



Die Bahn des Planeten Uranus 2020

EPHEMERIDE 2020 – URANUS

Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
1 Jan 2020	02h01m36.09s	+11 50' 49.2"	19.819	19.419	5.7	112.7	2.6	13.47	272.25	1.30	252.7	Ari
2 Jan 2020	02h01m34.15s	+11 50' 40.8"	19.818	19.435	5.7	111.6	2.6	12.85	273.03	1.17	253.0	Ari
3 Jan 2020	02h01m32.40s	+11 50' 33.4"	19.818	19.451	5.7	110.6	2.7	12.24	273.80	1.05	253.4	Ari
4 Jan 2020	02h01m30.85s	+11 50' 27.2"	19.818	19.467	5.7	109.6	2.7	11.63	274.57	0.92	253.9	Ari
5 Jan 2020	02h01m29.50s	+11 50' 21.9"	19.818	19.483	5.7	108.6	2.7	11.02	275.34	0.79	254.6	Ari
6 Jan 2020	02h01m28.35s	+11 50' 17.8"	19.818	19.499	5.7	107.5	2.7	10.41	276.10	0.66	255.5	Ari
7 Jan 2020	02h01m27.39s	+11 50' 14.7"	19.818	19.516	5.7	106.5	2.7	9.80	276.87	0.53	256.8	Ari
8 Jan 2020	02h01m26.64s	+11 50' 12.7"	19.818	19.532	5.7	105.5	2.7	9.20	277.64	0.40	259.1	Ari
9 Jan 2020	02h01m26.08s	+11 50' 11.8"	19.818	19.549	5.8	104.5	2.8	8.60	278.40	0.27	263.6	Ari
10 Jan 2020	02h01m25.73s	+11 50' 12.0"	19.818	19.566	5.8	103.5	2.8	7.99	279.16	0.14	276.1	Ari
11 Jan 2020	02h01m25.57s	+11 50' 13.2"	19.817	19.582	5.8	102.4	2.8	7.39	279.93	0.06	343.3	Ari
12 Jan 2020	02h01m25.62s	+11 50' 15.5"	19.817	19.599	5.8	101.4	2.8	6.80	280.69	0.15	45.3	Ari
13 Jan 2020	02h01m25.86s	+11 50' 18.9"	19.817	19.616	5.8	100.4	2.8	6.20	281.45	0.27	56.9	Ari
14 Jan 2020	02h01m26.31s	+11 50' 23.4"	19.817	19.633	5.8	99.4	2.8	5.61	282.21	0.40	61.2	Ari
15 Jan 2020	02h01m26.95s	+11 50' 28.9"	19.817	19.650	5.8	98.4	2.8	5.02	282.98	0.53	63.4	Ari
16 Jan 2020	02h01m27.80s	+11 50' 35.5"	19.817	19.667	5.8	97.4	2.8	4.43	283.74	0.67	64.7	Ari
17 Jan 2020	02h01m28.85s	+11 50' 43.2"	19.817	19.684	5.8	96.3	2.8	3.85	284.50	0.80	65.6	Ari
18 Jan 2020	02h01m30.10s	+11 50' 52.0"	19.817	19.701	5.8	95.3	2.8	3.26	285.27	0.93	66.2	Ari
19 Jan 2020	02h01m31.55s	+11 51' 01.8"	19.816	19.718	5.8	94.3	2.8	2.69	286.03	1.06	66.7	Ari
20 Jan 2020	02h01m33.20s	+11 51' 12.7"	19.816	19.735	5.8	93.3	2.8	2.11	286.80	1.19	67.1	Ari
21 Jan 2020	02h01m35.06s	+11 51' 24.7"	19.816	19.752	5.8	92.3	2.8	1.54	287.56	1.33	67.4	Ari
22 Jan 2020	02h01m37.12s	+11 51' 37.8"	19.816	19.769	5.8	91.3	2.8	0.97	288.33	1.46	67.6	Ari
23 Jan 2020	02h01m39.37s	+11 51' 52.0"	19.816	19.787	5.8	90.3	2.8	0.40	289.10	1.59	67.9	Ari
24 Jan 2020	02h01m41.83s	+11 52' 07.2"	19.816	19.804	5.8	89.3	2.8	-0.16	289.87	1.72	68.0	Ari
25 Jan 2020	02h01m44.49s	+11 52' 23.5"	19.816	19.821	5.8	88.3	2.8	-0.72	290.64	1.85	68.2	Ari
26 Jan 2020	02h01m47.35s	+11 52' 40.8"	19.816	19.838	5.8	87.3	2.8	-1.28	291.41	1.98	68.3	Ari
27 Jan 2020	02h01m50.40s	+11 52' 59.3"	19.815	19.855	5.8	86.3	2.8	-1.83	292.19	2.11	68.4	Ari
28 Jan 2020	02h01m53.66s	+11 53' 18.7"	19.815	19.872	5.8	85.3	2.8	-2.38	292.97	2.24	68.5	Ari
29 Jan 2020	02h01m57.11s	+11 53' 39.2"	19.815	19.889	5.8	84.3	2.8	-2.93	293.74	2.37	68.6	Ari
30 Jan 2020	02h02m00.76s	+11 54' 00.8"	19.815	19.907	5.8	83.3	2.8	-3.47	294.53	2.50	68.7	Ari
31 Jan 2020	02h02m04.60s	+11 54' 23.4"	19.815	19.924	5.8	82.3	2.8	-4.01	295.31	2.63	68.8	Ari
1 Feb 2020	02h02m08.64s	+11 54' 47.0"	19.815	19.941	5.8	81.3	2.8	-4.54	296.10	2.75	68.8	Ari
2 Feb 2020	02h02m12.87s	+11 55' 11.7"	19.815	19.957	5.8	80.3	2.8	-5.07	296.88	2.88	68.9	Ari
3 Feb 2020	02h02m17.29s	+11 55' 37.3"	19.815	19.974	5.8	79.3	2.8	-5.59	297.67	3.00	69.0	Ari
4 Feb 2020	02h02m21.90s	+11 56' 04.0"	19.814	19.991	5.8	78.3	2.8	-6.11	298.47	3.13	69.0	Ari
5 Feb 2020	02h02m26.71s	+11 56' 31.6"	19.814	20.008	5.8	77.3	2.8	-6.63	299.26	3.25	69.1	Ari
6 Feb 2020	02h02m31.69s	+11 57' 00.3"	19.814	20.025	5.8	76.3	2.8	-7.14	300.06	3.37	69.1	Ari
7 Feb 2020	02h02m36.87s	+11 57' 29.9"	19.814	20.041	5.8	75.3	2.8	-7.64	300.87	3.49	69.2	Ari
8 Feb 2020	02h02m42.23s	+11 58' 00.5"	19.814	20.058	5.8	74.3	2.7	-8.14	301.67	3.61	69.2	Ari
9 Feb 2020	02h02m47.77s	+11 58' 32.0"	19.814	20.074	5.8	73.3	2.7	-8.64	302.48	3.73	69.2	Ari
10 Feb 2020	02h02m53.49s	+11 59' 04.5"	19.814	20.091	5.8	72.3	2.7	-9.13	303.29	3.85	69.3	Ari
11 Feb 2020	02h02m59.40s	+11 59' 38.0"	19.814	20.107	5.8	71.3	2.7	-9.61	304.11	3.97	69.3	Ari
12 Feb 2020	02h03m05.48s	+12 00' 12.3"	19.813	20.123	5.8	70.4	2.7	-10.09	304.93	4.09	69.3	Ari
13 Feb 2020	02h03m11.74s	+12 00' 47.6"	19.813	20.139	5.8	69.4	2.7	-10.57	305.75	4.20	69.4	Ari
14 Feb 2020	02h03m18.18s	+12 01' 23.8"	19.813	20.155	5.8	68.4	2.7	-11.03	306.58	4.32	69.4	Ari
15 Feb 2020	02h03m24.80s	+12 02' 01.0"	19.813	20.171	5.8	67.4	2.6	-11.50	307.41	4.43	69.4	Ari
16 Feb 2020	02h03m31.58s	+12 02' 39.0"	19.813	20.187	5.8	66.4	2.6	-11.95	308.24	4.54	69.5	Ari
17 Feb 2020	02h03m38.54s	+12 03' 17.9"	19.813	20.203	5.8	65.5	2.6	-12.41	309.08	4.65	69.5	Ari
18 Feb 2020	02h03m45.67s	+12 03' 57.7"	19.813	20.218	5.8	64.5	2.6	-12.85	309.92	4.77	69.5	Ari
19 Feb 2020	02h03m52.98s	+12 04' 38.3"	19.813	20.234	5.8	63.5	2.6	-13.29	310.77	4.88	69.5	Ari
20 Feb 2020	02h04m00.44s	+12 05' 19.9"	19.812	20.249	5.8	62.5	2.5	-13.72	311.62	4.98	69.6	Ari
21 Feb 2020	02h04m08.08s	+12 06' 02.3"	19.812	20.264	5.8	61.5	2.5	-14.15	312.47	5.09	69.6	Ari
22 Feb 2020	02h04m15.88s	+12 06' 45.5"	19.812	20.279	5.8	60.6	2.5	-14.57	313.33	5.20	69.6	Ari
23 Feb 2020	02h04m23.84s	+12 07' 29.5"	19.812	20.294	5.8	59.6	2.5	-14.98	314.20	5.30	69.6	Ari
24 Feb 2020	02h04m31.96s	+12 08' 14.4"	19.812	20.309	5.8	58.6	2.4	-15.39	315.06	5.41	69.7	Ari
25 Feb 2020	02h04m40.24s	+12 09' 00.1"	19.812	20.324	5.8	57.7	2.4	-15.79	315.93	5.51	69.7	Ari
26 Feb 2020	02h04m48.67s	+12 09' 46.5"	19.812	20.338	5.8	56.7	2.4	-16.18	316.81	5.61	69.7	Ari
27 Feb 2020	02h04m57.26s	+12 10' 33.8"	19.812	20.352	5.8	55.7	2.4	-16.57	317.69	5.71	69.7	Ari
28 Feb 2020	02h05m06.00s	+12 11' 21.8"	19.811	20.366	5.8	54.8	2.3	-16.94	318.57	5.80	69.8	Ari
29 Feb 2020	02h05m14.89s	+12 12' 10.5"	19.811	20.380	5.8	53.8	2.3	-17.32	319.46	5.90	69.8	Ari
1 Mar 2020	02h05m23.92s	+12 13' 00.0"	19.811	20.394	5.8	52.8	2.3	-17.68	320.36	5.99	69.8	Ari
2 Mar 2020	02h05m33.10s	+12 13' 50.3"	19.811	20.408	5.8	51.9	2.3	-18.04	321.25	6.09	69.8	Ari
3 Mar 2020	02h05m42.43s	+12 14' 41.2"	19.811	20.421	5.8	50.9	2.2	-18.39	322.16	6.18	69.8	Ari
4 Mar 2020	02h05m51.89s	+12 15' 32.8"	19.811	20.435	5.8	49.9	2.2	-18.73	323.06	6.27	69.8	Ari
5 Mar 2020	02h06m01.49s	+12 16' 25.1"	19.811	20.448	5.8	49.0	2.2	-19.06	323.97	6.36	69.9	Ari
6 Mar 2020	02h06m11.22s	+12 17' 18.1"	19.811	20.460	5.8	48.0	2.1	-19.38	324.89	6.44	69.9	Ari
7 Mar 2020	02h06m21.09s	+12 18' 11.7"	19.810	20.473	5.9	47.1	2.1	-19.70	325.81	6.53	69.9	Ari
8 Mar 2020	02h06m31.09s	+12 19' 06.0"	19.810	20.486	5.9	46.1	2.1	-20.01	326.73	6.61	69.9	Ari
9 Mar 2020	02h06m41.22s	+12 20' 00.9"	19.810	20.498	5.9	45.1	2.0	-20.31	327.66	6.69	69.9	Ari
10 Mar 2020	02h06m51.47s	+12 20' 56.4"	19.810	20.510	5.9	44.2	2.0	-20.60	328.59	6.77	70.0	Ari
11 Mar 2020	02h07m01.84s	+12 21' 52.5"	19.810	20.522	5.9	43.2	2.0	-20.89	329.53	6.85	70.0	Ari
12 Mar 2020	02h07m12.34s	+12 22' 49.2"	19.810	20.534	5.9	42.3	1.9	-21.16	330.47	6.93	70.0	Ari
13 Mar 2020	02h07m22.96s	+12 23' 46.5"	19.810	20.545	5.9	41.3	1.9	-21.43	331.41	7.01	70.0	Ari
14 Mar 2020	02h07m33.70s	+12 24' 44.4"	19.810	20.556	5.9	40.4	1.9	-21.69	332.36	7.08	70.0	Ari

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Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
15 Mar 2020	02h07m44.55s	+12 25' 42.7"	19.809	20.567	5.9	39.4	1.8	-21.94	333.31	7.15	70.1	Ari
16 Mar 2020	02h07m55.51s	+12 26' 41.7"	19.809	20.578	5.9	38.5	1.8	-22.18	334.27	7.23	70.1	Ari
17 Mar 2020	02h08m06.59s	+12 27' 41.1"	19.809	20.589	5.9	37.5	1.8	-22.41	335.22	7.30	70.1	Ari
18 Mar 2020	02h08m17.77s	+12 28' 41.1"	19.809	20.599	5.9	36.6	1.7	-22.63	336.19	7.36	70.1	Ari
19 Mar 2020	02h08m29.06s	+12 29' 41.6"	19.809	20.610	5.9	35.6	1.7	-22.84	337.15	7.43	70.1	Ari
20 Mar 2020	02h08m40.45s	+12 30' 42.5"	19.809	20.619	5.9	34.7	1.6	-23.05	338.12	7.50	70.1	Ari
21 Mar 2020	02h08m51.95s	+12 31' 43.9"	19.809	20.629	5.9	33.8	1.6	-23.24	339.10	7.56	70.2	Ari
22 Mar 2020	02h09m03.54s	+12 32' 45.8"	19.809	20.639	5.9	32.8	1.6	-23.43	340.07	7.62	70.2	Ari
23 Mar 2020	02h09m15.23s	+12 33' 48.1"	19.808	20.648	5.9	31.9	1.5	-23.60	341.05	7.68	70.2	Ari
24 Mar 2020	02h09m27.01s	+12 34' 50.9"	19.808	20.657	5.9	30.9	1.5	-23.77	342.03	7.74	70.2	Ari
25 Mar 2020	02h09m38.89s	+12 35' 54.0"	19.808	20.666	5.9	30.0	1.4	-23.92	343.02	7.80	70.2	Ari
26 Mar 2020	02h09m50.85s	+12 36' 57.6"	19.808	20.674	5.9	29.1	1.4	-24.07	344.00	7.85	70.2	Ari
27 Mar 2020	02h10m02.90s	+12 38' 01.5"	19.808	20.683	5.9	28.1	1.4	-24.21	344.99	7.91	70.3	Ari
28 Mar 2020	02h10m15.03s	+12 39' 05.8"	19.808	20.691	5.9	27.2	1.3	-24.33	345.98	7.96	70.3	Ari
29 Mar 2020	02h10m27.23s	+12 40' 10.5"	19.808	20.698	5.9	26.2	1.3	-24.45	346.97	8.01	70.3	Ari
30 Mar 2020	02h10m39.52s	+12 41' 15.5"	19.808	20.706	5.9	25.3	1.2	-24.56	347.97	8.05	70.3	Ari
31 Mar 2020	02h10m51.88s	+12 42' 20.8"	19.807	20.713	5.9	24.4	1.2	-24.66	348.97	8.10	70.3	Ari
1 Apr 2020	02h11m04.31s	+12 43' 26.4"	19.807	20.720	5.9	23.4	1.1	-24.74	349.96	8.14	70.3	Ari
2 Apr 2020	02h11m16.81s	+12 44' 32.3"	19.807	20.727	5.9	22.5	1.1	-24.82	350.96	8.19	70.4	Ari
3 Apr 2020	02h11m29.38s	+12 45' 38.4"	19.807	20.733	5.9	21.6	1.1	-24.89	351.96	8.23	70.4	Ari
4 Apr 2020	02h11m42.01s	+12 46' 44.9"	19.807	20.740	5.9	20.6	1.0	-24.94	352.96	8.26	70.4	Ari
5 Apr 2020	02h11m54.70s	+12 47' 51.5"	19.807	20.746	5.9	19.7	1.0	-24.99	353.97	8.30	70.4	Ari
6 Apr 2020	02h12m07.45s	+12 48' 58.4"	19.807	20.751	5.9	18.8	0.9	-25.03	354.97	8.34	70.4	Ari
7 Apr 2020	02h12m20.25s	+12 50' 05.5"	19.807	20.757	5.9	17.9	0.9	-25.06	355.97	8.37	70.4	Ari
8 Apr 2020	02h12m33.11s	+12 51' 12.8"	19.806	20.762	5.9	16.9	0.8	-25.07	356.97	8.40	70.5	Ari
9 Apr 2020	02h12m46.01s	+12 52' 20.3"	19.806	20.767	5.9	16.0	0.8	-25.08	357.98	8.43	70.5	Ari
10 Apr 2020	02h12m58.97s	+12 53' 28.0"	19.806	20.772	5.9	15.1	0.8	-25.07	358.98	8.46	70.5	Ari
11 Apr 2020	02h13m11.97s	+12 54' 35.8"	19.806	20.776	5.9	14.2	0.7	-25.06	359.98	8.49	70.5	Ari
12 Apr 2020	02h13m25.02s	+12 55' 43.8"	19.806	20.780	5.9	13.2	0.7	-25.04	0.98	8.51	70.5	Ari
13 Apr 2020	02h13m38.11s	+12 56' 51.9"	19.806	20.784	5.9	12.3	0.6	-25.00	1.98	8.54	70.5	Ari
14 Apr 2020	02h13m51.23s	+12 58' 00.2"	19.806	20.788	5.9	11.4	0.6	-24.96	2.98	8.56	70.6	Ari
15 Apr 2020	02h14m04.39s	+12 59' 08.5"	19.806	20.791	5.9	10.5	0.5	-24.91	3.98	8.58	70.6	Ari
16 Apr 2020	02h14m17.59s	+13 00' 17.0"	19.805	20.794	5.9	9.5	0.5	-24.84	4.98	8.60	70.6	Ari
17 Apr 2020	02h14m30.82s	+13 01' 25.5"	19.805	20.797	5.9	8.6	0.4	-24.77	5.97	8.62	70.6	Ari
18 Apr 2020	02h14m44.07s	+13 02' 34.1"	19.805	20.800	5.9	7.7	0.4	-24.69	6.97	8.63	70.6	Ari
19 Apr 2020	02h14m57.35s	+13 03' 42.8"	19.805	20.802	5.9	6.8	0.3	-24.59	7.96	8.65	70.6	Ari
20 Apr 2020	02h15m10.65s	+13 04' 51.5"	19.805	20.804	5.9	5.9	0.3	-24.49	8.95	8.66	70.7	Ari
21 Apr 2020	02h15m23.98s	+13 06' 00.2"	19.805	20.806	5.9	5.0	0.3	-24.38	9.93	8.67	70.7	Ari
22 Apr 2020	02h15m37.32s	+13 07' 08.9"	19.805	20.807	5.9	4.0	0.2	-24.25	10.92	8.68	70.7	Ari
23 Apr 2020	02h15m50.67s	+13 08' 17.6"	19.805	20.809	5.9	3.1	0.2	-24.12	11.90	8.68	70.7	Ari
24 Apr 2020	02h16m04.04s	+13 09' 26.4"	19.804	20.809	5.9	2.2	0.1	-23.98	12.88	8.69	70.7	Ari
25 Apr 2020	02h16m17.41s	+13 10' 35.0"	19.804	20.810	5.9	1.3	0.1	-23.83	13.86	8.69	70.7	Ari
26 Apr 2020	02h16m30.79s	+13 11' 43.7"	19.804	20.811	5.9	0.6	0.0	-23.67	14.83	8.69	70.8	Ari
27 Apr 2020	02h16m44.17s	+13 12' 52.2"	19.804	20.811	5.9	0.7	0.0	-23.50	15.80	8.69	70.8	Ari
28 Apr 2020	02h16m57.56s	+13 14' 00.7"	19.804	20.810	5.9	1.6	0.1	-23.32	16.77	8.69	70.8	Ari
29 Apr 2020	02h17m10.94s	+13 15' 09.1"	19.804	20.810	5.9	2.4	0.1	-23.13	17.73	8.68	70.8	Ari
30 Apr 2020	02h17m24.31s	+13 16' 17.4"	19.804	20.809	5.9	3.3	0.2	-22.93	18.69	8.68	70.8	Ari
1 Mai 2020	02h17m37.68s	+13 17' 25.6"	19.804	20.808	5.9	4.3	0.2	-22.72	19.64	8.67	70.8	Ari
2 Mai 2020	02h17m51.03s	+13 18' 33.6"	19.803	20.807	5.9	5.2	0.3	-22.51	20.60	8.66	70.9	Ari
3 Mai 2020	02h18m04.37s	+13 19' 41.5"	19.803	20.805	5.9	6.1	0.3	-22.28	21.54	8.65	70.9	Ari
4 Mai 2020	02h18m17.70s	+13 20' 49.3"	19.803	20.804	5.9	7.0	0.4	-22.05	22.49	8.63	70.9	Ari
5 Mai 2020	02h18m31.01s	+13 21' 56.8"	19.803	20.802	5.9	7.9	0.4	-21.81	23.43	8.62	70.9	Ari
6 Mai 2020	02h18m44.30s	+13 23' 04.2"	19.803	20.799	5.9	8.8	0.4	-21.56	24.36	8.60	70.9	Ari
7 Mai 2020	02h18m57.56s	+13 24' 11.4"	19.803	20.797	5.9	9.7	0.5	-21.30	25.29	8.59	70.9	Ari
8 Mai 2020	02h19m10.80s	+13 25' 18.4"	19.803	20.794	5.9	10.6	0.5	-21.03	26.22	8.57	71.0	Ari
9 Mai 2020	02h19m24.01s	+13 26' 25.1"	19.803	20.791	5.9	11.5	0.6	-20.76	27.14	8.55	71.0	Ari
10 Mai 2020	02h19m37.19s	+13 27' 31.7"	19.802	20.787	5.9	12.4	0.6	-20.47	28.06	8.52	71.0	Ari
11 Mai 2020	02h19m50.34s	+13 28' 38.0"	19.802	20.784	5.9	13.3	0.7	-20.18	28.98	8.50	71.0	Ari
12 Mai 2020	02h20m03.45s	+13 29' 44.0"	19.802	20.780	5.9	14.3	0.7	-19.88	29.89	8.47	71.0	Ari
13 Mai 2020	02h20m16.53s	+13 30' 49.8"	19.802	20.776	5.9	15.2	0.8	-19.58	30.79	8.45	71.0	Ari
14 Mai 2020	02h20m29.57s	+13 31' 55.3"	19.802	20.771	5.9	16.1	0.8	-19.26	31.69	8.42	71.1	Ari
15 Mai 2020	02h20m42.56s	+13 33' 00.5"	19.802	20.766	5.9	17.0	0.9	-18.94	32.59	8.39	71.1	Ari
16 Mai 2020	02h20m55.51s	+13 34' 05.4"	19.802	20.762	5.9	17.9	0.9	-18.61	33.48	8.36	71.1	Ari
17 Mai 2020	02h21m08.41s	+13 35' 10.0"	19.802	20.756	5.9	18.8	0.9	-18.27	34.36	8.32	71.1	Ari
18 Mai 2020	02h21m21.27s	+13 36' 14.3"	19.801	20.751	5.9	19.7	1.0	-17.93	35.24	8.29	71.1	Ari
19 Mai 2020	02h21m34.06s	+13 37' 18.3"	19.801	20.745	5.9	20.6	1.0	-17.58	36.12	8.25	71.1	Ari
20 Mai 2020	02h21m46.81s	+13 38' 21.9"	19.801	20.739	5.9	21.5	1.1	-17.22	36.99	8.21	71.1	Ari
21 Mai 2020	02h21m59.49s	+13 39' 25.1"	19.801	20.733	5.9	22.4	1.1	-16.85	37.86	8.17	71.2	Ari
22 Mai 2020	02h22m12.11s	+13 40' 28.0"	19.801	20.726	5.9	23.3	1.2	-16.48	38.72	8.13	71.2	Ari
23 Mai 2020	02h22m24.67s	+13 41' 30.4"	19.801	20.720	5.9	24.2	1.2	-16.10	39.58	8.08	71.2	Ari
24 Mai 2020	02h22m37.17s	+13 42' 32.5"	19.801	20.713	5.9	25.2	1.2	-15.71	40.43	8.04	71.2	Ari
25 Mai 2020	02h22m49.59s	+13 43' 34.2"	19.801	20.706	5.9	26.1	1.3	-15.32	41.28	7.99	71.2	Ari
26 Mai 2020	02h23m01.94s	+13 44' 35.4"	19.800	20.698	5.9	27.0	1.3	-14.92	42.13	7.94	71.2	Ari
27 Mai 2020	02h23m14.22s	+13 45' 36.2"	19.800	20.690	5.9	27.9	1.4	-14.52	42.97	7.89	71.3	Ari

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Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
28 Mai 2020	02h23m26.42s	+13 46' 36.6"	19.800	20.682	5.9	28.8	1.4	-14.11	43.80	7.84	71.3	Ari
29 Mai 2020	02h23m38.54s	+13 47' 36.4"	19.800	20.674	5.9	29.7	1.5	-13.69	44.63	7.79	71.3	Ari
30 Mai 2020	02h23m50.58s	+13 48' 35.8"	19.800	20.666	5.9	30.6	1.5	-13.27	45.46	7.73	71.3	Ari
31 Mai 2020	02h24m02.54s	+13 49' 34.8"	19.800	20.657	5.9	31.5	1.5	-12.84	46.28	7.67	71.3	Ari
1 Jun 2020	02h24m14.41s	+13 50' 33.2"	19.800	20.648	5.9	32.4	1.6	-12.40	47.10	7.62	71.3	Ari
2 Jun 2020	02h24m26.19s	+13 51' 31.1"	19.800	20.639	5.9	33.3	1.6	-11.96	47.91	7.56	71.3	Ari
3 Jun 2020	02h24m37.88s	+13 52' 28.6"	19.799	20.630	5.9	34.2	1.7	-11.52	48.72	7.50	71.4	Ari
4 Jun 2020	02h24m49.48s	+13 53' 25.5"	19.799	20.620	5.9	35.1	1.7	-11.07	49.53	7.43	71.4	Ari
5 Jun 2020	02h25m00.98s	+13 54' 21.8"	19.799	20.611	5.9	36.0	1.7	-10.61	50.33	7.37	71.4	Ari
6 Jun 2020	02h25m12.39s	+13 55' 17.7"	19.799	20.601	5.9	37.0	1.8	-10.15	51.13	7.30	71.4	Ari
7 Jun 2020	02h25m23.70s	+13 56' 13.0"	19.799	20.590	5.9	37.9	1.8	-9.69	51.92	7.24	71.4	Ari
8 Jun 2020	02h25m34.90s	+13 57' 07.7"	19.799	20.580	5.9	38.8	1.8	-9.21	52.71	7.17	71.4	Ari
9 Jun 2020	02h25m46.01s	+13 58' 01.9"	19.799	20.569	5.9	39.7	1.9	-8.74	53.50	7.10	71.5	Ari
10 Jun 2020	02h25m57.01s	+13 58' 55.5"	19.799	20.559	5.9	40.6	1.9	-8.26	54.28	7.03	71.5	Ari
11 Jun 2020	02h26m07.90s	+13 59' 48.5"	19.798	20.547	5.9	41.5	1.9	-7.77	55.06	6.96	71.5	Ari
12 Jun 2020	02h26m18.68s	+14 00' 40.9"	19.798	20.536	5.9	42.4	2.0	-7.28	55.84	6.89	71.5	Ari
13 Jun 2020	02h26m29.35s	+14 01' 32.7"	19.798	20.525	5.9	43.3	2.0	-6.79	56.61	6.81	71.5	Ari
14 Jun 2020	02h26m39.90s	+14 02' 23.9"	19.798	20.513	5.9	44.2	2.1	-6.29	57.38	6.74	71.5	Ari
15 Jun 2020	02h26m50.34s	+14 03' 14.5"	19.798	20.501	5.9	45.1	2.1	-5.78	58.15	6.66	71.5	Ari
16 Jun 2020	02h27m00.66s	+14 04' 04.4"	19.798	20.489	5.9	46.0	2.1	-5.28	58.91	6.58	71.5	Ari
17 Jun 2020	02h27m10.86s	+14 04' 53.7"	19.798	20.477	5.8	47.0	2.1	-4.77	59.67	6.50	71.6	Ari
18 Jun 2020	02h27m20.93s	+14 05' 42.4"	19.798	20.465	5.8	47.9	2.2	-4.25	60.43	6.42	71.6	Ari
19 Jun 2020	02h27m30.88s	+14 06' 30.4"	19.797	20.452	5.8	48.8	2.2	-3.73	61.19	6.34	71.6	Ari
20 Jun 2020	02h27m40.70s	+14 07' 17.7"	19.797	20.439	5.8	49.7	2.2	-3.21	61.94	6.25	71.6	Ari
21 Jun 2020	02h27m50.39s	+14 08' 04.3"	19.797	20.427	5.8	50.6	2.3	-2.68	62.69	6.16	71.6	Ari
22 Jun 2020	02h27m59.95s	+14 08' 50.3"	19.797	20.413	5.8	51.5	2.3	-2.15	63.44	6.08	71.6	Ari
23 Jun 2020	02h28m09.37s	+14 09' 35.5"	19.797	20.400	5.8	52.4	2.3	-1.62	64.19	5.99	71.6	Ari
24 Jun 2020	02h28m18.65s	+14 10' 20.0"	19.797	20.387	5.8	53.4	2.4	-1.08	64.93	5.90	71.7	Ari
25 Jun 2020	02h28m27.80s	+14 11' 03.8"	19.797	20.373	5.8	54.3	2.4	-0.54	65.67	5.81	71.7	Ari
26 Jun 2020	02h28m36.80s	+14 11' 46.9"	19.797	20.359	5.8	55.2	2.4	0.00	66.41	5.71	71.7	Ari
27 Jun 2020	02h28m45.66s	+14 12' 29.2"	19.796	20.345	5.8	56.1	2.4	0.55	67.15	5.62	71.7	Ari
28 Jun 2020	02h28m54.38s	+14 13' 10.8"	19.796	20.331	5.8	57.0	2.5	1.10	67.89	5.53	71.7	Ari
29 Jun 2020	02h29m02.95s	+14 13' 51.7"	19.796	20.317	5.8	57.9	2.5	1.65	68.63	5.43	71.7	Ari
30 Jun 2020	02h29m11.37s	+14 14' 31.8"	19.796	20.303	5.8	58.9	2.5	2.21	69.36	5.33	71.7	Ari
1 Jul 2020	02h29m19.64s	+14 15' 11.1"	19.796	20.288	5.8	59.8	2.5	2.77	70.09	5.23	71.8	Ari
2 Jul 2020	02h29m27.76s	+14 15' 49.6"	19.796	20.274	5.8	60.7	2.6	3.33	70.83	5.14	71.8	Ari
3 Jul 2020	02h29m35.73s	+14 16' 27.4"	19.796	20.259	5.8	61.6	2.6	3.89	71.56	5.04	71.8	Ari
4 Jul 2020	02h29m43.55s	+14 17' 04.4"	19.796	20.244	5.8	62.5	2.6	4.46	72.29	4.94	71.8	Ari
5 Jul 2020	02h29m51.20s	+14 17' 40.7"	19.795	20.229	5.8	63.4	2.6	5.03	73.02	4.83	71.8	Ari
6 Jul 2020	02h29m58.71s	+14 18' 16.1"	19.795	20.214	5.8	64.4	2.7	5.60	73.75	4.73	71.8	Ari
7 Jul 2020	02h30m06.05s	+14 18' 50.7"	19.795	20.199	5.8	65.3	2.7	6.18	74.48	4.63	71.8	Ari
8 Jul 2020	02h30m13.23s	+14 19' 24.6"	19.795	20.183	5.8	66.2	2.7	6.75	75.21	4.52	71.8	Ari
9 Jul 2020	02h30m20.25s	+14 19' 57.6"	19.795	20.168	5.8	67.1	2.7	7.33	75.94	4.42	71.9	Ari
10 Jul 2020	02h30m27.11s	+14 20' 29.8"	19.795	20.152	5.8	68.1	2.7	7.91	76.67	4.31	71.9	Ari
11 Jul 2020	02h30m33.80s	+14 21' 01.2"	19.795	20.136	5.8	69.0	2.7	8.49	77.39	4.20	71.9	Ari
12 Jul 2020	02h30m40.32s	+14 21' 31.7"	19.794	20.121	5.8	69.9	2.8	9.08	78.12	4.09	71.9	Ari
13 Jul 2020	02h30m46.68s	+14 22' 01.5"	19.794	20.105	5.8	70.8	2.8	9.66	78.85	3.99	71.9	Ari
14 Jul 2020	02h30m52.86s	+14 22' 30.3"	19.794	20.089	5.8	71.8	2.8	10.25	79.59	3.87	71.9	Ari
15 Jul 2020	02h30m58.87s	+14 22' 58.4"	19.794	20.073	5.8	72.7	2.8	10.84	80.32	3.76	71.9	Ari
16 Jul 2020	02h31m04.71s	+14 23' 25.5"	19.794	20.057	5.8	73.6	2.8	11.43	81.05	3.65	71.9	Ari
17 Jul 2020	02h31m10.38s	+14 23' 51.9"	19.794	20.040	5.8	74.6	2.8	12.02	81.79	3.54	72.0	Ari
18 Jul 2020	02h31m15.86s	+14 24' 17.3"	19.794	20.024	5.8	75.5	2.8	12.62	82.52	3.42	72.0	Ari
19 Jul 2020	02h31m21.17s	+14 24' 41.9"	19.794	20.008	5.8	76.4	2.9	13.21	83.26	3.31	72.0	Ari
20 Jul 2020	02h31m26.30s	+14 25' 05.6"	19.793	19.991	5.8	77.3	2.9	13.81	84.00	3.19	72.0	Ari
21 Jul 2020	02h31m31.25s	+14 25' 28.4"	19.793	19.975	5.8	78.3	2.9	14.40	84.74	3.07	72.0	Ari
22 Jul 2020	02h31m36.02s	+14 25' 50.3"	19.793	19.958	5.8	79.2	2.9	15.00	85.48	2.96	72.0	Ari
23 Jul 2020	02h31m40.60s	+14 26' 11.4"	19.793	19.942	5.8	80.2	2.9	15.60	86.23	2.84	72.1	Ari
24 Jul 2020	02h31m45.00s	+14 26' 31.5"	19.793	19.925	5.8	81.1	2.9	16.20	86.97	2.72	72.1	Ari
25 Jul 2020	02h31m49.21s	+14 26' 50.7"	19.793	19.908	5.8	82.0	2.9	16.80	87.73	2.60	72.1	Ari
26 Jul 2020	02h31m53.24s	+14 27' 09.0"	19.793	19.891	5.8	83.0	2.9	17.40	88.48	2.48	72.1	Ari
27 Jul 2020	02h31m57.08s	+14 27' 26.5"	19.793	19.875	5.8	83.9	2.9	18.00	89.23	2.36	72.1	Ari
28 Jul 2020	02h32m00.74s	+14 27' 43.0"	19.792	19.858	5.8	84.8	2.9	18.60	89.99	2.24	72.2	Ari
29 Jul 2020	02h32m04.20s	+14 27' 58.6"	19.792	19.841	5.8	85.8	2.9	19.21	90.76	2.12	72.2	Ari
30 Jul 2020	02h32m07.48s	+14 28' 13.3"	19.792	19.824	5.8	86.7	2.9	19.81	91.52	1.99	72.2	Ari
31 Jul 2020	02h32m10.57s	+14 28' 27.0"	19.792	19.807	5.8	87.7	2.9	20.41	92.29	1.87	72.2	Ari
1 Aug 2020	02h32m13.47s	+14 28' 39.9"	19.792	19.790	5.8	88.6	2.9	21.01	93.07	1.75	72.3	Ari
2 Aug 2020	02h32m16.18s	+14 28' 51.9"	19.792	19.774	5.8	89.6	2.9	21.62	93.85	1.63	72.3	Ari
3 Aug 2020	02h32m18.70s	+14 29' 02.9"	19.792	19.757	5.8	90.5	2.9	22.22	94.63	1.51	72.3	Ari
4 Aug 2020	02h32m21.03s	+14 29' 13.0"	19.792	19.740	5.8	91.5	2.9	22.82	95.42	1.38	72.4	Ari
5 Aug 2020	02h32m23.17s	+14 29' 22.2"	19.791	19.723	5.8	92.4	2.9	23.42	96.21	1.26	72.4	Ari
6 Aug 2020	02h32m25.11s	+14 29' 30.5"	19.791	19.706	5.8	93.4	2.9	24.02	97.01	1.14	72.5	Ari
7 Aug 2020	02h32m26.87s	+14 29' 37.9"	19.791	19.689	5.8	94.3	2.9	24.62	97.82	1.01	72.6	Ari
8 Aug 2020	02h32m28.43s	+14 29' 44.3"	19.791	19.672	5.8	95.3	2.9	25.22	98.63	0.89	72.7	Ari
9 Aug 2020	02h32m29.79s	+14 29' 49.8"	19.791	19.656	5.8	96.2	2.9	25.82	99.44	0.76	72.8	Ari

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Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
10 Aug 2020	02h32m30.97s	+14 29' 54.4"	19.791	19.639	5.8	97.2	2.9	26.41	100.26	0.64	73.0	Ari
11 Aug 2020	02h32m31.95s	+14 29' 58.1"	19.791	19.622	5.8	98.1	2.9	27.01	101.09	0.51	73.3	Ari
12 Aug 2020	02h32m32.73s	+14 30' 00.8"	19.791	19.605	5.8	99.1	2.9	27.60	101.93	0.39	73.7	Ari
13 Aug 2020	02h32m33.32s	+14 30' 02.6"	19.790	19.589	5.8	100.0	2.9	28.20	102.77	0.26	74.6	Ari
14 Aug 2020	02h32m33.71s	+14 30' 03.5"	19.790	19.572	5.8	101.0	2.9	28.79	103.62	0.14	77.0	Ari
15 Aug 2020	02h32m33.91s	+14 30' 03.4"	19.790	19.556	5.7	101.9	2.9	29.38	104.48	0.02	118.1	Ari
16 Aug 2020	02h32m33.91s	+14 30' 02.5"	19.790	19.539	5.7	102.9	2.9	29.96	105.34	0.11	245.8	Ari
17 Aug 2020	02h32m33.72s	+14 30' 00.5"	19.790	19.523	5.7	103.9	2.8	30.55	106.22	0.24	249.0	Ari
18 Aug 2020	02h32m33.33s	+14 29' 57.7"	19.790	19.506	5.7	104.8	2.8	31.13	107.10	0.36	250.0	Ari
19 Aug 2020	02h32m32.75s	+14 29' 53.9"	19.790	19.490	5.7	105.8	2.8	31.71	107.99	0.49	250.5	Ari
20 Aug 2020	02h32m31.97s	+14 29' 49.2"	19.790	19.474	5.7	106.8	2.8	32.29	108.89	0.61	250.8	Ari
21 Aug 2020	02h32m31.00s	+14 29' 43.6"	19.789	19.458	5.7	107.7	2.8	32.86	109.80	0.74	250.9	Ari
22 Aug 2020	02h32m29.84s	+14 29' 37.0"	19.789	19.442	5.7	108.7	2.8	33.43	110.72	0.86	251.1	Ari
23 Aug 2020	02h32m28.48s	+14 29' 29.5"	19.789	19.426	5.7	109.7	2.8	34.00	111.65	0.99	251.2	Ari
24 Aug 2020	02h32m26.93s	+14 29' 21.2"	19.789	19.410	5.7	110.6	2.7	34.57	112.59	1.11	251.3	Ari
25 Aug 2020	02h32m25.18s	+14 29' 11.9"	19.789	19.394	5.7	111.6	2.7	35.13	113.54	1.23	251.3	Ari
26 Aug 2020	02h32m23.25s	+14 29' 01.7"	19.789	19.379	5.7	112.6	2.7	35.68	114.50	1.35	251.4	Ari
27 Aug 2020	02h32m21.13s	+14 28' 50.6"	19.789	19.363	5.7	113.6	2.7	36.24	115.47	1.47	251.4	Ari
28 Aug 2020	02h32m18.82s	+14 28' 38.6"	19.789	19.348	5.7	114.5	2.7	36.79	116.46	1.60	251.5	Ari
29 Aug 2020	02h32m16.33s	+14 28' 25.7"	19.788	19.332	5.7	115.5	2.6	37.33	117.45	1.71	251.5	Ari
30 Aug 2020	02h32m13.64s	+14 28' 11.9"	19.788	19.317	5.7	116.5	2.6	37.87	118.46	1.83	251.5	Ari
31 Aug 2020	02h32m10.78s	+14 27' 57.3"	19.788	19.302	5.7	117.5	2.6	38.41	119.48	1.95	251.6	Ari
1 Sep 2020	02h32m07.73s	+14 27' 41.8"	19.788	19.287	5.7	118.4	2.6	38.93	120.52	2.07	251.6	Ari
2 Sep 2020	02h32m04.50s	+14 27' 25.4"	19.788	19.273	5.7	119.4	2.5	39.46	121.57	2.19	251.6	Ari
3 Sep 2020	02h32m01.08s	+14 27' 08.2"	19.788	19.258	5.7	120.4	2.5	39.98	122.63	2.30	251.6	Ari
4 Sep 2020	02h31m57.49s	+14 26' 50.1"	19.788	19.244	5.7	121.4	2.5	40.49	123.71	2.42	251.6	Ari
5 Sep 2020	02h31m53.71s	+14 26' 31.2"	19.787	19.229	5.7	122.4	2.5	41.00	124.80	2.53	251.6	Ari
6 Sep 2020	02h31m49.76s	+14 26' 11.4"	19.787	19.215	5.7	123.4	2.4	41.49	125.91	2.64	251.6	Ari
7 Sep 2020	02h31m45.64s	+14 25' 50.8"	19.787	19.201	5.7	124.4	2.4	41.99	127.03	2.76	251.7	Ari
8 Sep 2020	02h31m41.33s	+14 25' 29.3"	19.787	19.187	5.7	125.3	2.4	42.47	128.16	2.87	251.7	Ari
9 Sep 2020	02h31m36.86s	+14 25' 07.1"	19.787	19.174	5.7	126.3	2.4	42.95	129.32	2.98	251.7	Ari
10 Sep 2020	02h31m32.21s	+14 24' 44.0"	19.787	19.160	5.7	127.3	2.3	43.42	130.48	3.09	251.7	Ari
11 Sep 2020	02h31m27.39s	+14 24' 20.1"	19.787	19.147	5.7	128.3	2.3	43.88	131.67	3.20	251.7	Ari
12 Sep 2020	02h31m22.40s	+14 23' 55.4"	19.787	19.134	5.7	129.3	2.3	44.33	132.87	3.31	251.7	Ari
13 Sep 2020	02h31m17.25s	+14 23' 29.9"	19.786	19.121	5.7	130.3	2.2	44.78	134.09	3.41	251.7	Ari
14 Sep 2020	02h31m11.93s	+14 23' 03.6"	19.786	19.108	5.7	131.3	2.2	45.21	135.32	3.52	251.7	Ari
15 Sep 2020	02h31m06.44s	+14 22' 36.5"	19.786	19.095	5.7	132.3	2.2	45.64	136.58	3.62	251.7	Ari
16 Sep 2020	02h31m00.80s	+14 22' 08.7"	19.786	19.083	5.7	133.3	2.1	46.05	137.85	3.73	251.7	Ari
17 Sep 2020	02h30m55.00s	+14 21' 40.1"	19.786	19.071	5.7	134.3	2.1	46.46	139.13	3.83	251.7	Ari
18 Sep 2020	02h30m49.04s	+14 21' 10.8"	19.786	19.059	5.7	135.3	2.0	46.85	140.44	3.93	251.7	Ari
19 Sep 2020	02h30m42.92s	+14 20' 40.7"	19.786	19.047	5.7	136.3	2.0	47.24	141.76	4.02	251.7	Ari
20 Sep 2020	02h30m36.66s	+14 20' 09.9"	19.786	19.036	5.7	137.3	2.0	47.61	143.10	4.12	251.7	Ari
21 Sep 2020	02h30m30.25s	+14 19' 38.4"	19.785	19.024	5.7	138.3	1.9	47.97	144.46	4.21	251.7	Ari
22 Sep 2020	02h30m23.69s	+14 19' 06.2"	19.785	19.013	5.7	139.3	1.9	48.32	145.83	4.31	251.7	Ari
23 Sep 2020	02h30m16.99s	+14 18' 33.3"	19.785	19.002	5.7	140.3	1.9	48.66	147.22	4.40	251.7	Ari
24 Sep 2020	02h30m10.14s	+14 17' 59.8"	19.785	18.992	5.7	141.3	1.8	48.98	148.63	4.49	251.7	Ari
25 Sep 2020	02h30m03.17s	+14 17' 25.5"	19.785	18.981	5.7	142.3	1.8	49.29	150.06	4.57	251.7	Ari
26 Sep 2020	02h29m56.05s	+14 16' 50.7"	19.785	18.971	5.7	143.4	1.7	49.59	151.50	4.66	251.7	Ari
27 Sep 2020	02h29m48.81s	+14 16' 15.2"	19.785	18.961	5.7	144.4	1.7	49.87	152.96	4.74	251.7	Ari
28 Sep 2020	02h29m41.44s	+14 15' 39.1"	19.785	18.952	5.7	145.4	1.6	50.14	154.43	4.82	251.7	Ari
29 Sep 2020	02h29m33.95s	+14 15' 02.4"	19.784	18.942	5.7	146.4	1.6	50.39	155.92	4.90	251.7	Ari
30 Sep 2020	02h29m26.33s	+14 14' 25.1"	19.784	18.933	5.7	147.4	1.6	50.63	157.42	4.98	251.7	Ari
1 Okt 2020	02h29m18.59s	+14 13' 47.3"	19.784	18.924	5.7	148.4	1.5	50.85	158.94	5.05	251.7	Ari
2 Okt 2020	02h29m10.74s	+14 13' 08.9"	19.784	18.916	5.7	149.4	1.5	51.06	160.47	5.13	251.7	Ari
3 Okt 2020	02h29m02.77s	+14 12' 29.9"	19.784	18.907	5.7	150.5	1.4	51.25	162.02	5.20	251.7	Ari
4 Okt 2020	02h28m54.69s	+14 11' 50.5"	19.784	18.899	5.7	151.5	1.4	51.43	163.57	5.27	251.7	Ari
5 Okt 2020	02h28m46.51s	+14 11' 10.5"	19.784	18.891	5.7	152.5	1.3	51.58	165.14	5.34	251.7	Ari
6 Okt 2020	02h28m38.22s	+14 10' 30.0"	19.783	18.884	5.7	153.5	1.3	51.73	166.72	5.40	251.7	Ari
7 Okt 2020	02h28m29.83s	+14 09' 49.0"	19.783	18.876	5.7	154.5	1.2	51.85	168.31	5.47	251.7	Ari
8 Okt 2020	02h28m21.35s	+14 09' 07.5"	19.783	18.869	5.7	155.6	1.2	51.96	169.90	5.53	251.7	Ari
9 Okt 2020	02h28m12.76s	+14 08' 25.6"	19.783	18.863	5.7	156.6	1.1	52.05	171.50	5.59	251.7	Ari
10 Okt 2020	02h28m04.09s	+14 07' 43.3"	19.783	18.856	5.7	157.6	1.1	52.12	173.11	5.64	251.7	Ari
11 Okt 2020	02h27m55.34s	+14 07' 00.5"	19.783	18.850	5.7	158.6	1.1	52.18	174.72	5.70	251.7	Ari
12 Okt 2020	02h27m46.49s	+14 06' 17.3"	19.783	18.844	5.7	159.7	1.0	52.21	176.34	5.75	251.7	Ari
13 Okt 2020	02h27m37.57s	+14 05' 33.7"	19.783	18.838	5.7	160.7	1.0	52.23	177.96	5.80	251.7	Ari
14 Okt 2020	02h27m28.58s	+14 04' 49.8"	19.782	18.833	5.7	161.7	0.9	52.23	179.58	5.85	251.7	Ari
15 Okt 2020	02h27m19.51s	+14 04' 05.5"	19.782	18.828	5.7	162.7	0.9	52.22	181.20	5.89	251.7	Ari
16 Okt 2020	02h27m10.37s	+14 03' 20.9"	19.782	18.823	5.7	163.8	0.8	52.18	182.82	5.94	251.6	Ari
17 Okt 2020	02h27m01.17s	+14 02' 35.9"	19.782	18.819	5.7	164.8	0.8	52.13	184.43	5.98	251.6	Ari
18 Okt 2020	02h26m51.91s	+14 01' 50.7"	19.782	18.814	5.7	165.8	0.7	52.06	186.04	6.01	251.6	Ari
19 Okt 2020	02h26m42.59s	+14 01' 05.2"	19.782	18.810	5.7	166.9	0.7	51.97	187.65	6.05	251.6	Ari
20 Okt 2020	02h26m33.22s	+14 00' 19.4"	19.782	18.807	5.7	167.9	0.6	51.87	189.26	6.08	251.6	Ari
21 Okt 2020	02h26m23.80s	+13 59' 33.4"	19.782	18.804	5.7	168.9	0.6	51.75	190.85	6.11	251.6	Ari
22 Okt 2020	02h26m14.35s	+13 58' 47.2"	19.781	18.801	5.7	170.0	0.5	51.60	192.44	6.13	251.6	Ari

EPHEMERIDE 2020 – URANUS

Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
23 Okt 2020	02h26m04.85s	+13 58' 00.9"	19.781	18.798	5.7	171.0	0.5	51.45	194.02	6.16	251.6	Ari
24 Okt 2020	02h25m55.32s	+13 57' 14.3"	19.781	18.796	5.7	172.0	0.4	51.27	195.59	6.18	251.6	Ari
25 Okt 2020	02h25m45.76s	+13 56' 27.6"	19.781	18.794	5.7	173.1	0.3	51.08	197.14	6.20	251.6	Ari
26 Okt 2020	02h25m36.17s	+13 55' 40.8"	19.781	18.792	5.7	174.1	0.3	50.88	198.69	6.21	251.6	Ari
27 Okt 2020	02h25m26.56s	+13 54' 53.8"	19.781	18.790	5.7	175.1	0.2	50.65	200.22	6.22	251.6	Ari
28 Okt 2020	02h25m16.94s	+13 54' 06.8"	19.781	18.789	5.7	176.2	0.2	50.41	201.74	6.23	251.6	Ari
29 Okt 2020	02h25m07.29s	+13 53' 19.7"	19.781	18.788	5.7	177.2	0.1	50.16	203.25	6.24	251.6	Ari
30 Okt 2020	02h24m57.64s	+13 52' 32.6"	19.780	18.788	5.7	178.2	0.1	49.89	204.74	6.25	251.6	Ari
31 Okt 2020	02h24m47.99s	+13 51' 45.4"	19.780	18.788	5.7	179.2	0.0	49.60	206.22	6.25	251.6	Ari
1 Nov 2020	02h24m38.33s	+13 50' 58.3"	19.780	18.788	5.7	179.4	0.0	49.30	207.68	6.25	251.6	Ari
2 Nov 2020	02h24m28.67s	+13 50' 11.1"	19.780	18.788	5.7	178.5	0.1	48.99	209.12	6.25	251.6	Ari
3 Nov 2020	02h24m19.02s	+13 49' 24.0"	19.780	18.789	5.7	177.5	0.1	48.66	210.55	6.24	251.6	Ari
4 Nov 2020	02h24m09.38s	+13 48' 36.9"	19.780	18.790	5.7	176.5	0.2	48.32	211.96	6.23	251.6	Ari
5 Nov 2020	02h23m59.75s	+13 47' 49.8"	19.780	18.791	5.7	175.4	0.2	47.97	213.36	6.22	251.6	Ari
6 Nov 2020	02h23m50.14s	+13 47' 02.9"	19.779	18.793	5.7	174.4	0.3	47.60	214.74	6.21	251.6	Ari
7 Nov 2020	02h23m40.56s	+13 46' 16.1"	19.779	18.795	5.7	173.4	0.3	47.23	216.10	6.19	251.6	Ari
8 Nov 2020	02h23m31.00s	+13 45' 29.4"	19.779	18.797	5.7	172.3	0.4	46.84	217.44	6.17	251.6	Ari
9 Nov 2020	02h23m21.47s	+13 44' 42.9"	19.779	18.799	5.7	171.3	0.4	46.43	218.77	6.15	251.6	Ari
10 Nov 2020	02h23m11.97s	+13 43' 56.5"	19.779	18.802	5.7	170.2	0.5	46.02	220.08	6.13	251.6	Ari
11 Nov 2020	02h23m02.51s	+13 43' 10.3"	19.779	18.805	5.7	169.2	0.5	45.60	221.37	6.10	251.6	Ari
12 Nov 2020	02h22m53.10s	+13 42' 24.3"	19.779	18.809	5.7	168.1	0.6	45.16	222.65	6.07	251.6	Ari
13 Nov 2020	02h22m43.74s	+13 41' 38.6"	19.779	18.813	5.7	167.1	0.6	44.72	223.90	6.04	251.6	Ari
14 Nov 2020	02h22m34.42s	+13 40' 53.1"	19.778	18.817	5.7	166.1	0.7	44.26	225.14	6.01	251.6	Ari
15 Nov 2020	02h22m25.16s	+13 40' 07.9"	19.778	18.821	5.7	165.0	0.7	43.80	226.37	5.97	251.6	Ari
16 Nov 2020	02h22m15.97s	+13 39' 23.1"	19.778	18.826	5.7	164.0	0.8	43.33	227.58	5.93	251.6	Ari
17 Nov 2020	02h22m06.84s	+13 38' 38.5"	19.778	18.831	5.7	162.9	0.8	42.85	228.77	5.88	251.6	Ari
18 Nov 2020	02h21m57.77s	+13 37' 54.3"	19.778	18.836	5.7	161.9	0.9	42.36	229.94	5.84	251.6	Ari
19 Nov 2020	02h21m48.78s	+13 37' 10.4"	19.778	18.842	5.7	160.8	0.9	41.86	231.10	5.79	251.6	Ari
20 Nov 2020	02h21m39.87s	+13 36' 27.0"	19.778	18.848	5.7	159.8	1.0	41.35	232.25	5.74	251.6	Ari
21 Nov 2020	02h21m31.04s	+13 35' 43.9"	19.778	18.854	5.7	158.7	1.0	40.84	233.38	5.68	251.6	Ari
22 Nov 2020	02h21m22.30s	+13 35' 01.3"	19.777	18.860	5.7	157.7	1.1	40.32	234.49	5.62	251.6	Ari
23 Nov 2020	02h21m13.65s	+13 34' 19.1"	19.777	18.867	5.7	156.6	1.1	39.80	235.59	5.57	251.6	Ari
24 Nov 2020	02h21m05.08s	+13 33' 37.4"	19.777	18.874	5.7	155.6	1.2	39.26	236.68	5.50	251.6	Ari
25 Nov 2020	02h20m56.62s	+13 32' 56.2"	19.777	18.881	5.7	154.5	1.2	38.72	237.75	5.44	251.6	Ari
26 Nov 2020	02h20m48.25s	+13 32' 15.5"	19.777	18.889	5.7	153.5	1.3	38.18	238.81	5.37	251.6	Ari
27 Nov 2020	02h20m39.99s	+13 31' 35.3"	19.777	18.897	5.7	152.4	1.3	37.63	239.85	5.31	251.6	Ari
28 Nov 2020	02h20m31.83s	+13 30' 55.7"	19.777	18.905	5.7	151.4	1.4	37.07	240.89	5.23	251.6	Ari
29 Nov 2020	02h20m23.79s	+13 30' 16.6"	19.776	18.913	5.7	150.3	1.4	36.51	241.91	5.16	251.6	Ari
30 Nov 2020	02h20m15.86s	+13 29' 38.1"	19.776	18.922	5.7	149.3	1.5	35.95	242.91	5.09	251.6	Ari
1 Dez 2020	02h20m08.04s	+13 29' 00.2"	19.776	18.931	5.7	148.3	1.5	35.38	243.91	5.01	251.6	Ari
2 Dez 2020	02h20m00.35s	+13 28' 22.9"	19.776	18.940	5.7	147.2	1.5	34.80	244.89	4.93	251.6	Ari
3 Dez 2020	02h19m52.78s	+13 27' 46.2"	19.776	18.950	5.7	146.2	1.6	34.23	245.87	4.85	251.6	Ari
4 Dez 2020	02h19m45.33s	+13 27' 10.1"	19.776	18.959	5.7	145.1	1.6	33.64	246.83	4.77	251.6	Ari
5 Dez 2020	02h19m38.01s	+13 26' 34.7"	19.776	18.969	5.7	144.1	1.7	33.06	247.78	4.68	251.6	Ari
6 Dez 2020	02h19m30.83s	+13 26' 00.0"	19.776	18.979	5.7	143.0	1.7	32.47	248.72	4.59	251.6	Ari
7 Dez 2020	02h19m23.78s	+13 25' 26.0"	19.775	18.990	5.7	142.0	1.8	31.88	249.66	4.50	251.6	Ari
8 Dez 2020	02h19m16.87s	+13 24' 52.6"	19.775	19.001	5.7	140.9	1.8	31.28	250.58	4.41	251.7	Ari
9 Dez 2020	02h19m10.11s	+13 24' 20.0"	19.775	19.012	5.7	139.9	1.8	30.68	251.49	4.32	251.7	Ari
10 Dez 2020	02h19m03.49s	+13 23' 48.2"	19.775	19.023	5.7	138.8	1.9	30.08	252.40	4.22	251.7	Ari
11 Dez 2020	02h18m57.01s	+13 23' 17.1"	19.775	19.034	5.7	137.8	1.9	29.48	253.30	4.13	251.7	Ari
12 Dez 2020	02h18m50.69s	+13 22' 46.7"	19.775	19.046	5.7	136.8	2.0	28.87	254.18	4.03	251.7	Ari
13 Dez 2020	02h18m44.53s	+13 22' 17.1"	19.775	19.058	5.7	135.7	2.0	28.26	255.06	3.93	251.7	Ari
14 Dez 2020	02h18m38.52s	+13 21' 48.4"	19.775	19.070	5.7	134.7	2.0	27.65	255.94	3.82	251.7	Ari
15 Dez 2020	02h18m32.67s	+13 21' 20.4"	19.774	19.082	5.7	133.6	2.1	27.04	256.80	3.72	251.8	Ari
16 Dez 2020	02h18m26.98s	+13 20' 53.3"	19.774	19.095	5.7	132.6	2.1	26.43	257.66	3.61	251.8	Ari
17 Dez 2020	02h18m21.46s	+13 20' 27.1"	19.774	19.108	5.7	131.5	2.1	25.82	258.51	3.50	251.8	Ari
18 Dez 2020	02h18m16.11s	+13 20' 01.7"	19.774	19.121	5.7	130.5	2.2	25.20	259.36	3.39	251.8	Ari
19 Dez 2020	02h18m10.93s	+13 19' 37.1"	19.774	19.134	5.7	129.5	2.2	24.58	260.20	3.28	251.9	Ari
20 Dez 2020	02h18m05.92s	+13 19' 13.5"	19.774	19.147	5.7	128.4	2.2	23.97	261.03	3.17	251.9	Ari
21 Dez 2020	02h18m01.09s	+13 18' 50.7"	19.774	19.161	5.7	127.4	2.3	23.35	261.86	3.05	252.0	Ari
22 Dez 2020	02h17m56.43s	+13 18' 28.9"	19.773	19.175	5.7	126.4	2.3	22.73	262.68	2.94	252.0	Ari
23 Dez 2020	02h17m51.95s	+13 18' 07.9"	19.773	19.188	5.7	125.3	2.3	22.11	263.50	2.82	252.0	Ari
24 Dez 2020	02h17m47.65s	+13 17' 47.9"	19.773	19.203	5.7	124.3	2.4	21.49	264.31	2.70	252.1	Ari
25 Dez 2020	02h17m43.54s	+13 17' 28.8"	19.773	19.217	5.7	123.2	2.4	20.87	265.12	2.58	252.1	Ari
26 Dez 2020	02h17m39.60s	+13 17' 10.7"	19.773	19.231	5.7	122.2	2.4	20.25	265.93	2.46	252.2	Ari
27 Dez 2020	02h17m35.86s	+13 16' 53.5"	19.773	19.246	5.7	121.2	2.4	19.63	266.72	2.34	252.3	Ari
28 Dez 2020	02h17m32.29s	+13 16' 37.2"	19.773	19.261	5.7	120.1	2.5	19.01	267.52	2.22	252.3	Ari
29 Dez 2020	02h17m28.92s	+13 16' 21.9"	19.773	19.276	5.7	119.1	2.5	18.39	268.31	2.10	252.4	Ari
30 Dez 2020	02h17m25.74s	+13 16' 07.6"	19.772	19.291	5.7	118.1	2.5	17.77	269.10	1.97	252.5	Ari
31 Dez 2020	02h17m22.74s	+13 15' 54.3"	19.772	19.306	5.7	117.0	2.5	17.16	269.89	1.85	252.6	Ari
1 Jan 2021	02h17m19.94s	+13 15' 41.9"	19.772	19.321	5.7	116.0	2.6	16.54	270.67	1.72	252.8	Ari