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Die Bahn des Planeten Neptun 2021

EPHEMERIDE 2021 – NEPTUN

Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
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1 Jan 2021	23h18m14.76s	-05 39' 56.7"	29.927	30.286	7.9	67.7	1.7	-25.30	295.48	2.82	65.8	Aqr
2 Jan 2021	23h18m18.90s	-05 39' 28.8"	29.927	30.302	7.9	66.7	1.7	-25.84	296.37	2.89	65.9	Aqr
3 Jan 2021	23h18m23.15s	-05 39' 00.1"	29.927	30.318	7.9	65.7	1.7	-26.36	297.27	2.97	65.9	Aqr
4 Jan 2021	23h18m27.51s	-05 38' 30.8"	29.927	30.334	7.9	64.7	1.7	-26.88	298.18	3.04	66.0	Aqr
5 Jan 2021	23h18m31.98s	-05 38' 00.8"	29.927	30.350	7.9	63.7	1.7	-27.40	299.09	3.12	66.0	Aqr
6 Jan 2021	23h18m36.56s	-05 37' 30.2"	29.927	30.365	7.9	62.7	1.7	-27.91	300.01	3.19	66.1	Aqr
7 Jan 2021	23h18m41.25s	-05 36' 58.8"	29.927	30.380	7.9	61.7	1.7	-28.42	300.94	3.27	66.1	Aqr
8 Jan 2021	23h18m46.05s	-05 36' 26.8"	29.927	30.396	7.9	60.7	1.6	-28.92	301.87	3.34	66.1	Aqr
9 Jan 2021	23h18m50.96s	-05 35' 54.1"	29.927	30.411	7.9	59.7	1.6	-29.41	302.81	3.41	66.2	Aqr
10 Jan 2021	23h18m55.98s	-05 35' 20.7"	29.927	30.426	7.9	58.7	1.6	-29.90	303.77	3.49	66.2	Aqr
11 Jan 2021	23h19m01.10s	-05 34' 46.7"	29.927	30.441	7.9	57.7	1.6	-30.38	304.72	3.56	66.2	Aqr
12 Jan 2021	23h19m06.32s	-05 34' 12.1"	29.927	30.455	7.9	56.7	1.6	-30.86	305.69	3.63	66.3	Aqr
13 Jan 2021	23h19m11.65s	-05 33' 36.8"	29.927	30.470	7.9	55.7	1.6	-31.33	306.67	3.70	66.3	Aqr
14 Jan 2021	23h19m17.08s	-05 33' 00.9"	29.927	30.484	7.9	54.7	1.5	-31.80	307.65	3.76	66.3	Aqr
15 Jan 2021	23h19m22.61s	-05 32' 24.4"	29.927	30.498	7.9	53.7	1.5	-32.25	308.64	3.83	66.4	Aqr
16 Jan 2021	23h19m28.24s	-05 31' 47.3"	29.927	30.512	7.9	52.7	1.5	-32.71	309.65	3.90	66.4	Aqr
17 Jan 2021	23h19m33.96s	-05 31' 09.6"	29.927	30.526	7.9	51.8	1.5	-33.15	310.66	3.96	66.4	Aqr
18 Jan 2021	23h19m39.78s	-05 30' 31.3"	29.927	30.539	7.9	50.8	1.5	-33.59	311.68	4.03	66.4	Aqr
19 Jan 2021	23h19m45.69s	-05 29' 52.4"	29.927	30.553	7.9	49.8	1.4	-34.02	312.71	4.09	66.5	Aqr
20 Jan 2021	23h19m51.70s	-05 29' 13.0"	29.927	30.566	7.9	48.8	1.4	-34.44	313.74	4.15	66.5	Aqr
21 Jan 2021	23h19m57.79s	-05 28' 33.0"	29.927	30.579	7.9	47.8	1.4	-34.85	314.79	4.21	66.5	Aqr
22 Jan 2021	23h20m03.98s	-05 27' 52.5"	29.927	30.592	7.9	46.8	1.4	-35.26	315.85	4.27	66.5	Aqr
23 Jan 2021	23h20m10.25s	-05 27' 11.4"	29.927	30.604	7.9	45.8	1.4	-35.65	316.92	4.33	66.5	Aqr
24 Jan 2021	23h20m16.61s	-05 26' 29.9"	29.927	30.617	7.9	44.8	1.3	-36.04	317.99	4.39	66.6	Aqr
25 Jan 2021	23h20m23.05s	-05 25' 47.8"	29.927	30.629	7.9	43.8	1.3	-36.43	319.08	4.44	66.6	Aqr
26 Jan 2021	23h20m29.57s	-05 25' 05.2"	29.927	30.641	7.9	42.8	1.3	-36.80	320.17	4.50	66.6	Aqr
27 Jan 2021	23h20m36.18s	-05 24' 22.1"	29.926	30.653	7.9	41.9	1.3	-37.16	321.28	4.55	66.6	Aqr
28 Jan 2021	23h20m42.86s	-05 23' 38.6"	29.926	30.664	7.9	40.9	1.2	-37.51	322.39	4.61	66.6	Aqr
29 Jan 2021	23h20m49.63s	-05 22' 54.5"	29.926	30.675	7.9	39.9	1.2	-37.86	323.51	4.66	66.7	Aqr
30 Jan 2021	23h20m56.46s	-05 22' 10.1"	29.926	30.687	7.9	38.9	1.2	-38.19	324.65	4.71	66.7	Aqr
31 Jan 2021	23h21m03.38s	-05 21' 25.1"	29.926	30.697	7.9	37.9	1.2	-38.52	325.79	4.76	66.7	Aqr
1 Feb 2021	23h21m10.36s	-05 20' 39.8"	29.926	30.708	7.9	36.9	1.1	-38.83	326.94	4.81	66.7	Aqr
2 Feb 2021	23h21m17.42s	-05 19' 54.0"	29.926	30.718	7.9	36.0	1.1	-39.14	328.10	4.85	66.7	Aqr
3 Feb 2021	23h21m24.55s	-05 19' 07.8"	29.926	30.729	7.9	35.0	1.1	-39.43	329.27	4.90	66.7	Aqr
4 Feb 2021	23h21m31.74s	-05 18' 21.2"	29.926	30.739	7.9	34.0	1.1	-39.71	330.45	4.95	66.8	Aqr
5 Feb 2021	23h21m39.00s	-05 17' 34.1"	29.926	30.748	7.9	33.0	1.0	-39.99	331.64	4.99	66.8	Aqr
6 Feb 2021	23h21m46.33s	-05 16' 46.7"	29.926	30.758	8.0	32.0	1.0	-40.25	332.83	5.03	66.8	Aqr
7 Feb 2021	23h21m53.72s	-05 15' 59.0"	29.926	30.767	8.0	31.1	1.0	-40.50	334.04	5.08	66.8	Aqr
8 Feb 2021	23h22m01.18s	-05 15' 10.8"	29.926	30.776	8.0	30.1	0.9	-40.74	335.25	5.12	66.8	Aqr
9 Feb 2021	23h22m08.69s	-05 14' 22.3"	29.926	30.785	8.0	29.1	0.9	-40.97	336.47	5.16	66.8	Aqr
10 Feb 2021	23h22m16.26s	-05 13' 33.5"	29.926	30.793	8.0	28.1	0.9	-41.18	337.70	5.19	66.8	Aqr
11 Feb 2021	23h22m23.89s	-05 12' 44.3"	29.926	30.801	8.0	27.1	0.9	-41.39	338.93	5.23	66.9	Aqr
12 Feb 2021	23h22m31.57s	-05 11' 54.9"	29.926	30.809	8.0	26.2	0.8	-41.58	340.18	5.27	66.9	Aqr
13 Feb 2021	23h22m39.30s	-05 11' 05.1"	29.926	30.817	8.0	25.2	0.8	-41.76	341.42	5.30	66.9	Aqr
14 Feb 2021	23h22m47.08s	-05 10' 15.0"	29.926	30.824	8.0	24.2	0.8	-41.92	342.68	5.33	66.9	Aqr
15 Feb 2021	23h22m54.91s	-05 09' 24.7"	29.926	30.831	8.0	23.2	0.7	-42.08	343.94	5.37	66.9	Aqr
16 Feb 2021	23h23m02.79s	-05 08' 34.1"	29.926	30.838	8.0	22.3	0.7	-42.22	345.20	5.40	66.9	Aqr
17 Feb 2021	23h23m10.71s	-05 07' 43.2"	29.926	30.845	8.0	21.3	0.7	-42.35	346.48	5.42	66.9	Aqr
18 Feb 2021	23h23m18.67s	-05 06' 52.1"	29.926	30.851	8.0	20.3	0.7	-42.47	347.75	5.45	67.0	Aqr
19 Feb 2021	23h23m26.68s	-05 06' 00.7"	29.926	30.857	8.0	19.4	0.6	-42.57	349.03	5.48	67.0	Aqr
20 Feb 2021	23h23m34.72s	-05 05' 09.2"	29.926	30.863	8.0	18.4	0.6	-42.66	350.31	5.50	67.0	Aqr
21 Feb 2021	23h23m42.80s	-05 04' 17.5"	29.926	30.868	8.0	17.4	0.6	-42.74	351.60	5.53	67.0	Aqr
22 Feb 2021	23h23m50.91s	-05 03' 25.5"	29.926	30.873	8.0	16.4	0.5	-42.81	352.89	5.55	67.0	Aqr
23 Feb 2021	23h23m59.05s	-05 02' 33.4"	29.926	30.878	8.0	15.5	0.5	-42.86	354.18	5.57	67.0	Aqr
24 Feb 2021	23h24m07.23s	-05 01' 41.1"	29.926	30.883	8.0	14.5	0.5	-42.90	355.47	5.59	67.0	Aqr
25 Feb 2021	23h24m15.43s	-05 00' 48.7"	29.926	30.887	8.0	13.5	0.4	-42.92	356.77	5.61	67.0	Aqr
26 Feb 2021	23h24m23.66s	-04 59' 56.1"	29.926	30.891	8.0	12.6	0.4	-42.93	358.06	5.62	67.1	Aqr
27 Feb 2021	23h24m31.92s	-04 59' 03.4"	29.926	30.895	8.0	11.6	0.4	-42.93	359.36	5.64	67.1	Aqr
28 Feb 2021	23h24m40.20s	-04 58' 10.6"	29.926	30.899	8.0	10.7	0.4	-42.92	0.65	5.65	67.1	Aqr
1 Mar 2021	23h24m48.50s	-04 57' 17.7"	29.926	30.902	8.0	9.7	0.3	-42.89	1.94	5.67	67.1	Aqr
2 Mar 2021	23h24m56.82s	-04 56' 24.7"	29.926	30.905	8.0	8.7	0.3	-42.85	3.24	5.68	67.1	Aqr
3 Mar 2021	23h25m05.16s	-04 55' 31.6"	29.926	30.908	8.0	7.8	0.3	-42.79	4.53	5.69	67.1	Aqr
4 Mar 2021	23h25m13.51s	-04 54' 38.4"	29.926	30.910	8.0	6.8	0.2	-42.73	5.81	5.70	67.1	Aqr
5 Mar 2021	23h25m21.88s	-04 53' 45.2"	29.926	30.912	8.0	5.9	0.2	-42.65	7.10	5.71	67.1	Aqr
6 Mar 2021	23h25m30.27s	-04 52' 51.9"	29.926	30.914	8.0	4.9	0.2	-42.55	8.38	5.72	67.2	Aqr
7 Mar 2021	23h25m38.66s	-04 51' 58.6"	29.926	30.916	8.0	4.0	0.1	-42.44	9.65	5.72	67.2	Aqr
8 Mar 2021	23h25m47.06s	-04 51' 05.3"	29.926	30.917	8.0	3.1	0.1	-42.33	10.93	5.73	67.2	Aqr
9 Mar 2021	23h25m55.47s	-04 50' 11.9"	29.926	30.918	8.0	2.2	0.1	-42.19	12.19	5.73	67.2	Aqr
10 Mar 2021	23h26m03.88s	-04 49' 18.6"	29.926	30.919	8.0	1.4	0.0	-42.05	13.46	5.73	67.2	Aqr
11 Mar 2021	23h26m12.30s	-04 48' 25.2"	29.926	30.919	8.0	1.1	0.0	-41.89	14.71	5.73	67.2	Aqr
12 Mar 2021	23h26m20.72s	-04 47' 31.9"	29.926	30.919	8.0	1.4	0.0	-41.72	15.96	5.73	67.2	Aqr
13 Mar 2021	23h26m29.13s	-04 46' 38.6"	29.926	30.919	8.0	2.2	0.1	-41.54	17.21	5.73	67.2	Aqr
14 Mar 2021	23h26m37.54s	-04 45' 45.4"	29.926	30.918	8.0	3.1	0.1	-41.35	18.45	5.73	67.2	Aqr
15 Mar 2021	23h26m45.95s	-04 44' 52.2"	29.926	30.918	8.0	4.0	0.1	-41.14	19.68	5.72	67.3	Aqr

EPHEMERIDE 2021 – NEPTUN

Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
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16 Mar 2021	23h26m54.35s	-04 43' 59.2"	29.926	30.917	8.0	4.9	0.2	-40.92	20.90	5.72	67.3	Aqr
17 Mar 2021	23h27m02.74s	-04 43' 06.2"	29.926	30.915	8.0	5.9	0.2	-40.69	22.11	5.71	67.3	Aqr
18 Mar 2021	23h27m11.12s	-04 42' 13.3"	29.926	30.914	8.0	6.8	0.2	-40.45	23.32	5.70	67.3	Aqr
19 Mar 2021	23h27m19.49s	-04 41' 20.5"	29.926	30.912	8.0	7.7	0.3	-40.20	24.52	5.69	67.3	Aqr
20 Mar 2021	23h27m27.84s	-04 40' 27.9"	29.926	30.910	8.0	8.7	0.3	-39.94	25.71	5.68	67.3	Aqr
21 Mar 2021	23h27m36.17s	-04 39' 35.4"	29.926	30.907	8.0	9.6	0.3	-39.66	26.89	5.66	67.3	Aqr
22 Mar 2021	23h27m44.48s	-04 38' 43.0"	29.926	30.904	8.0	10.6	0.4	-39.38	28.06	5.65	67.3	Aqr
23 Mar 2021	23h27m52.78s	-04 37' 50.9"	29.926	30.901	8.0	11.5	0.4	-39.08	29.23	5.63	67.4	Aqr
24 Mar 2021	23h28m01.05s	-04 36' 58.9"	29.926	30.898	8.0	12.5	0.4	-38.78	30.38	5.62	67.4	Aqr
25 Mar 2021	23h28m09.30s	-04 36' 07.1"	29.926	30.894	8.0	13.4	0.4	-38.46	31.53	5.60	67.4	Aqr
26 Mar 2021	23h28m17.52s	-04 35' 15.4"	29.925	30.891	8.0	14.4	0.5	-38.14	32.66	5.58	67.4	Aqr
27 Mar 2021	23h28m25.71s	-04 34' 24.0"	29.925	30.886	8.0	15.3	0.5	-37.80	33.79	5.56	67.4	Aqr
28 Mar 2021	23h28m33.87s	-04 33' 32.9"	29.925	30.882	8.0	16.3	0.5	-37.46	34.90	5.54	67.4	Aqr
29 Mar 2021	23h28m42.01s	-04 32' 41.9"	29.925	30.877	8.0	17.2	0.6	-37.11	36.01	5.52	67.4	Aqr
30 Mar 2021	23h28m50.11s	-04 31' 51.2"	29.925	30.872	8.0	18.2	0.6	-36.74	37.11	5.49	67.5	Aqr
31 Mar 2021	23h28m58.17s	-04 31' 00.7"	29.925	30.867	8.0	19.1	0.6	-36.37	38.19	5.47	67.5	Aqr
1 Apr 2021	23h29m06.20s	-04 30' 10.5"	29.925	30.862	8.0	20.1	0.7	-35.99	39.27	5.44	67.5	Aqr
2 Apr 2021	23h29m14.19s	-04 29' 20.6"	29.925	30.856	8.0	21.0	0.7	-35.60	40.34	5.41	67.5	Aqr
3 Apr 2021	23h29m22.15s	-04 28' 31.0"	29.925	30.850	8.0	22.0	0.7	-35.21	41.40	5.39	67.5	Aqr
4 Apr 2021	23h29m30.06s	-04 27' 41.6"	29.925	30.844	8.0	22.9	0.7	-34.80	42.45	5.36	67.5	Aqr
5 Apr 2021	23h29m37.93s	-04 26' 52.6"	29.925	30.837	8.0	23.9	0.8	-34.39	43.49	5.33	67.5	Aqr
6 Apr 2021	23h29m45.75s	-04 26' 03.8"	29.925	30.830	8.0	24.8	0.8	-33.97	44.52	5.30	67.6	Aqr
7 Apr 2021	23h29m53.53s	-04 25' 15.4"	29.925	30.823	8.0	25.8	0.8	-33.54	45.54	5.26	67.6	Aqr
8 Apr 2021	23h30m01.26s	-04 24' 27.4"	29.925	30.816	8.0	26.7	0.9	-33.10	46.55	5.23	67.6	Aqr
9 Apr 2021	23h30m08.94s	-04 23' 39.7"	29.925	30.809	8.0	27.7	0.9	-32.66	47.55	5.19	67.6	Aqr
10 Apr 2021	23h30m16.57s	-04 22' 52.3"	29.925	30.801	8.0	28.6	0.9	-32.21	48.55	5.16	67.6	Aqr
11 Apr 2021	23h30m24.14s	-04 22' 05.4"	29.925	30.793	8.0	29.6	0.9	-31.76	49.53	5.12	67.6	Aqr
12 Apr 2021	23h30m31.66s	-04 21' 18.8"	29.925	30.784	8.0	30.5	1.0	-31.30	50.51	5.08	67.7	Aqr
13 Apr 2021	23h30m39.12s	-04 20' 32.6"	29.925	30.776	8.0	31.5	1.0	-30.83	51.48	5.04	67.7	Aqr
14 Apr 2021	23h30m46.52s	-04 19' 46.8"	29.925	30.767	8.0	32.4	1.0	-30.35	52.44	5.00	67.7	Aqr
15 Apr 2021	23h30m53.87s	-04 19' 01.4"	29.925	30.758	7.9	33.4	1.1	-29.87	53.39	4.95	67.7	Aqr
16 Apr 2021	23h31m01.15s	-04 18' 16.5"	29.925	30.749	7.9	34.3	1.1	-29.38	54.33	4.91	67.7	Aqr
17 Apr 2021	23h31m08.36s	-04 17' 32.0"	29.925	30.739	7.9	35.3	1.1	-28.89	55.26	4.87	67.8	Aqr
18 Apr 2021	23h31m15.51s	-04 16' 47.9"	29.925	30.729	7.9	36.2	1.1	-28.40	56.19	4.82	67.8	Aqr
19 Apr 2021	23h31m22.60s	-04 16' 04.3"	29.925	30.719	7.9	37.1	1.2	-27.89	57.11	4.77	67.8	Aqr
20 Apr 2021	23h31m29.61s	-04 15' 21.2"	29.925	30.709	7.9	38.1	1.2	-27.38	58.02	4.73	67.8	Aqr
21 Apr 2021	23h31m36.56s	-04 14' 38.5"	29.925	30.699	7.9	39.0	1.2	-26.87	58.92	4.68	67.8	Aqr
22 Apr 2021	23h31m43.43s	-04 13' 56.4"	29.925	30.688	7.9	40.0	1.2	-26.35	59.82	4.63	67.9	Aqr
23 Apr 2021	23h31m50.23s	-04 13' 14.7"	29.925	30.677	7.9	40.9	1.3	-25.83	60.71	4.58	67.9	Aqr
24 Apr 2021	23h31m56.96s	-04 12' 33.5"	29.925	30.666	7.9	41.9	1.3	-25.31	61.59	4.52	67.9	Aqr
25 Apr 2021	23h32m03.61s	-04 11' 52.9"	29.925	30.655	7.9	42.8	1.3	-24.77	62.47	4.47	67.9	Aqr
26 Apr 2021	23h32m10.19s	-04 11' 12.8"	29.925	30.644	7.9	43.8	1.3	-24.24	63.34	4.42	68.0	Aqr
27 Apr 2021	23h32m16.69s	-04 10' 33.2"	29.925	30.632	7.9	44.7	1.4	-23.70	64.21	4.36	68.0	Aqr
28 Apr 2021	23h32m23.11s	-04 09' 54.1"	29.925	30.620	7.9	45.6	1.4	-23.16	65.06	4.31	68.0	Aqr
29 Apr 2021	23h32m29.45s	-04 09' 15.5"	29.925	30.608	7.9	46.6	1.4	-22.61	65.92	4.25	68.0	Aqr
30 Apr 2021	23h32m35.70s	-04 08' 37.6"	29.925	30.596	7.9	47.5	1.4	-22.06	66.76	4.20	68.1	Aqr
1 Mai 2021	23h32m41.88s	-04 08' 00.1"	29.925	30.583	7.9	48.5	1.4	-21.50	67.60	4.14	68.1	Aqr
2 Mai 2021	23h32m47.97s	-04 07' 23.3"	29.925	30.571	7.9	49.4	1.5	-20.95	68.44	4.08	68.1	Aqr
3 Mai 2021	23h32m53.98s	-04 06' 47.0"	29.925	30.558	7.9	50.4	1.5	-20.39	69.27	4.02	68.2	Aqr
4 Mai 2021	23h32m59.89s	-04 06' 11.3"	29.925	30.545	7.9	51.3	1.5	-19.82	70.10	3.96	68.2	Aqr
5 Mai 2021	23h33m05.72s	-04 05' 36.2"	29.925	30.532	7.9	52.2	1.5	-19.26	70.92	3.90	68.2	Aqr
6 Mai 2021	23h33m11.46s	-04 05' 01.7"	29.925	30.518	7.9	53.2	1.5	-18.69	71.73	3.84	68.2	Aqr
7 Mai 2021	23h33m17.11s	-04 04' 27.8"	29.925	30.505	7.9	54.1	1.6	-18.11	72.55	3.77	68.3	Aqr
8 Mai 2021	23h33m22.67s	-04 03' 54.5"	29.925	30.491	7.9	55.1	1.6	-17.54	73.35	3.71	68.3	Aqr
9 Mai 2021	23h33m28.14s	-04 03' 21.8"	29.925	30.477	7.9	56.0	1.6	-16.96	74.16	3.64	68.4	Aqr
10 Mai 2021	23h33m33.50s	-04 02' 49.8"	29.925	30.463	7.9	57.0	1.6	-16.38	74.96	3.58	68.4	Aqr
11 Mai 2021	23h33m38.78s	-04 02' 18.4"	29.925	30.449	7.9	57.9	1.6	-15.80	75.75	3.51	68.4	Aqr
12 Mai 2021	23h33m43.95s	-04 01' 47.6"	29.925	30.435	7.9	58.8	1.7	-15.22	76.55	3.44	68.5	Aqr
13 Mai 2021	23h33m49.03s	-04 01' 17.6"	29.925	30.420	7.9	59.8	1.7	-14.63	77.34	3.38	68.5	Aqr
14 Mai 2021	23h33m54.00s	-04 00' 48.1"	29.925	30.406	7.9	60.7	1.7	-14.04	78.12	3.31	68.6	Aqr
15 Mai 2021	23h33m58.88s	-04 00' 19.4"	29.925	30.391	7.9	61.7	1.7	-13.45	78.91	3.24	68.6	Aqr
16 Mai 2021	23h34m03.66s	-03 59' 51.3"	29.925	30.376	7.9	62.6	1.7	-12.86	79.69	3.17	68.7	Aqr
17 Mai 2021	23h34m08.33s	-03 59' 23.9"	29.925	30.361	7.9	63.6	1.7	-12.27	80.47	3.10	68.7	Aqr
18 Mai 2021	23h34m12.90s	-03 58' 57.2"	29.925	30.346	7.9	64.5	1.7	-11.68	81.25	3.02	68.8	Aqr
19 Mai 2021	23h34m17.36s	-03 58' 31.1"	29.925	30.331	7.9	65.4	1.8	-11.08	82.02	2.95	68.8	Aqr
20 Mai 2021	23h34m21.72s	-03 58' 05.8"	29.925	30.316	7.9	66.4	1.8	-10.48	82.79	2.88	68.9	Aqr
21 Mai 2021	23h34m25.97s	-03 57' 41.2"	29.924	30.300	7.9	67.3	1.8	-9.89	83.56	2.81	69.0	Aqr
22 Mai 2021	23h34m30.11s	-03 57' 17.3"	29.924	30.284	7.9	68.3	1.8	-9.29	84.33	2.73	69.0	Aqr
23 Mai 2021	23h34m34.15s	-03 56' 54.1"	29.924	30.269	7.9	69.2	1.8	-8.69	85.10	2.66	69.1	Aqr
24 Mai 2021	23h34m38.08s	-03 56' 31.6"	29.924	30.253	7.9	70.2	1.8	-8.09	85.86	2.58	69.2	Aqr
25 Mai 2021	23h34m41.90s	-03 56' 09.8"	29.924	30.237	7.9	71.1	1.8	-7.48	86.63	2.51	69.3	Aqr
26 Mai 2021	23h34m45.62s	-03 55' 48.7"	29.924	30.221	7.9	72.0	1.8	-6.88	87.39	2.43	69.3	Aqr
27 Mai 2021	23h34m49.22s	-03 55' 28.4"	29.924	30.205	7.9	73.0	1.9	-6.28	88.16	2.36	69.4	Aqr
28 Mai 2021	23h34m52.71s	-03 55' 08.8"	29.924	30.189	7.9	73.9	1.9	-5.68	88.92	2.28	69.5	Aqr

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Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
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29 Mai 2021	23h34m56.09s	-03 54' 49.9"	29.924	30.173	7.9	74.9	1.9	-5.07	89.68	2.21	69.6	Aqr
30 Mai 2021	23h34m59.35s	-03 54' 31.8"	29.924	30.157	7.9	75.8	1.9	-4.47	90.44	2.13	69.7	Aqr
31 Mai 2021	23h35m02.51s	-03 54' 14.4"	29.924	30.140	7.9	76.8	1.9	-3.87	91.21	2.05	69.9	Aqr
1 Jun 2021	23h35m05.55s	-03 53' 57.7"	29.924	30.124	7.9	77.7	1.9	-3.26	91.97	1.97	70.0	Aqr
2 Jun 2021	23h35m08.47s	-03 53' 41.8"	29.924	30.107	7.9	78.7	1.9	-2.66	92.73	1.89	70.1	Aqr
3 Jun 2021	23h35m11.29s	-03 53' 26.6"	29.924	30.091	7.9	79.6	1.9	-2.06	93.49	1.81	70.3	Aqr
4 Jun 2021	23h35m13.98s	-03 53' 12.2"	29.924	30.074	7.9	80.5	1.9	-1.46	94.26	1.73	70.4	Aqr
5 Jun 2021	23h35m16.56s	-03 52' 58.6"	29.924	30.058	7.9	81.5	1.9	-0.85	95.02	1.65	70.6	Aqr
6 Jun 2021	23h35m19.02s	-03 52' 45.7"	29.924	30.041	7.9	82.4	1.9	-0.25	95.79	1.57	70.8	Aqr
7 Jun 2021	23h35m21.37s	-03 52' 33.6"	29.924	30.024	7.9	83.4	1.9	0.35	96.55	1.49	71.0	Aqr
8 Jun 2021	23h35m23.59s	-03 52' 22.2"	29.924	30.007	7.9	84.3	1.9	0.95	97.32	1.41	71.3	Aqr
9 Jun 2021	23h35m25.70s	-03 52' 11.6"	29.924	29.991	7.9	85.3	1.9	1.55	98.09	1.33	71.6	Aqr
10 Jun 2021	23h35m27.69s	-03 52' 01.8"	29.924	29.974	7.9	86.2	1.9	2.15	98.86	1.25	71.9	Aqr
11 Jun 2021	23h35m29.56s	-03 51' 52.8"	29.924	29.957	7.9	87.2	1.9	2.74	99.63	1.17	72.2	Aqr
12 Jun 2021	23h35m31.31s	-03 51' 44.5"	29.924	29.940	7.9	88.1	1.9	3.34	100.41	1.09	72.7	Aqr
13 Jun 2021	23h35m32.93s	-03 51' 37.1"	29.924	29.923	7.9	89.1	1.9	3.93	101.18	1.01	73.1	Aqr
14 Jun 2021	23h35m34.44s	-03 51' 30.4"	29.924	29.906	7.9	90.0	1.9	4.53	101.96	0.92	73.7	Aqr
15 Jun 2021	23h35m35.83s	-03 51' 24.5"	29.924	29.890	7.9	91.0	1.9	5.12	102.74	0.84	74.4	Aqr
16 Jun 2021	23h35m37.10s	-03 51' 19.3"	29.924	29.873	7.9	91.9	1.9	5.71	103.53	0.76	75.2	Aqr
17 Jun 2021	23h35m38.25s	-03 51' 15.0"	29.924	29.856	7.9	92.9	1.9	6.30	104.31	0.68	76.2	Aqr
18 Jun 2021	23h35m39.28s	-03 51' 11.4"	29.924	29.839	7.9	93.8	1.9	6.88	105.10	0.60	77.5	Aqr
19 Jun 2021	23h35m40.19s	-03 51' 08.6"	29.924	29.822	7.9	94.8	1.9	7.47	105.90	0.52	79.1	Aqr
20 Jun 2021	23h35m40.97s	-03 51' 06.5"	29.924	29.806	7.9	95.7	1.9	8.05	106.69	0.44	81.4	Aqr
21 Jun 2021	23h35m41.64s	-03 51' 05.3"	29.924	29.789	7.9	96.7	1.9	8.63	107.49	0.36	84.7	Aqr
22 Jun 2021	23h35m42.19s	-03 51' 04.8"	29.924	29.772	7.9	97.6	1.9	9.20	108.30	0.28	89.8	Aqr
23 Jun 2021	23h35m42.62s	-03 51' 05.1"	29.924	29.755	7.9	98.6	1.9	9.78	109.10	0.21	98.6	Aqr
24 Jun 2021	23h35m42.92s	-03 51' 06.1"	29.924	29.739	7.9	99.5	1.9	10.35	109.91	0.14	115.9	Aqr
25 Jun 2021	23h35m43.11s	-03 51' 07.9"	29.924	29.722	7.9	100.5	1.9	10.92	110.73	0.11	149.9	Aqr
26 Jun 2021	23h35m43.18s	-03 51' 10.5"	29.924	29.706	7.9	101.4	1.9	11.49	111.55	0.13	189.0	Aqr
27 Jun 2021	23h35m43.13s	-03 51' 13.9"	29.924	29.689	7.9	102.4	1.9	12.05	112.37	0.18	211.0	Aqr
28 Jun 2021	23h35m42.97s	-03 51' 18.0"	29.924	29.673	7.9	103.3	1.9	12.61	113.20	0.25	221.8	Aqr
29 Jun 2021	23h35m42.68s	-03 51' 22.8"	29.924	29.657	7.9	104.3	1.9	13.16	114.04	0.33	227.8	Aqr
30 Jun 2021	23h35m42.27s	-03 51' 28.4"	29.924	29.640	7.9	105.3	1.9	13.72	114.87	0.41	231.6	Aqr
1 Jul 2021	23h35m41.75s	-03 51' 34.8"	29.924	29.624	7.9	106.2	1.9	14.27	115.72	0.49	234.2	Aqr
2 Jul 2021	23h35m41.11s	-03 51' 41.9"	29.924	29.608	7.9	107.2	1.9	14.81	116.57	0.57	236.0	Aqr
3 Jul 2021	23h35m40.34s	-03 51' 49.8"	29.924	29.592	7.9	108.1	1.9	15.35	117.42	0.64	237.4	Aqr
4 Jul 2021	23h35m39.47s	-03 51' 58.4"	29.924	29.576	7.9	109.1	1.8	15.89	118.28	0.72	238.5	Aqr
5 Jul 2021	23h35m38.47s	-03 52' 07.8"	29.924	29.560	7.9	110.0	1.8	16.42	119.15	0.80	239.4	Aqr
6 Jul 2021	23h35m37.35s	-03 52' 17.9"	29.924	29.544	7.9	111.0	1.8	16.95	120.02	0.88	240.1	Aqr
7 Jul 2021	23h35m36.12s	-03 52' 28.8"	29.924	29.529	7.9	112.0	1.8	17.48	120.90	0.96	240.7	Aqr
8 Jul 2021	23h35m34.78s	-03 52' 40.4"	29.924	29.513	7.9	112.9	1.8	17.99	121.78	1.04	241.2	Aqr
9 Jul 2021	23h35m33.31s	-03 52' 52.7"	29.924	29.498	7.9	113.9	1.8	18.51	122.67	1.12	241.6	Aqr
10 Jul 2021	23h35m31.74s	-03 53' 05.8"	29.924	29.482	7.9	114.8	1.8	19.02	123.57	1.20	242.0	Aqr
11 Jul 2021	23h35m30.05s	-03 53' 19.6"	29.924	29.467	7.9	115.8	1.8	19.52	124.47	1.27	242.3	Aqr
12 Jul 2021	23h35m28.24s	-03 53' 34.0"	29.924	29.452	7.9	116.8	1.7	20.02	125.38	1.35	242.6	Aqr
13 Jul 2021	23h35m26.32s	-03 53' 49.2"	29.924	29.437	7.9	117.7	1.7	20.51	126.30	1.43	242.8	Aqr
14 Jul 2021	23h35m24.29s	-03 54' 05.1"	29.924	29.422	7.9	118.7	1.7	21.00	127.22	1.50	243.1	Aqr
15 Jul 2021	23h35m22.15s	-03 54' 21.7"	29.923	29.408	7.9	119.6	1.7	21.48	128.15	1.58	243.3	Aqr
16 Jul 2021	23h35m19.90s	-03 54' 39.0"	29.923	29.393	7.9	120.6	1.7	21.96	129.09	1.65	243.5	Aqr
17 Jul 2021	23h35m17.54s	-03 54' 57.0"	29.923	29.379	7.9	121.6	1.7	22.43	130.04	1.72	243.6	Aqr
18 Jul 2021	23h35m15.07s	-03 55' 15.7"	29.923	29.364	7.8	122.5	1.6	22.89	130.99	1.80	243.8	Aqr
19 Jul 2021	23h35m12.50s	-03 55' 35.0"	29.923	29.350	7.8	123.5	1.6	23.34	131.95	1.87	243.9	Aqr
20 Jul 2021	23h35m09.82s	-03 55' 54.9"	29.923	29.336	7.8	124.5	1.6	23.79	132.92	1.94	244.1	Aqr
21 Jul 2021	23h35m07.04s	-03 56' 15.6"	29.923	29.323	7.8	125.4	1.6	24.23	133.89	2.01	244.2	Aqr
22 Jul 2021	23h35m04.15s	-03 56' 36.8"	29.923	29.309	7.8	126.4	1.6	24.67	134.88	2.08	244.3	Aqr
23 Jul 2021	23h35m01.16s	-03 56' 58.7"	29.923	29.296	7.8	127.4	1.5	25.10	135.87	2.15	244.4	Aqr
24 Jul 2021	23h34m58.07s	-03 57' 21.2"	29.923	29.283	7.8	128.3	1.5	25.51	136.87	2.22	244.5	Aqr
25 Jul 2021	23h34m54.88s	-03 57' 44.4"	29.923	29.269	7.8	129.3	1.5	25.93	137.88	2.28	244.6	Aqr
26 Jul 2021	23h34m51.59s	-03 58' 08.1"	29.923	29.257	7.8	130.3	1.5	26.33	138.89	2.35	244.7	Aqr
27 Jul 2021	23h34m48.20s	-03 58' 32.5"	29.923	29.244	7.8	131.3	1.5	26.72	139.92	2.42	244.8	Aqr
28 Jul 2021	23h34m44.72s	-03 58' 57.4"	29.923	29.231	7.8	132.2	1.4	27.11	140.95	2.48	244.9	Aqr
29 Jul 2021	23h34m41.14s	-03 59' 23.0"	29.923	29.219	7.8	133.2	1.4	27.49	141.99	2.55	245.0	Aqr
30 Jul 2021	23h34m37.46s	-03 59' 49.1"	29.923	29.207	7.8	134.2	1.4	27.86	143.04	2.61	245.0	Aqr
31 Jul 2021	23h34m33.69s	-04 00' 15.8"	29.923	29.195	7.8	135.1	1.4	28.22	144.09	2.67	245.1	Aqr
1 Aug 2021	23h34m29.83s	-04 00' 43.0"	29.923	29.183	7.8	136.1	1.3	28.57	145.16	2.73	245.2	Aqr
2 Aug 2021	23h34m25.88s	-04 01' 10.8"	29.923	29.172	7.8	137.1	1.3	28.91	146.23	2.80	245.2	Aqr
3 Aug 2021	23h34m21.84s	-04 01' 39.2"	29.923	29.161	7.8	138.1	1.3	29.24	147.31	2.86	245.3	Aqr
4 Aug 2021	23h34m17.71s	-04 02' 08.1"	29.923	29.150	7.8	139.0	1.3	29.56	148.40	2.91	245.3	Aqr
5 Aug 2021	23h34m13.50s	-04 02' 37.5"	29.923	29.139	7.8	140.0	1.2	29.87	149.49	2.97	245.4	Aqr
6 Aug 2021	23h34m09.20s	-04 03' 07.4"	29.923	29.128	7.8	141.0	1.2	30.17	150.59	3.03	245.4	Aqr
7 Aug 2021	23h34m04.81s	-04 03' 37.8"	29.923	29.118	7.8	142.0	1.2	30.46	151.70	3.08	245.5	Aqr
8 Aug 2021	23h34m00.35s	-04 04' 08.7"	29.923	29.107	7.8	143.0	1.2	30.74	152.82	3.14	245.5	Aqr
9 Aug 2021	23h33m55.80s	-04 04' 40.1"	29.923	29.098	7.8	143.9	1.1	31.01	153.95	3.19	245.6	Aqr
10 Aug 2021	23h33m51.18s	-04 05' 11.9"	29.923	29.088	7.8	144.9	1.1	31.27	155.08	3.24	245.6	Aqr

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Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
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11 Aug 2021	23h33m46.48s	-04 05' 44.3"	29.923	29.078	7.8	145.9	1.1	31.52	156.22	3.29	245.7	Aqr
12 Aug 2021	23h33m41.70s	-04 06' 17.0"	29.923	29.069	7.8	146.9	1.1	31.75	157.36	3.34	245.7	Aqr
13 Aug 2021	23h33m36.86s	-04 06' 50.2"	29.923	29.060	7.8	147.9	1.0	31.98	158.51	3.39	245.8	Aqr
14 Aug 2021	23h33m31.94s	-04 07' 23.8"	29.923	29.052	7.8	148.8	1.0	32.19	159.67	3.44	245.8	Aqr
15 Aug 2021	23h33m26.95s	-04 07' 57.8"	29.923	29.043	7.8	149.8	1.0	32.39	160.84	3.48	245.8	Aqr
16 Aug 2021	23h33m21.90s	-04 08' 32.1"	29.923	29.035	7.8	150.8	0.9	32.58	162.00	3.53	245.9	Aqr
17 Aug 2021	23h33m16.78s	-04 09' 06.9"	29.923	29.027	7.8	151.8	0.9	32.75	163.18	3.57	245.9	Aqr
18 Aug 2021	23h33m11.60s	-04 09' 42.0"	29.923	29.019	7.8	152.8	0.9	32.92	164.36	3.61	246.0	Aqr
19 Aug 2021	23h33m06.36s	-04 10' 17.5"	29.923	29.012	7.8	153.8	0.9	33.07	165.54	3.65	246.0	Aqr
20 Aug 2021	23h33m01.07s	-04 10' 53.3"	29.923	29.005	7.8	154.7	0.8	33.21	166.73	3.69	246.0	Aqr
21 Aug 2021	23h32m55.71s	-04 11' 29.4"	29.923	28.998	7.8	155.7	0.8	33.34	167.93	3.73	246.1	Aqr
22 Aug 2021	23h32m50.30s	-04 12' 05.8"	29.923	28.991	7.8	156.7	0.8	33.45	169.12	3.76	246.1	Aqr
23 Aug 2021	23h32m44.83s	-04 12' 42.6"	29.923	28.985	7.8	157.7	0.7	33.55	170.32	3.80	246.1	Aqr
24 Aug 2021	23h32m39.32s	-04 13' 19.6"	29.923	28.979	7.8	158.7	0.7	33.64	171.53	3.83	246.2	Aqr
25 Aug 2021	23h32m33.75s	-04 13' 56.9"	29.923	28.973	7.8	159.7	0.7	33.71	172.73	3.86	246.2	Aqr
26 Aug 2021	23h32m28.14s	-04 14' 34.4"	29.923	28.967	7.8	160.7	0.6	33.77	173.94	3.89	246.2	Aqr
27 Aug 2021	23h32m22.48s	-04 15' 12.2"	29.923	28.962	7.8	161.6	0.6	33.82	175.15	3.92	246.3	Aqr
28 Aug 2021	23h32m16.78s	-04 15' 50.2"	29.923	28.957	7.8	162.6	0.6	33.86	176.36	3.95	246.3	Aqr
29 Aug 2021	23h32m11.04s	-04 16' 28.4"	29.923	28.952	7.8	163.6	0.5	33.88	177.57	3.98	246.3	Aqr
30 Aug 2021	23h32m05.26s	-04 17' 06.9"	29.923	28.948	7.8	164.6	0.5	33.89	178.79	4.00	246.3	Aqr
31 Aug 2021	23h31m59.44s	-04 17' 45.5"	29.923	28.944	7.8	165.6	0.5	33.89	180.00	4.02	246.4	Aqr
1 Sep 2021	23h31m53.59s	-04 18' 24.3"	29.923	28.940	7.8	166.6	0.4	33.87	181.21	4.05	246.4	Aqr
2 Sep 2021	23h31m47.70s	-04 19' 03.3"	29.923	28.936	7.8	167.6	0.4	33.84	182.43	4.07	246.4	Aqr
3 Sep 2021	23h31m41.78s	-04 19' 42.4"	29.923	28.933	7.8	168.6	0.4	33.79	183.64	4.09	246.4	Aqr
4 Sep 2021	23h31m35.84s	-04 20' 21.7"	29.923	28.930	7.8	169.6	0.3	33.74	184.85	4.10	246.5	Aqr
5 Sep 2021	23h31m29.87s	-04 21' 01.1"	29.923	28.927	7.8	170.6	0.3	33.67	186.06	4.12	246.5	Aqr
6 Sep 2021	23h31m23.87s	-04 21' 40.5"	29.923	28.925	7.8	171.5	0.3	33.58	187.26	4.13	246.5	Aqr
7 Sep 2021	23h31m17.86s	-04 22' 20.1"	29.923	28.923	7.8	172.5	0.3	33.49	188.47	4.14	246.6	Aqr
8 Sep 2021	23h31m11.82s	-04 22' 59.7"	29.922	28.921	7.8	173.5	0.2	33.38	189.67	4.16	246.6	Aqr
9 Sep 2021	23h31m05.77s	-04 23' 39.4"	29.922	28.920	7.8	174.5	0.2	33.26	190.86	4.16	246.6	Aqr
10 Sep 2021	23h30m59.71s	-04 24' 19.1"	29.922	28.918	7.8	175.5	0.2	33.12	192.06	4.17	246.6	Aqr
11 Sep 2021	23h30m53.63s	-04 24' 58.9"	29.922	28.918	7.8	176.4	0.1	32.97	193.25	4.18	246.7	Aqr
12 Sep 2021	23h30m47.55s	-04 25' 38.6"	29.922	28.917	7.8	177.3	0.1	32.81	194.43	4.18	246.7	Aqr
13 Sep 2021	23h30m41.46s	-04 26' 18.4"	29.922	28.917	7.8	178.2	0.1	32.64	195.61	4.18	246.7	Aqr
14 Sep 2021	23h30m35.36s	-04 26' 58.1"	29.922	28.917	7.8	178.8	0.0	32.46	196.79	4.18	246.7	Aqr
15 Sep 2021	23h30m29.27s	-04 27' 37.8"	29.922	28.917	7.8	178.7	0.0	32.26	197.96	4.18	246.8	Aqr
16 Sep 2021	23h30m23.18s	-04 28' 17.4"	29.922	28.917	7.8	178.0	0.1	32.05	199.13	4.18	246.8	Aqr
17 Sep 2021	23h30m17.09s	-04 28' 56.9"	29.922	28.918	7.8	177.1	0.1	31.83	200.28	4.18	246.8	Aqr
18 Sep 2021	23h30m11.00s	-04 29' 36.4"	29.922	28.920	7.8	176.2	0.1	31.60	201.44	4.17	246.8	Aqr
19 Sep 2021	23h30m04.92s	-04 30' 15.7"	29.922	28.921	7.8	175.2	0.2	31.35	202.58	4.16	246.9	Aqr
20 Sep 2021	23h29m58.86s	-04 30' 55.0"	29.922	28.923	7.8	174.2	0.2	31.10	203.72	4.15	246.9	Aqr
21 Sep 2021	23h29m52.80s	-04 31' 34.1"	29.922	28.925	7.8	173.3	0.2	30.83	204.86	4.14	246.9	Aqr
22 Sep 2021	23h29m46.76s	-04 32' 13.0"	29.922	28.927	7.8	172.3	0.3	30.55	205.98	4.13	246.9	Aqr
23 Sep 2021	23h29m40.74s	-04 32' 51.8"	29.922	28.930	7.8	171.3	0.3	30.26	207.10	4.12	247.0	Aqr
24 Sep 2021	23h29m34.73s	-04 33' 30.5"	29.922	28.933	7.8	170.3	0.3	29.96	208.22	4.10	247.0	Aqr
25 Sep 2021	23h29m28.75s	-04 34' 08.9"	29.922	28.936	7.8	169.3	0.4	29.65	209.32	4.09	247.0	Aqr
26 Sep 2021	23h29m22.79s	-04 34' 47.1"	29.922	28.940	7.8	168.3	0.4	29.33	210.42	4.07	247.0	Aqr
27 Sep 2021	23h29m16.85s	-04 35' 25.2"	29.922	28.944	7.8	167.3	0.4	29.00	211.51	4.05	247.1	Aqr
28 Sep 2021	23h29m10.95s	-04 36' 03.0"	29.922	28.948	7.8	166.3	0.5	28.66	212.59	4.03	247.1	Aqr
29 Sep 2021	23h29m05.07s	-04 36' 40.5"	29.922	28.952	7.8	165.3	0.5	28.31	213.66	4.00	247.1	Aqr
30 Sep 2021	23h28m59.23s	-04 37' 17.8"	29.922	28.957	7.8	164.3	0.5	27.95	214.73	3.98	247.1	Aqr
1 Okt 2021	23h28m53.42s	-04 37' 54.9"	29.922	28.962	7.8	163.2	0.6	27.58	215.79	3.95	247.2	Aqr
2 Okt 2021	23h28m47.65s	-04 38' 31.6"	29.922	28.967	7.8	162.2	0.6	27.21	216.84	3.93	247.2	Aqr
3 Okt 2021	23h28m41.92s	-04 39' 08.0"	29.922	28.973	7.8	161.2	0.6	26.82	217.88	3.90	247.2	Aqr
4 Okt 2021	23h28m36.23s	-04 39' 44.2"	29.922	28.979	7.8	160.2	0.6	26.42	218.92	3.87	247.3	Aqr
5 Okt 2021	23h28m30.58s	-04 40' 19.9"	29.922	28.985	7.8	159.2	0.7	26.02	219.94	3.83	247.3	Aqr
6 Okt 2021	23h28m24.98s	-04 40' 55.4"	29.922	28.991	7.8	158.2	0.7	25.61	220.96	3.80	247.3	Aqr
7 Okt 2021	23h28m19.44s	-04 41' 30.4"	29.922	28.998	7.8	157.2	0.7	25.19	221.97	3.76	247.3	Aqr
8 Okt 2021	23h28m13.94s	-04 42' 05.1"	29.922	29.005	7.8	156.2	0.8	24.76	222.98	3.73	247.4	Aqr
9 Okt 2021	23h28m08.50s	-04 42' 39.4"	29.922	29.012	7.8	155.2	0.8	24.32	223.97	3.69	247.4	Aqr
10 Okt 2021	23h28m03.11s	-04 43' 13.3"	29.922	29.020	7.8	154.2	0.8	23.88	224.96	3.65	247.4	Aqr
11 Okt 2021	23h27m57.79s	-04 43' 46.8"	29.922	29.028	7.8	153.2	0.9	23.43	225.94	3.61	247.5	Aqr
12 Okt 2021	23h27m52.52s	-04 44' 19.8"	29.922	29.036	7.8	152.1	0.9	22.97	226.91	3.56	247.5	Aqr
13 Okt 2021	23h27m47.32s	-04 44' 52.4"	29.922	29.044	7.8	151.1	0.9	22.50	227.88	3.52	247.5	Aqr
14 Okt 2021	23h27m42.19s	-04 45' 24.5"	29.922	29.053	7.8	150.1	1.0	22.03	228.83	3.47	247.6	Aqr
15 Okt 2021	23h27m37.12s	-04 45' 56.2"	29.922	29.062	7.8	149.1	1.0	21.55	229.78	3.42	247.6	Aqr
16 Okt 2021	23h27m32.12s	-04 46' 27.3"	29.922	29.071	7.8	148.1	1.0	21.07	230.73	3.37	247.6	Aqr
17 Okt 2021	23h27m27.19s	-04 46' 58.0"	29.922	29.080	7.8	147.1	1.0	20.58	231.66	3.32	247.7	Aqr
18 Okt 2021	23h27m22.33s	-04 47' 28.1"	29.922	29.090	7.8	146.1	1.1	20.08	232.59	3.27	247.7	Aqr
19 Okt 2021	23h27m17.55s	-04 47' 57.8"	29.922	29.100	7.8	145.1	1.1	19.58	233.51	3.22	247.7	Aqr
20 Okt 2021	23h27m12.84s	-04 48' 26.9"	29.922	29.110	7.8	144.0	1.1	19.07	234.43	3.17	247.8	Aqr
21 Okt 2021	23h27m08.22s	-04 48' 55.4"	29.922	29.120	7.8	143.0	1.1	18.56	235.34	3.11	247.8	Aqr
22 Okt 2021	23h27m03.67s	-04 49' 23.4"	29.922	29.131	7.8	142.0	1.2	18.04	236.24	3.06	247.9	Aqr
23 Okt 2021	23h26m59.20s	-04 49' 50.9"	29.922	29.142	7.8	141.0	1.2	17.51	237.13	3.00	247.9	Aqr

EPHEMERIDE 2021 – NEPTUN

Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
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24 Okt 2021	23h26m54.82s	-04 50' 17.7"	29.922	29.153	7.8	140.0	1.2	16.98	238.02	2.94	247.9	Aqr
25 Okt 2021	23h26m50.53s	-04 50' 44.0"	29.922	29.164	7.8	139.0	1.3	16.45	238.91	2.88	248.0	Aqr
26 Okt 2021	23h26m46.32s	-04 51' 09.7"	29.922	29.176	7.8	138.0	1.3	15.91	239.78	2.82	248.0	Aqr
27 Okt 2021	23h26m42.20s	-04 51' 34.8"	29.922	29.188	7.8	136.9	1.3	15.37	240.66	2.76	248.1	Aqr
28 Okt 2021	23h26m38.17s	-04 51' 59.3"	29.922	29.200	7.8	135.9	1.3	14.82	241.52	2.69	248.1	Aqr
29 Okt 2021	23h26m34.23s	-04 52' 23.1"	29.922	29.212	7.8	134.9	1.3	14.27	242.38	2.63	248.2	Aqr
30 Okt 2021	23h26m30.39s	-04 52' 46.3"	29.922	29.224	7.8	133.9	1.4	13.72	243.24	2.56	248.3	Aqr
31 Okt 2021	23h26m26.64s	-04 53' 08.9"	29.921	29.237	7.8	132.9	1.4	13.16	244.09	2.50	248.3	Aqr
1 Nov 2021	23h26m22.99s	-04 53' 30.8"	29.921	29.250	7.8	131.9	1.4	12.60	244.93	2.43	248.4	Aqr
2 Nov 2021	23h26m19.44s	-04 53' 52.1"	29.921	29.263	7.8	130.8	1.4	12.03	245.77	2.36	248.4	Aqr
3 Nov 2021	23h26m15.99s	-04 54' 12.6"	29.921	29.276	7.8	129.8	1.5	11.46	246.61	2.29	248.5	Aqr
4 Nov 2021	23h26m12.65s	-04 54' 32.5"	29.921	29.290	7.8	128.8	1.5	10.89	247.44	2.22	248.6	Aqr
5 Nov 2021	23h26m09.41s	-04 54' 51.7"	29.921	29.303	7.8	127.8	1.5	10.32	248.27	2.14	248.7	Aqr
6 Nov 2021	23h26m06.27s	-04 55' 10.2"	29.921	29.317	7.8	126.8	1.5	9.74	249.09	2.07	248.8	Aqr
7 Nov 2021	23h26m03.24s	-04 55' 27.9"	29.921	29.331	7.8	125.8	1.5	9.16	249.91	2.00	248.8	Aqr
8 Nov 2021	23h26m00.32s	-04 55' 45.0"	29.921	29.346	7.8	124.7	1.6	8.57	250.72	1.92	248.9	Aqr
9 Nov 2021	23h25m57.51s	-04 56' 01.3"	29.921	29.360	7.8	123.7	1.6	7.99	251.54	1.85	249.1	Aqr
10 Nov 2021	23h25m54.81s	-04 56' 16.9"	29.921	29.374	7.8	122.7	1.6	7.40	252.34	1.77	249.2	Aqr
11 Nov 2021	23h25m52.23s	-04 56' 31.7"	29.921	29.389	7.9	121.7	1.6	6.81	253.15	1.69	249.3	Aqr
12 Nov 2021	23h25m49.75s	-04 56' 45.8"	29.921	29.404	7.9	120.7	1.6	6.22	253.95	1.61	249.4	Aqr
13 Nov 2021	23h25m47.39s	-04 56' 59.1"	29.921	29.419	7.9	119.7	1.6	5.63	254.75	1.53	249.6	Aqr
14 Nov 2021	23h25m45.15s	-04 57' 11.7"	29.921	29.434	7.9	118.6	1.7	5.03	255.54	1.46	249.8	Aqr
15 Nov 2021	23h25m43.02s	-04 57' 23.5"	29.921	29.450	7.9	117.6	1.7	4.43	256.34	1.38	250.0	Aqr
16 Nov 2021	23h25m41.01s	-04 57' 34.5"	29.921	29.465	7.9	116.6	1.7	3.83	257.13	1.30	250.2	Aqr
17 Nov 2021	23h25m39.12s	-04 57' 44.8"	29.921	29.481	7.9	115.6	1.7	3.23	257.92	1.21	250.4	Aqr
18 Nov 2021	23h25m37.34s	-04 57' 54.3"	29.921	29.496	7.9	114.6	1.7	2.63	258.70	1.13	250.7	Aqr
19 Nov 2021	23h25m35.69s	-04 58' 03.0"	29.921	29.512	7.9	113.6	1.7	2.03	259.49	1.05	251.0	Aqr
20 Nov 2021	23h25m34.15s	-04 58' 10.9"	29.921	29.528	7.9	112.6	1.7	1.42	260.27	0.97	251.4	Aqr
21 Nov 2021	23h25m32.74s	-04 58' 18.1"	29.921	29.544	7.9	111.5	1.8	0.82	261.05	0.89	251.8	Aqr
22 Nov 2021	23h25m31.44s	-04 58' 24.4"	29.921	29.560	7.9	110.5	1.8	0.21	261.83	0.80	252.4	Aqr
23 Nov 2021	23h25m30.27s	-04 58' 30.0"	29.921	29.577	7.9	109.5	1.8	-0.39	262.61	0.72	253.0	Aqr
24 Nov 2021	23h25m29.22s	-04 58' 34.7"	29.921	29.593	7.9	108.5	1.8	-1.00	263.39	0.63	253.9	Aqr
25 Nov 2021	23h25m28.30s	-04 58' 38.7"	29.921	29.610	7.9	107.5	1.8	-1.61	264.17	0.55	255.0	Aqr
26 Nov 2021	23h25m27.50s	-04 58' 41.8"	29.921	29.626	7.9	106.5	1.8	-2.21	264.94	0.47	256.4	Aqr
27 Nov 2021	23h25m26.83s	-04 58' 44.1"	29.921	29.643	7.9	105.5	1.8	-2.82	265.72	0.38	258.6	Aqr
28 Nov 2021	23h25m26.28s	-04 58' 45.7"	29.921	29.660	7.9	104.4	1.8	-3.43	266.49	0.30	262.0	Aqr
29 Nov 2021	23h25m25.85s	-04 58' 46.4"	29.921	29.677	7.9	103.4	1.8	-4.04	267.27	0.22	268.0	Aqr
30 Nov 2021	23h25m25.56s	-04 58' 46.3"	29.921	29.693	7.9	102.4	1.8	-4.65	268.04	0.14	281.0	Aqr
1 Dez 2021	23h25m25.39s	-04 58' 45.3"	29.921	29.710	7.9	101.4	1.9	-5.25	268.82	0.08	317.3	Aqr
2 Dez 2021	23h25m25.35s	-04 58' 43.6"	29.921	29.727	7.9	100.4	1.9	-5.86	269.59	0.10	14.6	Aqr
3 Dez 2021	23h25m25.43s	-04 58' 41.0"	29.921	29.745	7.9	99.4	1.9	-6.47	270.37	0.17	39.2	Aqr
4 Dez 2021	23h25m25.65s	-04 58' 37.6"	29.921	29.762	7.9	98.4	1.9	-7.07	271.15	0.25	48.7	Aqr
5 Dez 2021	23h25m25.99s	-04 58' 33.4"	29.921	29.779	7.9	97.3	1.9	-7.68	271.93	0.33	53.4	Aqr
6 Dez 2021	23h25m26.46s	-04 58' 28.3"	29.921	29.796	7.9	96.3	1.9	-8.28	272.70	0.42	56.3	Aqr
7 Dez 2021	23h25m27.07s	-04 58' 22.4"	29.921	29.813	7.9	95.3	1.9	-8.89	273.48	0.51	58.1	Aqr
8 Dez 2021	23h25m27.80s	-04 58' 15.7"	29.921	29.831	7.9	94.3	1.9	-9.49	274.27	0.59	59.4	Aqr
9 Dez 2021	23h25m28.66s	-04 58' 08.1"	29.921	29.848	7.9	93.3	1.9	-10.09	275.05	0.68	60.4	Aqr
10 Dez 2021	23h25m29.65s	-04 57' 59.8"	29.921	29.865	7.9	92.3	1.9	-10.69	275.83	0.77	61.2	Aqr
11 Dez 2021	23h25m30.76s	-04 57' 50.6"	29.921	29.883	7.9	91.3	1.9	-11.29	276.62	0.85	61.8	Aqr
12 Dez 2021	23h25m32.01s	-04 57' 40.6"	29.921	29.900	7.9	90.3	1.9	-11.89	277.41	0.94	62.3	Aqr
13 Dez 2021	23h25m33.38s	-04 57' 29.8"	29.921	29.917	7.9	89.3	1.9	-12.49	278.20	1.03	62.7	Aqr
14 Dez 2021	23h25m34.88s	-04 57' 18.1"	29.921	29.935	7.9	88.2	1.9	-13.08	278.99	1.12	63.0	Aqr
15 Dez 2021	23h25m36.51s	-04 57' 05.7"	29.921	29.952	7.9	87.2	1.9	-13.67	279.79	1.20	63.3	Aqr
16 Dez 2021	23h25m38.26s	-04 56' 52.4"	29.921	29.969	7.9	86.2	1.9	-14.26	280.59	1.29	63.6	Aqr
17 Dez 2021	23h25m40.14s	-04 56' 38.4"	29.921	29.987	7.9	85.2	1.9	-14.85	281.39	1.37	63.8	Aqr
18 Dez 2021	23h25m42.15s	-04 56' 23.5"	29.921	30.004	7.9	84.2	1.9	-15.44	282.20	1.46	64.0	Aqr
19 Dez 2021	23h25m44.28s	-04 56' 07.9"	29.921	30.021	7.9	83.2	1.9	-16.02	283.01	1.54	64.2	Aqr
20 Dez 2021	23h25m46.54s	-04 55' 51.4"	29.921	30.038	7.9	82.2	1.9	-16.60	283.82	1.63	64.3	Aqr
21 Dez 2021	23h25m48.92s	-04 55' 34.2"	29.920	30.055	7.9	81.2	1.9	-17.18	284.63	1.71	64.5	Aqr
22 Dez 2021	23h25m51.43s	-04 55' 16.1"	29.920	30.073	7.9	80.2	1.9	-17.76	285.45	1.80	64.6	Aqr
23 Dez 2021	23h25m54.06s	-04 54' 57.3"	29.920	30.090	7.9	79.2	1.9	-18.33	286.28	1.88	64.7	Aqr
24 Dez 2021	23h25m56.82s	-04 54' 37.8"	29.920	30.107	7.9	78.2	1.8	-18.91	287.11	1.97	64.8	Aqr
25 Dez 2021	23h25m59.69s	-04 54' 17.4"	29.920	30.124	7.9	77.2	1.8	-19.47	287.94	2.05	64.9	Aqr
26 Dez 2021	23h26m02.69s	-04 53' 56.3"	29.920	30.140	7.9	76.2	1.8	-20.04	288.78	2.13	65.0	Aqr
27 Dez 2021	23h26m05.82s	-04 53' 34.4"	29.920	30.157	7.9	75.2	1.8	-20.60	289.62	2.22	65.1	Aqr
28 Dez 2021	23h26m09.06s	-04 53' 11.7"	29.920	30.174	7.9	74.2	1.8	-21.16	290.47	2.30	65.2	Aqr
29 Dez 2021	23h26m12.42s	-04 52' 48.3"	29.920	30.191	7.9	73.1	1.8	-21.71	291.32	2.38	65.3	Aqr
30 Dez 2021	23h26m15.91s	-04 52' 24.1"	29.920	30.207	7.9	72.1	1.8	-22.26	292.18	2.46	65.4	Aqr
31 Dez 2021	23h26m19.51s	-04 51' 59.2"	29.920	30.224	7.9	71.1	1.8	-22.81	293.04	2.54	65.4	Aqr
1 Jan 2022	23h26m23.23s	-04 51' 33.5"	29.920	30.240	7.9	70.1	1.8	-23.35	293.92	2.62	65.5	Aqr