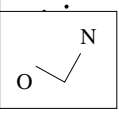
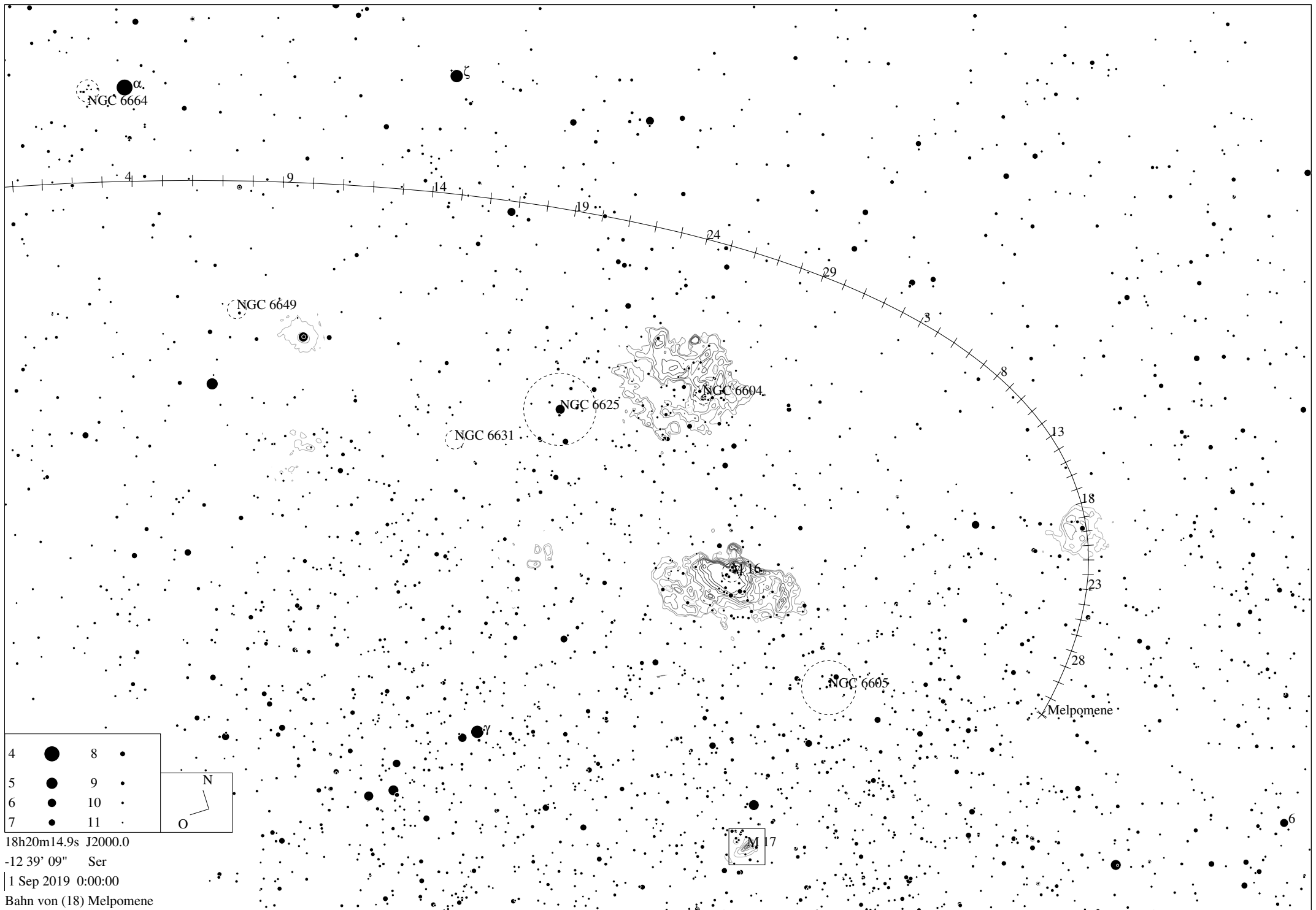


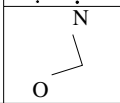
4	●	8	●
5	●	9	●
6	●	10	●
7	●	11	●



18h47m45.2s J2000.0  
 -09 24' 30" Sct  
 15 Mai 2019 0:00:00  
 Bahn von (18) Melpomene



4	●	8	●
5	●	9	●
6	●	10	●
7	●	11	●



18h20m14.9s J2000.0  
 -12 39' 09" Ser  
 1 Sep 2019 0:00:00  
 Bahn von (18) Melpomene



## Ephemeride des Kleinplaneten (18) Melpomene

Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
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15 Mai 2019	19h05m44.08s	-09 15' 03.6"	2.3829	1.6459	10.4	125.8	20.1	19.72	137.21	8.92	11.9	Aql
16 Mai 2019	19h05m47.44s	-09 11' 34.7"	2.3806	1.6339	10.3	126.7	19.9	20.18	138.11	8.57	5.3	Aql
17 Mai 2019	19h05m49.09s	-09 08' 10.5"	2.3782	1.6220	10.3	127.6	19.7	20.63	139.02	8.33	358.1	Aql
18 Mai 2019	19h05m49.04s	-09 04' 51.4"	2.3759	1.6102	10.3	128.5	19.5	21.07	139.95	8.23	350.6	Aql
19 Mai 2019	19h05m47.26s	-09 01' 37.4"	2.3735	1.5986	10.3	129.4	19.2	21.51	140.89	8.26	342.9	Aql
20 Mai 2019	19h05m43.75s	-08 58' 28.9"	2.3711	1.5871	10.2	130.4	19.0	21.95	141.85	8.44	335.4	Aql
21 Mai 2019	19h05m38.50s	-08 55' 26.0"	2.3688	1.5758	10.2	131.3	18.7	22.37	142.82	8.75	328.2	Aql
22 Mai 2019	19h05m31.49s	-08 52' 29.0"	2.3664	1.5646	10.2	132.2	18.5	22.79	143.81	9.18	321.5	Aql
23 Mai 2019	19h05m22.72s	-08 49' 38.0"	2.3640	1.5535	10.2	133.1	18.2	23.20	144.82	9.72	315.5	Aql
24 Mai 2019	19h05m12.17s	-08 46' 53.3"	2.3616	1.5426	10.1	134.1	17.9	23.61	145.83	10.36	310.1	Aql
25 Mai 2019	19h04m59.85s	-08 44' 15.1"	2.3592	1.5318	10.1	135.0	17.7	24.00	146.87	11.07	305.3	Aql
26 Mai 2019	19h04m45.74s	-08 41' 43.6"	2.3569	1.5212	10.1	135.9	17.4	24.39	147.92	11.85	301.0	Aql
27 Mai 2019	19h04m29.84s	-08 39' 19.1"	2.3545	1.5108	10.1	136.9	17.1	24.77	148.99	12.69	297.3	Aql
28 Mai 2019	19h04m12.16s	-08 37' 01.8"	2.3521	1.5005	10.0	137.8	16.8	25.13	150.07	13.56	294.0	Aql
29 Mai 2019	19h03m52.69s	-08 34' 52.0"	2.3497	1.4903	10.0	138.8	16.5	25.49	151.17	14.48	291.1	Aql
30 Mai 2019	19h03m31.44s	-08 32' 49.8"	2.3473	1.4804	10.0	139.8	16.2	25.84	152.28	15.42	288.5	Aql
31 Mai 2019	19h03m08.40s	-08 30' 55.4"	2.3449	1.4706	10.0	140.7	15.9	26.17	153.41	16.38	286.1	Aql
1 Jun 2019	19h02m43.60s	-08 29' 09.2"	2.3424	1.4610	9.9	141.7	15.6	26.49	154.56	17.36	284.0	Aql
2 Jun 2019	19h02m17.03s	-08 27' 31.3"	2.3400	1.4515	9.9	142.6	15.2	26.80	155.72	18.35	282.2	Aql
3 Jun 2019	19h01m48.72s	-08 26' 02.0"	2.3376	1.4423	9.9	143.6	14.9	27.10	156.90	19.34	280.4	Aql
4 Jun 2019	19h01m18.67s	-08 24' 41.4"	2.3352	1.4332	9.9	144.6	14.6	27.39	158.10	20.34	278.9	Aql
5 Jun 2019	19h00m46.92s	-08 23' 29.8"	2.3328	1.4244	9.8	145.6	14.2	27.66	159.31	21.34	277.4	Aql
6 Jun 2019	19h00m13.48s	-08 22' 27.3"	2.3303	1.4157	9.8	146.5	13.9	27.91	160.53	22.33	276.1	Aql
7 Jun 2019	18h59m38.37s	-08 21' 34.2"	2.3279	1.4072	9.8	147.5	13.5	28.15	161.77	23.32	274.9	Aql
8 Jun 2019	18h59m01.63s	-08 20' 50.7"	2.3255	1.3989	9.7	148.5	13.2	28.37	163.02	24.30	273.7	Aql
9 Jun 2019	18h58m23.28s	-08 20' 16.8"	2.3230	1.3909	9.7	149.4	12.8	28.58	164.29	25.26	272.7	Sct
10 Jun 2019	18h57m43.36s	-08 19' 52.9"	2.3206	1.3830	9.7	150.4	12.5	28.77	165.57	26.22	271.7	Sct
11 Jun 2019	18h57m01.91s	-08 19' 38.9"	2.3182	1.3753	9.7	151.4	12.1	28.95	166.87	27.16	270.7	Sct
12 Jun 2019	18h56m18.95s	-08 19' 35.2"	2.3157	1.3679	9.6	152.3	11.7	29.10	168.17	28.08	269.9	Sct
13 Jun 2019	18h55m34.52s	-08 19' 41.7"	2.3133	1.3607	9.6	153.3	11.4	29.24	169.49	28.98	269.0	Sct
14 Jun 2019	18h54m48.67s	-08 19' 58.6"	2.3108	1.3536	9.6	154.2	11.0	29.36	170.82	29.87	268.2	Sct
15 Jun 2019	18h54m01.43s	-08 20' 26.0"	2.3083	1.3468	9.6	155.2	10.7	29.46	172.16	30.73	267.4	Sct
16 Jun 2019	18h53m12.84s	-08 21' 04.1"	2.3059	1.3403	9.5	156.1	10.3	29.54	173.50	31.58	266.7	Sct
17 Jun 2019	18h52m22.96s	-08 21' 52.9"	2.3034	1.3339	9.5	157.0	9.9	29.60	174.86	32.40	266.0	Sct
18 Jun 2019	18h51m31.81s	-08 22' 52.4"	2.3010	1.3278	9.5	157.9	9.6	29.64	176.22	33.19	265.3	Sct
19 Jun 2019	18h50m39.47s	-08 24' 02.9"	2.2985	1.3219	9.5	158.7	9.2	29.66	177.59	33.96	264.7	Sct
20 Jun 2019	18h49m45.96s	-08 25' 24.3"	2.2960	1.3162	9.4	159.6	8.9	29.66	178.97	34.70	264.0	Sct
21 Jun 2019	18h48m51.36s	-08 26' 56.7"	2.2935	1.3107	9.4	160.4	8.5	29.64	180.35	35.41	263.4	Sct
22 Jun 2019	18h47m55.71s	-08 28' 40.2"	2.2911	1.3055	9.4	161.2	8.2	29.60	181.74	36.08	262.8	Sct
23 Jun 2019	18h46m59.07s	-08 30' 34.7"	2.2886	1.3006	9.4	161.9	7.9	29.53	183.12	36.72	262.2	Sct
24 Jun 2019	18h46m01.52s	-08 32' 40.4"	2.2861	1.2958	9.3	162.6	7.6	29.45	184.51	37.33	261.6	Sct
25 Jun 2019	18h45m03.10s	-08 34' 57.2"	2.2836	1.2913	9.3	163.3	7.4	29.34	185.90	37.90	261.0	Sct
26 Jun 2019	18h44m03.90s	-08 37' 25.1"	2.2811	1.2871	9.3	163.9	7.1	29.21	187.29	38.42	260.5	Sct
27 Jun 2019	18h43m03.97s	-08 40' 04.1"	2.2787	1.2831	9.3	164.4	6.9	29.06	188.68	38.91	259.9	Sct
28 Jun 2019	18h42m03.41s	-08 42' 54.2"	2.2762	1.2793	9.3	164.9	6.7	28.89	190.07	39.35	259.3	Sct
29 Jun 2019	18h41m02.27s	-08 45' 55.3"	2.2737	1.2758	9.3	165.2	6.5	28.69	191.45	39.75	258.8	Sct
30 Jun 2019	18h40m00.64s	-08 49' 07.4"	2.2712	1.2725	9.2	165.5	6.4	28.48	192.83	40.10	258.2	Sct
1 Jul 2019	18h38m58.60s	-08 52' 30.3"	2.2687	1.2695	9.2	165.7	6.3	28.24	194.20	40.41	257.7	Sct
2 Jul 2019	18h37m56.23s	-08 56' 04.1"	2.2662	1.2667	9.2	165.8	6.3	27.99	195.57	40.66	257.1	Sct
3 Jul 2019	18h36m53.63s	-08 59' 48.6"	2.2637	1.2642	9.2	165.8	6.3	27.71	196.92	40.87	256.5	Sct
4 Jul 2019	18h35m50.86s	-09 03' 43.6"	2.2612	1.2619	9.2	165.7	6.4	27.41	198.27	41.02	256.0	Sct
5 Jul 2019	18h34m48.03s	-09 07' 49.1"	2.2587	1.2599	9.2	165.5	6.5	27.10	199.62	41.12	255.4	Sct
6 Jul 2019	18h33m45.22s	-09 12' 04.9"	2.2562	1.2581	9.2	165.2	6.6	26.76	200.95	41.18	254.8	Sct
7 Jul 2019	18h32m42.52s	-09 16' 30.7"	2.2537	1.2566	9.2	164.8	6.8	26.41	202.27	41.18	254.2	Sct
8 Jul 2019	18h31m40.01s	-09 21' 06.4"	2.2512	1.2553	9.2	164.4	7.0	26.03	203.58	41.13	253.6	Sct
9 Jul 2019	18h30m37.78s	-09 25' 51.9"	2.2486	1.2542	9.2	163.8	7.2	25.64	204.87	41.03	253.0	Sct
10 Jul 2019	18h29m35.91s	-09 30' 46.8"	2.2461	1.2534	9.2	163.2	7.5	25.23	206.15	40.89	252.4	Sct
11 Jul 2019	18h28m34.49s	-09 35' 50.9"	2.2436	1.2529	9.2	162.6	7.8	24.80	207.42	40.70	251.7	Sct
12 Jul 2019	18h27m33.59s	-09 41' 04.1"	2.2411	1.2526	9.2	161.9	8.1	24.36	208.68	40.46	251.1	Sct
13 Jul 2019	18h26m33.29s	-09 46' 26.0"	2.2386	1.2525	9.3	161.1	8.5	23.90	209.92	40.19	250.4	Sct
14 Jul 2019	18h25m33.67s	-09 51' 56.4"	2.2361	1.2526	9.3	160.3	8.8	23.43	211.15	39.86	249.7	Sct
15 Jul 2019	18h24m34.81s	-09 57' 35.1"	2.2335	1.2530	9.3	159.5	9.2	22.94	212.36	39.50	249.0	Sct
16 Jul 2019	18h23m36.77s	-10 03' 21.8"	2.2310	1.2537	9.3	158.6	9.6	22.44	213.56	39.10	248.2	Sct
17 Jul 2019	18h22m39.64s	-10 09' 16.2"	2.2285	1.2545	9.3	157.7	10.0	21.92	214.74	38.66	247.5	Sct
18 Jul 2019	18h21m43.48s	-10 15' 18.0"	2.2260	1.2556	9.3	156.8	10.4	21.39	215.90	38.18	246.7	Ser
19 Jul 2019	18h20m48.36s	-10 21' 27.1"	2.2235	1.2569	9.3	155.8	10.8	20.85	217.05	37.66	245.9	Ser
20 Jul 2019	18h19m54.35s	-10 27' 43.1"	2.2209	1.2585	9.4	154.9	11.2	20.30	218.18	37.11	245.0	Ser
21 Jul 2019	18h19m01.51s	-10 34' 05.7"	2.2184	1.2603	9.4	153.9	11.6	19.74	219.30	36.53	244.1	Ser
22 Jul 2019	18h18m09.92s	-10 40' 34.7"	2.2159	1.2622	9.4	152.9	12.0	19.16	220.40	35.91	243.2	Ser
23 Jul 2019	18h17m19.64s	-10 47' 09.8"	2.2134	1.2644	9.4	152.0	12.5	18.58	221.48	35.26	242.2	Ser
24 Jul 2019	18h16m30.72s	-10 53' 50.7"	2.2108	1.2669	9.4	151.0	12.9	17.99	222.55	34.59	241.2	Ser
25 Jul 2019	18h15m43.23s	-11 00' 37.1"	2.2083	1.2695	9.4	150.0	13.3	17.39	223.60	33.89	240.1	Ser
26 Jul 2019	18h14m57.23s	-11 07' 28.7"	2.2058	1.2723	9.4	149.0	13.7	16.78	224.63	33.17	239.0	Ser

## Ephemeride des Kleinplaneten (18) Melpomene

Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
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27 Jul 2019	18h14m12.78s	-11 14' 25.3"	2.2032	1.2754	9.5	148.0	14.2	16.16	225.65	32.43	237.8	Ser
28 Jul 2019	18h13m29.92s	-11 21' 26.5"	2.2007	1.2786	9.5	146.9	14.6	15.54	226.65	31.66	236.5	Ser
29 Jul 2019	18h12m48.72s	-11 28' 32.2"	2.1982	1.2821	9.5	145.9	15.0	14.91	227.64	30.88	235.2	Ser
30 Jul 2019	18h12m09.21s	-11 35' 42.0"	2.1956	1.2857	9.5	144.9	15.4	14.28	228.61	30.09	233.7	Ser
31 Jul 2019	18h11m31.46s	-11 42' 55.6"	2.1931	1.2896	9.5	143.9	15.8	13.64	229.56	29.29	232.2	Ser
1 Aug 2019	18h10m55.51s	-11 50' 12.7"	2.1906	1.2936	9.5	142.9	16.2	13.00	230.50	28.48	230.6	Ser
2 Aug 2019	18h10m21.40s	-11 57' 33.1"	2.1881	1.2978	9.6	141.9	16.6	12.35	231.43	27.67	228.8	Ser
3 Aug 2019	18h09m49.18s	-12 04' 56.5"	2.1855	1.3022	9.6	140.9	17.0	11.70	232.34	26.86	227.0	Ser
4 Aug 2019	18h09m18.87s	-12 12' 22.6"	2.1830	1.3068	9.6	139.9	17.4	11.05	233.23	26.06	225.0	Ser
5 Aug 2019	18h08m50.51s	-12 19' 51.1"	2.1805	1.3115	9.6	138.9	17.8	10.39	234.11	25.28	222.9	Ser
6 Aug 2019	18h08m24.13s	-12 27' 21.7"	2.1779	1.3164	9.6	137.9	18.2	9.73	234.98	24.51	220.6	Ser
7 Aug 2019	18h07m59.76s	-12 34' 54.2"	2.1754	1.3215	9.6	136.9	18.6	9.07	235.83	23.76	218.2	Ser
8 Aug 2019	18h07m37.40s	-12 42' 28.2"	2.1729	1.3267	9.7	135.9	19.0	8.41	236.67	23.05	215.6	Ser
9 Aug 2019	18h07m17.09s	-12 50' 03.6"	2.1703	1.3321	9.7	134.9	19.3	7.75	237.50	22.37	212.9	Ser
10 Aug 2019	18h06m58.84s	-12 57' 40.1"	2.1678	1.3377	9.7	133.9	19.7	7.09	238.31	21.73	210.0	Ser
11 Aug 2019	18h06m42.65s	-13 05' 17.4"	2.1653	1.3434	9.7	133.0	20.0	6.43	239.11	21.14	206.9	Ser
12 Aug 2019	18h06m28.54s	-13 12' 55.2"	2.1627	1.3492	9.7	132.0	20.4	5.77	239.90	20.60	203.7	Ser
13 Aug 2019	18h06m16.51s	-13 20' 33.4"	2.1602	1.3552	9.7	131.0	20.7	5.11	240.67	20.12	200.3	Ser
14 Aug 2019	18h06m06.58s	-13 28' 11.8"	2.1577	1.3613	9.8	130.1	21.1	4.45	241.43	19.71	196.8	Ser
15 Aug 2019	18h05m58.75s	-13 35' 50.0"	2.1552	1.3675	9.8	129.1	21.4	3.79	242.19	19.36	193.1	Ser
16 Aug 2019	18h05m53.01s	-13 43' 27.9"	2.1526	1.3739	9.8	128.2	21.7	3.13	242.93	19.09	189.4	Ser
17 Aug 2019	18h05m49.38s	-13 51' 05.2"	2.1501	1.3804	9.8	127.3	22.0	2.48	243.65	18.89	185.5	Ser
18 Aug 2019	18h05m47.85s	-13 58' 41.8"	2.1476	1.3870	9.8	126.3	22.3	1.82	244.37	18.77	181.6	Ser
19 Aug 2019	18h05m48.43s	-14 06' 17.5"	2.1451	1.3937	9.8	125.4	22.6	1.17	245.08	18.74	177.6	Ser
20 Aug 2019	18h05m51.11s	-14 13' 52.1"	2.1426	1.4006	9.9	124.5	22.9	0.52	245.78	18.78	173.7	Ser
21 Aug 2019	18h05m55.88s	-14 21' 25.3"	2.1400	1.4075	9.9	123.6	23.2	-0.13	246.47	18.91	169.8	Ser
22 Aug 2019	18h06m02.76s	-14 28' 57.0"	2.1375	1.4146	9.9	122.7	23.5	-0.77	247.14	19.11	165.9	Ser
23 Aug 2019	18h06m11.72s	-14 36' 27.1"	2.1350	1.4218	9.9	121.8	23.8	-1.41	247.81	19.39	162.2	Ser
24 Aug 2019	18h06m22.78s	-14 43' 55.2"	2.1325	1.4291	9.9	120.9	24.0	-2.05	248.47	19.74	158.6	Ser
25 Aug 2019	18h06m35.92s	-14 51' 21.4"	2.1300	1.4364	9.9	120.0	24.3	-2.68	249.12	20.15	155.2	Ser
26 Aug 2019	18h06m51.14s	-14 58' 45.3"	2.1275	1.4439	10.0	119.1	24.5	-3.31	249.76	20.63	151.9	Ser
27 Aug 2019	18h07m08.42s	-15 06' 06.9"	2.1250	1.4515	10.0	118.2	24.8	-3.94	250.40	21.16	148.7	Ser
28 Aug 2019	18h07m27.77s	-15 13' 25.9"	2.1225	1.4591	10.0	117.4	25.0	-4.56	251.02	21.75	145.8	Ser
29 Aug 2019	18h07m49.18s	-15 20' 42.3"	2.1199	1.4669	10.0	116.5	25.2	-5.18	251.64	22.38	143.0	Ser
30 Aug 2019	18h08m12.64s	-15 27' 55.7"	2.1174	1.4747	10.0	115.6	25.5	-5.80	252.25	23.05	140.3	Ser
31 Aug 2019	18h08m38.13s	-15 35' 06.2"	2.1149	1.4826	10.0	114.8	25.7	-6.41	252.85	23.76	137.8	Ser
1 Sep 2019	18h09m05.64s	-15 42' 13.5"	2.1124	1.4905	10.0	114.0	25.9	-7.02	253.44	24.49	135.5	Ser