

Orbite de la Lune

Position du périégée entre 1999 et 2021

Les positions du périégée de l'orbite de la Lune sont calculées à partir des coordonnées écliptiques géocentriques de la Lune, données obtenues sur le serveur d'éphémérides de l'IMCCE.

Les coordonnées écliptiques géocentriques du périégée sont celles à 0h TU, données en degrés décimaux, la distance est en rayons terrestres.

Jour julien	dates			longitude (°)	latitude (°)	dist. R_{terre}
2451238.50000	1	3	1999	27.4807	-4.790	57.5265
2451247.50000	10	3	1999	27.7787	-4.777	57.2469
2451257.50000	20	3	1999	29.4020	-4.790	56.9581
2451267.50000	30	3	1999	33.4270	-4.889	56.6693
2451269.50000	1	4	1999	34.2678	-4.905	56.6175
2451278.50000	10	4	1999	38.1940	-4.962	56.4089
2451288.50000	20	4	1999	42.9513	-5.000	56.2233
2451298.50000	30	4	1999	48.1008	-5.008	56.0882
2451299.50000	1	5	1999	48.6150	-5.007	56.0777
2451308.50000	10	5	1999	53.2368	-4.977	56.0078
2451318.50000	20	5	1999	58.4875	-4.898	55.9882
2451328.50000	30	5	1999	63.7110	-4.778	56.0255
2451330.50000	1	6	1999	64.7253	-4.752	56.0387
2451339.50000	10	6	1999	69.1633	-4.621	56.1214
2451349.50000	20	6	1999	74.2569	-4.416	56.2761
2451359.50000	30	6	1999	78.7884	-4.214	56.4689
2451360.50000	1	7	1999	79.1974	-4.196	56.4897
2451369.50000	10	7	1999	82.5071	-4.042	56.6894
2451379.50000	20	7	1999	87.7776	-3.765	56.9895
2451389.50000	30	7	1999	89.8396	-3.649	57.2679
2451391.50000	1	8	1999	89.8127	-3.648	57.3197
2451400.50000	10	8	1999	86.7861	-3.814	57.5655
2451410.50000	20	8	1999	78.4289	-4.282	57.8435
2451420.50000	30	8	1999	70.4256	-4.642	57.9697
2451422.50000	1	9	1999	68.8684	-4.701	57.9763
2451431.50000	10	9	1999	59.8650	-4.888	57.8416
2451441.50000	20	9	1999	52.3976	-5.013	57.6289
2451451.50000	30	9	1999	48.9984	-5.052	57.3746
2451452.50000	1	10	1999	49.1528	-5.047	57.3407
2451461.50000	10	10	1999	50.9313	-4.987	57.0513
2451471.50000	20	10	1999	53.6959	-4.881	56.7612
2451481.50000	30	10	1999	57.5728	-4.737	56.4943
2451483.50000	1	11	1999	58.5185	-4.703	56.4425
2451492.50000	10	11	1999	62.8966	-4.530	56.2385
2451502.50000	20	11	1999	67.9913	-4.293	56.0663
2451512.50000	30	11	1999	73.5614	-3.993	55.9513
2451513.50000	1	12	1999	74.1350	-3.960	55.9431
2451522.50000	10	12	1999	79.2637	-3.652	55.8976
2451532.50000	20	12	1999	84.8916	-3.285	55.9064
2451542.50000	30	12	1999	90.7918	-2.850	55.9936

Jour julien	dates			longitude (°)	latitude (°)	dist. R_{Terre}
2451544.50000	1	1	2000	91.9421	-2.763	56.0182
2451553.50000	10	1	2000	96.8656	-2.379	56.1518
2451563.50000	20	1	2000	101.8550	-1.974	56.3456
2451573.50000	30	1	2000	107.8050	-1.455	56.6293
2451575.50000	1	2	2000	108.7280	-1.373	56.6864
2451584.50000	10	2	2000	111.8141	-1.091	56.9448
2451594.50000	20	2	2000	113.7866	-0.915	57.2856
2451604.50000	1	3	2000	113.8313	-0.906	57.6581
2451613.50000	10	3	2000	110.3954	-1.139	57.8736
2451623.50000	20	3	2000	97.8557	-2.007	57.9422
2451633.50000	30	3	2000	83.4842	-2.997	57.8810
2451635.50000	1	4	2000	81.2247	-3.150	57.8594
2451644.50000	10	4	2000	74.2636	-3.605	57.7074
2451654.50000	20	4	2000	74.0823	-3.556	57.3990
2451664.50000	30	4	2000	75.0869	-3.429	57.1129
2451665.50000	1	5	2000	75.2527	-3.412	57.0856
2451674.50000	10	5	2000	77.7130	-3.202	56.8395
2451684.50000	20	5	2000	81.6615	-2.891	56.5873
2451694.50000	30	5	2000	85.9048	-2.544	56.3802
2451696.50000	1	6	2000	86.7896	-2.471	56.3444
2451705.50000	10	6	2000	91.1216	-2.105	56.2025
2451715.50000	20	6	2000	96.0831	-1.677	56.0925
2451725.50000	30	6	2000	101.0718	-1.238	56.0344
2451726.50000	1	7	2000	101.5723	-1.194	56.0315
2451735.50000	10	7	2000	106.2798	-0.766	56.0344
2451745.50000	20	7	2000	111.3507	-0.302	56.0845
2451755.50000	30	7	2000	116.2180	0.146	56.1830
2451757.50000	1	8	2000	117.2987	0.245	56.2127
2451766.50000	10	8	2000	121.8744	0.664	56.3664
2451776.50000	20	8	2000	126.2126	1.070	56.5666
2451786.50000	30	8	2000	130.8148	1.496	56.8188
2451788.50000	1	9	2000	132.1369	1.613	56.8828
2451797.50000	10	9	2000	135.9678	1.971	57.1540
2451807.50000	20	9	2000	136.2816	2.048	57.4237
2451817.50000	30	9	2000	129.2662	1.533	57.7332
2451818.50000	1	10	2000	128.2732	1.458	57.7633
2451827.50000	10	10	2000	119.7851	0.816	57.9608
2451837.50000	20	10	2000	111.2800	0.172	58.0212
2451847.50000	30	10	2000	101.8424	-0.563	57.7947
2451849.50000	1	11	2000	100.3821	-0.674	57.7467
2451858.50000	10	11	2000	95.5400	-1.032	57.5200
2451868.50000	20	11	2000	95.2611	-1.002	57.2108
2451878.50000	30	11	2000	98.0889	-0.714	56.8907
2451879.50000	1	12	2000	98.4115	-0.682	56.8609
2451888.50000	10	12	2000	101.6431	-0.366	56.6098
2451898.50000	20	12	2000	106.3964	0.087	56.3543
2451908.50000	30	12	2000	111.5852	0.570	56.1505

Jour julien	dates			longitude (°)	latitude (°)	dist. R_{Terre}
2451910.50000	1	1	2001	112.6422	0.666	56.1169
2451919.50000	10	1	2001	117.4807	1.102	55.9961
2451929.50000	20	1	2001	123.3087	1.620	55.9225
2451939.50000	30	1	2001	129.0014	2.106	55.9097
2451941.50000	1	2	2001	130.1219	2.200	55.9143
2451950.50000	10	2	2001	135.2101	2.607	55.9716
2451960.50000	20	2	2001	140.8928	3.034	56.1034
2451969.50000	1	3	2001	145.4964	3.372	56.2575
2451978.50000	10	3	2001	149.9779	3.679	56.4559
2451988.50000	20	3	2001	155.1983	3.992	56.7407
2451998.50000	30	3	2001	158.1230	4.196	57.0217
2452000.50000	1	4	2001	158.4313	4.224	57.0774
2452009.50000	10	4	2001	159.1395	4.368	57.3933
2452019.50000	20	4	2001	157.4430	4.391	57.7149
2452029.50000	30	4	2001	152.4129	4.158	57.9028
2452030.50000	1	5	2001	151.7194	4.120	57.9139
2452039.50000	10	5	2001	138.3869	3.267	57.9062
2452049.50000	20	5	2001	126.6309	2.515	57.8175
2452059.50000	30	5	2001	120.7715	2.153	57.6245
2452061.50000	1	6	2001	120.6499	2.150	57.5647
2452070.50000	10	6	2001	120.6986	2.176	57.3047
2452080.50000	20	6	2001	121.8716	2.284	57.0330
2452090.50000	30	6	2001	124.8597	2.534	56.7626
2452091.50000	1	7	2001	125.2298	2.564	56.7365
2452100.50000	10	7	2001	128.7183	2.835	56.5214
2452110.50000	20	7	2001	132.9288	3.138	56.3234
2452120.50000	30	7	2001	137.7407	3.469	56.1624
2452122.50000	1	8	2001	138.7286	3.533	56.1362
2452131.50000	10	8	2001	143.2119	3.809	56.0450
2452141.50000	20	8	2001	148.2954	4.090	55.9956
2452151.50000	30	8	2001	153.6510	4.348	56.0041
2452153.50000	1	9	2001	154.7002	4.395	56.0121
2452162.50000	10	9	2001	159.3333	4.588	56.0743
2452172.50000	20	9	2001	164.5941	4.757	56.2028
2452182.50000	30	9	2001	169.7694	4.882	56.3894
2452183.50000	1	10	2001	170.2396	4.894	56.4099
2452192.50000	10	10	2001	174.0872	4.985	56.6098
2452202.50000	20	10	2001	179.9016	5.088	56.9124
2452212.50000	30	10	2001	183.9852	5.158	57.2342
2452214.50000	1	11	2001	184.2117	5.164	57.2930
2452223.50000	10	11	2001	182.7559	5.161	57.5346
2452233.50000	20	11	2001	170.8752	5.074	57.8451
2452243.50000	30	11	2001	159.6632	4.942	58.0110
2452244.50000	1	12	2001	158.6740	4.926	58.0181
2452253.50000	10	12	2001	150.6682	4.705	57.9409
2452263.50000	20	12	2001	144.0892	4.401	57.6656
2452273.50000	30	12	2001	140.5890	4.233	57.3823

Jour julien	dates			longitude (°)	latitude (°)	dist. R_{Terre}
2452275.50000	1	1	2002	140.2697	4.217	57.3247
2452284.50000	10	1	2002	142.4436	4.328	57.0190
2452294.50000	20	1	2002	145.9698	4.474	56.7113
2452304.50000	30	1	2002	150.0821	4.612	56.4491
2452306.50000	1	2	2002	151.0909	4.647	56.3991
2452315.50000	10	2	2002	155.7992	4.786	56.2015
2452325.50000	20	2	2002	161.1065	4.900	56.0396
2452334.50000	1	3	2002	165.9987	4.964	55.9472
2452343.50000	10	3	2002	171.1313	4.988	55.9097
2452353.50000	20	3	2002	176.6424	4.978	55.9214
2452363.50000	30	3	2002	182.0450	4.920	55.9948
2452365.50000	1	4	2002	183.1782	4.897	56.0204
2452374.50000	10	4	2002	187.9605	4.790	56.1543
2452384.50000	20	4	2002	192.6867	4.671	56.3373
2452394.50000	30	4	2002	197.6385	4.495	56.5803
2452395.50000	1	5	2002	198.1642	4.473	56.6085
2452404.50000	10	5	2002	201.8484	4.323	56.8589
2452414.50000	20	5	2002	203.7714	4.254	57.1303
2452424.50000	30	5	2002	203.7324	4.351	57.4741
2452426.50000	1	6	2002	203.4253	4.382	57.5406
2452435.50000	10	6	2002	200.5713	4.529	57.7756
2452445.50000	20	6	2002	193.8983	4.712	57.9075
2452455.50000	30	6	2002	179.5299	4.970	57.8657
2452456.50000	1	7	2002	178.3370	4.991	57.8576
2452465.50000	10	7	2002	169.5702	5.138	57.7530
2452475.50000	20	7	2002	166.1010	5.167	57.5137
2452485.50000	30	7	2002	166.2746	5.125	57.2263
2452487.50000	1	8	2002	166.4544	5.114	57.1708
2452496.50000	10	8	2002	167.8762	5.060	56.9297
2452506.50000	20	8	2002	171.4091	5.007	56.6543
2452516.50000	30	8	2002	175.4560	4.916	56.4207
2452518.50000	1	9	2002	176.3117	4.894	56.3794
2452527.50000	10	9	2002	180.4393	4.772	56.2139
2452537.50000	20	9	2002	185.5538	4.597	56.0701
2452547.50000	30	9	2002	190.7525	4.383	55.9840
2452548.50000	1	10	2002	191.2770	4.359	55.9786
2452557.50000	10	10	2002	196.1718	4.116	55.9587
2452567.50000	20	10	2002	201.7217	3.803	55.9945
2452577.50000	30	10	2002	207.0523	3.476	56.0851
2452579.50000	1	11	2002	208.0916	3.409	56.1100
2452588.50000	10	11	2002	213.2198	3.043	56.2675
2452598.50000	20	11	2002	218.3363	2.660	56.4861
2452608.50000	30	11	2002	222.3953	2.345	56.7354
2452609.50000	1	12	2002	222.7407	2.317	56.7621
2452618.50000	10	12	2002	228.7964	1.860	57.0963
2452628.50000	20	12	2002	231.1757	1.652	57.4219
2452638.50000	30	12	2002	227.9995	1.831	57.6764

Jour julien	dates			longitude (°)	latitude (°)	dist. R_{Terre}
2452640.50000	1	1	2003	224.4759	2.075	57.7383
2452649.50000	10	1	2003	210.4191	3.032	57.9369
2452659.50000	20	1	2003	198.5076	3.806	58.0066
2452669.50000	30	1	2003	191.6099	4.142	57.8067
2452671.50000	1	2	2003	190.7194	4.171	57.7469
2452680.50000	10	2	2003	187.8963	4.245	57.4806
2452690.50000	20	2	2003	187.1478	4.211	57.1881
2452699.50000	1	3	2003	190.1982	4.020	56.8976
2452708.50000	10	3	2003	193.6199	3.791	56.6447
2452718.50000	20	3	2003	197.8695	3.492	56.4075
2452728.50000	30	3	2003	202.9605	3.125	56.2106
2452730.50000	1	4	2003	203.9842	3.049	56.1780
2452739.50000	10	4	2003	208.6136	2.695	56.0587
2452749.50000	20	4	2003	213.8873	2.270	55.9824
2452759.50000	30	4	2003	219.2742	1.813	55.9662
2452760.50000	1	5	2003	219.8025	1.768	55.9674
2452769.50000	10	5	2003	224.4732	1.363	56.0008
2452779.50000	20	5	2003	229.6815	0.897	56.0969
2452789.50000	30	5	2003	234.6733	0.440	56.2455
2452791.50000	1	6	2003	235.6032	0.355	56.2794
2452800.50000	10	6	2003	239.5025	-0.009	56.4489
2452810.50000	20	6	2003	244.5036	-0.471	56.7011
2452820.50000	30	6	2003	247.9912	-0.808	56.9673
2452821.50000	1	7	2003	248.2176	-0.832	56.9936
2452830.50000	10	7	2003	249.2267	-0.960	57.2290
2452840.50000	20	7	2003	248.7387	-0.970	57.5872
2452850.50000	30	7	2003	245.2436	-0.732	57.8304
2452852.50000	1	8	2003	244.1764	-0.654	57.8635
2452861.50000	10	8	2003	234.8774	0.069	57.9227
2452871.50000	20	8	2003	221.4851	1.124	57.8590
2452881.50000	30	8	2003	212.6400	1.803	57.7222
2452883.50000	1	9	2003	211.5416	1.883	57.6829
2452892.50000	10	9	2003	211.2115	1.859	57.4057
2452902.50000	20	9	2003	212.0327	1.737	57.1153
2452912.50000	30	9	2003	214.3204	1.497	56.8364
2452913.50000	1	10	2003	214.7053	1.461	56.8066
2452922.50000	10	10	2003	218.3491	1.119	56.5616
2452932.50000	20	10	2003	222.7618	0.708	56.3358
2452942.50000	30	10	2003	227.7200	0.246	56.1549
2452944.50000	1	11	2003	228.7964	0.145	56.1237
2452953.50000	10	11	2003	233.6656	-0.307	56.0143
2452963.50000	20	11	2003	239.1233	-0.804	55.9506
2452973.50000	30	11	2003	244.8779	-1.319	55.9552
2452974.50000	1	12	2003	245.4593	-1.371	55.9593
2452983.50000	10	12	2003	250.5541	-1.816	56.0210
2452993.50000	20	12	2003	255.9259	-2.274	56.1419
2453003.50000	30	12	2003	261.7628	-2.726	56.3455

Jour julien	dates			longitude (°)	latitude (°)	dist. R_{Terre}
2453005.50000	1	1	2004	262.8461	-2.810	56.3917
2453014.50000	10	1	2004	267.0815	-3.143	56.6118
2453024.50000	20	1	2004	270.6539	-3.439	56.8832
2453034.50000	30	1	2004	276.2394	-3.890	57.2759
2453036.50000	1	2	2004	276.6993	-3.934	57.3436
2453045.50000	10	2	2004	276.1413	-3.944	57.6042
2453055.50000	20	2	2004	266.3617	-3.312	57.8245
2453065.50000	1	3	2004	251.1588	-2.295	57.9499
2453074.50000	10	3	2004	241.2357	-1.633	57.9461
2453084.50000	20	3	2004	236.4251	-1.298	57.6960
2453094.50000	30	3	2004	234.4058	-1.168	57.4075
2453096.50000	1	4	2004	234.2374	-1.160	57.3508
2453105.50000	10	4	2004	234.8896	-1.246	57.0916
2453115.50000	20	4	2004	238.2681	-1.561	56.7975
2453125.50000	30	4	2004	242.0699	-1.893	56.5457
2453126.50000	1	5	2004	242.4735	-1.928	56.5228
2453135.50000	10	5	2004	246.4748	-2.263	56.3326
2453145.50000	20	5	2004	251.3450	-2.653	56.1632
2453155.50000	30	5	2004	256.2894	-3.023	56.0461
2453157.50000	1	6	2004	257.2875	-3.095	56.0290
2453166.50000	10	6	2004	261.9722	-3.417	55.9816
2453176.50000	20	6	2004	267.1381	-3.747	55.9792
2453186.50000	30	6	2004	272.1640	-4.041	56.0276
2453187.50000	1	7	2004	272.6586	-4.068	56.0354
2453196.50000	10	7	2004	277.3620	-4.296	56.1408
2453206.50000	20	7	2004	282.1398	-4.515	56.2964
2453216.50000	30	7	2004	286.3857	-4.698	56.4898
2453218.50000	1	8	2004	287.5939	-4.731	56.5423
2453227.50000	10	8	2004	292.1178	-4.861	56.7850
2453237.50000	20	8	2004	294.8964	-4.966	57.0534
2453247.50000	30	8	2004	295.5423	-5.078	57.3678
2453249.50000	1	9	2004	295.4721	-5.114	57.4481
2453258.50000	10	9	2004	293.5308	-5.178	57.7379
2453268.50000	20	9	2004	288.3257	-5.064	57.9252
2453278.50000	30	9	2004	274.4342	-4.473	57.9169
2453279.50000	1	10	2004	272.9873	-4.409	57.9090
2453288.50000	10	10	2004	262.1767	-3.934	57.8053
2453298.50000	20	10	2004	255.9279	-3.668	57.5948
2453308.50000	30	10	2004	256.4326	-3.708	57.2679
2453310.50000	1	11	2004	256.6758	-3.722	57.2055
2453319.50000	10	11	2004	258.3523	-3.812	56.9366
2453329.50000	20	11	2004	261.9293	-4.012	56.6425
2453339.50000	30	11	2004	266.5092	-4.245	56.3817
2453340.50000	1	12	2004	266.9848	-4.267	56.3587
2453349.50000	10	12	2004	271.4106	-4.454	56.1763
2453359.50000	20	12	2004	276.9263	-4.652	56.0229
2453369.50000	30	12	2004	282.5743	-4.812	55.9312

Jour julien	dates			longitude (°)	latitude (°)	dist. R_{Terre}
2453371.50000	1	1	2005	283.6999	-4.838	55.9204
2453380.50000	10	1	2005	288.7479	-4.932	55.9043
2453390.50000	20	1	2005	294.6737	-4.975	55.9627
2453400.50000	30	1	2005	300.2015	-4.984	56.0737
2453402.50000	1	2	2005	301.2573	-4.983	56.1020
2453411.50000	10	2	2005	306.0982	-4.939	56.2661
2453421.50000	20	2	2005	311.4916	-4.830	56.5144
2453430.50000	1	3	2005	315.0483	-4.765	56.7506
2453439.50000	10	3	2005	318.1337	-4.729	57.0266
2453449.50000	20	3	2005	321.3719	-4.724	57.3955
2453459.50000	30	3	2005	319.8350	-4.767	57.6651
2453461.50000	1	4	2005	318.9488	-4.781	57.7070
2453470.50000	10	4	2005	307.4487	-4.943	57.8516
2453480.50000	20	4	2005	293.7152	-5.116	57.9077
2453490.50000	30	4	2005	284.5026	-5.200	57.8368
2453491.50000	1	5	2005	284.1318	-5.192	57.8081
2453500.50000	10	5	2005	281.6259	-5.125	57.5534
2453510.50000	20	5	2005	280.5227	-5.070	57.2779
2453520.50000	30	5	2005	281.8220	-5.053	56.9962
2453522.50000	1	6	2005	282.4434	-5.057	56.9376
2453531.50000	10	6	2005	285.4636	-5.060	56.6939
2453541.50000	20	6	2005	289.2418	-5.038	56.4612
2453551.50000	30	6	2005	293.7266	-4.997	56.2619
2453552.50000	1	7	2005	294.2009	-4.991	56.2443
2453561.50000	10	7	2005	298.5207	-4.923	56.1095
2453571.50000	20	7	2005	303.4303	-4.810	56.0092
2453581.50000	30	7	2005	308.6463	-4.648	55.9637
2453583.50000	1	8	2005	309.6890	-4.611	55.9611
2453592.50000	10	8	2005	314.3298	-4.433	55.9754
2453602.50000	20	8	2005	319.4315	-4.203	56.0433
2453612.50000	30	8	2005	324.7383	-3.913	56.1765
2453614.50000	1	9	2005	325.7348	-3.857	56.2080
2453623.50000	10	9	2005	329.9570	-3.610	56.3694
2453633.50000	20	9	2005	335.1006	-3.273	56.6069
2453643.50000	30	9	2005	339.9730	-2.927	56.8922
2453644.50000	1	10	2005	340.3059	-2.903	56.9205
2453653.50000	10	10	2005	342.0460	-2.772	57.1734
2453663.50000	20	10	2005	341.1154	-2.890	57.5426
2453673.50000	30	10	2005	337.2970	-3.170	57.8596
2453675.50000	1	11	2005	336.2127	-3.235	57.9034
2453684.50000	10	11	2005	329.9714	-3.561	58.0178
2453694.50000	20	11	2005	314.3268	-4.224	57.8957
2453704.50000	30	11	2005	303.8120	-4.658	57.7170
2453705.50000	1	12	2005	303.0451	-4.688	57.6960
2453714.50000	10	12	2005	300.9184	-4.757	57.4297
2453724.50000	20	12	2005	302.6871	-4.648	57.0982
2453734.50000	30	12	2005	305.4303	-4.484	56.8006

Jour julien	dates			longitude (°)	latitude (°)	dist. R_{Terre}
2453736.50000	1	1	2006	306.1003	-4.445	56.7453
2453745.50000	10	1	2006	310.2681	-4.230	56.4943
2453755.50000	20	1	2006	315.2238	-3.949	56.2678
2453765.50000	30	1	2006	320.3914	-3.626	56.0999
2453767.50000	1	2	2006	321.5263	-3.550	56.0734
2453776.50000	10	2	2006	326.6442	-3.194	55.9851
2453786.50000	20	2	2006	332.2238	-2.784	55.9439
2453795.50000	1	3	2006	337.2052	-2.396	55.9614
2453804.50000	10	3	2006	342.3087	-1.969	56.0401
2453814.50000	20	3	2006	347.5318	-1.523	56.1697
2453824.50000	30	3	2006	352.5293	-1.082	56.3521
2453826.50000	1	4	2006	353.6690	-0.979	56.4007
2453835.50000	10	4	2006	358.0013	-0.581	56.6241
2453845.50000	20	4	2006	1.3396	-0.262	56.8813
2453855.50000	30	4	2006	4.5063	0.039	57.2039
2453856.50000	1	5	2006	4.8213	0.068	57.2402
2453865.50000	10	5	2006	5.6952	0.177	57.5230
2453875.50000	20	5	2006	2.5864	-0.030	57.7456
2453885.50000	30	5	2006	349.4199	-1.054	57.8726
2453887.50000	1	6	2006	346.6547	-1.269	57.8854
2453896.50000	10	6	2006	336.1858	-2.071	57.8902
2453906.50000	20	6	2006	329.3745	-2.552	57.7459
2453916.50000	30	6	2006	327.0446	-2.656	57.4752
2453917.50000	1	7	2006	326.9066	-2.659	57.4484
2453926.50000	10	7	2006	326.4433	-2.636	57.2097
2453936.50000	20	7	2006	328.5115	-2.431	56.9267
2453946.50000	30	7	2006	331.8459	-2.130	56.6629
2453948.50000	1	8	2006	332.5711	-2.065	56.6147
2453957.50000	10	8	2006	336.0815	-1.747	56.4172
2453967.50000	20	8	2006	340.7774	-1.323	56.2236
2453977.50000	30	8	2006	345.6673	-0.879	56.0820
2453979.50000	1	9	2006	346.6635	-0.788	56.0600
2453988.50000	10	9	2006	351.2881	-0.365	55.9879
2453998.50000	20	9	2006	356.6929	0.136	55.9600
2454008.50000	30	9	2006	2.0044	0.623	55.9879
2454009.50000	1	10	2006	2.5304	0.671	55.9938
2454018.50000	10	10	2006	7.4389	1.112	56.0792
2454028.50000	20	10	2006	12.8483	1.592	56.2312
2454038.50000	30	10	2006	17.6608	2.020	56.4252
2454040.50000	1	11	2006	18.5503	2.099	56.4692
2454049.50000	10	11	2006	24.1759	2.556	56.7258
2454059.50000	20	11	2006	28.5413	2.925	57.0281
2454069.50000	30	11	2006	29.4170	3.046	57.3184
2454070.50000	1	12	2006	29.3044	3.044	57.3468
2454079.50000	10	12	2006	25.0633	2.834	57.7182
2454089.50000	20	12	2006	18.6489	2.439	57.9843
2454099.50000	30	12	2006	9.3804	1.764	58.0354

Jour julien	dates			longitude (°)	latitude (°)	dist. R_{Terre}
2454101.50000	1	1	2007	6.4032	1.526	58.0006
2454110.50000	10	1	2007	355.3885	0.652	57.8254
2454120.50000	20	1	2007	347.6358	0.055	57.5963
2454130.50000	30	1	2007	347.8687	0.128	57.2722
2454132.50000	1	2	2007	348.3225	0.176	57.2062
2454141.50000	10	2	2007	350.7489	0.422	56.9279
2454151.50000	20	2	2007	354.2517	0.756	56.6533
2454160.50000	1	3	2007	358.5905	1.158	56.4269
2454169.50000	10	3	2007	3.0479	1.554	56.2460
2454179.50000	20	3	2007	8.1488	1.990	56.0984
2454189.50000	30	3	2007	13.6408	2.441	56.0103
2454191.50000	1	4	2007	14.7240	2.528	55.9995
2454200.50000	10	4	2007	19.5366	2.899	55.9778
2454210.50000	20	4	2007	24.8792	3.281	56.0128
2454220.50000	30	4	2007	30.1818	3.630	56.1102
2454221.50000	1	5	2007	30.6872	3.663	56.1222
2454230.50000	10	5	2007	35.0342	3.936	56.2490
2454240.50000	20	5	2007	39.9755	4.202	56.4473
2454250.50000	30	5	2007	44.3773	4.422	56.6872
2454252.50000	1	6	2007	45.0780	4.459	56.7363
2454261.50000	10	6	2007	47.4835	4.601	56.9625
2454271.50000	20	6	2007	50.6628	4.835	57.2997
2454281.50000	30	6	2007	50.6267	4.906	57.5847
2454282.50000	1	7	2007	50.3913	4.900	57.6082
2454291.50000	10	7	2007	46.1993	4.740	57.7765
2454301.50000	20	7	2007	31.1599	4.025	57.8823
2454311.50000	30	7	2007	20.0954	3.493	57.8768
2454313.50000	1	8	2007	18.3635	3.408	57.8623
2454322.50000	10	8	2007	14.0369	3.165	57.6658
2454332.50000	20	8	2007	12.0978	3.042	57.3919
2454342.50000	30	8	2007	11.9663	3.037	57.1209
2454344.50000	1	9	2007	12.3421	3.067	57.0619
2454353.50000	10	9	2007	15.1797	3.278	56.7919
2454363.50000	20	9	2007	18.8376	3.519	56.5309
2454373.50000	30	9	2007	23.1319	3.778	56.3067
2454374.50000	1	10	2007	23.6278	3.808	56.2851
2454383.50000	10	10	2007	28.1629	4.064	56.1173
2454393.50000	20	10	2007	33.3478	4.316	55.9864
2454403.50000	30	10	2007	38.8241	4.539	55.9152
2454405.50000	1	11	2007	39.9711	4.580	55.9084
2454414.50000	10	11	2007	45.0601	4.744	55.9077
2454424.50000	20	11	2007	50.5785	4.883	55.9638
2454434.50000	30	11	2007	56.3680	4.956	56.0964
2454435.50000	1	12	2007	56.9441	4.961	56.1133
2454444.50000	10	12	2007	61.7847	4.993	56.2839
2454454.50000	20	12	2007	66.4391	5.012	56.5112
2454464.50000	30	12	2007	73.0057	4.958	56.8354

Jour julien	dates			longitude (°)	latitude (°)	dist. R_{Terre}
2454466.50000	1	1	2008	74.0517	4.949	56.9018
2454475.50000	10	1	2008	76.6719	4.931	57.1857
2454485.50000	20	1	2008	75.1224	4.973	57.4842
2454495.50000	30	1	2008	66.0511	5.179	57.8449
2454497.50000	1	2	2008	64.2842	5.206	57.8956
2454506.50000	10	2	2008	56.5257	5.269	58.0360
2454516.50000	20	2	2008	46.2121	5.096	57.9207
2454526.50000	1	3	2008	37.7012	4.886	57.6862
2454535.50000	10	3	2008	33.3568	4.774	57.4579
2454545.50000	20	3	2008	35.1626	4.825	57.1339
2454555.50000	30	3	2008	38.0590	4.881	56.8407
2454557.50000	1	4	2008	38.7170	4.891	56.7866
2454566.50000	10	4	2008	42.1738	4.939	56.5586
2454576.50000	20	4	2008	46.8736	4.994	56.3380
2454586.50000	30	4	2008	51.7052	5.012	56.1703
2454587.50000	1	5	2008	52.1956	5.012	56.1565
2454596.50000	10	5	2008	56.7870	4.989	56.0575
2454606.50000	20	5	2008	62.0187	4.927	56.0003
2454616.50000	30	5	2008	67.1469	4.832	55.9956
2454618.50000	1	6	2008	68.1597	4.808	56.0011
2454627.50000	10	6	2008	72.8825	4.666	56.0626
2454637.50000	20	6	2008	77.8666	4.488	56.1763
2454647.50000	30	6	2008	82.4392	4.305	56.3308
2454648.50000	1	7	2008	82.8728	4.287	56.3487
2454657.50000	10	7	2008	87.4678	4.044	56.5527
2454667.50000	20	7	2008	91.2842	3.841	56.7951
2454677.50000	30	7	2008	93.6025	3.719	57.0498
2454679.50000	1	8	2008	94.6489	3.683	57.1305
2454688.50000	10	8	2008	96.9965	3.609	57.4423
2454698.50000	20	8	2008	95.3073	3.687	57.6952
2454708.50000	30	8	2008	85.2557	4.090	57.8527
2454710.50000	1	9	2008	82.0265	4.219	57.8725
2454719.50000	10	9	2008	69.6846	4.699	57.9053
2454729.50000	20	9	2008	60.1787	5.042	57.8330
2454739.50000	30	9	2008	57.5582	5.040	57.5366
2454740.50000	1	10	2008	57.4011	5.037	57.5071
2454749.50000	10	10	2008	56.7779	4.994	57.2455
2454759.50000	20	10	2008	58.2684	4.912	56.9486
2454769.50000	30	10	2008	61.9837	4.790	56.6490
2454771.50000	1	11	2008	62.7854	4.760	56.5947
2454780.50000	10	11	2008	66.6333	4.602	56.3739
2454790.50000	20	11	2008	71.6544	4.375	56.1657
2454800.50000	30	11	2008	77.0676	4.102	56.0110
2454801.50000	1	12	2008	77.6137	4.072	55.9989
2454810.50000	10	12	2008	82.5673	3.788	55.9187
2454820.50000	20	12	2008	88.4120	3.407	55.8961
2454830.50000	30	12	2008	94.1633	3.003	55.9351

Jour julien	dates			longitude (°)	latitude (°)	dist. R_{Terre}
2454832.50000	1	1	2009	95.2847	2.922	55.9498
2454841.50000	10	1	2009	100.2087	2.552	56.0451
2454851.50000	20	1	2009	106.0633	2.068	56.2334
2454861.50000	30	1	2009	111.0195	1.647	56.4554
2454863.50000	1	2	2009	111.8991	1.571	56.5036
2454872.50000	10	2	2009	116.3707	1.180	56.7590
2454882.50000	20	2	2009	121.6627	0.709	57.1028
2454891.50000	1	3	2009	122.6182	0.593	57.3726
2454900.50000	10	3	2009	118.1913	0.922	57.6353
2454910.50000	20	3	2009	107.4224	1.769	57.9064
2454920.50000	30	3	2009	98.1612	2.454	58.0176
2454922.50000	1	4	2009	96.4953	2.571	58.0200
2454931.50000	10	4	2009	88.5975	3.042	57.8393
2454941.50000	20	4	2009	82.5790	3.376	57.6007
2454951.50000	30	4	2009	80.3539	3.466	57.3376
2454952.50000	1	5	2009	80.5587	3.449	57.3059
2454961.50000	10	5	2009	82.6937	3.267	57.0371
2454971.50000	20	5	2009	85.6605	3.015	56.7715
2454981.50000	30	5	2009	89.4967	2.697	56.5351
2454983.50000	1	6	2009	90.3868	2.625	56.4910
2454992.50000	10	6	2009	94.4735	2.285	56.3173
2455002.50000	20	6	2009	99.1677	1.885	56.1709
2455012.50000	30	6	2009	104.1902	1.443	56.0746
2455013.50000	1	7	2009	104.7016	1.397	56.0678
2455022.50000	10	7	2009	109.2790	0.987	56.0302
2455032.50000	20	7	2009	114.3126	0.532	56.0374
2455042.50000	30	7	2009	119.5461	0.050	56.1063
2455044.50000	1	8	2009	120.5652	-0.044	56.1260
2455053.50000	10	8	2009	124.9716	-0.452	56.2356
2455063.50000	20	8	2009	129.6518	-0.883	56.4024
2455073.50000	30	8	2009	134.8142	-1.345	56.6354
2455075.50000	1	9	2009	135.6550	-1.423	56.6839
2455084.50000	10	9	2009	138.6665	-1.712	56.9092
2455094.50000	20	9	2009	141.9370	-2.042	57.2302
2455104.50000	30	9	2009	143.7094	-2.258	57.5732
2455105.50000	1	10	2009	143.6174	-2.257	57.6014
2455114.50000	10	10	2009	140.5840	-2.062	57.8051
2455124.50000	20	10	2009	126.2432	-0.924	57.9202
2455134.50000	30	10	2009	111.9603	0.210	57.9203
2455136.50000	1	11	2009	109.7152	0.386	57.9068
2455145.50000	10	11	2009	103.4327	0.858	57.7449
2455155.50000	20	11	2009	102.3136	0.895	57.4245
2455165.50000	30	11	2009	102.7986	0.799	57.1200
2455166.50000	1	12	2009	102.9368	0.782	57.0904
2455175.50000	10	12	2009	105.7172	0.500	56.8095
2455185.50000	20	12	2009	109.9916	0.090	56.5247
2455195.50000	30	12	2009	114.6572	-0.346	56.2915

Jour julien	dates			longitude (°)	latitude (°)	dist. R_{Terre}
2455197.50000	1	1	2010	115.6391	-0.437	56.2513
2455206.50000	10	1	2010	120.5893	-0.896	56.0893
2455216.50000	20	1	2010	126.1524	-1.395	55.9680
2455226.50000	30	1	2010	131.7229	-1.876	55.9093
2455228.50000	1	2	2010	132.9096	-1.976	55.9075
2455237.50000	10	2	2010	138.1679	-2.408	55.9297
2455247.50000	20	2	2010	143.7112	-2.846	56.0052
2455256.50000	1	3	2010	148.5336	-3.203	56.1240
2455265.50000	10	3	2010	153.5206	-3.533	56.3062
2455275.50000	20	3	2010	158.0926	-3.840	56.5333
2455285.50000	30	3	2010	162.3922	-4.125	56.8048
2455287.50000	1	4	2010	163.6874	-4.204	56.8760
2455296.50000	10	4	2010	167.3553	-4.440	57.1702
2455306.50000	20	4	2010	167.4347	-4.489	57.4492
2455316.50000	30	4	2010	159.9966	-4.162	57.7256
2455317.50000	1	5	2010	158.8962	-4.111	57.7520
2455326.50000	10	5	2010	149.7328	-3.671	57.9238
2455336.50000	20	5	2010	141.1182	-3.217	57.9755
2455346.50000	30	5	2010	133.2140	-2.661	57.7679
2455348.50000	1	6	2010	131.9758	-2.574	57.7231
2455357.50000	10	6	2010	127.8338	-2.289	57.5140
2455367.50000	20	6	2010	127.2631	-2.277	57.2412
2455377.50000	30	6	2010	129.5669	-2.475	56.9552
2455378.50000	1	7	2010	129.8340	-2.497	56.9283
2455387.50000	10	7	2010	132.5406	-2.708	56.7005
2455397.50000	20	7	2010	136.5463	-3.012	56.4660
2455407.50000	30	7	2010	141.0345	-3.329	56.2721
2455409.50000	1	8	2010	141.9580	-3.391	56.2391
2455418.50000	10	8	2010	146.2232	-3.661	56.1159
2455428.50000	20	8	2010	151.3933	-3.965	56.0236
2455438.50000	30	8	2010	156.5711	-4.235	55.9866
2455440.50000	1	9	2010	157.6044	-4.285	55.9858
2455449.50000	10	9	2010	162.3347	-4.490	56.0128
2455459.50000	20	9	2010	167.7373	-4.681	56.1022
2455469.50000	30	9	2010	172.7622	-4.837	56.2392
2455470.50000	1	10	2010	173.2439	-4.850	56.2556
2455479.50000	10	10	2010	178.0441	-4.941	56.4400
2455489.50000	20	10	2010	183.1213	-5.003	56.6954
2455499.50000	30	10	2010	186.3362	-5.062	56.9646
2455501.50000	1	11	2010	186.7509	-5.074	57.0201
2455510.50000	10	11	2010	189.6186	-5.222	57.3770
2455520.50000	20	11	2010	189.4209	-5.309	57.7100
2455530.50000	30	11	2010	184.3230	-5.244	57.9068
2455531.50000	1	12	2010	183.2368	-5.221	57.9174
2455540.50000	10	12	2010	166.3653	-4.809	57.9305
2455550.50000	20	12	2010	153.0470	-4.485	57.8516
2455560.50000	30	12	2010	147.8729	-4.355	57.6075

Jour julien	dates			longitude (°)	latitude (°)	dist. R_{Terre}
2455562.50000	1	1	2011	147.8250	-4.353	57.5388
2455571.50000	10	1	2011	148.2681	-4.364	57.2421
2455581.50000	20	1	2011	150.0175	-4.416	56.9361
2455591.50000	30	1	2011	154.0141	-4.575	56.6321
2455593.50000	1	2	2011	154.9143	-4.607	56.5762
2455602.50000	10	2	2011	159.1062	-4.738	56.3517
2455612.50000	20	2	2011	164.0730	-4.854	56.1544
2455621.50000	1	3	2011	169.0526	-4.938	56.0228
2455630.50000	10	3	2011	173.9896	-4.987	55.9400
2455640.50000	20	3	2011	179.4332	-4.997	55.9059
2455650.50000	30	3	2011	185.0767	-4.944	55.9457
2455652.50000	1	4	2011	186.1635	-4.931	55.9596
2455661.50000	10	4	2011	190.8868	-4.857	56.0458
2455671.50000	20	4	2011	196.0443	-4.729	56.1984
2455681.50000	30	4	2011	201.0304	-4.559	56.4097
2455682.50000	1	5	2011	201.4726	-4.543	56.4321
2455691.50000	10	5	2011	204.9954	-4.421	56.6428
2455701.50000	20	5	2011	209.5147	-4.253	56.9375
2455711.50000	30	5	2011	212.6392	-4.133	57.2472
2455713.50000	1	6	2011	212.7796	-4.127	57.3030
2455722.50000	10	6	2011	211.3877	-4.175	57.5285
2455732.50000	20	6	2011	201.6808	-4.582	57.7897
2455742.50000	30	6	2011	191.9716	-4.937	57.9342
2455743.50000	1	7	2011	191.0924	-4.965	57.9409
2455752.50000	10	7	2011	183.6215	-5.124	57.8987
2455762.50000	20	7	2011	176.7027	-5.139	57.6810
2455772.50000	30	7	2011	172.6402	-5.132	57.4457
2455774.50000	1	8	2011	172.1788	-5.127	57.3965
2455783.50000	10	8	2011	173.2202	-5.101	57.1284
2455793.50000	20	8	2011	175.7519	-5.046	56.8461
2455803.50000	30	8	2011	179.0006	-4.960	56.5962
2455805.50000	1	9	2011	179.8251	-4.941	56.5467
2455814.50000	10	9	2011	183.8934	-4.842	56.3414
2455824.50000	20	9	2011	188.6396	-4.690	56.1640
2455834.50000	30	9	2011	193.7003	-4.492	56.0392
2455835.50000	1	10	2011	194.2458	-4.468	56.0293
2455844.50000	10	10	2011	199.1387	-4.242	55.9677
2455854.50000	20	10	2011	204.5407	-3.961	55.9555
2455864.50000	30	10	2011	210.0968	-3.627	56.0094
2455866.50000	1	11	2011	211.2496	-3.551	56.0290
2455875.50000	10	11	2011	216.2021	-3.218	56.1414
2455885.50000	20	11	2011	221.2624	-2.859	56.3114
2455895.50000	30	11	2011	227.1300	-2.397	56.5607
2455896.50000	1	12	2011	227.7039	-2.350	56.5888
2455905.50000	10	12	2011	231.7933	-2.013	56.8433
2455915.50000	20	12	2011	234.0752	-1.814	57.1306
2455925.50000	30	12	2011	235.0061	-1.784	57.5450

Jour julien	dates			longitude (°)	latitude (°)	dist. R_{Terre}
2455927.50000	1	1	2012	234.7976	-1.803	57.6185
2455936.50000	10	1	2012	231.9208	-1.997	57.8717
2455946.50000	20	1	2012	222.5573	-2.566	57.9784
2455956.50000	30	1	2012	206.2592	-3.532	57.8927
2455958.50000	1	2	2012	203.6644	-3.684	57.8671
2455967.50000	10	2	2012	194.7517	-4.197	57.7170
2455977.50000	20	2	2012	194.0058	-4.198	57.3991
2455987.50000	1	3	2012	195.5333	-4.058	57.0848
2455996.50000	10	3	2012	197.8116	-3.877	56.8279
2456006.50000	20	3	2012	202.1500	-3.585	56.5530
2456016.50000	30	3	2012	206.7631	-3.255	56.3293
2456018.50000	1	4	2012	207.7122	-3.185	56.2908
2456027.50000	10	4	2012	212.1817	-2.844	56.1435
2456037.50000	20	4	2012	217.4677	-2.422	56.0311
2456047.50000	30	4	2012	222.6987	-1.990	55.9732
2456048.50000	1	5	2012	223.2187	-1.946	55.9705
2456057.50000	10	5	2012	227.9940	-1.533	55.9762
2456067.50000	20	5	2012	233.2450	-1.065	56.0370
2456077.50000	30	5	2012	238.1901	-0.618	56.1427
2456079.50000	1	6	2012	239.1415	-0.531	56.1694
2456088.50000	10	6	2012	243.7251	-0.111	56.3295
2456098.50000	20	6	2012	248.1729	0.306	56.5398
2456108.50000	30	6	2012	251.6578	0.643	56.7729
2456109.50000	1	7	2012	251.9510	0.672	56.7975
2456118.50000	10	7	2012	256.7061	1.116	57.0877
2456128.50000	20	7	2012	258.3616	1.304	57.3721
2456138.50000	30	7	2012	255.3252	1.099	57.6155
2456140.50000	1	8	2012	252.9278	0.906	57.6782
2456149.50000	10	8	2012	243.0569	0.119	57.8856
2456159.50000	20	8	2012	233.7879	-0.604	57.9779
2456169.50000	30	8	2012	225.6717	-1.211	57.8373
2456171.50000	1	9	2012	224.2818	-1.312	57.7918
2456180.50000	10	9	2012	219.4704	-1.649	57.5785
2456190.50000	20	9	2012	217.2101	-1.778	57.3185
2456200.50000	30	9	2012	219.5615	-1.538	57.0039
2456201.50000	1	10	2012	219.8366	-1.511	56.9745
2456210.50000	10	10	2012	222.6312	-1.238	56.7249
2456220.50000	20	10	2012	226.6292	-0.856	56.4739
2456230.50000	30	10	2012	231.5015	-0.400	56.2549
2456232.50000	1	11	2012	232.5014	-0.307	56.2180
2456241.50000	10	11	2012	237.1062	0.118	56.0800
2456251.50000	20	11	2012	242.6348	0.629	55.9809
2456261.50000	30	11	2012	248.2971	1.143	55.9422
2456262.50000	1	12	2012	248.8580	1.194	55.9417
2456271.50000	10	12	2012	253.8634	1.635	55.9647
2456281.50000	20	12	2012	259.7120	2.127	56.0642
2456291.50000	30	12	2012	265.1876	2.577	56.2177

Jour julien	dates			longitude (°)	latitude (°)	dist. R_{Terre}
2456293.50000	1	1	2013	266.2116	2.661	56.2538
2456302.50000	10	1	2013	270.5169	3.009	56.4386
2456312.50000	20	1	2013	276.7032	3.438	56.7358
2456322.50000	30	1	2013	280.1550	3.706	57.0292
2456324.50000	1	2	2013	280.5057	3.739	57.0870
2456333.50000	10	2	2013	280.5447	3.827	57.3905
2456343.50000	20	2	2013	277.6767	3.774	57.7563
2456352.50000	1	3	2013	272.8258	3.520	57.9490
2456361.50000	10	3	2013	262.4646	2.797	57.9600
2456371.50000	20	3	2013	249.2553	1.830	57.8268
2456381.50000	30	3	2013	240.9279	1.236	57.6403
2456383.50000	1	4	2013	240.3245	1.199	57.5870
2456392.50000	10	4	2013	241.1502	1.305	57.2989
2456402.50000	20	4	2013	242.9563	1.485	57.0056
2456412.50000	30	4	2013	245.9134	1.753	56.7352
2456413.50000	1	5	2013	246.3250	1.790	56.7081
2456422.50000	10	5	2013	250.1381	2.120	56.4863
2456432.50000	20	5	2013	254.5967	2.482	56.2853
2456442.50000	30	5	2013	259.4172	2.854	56.1314
2456444.50000	1	6	2013	260.4331	2.931	56.1063
2456453.50000	10	6	2013	264.9990	3.259	56.0200
2456463.50000	20	6	2013	270.0614	3.596	55.9741
2456473.50000	30	6	2013	275.2893	3.907	55.9882
2456474.50000	1	7	2013	275.8112	3.937	55.9926
2456483.50000	10	7	2013	280.3928	4.185	56.0540
2456493.50000	20	7	2013	285.2394	4.425	56.1669
2456503.50000	30	7	2013	290.3840	4.618	56.3466
2456505.50000	1	8	2013	291.3347	4.653	56.3870
2456514.50000	10	8	2013	295.1478	4.793	56.5820
2456524.50000	20	8	2013	298.9473	4.934	56.8343
2456534.50000	30	8	2013	304.1906	5.109	57.1668
2456536.50000	1	9	2013	304.6748	5.128	57.2270
2456545.50000	10	9	2013	304.5792	5.152	57.4727
2456555.50000	20	9	2013	296.6315	4.988	57.7428
2456565.50000	30	9	2013	284.7194	4.706	57.9456
2456566.50000	1	10	2013	283.6613	4.678	57.9573
2456575.50000	10	10	2013	275.2504	4.432	57.9913
2456585.50000	20	10	2013	267.9948	4.046	57.7565
2456595.50000	30	10	2013	263.5930	3.799	57.4905
2456597.50000	1	11	2013	263.0591	3.769	57.4360
2456606.50000	10	11	2013	263.1709	3.785	57.1605
2456616.50000	20	11	2013	266.2506	3.967	56.8410
2456626.50000	30	11	2013	269.9752	4.153	56.5638
2456627.50000	1	12	2013	270.3839	4.172	56.5384
2456636.50000	10	12	2013	274.7058	4.372	56.3180
2456646.50000	20	12	2013	279.9613	4.582	56.1217
2456656.50000	30	12	2013	285.3525	4.751	55.9875

Jour julien	dates			longitude (°)	latitude (°)	dist. R_{Terre}
2456658.50000	1	1	2014	286.4477	4.780	55.9683
2456667.50000	10	1	2014	291.7237	4.890	55.9169
2456677.50000	20	1	2014	297.4489	4.970	55.9183
2456687.50000	30	1	2014	302.9814	5.005	55.9804
2456689.50000	1	2	2014	304.1802	4.998	56.0054
2456698.50000	10	2	2014	309.3416	4.954	56.1441
2456708.50000	20	2	2014	314.3841	4.897	56.3343
2456717.50000	1	3	2014	318.6712	4.823	56.5476
2456726.50000	10	3	2014	323.7166	4.680	56.8270
2456736.50000	20	3	2014	326.3809	4.614	57.1195
2456746.50000	30	3	2014	325.4875	4.696	57.4291
2456748.50000	1	4	2014	324.6912	4.750	57.5079
2456757.50000	10	4	2014	320.3004	4.955	57.7854
2456767.50000	20	4	2014	313.9115	5.110	57.9496
2456777.50000	30	4	2014	302.0485	5.135	57.8833
2456778.50000	1	5	2014	300.8459	5.134	57.8693
2456787.50000	10	5	2014	291.9065	5.124	57.7234
2456797.50000	20	5	2014	286.6935	5.112	57.5042
2456807.50000	30	5	2014	287.6764	5.099	57.2001
2456809.50000	1	6	2014	287.9831	5.095	57.1425
2456818.50000	10	6	2014	289.8119	5.076	56.8956
2456828.50000	20	6	2014	293.1142	5.062	56.6347
2456838.50000	30	6	2014	297.2689	5.035	56.4039
2456839.50000	1	7	2014	297.6992	5.030	56.3834
2456848.50000	10	7	2014	301.6950	4.973	56.2197
2456858.50000	20	7	2014	306.5864	4.874	56.0795
2456868.50000	30	7	2014	311.6409	4.739	55.9909
2456870.50000	1	8	2014	312.6551	4.707	55.9796
2456879.50000	10	8	2014	317.2329	4.547	55.9560
2456889.50000	20	8	2014	322.5845	4.312	55.9884
2456899.50000	30	8	2014	327.7254	4.060	56.0715
2456901.50000	1	9	2014	328.7252	4.008	56.0941
2456910.50000	10	9	2014	333.3016	3.746	56.2265
2456920.50000	20	9	2014	338.5084	3.406	56.4335
2456930.50000	30	9	2014	342.6788	3.127	56.6684
2456931.50000	1	10	2014	343.0386	3.102	56.6934
2456940.50000	10	10	2014	347.6889	2.794	56.9742
2456950.50000	20	10	2014	351.9466	2.504	57.3169
2456960.50000	30	10	2014	350.8584	2.536	57.5918
2456962.50000	1	11	2014	349.9823	2.582	57.6384
2456971.50000	10	11	2014	337.3273	3.341	57.8684
2456981.50000	20	11	2014	324.0565	4.111	57.9991
2456991.50000	30	11	2014	314.9885	4.560	57.9280
2456992.50000	1	12	2014	314.4166	4.574	57.8981
2457001.50000	10	12	2014	310.4113	4.660	57.6303
2457011.50000	20	12	2014	308.3014	4.668	57.3355
2457021.50000	30	12	2014	309.9680	4.558	57.0157

Jour julien	dates			longitude (°)	latitude (°)	dist. R_{Terre}
2457023.50000	1	1	2015	310.6779	4.523	56.9507
2457032.50000	10	1	2015	314.1204	4.341	56.6820
2457042.50000	20	1	2015	318.4204	4.092	56.4296
2457052.50000	30	1	2015	323.6322	3.775	56.2183
2457054.50000	1	2	2015	324.7061	3.707	56.1829
2457063.50000	10	2	2015	329.5600	3.385	56.0535
2457073.50000	20	2	2015	335.0234	2.996	55.9690
2457082.50000	1	3	2015	340.1928	2.593	55.9534
2457091.50000	10	3	2015	345.1600	2.194	55.9819
2457101.50000	20	3	2015	350.4552	1.753	56.0659
2457111.50000	30	3	2015	355.9357	1.268	56.2271
2457113.50000	1	4	2015	356.9390	1.178	56.2632
2457122.50000	10	4	2015	1.0823	0.803	56.4411
2457132.50000	20	4	2015	5.7696	0.371	56.6890
2457142.50000	30	4	2015	10.2059	-0.046	56.9832
2457143.50000	1	5	2015	10.4830	-0.073	57.0114
2457152.50000	10	5	2015	11.6253	-0.209	57.2556
2457162.50000	20	5	2015	8.9281	-0.012	57.5700
2457172.50000	30	5	2015	3.4874	0.411	57.8340
2457174.50000	1	6	2015	2.2520	0.504	57.8698
2457183.50000	10	6	2015	356.0687	0.966	57.9591
2457193.50000	20	6	2015	343.9210	1.856	57.8375
2457203.50000	30	6	2015	335.5805	2.450	57.6689
2457204.50000	1	7	2015	334.9631	2.493	57.6496
2457213.50000	10	7	2015	332.7662	2.617	57.4209
2457223.50000	20	7	2015	333.9070	2.477	57.1297
2457233.50000	30	7	2015	335.9914	2.263	56.8618
2457235.50000	1	8	2015	336.5251	2.211	56.8111
2457244.50000	10	8	2015	339.9306	1.904	56.5771
2457254.50000	20	8	2015	344.1713	1.522	56.3566
2457264.50000	30	8	2015	348.7276	1.108	56.1831
2457266.50000	1	9	2015	349.7282	1.015	56.1524
2457275.50000	10	9	2015	354.3720	0.586	56.0400
2457285.50000	20	9	2015	359.5810	0.107	55.9689
2457295.50000	30	9	2015	4.9229	-0.383	55.9564
2457296.50000	1	10	2015	5.4889	-0.435	55.9588
2457305.50000	10	10	2015	10.4645	-0.891	56.0055
2457315.50000	20	10	2015	15.7506	-1.369	56.1074
2457325.50000	30	10	2015	21.1983	-1.841	56.2749
2457327.50000	1	11	2015	22.3594	-1.937	56.3180
2457336.50000	10	11	2015	26.9670	-2.328	56.5254
2457346.50000	20	11	2015	30.9257	-2.677	56.7815
2457356.50000	30	11	2015	36.6254	-3.172	57.1443
2457357.50000	1	12	2015	37.1416	-3.217	57.1826
2457366.50000	10	12	2015	39.1933	-3.427	57.4870
2457376.50000	20	12	2015	36.0048	-3.236	57.7396
2457386.50000	30	12	2015	19.2143	-1.997	57.9340

Jour julien	dates			longitude (°)	latitude (°)	dist. R_{Terre}
2457388.50000	1	1	2016	16.0579	-1.764	57.9572
2457397.50000	10	1	2016	4.2565	-0.898	57.9904
2457407.50000	20	1	2016	357.5485	-0.414	57.7991
2457417.50000	30	1	2016	355.3336	-0.274	57.4886
2457419.50000	1	2	2016	355.1261	-0.265	57.4280
2457428.50000	10	2	2016	355.1844	-0.309	57.1616
2457438.50000	20	2	2016	358.6114	-0.647	56.8473
2457448.50000	1	3	2016	2.6983	-1.028	56.5760
2457457.50000	10	3	2016	6.7132	-1.389	56.3735
2457467.50000	20	3	2016	11.9150	-1.847	56.1895
2457477.50000	30	3	2016	17.1462	-2.284	56.0624
2457479.50000	1	4	2016	18.1940	-2.369	56.0438
2457488.50000	10	4	2016	22.9924	-2.745	55.9913
2457498.50000	20	4	2016	28.4274	-3.146	55.9924
2457508.50000	30	4	2016	33.6241	-3.507	56.0439
2457509.50000	1	5	2016	34.1306	-3.541	56.0518
2457518.50000	10	5	2016	38.8036	-3.829	56.1567
2457528.50000	20	5	2016	43.7579	-4.109	56.3235
2457538.50000	30	5	2016	47.9956	-4.346	56.5211
2457540.50000	1	6	2016	48.7551	-4.388	56.5644
2457549.50000	10	6	2016	53.3697	-4.596	56.8111
2457559.50000	20	6	2016	56.5594	-4.754	57.0880
2457569.50000	30	6	2016	56.7891	-4.810	57.3457
2457570.50000	1	7	2016	56.6411	-4.809	57.3704
2457579.50000	10	7	2016	52.6078	-4.791	57.6781
2457589.50000	20	7	2016	46.7889	-4.635	57.8887
2457599.50000	30	7	2016	38.0420	-4.217	57.9262
2457601.50000	1	8	2016	35.4409	-4.066	57.9034
2457610.50000	10	8	2016	25.7468	-3.506	57.7761
2457620.50000	20	8	2016	18.7785	-3.111	57.5888
2457630.50000	30	8	2016	18.3889	-3.115	57.2937
2457632.50000	1	9	2016	18.6239	-3.134	57.2330
2457641.50000	10	9	2016	20.1705	-3.244	56.9719
2457651.50000	20	9	2016	22.9686	-3.428	56.6998
2457661.50000	30	9	2016	27.2288	-3.708	56.4362
2457662.50000	1	10	2016	27.6731	-3.734	56.4127
2457671.50000	10	10	2016	31.8191	-3.970	56.2238
2457681.50000	20	10	2016	36.8675	-4.226	56.0598
2457691.50000	30	10	2016	42.3338	-4.470	55.9472
2457693.50000	1	11	2016	43.4300	-4.514	55.9321
2457702.50000	10	11	2016	48.3745	-4.689	55.8949
2457712.50000	20	11	2016	54.1343	-4.837	55.9204
2457722.50000	30	11	2016	59.8164	-4.941	56.0081
2457723.50000	1	12	2016	60.3654	-4.949	56.0199
2457732.50000	10	12	2016	65.1478	-5.007	56.1498
2457742.50000	20	12	2016	71.0160	-4.988	56.3746
2457752.50000	30	12	2016	75.8671	-4.961	56.6360

Jour julien	dates			longitude (°)	latitude (°)	dist. R_{Terre}
2457754.50000	1	1	2017	76.6528	-4.958	56.6906
2457763.50000	10	1	2017	79.4028	-4.955	56.9460
2457773.50000	20	1	2017	84.2261	-5.008	57.3641
2457783.50000	30	1	2017	83.7218	-5.040	57.6725
2457785.50000	1	2	2017	82.9733	-5.044	57.7206
2457794.50000	10	2	2017	72.8113	-5.043	57.8792
2457804.50000	20	2	2017	56.2704	-5.021	57.9419
2457813.50000	1	3	2017	45.8644	-4.993	57.8966
2457822.50000	10	3	2017	42.4314	-4.930	57.6557
2457832.50000	20	3	2017	41.5872	-4.877	57.3516
2457842.50000	30	3	2017	42.3555	-4.859	57.0645
2457844.50000	1	4	2017	42.9673	-4.873	57.0033
2457853.50000	10	4	2017	46.3333	-4.941	56.7419
2457863.50000	20	4	2017	50.4049	-4.990	56.4958
2457873.50000	30	4	2017	54.9323	-5.015	56.2948
2457874.50000	1	5	2017	55.4329	-5.016	56.2769
2457883.50000	10	5	2017	59.9497	-5.014	56.1402
2457893.50000	20	5	2017	64.9916	-4.975	56.0395
2457903.50000	30	5	2017	70.1710	-4.889	55.9970
2457905.50000	1	6	2017	71.2300	-4.866	55.9958
2457914.50000	10	6	2017	75.8936	-4.749	56.0153
2457924.50000	20	6	2017	80.8824	-4.596	56.0833
2457934.50000	30	6	2017	86.0005	-4.385	56.2151
2457935.50000	1	7	2017	86.4997	-4.363	56.2311
2457944.50000	10	7	2017	90.6868	-4.169	56.3895
2457954.50000	20	7	2017	94.6926	-3.973	56.5958
2457964.50000	30	7	2017	100.0061	-3.667	56.8770
2457966.50000	1	8	2017	100.8050	-3.620	56.9336
2457975.50000	10	8	2017	102.8518	-3.497	57.1792
2457985.50000	20	8	2017	101.7067	-3.574	57.4592
2457995.50000	30	8	2017	96.2352	-3.949	57.7844
2457997.50000	1	9	2017	95.0026	-4.019	57.8309
2458006.50000	10	9	2017	88.8914	-4.313	57.9650
2458016.50000	20	9	2017	77.6688	-4.648	57.8943
2458026.50000	30	9	2017	67.7766	-4.903	57.7173
2458027.50000	1	10	2017	67.0161	-4.922	57.6972
2458036.50000	10	10	2017	62.4462	-5.025	57.4876
2458046.50000	20	10	2017	63.8374	-4.962	57.1574
2458056.50000	30	10	2017	66.1795	-4.855	56.8577
2458058.50000	1	11	2017	66.7620	-4.829	56.8014
2458067.50000	10	11	2017	70.2170	-4.690	56.5509
2458077.50000	20	11	2017	74.9762	-4.493	56.3036
2458087.50000	30	11	2017	80.0037	-4.249	56.1133
2458088.50000	1	12	2017	80.5215	-4.222	56.0975
2458097.50000	10	12	2017	85.5290	-3.943	55.9790
2458107.50000	20	12	2017	91.2368	-3.593	55.9057
2458117.50000	30	12	2017	96.8832	-3.217	55.8952

Jour julien	dates			longitude (°)	latitude (°)	dist. R_{Terre}
2458119.50000	1	1	2018	98.0048	-3.139	55.9009
2458128.50000	10	1	2018	103.3582	-2.732	55.9724
2458138.50000	20	1	2018	108.9175	-2.294	56.1009
2458148.50000	30	1	2018	114.0068	-1.876	56.2780
2458150.50000	1	2	2018	115.2565	-1.767	56.3281
2458159.50000	10	2	2018	120.3027	-1.322	56.5695
2458169.50000	20	2	2018	124.1771	-0.969	56.8460
2458178.50000	1	3	2018	126.5869	-0.745	57.1261
2458187.50000	10	3	2018	128.8390	-0.551	57.4799
2458197.50000	20	3	2018	126.9636	-0.661	57.7578
2458207.50000	30	3	2018	116.9307	-1.382	57.9024
2458209.50000	1	4	2018	113.4508	-1.637	57.9134
2458218.50000	10	4	2018	100.2461	-2.596	57.9144
2458228.50000	20	4	2018	90.2683	-3.298	57.8228
2458238.50000	30	4	2018	88.4197	-3.358	57.5329
2458239.50000	1	5	2018	88.3454	-3.357	57.5039
2458248.50000	10	5	2018	88.3130	-3.299	57.2496
2458258.50000	20	5	2018	89.9625	-3.129	56.9751
2458268.50000	30	5	2018	93.5575	-2.836	56.7067
2458270.50000	1	6	2018	94.3199	-2.773	56.6581
2458279.50000	10	6	2018	97.9278	-2.471	56.4607
2458289.50000	20	6	2018	102.4666	-2.084	56.2783
2458299.50000	30	6	2018	107.3282	-1.661	56.1418
2458300.50000	1	7	2018	107.8181	-1.618	56.1310
2458309.50000	10	7	2018	112.2582	-1.226	56.0568
2458319.50000	20	7	2018	117.4241	-0.756	56.0272
2458329.50000	30	7	2018	122.5535	-0.286	56.0499
2458331.50000	1	8	2018	123.5610	-0.193	56.0603
2458340.50000	10	8	2018	128.0170	0.216	56.1326
2458350.50000	20	8	2018	133.2627	0.696	56.2764
2458360.50000	30	8	2018	137.8960	1.124	56.4575
2458362.50000	1	9	2018	138.7438	1.203	56.4980
2458371.50000	10	9	2018	142.9859	1.590	56.7124
2458381.50000	20	9	2018	148.2553	2.059	57.0087
2458391.50000	30	9	2018	149.8976	2.242	57.2859
2458392.50000	1	10	2018	149.8613	2.245	57.3126
2458401.50000	10	10	2018	146.3808	2.027	57.6110
2458411.50000	20	10	2018	139.2565	1.527	57.9063
2458421.50000	30	10	2018	131.5929	0.966	58.0328
2458423.50000	1	11	2018	129.8988	0.837	58.0342
2458432.50000	10	11	2018	118.8881	-0.043	57.8631
2458442.50000	20	11	2018	110.6710	-0.684	57.6404
2458452.50000	30	11	2018	108.2348	-0.837	57.3521
2458453.50000	1	12	2018	108.4312	-0.815	57.3172
2458462.50000	10	12	2018	110.5721	-0.587	57.0201
2458472.50000	20	12	2018	113.7214	-0.273	56.7251
2458482.50000	30	12	2018	118.1316	0.151	56.4544

Jour julien	dates			longitude (°)	latitude (°)	dist. R_{Terre}
2458484.50000	1	1	2019	119.1317	0.246	56.4044
2458493.50000	10	1	2019	123.7212	0.672	56.2090
2458503.50000	20	1	2019	128.9916	1.148	56.0480
2458513.50000	30	1	2019	134.7157	1.655	55.9489
2458515.50000	1	2	2019	135.8620	1.755	55.9365
2458524.50000	10	2	2019	140.9553	2.185	55.9102
2458534.50000	20	2	2019	146.5219	2.633	55.9404
2458543.50000	1	3	2019	151.7069	3.019	56.0350
2458552.50000	10	3	2019	156.4597	3.364	56.1648
2458562.50000	20	3	2019	161.2663	3.699	56.3513
2458572.50000	30	3	2019	166.6899	4.009	56.6181
2458574.50000	1	4	2019	167.5441	4.060	56.6719
2458583.50000	10	4	2019	170.4647	4.252	56.9156
2458593.50000	20	4	2019	172.6655	4.452	57.2348
2458603.50000	30	4	2019	173.2251	4.595	57.5774
2458604.50000	1	5	2019	173.0606	4.594	57.6052
2458613.50000	10	5	2019	169.7829	4.467	57.8041
2458623.50000	20	5	2019	157.1600	3.738	57.8942
2458633.50000	30	5	2019	144.1380	2.967	57.8757
2458635.50000	1	6	2019	142.0691	2.846	57.8611
2458644.50000	10	6	2019	135.8637	2.480	57.7218
2458654.50000	20	6	2019	134.5686	2.405	57.4383
2458664.50000	30	6	2019	134.7052	2.431	57.1666
2458665.50000	1	7	2019	134.7985	2.439	57.1401
2458674.50000	10	7	2019	136.9034	2.616	56.8906
2458684.50000	20	7	2019	140.4461	2.891	56.6312
2458694.50000	30	7	2019	144.4067	3.174	56.4126
2458696.50000	1	8	2019	145.2507	3.232	56.3740
2458705.50000	10	8	2019	149.5169	3.521	56.2115
2458715.50000	20	8	2019	154.4353	3.824	56.0804
2458725.50000	30	8	2019	159.4694	4.100	56.0034
2458727.50000	1	9	2019	160.5383	4.154	55.9947
2458736.50000	10	9	2019	165.3884	4.381	55.9840
2458746.50000	20	9	2019	170.6442	4.596	56.0241
2458756.50000	30	9	2019	175.9135	4.767	56.1243
2458757.50000	1	10	2019	176.4887	4.780	56.1391
2458766.50000	10	10	2019	181.3191	4.888	56.2902
2458776.50000	20	10	2019	185.9809	4.985	56.4942
2458786.50000	30	10	2019	191.5188	5.055	56.7679
2458788.50000	1	11	2019	192.9024	5.066	56.8345
2458797.50000	10	11	2019	196.8852	5.103	57.1184
2458807.50000	20	11	2019	197.0925	5.124	57.4042
2458817.50000	30	11	2019	189.1046	5.169	57.7516
2458818.50000	1	12	2019	188.0918	5.172	57.7833
2458827.50000	10	12	2019	179.4201	5.153	57.9881
2458837.50000	20	12	2019	170.3433	5.007	58.0192
2458847.50000	30	12	2019	160.8427	4.632	57.7723

Jour julien	dates			longitude (°)	latitude (°)	dist. R_{Terre}
2458849.50000	1	1	2020	159.3890	4.574	57.7208
2458858.50000	10	1	2020	154.6734	4.385	57.4806
2458868.50000	20	1	2020	155.1818	4.418	57.1554
2458878.50000	30	1	2020	158.2885	4.540	56.8361
2458880.50000	1	2	2020	158.9871	4.564	56.7773
2458889.50000	10	2	2020	162.4575	4.668	56.5342
2458899.50000	20	2	2020	167.4552	4.810	56.2925
2458909.50000	1	3	2020	172.6277	4.915	56.1083
2458918.50000	10	3	2020	177.3719	4.974	55.9934
2458928.50000	20	3	2020	182.9973	4.993	55.9280
2458938.50000	30	3	2020	188.4637	4.973	55.9193
2458940.50000	1	4	2020	189.5369	4.965	55.9242
2458949.50000	10	4	2020	194.3891	4.897	55.9807
2458959.50000	20	4	2020	199.7447	4.771	56.1062
2458969.50000	30	4	2020	204.5641	4.639	56.2701
2458970.50000	1	5	2020	205.0163	4.626	56.2887
2458979.50000	10	5	2020	209.4639	4.458	56.4917
2458989.50000	20	5	2020	213.8483	4.267	56.7552
2458999.50000	30	5	2020	216.3676	4.164	57.0200
2459001.50000	1	6	2020	216.6417	4.154	57.0731
2459010.50000	10	6	2020	218.2116	4.169	57.3932
2459020.50000	20	6	2020	216.9507	4.262	57.6795
2459030.50000	30	6	2020	211.8765	4.427	57.8514
2459031.50000	1	7	2020	210.2291	4.471	57.8592
2459040.50000	10	7	2020	196.5473	4.824	57.8839
2459050.50000	20	7	2020	185.5132	5.093	57.8255
2459060.50000	30	7	2020	180.5888	5.168	57.6183
2459062.50000	1	8	2020	180.2968	5.161	57.5605
2459071.50000	10	8	2020	179.7124	5.121	57.3065
2459081.50000	20	8	2020	180.4603	5.060	57.0349
2459091.50000	30	8	2020	183.6223	5.000	56.7477
2459093.50000	1	9	2020	184.3554	4.984	56.6943
2459102.50000	10	9	2020	187.8744	4.892	56.4753
2459112.50000	20	9	2020	192.2848	4.753	56.2715
2459122.50000	30	9	2020	197.3675	4.572	56.1058
2459123.50000	1	10	2020	197.8820	4.551	56.0925
2459132.50000	10	10	2020	202.5628	4.349	55.9985
2459142.50000	20	10	2020	207.9921	4.075	55.9516
2459152.50000	30	10	2020	213.6101	3.751	55.9666
2459154.50000	1	11	2020	214.7108	3.684	55.9764
2459163.50000	10	11	2020	219.5703	3.376	56.0487
2459173.50000	20	11	2020	225.2534	2.969	56.2003
2459183.50000	30	11	2020	230.5350	2.566	56.4048
2459184.50000	1	12	2020	231.0125	2.529	56.4271
2459193.50000	10	12	2020	234.8891	2.222	56.6435
2459203.50000	20	12	2020	241.4038	1.702	56.9842
2459213.50000	30	12	2020	244.5450	1.427	57.3096

Jour julien	dates			longitude (°)	latitude (°)	dist. R_{Terre}
2459215.50000	1	1	2021	244.5638	1.417	57.3683
2459224.50000	10	1	2021	241.6820	1.594	57.6105
2459234.50000	20	1	2021	227.9358	2.600	57.9028
2459244.50000	30	1	2021	216.9138	3.359	58.0256
2459246.50000	1	2	2021	215.0396	3.481	58.0296
2459255.50000	10	2	2021	207.9373	3.840	57.8527
2459265.50000	20	2	2021	202.7733	4.047	57.5757
2459274.50000	1	3	2021	200.5996	4.104	57.3239
2459283.50000	10	3	2021	202.7753	3.947	57.0336
2459293.50000	20	3	2021	206.1823	3.706	56.7429
2459303.50000	30	3	2021	210.1160	3.417	56.4952
2459305.50000	1	4	2021	211.0743	3.348	56.4484
2459314.50000	10	4	2021	215.5068	3.019	56.2641
2459324.50000	20	4	2021	220.5085	2.631	56.1110
2459334.50000	30	4	2021	225.6637	2.211	56.0140
2459335.50000	1	5	2021	226.2030	2.165	56.0078
2459344.50000	10	5	2021	230.9887	1.756	55.9754
2459354.50000	20	5	2021	236.1678	1.305	55.9882
2459364.50000	30	5	2021	241.3609	0.840	56.0609
2459366.50000	1	6	2021	242.4107	0.744	56.0832
2459375.50000	10	6	2021	246.8915	0.332	56.2027
2459385.50000	20	6	2021	251.4107	-0.088	56.3712
2459395.50000	30	6	2021	256.3821	-0.545	56.6030
2459396.50000	1	7	2021	256.8476	-0.588	56.6283
2459405.50000	10	7	2021	260.2139	-0.909	56.8578
2459415.50000	20	7	2021	262.2131	-1.125	57.1172
2459425.50000	30	7	2021	263.9812	-1.331	57.4769
2459427.50000	1	8	2021	263.9308	-1.339	57.5395
2459436.50000	10	8	2021	261.7507	-1.208	57.7648
2459446.50000	20	8	2021	252.8692	-0.521	57.8955
2459456.50000	30	8	2021	238.1063	0.660	57.8996
2459458.50000	1	9	2021	235.7100	0.850	57.8893
2459467.50000	10	9	2021	227.2481	1.508	57.7961
2459477.50000	20	9	2021	225.0700	1.629	57.5123
2459487.50000	30	9	2021	225.0440	1.574	57.2200
2459488.50000	1	10	2021	225.1219	1.562	57.1916
2459497.50000	10	10	2021	226.6935	1.384	56.9357
2459507.50000	20	10	2021	230.5343	1.018	56.6449
2459517.50000	30	10	2021	234.8063	0.617	56.4022
2459519.50000	1	11	2021	235.7125	0.532	56.3595