29/Schwassman-Wachmann 1

Date TT	R. A. (2000) Decl.	Delta	r	Elong.	Phase	m1	m2
2015 04 01	17 56 53.1 -31 15 22	5.7808	6.0564	101.3	9.3	15.6	19.3
2015 04 02	17 57 03.1 -31 16 14	5.7649	6.0561	102.2	9.3	15.6	19.3
2015 04 03	17 57 12.4 -31 17 07	5.7490	6.0558	103.2	9.2	15.6	19.3
2015 04 04	17 57 20.9 -31 18 00	5.7332	6.0555	104.1	9.2	15.6	19.3
2015 04 05	17 57 28.7 -31 18 52	5.7175	6.0552	105.1	9.2	15.6	19.3
2015 04 06	17 57 35.7 -31 19 44	5.7019	6.0549	106.0	9.1	15.6	19.3
2015 04 07	17 57 41.9 -31 20 36	5.6863	6.0547	107.0	9.1	15.6	19.3
2015 04 08	17 57 47.4 -31 21 28	5.6708	6.0544	107.9	9.1	15.6	19.3
2015 04 09	17 57 52.1 -31 22 20	5.6554	6.0541	108.9	9.0	15.6	19.3
2015 04 10	17 57 56.1 -31 23 11	5.6400	6.0538	109.8	9.0	15.6	19.3
2015 04 11	17 57 59.3 -31 24 02	5.6248	6.0535	110.8	8.9	15.6	19.3
2015 04 12	17 58 01.7 -31 24 53	5.6096	6.0532	111.8	8.8	15.6	19.3
2015 04 13	17 58 03.4 -31 25 43	5.5946	6.0529	112.7	8.8	15.6	19.2
2015 04 14	17 58 04.3 -31 26 33	5.5797	6.0527	113.7	8.7	15.6	19.2
2015 04 15	17 58 04.4 -31 27 23	5.5648	6.0524	114.7	8.7	15.5	19.2
2015 04 16	17 58 03.7 -31 28 13	5.5501	6.0521	115.6	8.6	15.5	19.2
2015 04 17	17 58 02.3 -31 29 02	5.5355	6.0518	116.6	8.5	15.5	19.2
2015 04 18	17 58 00.1 -31 29 50	5.5210	6.0515	117.6	8.5	15.5	19.2
2015 04 19	17 57 57.1 -31 30 38	5.5067	6.0512	118.5	8.4	15.5	19.2
2015 04 20	17 57 53.3 -31 31 26	5.4925	6.0509	119.5	8.3	15.5	19.2
2015 04 21	17 57 48.8 -31 32 12	5.4784	6.0506	120.5	8.2	15.5	19.2
2015 04 22	17 57 43.5 -31 32 59	5.4645	6.0504	121.5	8.1	15.5	19.2
2015 04 23	17 57 37.5 -31 33 44	5.4507	6.0501	122.5	8.1	15.5	19.2
2015 04 24	17 57 30.6 -31 34 29	5.4371	6.0498	123.4	8.0	15.5	19.1
2015 04 25	17 57 23.1 -31 35 13	5.4236	6.0495	124.4	7.9	15.5	19.1
2015 04 26	17 57 14.8 -31 35 57	5.4103	6.0492	125.4	7.8	15.5	19.1
2015 04 27	17 57 05.7 -31 36 39	5.3971	6.0489	126.4	7.7	15.5	19.1
2015 04 28	17 56 55.9 -31 37 21	5.3841	6.0486	127.4	7.6	15.5	19.1
2015 04 29	17 56 45.3 -31 38 02	5.3713	6.0483	128.4	7.5	15.5	19.1
2015 04 30	17 56 34.1 -31 38 42	5.3587	6.0481	129.4	7.4	15.5	19.1

32P/Coma Solas

Date TT	R. A. (2000) Decl.	Delta	r	Elong.	Phase	m1	m2
2015 04 01	11 17 23.9 +20 10 07	1.5623	2.4690	148.3	12.3	15.3	18.2
2015 04 02	11 16 54.8 +20 06 34	1.5724	2.4738	147.4	12.6	15.4	18.2
2015 04 03	11 16 26.9 +20 02 50	1.5827	2.4786	146.5	12.9	15.4	18.2
2015 04 04	11 16 00.5 +19 58 54	1.5932	2.4834	145.6	13.1	15.4	18.3
2015 04 05	11 15 35.4 +19 54 47	1.6039	2.4882	144.7	13.4	15.4	18.3
2015 04 06	11 15 11.7 +19 50 28	1.6149	2.4931	143.8	13.7	15.5	18.3
2015 04 07	11 14 49.4 +19 45 59	1.6260	2.4979	142.9	14.0	15.5	18.3
2015 04 08	11 14 28.5 +19 41 20	1.6373	2.5028	141.9	14.3	15.5	18.4
2015 04 09	11 14 09.0 +19 36 29	1.6488	2.5077	141.0	14.5	15.6	18.4
2015 04 10	11 13 51.0 +19 31 29	1.6605	2.5126	140.1	14.8	15.6	18.4
2015 04 11	11 13 34.4 +19 26 19	1.6724	2.5175	139.2	15.1	15.6	18.5
2015 04 12	11 13 19.3 +19 20 59	1.6844	2.5224	138.3	15.3	15.7	18.5
2015 04 13	11 13 05.6 +19 15 30	1.6967	2.5273	137.4	15.6	15.7	18.5
2015 04 14	11 12 53.3 +19 09 52	1.7091	2.5322	136.5	15.8	15.7	18.5
2015 04 15	11 12 42.6 +19 04 04	1.7217	2.5372	135.6	16.1	15.8	18.6
2015 04 16	11 12 33.2 +18 58 08	1.7345	2.5421	134.7	16.3	15.8	18.6
2015 04 17	11 12 25.4 +18 52 03	1.7474	2.5471	133.8	16.5	15.8	18.6
2015 04 18	11 12 19.0 +18 45 49	1.7605	2.5520	132.9	16.8	15.9	18.7
2015 04 19	11 12 14.0 +18 39 28	1.7738	2.5570	132.0	17.0	15.9	18.7
2015 04 20	11 12 10.5 +18 32 58	1.7872	2.5620	131.1	17.2	15.9	18.7
2015 04 21	11 12 08.5 +18 26 21	1.8008	2.5670	130.2	17.4	16.0	18.7
2015 04 22	11 12 07.8 +18 19 37	1.8146	2.5720	129.4	17.6	16.0	18.8
2015 04 23	11 12 08.7 +18 12 45	1.8285	2.5771	128.5	17.8	16.0	18.8
2015 04 24	11 12 10.9 +18 05 46	1.8425	2.5821	127.6	18.0	16.1	18.8
2015 04 25	11 12 14.5 +17 58 40	1.8567	2.5871	126.7	18.2	16.1	18.8
2015 04 26	11 12 19.5 +17 51 28	1.8710	2.5922	125.9	18.3	16.1	18.9
2015 04 27	11 12 25.9 +17 44 09	1.8855	2.5972	125.0	18.5	16.2	18.9
2015 04 28	11 12 33.7 +17 36 45	1.9001	2.6023	124.2	18.7	16.2	18.9
2015 04 29	11 12 42.8 +17 29 14	1.9148	2.6074	123.3	18.8	16.2	19.0
2015 04 30	11 12 53.2 +17 21 37	1.9297	2.6125	122.5	19.0	16.3	19.0

15P/Finley

Date TT	R. A. (2000) Decl.	Delta	r	Elong.	Phase	m1	m2
2015 04 01	03 47 14.7 +25 10 32	2.0766	1.6195	49.6	28.0	15.7	20.9
2015 04 02	03 50 30.6 +25 20 37	2.0918	1.6291	49.4	27.8	15.7	20.9
2015 04 03	03 53 45.4 +25 30 22	2.1071	1.6386	49.2	27.5	15.8	20.9
2015 04 04	03 56 59.1 +25 39 48	2.1224	1.6482	48.9	27.2	15.8	20.9
2015 04 05	04 00 11.6 +25 48 54	2.1379	1.6577	48.7	27.0	15.8	21.0
2015 04 06	04 03 23.1 +25 57 41	2.1533	1.6673	48.4	26.7	15.9	21.0
2015 04 07	04 06 33.5 +26 06 10	2.1689	1.6769	48.2	26.4	15.9	21.0
2015 04 08	04 09 42.7 +26 14 21	2.1844	1.6864	47.9	26.1	16.0	21.0
2015 04 09	04 12 50.9 +26 22 13	2.2001	1.6960	47.7	25.9	16.0	21.0
2015 04 10	04 15 58.0 +26 29 48	2.2158	1.7055	47.4	25.6	16.0	21.1
2015 04 11	04 19 04.0 +26 37 05	2.2315	1.7151	47.1	25.4	16.1	21.1
2015 04 12	04 22 08.9 +26 44 05	2.2473	1.7247	46.9	25.1	16.1	21.1
2015 04 13	04 25 12.8 +26 50 49	2.2631	1.7342	46.6	24.8	16.2	21.1
2015 04 14	04 28 15.6 +26 57 16	2.2790	1.7438	46.3	24.6	16.2	21.1
2015 04 15	04 31 17.4 +27 03 27	2.2949	1.7533	46.0	24.3	16.2	21.2
2015 04 16	04 34 18.1 +27 09 22	2.3108	1.7628	45.7	24.0	16.3	21.2
2015 04 17	04 37 17.7 +27 15 01	2.3267	1.7724	45.4	23.8	16.3	21.2
2015 04 18	04 40 16.3 +27 20 25	2.3427	1.7819	45.1	23.5	16.4	21.2
2015 04 19	04 43 13.9 +27 25 34	2.3587	1.7914	44.8	23.3	16.4	21.2
2015 04 20	04 46 10.4 +27 30 28	2.3747	1.8010	44.5	23.0	16.4	21.2
2015 04 21	04 49 05.9 +27 35 08	2.3908	1.8105	44.1	22.7	16.5	21.3
2015 04 22	04 52 00.4 +27 39 33	2.4068	1.8200	43.8	22.5	16.5	21.3
2015 04 23	04 54 53.9 +27 43 45	2.4229	1.8295	43.5	22.2	16.5	21.3
2015 04 24	04 57 46.3 +27 47 43	2.4389	1.8390	43.2	22.0	16.6	21.3
2015 04 25	05 00 37.7 +27 51 27	2.4550	1.8485	42.8	21.7	16.6	21.3
2015 04 26	05 03 28.1 +27 54 58	2.4711	1.8579	42.5	21.5	16.7	21.4
2015 04 27	05 06 17.4 +27 58 16	2.4872	1.8674	42.1	21.2	16.7	21.4
2015 04 28	05 09 05.8 +28 01 22	2.5032	1.8769	41.8	20.9	16.7	21.4
2015 04 29	05 11 53.2 +28 04 14	2.5193	1.8863	41.5	20.7	16.8	21.4
2015 04 30	05 14 39.5 +28 06 55	2.5354	1.8958	41.1	20.4	16.8	21.4

88P/Howell

Date TT	R. A. (2000) Decl.	Delta	r	Elong.	Phase	m1	m2
2015 04 01	21 41 05.5 -16 38 20	1.7920	1.3598	48.8	33.5	14.3	18.8
2015 04 02	21 44 33.5 -16 22 56	1.7890	1.3594	48.9	33.6	14.3	18.8
2015 04 03	21 48 00.6 -16 07 23	1.7862	1.3591	49.0	33.7	14.3	18.8
2015 04 04	21 51 26.8 -15 51 40	1.7835	1.3588	49.1	33.8	14.3	18.8
2015 04 05	21 54 52.1 -15 35 48	1.7808	1.3587	49.2	33.9	14.2	18.8
2015 04 06	21 58 16.5 -15 19 46	1.7782	1.3586	49.4	34.0	14.2	18.8
2015 04 07	22 01 40.0 -15 03 37	1.7757	1.3586	49.5	34.1	14.2	18.8
2015 04 08	22 05 02.5 -14 47 19	1.7733	1.3587	49.6	34.1	14.2	18.8
2015 04 09	22 08 24.1 -14 30 54	1.7709	1.3589	49.7	34.2	14.2	18.8
2015 04 10	22 11 44.7 -14 14 22	1.7686	1.3592	49.9	34.3	14.2	18.8
2015 04 11	22 15 04.3 -13 57 43	1.7664	1.3596	50.0	34.4	14.2	18.8
2015 04 12	22 18 23.0 -13 40 58	1.7643	1.3601	50.1	34.4	14.2	18.8
2015 04 13	22 21 40.7 -13 24 06	1.7622	1.3606	50.3	34.5	14.2	18.8
2015 04 14	22 24 57.4 -13 07 09	1.7602	1.3613	50.4	34.6	14.2	18.8
2015 04 15	22 28 13.1 -12 50 07	1.7582	1.3620	50.5	34.6	14.2	18.8
2015 04 16	22 31 27.8 -12 33 00	1.7563	1.3629	50.7	34.7	14.2	18.8
2015 04 17	22 34 41.4 -12 15 49	1.7545	1.3638	50.8	34.8	14.2	18.8
2015 04 18	22 37 54.1 -11 58 34	1.7527	1.3648	50.9	34.8	14.2	18.8
2015 04 19	22 41 05.7 -11 41 16	1.7510	1.3659	51.1	34.9	14.2	18.8
2015 04 20	22 44 16.2 -11 23 54	1.7493	1.3671	51.2	35.0	14.3	18.8
2015 04 21	22 47 25.7 -11 06 30	1.7477	1.3684	51.4	35.0	14.3	18.8
2015 04 22	22 50 34.2 -10 49 03	1.7461	1.3697	51.5	35.1	14.3	18.8
2015 04 23	22 53 41.6 -10 31 34	1.7446	1.3712	51.7	35.1	14.3	18.8
2015 04 24	22 56 47.9 -10 14 04	1.7431	1.3727	51.9	35.2	14.3	18.8
2015 04 25	22 59 53.2 -09 56 32	1.7417	1.3743	52.0	35.2	14.3	18.8
2015 04 26	23 02 57.4 -09 39 00	1.7403	1.3760	52.2	35.3	14.3	18.8
2015 04 27	23 06 00.6 -09 21 26	1.7389	1.3778	52.3	35.3	14.3	18.8
2015 04 28	23 09 02.7 -09 03 53	1.7376	1.3797	52.5	35.4	14.3	18.9
2015 04 29	23 12 03.8 -08 46 19	1.7364	1.3816	52.7	35.4	14.3	18.9
2015 04 30	23 15 03.8 -08 28 46	1.7351	1.3837	52.9	35.5	14.3	18.9

218P/LINEAR

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m1	m2
2015 04 01		17 52 12.0	-19 17 06	0.4890	1.2040	102.6	54.1	15.3	
2015 04 02		17 57 21.6	-19 11 55	0.4866	1.2012	102.3	54.4	15.2	
2015 04 03		18 02 30.2	-19 06 10	0.4843	1.1985	102.1	54.6	15.2	
2015 04 04		18 07 37.6	-18 59 50	0.4821	1.1959	101.9	54.9	15.2	
2015 04 05		18 12 43.7	-18 52 57	0.4801	1.1935	101.6	55.2	15.2	
2015 04 06		18 17 48.2	-18 45 31	0.4783	1.1912	101.4	55.4	15.2	
2015 04 07		18 22 51.0	-18 37 34	0.4766	1.1890	101.2	55.7	15.1	
2015 04 08		18 27 51.7	-18 29 06	0.4751	1.1869	101.0	55.9	15.1	
2015 04 09		18 32 50.3	-18 20 08	0.4737	1.1850	100.8	56.1	15.1	
2015 04 10		18 37 46.5	-18 10 43	0.4725	1.1832	100.6	56.3	15.1	
2015 04 11		18 42 40.2	-18 00 50	0.4714	1.1815	100.4	56.5	15.1	
2015 04 12		18 47 31.2	-17 50 32	0.4704	1.1799	100.2	56.7	15.1	
2015 04 13		18 52 19.3	-17 39 50	0.4695	1.1785	100.0	56.9	15.1	
2015 04 14		18 57 04.3	-17 28 44	0.4688	1.1772	99.8	57.1	15.1	
2015 04 15		19 01 46.2	-17 17 18	0.4682	1.1760	99.7	57.2	15.1	
2015 04 16		19 06 24.7	-17 05 31	0.4677	1.1750	99.5	57.4	15.1	
2015 04 17		19 10 59.8	-16 53 26	0.4673	1.1741	99.4	57.5	15.0	
2015 04 18		19 15 31.3	-16 41 03	0.4670	1.1733	99.3	57.6	15.0	
2015 04 19		19 19 59.1	-16 28 26	0.4669	1.1727	99.1	57.7	15.0	
2015 04 20		19 24 23.1	-16 15 34	0.4668	1.1722	99.0	57.8	15.0	
2015 04 21		19 28 43.4	-16 02 30	0.4668	1.1718	98.9	57.9	15.0	
2015 04 22		19 32 59.7	-15 49 14	0.4669	1.1716	98.9	57.9	15.0	
2015 04 23		19 37 12.0	-15 35 49	0.4671	1.1715	98.8	58.0	15.0	
2015 04 24		19 41 20.3	-15 22 15	0.4674	1.1715	98.7	58.0	15.0	
2015 04 25		19 45 24.5	-15 08 35	0.4677	1.1717	98.7	58.1	15.0	
2015 04 26		19 49 24.6	-14 54 49	0.4682	1.1720	98.7	58.1	15.0	
2015 04 27		19 53 20.5	-14 40 58	0.4687	1.1724	98.7	58.1	15.0	
2015 04 28		19 57 12.3	-14 27 04	0.4693	1.1730	98.7	58.0	15.1	
2015 04 29		20 01 00.0	-14 13 09	0.4699	1.1737	98.7	58.0	15.1	
2015 04 30		20 04 43.4	-13 59 12	0.4706	1.1746	98.7	57.9	15.1	

C/2012 F3 (PannSTARRS)

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m1	m2
2015 04 01		18 58 55.0	-11 21 34	3.3786	3.4572	86.1	16.8	14.5	
2015 04 02		18 59 51.5	-11 18 02	3.3654	3.4571	86.8	16.8	14.5	
2015 04 03		19 00 47.2	-11 14 29	3.3522	3.4570	87.6	16.8	14.5	
2015 04 04		19 01 42.2	-11 10 56	3.3391	3.4569	88.3	16.8	14.5	
2015 04 05		19 02 36.3	-11 07 22	3.3260	3.4569	89.0	16.8	14.5	
2015 04 06		19 03 29.7	-11 03 48	3.3129	3.4568	89.8	16.8	14.5	
2015 04 07		19 04 22.2	-11 00 14	3.2998	3.4568	90.5	16.8	14.5	
2015 04 08		19 05 13.9	-10 56 39	3.2867	3.4568	91.3	16.8	14.5	
2015 04 09		19 06 04.8	-10 53 05	3.2737	3.4569	92.0	16.8	14.5	
2015 04 10		19 06 54.9	-10 49 30	3.2607	3.4570	92.8	16.8	14.5	
2015 04 11		19 07 44.1	-10 45 55	3.2478	3.4571	93.5	16.8	14.4	
2015 04 12		19 08 32.4	-10 42 21	3.2349	3.4572	94.3	16.8	14.4	
2015 04 13		19 09 19.9	-10 38 47	3.2220	3.4573	95.0	16.8	14.4	
2015 04 14		19 10 06.5	-10 35 13	3.2091	3.4575	95.8	16.8	14.4	
2015 04 15		19 10 52.3	-10 31 40	3.1964	3.4577	96.6	16.8	14.4	
2015 04 16		19 11 37.1	-10 28 07	3.1836	3.4579	97.3	16.7	14.4	
2015 04 17		19 12 21.0	-10 24 35	3.1709	3.4581	98.1	16.7	14.4	
2015 04 18		19 13 04.0	-10 21 04	3.1583	3.4584	98.9	16.7	14.4	
2015 04 19		19 13 46.1	-10 17 34	3.1457	3.4587	99.6	16.6	14.4	
2015 04 20		19 14 27.3	-10 14 05	3.1331	3.4590	100.4	16.6	14.4	
2015 04 21		19 15 07.5	-10 10 37	3.1206	3.4594	101.2	16.6	14.4	
2015 04 22		19 15 46.8	-10 07 10	3.1082	3.4597	102.0	16.5	14.4	
2015 04 23		19 16 25.2	-10 03 45	3.0959	3.4601	102.8	16.5	14.3	
2015 04 24		19 17 02.6	-10 00 21	3.0836	3.4605	103.6	16.4	14.3	
2015 04 25		19 17 39.0	-09 56 59	3.0714	3.4610	104.4	16.4	14.3	
2015 04 26		19 18 14.5	-09 53 39	3.0592	3.4614	105.2	16.3	14.3	
2015 04 27		19 18 49.0	-09 50 20	3.0472	3.4619	106.0	16.2	14.3	
2015 04 28		19 19 22.6	-09 47 03	3.0352	3.4624	106.8	16.2	14.3	
2015 04 29		19 19 55.2	-09 43 48	3.0233	3.4630	107.6	16.1	14.3	
2015 04 30		19 20 26.8	-09 40 36	3.0115	3.4636	108.4	16.0	14.3	

C/2013 A1 (Siding Spring)

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m1	m2
2015 04 01		17 10 16.7	+44 58 32	2.1463	2.5550	102.4	22.4	12.3	
2015 04 02		17 07 33.8	+45 33 02	2.1484	2.5653	103.0	22.3	12.3	
2015 04 03		17 04 45.6	+46 07 02	2.1510	2.5755	103.5	22.2	12.3	
2015 04 04		17 01 52.0	+46 40 32	2.1539	2.5857	104.1	22.0	12.3	
2015 04 05		16 58 53.0	+47 13 29	2.1572	2.5960	104.6	21.9	12.4	
2015 04 06		16 55 48.7	+47 45 50	2.1610	2.6063	105.0	21.8	12.4	
2015 04 07		16 52 38.9	+48 17 33	2.1651	2.6165	105.5	21.6	12.4	
2015 04 08		16 49 23.7	+48 48 36	2.1697	2.6268	105.9	21.5	12.4	
2015 04 09		16 46 03.1	+49 18 57	2.1746	2.6371	106.3	21.4	12.4	
2015 04 10		16 42 37.2	+49 48 34	2.1800	2.6473	106.7	21.3	12.4	
2015 04 11		16 39 06.0	+50 17 24	2.1858	2.6576	107.0	21.1	12.4	
2015 04 12		16 35 29.6	+50 45 25	2.1919	2.6679	107.3	21.0	12.5	
2015 04 13		16 31 48.2	+51 12 35	2.1985	2.6781	107.6	20.9	12.5	
2015 04 14		16 28 01.7	+51 38 53	2.2056	2.6884	107.9	20.8	12.5	
2015 04 15		16 24 10.4	+52 04 16	2.2130	2.6987	108.1	20.7	12.5	
2015 04 16		16 20 14.5	+52 28 42	2.2208	2.7090	108.3	20.6	12.5	
2015 04 17		16 16 14.0	+52 52 10	2.2290	2.7193	108.5	20.5	12.5	
2015 04 18		16 12 09.4	+53 14 39	2.2377	2.7296	108.6	20.4	12.6	
2015 04 19		16 08 00.7	+53 36 06	2.2468	2.7398	108.7	20.3	12.6	
2015 04 20		16 03 48.3	+53 56 30	2.2562	2.7501	108.8	20.2	12.6	
2015 04 21		15 59 32.5	+54 15 51	2.2661	2.7604	108.9	20.1	12.6	
2015 04 22		15 55 13.6	+54 34 08	2.2763	2.7707	108.9	20.1	12.6	
2015 04 23		15 50 51.9	+54 51 19	2.2870	2.7810	108.9	20.0	12.7	
2015 04 24		15 46 27.7	+55 07 24	2.2980	2.7913	108.9	19.9	12.7	
2015 04 25		15 42 01.5	+55 22 22	2.3095	2.8016	108.9	19.9	12.7	
2015 04 26		15 37 33.6	+55 36 14	2.3213	2.8118	108.8	19.8	12.7	
2015 04 27		15 33 04.5	+55 49 00	2.3335	2.8221	108.7	19.7	12.7	
2015 04 28		15 28 34.4	+56 00 38	2.3460	2.8324	108.6	19.7	12.8	
2015 04 29		15 24 03.9	+56 11 10	2.3590	2.8427	108.4	19.6	12.8	
2015 04 30		15 19 33.3	+56 20 37	2.3722	2.8530	108.3	19.6	12.8	

C/2014 Q2 (Lovejoy)

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m1	m2
2015 04 01		01 23 52.1	+65 40 07	1.7767	1.5760	61.9	34.0	11.7	
2015 04 02		01 23 57.0	+66 01 05	1.7892	1.5843	61.8	33.8	11.8	
2015 04 03		01 24 02.7	+66 22 07	1.8014	1.5926	61.7	33.5	11.8	
2015 04 04		01 24 09.1	+66 43 14	1.8135	1.6010	61.6	33.3	11.8	
2015 04 05		01 24 16.3	+67 04 27	1.8254	1.6095	61.5	33.1	11.9	
2015 04 06		01 24 24.2	+67 25 44	1.8372	1.6181	61.4	32.9	11.9	
2015 04 07		01 24 32.7	+67 47 08	1.8487	1.6267	61.4	32.7	11.9	
2015 04 08		01 24 41.9	+68 08 37	1.8602	1.6354	61.3	32.5	12.0	
2015 04 09		01 24 51.6	+68 30 12	1.8714	1.6442	61.3	32.3	12.0	
2015 04 10		01 25 01.9	+68 51 54	1.8825	1.6530	61.2	32.1	12.1	
2015 04 11		01 25 12.7	+69 13 42	1.8935	1.6618	61.2	31.9	12.1	
2015 04 12		01 25 23.9	+69 35 38	1.9043	1.6708	61.2	31.7	12.1	
2015 04 13		01 25 35.6	+69 57 40	1.9149	1.6798	61.2	31.5	12.2	
2015 04 14		01 25 47.6	+70 19 49	1.9254	1.6888	61.2	31.4	12.2	
2015 04 15		01 26 00.0	+70 42 06	1.9357	1.6979	61.2	31.2	12.2	
2015 04 16		01 26 12.6	+71 04 31	1.9459	1.7071	61.2	31.0	12.3	
2015 04 17		01 26 25.3	+71 27 03	1.9559	1.7163	61.3	30.8	12.3	
2015 04 18		01 26 38.3	+71 49 44	1.9658	1.7256	61.3	30.7	12.3	
2015 04 19		01 26 51.2	+72 12 32	1.9756	1.7349	61.4	30.5	12.4	
2015 04 20		01 27 04.2	+72 35 29	1.9852	1.7442	61.4	30.4	12.4	
2015 04 21		01 27 17.0	+72 58 34	1.9947	1.7536	61.5	30.2	12.4	
2015 04 22		01 27 29.6	+73 21 48	2.0040	1.7631	61.6	30.1	12.5	
2015 04 23		01 27 41.9	+73 45 10	2.0132	1.7726	61.7	29.9	12.5	
2015 04 24		01 27 53.9	+74 08 41	2.0223	1.7821	61.8	29.8	12.5	
2015 04 25		01 28 05.3	+74 32 20	2.0313	1.7917	61.9	29.7	12.6	
2015 04 26		01 28 16.1	+74 56 08	2.0401	1.8013	62.0	29.5	12.6	
2015 04 27		01 28 26.2	+75 20 04	2.0489	1.8110	62.1	29.4	12.6	
2015 04 28		01 28 35.4	+75 44 09	2.0575	1.8207	62.2	29.3	12.7	
2015 04 29		01 28 43.6	+76 08 23	2.0660	1.8304	62.3	29.2	12.7	
2015 04 30		01 28 50.5	+76 32 46	2.0744	1.8402	62.5	29.0	12.7	

C/2014 R1 (Borisov)

Date TT	R. A. (2000) Decl.	Delta	r	Elong.	Phase	m1	m2
2015 04 01	17 07 53.5 -12 49 25	1.7610	2.3427	113.3	23.1	16.9	
2015 04 02	17 07 57.6 -12 48 57	1.7593	2.3528	114.2	22.8	16.9	
2015 04 03	17 07 59.7 -12 48 28	1.7577	2.3628	115.2	22.5	17.0	
2015 04 04	17 07 59.9 -12 47 59	1.7562	2.3729	116.1	22.2	17.0	
2015 04 05	17 07 58.0 -12 47 30	1.7547	2.3830	117.1	21.9	17.0	
2015 04 06	17 07 54.3 -12 47 01	1.7534	2.3931	118.1	21.6	17.0	
2015 04 07	17 07 48.5 -12 46 32	1.7521	2.4032	119.1	21.3	17.0	
2015 04 08	17 07 40.9 -12 46 03	1.7509	2.4133	120.1	21.0	17.0	
2015 04 09	17 07 31.3 -12 45 34	1.7499	2.4235	121.1	20.7	17.1	
2015 04 10	17 07 19.9 -12 45 06	1.7489	2.4336	122.1	20.4	17.1	
2015 04 11	17 07 06.5 -12 44 38	1.7480	2.4437	123.1	20.1	17.1	
2015 04 12	17 06 51.3 -12 44 11	1.7473	2.4539	124.1	19.8	17.1	
2015 04 13	17 06 34.2 -12 43 44	1.7467	2.4640	125.1	19.4	17.1	
2015 04 14	17 06 15.3 -12 43 18	1.7462	2.4742	126.2	19.1	17.1	
2015 04 15	17 05 54.6 -12 42 53	1.7458	2.4844	127.2	18.8	17.2	
2015 04 16	17 05 32.1 -12 42 29	1.7456	2.4945	128.3	18.4	17.2	
2015 04 17	17 05 07.8 -12 42 06	1.7455	2.5047	129.3	18.1	17.2	
2015 04 18	17 04 41.8 -12 41 43	1.7455	2.5149	130.4	17.7	17.2	
2015 04 19	17 04 14.1 -12 41 23	1.7457	2.5251	131.4	17.3	17.2	
2015 04 20	17 03 44.8 -12 41 03	1.7461	2.5353	132.5	17.0	17.3	
2015 04 21	17 03 13.8 -12 40 45	1.7466	2.5455	133.6	16.6	17.3	
2015 04 22	17 02 41.2 -12 40 28	1.7473	2.5557	134.7	16.2	17.3	
2015 04 23	17 02 07.1 -12 40 13	1.7482	2.5659	135.7	15.9	17.3	
2015 04 24	17 01 31.5 -12 39 59	1.7492	2.5761	136.8	15.5	17.3	
2015 04 25	17 00 54.5 -12 39 47	1.7505	2.5863	137.9	15.1	17.3	
2015 04 26	17 00 16.0 -12 39 37	1.7519	2.5966	139.0	14.7	17.4	
2015 04 27	16 59 36.1 -12 39 28	1.7535	2.6068	140.1	14.3	17.4	
2015 04 28	16 58 55.0 -12 39 22	1.7553	2.6170	141.2	13.9	17.4	
2015 04 29	16 58 12.5 -12 39 17	1.7573	2.6273	142.3	13.5	17.4	
2015 04 30	16 57 28.9 -12 39 15	1.7595	2.6375	143.4	13.2	17.4	

22P/Kopff

Date TT	R. A. (2000) Decl.	Delta	r	Elong.	Phase	m1	m2
2015 04 01	12 55 14.8 +02 13 17	1.4724	2.4663	172.4	3.1	14.0	19.6
2015 04 02	12 54 22.5 +02 20 30	1.4660	2.4602	172.5	3.0	14.0	19.6
2015 04 03	12 53 29.7 +02 27 43	1.4598	2.4541	172.3	3.1	14.0	19.6
2015 04 04	12 52 36.3 +02 34 53	1.4540	2.4481	172.0	3.3	13.9	19.6
2015 04 05	12 51 42.5 +02 42 02	1.4484	2.4420	171.5	3.5	13.9	19.6
2015 04 06	12 50 48.3 +02 49 08	1.4430	2.4359	170.9	3.7	13.8	19.6
2015 04 07	12 49 53.8 +02 56 11	1.4379	2.4299	170.1	4.1	13.8	19.6
2015 04 08	12 48 59.0 +03 03 10	1.4331	2.4238	169.3	4.4	13.8	19.6
2015 04 09	12 48 04.0 +03 10 04	1.4286	2.4177	168.3	4.8	13.7	19.6
2015 04 10	12 47 08.8 +03 16 55	1.4243	2.4117	167.4	5.2	13.7	19.6
2015 04 11	12 46 13.6 +03 23 39	1.4203	2.4056	166.4	5.6	13.7	19.6
2015 04 12	12 45 18.5 +03 30 18	1.4166	2.3995	165.3	6.1	13.6	19.6
2015 04 13	12 44 23.4 +03 36 51	1.4131	2.3935	164.3	6.5	13.6	19.6
2015 04 14	12 43 28.4 +03 43 17	1.4099	2.3874	163.2	7.0	13.6	19.7
2015 04 15	12 42 33.7 +03 49 36	1.4069	2.3813	162.1	7.5	13.5	19.7
2015 04 16	12 41 39.3 +03 55 47	1.4042	2.3753	160.9	7.9	13.5	19.7
2015 04 17	12 40 45.3 +04 01 49	1.4017	2.3692	159.8	8.4	13.5	19.7
2015 04 18	12 39 51.7 +04 07 43	1.3995	2.3632	158.7	8.9	13.4	19.7
2015 04 19	12 38 58.7 +04 13 27	1.3976	2.3571	157.5	9.4	13.4	19.7
2015 04 20	12 38 06.2 +04 19 02	1.3959	2.3510	156.4	9.8	13.4	19.7
2015 04 21	12 37 14.5 +04 24 27	1.3944	2.3450	155.3	10.3	13.3	19.7
2015 04 22	12 36 23.5 +04 29 41	1.3932	2.3389	154.1	10.8	13.3	19.7
2015 04 23	12 35 33.3 +04 34 44	1.3922	2.3329	153.0	11.3	13.3	19.8
2015 04 24	12 34 44.0 +04 39 36	1.3914	2.3268	151.8	11.8	13.3	19.8
2015 04 25	12 33 55.7 +04 44 16	1.3909	2.3208	150.7	12.2	13.2	19.8
2015 04 26	12 33 08.3 +04 48 44	1.3905	2.3147	149.5	12.7	13.2	19.8
2015 04 27	12 32 22.1 +04 53 00	1.3904	2.3087	148.4	13.2	13.2	19.8
2015 04 28	12 31 36.9 +04 57 04	1.3905	2.3026	147.3	13.7	13.1	19.8
2015 04 29	12 30 53.0 +05 00 55	1.3908	2.2966	146.2	14.1	13.1	19.8
2015 04 30	12 30 10.3 +05 04 33	1.3914	2.2905	145.0	14.6	13.1	19.8

17P/Holmes

Date TT	R. A. (2000) Decl.	Delta	r	Elong.	Phase	m1	m2
2015 04 01	05 06 24.3 +36 56 17	3.4908	3.2675	68.9	16.6	20.2	
2015 04 02	05 07 44.9 +36 52 52	3.5079	3.2717	68.2	16.5	20.2	
2015 04 03	05 09 05.8 +36 49 29	3.5249	3.2759	67.5	16.4	20.2	
2015 04 04	05 10 27.1 +36 46 07	3.5419	3.2801	66.8	16.3	20.2	
2015 04 05	05 11 48.7 +36 42 46	3.5589	3.2843	66.1	16.2	20.2	
2015 04 06	05 13 10.7 +36 39 27	3.5757	3.2885	65.5	16.1	20.2	
2015 04 07	05 14 33.0 +36 36 08	3.5926	3.2927	64.8	16.0	20.2	
2015 04 08	05 15 55.6 +36 32 51	3.6093	3.2969	64.1	15.8	20.2	
2015 04 09	05 17 18.5 +36 29 36	3.6260	3.3011	63.4	15.7	20.2	
2015 04 10	05 18 41.8 +36 26 21	3.6426	3.3053	62.7	15.6	20.3	
2015 04 11	05 20 05.3 +36 23 07	3.6592	3.3095	62.0	15.5	20.3	
2015 04 12	05 21 29.1 +36 19 54	3.6756	3.3137	61.3	15.4	20.3	
2015 04 13	05 22 53.3 +36 16 41	3.6920	3.3178	60.7	15.3	20.3	
2015 04 14	05 24 17.7 +36 13 30	3.7084	3.3220	60.0	15.2	20.3	
2015 04 15	05 25 42.3 +36 10 19	3.7246	3.3262	59.3	15.0	20.3	
2015 04 16	05 27 07.2 +36 07 08	3.7408	3.3304	58.6	14.9	20.3	
2015 04 17	05 28 32.4 +36 03 58	3.7569	3.3345	57.9	14.8	20.3	
2015 04 18	05 29 57.8 +36 00 49	3.7729	3.3387	57.3	14.7	20.3	
2015 04 19	05 31 23.4 +35 57 40	3.7888	3.3428	56.6	14.5	20.3	
2015 04 20	05 32 49.3 +35 54 32	3.8046	3.3470	55.9	14.4	20.3	
2015 04 21	05 34 15.4 +35 51 23	3.8204	3.3512	55.3	14.3	20.3	
2015 04 22	05 35 41.6 +35 48 15	3.8360	3.3553	54.6	14.1	20.4	
2015 04 23	05 37 08.1 +35 45 07	3.8516	3.3595	53.9	14.0	20.4	
2015 04 24	05 38 34.7 +35 42 00	3.8670	3.3636	53.3	13.9	20.4	
2015 04 25	05 40 01.6 +35 38 52	3.8824	3.3677	52.6	13.7	20.4	
2015 04 26	05 41 28.5 +35 35 44	3.8976	3.3719	51.9	13.6	20.4	
2015 04 27	05 42 55.7 +35 32 37	3.9128	3.3760	51.3	13.5	20.4	
2015 04 28	05 44 23.0 +35 29 29	3.9278	3.3802	50.6	13.3	20.4	
2015 04 29	05 45 50.4 +35 26 21	3.9428	3.3843	50.0	13.2	20.4	
2015 04 30	05 47 17.9 +35 23 13	3.9577	3.3884	49.3	13.0	20.4	