.9	+21 00 24	8.6	0 48.1	7	7 18 57.4	+25 08 25	10.0	20 17.0
8	7 53 27.6	+21 07 27	8.6	0 43.0	8	7 19 20.0	+25 09 03	10.0	20 13.5
9	7 52 19.7	+21 14 29	8.5	0 38.0	9	7 19 44.7	+25 09 35	10.0	20 10.0
10	7 51 11.3	+21 21 31	8.5	0 32.9	10	7 20 11.3	+25 10 01	10.0	20 06.5
11	7 50 02.4	+21 28 31	8.5	0 27.9	11	7 20 39.8	+25 10 20	10.1	20 03.1
12	7 48 53.2	+21 35 29	8.5	0 22.8	12	7 21 10.2	+25 10 34	10.1	19 59.7
13	7 47 43.9	+21 42 24	8.4	0 17.7	13	7 21 42.4	+25 10 42	10.1	19 56.3
Jan. 14	7 46 34.4	+21 49 17	8.4	0 12.6	Mar. 14	7 22 16.5	+25 10 44	10.1	19 53.0

Second transit for Flora 2005 January 16^d 23^h 57^m4

HYGIEA, 2005
GEOCENTRIC POSITIONS FOR 0^h TERRESTRIAL TIME

Date	Astrometric					Vis. Mag.	Ephem- eris Transit	Date	Astrometric					Vis. Mag.	Ephem- eris Transit							
	R.A.			Dec.					R.A.			Dec.										
	h	m	s	°	'				"	h	m	s	°			'	"	h	m			
2005 Jan. 27	12	36	53.4	-	8	50	14	10.6	4	11	0	2005 Mar. 27	12	14	09.2	-	7	53	02	9.3	23	51.7
28	12	37	05.1	-	8	53	25	10.6	4	07.3		28	12	13	23.5	-	7	48	22	9.3	23	47.0
29	12	37	15.6	-	8	56	28	10.5	4	03.5		29	12	12	37.8	-	7	43	39	9.3	23	42.3
30	12	37	24.9	-	8	59	24	10.5	3	59.7		30	12	11	52.2	-	7	38	53	9.4	23	37.6
31	12	37	32.8	-	9	02	12	10.5	3	55.9		31	12	11	06.8	-	7	34	04	9.4	23	32.9
Feb. 1	12	37	39.5	-	9	04	52	10.5	3	52.1		Apr. 1	12	10	21.7	-	7	29	13	9.4	23	28.3
2	12	37	44.8	-	9	07	24	10.5	3	48.3		2	12	09	36.9	-	7	24	20	9.4	23	23.6
3	12	37	48.8	-	9	09	47	10.4	3	44.4		3	12	08	52.5	-	7	19	26	9.4	23	18.9
4	12	37	51.5	-	9	12	02	10.4	3	40.5		4	12	08	08.4	-	7	14	30	9.4	23	14.3
Feb. 5	12	37	52.8	-	9	14	09	10.4	3	36.6		5	12	07	24.8	-	7	09	33	9.5	23	09.6
6	12	37	52.8	-	9	16	07	10.4	3	32.7		6	12	06	41.7	-	7	04	36	9.5	23	05.0
7	12	37	51.4	-	9	17	56	10.4	3	28.7		7	12	05	59.2	-	6	59	39	9.5	23	00.4
8	12	37	48.7	-	9	19	37	10.4	3	24.7		8	12	05	17.3	-	6	54	42	9.5	22	55.7
9	12	37	44.7	-	9	21	09	10.3	3	20.7		9	12	04	36.0	-	6	49	46	9.6	22	51.1
10	12	37	39.2	-	9	22	32	10.3	3	16.7		10	12	03	55.4	-	6	44	51	9.6	22	46.5
11	12	37	32.4	-	9	23	46	10.3	3	12.6		11	12	03	15.6	-	6	39	58	9.6	22	42.0
12	12	37	24.3	-	9	24	51	10.3	3	08.6		12	12	02	36.6	-	6	35	06	9.6	22	37.4
13	12	37	14.8	-	9	25	47	10.2	3	04.5		13	12	01	58.5	-	6	30	16	9.6	22	32.8
14	12	37	03.9	-	9	26	33	10.2	3	00.4		14	12	01	21.2	-	6	25	29	9.7	22	28.3
15	12	36	51.8	-	9	27	11	10.2	2	56.2		15	12	00	44.8	-	6	20	45	9.7	22	23.8
16	12	36	38.2	-	9	27	40	10.2	2	52.1		16	12	00	09.4	-	6	16	04	9.7	22	19.3
17	12	36	23.4	-	9	27	59	10.2	2	47.9		17	11	59	35.0	-	6	11	26	9.7	22	14.8
18	12	36	07.2	-	9	28	09	10.1	2	43.7		18	11	59	01.6	-	6	06	52	9.7	22	10.3
19	12	35	49.8	-	9	28	09	10.1	2	39.5		19	11	58	29.3	-	6	02	22	9.8	22	05.9
20	12	35	31.0	-	9	28	01	10.1	2	35.2		20	11	57	58.0	-	5	57	57	9.8	22	01.5
21	12	35	11.0	-	9	27	43	10.1	2	31.0		21	11	57	27.9	-	5	53	36	9.8	21	57.0
22	12	34	49.7	-	9	27	16	10.1	2	26.7		22	11	56	58.9	-	5	49	19	9.8	21	52.6
23	12	34	27.1	-	9	26	39	10.0	2	22.4		23	11	56	31.0	-	5	45	08	9.8	21	48.3
24	12	34	03.3	-	9	25	53	10.0	2	18.0		24	11	56	04.3	-	5	41	03	9.9	21	43.9
25	12	33	38.2	-	9	24	58	10.0	2	13.7		25	11	55	38.9	-	5	37	02	9.9	21	39.6
26	12	33	12.0	-	9	23	54	10.0	2	09.3		26	11	55	14.6	-	5	33	08	9.9	21	35.3
27	12	32	44.6	-	9	22	40	10.0	2	04.9		27	11	54	51.6	-	5	29	19	9.9	21	31.0
28	12	32	16.0	-	9	21	17	9.9	2	00.5		28	11	54	29.9	-	5	25	37	9.9	21	26.7
Mar. 1	12	31	46.2	-	9	19	45	9.9	1	56.1		29	11	54	09.4	-	5	22	01	9.9	21	22.4
2	12	31	15.4	-	9	18	04	9.9	1	51.7		30	11	53	50.2	-	5	18	31	10.0	21	18.2
3	12	30	43.4	-	9	16	14	9.9	1	47.2		May 1	11	53	32.3	-	5	15	08	10.0	21	14.0
4	12	30	10.4	-	9	14	14	9.8	1	42.7		2	11	53	15.7	-	5	11	52	10.0	21	09.8
5	12	29	36.4	-	9	12	06	9.8	1	38.2		3	11	53	00.5	-	5	08	43	10.0	21	05.6
6	12	29	01.3	-	9	09	48	9.8	1	33.7		4	11	52	46.5	-	5	05	41	10.0	21	01.5
7	12	28	25.3	-	9	07	22	9.8	1	29.2		5	11	52	34.0	-	5	02	46	10.1	20	57.4
8	12	27	48.3	-	9	04	47	9.7	1	24.6		6	11	52	22.7	-	4	59	59	10.1	20	53.3
9	12	27	10.5	-	9	02	04	9.7	1	20.1		7	11	52	12.9	-	4	57	20	10.1	20	49.2
10	12	26	31.8	-	8	59	13	9.7	1	15.5		8	11	52	04.4	-	4	54	48	10.1	20	45.2
11	12	25	52.3	-	8	56	13	9.7	1	10.9		9	11	51	57.3	-	4	52	24	10.1	20	41.1
12	12	25	12.0	-	8	53	05	9.7	1	06.3		10	11	51	51.5	-	4	50	08	10.1	20	37.1
13	12	24	31.0	-	8	49	50	9.6	1	01.7		11	11	51	47.2	-	4	48	00	10.2	20	33.1
14	12	23	49.3	-	8	46	27	9.6	0	57.1		12	11	51	44.2	-	4	46	00	10.2	20	29.2
15	12	23	07.0	-	8	42	57	9.6	0	52.4		May 13	11	51	42.6	-	4	44	08	10.2	20	25.2
16	12	22	24.2	-	8	39	19	9.6	0	47.8		14	11	51	42.3	-	4	42	25	10.2	20	21.3
17	12	21	40.8	-	8	35	35	9.5	0	43.2		15	11	51	43.5	-	4	40	50	10.2	20	17.4
18	12	20	56.9	-	8	31	45	9.5	0	38.5		16	11	51	46.0	-	4	39	23	10.2	20	13.5
19	12	20	12.6	-	8	27	48	9.5	0	33.8		17	11	51	49.8	-	4	38	05	10.3	20	09.7
20	12	19	28.0	-	8	23	45	9.5	0	29.2		18	11	51	55.0	-	4	36	54	10.3	20	05.9
21	12	18	43.0	-	8	19	37	9.4	0	24.5		19	11	52	01.5	-	4	35	53	10.3	20	02.1
22	12	17	57.7	-	8	15	23	9.4	0	19.8		20	11	52	09.4	-	4	34	59	10.3	19	58.3
23	12	17	12.3	-	8	11	04	9.4	0	15.1		21	11	52	18.6	-	4	34	14	10.3	19	54.5
24	12	16	26.6	-	8	06	40	9.4	0	10.4		22	11	52	29.0	-	4	33	37	10.3	19	50.8
25	12	15	40.9	-	8	02	11	9.4	0	05.7		23	11	52	40.8	-	4	33	09	10.4	19	47.1
26	12	14	55.1	-	7	57	39	9.3	0	01.0		24	11	52	53.9	-	4	32	48	10.4	19	43.4
Mar. 27	12	14	09.2	-	7	53	02	9.3	23	51.7		May 25	11	53	08.3	-	4	32	36	10.4	19	39.7

Second transit for Hygiea 2005 March 26^d 23^h 56^m4

GEOCENTRIC POSITIONS FOR 0^h TERRESTRIAL TIME

Date	Astrometric					Vis. Mag.	Ephem- eris Transit	Date	Astrometric					Vis. Mag.	Ephem- eris Transit
	R.A.			Dec.					R.A.			Dec.			
	h	m	s	°	'				"	h	m	s	°		
2005 Mar. 2	14 41	39.4		-30 26	40	10.7	4 01.8	2005 Apr. 30	14 06	43.3		-30 23	37	9.8	23 30.1
3	14 41	41.7		-30 31	02	10.6	3 57.9	May 1	14 05	46.9		-30 18	18	9.8	23 25.3
Mar. 4	14 41	42.5		-30 35	17	10.6	3 54.0	2	14 04	50.7		-30 12	49	9.8	23 20.4
5	14 41	41.9		-30 39	26	10.6	3 50.0	3	14 03	55.0		-30 07	12	9.8	23 15.6
6	14 41	39.7		-30 43	28	10.6	3 46.0	4	14 02	59.6		-30 01	27	9.8	23 10.7
7	14 41	36.0		-30 47	24	10.6	3 42.0	5	14 02	04.8		-29 55	35	9.8	23 05.9
8	14 41	30.9		-30 51	12	10.6	3 38.0	6	14 01	10.4		-29 49	35	9.8	23 01.1
9	14 41	24.2		-30 54	54	10.6	3 34.0	7	14 00	16.7		-29 43	28	9.8	22 56.2
10	14 41	16.0		-30 58	28	10.5	3 29.9	8	13 59	23.6		-29 37	14	9.8	22 51.4
11	14 41	06.2		-31 01	55	10.5	3 25.8	9	13 58	31.2		-29 30	54	9.9	22 46.7
12	14 40	55.0		-31 05	14	10.5	3 21.7	10	13 57	39.6		-29 24	29	9.9	22 41.9
13	14 40	42.2		-31 08	25	10.5	3 17.5	11	13 56	48.8		-29 17	57	9.9	22 37.1
14	14 40	27.9		-31 11	29	10.5	3 13.4	12	13 55	58.8		-29 11	21	9.9	22 32.4
15	14 40	12.1		-31 14	24	10.5	3 09.2	13	13 55	09.7		-29 04	41	9.9	22 27.6
16	14 39	54.7		-31 17	11	10.4	3 05.0	14	13 54	21.6		-28 57	56	9.9	22 22.9
17	14 39	35.9		-31 19	50	10.4	3 00.7	15	13 53	34.4		-28 51	08	9.9	22 18.2
18	14 39	15.5		-31 22	20	10.4	2 56.4	16	13 52	48.3		-28 44	16	9.9	22 13.5
19	14 38	53.7		-31 24	41	10.4	2 52.1	17	13 52	03.2		-28 37	22	10.0	22 08.9
20	14 38	30.3		-31 26	53	10.4	2 47.8	18	13 51	19.2		-28 30	25	10.0	22 04.2
21	14 38	05.5		-31 28	56	10.4	2 43.5	19	13 50	36.4		-28 23	26	10.0	21 59.6
22	14 37	39.3		-31 30	50	10.3	2 39.1	20	13 49	54.7		-28 16	26	10.0	21 55.0
23	14 37	11.6		-31 32	35	10.3	2 34.7	21	13 49	14.2		-28 09	24	10.0	21 50.4
24	14 36	42.4		-31 34	10	10.3	2 30.3	22	13 48	34.9		-28 02	22	10.0	21 45.9
25	14 36	11.8		-31 35	35	10.3	2 25.9	23	13 47	56.8		-27 55	19	10.0	21 41.3
26	14 35	39.9		-31 36	50	10.3	2 21.4	24	13 47	20.0		-27 48	16	10.1	21 36.8
27	14 35	06.5		-31 37	55	10.3	2 16.9	25	13 46	44.5		-27 41	13	10.1	21 32.3
28	14 34	31.8		-31 38	49	10.2	2 12.4	26	13 46	10.3		-27 34	12	10.1	21 27.8
29	14 33	55.8		-31 39	34	10.2	2 07.9	27	13 45	37.4		-27 27	11	10.1	21 23.4
30	14 33	18.4		-31 40	07	10.2	2 03.3	28	13 45	05.8		-27 20	11	10.1	21 18.9
31	14 32	39.7		-31 40	30	10.2	1 58.7	29	13 44	35.6		-27 13	13	10.1	21 14.5
Apr. 1	14 31	59.8		-31 40	42	10.2	1 54.1	30	13 44	06.8		-27 06	18	10.1	21 10.1
2	14 31	18.6		-31 40	43	10.2	1 49.5	31	13 43	39.3		-26 59	24	10.2	21 05.8
3	14 30	36.2		-31 40	33	10.1	1 44.9	June 1	13 43	13.2		-26 52	34	10.2	21 01.4
4	14 29	52.7		-31 40	11	10.1	1 40.2	2	13 42	48.6		-26 45	47	10.2	20 57.1
5	14 29	08.0		-31 39	38	10.1	1 35.6	3	13 42	25.4		-26 39	02	10.2	20 52.8
6	14 28	22.2		-31 38	53	10.1	1 30.9	4	13 42	03.6		-26 32	22	10.2	20 48.5
7	14 27	35.3		-31 37	57	10.1	1 26.2	5	13 41	43.2		-26 25	46	10.2	20 44.3
8	14 26	47.4		-31 36	49	10.1	1 21.4	6	13 41	24.3		-26 19	14	10.3	20 40.0
9	14 25	58.6		-31 35	29	10.1	1 16.7	7	13 41	06.9		-26 12	46	10.3	20 35.8
10	14 25	08.8		-31 33	58	10.0	1 11.9	8	13 40	50.9		-26 06	24	10.3	20 31.7
11	14 24	18.2		-31 32	14	10.0	1 07.2	9	13 40	36.3		-26 00	06	10.3	20 27.5
12	14 23	26.8		-31 30	19	10.0	1 02.4	10	13 40	23.2		-25 53	54	10.3	20 23.4
13	14 22	34.5		-31 28	12	10.0	0 57.6	11	13 40	11.6		-25 47	48	10.3	20 19.3
14	14 21	41.6		-31 25	53	10.0	0 52.8	12	13 40	01.5		-25 41	47	10.3	20 15.2
15	14 20	48.0		-31 23	23	10.0	0 48.0	13	13 39	52.8		-25 35	52	10.4	20 11.1
16	14 19	53.8		-31 20	41	9.9	0 43.1	14	13 39	45.5		-25 30	04	10.4	20 07.1
17	14 18	59.1		-31 17	47	9.9	0 38.3	15	13 39	39.7		-25 24	21	10.4	20 03.1
18	14 18	03.8		-31 14	42	9.9	0 33.4	16	13 39	35.3		-25 18	45	10.4	19 59.1
19	14 17	08.2		-31 11	26	9.9	0 28.6	17	13 39	32.3		-25 13	16	10.4	19 55.2
20	14 16	12.1		-31 07	58	9.9	0 23.7	June 18	13 39	30.8		-25 07	54	10.4	19 51.2
21	14 15	15.7		-31 04	19	9.9	0 18.9	19	13 39	30.7		-25 02	39	10.4	19 47.3
22	14 14	19.1		-31 00	29	9.9	0 14.0	20	13 39	31.9		-24 57	30	10.5	19 43.4
23	14 13	22.2		-30 56	28	9.9	0 09.1	21	13 39	34.6		-24 52	29	10.5	19 39.5
24	14 12	25.2		-30 52	17	9.8	0 04.2	22	13 39	38.6		-24 47	34	10.5	19 35.7
25	14 11	28.1		-30 47	55	9.8	23 54.5	23	13 39	44.0		-24 42	47	10.5	19 31.9
26	14 10	31.0		-30 43	23	9.8	23 49.6	24	13 39	50.8		-24 38	08	10.5	19 28.1
27	14 09	33.9		-30 38	41	9.8	23 44.7	25	13 39	58.9		-24 33	35	10.5	19 24.3
28	14 08	36.9		-30 33	50	9.8	23 39.9	26	13 40	08.3		-24 29	11	10.5	19 20.5
29	14 07	40.0		-30 28	48	9.8	23 35.0	27	13 40	19.0		-24 24	53	10.6	19 16.8
Apr. 30	14 06	43.3		-30 23	37	9.8	23 30.1	June 28	13 40	31.1		-24 20	43	10.6	19 13.1

Second transit for Eunomia 2005 April 24^d 23^h 59^m4

PSYCHE, 2005
GEOCENTRIC POSITIONS FOR 0^h TERRESTRIAL TIME

Date	Astrometric					Vis. Mag.	Ephem- eris Transit	Date	Astrometric					Vis. Mag.	Ephem- eris Transit	
	R.A.		Dec.						R.A.		Dec.					
	h	m	s	°	'				"	h	m	s	°			'
2005 Oct. 9	5	26	15.4	+19	14	46	10.5	2005 Dec. 7	5	01	32.3	+17	59	57	9.4	23 53.6
10	5	26	36.0	+19	13	43	10.5	8	5	00	36.1	+17	58	59	9.4	23 48.7
11	5	26	55.0	+19	12	39	10.4	9	4	59	40.1	+17	58	03	9.4	23 43.9
12	5	27	12.4	+19	11	33	10.4	10	4	58	44.2	+17	57	10	9.4	23 39.0
13	5	27	28.1	+19	10	26	10.4	11	4	57	48.6	+17	56	18	9.4	23 34.2
14	5	27	42.1	+19	09	17	10.4	12	4	56	53.3	+17	55	29	9.4	23 29.3
15	5	27	54.5	+19	08	07	10.4	13	4	55	58.4	+17	54	43	9.5	23 24.5
16	5	28	05.2	+19	06	57	10.4	14	4	55	03.9	+17	53	59	9.5	23 19.7
17	5	28	14.2	+19	05	45	10.3	15	4	54	09.9	+17	53	17	9.5	23 14.8
18	5	28	21.5	+19	04	32	10.3	16	4	53	16.4	+17	52	38	9.5	23 10.0
19	5	28	27.1	+19	03	18	10.3	17	4	52	23.7	+17	52	01	9.6	23 05.2
20	5	28	31.0	+19	02	03	10.3	18	4	51	31.5	+17	51	28	9.6	23 00.5
Oct. 21	5	28	33.1	+19	00	47	10.3	19	4	50	40.2	+17	50	57	9.6	22 55.7
22	5	28	33.5	+18	59	30	10.3	20	4	49	49.6	+17	50	30	9.6	22 50.9
23	5	28	32.1	+18	58	13	10.2	21	4	49	00.0	+17	50	05	9.7	22 46.2
24	5	28	29.0	+18	56	55	10.2	22	4	48	11.2	+17	49	43	9.7	22 41.5
25	5	28	24.1	+18	55	36	10.2	23	4	47	23.4	+17	49	25	9.7	22 36.8
26	5	28	17.4	+18	54	16	10.2	24	4	46	36.7	+17	49	10	9.7	22 32.1
27	5	28	08.9	+18	52	56	10.2	25	4	45	51.0	+17	48	59	9.8	22 27.4
28	5	27	58.7	+18	51	35	10.1	26	4	45	06.5	+17	48	50	9.8	22 22.8
29	5	27	46.8	+18	50	14	10.1	27	4	44	23.2	+17	48	46	9.8	22 18.1
30	5	27	33.0	+18	48	52	10.1	28	4	43	41.1	+17	48	45	9.8	22 13.5
31	5	27	17.5	+18	47	30	10.1	29	4	43	00.2	+17	48	48	9.9	22 08.9
Nov. 1	5	27	00.3	+18	46	08	10.1	30	4	42	20.7	+17	48	54	9.9	22 04.4
2	5	26	41.3	+18	44	45	10.1	31	4	41	42.5	+17	49	04	9.9	21 59.8
3	5	26	20.6	+18	43	22	10.0	2006 Jan. 1	4	41	05.7	+17	49	18	9.9	21 55.3
4	5	25	58.2	+18	41	59	10.0	2	4	40	30.4	+17	49	36	10.0	21 50.8
5	5	25	34.2	+18	40	36	10.0	3	4	39	56.5	+17	49	58	10.0	21 46.3
6	5	25	08.4	+18	39	13	10.0	4	4	39	24.1	+17	50	24	10.0	21 41.9
7	5	24	41.0	+18	37	49	10.0	5	4	38	53.3	+17	50	54	10.0	21 37.5
8	5	24	12.0	+18	36	26	9.9	6	4	38	24.0	+17	51	27	10.1	21 33.1
9	5	23	41.5	+18	35	03	9.9	7	4	37	56.2	+17	52	05	10.1	21 28.7
10	5	23	09.3	+18	33	40	9.9	8	4	37	30.1	+17	52	47	10.1	21 24.4
11	5	22	35.7	+18	32	17	9.9	9	4	37	05.5	+17	53	32	10.1	21 20.0
12	5	22	00.6	+18	30	54	9.9	10	4	36	42.6	+17	54	22	10.2	21 15.8
13	5	21	24.0	+18	29	32	9.8	11	4	36	21.2	+17	55	15	10.2	21 11.5
14	5	20	46.0	+18	28	09	9.8	12	4	36	01.5	+17	56	13	10.2	21 07.3
15	5	20	06.6	+18	26	47	9.8	13	4	35	43.5	+17	57	14	10.2	21 03.1
16	5	19	25.9	+18	25	26	9.8	14	4	35	27.1	+17	58	19	10.2	20 58.9
17	5	18	43.8	+18	24	05	9.8	15	4	35	12.3	+17	59	28	10.3	20 54.7
18	5	18	00.5	+18	22	44	9.7	16	4	34	59.2	+18	00	41	10.3	20 50.6
19	5	17	16.0	+18	21	24	9.7	17	4	34	47.8	+18	01	57	10.3	20 46.5
20	5	16	30.4	+18	20	04	9.7	18	4	34	38.0	+18	03	18	10.3	20 42.4
21	5	15	43.6	+18	18	45	9.7	19	4	34	29.8	+18	04	42	10.4	20 38.4
22	5	14	55.7	+18	17	26	9.7	20	4	34	23.4	+18	06	09	10.4	20 34.4
23	5	14	06.9	+18	16	09	9.6	21	4	34	18.5	+18	07	40	10.4	20 30.4
24	5	13	17.1	+18	14	52	9.6	22	4	34	15.4	+18	09	15	10.4	20 26.4
25	5	12	26.4	+18	13	36	9.6	Jan. 23	4	34	13.8	+18	10	53	10.4	20 22.5
26	5	11	34.8	+18	12	20	9.6	24	4	34	13.9	+18	12	35	10.5	20 18.6
27	5	10	42.5	+18	11	06	9.6	25	4	34	15.7	+18	14	20	10.5	20 14.7
28	5	09	49.5	+18	09	53	9.5	26	4	34	19.1	+18	16	08	10.5	20 10.8
29	5	08	55.8	+18	08	41	9.5	27	4	34	24.1	+18	18	00	10.5	20 07.0
30	5	08	01.6	+18	07	30	9.5	28	4	34	30.7	+18	19	55	10.5	20 03.2
Dec. 1	5	07	06.9	+18	06	21	9.5	29	4	34	39.0	+18	21	53	10.6	19 59.4
2	5	06	11.7	+18	05	13	9.4	30	4	34	48.8	+18	23	53	10.6	19 55.7
3	5	05	16.2	+18	04	06	9.4	31	4	35	00.3	+18	25	57	10.6	19 52.0
4	5	04	20.5	+18	03	01	9.4	Feb. 1	4	35	13.3	+18	28	04	10.6	19 48.3
5	5	03	24.5	+18	01	58	9.4	2	4	35	27.9	+18	30	13	10.6	19 44.6
6	5	02	28.4	+18	00	56	9.4	3	4	35	44.0	+18	32	25	10.7	19 41.0
Dec. 7	5	01	32.3	+17	59	57	9.4	Feb. 4	4	36	01.7	+18	34	40	10.7	19 37.4

Second transit for Psyche 2005 December 6^d 23^h 58^m4

GEOCENTRIC POSITIONS FOR 0^h TERRESTRIAL TIME

Date	Astrometric					Vis. Mag.	Ephem- eris Transit	Date	Astrometric					Vis. Mag.	Ephem- eris Transit
	R.A.		Dec.						R.A.		Dec.				
	h	m	s	°	'				"	h	m	s	°		
2004 Dec.	5	9 26	00.6	+13 40	04	11.2	4 29.1	2005 Feb.	2	9 06	01.9	+17 34	21	9.9	0 17.1
	6	9 26	19.8	+13 40	19	11.2	4 25.5		3	9 05	13.4	+17 40	35	9.9	0 12.4
	7	9 26	37.7	+13 40	41	11.2	4 21.8		4	9 04	24.9	+17 46	47	10.0	0 07.7
	8	9 26	54.2	+13 41	12	11.2	4 18.2		5	9 03	36.4	+17 52	57	10.0	0 02.9
	9	9 27	09.3	+13 41	50	11.2	4 14.5		6	9 02	48.0	+17 59	05	10.0	23 53.5
	10	9 27	22.9	+13 42	38	11.1	4 10.8		7	9 01	59.8	+18 05	11	10.1	23 48.7
	11	9 27	35.1	+13 43	33	11.1	4 07.0		8	9 01	11.8	+18 11	13	10.1	23 44.0
	12	9 27	45.8	+13 44	37	11.1	4 03.3		9	9 00	24.1	+18 17	13	10.1	23 39.3
	13	9 27	55.1	+13 45	50	11.1	3 59.5		10	8 59	36.7	+18 23	09	10.2	23 34.6
	14	9 28	02.9	+13 47	11	11.1	3 55.7		11	8 58	49.7	+18 29	01	10.2	23 29.9
	15	9 28	09.2	+13 48	41	11.0	3 51.9		12	8 58	03.3	+18 34	49	10.2	23 25.2
	16	9 28	14.0	+13 50	20	11.0	3 48.0		13	8 57	17.3	+18 40	33	10.2	23 20.5
	17	9 28	17.4	+13 52	07	11.0	3 44.1		14	8 56	32.0	+18 46	12	10.3	23 15.8
	Dec. 18	9 28	19.2	+13 54	04	11.0	3 40.2		15	8 55	47.3	+18 51	46	10.3	23 11.2
	19	9 28	19.6	+13 56	09	11.0	3 36.3		16	8 55	03.4	+18 57	15	10.3	23 06.5
	20	9 28	18.5	+13 58	22	11.0	3 32.3		17	8 54	20.2	+19 02	38	10.3	23 01.9
	21	9 28	15.9	+14 00	45	10.9	3 28.4		18	8 53	37.8	+19 07	55	10.4	22 57.3
	22	9 28	11.8	+14 03	17	10.9	3 24.4		19	8 52	56.3	+19 13	07	10.4	22 52.7
	23	9 28	06.2	+14 05	57	10.9	3 20.3		20	8 52	15.7	+19 18	13	10.4	22 48.1
	24	9 27	59.1	+14 08	46	10.9	3 16.3		21	8 51	36.0	+19 23	12	10.4	22 43.5
	25	9 27	50.5	+14 11	43	10.9	3 12.2		22	8 50	57.4	+19 28	05	10.5	22 39.0
	26	9 27	40.4	+14 14	50	10.8	3 08.1		23	8 50	19.8	+19 32	52	10.5	22 34.4
	27	9 27	28.9	+14 18	05	10.8	3 04.0		24	8 49	43.2	+19 37	31	10.5	22 29.9
	28	9 27	15.8	+14 21	28	10.8	2 59.8		25	8 49	07.8	+19 42	04	10.5	22 25.4
	29	9 27	01.3	+14 25	00	10.8	2 55.6		26	8 48	33.6	+19 46	30	10.6	22 20.9
	30	9 26	45.3	+14 28	41	10.8	2 51.4		27	8 48	00.6	+19 50	49	10.6	22 16.5
	31	9 26	27.9	+14 32	30	10.7	2 47.2		28	8 47	28.7	+19 55	01	10.6	22 12.0
2005 Jan.	1	9 26	09.0	+14 36	27	10.7	2 43.0		Mar. 1	8 46	58.2	+19 59	06	10.6	22 07.6
	2	9 25	48.6	+14 40	32	10.7	2 38.7		2	8 46	28.9	+20 03	03	10.6	22 03.2
	3	9 25	26.8	+14 44	46	10.7	2 34.4		3	8 46	00.9	+20 06	53	10.7	21 58.8
	4	9 25	03.6	+14 49	07	10.7	2 30.1		4	8 45	34.3	+20 10	35	10.7	21 54.5
	5	9 24	39.1	+14 53	36	10.6	2 25.8		5	8 45	09.0	+20 14	10	10.7	21 50.2
	6	9 24	13.1	+14 58	12	10.6	2 21.4		6	8 44	45.2	+20 17	38	10.7	21 45.8
	7	9 23	45.8	+15 02	56	10.6	2 17.0		7	8 44	22.7	+20 20	58	10.8	21 41.6
	8	9 23	17.1	+15 07	47	10.6	2 12.6		8	8 44	01.7	+20 24	10	10.8	21 37.3
	9	9 22	47.2	+15 12	46	10.6	2 08.2		9	8 43	42.2	+20 27	15	10.8	21 33.1
	10	9 22	15.9	+15 17	51	10.5	2 03.7		10	8 43	24.1	+20 30	11	10.8	21 28.9
	11	9 21	43.5	+15 23	02	10.5	1 59.2		11	8 43	07.6	+20 33	01	10.8	21 24.7
	12	9 21	09.8	+15 28	20	10.5	1 54.8		12	8 42	52.5	+20 35	42	10.9	21 20.5
	13	9 20	34.9	+15 33	43	10.5	1 50.2		13	8 42	39.0	+20 38	16	10.9	21 16.4
	14	9 19	58.9	+15 39	13	10.4	1 45.7		14	8 42	26.9	+20 40	42	10.9	21 12.3
	15	9 19	21.9	+15 44	48	10.4	1 41.2		15	8 42	16.5	+20 43	00	10.9	21 08.2
	16	9 18	43.8	+15 50	28	10.4	1 36.6		16	8 42	07.5	+20 45	10	10.9	21 04.1
	17	9 18	04.6	+15 56	12	10.4	1 32.0		17	8 42	00.1	+20 47	13	11.0	21 00.1
	18	9 17	24.5	+16 02	01	10.4	1 27.4		18	8 41	54.2	+20 49	09	11.0	20 56.1
	19	9 16	43.5	+16 07	55	10.3	1 22.8		19	8 41	49.9	+20 50	57	11.0	20 52.1
	20	9 16	01.7	+16 13	52	10.3	1 18.2		20	8 41	47.1	+20 52	37	11.0	20 48.2
	21	9 15	19.0	+16 19	52	10.3	1 13.5		Mar. 21	8 41	45.9	+20 54	10	11.0	20 44.2
	22	9 14	35.5	+16 25	56	10.3	1 08.9		22	8 41	46.2	+20 55	35	11.1	20 40.3
	23	9 13	51.4	+16 32	02	10.2	1 04.2		23	8 41	48.0	+20 56	53	11.1	20 36.4
	24	9 13	06.5	+16 38	11	10.2	0 59.6		24	8 41	51.3	+20 58	04	11.1	20 32.6
	25	9 12	21.1	+16 44	22	10.2	0 54.9		25	8 41	56.1	+20 59	07	11.1	20 28.8
	26	9 11	35.0	+16 50	34	10.2	0 50.2		26	8 42	02.4	+21 00	03	11.1	20 25.0
	27	9 10	48.5	+16 56	48	10.1	0 45.5		27	8 42	10.2	+21 00	52	11.1	20 21.2
	28	9 10	01.5	+17 03	03	10.1	0 40.8		28	8 42	19.4	+21 01	34	11.2	20 17.4
	29	9 09	14.2	+17 09	19	10.1	0 36.1		29	8 42	30.2	+21 02	09	11.2	20 13.7
	30	9 08	26.4	+17 15	35	10.0	0 31.3		30	8 42	42.4	+21 02	37	11.2	20 10.0
	31	9 07	38.4	+17 21	51	10.0	0 26.6		31	8 42	56.0	+21 02	58	11.2	20 06.3
Feb. 1		9 06	50.2	+17 28	06	10.0	0 21.9		Apr. 1	8 43	11.0	+21 03	13	11.2	20 02.6
Feb. 2		9 06	01.9	+17 34	21	9.9	0 17.1		Apr. 2	8 43	27.5	+21 03	20	11.3	19 59.0

Second transit for Europa 2005 February 5^d 23^h 58^m2

GEOCENTRIC POSITIONS FOR 0^h TERRESTRIAL TIME

Date	Astrometric					Vis. Mag.	Ephem- eris Transit	Date	Astrometric					Vis. Mag.	Ephem- eris Transit										
	R.A.		Dec.						R.A.		Dec.														
	h	m	s	°	'				"	h	m	s	°			'	"	h	m						
2005 Nov. 22	8	31	23.7	+15	58	30	13.0	4	26.7							2006 Jan. 20	8	06	05.6	+17	22	58	11.8	0	09.5
23	8	31	28.1	+15	57	54	13.0	4	22.8							21	8	05	19.7	+17	25	50	11.8	0	04.8
24	8	31	31.4	+15	57	23	12.9	4	19.0							22	8	04	33.9	+17	28	43	11.8	0	00.1
25	8	31	33.5	+15	56	55	12.9	4	15.1							23	8	03	48.1	+17	31	35	11.8	23	50.7
Nov. 26	8	31	34.5	+15	56	32	12.9	4	11.1							24	8	03	02.4	+17	34	28	11.9	23	46.0
27	8	31	34.3	+15	56	14	12.9	4	07.2							25	8	02	16.8	+17	37	21	11.9	23	41.4
28	8	31	33.0	+15	56	00	12.9	4	03.2							26	8	01	31.4	+17	40	14	11.9	23	36.7
29	8	31	30.5	+15	55	51	12.9	3	59.3							27	8	00	46.2	+17	43	06	11.9	23	32.0
30	8	31	26.8	+15	55	46	12.9	3	55.3							28	8	00	01.3	+17	45	58	12.0	23	27.3
Dec. 1	8	31	22.0	+15	55	46	12.8	3	51.3							29	7	59	16.6	+17	48	50	12.0	23	22.7
2	8	31	16.0	+15	55	50	12.8	3	47.2							30	7	58	32.3	+17	51	41	12.0	23	18.0
3	8	31	08.8	+15	55	59	12.8	3	43.2							31	7	57	48.4	+17	54	31	12.0	23	13.4
4	8	31	00.5	+15	56	13	12.8	3	39.1				Feb. 1	7	57	04.9	+17	57	20	12.1	23	08.7			
5	8	30	51.0	+15	56	32	12.8	3	35.0				2	7	56	21.9	+18	00	09	12.1	23	04.1			
6	8	30	40.4	+15	56	55	12.8	3	30.9				3	7	55	39.4	+18	02	56	12.1	22	59.5			
7	8	30	28.6	+15	57	23	12.7	3	26.8				4	7	54	57.4	+18	05	42	12.1	22	54.8			
8	8	30	15.6	+15	57	55	12.7	3	22.6				5	7	54	16.0	+18	08	26	12.1	22	50.2			
9	8	30	01.5	+15	58	33	12.7	3	18.5				6	7	53	35.3	+18	11	09	12.2	22	45.6			
10	8	29	46.2	+15	59	15	12.7	3	14.3				7	7	52	55.2	+18	13	50	12.2	22	41.0			
11	8	29	29.8	+16	00	01	12.7	3	10.1				8	7	52	15.8	+18	16	30	12.2	22	36.5			
12	8	29	12.3	+16	00	53	12.7	3	05.8				9	7	51	37.1	+18	19	08	12.2	22	31.9			
13	8	28	53.6	+16	01	48	12.6	3	01.6				10	7	50	59.2	+18	21	44	12.2	22	27.4			
14	8	28	33.9	+16	02	49	12.6	2	57.3				11	7	50	22.1	+18	24	18	12.3	22	22.8			
15	8	28	13.0	+16	03	54	12.6	2	53.1				12	7	49	45.8	+18	26	50	12.3	22	18.3			
16	8	27	51.0	+16	05	03	12.6	2	48.8				13	7	49	10.3	+18	29	20	12.3	22	13.8			
17	8	27	28.0	+16	06	17	12.6	2	44.4				14	7	48	35.7	+18	31	48	12.3	22	09.3			
18	8	27	03.8	+16	07	35	12.5	2	40.1				15	7	48	02.0	+18	34	14	12.3	22	04.8			
19	8	26	38.6	+16	08	58	12.5	2	35.8				16	7	47	29.2	+18	36	38	12.4	22	00.4			
20	8	26	12.4	+16	10	25	12.5	2	31.4				17	7	46	57.4	+18	38	59	12.4	21	55.9			
21	8	25	45.1	+16	11	57	12.5	2	27.0				18	7	46	26.5	+18	41	18	12.4	21	51.5			
22	8	25	16.7	+16	13	32	12.5	2	22.6				19	7	45	56.6	+18	43	34	12.4	21	47.1			
23	8	24	47.4	+16	15	12	12.4	2	18.2				20	7	45	27.8	+18	45	48	12.4	21	42.7			
24	8	24	17.1	+16	16	56	12.4	2	13.7				21	7	45	00.0	+18	47	59	12.5	21	38.3			
25	8	23	45.8	+16	18	44	12.4	2	09.3				22	7	44	33.2	+18	50	08	12.5	21	34.0			
26	8	23	13.6	+16	20	35	12.4	2	04.8				23	7	44	07.5	+18	52	14	12.5	21	29.6			
27	8	22	40.4	+16	22	31	12.4	2	00.3				24	7	43	42.9	+18	54	18	12.5	21	25.3			
28	8	22	06.3	+16	24	31	12.3	1	55.8				25	7	43	19.4	+18	56	18	12.5	21	21.0			
29	8	21	31.4	+16	26	34	12.3	1	51.3				26	7	42	57.0	+18	58	16	12.5	21	16.7			
30	8	20	55.5	+16	28	40	12.3	1	46.8				27	7	42	35.8	+19	00	12	12.6	21	12.4			
31	8	20	18.9	+16	30	51	12.3	1	42.3				28	7	42	15.7	+19	02	04	12.6	21	08.2			
2006 Jan. 1	8	19	41.5	+16	33	04	12.3	1	37.7				Mar. 1	7	41	56.8	+19	03	54	12.6	21	04.0			
2	8	19	03.3	+16	35	21	12.2	1	33.2				2	7	41	39.1	+19	05	41	12.6	20	59.8			
3	8	18	24.4	+16	37	41	12.2	1	28.6				3	7	41	22.6	+19	07	24	12.6	20	55.6			
4	8	17	44.7	+16	40	04	12.2	1	24.0				4	7	41	07.2	+19	09	05	12.6	20	51.4			
5	8	17	04.4	+16	42	29	12.2	1	19.4				5	7	40	53.1	+19	10	43	12.7	20	47.2			
6	8	16	23.5	+16	44	57	12.1	1	14.8				6	7	40	40.2	+19	12	18	12.7	20	43.1			
7	8	15	42.0	+16	47	28	12.1	1	10.2				7	7	40	28.5	+19	13	50	12.7	20	39.0			
8	8	15	00.0	+16	50	02	12.1	1	05.5				8	7	40	18.0	+19	15	19	12.7	20	34.9			
9	8	14	17.4	+16	52	37	12.1	1	00.9				9	7	40	08.7	+19	16	45	12.7	20	30.9			
10	8	13	34.3	+16	55	15	12.0	0	56.2				10	7	40	00.7	+19	18	08	12.7	20	26.8			
11	8	12	50.8	+16	57	55	12.0	0	51.6				11	7	39	53.8	+19	19	28	12.8	20	22.8			
12	8	12	06.9	+17	00	36	12.0	0	46.9				12	7	39	48.2	+19	20	45	12.8	20	18.8			
13	8	11	22.6	+17	03	19	12.0	0	42.3				13	7	39	43.8	+19	21	59	12.8	20	14.8			
14	8	10	38.0	+17	06	04	11.9	0	37.6				14	7	39	40.6	+19	23	09	12.8	20	10.8			
15	8	09	53.1	+17	08	51	11.9	0	32.9				15	7	39	38.6	+19	24	17	12.8	20	06.9			
16	8	09	07.9	+17	11	38	11.9	0	28.2				Mar. 16	7	39	37.8	+19	25	22	12.8	20	02.9			
17	8	08	22.5	+17	14	27	11.8	0	23.6				17	7	39	38.2	+19	26	23	12.8	19	59.0			
18	8	07	37.0	+17	17	17	11.8	0	18.9				18	7	39	39.8	+19	27	22	12.9	19	55.1			
19	8	06	51.3	+17	20	07	11.8	0	14.2				19	7	39	42.6	+19	28	17	12.9	19	51.3			
Jan. 20	8	06	05.6	+17	22	58	11.8	0	09.5				Mar. 20	7	39	46.6	+19	29	09	12.9	19	47.4			

Second transit for Cybele 2006 January 22^d 23^h 55^m4

INTERAMNIA, 2005
GEOCENTRIC POSITIONS FOR 0^h TERRESTRIAL TIME

Date	Astrometric					Vis. Mag.	Ephem- eris Transit	Date	Astrometric					Vis. Mag.	Ephem- eris Transit
	R.A.			Dec.					R.A.			Dec.			
	h	m	s	°	'				"	h	m	s	°		
2005 Mar. 30	16 44	21.1		-36 24	52	11.9	4 14.1	2005 May 28	16 12	49.0		-35 12	06	10.8	23 45.8
31	16 44	27.9		-36 26	39	11.9	4 10.3	29	16 11	52.9		-35 06	47	10.8	23 41.0
Apr. 1	16 44	33.2		-36 28	22	11.9	4 06.4	30	16 10	57.0		-35 01	20	10.8	23 36.1
2	16 44	37.1		-36 30	02	11.9	4 02.6	31	16 10	01.2		-34 55	46	10.8	23 31.3
3	16 44	39.4		-36 31	37	11.8	3 58.7	June 1	16 09	05.7		-34 50	04	10.8	23 26.4
Apr. 4	16 44	40.3		-36 33	09	11.8	3 54.7	2	16 08	10.5		-34 44	15	10.8	23 21.6
5	16 44	39.6		-36 34	36	11.8	3 50.8	3	16 07	15.7		-34 38	19	10.8	23 16.7
6	16 44	37.5		-36 35	59	11.8	3 46.8	4	16 06	21.3		-34 32	17	10.8	23 11.9
7	16 44	33.8		-36 37	18	11.8	3 42.8	5	16 05	27.4		-34 26	08	10.9	23 07.1
8	16 44	28.5		-36 38	32	11.8	3 38.8	6	16 04	34.0		-34 19	52	10.9	23 02.3
9	16 44	21.8		-36 39	42	11.7	3 34.8	7	16 03	41.1		-34 13	31	10.9	22 57.5
10	16 44	13.5		-36 40	46	11.7	3 30.7	8	16 02	49.0		-34 07	04	10.9	22 52.7
11	16 44	03.7		-36 41	46	11.7	3 26.6	9	16 01	57.5		-34 00	32	10.9	22 47.9
12	16 43	52.3		-36 42	40	11.7	3 22.5	10	16 01	06.7		-33 53	55	10.9	22 43.2
13	16 43	39.5		-36 43	29	11.7	3 18.3	11	16 00	16.8		-33 47	13	10.9	22 38.4
14	16 43	25.1		-36 44	13	11.6	3 14.2	12	15 59	27.7		-33 40	27	11.0	22 33.7
15	16 43	09.1		-36 44	51	11.6	3 10.0	13	15 58	39.4		-33 33	37	11.0	22 29.0
16	16 42	51.7		-36 45	23	11.6	3 05.7	14	15 57	52.1		-33 26	43	11.0	22 24.3
17	16 42	32.8		-36 45	49	11.6	3 01.5	15	15 57	05.7		-33 19	46	11.0	22 19.6
18	16 42	12.4		-36 46	10	11.6	2 57.2	16	15 56	20.3		-33 12	46	11.0	22 14.9
19	16 41	50.5		-36 46	24	11.6	2 52.9	17	15 55	36.0		-33 05	43	11.0	22 10.3
20	16 41	27.1		-36 46	32	11.5	2 48.6	18	15 54	52.8		-32 58	38	11.1	22 05.6
21	16 41	02.3		-36 46	33	11.5	2 44.2	19	15 54	10.6		-32 51	30	11.1	22 01.0
22	16 40	36.0		-36 46	28	11.5	2 39.9	20	15 53	29.6		-32 44	21	11.1	21 56.4
23	16 40	08.3		-36 46	16	11.5	2 35.5	21	15 52	49.7		-32 37	11	11.1	21 51.8
24	16 39	39.2		-36 45	57	11.5	2 31.1	22	15 52	11.0		-32 29	59	11.1	21 47.3
25	16 39	08.7		-36 45	30	11.4	2 26.6	23	15 51	33.5		-32 22	47	11.1	21 42.8
26	16 38	36.8		-36 44	57	11.4	2 22.2	24	15 50	57.3		-32 15	34	11.2	21 38.2
27	16 38	03.5		-36 44	16	11.4	2 17.7	25	15 50	22.3		-32 08	21	11.2	21 33.8
28	16 37	29.0		-36 43	28	11.4	2 13.2	26	15 49	48.6		-32 01	08	11.2	21 29.3
29	16 36	53.0		-36 42	31	11.4	2 08.6	27	15 49	16.1		-31 53	56	11.2	21 24.8
30	16 36	15.8		-36 41	27	11.3	2 04.1	28	15 48	45.0		-31 46	44	11.2	21 20.4
May 1	16 35	37.4		-36 40	15	11.3	1 59.5	29	15 48	15.2		-31 39	33	11.3	21 16.0
2	16 34	57.7		-36 38	55	11.3	1 54.9	30	15 47	46.8		-31 32	23	11.3	21 11.6
3	16 34	16.7		-36 37	26	11.3	1 50.3	July 1	15 47	19.8		-31 25	15	11.3	21 07.3
4	16 33	34.6		-36 35	49	11.2	1 45.7	2	15 46	54.1		-31 18	09	11.3	21 02.9
5	16 32	51.4		-36 34	03	11.2	1 41.0	3	15 46	29.8		-31 11	05	11.3	20 58.6
6	16 32	07.1		-36 32	08	11.2	1 36.4	4	15 46	06.9		-31 04	03	11.3	20 54.3
7	16 31	21.7		-36 30	05	11.2	1 31.7	5	15 45	45.5		-30 57	04	11.4	20 50.0
8	16 30	35.2		-36 27	53	11.2	1 27.0	6	15 45	25.5		-30 50	07	11.4	20 45.8
9	16 29	47.8		-36 25	32	11.1	1 22.3	7	15 45	06.9		-30 43	14	11.4	20 41.6
10	16 28	59.5		-36 23	02	11.1	1 17.5	8	15 44	49.7		-30 36	24	11.4	20 37.4
11	16 28	10.3		-36 20	22	11.1	1 12.8	9	15 44	34.0		-30 29	37	11.4	20 33.2
12	16 27	20.3		-36 17	34	11.1	1 08.0	10	15 44	19.8		-30 22	54	11.4	20 29.1
13	16 26	29.4		-36 14	36	11.1	1 03.3	11	15 44	07.0		-30 16	15	11.5	20 24.9
14	16 25	37.9		-36 11	29	11.0	0 58.5	12	15 43	55.6		-30 09	40	11.5	20 20.8
15	16 24	45.6		-36 08	13	11.0	0 53.7	13	15 43	45.8		-30 03	09	11.5	20 16.8
16	16 23	52.7		-36 04	48	11.0	0 48.9	14	15 43	37.3		-29 56	42	11.5	20 12.7
17	16 22	59.3		-36 01	14	11.0	0 44.0	15	15 43	30.3		-29 50	20	11.5	20 08.7
18	16 22	05.3		-35 57	30	11.0	0 39.2	16	15 43	24.8		-29 44	03	11.5	20 04.7
19	16 21	10.9		-35 53	37	10.9	0 34.4	17	15 43	20.7		-29 37	50	11.6	20 00.7
20	16 20	16.0		-35 49	35	10.9	0 29.5	18	15 43	18.0		-29 31	43	11.6	19 56.7
21	16 19	20.8		-35 45	25	10.9	0 24.7	July 19	15 43	16.7		-29 25	40	11.6	19 52.8
22	16 18	25.3		-35 41	05	10.9	0 19.8	20	15 43	16.9		-29 19	43	11.6	19 48.9
23	16 17	29.6		-35 36	37	10.9	0 15.0	21	15 43	18.4		-29 13	50	11.6	19 45.0
24	16 16	33.6		-35 31	59	10.9	0 10.1	22	15 43	21.4		-29 08	03	11.6	19 41.1
25	16 15	37.5		-35 27	14	10.9	0 05.3	23	15 43	25.7		-29 02	21	11.7	19 37.3
26	16 14	41.4		-35 22	19	10.8	0 00.4	24	15 43	31.4		-28 56	44	11.7	19 33.5
27	16 13	45.2		-35 17	17	10.8	23 50.7	25	15 43	38.5		-28 51	13	11.7	19 29.7
May 28	16 12	49.0		-35 12	06	10.8	23 45.8	July 26	15 43	46.9		-28 45	48	11.7	19 25.9

Second transit for Interamnia 2005 May 26^d 23^h 55^m5