



Die Bahn des Planeten Neptun 2017

EPHEMERIDE 2017 – NEPTUN

Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
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1 Jan 2017	22h45m34.18s	-08 47' 51.0"	29.952	30.447	7.9	59.0	1.6	-32.39	301.28	3.47	67.4	Aqr
2 Jan 2017	22h45m39.37s	-08 47' 18.7"	29.952	30.461	7.9	58.0	1.6	-32.89	302.25	3.54	67.4	Aqr
3 Jan 2017	22h45m44.65s	-08 46' 45.8"	29.952	30.476	7.9	57.0	1.6	-33.38	303.22	3.61	67.4	Aqr
4 Jan 2017	22h45m50.05s	-08 46' 12.3"	29.952	30.490	7.9	56.0	1.6	-33.86	304.20	3.68	67.4	Aqr
5 Jan 2017	22h45m55.54s	-08 45' 38.2"	29.952	30.505	7.9	55.0	1.5	-34.34	305.20	3.75	67.5	Aqr
6 Jan 2017	22h46m01.13s	-08 45' 03.6"	29.952	30.519	7.9	54.0	1.5	-34.82	306.20	3.82	67.5	Aqr
7 Jan 2017	22h46m06.83s	-08 44' 28.3"	29.952	30.533	7.9	53.0	1.5	-35.28	307.21	3.88	67.5	Aqr
8 Jan 2017	22h46m12.62s	-08 43' 52.4"	29.952	30.547	7.9	52.0	1.5	-35.74	308.23	3.95	67.5	Aqr
9 Jan 2017	22h46m18.50s	-08 43' 16.0"	29.952	30.560	7.9	51.0	1.5	-36.20	309.26	4.01	67.5	Aqr
10 Jan 2017	22h46m24.48s	-08 42' 39.0"	29.951	30.574	7.9	50.0	1.4	-36.64	310.31	4.07	67.5	Aqr
11 Jan 2017	22h46m30.56s	-08 42' 01.5"	29.951	30.587	7.9	49.0	1.4	-37.08	311.36	4.14	67.6	Aqr
12 Jan 2017	22h46m36.72s	-08 41' 23.4"	29.951	30.600	7.9	48.1	1.4	-37.51	312.42	4.20	67.6	Aqr
13 Jan 2017	22h46m42.98s	-08 40' 44.8"	29.951	30.613	7.9	47.1	1.4	-37.94	313.50	4.26	67.6	Aqr
14 Jan 2017	22h46m49.32s	-08 40' 05.7"	29.951	30.625	7.9	46.1	1.4	-38.35	314.58	4.31	67.6	Aqr
15 Jan 2017	22h46m55.75s	-08 39' 26.1"	29.951	30.638	7.9	45.1	1.3	-38.76	315.67	4.37	67.6	Aqr
16 Jan 2017	22h47m02.27s	-08 38' 45.9"	29.951	30.650	7.9	44.1	1.3	-39.16	316.78	4.43	67.6	Aqr
17 Jan 2017	22h47m08.87s	-08 38' 05.3"	29.951	30.662	7.9	43.1	1.3	-39.55	317.90	4.49	67.6	Aqr
18 Jan 2017	22h47m15.56s	-08 37' 24.2"	29.951	30.674	7.9	42.1	1.3	-39.93	319.02	4.54	67.7	Aqr
19 Jan 2017	22h47m22.32s	-08 36' 42.6"	29.951	30.685	7.9	41.1	1.2	-40.30	320.16	4.59	67.7	Aqr
20 Jan 2017	22h47m29.17s	-08 36' 00.5"	29.951	30.697	7.9	40.1	1.2	-40.66	321.31	4.65	67.7	Aqr
21 Jan 2017	22h47m36.09s	-08 35' 18.0"	29.951	30.708	7.9	39.2	1.2	-41.02	322.47	4.70	67.7	Aqr
22 Jan 2017	22h47m43.09s	-08 34' 35.0"	29.951	30.719	7.9	38.2	1.2	-41.36	323.64	4.75	67.7	Aqr
23 Jan 2017	22h47m50.17s	-08 33' 51.6"	29.951	30.730	7.9	37.2	1.1	-41.69	324.83	4.80	67.7	Aqr
24 Jan 2017	22h47m57.32s	-08 33' 07.7"	29.951	30.740	8.0	36.2	1.1	-42.02	326.02	4.85	67.7	Aqr
25 Jan 2017	22h48m04.54s	-08 32' 23.5"	29.951	30.750	8.0	35.2	1.1	-42.33	327.22	4.89	67.7	Aqr
26 Jan 2017	22h48m11.83s	-08 31' 38.8"	29.951	30.760	8.0	34.2	1.1	-42.63	328.44	4.94	67.7	Aqr
27 Jan 2017	22h48m19.19s	-08 30' 53.8"	29.951	30.770	8.0	33.2	1.0	-42.92	329.66	4.99	67.8	Aqr
28 Jan 2017	22h48m26.61s	-08 30' 08.3"	29.951	30.779	8.0	32.3	1.0	-43.20	330.90	5.03	67.8	Aqr
29 Jan 2017	22h48m34.10s	-08 29' 22.5"	29.951	30.789	8.0	31.3	1.0	-43.47	332.14	5.07	67.8	Aqr
30 Jan 2017	22h48m41.65s	-08 28' 36.3"	29.951	30.798	8.0	30.3	1.0	-43.73	333.40	5.11	67.8	Aqr
31 Jan 2017	22h48m49.26s	-08 27' 49.8"	29.951	30.806	8.0	29.3	0.9	-43.97	334.66	5.15	67.8	Aqr
1 Feb 2017	22h48m56.93s	-08 27' 03.0"	29.951	30.815	8.0	28.3	0.9	-44.20	335.93	5.19	67.8	Aqr
2 Feb 2017	22h49m04.65s	-08 26' 15.8"	29.951	30.823	8.0	27.4	0.9	-44.43	337.22	5.23	67.8	Aqr
3 Feb 2017	22h49m12.43s	-08 25' 28.3"	29.951	30.831	8.0	26.4	0.8	-44.63	338.51	5.26	67.8	Aqr
4 Feb 2017	22h49m20.26s	-08 24' 40.5"	29.951	30.839	8.0	25.4	0.8	-44.83	339.80	5.30	67.8	Aqr
5 Feb 2017	22h49m28.14s	-08 23' 52.4"	29.951	30.846	8.0	24.4	0.8	-45.01	341.11	5.33	67.8	Aqr
6 Feb 2017	22h49m36.07s	-08 23' 04.1"	29.951	30.853	8.0	23.4	0.8	-45.18	342.42	5.36	67.8	Aqr
7 Feb 2017	22h49m44.04s	-08 22' 15.4"	29.951	30.860	8.0	22.5	0.7	-45.34	343.74	5.39	67.8	Aqr
8 Feb 2017	22h49m52.06s	-08 21' 26.5"	29.951	30.867	8.0	21.5	0.7	-45.49	345.07	5.42	67.9	Aqr
9 Feb 2017	22h50m00.12s	-08 20' 37.4"	29.951	30.873	8.0	20.5	0.7	-45.62	346.40	5.45	67.9	Aqr
10 Feb 2017	22h50m08.23s	-08 19' 48.1"	29.951	30.879	8.0	19.5	0.6	-45.74	347.74	5.47	67.9	Aqr
11 Feb 2017	22h50m16.37s	-08 18' 58.5"	29.951	30.885	8.0	18.6	0.6	-45.84	349.08	5.50	67.9	Aqr
12 Feb 2017	22h50m24.55s	-08 18' 08.7"	29.951	30.890	8.0	17.6	0.6	-45.93	350.43	5.52	67.9	Aqr
13 Feb 2017	22h50m32.76s	-08 17' 18.7"	29.951	30.896	8.0	16.6	0.5	-46.01	351.78	5.54	67.9	Aqr
14 Feb 2017	22h50m41.01s	-08 16' 28.5"	29.951	30.901	8.0	15.6	0.5	-46.07	353.13	5.57	67.9	Aqr
15 Feb 2017	22h50m49.29s	-08 15' 38.2"	29.951	30.905	8.0	14.7	0.5	-46.12	354.49	5.59	67.9	Aqr
16 Feb 2017	22h50m57.60s	-08 14' 47.7"	29.951	30.910	8.0	13.7	0.4	-46.15	355.85	5.61	67.9	Aqr
17 Feb 2017	22h51m05.94s	-08 13' 57.0"	29.951	30.914	8.0	12.7	0.4	-46.18	357.21	5.62	67.9	Aqr
18 Feb 2017	22h51m14.30s	-08 13' 06.2"	29.951	30.918	8.0	11.8	0.4	-46.18	358.57	5.64	67.9	Aqr
19 Feb 2017	22h51m22.69s	-08 12' 15.3"	29.951	30.921	8.0	10.8	0.4	-46.18	359.93	5.66	67.9	Aqr
20 Feb 2017	22h51m31.10s	-08 11' 24.2"	29.951	30.924	8.0	9.8	0.3	-46.16	1.28	5.67	67.9	Aqr
21 Feb 2017	22h51m39.53s	-08 10' 33.0"	29.951	30.927	8.0	8.9	0.3	-46.12	2.64	5.68	68.0	Aqr
22 Feb 2017	22h51m47.98s	-08 09' 41.8"	29.951	30.930	8.0	7.9	0.3	-46.07	4.00	5.69	68.0	Aqr
23 Feb 2017	22h51m56.44s	-08 08' 50.4"	29.951	30.933	8.0	6.9	0.2	-46.01	5.35	5.70	68.0	Aqr
24 Feb 2017	22h52m04.92s	-08 07' 59.0"	29.951	30.935	8.0	6.0	0.2	-45.94	6.70	5.71	68.0	Aqr
25 Feb 2017	22h52m13.42s	-08 07' 07.5"	29.951	30.937	8.0	5.0	0.2	-45.85	8.05	5.72	68.0	Aqr
26 Feb 2017	22h52m21.92s	-08 06' 16.0"	29.951	30.938	8.0	4.1	0.1	-45.74	9.39	5.73	68.0	Aqr
27 Feb 2017	22h52m30.43s	-08 05' 24.5"	29.951	30.939	8.0	3.1	0.1	-45.63	10.72	5.73	68.0	Aqr
28 Feb 2017	22h52m38.95s	-08 04' 32.9"	29.951	30.940	8.0	2.2	0.1	-45.50	12.05	5.73	68.0	Aqr
1 Mar 2017	22h52m47.47s	-08 03' 41.3"	29.950	30.941	8.0	1.4	0.0	-45.35	13.38	5.74	68.0	Aqr
2 Mar 2017	22h52m55.99s	-08 02' 49.8"	29.950	30.941	8.0	0.9	0.0	-45.20	14.70	5.74	68.0	Aqr
3 Mar 2017	22h53m04.52s	-08 01' 58.2"	29.950	30.942	8.0	1.2	0.0	-45.03	16.01	5.73	68.0	Aqr
4 Mar 2017	22h53m13.04s	-08 01' 06.7"	29.950	30.941	8.0	2.0	0.1	-44.85	17.31	5.73	68.0	Aqr
5 Mar 2017	22h53m21.56s	-08 00' 15.2"	29.950	30.941	8.0	2.9	0.1	-44.65	18.61	5.73	68.0	Aqr
6 Mar 2017	22h53m30.07s	-07 59' 23.8"	29.950	30.940	8.0	3.8	0.1	-44.44	19.90	5.72	68.1	Aqr
7 Mar 2017	22h53m38.57s	-07 58' 32.4"	29.950	30.939	8.0	4.8	0.2	-44.22	21.18	5.72	68.1	Aqr
8 Mar 2017	22h53m47.06s	-07 57' 41.2"	29.950	30.938	8.0	5.7	0.2	-43.99	22.45	5.71	68.1	Aqr
9 Mar 2017	22h53m55.54s	-07 56' 50.0"	29.950	30.936	8.0	6.7	0.2	-43.75	23.71	5.70	68.1	Aqr
10 Mar 2017	22h54m04.01s	-07 55' 58.9"	29.950	30.934	8.0	7.6	0.3	-43.49	24.96	5.69	68.1	Aqr
11 Mar 2017	22h54m12.46s	-07 55' 07.9"	29.950	30.932	8.0	8.6	0.3	-43.23	26.21	5.68	68.1	Aqr
12 Mar 2017	22h54m20.89s	-07 54' 17.1"	29.950	30.930	8.0	9.6	0.3	-42.95	27.44	5.66	68.1	Aqr
13 Mar 2017	22h54m29.30s	-07 53' 26.3"	29.950	30.927	8.0	10.5	0.3	-42.66	28.66	5.65	68.1	Aqr
14 Mar 2017	22h54m37.70s	-07 52' 35.8"	29.950	30.924	8.0	11.5	0.4	-42.36	29.87	5.64	68.1	Aqr
15 Mar 2017	22h54m46.07s	-07 51' 45.3"	29.950	30.921	8.0	12.4	0.4	-42.05	31.07	5.62	68.1	Aqr

EPHEMERIDE 2017 – NEPTUN

Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
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16 Mar 2017	22h54m54.42s	-07 50' 55.1"	29.950	30.917	8.0	13.4	0.4	-41.73	32.26	5.60	68.1	Aqr
17 Mar 2017	22h55m02.74s	-07 50' 05.0"	29.950	30.913	8.0	14.3	0.5	-41.40	33.44	5.58	68.1	Aqr
18 Mar 2017	22h55m11.03s	-07 49' 15.1"	29.950	30.909	8.0	15.3	0.5	-41.06	34.61	5.56	68.2	Aqr
19 Mar 2017	22h55m19.30s	-07 48' 25.5"	29.950	30.905	8.0	16.3	0.5	-40.71	35.77	5.54	68.2	Aqr
20 Mar 2017	22h55m27.53s	-07 47' 36.0"	29.950	30.900	8.0	17.2	0.6	-40.35	36.91	5.52	68.2	Aqr
21 Mar 2017	22h55m35.73s	-07 46' 46.7"	29.950	30.895	8.0	18.2	0.6	-39.98	38.05	5.50	68.2	Aqr
22 Mar 2017	22h55m43.89s	-07 45' 57.7"	29.950	30.890	8.0	19.1	0.6	-39.60	39.17	5.47	68.2	Aqr
23 Mar 2017	22h55m52.02s	-07 45' 09.0"	29.950	30.884	8.0	20.1	0.7	-39.21	40.29	5.45	68.2	Aqr
24 Mar 2017	22h56m00.11s	-07 44' 20.4"	29.950	30.878	8.0	21.0	0.7	-38.81	41.39	5.42	68.2	Aqr
25 Mar 2017	22h56m08.16s	-07 43' 32.2"	29.950	30.872	8.0	22.0	0.7	-38.41	42.48	5.39	68.2	Aqr
26 Mar 2017	22h56m16.16s	-07 42' 44.2"	29.950	30.866	8.0	22.9	0.7	-38.00	43.56	5.36	68.2	Aqr
27 Mar 2017	22h56m24.12s	-07 41' 56.6"	29.950	30.860	8.0	23.9	0.8	-37.58	44.63	5.33	68.2	Aqr
28 Mar 2017	22h56m32.04s	-07 41' 09.2"	29.950	30.853	8.0	24.8	0.8	-37.15	45.69	5.30	68.3	Aqr
29 Mar 2017	22h56m39.90s	-07 40' 22.2"	29.950	30.846	8.0	25.8	0.8	-36.71	46.74	5.26	68.3	Aqr
30 Mar 2017	22h56m47.72s	-07 39' 35.4"	29.950	30.838	8.0	26.8	0.9	-36.27	47.77	5.23	68.3	Aqr
31 Mar 2017	22h56m55.48s	-07 38' 49.0"	29.950	30.831	8.0	27.7	0.9	-35.82	48.80	5.19	68.3	Aqr
1 Apr 2017	22h57m03.19s	-07 38' 03.0"	29.950	30.823	8.0	28.7	0.9	-35.36	49.82	5.16	68.3	Aqr
2 Apr 2017	22h57m10.85s	-07 37' 17.3"	29.950	30.815	8.0	29.6	0.9	-34.90	50.83	5.12	68.3	Aqr
3 Apr 2017	22h57m18.44s	-07 36' 32.0"	29.950	30.806	8.0	30.6	1.0	-34.43	51.82	5.08	68.3	Aqr
4 Apr 2017	22h57m25.98s	-07 35' 47.1"	29.950	30.798	8.0	31.5	1.0	-33.95	52.81	5.04	68.3	Aqr
5 Apr 2017	22h57m33.46s	-07 35' 02.5"	29.950	30.789	8.0	32.5	1.0	-33.47	53.79	4.99	68.3	Aqr
6 Apr 2017	22h57m40.87s	-07 34' 18.4"	29.950	30.780	8.0	33.4	1.1	-32.98	54.76	4.95	68.4	Aqr
7 Apr 2017	22h57m48.22s	-07 33' 34.7"	29.950	30.771	8.0	34.4	1.1	-32.49	55.72	4.91	68.4	Aqr
8 Apr 2017	22h57m55.51s	-07 32' 51.4"	29.950	30.761	8.0	35.3	1.1	-31.99	56.67	4.86	68.4	Aqr
9 Apr 2017	22h58m02.73s	-07 32' 08.5"	29.950	30.751	8.0	36.3	1.1	-31.48	57.62	4.82	68.4	Aqr
10 Apr 2017	22h58m09.88s	-07 31' 26.0"	29.950	30.741	8.0	37.2	1.2	-30.97	58.55	4.77	68.4	Aqr
11 Apr 2017	22h58m16.97s	-07 30' 44.0"	29.950	30.731	7.9	38.2	1.2	-30.46	59.48	4.72	68.4	Aqr
12 Apr 2017	22h58m23.98s	-07 30' 02.4"	29.950	30.721	7.9	39.1	1.2	-29.94	60.39	4.67	68.5	Aqr
13 Apr 2017	22h58m30.92s	-07 29' 21.4"	29.950	30.710	7.9	40.1	1.2	-29.41	61.30	4.62	68.5	Aqr
14 Apr 2017	22h58m37.79s	-07 28' 40.7"	29.950	30.699	7.9	41.0	1.3	-28.88	62.20	4.57	68.5	Aqr
15 Apr 2017	22h58m44.58s	-07 28' 00.6"	29.950	30.688	7.9	42.0	1.3	-28.35	63.10	4.52	68.5	Aqr
16 Apr 2017	22h58m51.30s	-07 27' 20.9"	29.950	30.677	7.9	42.9	1.3	-27.81	63.99	4.47	68.5	Aqr
17 Apr 2017	22h58m57.94s	-07 26' 41.8"	29.950	30.665	7.9	43.9	1.3	-27.27	64.87	4.42	68.5	Aqr
18 Apr 2017	22h59m04.50s	-07 26' 03.1"	29.950	30.654	7.9	44.8	1.4	-26.72	65.74	4.36	68.6	Aqr
19 Apr 2017	22h59m10.98s	-07 25' 25.0"	29.950	30.642	7.9	45.8	1.4	-26.17	66.61	4.31	68.6	Aqr
20 Apr 2017	22h59m17.38s	-07 24' 47.4"	29.950	30.629	7.9	46.7	1.4	-25.62	67.47	4.25	68.6	Aqr
21 Apr 2017	22h59m23.69s	-07 24' 10.3"	29.949	30.617	7.9	47.7	1.4	-25.06	68.32	4.19	68.6	Aqr
22 Apr 2017	22h59m29.92s	-07 23' 33.8"	29.949	30.605	7.9	48.6	1.4	-24.50	69.17	4.13	68.7	Aqr
23 Apr 2017	22h59m36.06s	-07 22' 57.8"	29.949	30.592	7.9	49.6	1.5	-23.94	70.01	4.08	68.7	Aqr
24 Apr 2017	22h59m42.12s	-07 22' 22.4"	29.949	30.579	7.9	50.5	1.5	-23.38	70.85	4.02	68.7	Aqr
25 Apr 2017	22h59m48.08s	-07 21' 47.5"	29.949	30.566	7.9	51.4	1.5	-22.81	71.68	3.95	68.7	Aqr
26 Apr 2017	22h59m53.96s	-07 21' 13.2"	29.949	30.553	7.9	52.4	1.5	-22.24	72.51	3.89	68.8	Aqr
27 Apr 2017	22h59m59.74s	-07 20' 39.5"	29.949	30.539	7.9	53.3	1.5	-21.66	73.33	3.83	68.8	Aqr
28 Apr 2017	23h00m05.43s	-07 20' 06.4"	29.949	30.526	7.9	54.3	1.6	-21.08	74.14	3.76	68.8	Aqr
29 Apr 2017	23h00m11.02s	-07 19' 33.9"	29.949	30.512	7.9	55.2	1.6	-20.51	74.96	3.70	68.8	Aqr
30 Apr 2017	23h00m16.52s	-07 19' 02.1"	29.949	30.498	7.9	56.2	1.6	-19.92	75.76	3.63	68.9	Aqr
1 Mai 2017	23h00m21.92s	-07 18' 30.8"	29.949	30.484	7.9	57.1	1.6	-19.34	76.57	3.57	68.9	Aqr
2 Mai 2017	23h00m27.22s	-07 18' 00.1"	29.949	30.470	7.9	58.1	1.6	-18.75	77.37	3.50	68.9	Aqr
3 Mai 2017	23h00m32.42s	-07 17' 30.1"	29.949	30.456	7.9	59.0	1.7	-18.17	78.16	3.43	69.0	Aqr
4 Mai 2017	23h00m37.52s	-07 17' 00.7"	29.949	30.441	7.9	60.0	1.7	-17.58	78.95	3.36	69.0	Aqr
5 Mai 2017	23h00m42.53s	-07 16' 32.0"	29.949	30.426	7.9	60.9	1.7	-16.99	79.74	3.29	69.0	Aqr
6 Mai 2017	23h00m47.43s	-07 16' 03.9"	29.949	30.412	7.9	61.9	1.7	-16.39	80.53	3.22	69.1	Aqr
7 Mai 2017	23h00m52.22s	-07 15' 36.4"	29.949	30.397	7.9	62.8	1.7	-15.80	81.31	3.15	69.1	Aqr
8 Mai 2017	23h00m56.91s	-07 15' 09.6"	29.949	30.382	7.9	63.8	1.7	-15.21	82.09	3.08	69.2	Aqr
9 Mai 2017	23h01m01.50s	-07 14' 43.5"	29.949	30.367	7.9	64.7	1.7	-14.61	82.87	3.01	69.2	Aqr
10 Mai 2017	23h01m05.99s	-07 14' 18.0"	29.949	30.351	7.9	65.7	1.8	-14.01	83.64	2.94	69.3	Aqr
11 Mai 2017	23h01m10.36s	-07 13' 53.3"	29.949	30.336	7.9	66.6	1.8	-13.41	84.41	2.87	69.3	Aqr
12 Mai 2017	23h01m14.63s	-07 13' 29.1"	29.949	30.320	7.9	67.5	1.8	-12.81	85.18	2.79	69.4	Aqr
13 Mai 2017	23h01m18.79s	-07 13' 05.7"	29.949	30.305	7.9	68.5	1.8	-12.21	85.95	2.72	69.4	Aqr
14 Mai 2017	23h01m22.84s	-07 12' 43.0"	29.949	30.289	7.9	69.4	1.8	-11.61	86.72	2.65	69.5	Aqr
15 Mai 2017	23h01m26.79s	-07 12' 20.9"	29.949	30.273	7.9	70.4	1.8	-11.01	87.49	2.57	69.6	Aqr
16 Mai 2017	23h01m30.62s	-07 11' 59.6"	29.949	30.257	7.9	71.3	1.8	-10.41	88.25	2.50	69.6	Aqr
17 Mai 2017	23h01m34.34s	-07 11' 38.9"	29.949	30.241	7.9	72.3	1.8	-9.81	89.01	2.42	69.7	Aqr
18 Mai 2017	23h01m37.95s	-07 11' 18.9"	29.949	30.225	7.9	73.2	1.9	-9.20	89.77	2.34	69.8	Aqr
19 Mai 2017	23h01m41.45s	-07 10' 59.7"	29.949	30.209	7.9	74.2	1.9	-8.60	90.53	2.27	69.9	Aqr
20 Mai 2017	23h01m44.83s	-07 10' 41.2"	29.949	30.193	7.9	75.1	1.9	-8.00	91.29	2.19	70.0	Aqr
21 Mai 2017	23h01m48.10s	-07 10' 23.4"	29.949	30.176	7.9	76.1	1.9	-7.39	92.05	2.11	70.1	Aqr
22 Mai 2017	23h01m51.25s	-07 10' 06.3"	29.949	30.160	7.9	77.0	1.9	-6.79	92.81	2.03	70.2	Aqr
23 Mai 2017	23h01m54.29s	-07 09' 50.0"	29.949	30.144	7.9	78.0	1.9	-6.19	93.57	1.95	70.3	Aqr
24 Mai 2017	23h01m57.21s	-07 09' 34.4"	29.949	30.127	7.9	78.9	1.9	-5.59	94.33	1.87	70.4	Aqr
25 Mai 2017	23h02m00.01s	-07 09' 19.5"	29.949	30.110	7.9	79.9	1.9	-4.99	95.09	1.79	70.5	Aqr
26 Mai 2017	23h02m02.69s	-07 09' 05.4"	29.949	30.094	7.9	80.8	1.9	-4.38	95.85	1.71	70.7	Aqr
27 Mai 2017	23h02m05.26s	-07 08' 52.0"	29.949	30.077	7.9	81.8	1.9	-3.78	96.61	1.63	70.8	Aqr
28 Mai 2017	23h02m07.70s	-07 08' 39.3"	29.949	30.060	7.9	82.7	1.9	-3.18	97.37	1.55	71.0	Aqr

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29 Mai 2017	23h02m10.03s	-07 08'	27.4"	29.949	30.044	7.9	83.7	1.9	-2.59	98.14	1.47	71.2 Aqr
30 Mai 2017	23h02m12.23s	-07 08'	16.3"	29.949	30.027	7.9	84.6	1.9	-1.99	98.90	1.39	71.4 Aqr
31 Mai 2017	23h02m14.32s	-07 08'	05.9"	29.949	30.010	7.9	85.6	1.9	-1.39	99.66	1.31	71.7 Aqr
1 Jun 2017	23h02m16.28s	-07 07'	56.2"	29.949	29.993	7.9	86.5	1.9	-0.80	100.43	1.23	72.0 Aqr
2 Jun 2017	23h02m18.13s	-07 07'	47.3"	29.949	29.976	7.9	87.5	1.9	-0.20	101.20	1.15	72.3 Aqr
3 Jun 2017	23h02m19.85s	-07 07'	39.2"	29.949	29.960	7.9	88.4	1.9	0.39	101.97	1.06	72.7 Aqr
4 Jun 2017	23h02m21.46s	-07 07'	31.8"	29.949	29.943	7.9	89.4	1.9	0.98	102.74	0.98	73.1 Aqr
5 Jun 2017	23h02m22.94s	-07 07'	25.2"	29.949	29.926	7.9	90.3	1.9	1.57	103.51	0.90	73.6 Aqr
6 Jun 2017	23h02m24.30s	-07 07'	19.3"	29.949	29.909	7.9	91.3	1.9	2.16	104.29	0.82	74.2 Aqr
7 Jun 2017	23h02m25.54s	-07 07'	14.2"	29.949	29.892	7.9	92.2	1.9	2.75	105.06	0.74	75.0 Aqr
8 Jun 2017	23h02m26.66s	-07 07'	09.8"	29.949	29.875	7.9	93.2	1.9	3.33	105.84	0.66	75.9 Aqr
9 Jun 2017	23h02m27.66s	-07 07'	06.2"	29.949	29.859	7.9	94.1	1.9	3.91	106.63	0.58	77.1 Aqr
10 Jun 2017	23h02m28.54s	-07 07'	03.3"	29.949	29.842	7.9	95.1	1.9	4.49	107.41	0.50	78.6 Aqr
11 Jun 2017	23h02m29.30s	-07 07'	01.2"	29.949	29.825	7.9	96.0	1.9	5.07	108.20	0.42	80.8 Aqr
12 Jun 2017	23h02m29.94s	-07 06'	59.9"	29.948	29.808	7.9	97.0	1.9	5.64	108.99	0.34	84.0 Aqr
13 Jun 2017	23h02m30.45s	-07 06'	59.3"	29.948	29.791	7.9	97.9	1.9	6.22	109.79	0.26	89.2 Aqr
14 Jun 2017	23h02m30.85s	-07 06'	59.4"	29.948	29.775	7.9	98.9	1.9	6.78	110.59	0.18	98.6 Aqr
15 Jun 2017	23h02m31.12s	-07 07'	00.3"	29.948	29.758	7.9	99.8	1.9	7.35	111.39	0.12	118.8 Aqr
16 Jun 2017	23h02m31.27s	-07 07'	02.0"	29.948	29.742	7.9	100.8	1.9	7.91	112.19	0.10	160.8 Aqr
17 Jun 2017	23h02m31.30s	-07 07'	04.4"	29.948	29.725	7.9	101.7	1.9	8.48	113.00	0.13	200.2 Aqr
18 Jun 2017	23h02m31.21s	-07 07'	07.5"	29.948	29.709	7.9	102.7	1.9	9.03	113.82	0.19	218.3 Aqr
19 Jun 2017	23h02m31.00s	-07 07'	11.4"	29.948	29.692	7.9	103.7	1.9	9.59	114.64	0.27	226.9 Aqr
20 Jun 2017	23h02m30.67s	-07 07'	16.0"	29.948	29.676	7.9	104.6	1.9	10.14	115.46	0.35	231.7 Aqr
21 Jun 2017	23h02m30.22s	-07 07'	21.4"	29.948	29.660	7.9	105.6	1.9	10.68	116.29	0.42	234.8 Aqr
22 Jun 2017	23h02m29.64s	-07 07'	27.5"	29.948	29.643	7.9	106.5	1.9	11.23	117.12	0.50	236.9 Aqr
23 Jun 2017	23h02m28.95s	-07 07'	34.4"	29.948	29.627	7.9	107.5	1.9	11.76	117.96	0.58	238.4 Aqr
24 Jun 2017	23h02m28.14s	-07 07'	42.0"	29.948	29.611	7.9	108.4	1.8	12.30	118.80	0.66	239.5 Aqr
25 Jun 2017	23h02m27.20s	-07 07'	50.3"	29.948	29.595	7.9	109.4	1.8	12.83	119.64	0.74	240.4 Aqr
26 Jun 2017	23h02m26.15s	-07 07'	59.4"	29.948	29.579	7.9	110.4	1.8	13.36	120.50	0.82	241.1 Aqr
27 Jun 2017	23h02m24.98s	-07 08'	09.1"	29.948	29.564	7.9	111.3	1.8	13.88	121.35	0.90	241.7 Aqr
28 Jun 2017	23h02m23.70s	-07 08'	19.6"	29.948	29.548	7.9	112.3	1.8	14.39	122.22	0.98	242.2 Aqr
29 Jun 2017	23h02m22.29s	-07 08'	30.9"	29.948	29.532	7.9	113.2	1.8	14.91	123.08	1.06	242.6 Aqr
30 Jun 2017	23h02m20.77s	-07 08'	42.8"	29.948	29.517	7.9	114.2	1.8	15.41	123.96	1.14	243.0 Aqr
1 Jul 2017	23h02m19.14s	-07 08'	55.4"	29.948	29.502	7.9	115.2	1.8	15.92	124.84	1.21	243.3 Aqr
2 Jul 2017	23h02m17.39s	-07 09'	08.7"	29.948	29.487	7.9	116.1	1.7	16.41	125.72	1.29	243.6 Aqr
3 Jul 2017	23h02m15.53s	-07 09'	22.7"	29.948	29.471	7.9	117.1	1.7	16.90	126.62	1.37	243.8 Aqr
4 Jul 2017	23h02m13.55s	-07 09'	37.4"	29.948	29.457	7.9	118.0	1.7	17.39	127.52	1.44	244.0 Aqr
5 Jul 2017	23h02m11.47s	-07 09'	52.8"	29.948	29.442	7.9	119.0	1.7	17.87	128.42	1.52	244.2 Aqr
6 Jul 2017	23h02m09.27s	-07 10'	08.9"	29.948	29.427	7.9	120.0	1.7	18.34	129.33	1.59	244.4 Aqr
7 Jul 2017	23h02m06.97s	-07 10'	25.6"	29.948	29.413	7.9	120.9	1.7	18.81	130.25	1.66	244.6 Aqr
8 Jul 2017	23h02m04.55s	-07 10'	43.0"	29.948	29.398	7.9	121.9	1.7	19.27	131.17	1.74	244.7 Aqr
9 Jul 2017	23h02m02.03s	-07 11'	01.0"	29.948	29.384	7.9	122.9	1.6	19.72	132.11	1.81	244.8 Aqr
10 Jul 2017	23h01m59.40s	-07 11'	19.7"	29.948	29.370	7.9	123.8	1.6	20.17	133.04	1.88	245.0 Aqr
11 Jul 2017	23h01m56.66s	-07 11'	39.0"	29.948	29.356	7.9	124.8	1.6	20.61	133.99	1.95	245.1 Aqr
12 Jul 2017	23h01m53.82s	-07 11'	59.0"	29.948	29.342	7.8	125.8	1.6	21.05	134.94	2.02	245.2 Aqr
13 Jul 2017	23h01m50.87s	-07 12'	19.5"	29.948	29.329	7.8	126.7	1.6	21.47	135.90	2.09	245.3 Aqr
14 Jul 2017	23h01m47.82s	-07 12'	40.8"	29.948	29.316	7.8	127.7	1.5	21.89	136.86	2.16	245.4 Aqr
15 Jul 2017	23h01m44.67s	-07 13'	02.6"	29.948	29.302	7.8	128.7	1.5	22.30	137.84	2.23	245.5 Aqr
16 Jul 2017	23h01m41.42s	-07 13'	25.0"	29.948	29.289	7.8	129.6	1.5	22.71	138.82	2.30	245.6 Aqr
17 Jul 2017	23h01m38.07s	-07 13'	48.0"	29.948	29.276	7.8	130.6	1.5	23.10	139.81	2.36	245.6 Aqr
18 Jul 2017	23h01m34.61s	-07 14'	11.6"	29.948	29.264	7.8	131.6	1.5	23.49	140.80	2.43	245.7 Aqr
19 Jul 2017	23h01m31.06s	-07 14'	35.8"	29.948	29.251	7.8	132.5	1.4	23.87	141.80	2.50	245.8 Aqr
20 Jul 2017	23h01m27.42s	-07 15'	00.6"	29.948	29.239	7.8	133.5	1.4	24.24	142.81	2.56	245.8 Aqr
21 Jul 2017	23h01m23.67s	-07 15'	26.0"	29.948	29.227	7.8	134.5	1.4	24.60	143.83	2.62	245.9 Aqr
22 Jul 2017	23h01m19.84s	-07 15'	51.9"	29.948	29.215	7.8	135.5	1.4	24.96	144.85	2.69	246.0 Aqr
23 Jul 2017	23h01m15.91s	-07 16'	18.3"	29.948	29.203	7.8	136.4	1.3	25.30	145.88	2.75	246.0 Aqr
24 Jul 2017	23h01m11.89s	-07 16'	45.3"	29.948	29.192	7.8	137.4	1.3	25.64	146.92	2.81	246.1 Aqr
25 Jul 2017	23h01m07.78s	-07 17'	12.8"	29.948	29.181	7.8	138.4	1.3	25.96	147.96	2.87	246.1 Aqr
26 Jul 2017	23h01m03.58s	-07 17'	40.8"	29.948	29.170	7.8	139.3	1.3	26.28	149.01	2.92	246.2 Aqr
27 Jul 2017	23h00m59.30s	-07 18'	09.4"	29.948	29.159	7.8	140.3	1.2	26.59	150.07	2.98	246.2 Aqr
28 Jul 2017	23h00m54.93s	-07 18'	38.4"	29.948	29.148	7.8	141.3	1.2	26.88	151.13	3.04	246.3 Aqr
29 Jul 2017	23h00m50.48s	-07 19'	07.9"	29.948	29.138	7.8	142.3	1.2	27.17	152.21	3.09	246.3 Aqr
30 Jul 2017	23h00m45.95s	-07 19'	37.9"	29.948	29.128	7.8	143.3	1.2	27.44	153.28	3.14	246.4 Aqr
31 Jul 2017	23h00m41.34s	-07 20'	08.3"	29.948	29.118	7.8	144.2	1.1	27.71	154.37	3.20	246.4 Aqr
1 Aug 2017	23h00m36.65s	-07 20'	39.2"	29.948	29.108	7.8	145.2	1.1	27.96	155.46	3.25	246.4 Aqr
2 Aug 2017	23h00m31.89s	-07 21'	10.5"	29.948	29.099	7.8	146.2	1.1	28.21	156.55	3.30	246.5 Aqr
3 Aug 2017	23h00m27.05s	-07 21'	42.2"	29.948	29.090	7.8	147.2	1.1	28.44	157.66	3.35	246.5 Aqr
4 Aug 2017	23h00m22.14s	-07 22'	14.4"	29.947	29.081	7.8	148.1	1.0	28.66	158.76	3.39	246.6 Aqr
5 Aug 2017	23h00m17.17s	-07 22'	47.0"	29.947	29.072	7.8	149.1	1.0	28.87	159.88	3.44	246.6 Aqr
6 Aug 2017	23h00m12.12s	-07 23'	19.9"	29.947	29.064	7.8	150.1	1.0	29.07	161.00	3.48	246.6 Aqr
7 Aug 2017	23h00m07.01s	-07 23'	53.2"	29.947	29.056	7.8	151.1	0.9	29.26	162.12	3.53	246.7 Aqr
8 Aug 2017	23h00m01.83s	-07 24'	26.9"	29.947	29.048	7.8	152.1	0.9	29.43	163.25	3.57	246.7 Aqr
9 Aug 2017	22h59m56.59s	-07 25'	01.0"	29.947	29.040	7.8	153.0	0.9	29.60	164.38	3.61	246.7 Aqr
10 Aug 2017	22h59m51.29s	-07 25'	35.3"	29.947	29.033	7.8	154.0	0.8	29.75	165.52	3.65	246.8 Aqr

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Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
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11 Aug 2017	22h59m45.93s	-07 26' 10.0"	29.947	29.026	7.8	155.0	0.8	29.89	166.66	3.69	246.8	Aqr
12 Aug 2017	22h59m40.51s	-07 26' 45.1"	29.947	29.019	7.8	156.0	0.8	30.02	167.80	3.73	246.8	Aqr
13 Aug 2017	22h59m35.04s	-07 27' 20.4"	29.947	29.012	7.8	157.0	0.8	30.13	168.95	3.76	246.8	Aqr
14 Aug 2017	22h59m29.51s	-07 27' 56.0"	29.947	29.006	7.8	158.0	0.7	30.23	170.10	3.80	246.9	Aqr
15 Aug 2017	22h59m23.93s	-07 28' 31.9"	29.947	29.000	7.8	158.9	0.7	30.33	171.26	3.83	246.9	Aqr
16 Aug 2017	22h59m18.30s	-07 29' 08.1"	29.947	28.994	7.8	159.9	0.7	30.40	172.41	3.86	246.9	Aqr
17 Aug 2017	22h59m12.62s	-07 29' 44.6"	29.947	28.989	7.8	160.9	0.6	30.47	173.57	3.89	247.0	Aqr
18 Aug 2017	22h59m06.90s	-07 30' 21.2"	29.947	28.983	7.8	161.9	0.6	30.52	174.73	3.92	247.0	Aqr
19 Aug 2017	22h59m01.14s	-07 30' 58.1"	29.947	28.978	7.8	162.9	0.6	30.56	175.89	3.95	247.0	Aqr
20 Aug 2017	22h58m55.33s	-07 31' 35.2"	29.947	28.974	7.8	163.9	0.5	30.59	177.05	3.97	247.0	Aqr
21 Aug 2017	22h58m49.48s	-07 32' 12.5"	29.947	28.969	7.8	164.9	0.5	30.61	178.22	4.00	247.1	Aqr
22 Aug 2017	22h58m43.60s	-07 32' 50.0"	29.947	28.965	7.8	165.8	0.5	30.61	179.38	4.02	247.1	Aqr
23 Aug 2017	22h58m37.68s	-07 33' 27.7"	29.947	28.962	7.8	166.8	0.4	30.60	180.55	4.04	247.1	Aqr
24 Aug 2017	22h58m31.74s	-07 34' 05.5"	29.947	28.958	7.8	167.8	0.4	30.58	181.71	4.06	247.1	Aqr
25 Aug 2017	22h58m25.76s	-07 34' 43.5"	29.947	28.955	7.8	168.8	0.4	30.54	182.87	4.08	247.2	Aqr
26 Aug 2017	22h58m19.75s	-07 35' 21.6"	29.947	28.952	7.8	169.8	0.3	30.49	184.03	4.10	247.2	Aqr
27 Aug 2017	22h58m13.72s	-07 35' 59.7"	29.947	28.949	7.8	170.8	0.3	30.43	185.19	4.11	247.2	Aqr
28 Aug 2017	22h58m07.67s	-07 36' 38.0"	29.947	28.947	7.8	171.8	0.3	30.36	186.35	4.12	247.2	Aqr
29 Aug 2017	22h58m01.60s	-07 37' 16.4"	29.947	28.945	7.8	172.8	0.2	30.27	187.51	4.14	247.3	Aqr
30 Aug 2017	22h57m55.52s	-07 37' 54.8"	29.947	28.943	7.8	173.7	0.2	30.18	188.66	4.15	247.3	Aqr
31 Aug 2017	22h57m49.41s	-07 38' 33.3"	29.947	28.942	7.8	174.7	0.2	30.06	189.82	4.15	247.3	Aqr
1 Sep 2017	22h57m43.30s	-07 39' 11.8"	29.947	28.940	7.8	175.7	0.1	29.94	190.96	4.16	247.3	Aqr
2 Sep 2017	22h57m37.17s	-07 39' 50.3"	29.947	28.940	7.8	176.7	0.1	29.81	192.11	4.17	247.4	Aqr
3 Sep 2017	22h57m31.04s	-07 40' 28.9"	29.947	28.939	7.8	177.6	0.1	29.66	193.25	4.17	247.4	Aqr
4 Sep 2017	22h57m24.90s	-07 41' 07.4"	29.947	28.939	7.8	178.5	0.1	29.50	194.39	4.17	247.4	Aqr
5 Sep 2017	22h57m18.75s	-07 41' 45.9"	29.947	28.939	7.8	179.0	0.0	29.33	195.52	4.17	247.4	Aqr
6 Sep 2017	22h57m12.61s	-07 42' 24.4"	29.947	28.939	7.8	178.8	0.0	29.14	196.65	4.17	247.4	Aqr
7 Sep 2017	22h57m06.46s	-07 43' 02.8"	29.947	28.940	7.8	178.0	0.1	28.95	197.78	4.17	247.5	Aqr
8 Sep 2017	22h57m00.32s	-07 43' 41.2"	29.947	28.941	7.8	177.1	0.1	28.74	198.90	4.16	247.5	Aqr
9 Sep 2017	22h56m54.19s	-07 44' 19.5"	29.947	28.942	7.8	176.1	0.1	28.52	200.01	4.16	247.5	Aqr
10 Sep 2017	22h56m48.06s	-07 44' 57.7"	29.947	28.943	7.8	175.1	0.2	28.30	201.12	4.15	247.5	Aqr
11 Sep 2017	22h56m41.94s	-07 45' 35.8"	29.947	28.945	7.8	174.2	0.2	28.05	202.22	4.14	247.6	Aqr
12 Sep 2017	22h56m35.83s	-07 46' 13.7"	29.947	28.947	7.8	173.2	0.2	27.80	203.32	4.13	247.6	Aqr
13 Sep 2017	22h56m29.74s	-07 46' 51.6"	29.947	28.950	7.8	172.2	0.3	27.54	204.41	4.12	247.6	Aqr
14 Sep 2017	22h56m23.66s	-07 47' 29.3"	29.947	28.952	7.8	171.2	0.3	27.27	205.50	4.11	247.6	Aqr
15 Sep 2017	22h56m17.61s	-07 48' 06.8"	29.947	28.955	7.8	170.2	0.3	26.98	206.58	4.09	247.6	Aqr
16 Sep 2017	22h56m11.57s	-07 48' 44.1"	29.947	28.959	7.8	169.2	0.4	26.69	207.65	4.08	247.7	Aqr
17 Sep 2017	22h56m05.56s	-07 49' 21.3"	29.947	28.962	7.8	168.2	0.4	26.39	208.72	4.06	247.7	Aqr
18 Sep 2017	22h55m59.57s	-07 49' 58.3"	29.947	28.966	7.8	167.2	0.4	26.07	209.78	4.04	247.7	Aqr
19 Sep 2017	22h55m53.62s	-07 50' 35.0"	29.947	28.970	7.8	166.2	0.5	25.75	210.83	4.02	247.7	Aqr
20 Sep 2017	22h55m47.69s	-07 51' 11.5"	29.947	28.975	7.8	165.2	0.5	25.41	211.88	3.99	247.8	Aqr
21 Sep 2017	22h55m41.80s	-07 51' 47.7"	29.947	28.979	7.8	164.2	0.5	25.07	212.92	3.97	247.8	Aqr
22 Sep 2017	22h55m35.95s	-07 52' 23.7"	29.947	28.984	7.8	163.2	0.6	24.72	213.95	3.94	247.8	Aqr
23 Sep 2017	22h55m30.13s	-07 52' 59.4"	29.947	28.990	7.8	162.2	0.6	24.36	214.98	3.91	247.8	Aqr
24 Sep 2017	22h55m24.36s	-07 53' 34.8"	29.947	28.995	7.8	161.2	0.6	23.99	216.00	3.88	247.9	Aqr
25 Sep 2017	22h55m18.63s	-07 54' 09.9"	29.947	29.001	7.8	160.2	0.7	23.61	217.01	3.85	247.9	Aqr
26 Sep 2017	22h55m12.94s	-07 54' 44.7"	29.947	29.007	7.8	159.2	0.7	23.22	218.01	3.82	247.9	Aqr
27 Sep 2017	22h55m07.31s	-07 55' 19.1"	29.946	29.014	7.8	158.2	0.7	22.82	219.01	3.79	247.9	Aqr
28 Sep 2017	22h55m01.72s	-07 55' 53.2"	29.946	29.020	7.8	157.2	0.7	22.42	220.00	3.75	248.0	Aqr
29 Sep 2017	22h54m56.19s	-07 56' 26.9"	29.946	29.027	7.8	156.1	0.8	22.01	220.98	3.71	248.0	Aqr
30 Sep 2017	22h54m50.71s	-07 57' 00.3"	29.946	29.035	7.8	155.1	0.8	21.59	221.96	3.67	248.0	Aqr
1 Okt 2017	22h54m45.29s	-07 57' 33.2"	29.946	29.042	7.8	154.1	0.8	21.16	222.93	3.63	248.0	Aqr
2 Okt 2017	22h54m39.93s	-07 58' 05.8"	29.946	29.050	7.8	153.1	0.9	20.72	223.89	3.59	248.1	Aqr
3 Okt 2017	22h54m34.63s	-07 58' 37.9"	29.946	29.058	7.8	152.1	0.9	20.28	224.84	3.55	248.1	Aqr
4 Okt 2017	22h54m29.39s	-07 59' 09.6"	29.946	29.067	7.8	151.1	0.9	19.83	225.79	3.50	248.1	Aqr
5 Okt 2017	22h54m24.22s	-07 59' 40.9"	29.946	29.075	7.8	150.1	1.0	19.37	226.73	3.46	248.1	Aqr
6 Okt 2017	22h54m19.11s	-08 00' 11.7"	29.946	29.084	7.8	149.1	1.0	18.91	227.67	3.41	248.2	Aqr
7 Okt 2017	22h54m14.08s	-08 00' 42.1"	29.946	29.093	7.8	148.1	1.0	18.44	228.60	3.36	248.2	Aqr
8 Okt 2017	22h54m09.11s	-08 01' 12.0"	29.946	29.103	7.8	147.1	1.0	17.97	229.52	3.32	248.2	Aqr
9 Okt 2017	22h54m04.22s	-08 01' 41.4"	29.946	29.112	7.8	146.1	1.1	17.48	230.44	3.26	248.3	Aqr
10 Okt 2017	22h53m59.40s	-08 02' 10.3"	29.946	29.122	7.8	145.1	1.1	17.00	231.34	3.21	248.3	Aqr
11 Okt 2017	22h53m54.66s	-08 02' 38.8"	29.946	29.132	7.8	144.1	1.1	16.50	232.25	3.16	248.3	Aqr
12 Okt 2017	22h53m49.99s	-08 03' 06.7"	29.946	29.143	7.8	143.0	1.1	16.00	233.14	3.11	248.3	Aqr
13 Okt 2017	22h53m45.41s	-08 03' 34.0"	29.946	29.153	7.8	142.0	1.2	15.50	234.04	3.05	248.4	Aqr
14 Okt 2017	22h53m40.91s	-08 04' 00.9"	29.946	29.164	7.8	141.0	1.2	14.99	234.92	2.99	248.4	Aqr
15 Okt 2017	22h53m36.49s	-08 04' 27.2"	29.946	29.175	7.8	140.0	1.2	14.47	235.80	2.93	248.5	Aqr
16 Okt 2017	22h53m32.16s	-08 04' 52.9"	29.946	29.186	7.8	139.0	1.3	13.95	236.67	2.87	248.5	Aqr
17 Okt 2017	22h53m27.92s	-08 05' 18.1"	29.946	29.198	7.8	138.0	1.3	13.43	237.54	2.81	248.5	Aqr
18 Okt 2017	22h53m23.77s	-08 05' 42.6"	29.946	29.210	7.8	137.0	1.3	12.90	238.40	2.75	248.6	Aqr
19 Okt 2017	22h53m19.71s	-08 06' 06.6"	29.946	29.222	7.8	136.0	1.3	12.36	239.26	2.69	248.6	Aqr
20 Okt 2017	22h53m15.74s	-08 06' 30.0"	29.946	29.234	7.8	135.0	1.3	11.82	240.11	2.62	248.7	Aqr
21 Okt 2017	22h53m11.87s	-08 06' 52.8"	29.946	29.246	7.8	134.0	1.4	11.28	240.96	2.56	248.7	Aqr
22 Okt 2017	22h53m08.10s	-08 07' 14.9"	29.946	29.259	7.8	132.9	1.4	10.73	241.80	2.49	248.7	Aqr
23 Okt 2017	22h53m04.43s	-08 07' 36.4"	29.946	29.272	7.8	131.9	1.4	10.18	242.64	2.42	248.8	Aqr

EPHEMERIDE 2017 – NEPTUN

Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
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24 Okt 2017	22h53m00.85s	-08 07'	57.3"	29.946	29.285	7.8 130.9	1.4	9.63	243.47	2.35	248.8	Aqr
25 Okt 2017	22h52m57.38s	-08 08'	17.5"	29.946	29.298	7.8 129.9	1.5	9.07	244.30	2.28	248.9	Aqr
26 Okt 2017	22h52m54.02s	-08 08'	37.0"	29.946	29.312	7.8 128.9	1.5	8.51	245.13	2.21	249.0	Aqr
27 Okt 2017	22h52m50.76s	-08 08'	55.9"	29.946	29.325	7.8 127.9	1.5	7.94	245.95	2.14	249.0	Aqr
28 Okt 2017	22h52m47.60s	-08 09'	14.1"	29.946	29.339	7.8 126.9	1.5	7.37	246.76	2.07	249.1	Aqr
29 Okt 2017	22h52m44.55s	-08 09'	31.7"	29.946	29.353	7.8 125.9	1.5	6.80	247.58	1.99	249.2	Aqr
30 Okt 2017	22h52m41.62s	-08 09'	48.5"	29.946	29.367	7.9 124.8	1.6	6.23	248.39	1.92	249.2	Aqr
31 Okt 2017	22h52m38.79s	-08 10'	04.6"	29.946	29.382	7.9 123.8	1.6	5.65	249.19	1.84	249.3	Aqr
1 Nov 2017	22h52m36.07s	-08 10'	20.1"	29.946	29.396	7.9 122.8	1.6	5.07	249.99	1.77	249.4	Aqr
2 Nov 2017	22h52m33.47s	-08 10'	34.8"	29.946	29.411	7.9 121.8	1.6	4.49	250.79	1.69	249.5	Aqr
3 Nov 2017	22h52m30.97s	-08 10'	48.9"	29.946	29.426	7.9 120.8	1.6	3.90	251.59	1.61	249.6	Aqr
4 Nov 2017	22h52m28.60s	-08 11'	02.2"	29.946	29.441	7.9 119.8	1.6	3.32	252.38	1.54	249.7	Aqr
5 Nov 2017	22h52m26.33s	-08 11'	14.8"	29.946	29.456	7.9 118.8	1.7	2.73	253.17	1.46	249.9	Aqr
6 Nov 2017	22h52m24.19s	-08 11'	26.6"	29.946	29.471	7.9 117.8	1.7	2.14	253.96	1.38	250.0	Aqr
7 Nov 2017	22h52m22.16s	-08 11'	37.7"	29.946	29.486	7.9 116.8	1.7	1.55	254.75	1.30	250.2	Aqr
8 Nov 2017	22h52m20.25s	-08 11'	48.1"	29.946	29.502	7.9 115.7	1.7	0.95	255.53	1.22	250.3	Aqr
9 Nov 2017	22h52m18.46s	-08 11'	57.8"	29.946	29.518	7.9 114.7	1.7	0.36	256.32	1.14	250.6	Aqr
10 Nov 2017	22h52m17.78s	-08 12'	06.7"	29.946	29.534	7.9 113.7	1.7	-0.24	257.10	1.06	250.8	Aqr
11 Nov 2017	22h52m15.23s	-08 12'	14.8"	29.946	29.549	7.9 112.7	1.7	-0.84	257.87	0.97	251.1	Aqr
12 Nov 2017	22h52m13.80s	-08 12'	22.2"	29.946	29.566	7.9 111.7	1.8	-1.44	258.65	0.89	251.4	Aqr
13 Nov 2017	22h52m12.50s	-08 12'	28.8"	29.946	29.582	7.9 110.7	1.8	-2.04	259.43	0.81	251.8	Aqr
14 Nov 2017	22h52m11.32s	-08 12'	34.7"	29.946	29.598	7.9 109.7	1.8	-2.64	260.20	0.72	252.3	Aqr
15 Nov 2017	22h52m10.26s	-08 12'	39.7"	29.946	29.614	7.9 108.7	1.8	-3.25	260.97	0.64	252.9	Aqr
16 Nov 2017	22h52m09.33s	-08 12'	44.0"	29.946	29.631	7.9 107.7	1.8	-3.85	261.75	0.56	253.7	Aqr
17 Nov 2017	22h52m08.52s	-08 12'	47.6"	29.946	29.647	7.9 106.6	1.8	-4.46	262.52	0.47	254.8	Aqr
18 Nov 2017	22h52m07.84s	-08 12'	50.3"	29.946	29.664	7.9 105.6	1.8	-5.06	263.29	0.39	256.4	Aqr
19 Nov 2017	22h52m07.29s	-08 12'	52.2"	29.946	29.681	7.9 104.6	1.8	-5.67	264.06	0.30	258.9	Aqr
20 Nov 2017	22h52m06.87s	-08 12'	53.4"	29.946	29.698	7.9 103.6	1.8	-6.27	264.83	0.22	263.4	Aqr
21 Nov 2017	22h52m06.57s	-08 12'	53.8"	29.945	29.715	7.9 102.6	1.8	-6.88	265.60	0.13	273.5	Aqr
22 Nov 2017	22h52m06.41s	-08 12'	53.4"	29.945	29.731	7.9 101.6	1.9	-7.49	266.38	0.07	307.4	Aqr
23 Nov 2017	22h52m06.37s	-08 12'	52.2"	29.945	29.748	7.9 100.6	1.9	-8.09	267.15	0.08	19.9	Aqr
24 Nov 2017	22h52m06.46s	-08 12'	50.2"	29.945	29.766	7.9 99.6	1.9	-8.70	267.92	0.15	45.1	Aqr
25 Nov 2017	22h52m06.68s	-08 12'	47.4"	29.945	29.783	7.9 98.6	1.9	-9.31	268.69	0.23	53.3	Aqr
26 Nov 2017	22h52m07.03s	-08 12'	43.8"	29.945	29.800	7.9 97.5	1.9	-9.91	269.47	0.32	57.2	Aqr
27 Nov 2017	22h52m07.51s	-08 12'	39.4"	29.945	29.817	7.9 96.5	1.9	-10.52	270.24	0.41	59.5	Aqr
28 Nov 2017	22h52m08.12s	-08 12'	34.2"	29.945	29.834	7.9 95.5	1.9	-11.12	271.02	0.49	60.9	Aqr
29 Nov 2017	22h52m08.86s	-08 12'	28.2"	29.945	29.851	7.9 94.5	1.9	-11.73	271.79	0.58	62.0	Aqr
30 Nov 2017	22h52m09.72s	-08 12'	21.5"	29.945	29.869	7.9 93.5	1.9	-12.33	272.57	0.67	62.7	Aqr
1 Dez 2017	22h52m10.72s	-08 12'	13.9"	29.945	29.886	7.9 92.5	1.9	-12.93	273.35	0.75	63.3	Aqr
2 Dez 2017	22h52m11.85s	-08 12'	05.6"	29.945	29.903	7.9 91.5	1.9	-13.53	274.14	0.84	63.8	Aqr
3 Dez 2017	22h52m13.10s	-08 11'	56.5"	29.945	29.921	7.9 90.5	1.9	-14.14	274.92	0.93	64.2	Aqr
4 Dez 2017	22h52m14.48s	-08 11'	46.6"	29.945	29.938	7.9 89.5	1.9	-14.73	275.71	1.01	64.5	Aqr
5 Dez 2017	22h52m15.99s	-08 11'	35.9"	29.945	29.955	7.9 88.5	1.9	-15.33	276.50	1.10	64.7	Aqr
6 Dez 2017	22h52m17.63s	-08 11'	24.4"	29.945	29.973	7.9 87.5	1.9	-15.93	277.29	1.18	65.0	Aqr
7 Dez 2017	22h52m19.40s	-08 11'	12.2"	29.945	29.990	7.9 86.5	1.9	-16.52	278.09	1.27	65.2	Aqr
8 Dez 2017	22h52m21.29s	-08 10'	59.1"	29.945	30.007	7.9 85.5	1.9	-17.12	278.89	1.36	65.4	Aqr
9 Dez 2017	22h52m23.31s	-08 10'	45.3"	29.945	30.024	7.9 84.4	1.9	-17.71	279.69	1.44	65.5	Aqr
10 Dez 2017	22h52m25.46s	-08 10'	30.7"	29.945	30.042	7.9 83.4	1.9	-18.30	280.50	1.53	65.6	Aqr
11 Dez 2017	22h52m27.74s	-08 10'	15.4"	29.945	30.059	7.9 82.4	1.9	-18.89	281.31	1.61	65.8	Aqr
12 Dez 2017	22h52m30.14s	-08 09'	59.3"	29.945	30.076	7.9 81.4	1.9	-19.47	282.12	1.70	65.9	Aqr
13 Dez 2017	22h52m32.67s	-08 09'	42.4"	29.945	30.093	7.9 80.4	1.9	-20.05	282.94	1.78	66.0	Aqr
14 Dez 2017	22h52m35.33s	-08 09'	24.7"	29.945	30.110	7.9 79.4	1.9	-20.64	283.76	1.87	66.1	Aqr
15 Dez 2017	22h52m38.11s	-08 09'	06.3"	29.945	30.127	7.9 78.4	1.8	-21.21	284.59	1.95	66.2	Aqr
16 Dez 2017	22h52m41.02s	-08 08'	47.1"	29.945	30.144	7.9 77.4	1.8	-21.79	285.42	2.04	66.2	Aqr
17 Dez 2017	22h52m44.03s	-08 08'	27.2"	29.945	30.161	7.9 76.4	1.8	-22.36	286.25	2.12	66.3	Aqr
18 Dez 2017	22h52m47.20s	-08 08'	06.6"	29.945	30.178	7.9 75.4	1.8	-22.93	287.09	2.20	66.4	Aqr
19 Dez 2017	22h52m50.48s	-08 07'	45.1"	29.945	30.195	7.9 74.4	1.8	-23.50	287.94	2.29	66.4	Aqr
20 Dez 2017	22h52m53.88s	-08 07'	23.0"	29.945	30.211	7.9 73.4	1.8	-24.06	288.79	2.37	66.5	Aqr
21 Dez 2017	22h52m57.40s	-08 07'	00.1"	29.945	30.228	7.9 72.4	1.8	-24.62	289.65	2.45	66.6	Aqr
22 Dez 2017	22h53m01.04s	-08 06'	36.5"	29.945	30.244	7.9 71.4	1.8	-25.18	290.51	2.53	66.6	Aqr
23 Dez 2017	22h53m04.80s	-08 06'	12.2"	29.945	30.261	7.9 70.4	1.8	-25.73	291.38	2.61	66.6	Aqr
24 Dez 2017	22h53m08.68s	-08 05'	47.1"	29.945	30.277	7.9 69.4	1.8	-26.28	292.26	2.69	66.7	Aqr
25 Dez 2017	22h53m12.68s	-08 05'	21.4"	29.945	30.293	7.9 68.4	1.7	-26.83	293.14	2.77	66.7	Aqr
26 Dez 2017	22h53m16.79s	-08 04'	54.9"	29.945	30.309	7.9 67.4	1.7	-27.37	294.03	2.85	66.8	Aqr
27 Dez 2017	22h53m21.02s	-08 04'	27.8"	29.945	30.325	7.9 66.4	1.7	-27.90	294.93	2.92	66.8	Aqr
28 Dez 2017	22h53m25.37s	-08 03'	59.9"	29.945	30.341	7.9 65.4	1.7	-28.44	295.83	3.00	66.8	Aqr
29 Dez 2017	22h53m29.82s	-08 03'	31.4"	29.945	30.357	7.9 64.4	1.7	-28.96	296.74	3.07	66.9	Aqr
30 Dez 2017	22h53m34.39s	-08 03'	02.2"	29.945	30.372	7.9 63.4	1.7	-29.49	297.66	3.15	66.9	Aqr
31 Dez 2017	22h53m39.07s	-08 02'	32.4"	29.945	30.388	7.9 62.4	1.7	-30.01	298.59	3.22	66.9	Aqr
1 Jan 2018	22h53m43.85s	-08 02'	01.9"	29.945	30.403	7.9 61.4	1.7	-30.52	299.53	3.29	67.0	Aqr