



Die Bahn des Planeten Saturn 2019

EPHEMERIDE 2019 – SATURN

Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
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1 Jan 2019	18h48m11.86s	-22 29' 23.6"	10.060	11.043	0.5	1.2	0.1	-59.13	21.82	17.84	85.9	Sgr
2 Jan 2019	18h48m42.47s	-22 28' 52.3"	10.060	11.044	0.5	0.5	0.1	-58.92	23.30	17.85	85.8	Sgr
3 Jan 2019	18h49m13.08s	-22 28' 20.6"	10.060	11.043	0.5	0.8	0.1	-58.70	24.77	17.85	85.8	Sgr
4 Jan 2019	18h49m43.68s	-22 27' 48.5"	10.060	11.043	0.5	1.7	0.2	-58.46	26.22	17.84	85.7	Sgr
5 Jan 2019	18h50m14.28s	-22 27' 15.9"	10.060	11.042	0.5	2.5	0.2	-58.21	27.66	17.84	85.7	Sgr
6 Jan 2019	18h50m44.85s	-22 26' 43.0"	10.060	11.041	0.5	3.4	0.3	-57.95	29.08	17.83	85.6	Sgr
7 Jan 2019	18h51m15.41s	-22 26' 09.8"	10.060	11.040	0.5	4.3	0.4	-57.68	30.48	17.81	85.6	Sgr
8 Jan 2019	18h51m45.93s	-22 25' 36.1"	10.060	11.039	0.5	5.2	0.5	-57.40	31.86	17.80	85.5	Sgr
9 Jan 2019	18h52m16.42s	-22 25' 02.1"	10.060	11.037	0.5	6.1	0.6	-57.10	33.22	17.78	85.5	Sgr
10 Jan 2019	18h52m46.87s	-22 24' 27.7"	10.060	11.035	0.5	7.0	0.7	-56.80	34.57	17.75	85.4	Sgr
11 Jan 2019	18h53m17.28s	-22 23' 52.9"	10.060	11.033	0.5	7.9	0.8	-56.48	35.89	17.73	85.4	Sgr
12 Jan 2019	18h53m47.63s	-22 23' 17.8"	10.060	11.031	0.5	8.8	0.9	-56.16	37.20	17.70	85.3	Sgr
13 Jan 2019	18h54m17.94s	-22 22' 42.4"	10.060	11.028	0.5	9.7	0.9	-55.83	38.49	17.67	85.3	Sgr
14 Jan 2019	18h54m48.18s	-22 22' 06.7"	10.060	11.025	0.5	10.6	1.0	-55.48	39.76	17.63	85.2	Sgr
15 Jan 2019	18h55m18.35s	-22 21' 30.6"	10.060	11.022	0.5	11.5	1.1	-55.13	41.01	17.59	85.2	Sgr
16 Jan 2019	18h55m48.46s	-22 20' 54.2"	10.060	11.018	0.5	12.4	1.2	-54.77	42.25	17.55	85.1	Sgr
17 Jan 2019	18h56m18.49s	-22 20' 17.6"	10.060	11.014	0.5	13.3	1.3	-54.40	43.46	17.51	85.1	Sgr
18 Jan 2019	18h56m48.44s	-22 19' 40.6"	10.060	11.010	0.5	14.2	1.4	-54.02	44.66	17.46	85.0	Sgr
19 Jan 2019	18h57m18.31s	-22 19' 03.4"	10.059	11.006	0.5	15.1	1.5	-53.63	45.84	17.42	85.0	Sgr
20 Jan 2019	18h57m48.09s	-22 18' 25.9"	10.059	11.002	0.5	16.0	1.5	-53.24	47.01	17.36	84.9	Sgr
21 Jan 2019	18h58m17.78s	-22 17' 48.1"	10.059	10.997	0.5	16.9	1.6	-52.84	48.15	17.31	84.9	Sgr
22 Jan 2019	18h58m47.37s	-22 17' 10.1"	10.059	10.992	0.5	17.8	1.7	-52.43	49.28	17.25	84.8	Sgr
23 Jan 2019	18h59m16.85s	-22 16' 31.8"	10.059	10.986	0.5	18.7	1.8	-52.01	50.39	17.20	84.8	Sgr
24 Jan 2019	18h59m46.24s	-22 15' 53.4"	10.059	10.981	0.5	19.6	1.9	-51.59	51.49	17.13	84.7	Sgr
25 Jan 2019	19h00m15.51s	-22 15' 14.7"	10.059	10.975	0.5	20.5	2.0	-51.16	52.57	17.07	84.7	Sgr
26 Jan 2019	19h00m44.66s	-22 14' 35.8"	10.059	10.969	0.5	21.4	2.0	-50.72	53.64	17.00	84.6	Sgr
27 Jan 2019	19h01m13.70s	-22 13' 56.7"	10.059	10.963	0.6	22.3	2.1	-50.28	54.69	16.93	84.6	Sgr
28 Jan 2019	19h01m42.61s	-22 13' 17.4"	10.059	10.956	0.6	23.2	2.2	-49.84	55.72	16.86	84.5	Sgr
29 Jan 2019	19h02m11.39s	-22 12' 38.0"	10.059	10.950	0.6	24.1	2.3	-49.38	56.74	16.78	84.5	Sgr
30 Jan 2019	19h02m40.04s	-22 11' 58.4"	10.059	10.943	0.6	25.1	2.4	-48.92	57.75	16.71	84.4	Sgr
31 Jan 2019	19h03m08.54s	-22 11' 18.7"	10.059	10.935	0.6	26.0	2.5	-48.46	58.74	16.62	84.4	Sgr
1 Feb 2019	19h03m36.90s	-22 10' 38.8"	10.059	10.928	0.6	26.9	2.5	-47.99	59.72	16.54	84.4	Sgr
2 Feb 2019	19h04m05.11s	-22 09' 58.8"	10.059	10.920	0.6	27.8	2.6	-47.52	60.69	16.45	84.3	Sgr
3 Feb 2019	19h04m33.16s	-22 09' 18.8"	10.059	10.912	0.6	28.7	2.7	-47.04	61.64	16.36	84.3	Sgr
4 Feb 2019	19h05m01.05s	-22 08' 38.6"	10.059	10.904	0.6	29.6	2.8	-46.56	62.59	16.27	84.2	Sgr
5 Feb 2019	19h05m28.78s	-22 07' 58.3"	10.059	10.896	0.6	30.5	2.9	-46.07	63.51	16.17	84.2	Sgr
6 Feb 2019	19h05m56.33s	-22 07' 18.0"	10.059	10.887	0.6	31.4	2.9	-45.58	64.43	16.07	84.1	Sgr
7 Feb 2019	19h06m23.71s	-22 06' 37.6"	10.059	10.878	0.6	32.3	3.0	-45.08	65.34	15.96	84.1	Sgr
8 Feb 2019	19h06m50.90s	-22 05' 57.2"	10.059	10.869	0.6	33.2	3.1	-44.58	66.24	15.86	84.0	Sgr
9 Feb 2019	19h07m17.91s	-22 05' 16.8"	10.059	10.860	0.6	34.1	3.2	-44.08	67.12	15.75	84.0	Sgr
10 Feb 2019	19h07m44.73s	-22 04' 36.4"	10.058	10.851	0.6	35.0	3.2	-43.57	68.00	15.64	84.0	Sgr
11 Feb 2019	19h08m11.35s	-22 03' 56.0"	10.058	10.841	0.6	35.9	3.3	-43.06	68.86	15.52	83.9	Sgr
12 Feb 2019	19h08m37.77s	-22 03' 15.5"	10.058	10.831	0.6	36.8	3.4	-42.55	69.72	15.40	83.9	Sgr
13 Feb 2019	19h09m03.99s	-22 02' 35.2"	10.058	10.821	0.6	37.8	3.4	-42.03	70.57	15.28	83.8	Sgr
14 Feb 2019	19h09m29.99s	-22 01' 54.8"	10.058	10.810	0.6	38.7	3.5	-41.51	71.41	15.16	83.8	Sgr
15 Feb 2019	19h09m55.78s	-22 01' 14.6"	10.058	10.800	0.6	39.6	3.6	-40.99	72.24	15.04	83.8	Sgr
16 Feb 2019	19h10m21.36s	-22 00' 34.4"	10.058	10.789	0.6	40.5	3.7	-40.46	73.06	14.91	83.7	Sgr
17 Feb 2019	19h10m46.71s	-21 59' 54.3"	10.058	10.778	0.6	41.4	3.7	-39.93	73.87	14.78	83.7	Sgr
18 Feb 2019	19h11m11.84s	-21 59' 14.3"	10.058	10.767	0.6	42.3	3.8	-39.40	74.68	14.65	83.6	Sgr
19 Feb 2019	19h11m36.73s	-21 58' 34.4"	10.058	10.756	0.6	43.2	3.9	-38.87	75.48	14.51	83.6	Sgr
20 Feb 2019	19h12m01.40s	-21 57' 54.7"	10.058	10.744	0.6	44.1	3.9	-38.33	76.27	14.37	83.6	Sgr
21 Feb 2019	19h12m25.82s	-21 57' 15.1"	10.058	10.732	0.6	45.0	4.0	-37.79	77.05	14.24	83.5	Sgr
22 Feb 2019	19h12m50.01s	-21 56' 35.7"	10.058	10.720	0.6	46.0	4.1	-37.25	77.83	14.09	83.5	Sgr
23 Feb 2019	19h13m13.95s	-21 55' 56.5"	10.058	10.708	0.6	46.9	4.1	-36.71	78.61	13.95	83.5	Sgr
24 Feb 2019	19h13m37.64s	-21 55' 17.4"	10.058	10.696	0.6	47.8	4.2	-36.16	79.37	13.80	83.4	Sgr
25 Feb 2019	19h14m01.07s	-21 54' 38.6"	10.058	10.683	0.6	48.7	4.2	-35.62	80.13	13.65	83.4	Sgr
26 Feb 2019	19h14m24.24s	-21 54' 00.0"	10.058	10.671	0.6	49.6	4.3	-35.07	80.89	13.50	83.4	Sgr
27 Feb 2019	19h14m47.16s	-21 53' 21.6"	10.058	10.658	0.6	50.5	4.4	-34.52	81.64	13.34	83.3	Sgr
28 Feb 2019	19h15m09.80s	-21 52' 43.5"	10.058	10.645	0.6	51.4	4.4	-33.96	82.38	13.19	83.3	Sgr
1 Mar 2019	19h15m32.17s	-21 52' 05.7"	10.058	10.632	0.6	52.4	4.5	-33.41	83.12	13.03	83.3	Sgr
2 Mar 2019	19h15m54.26s	-21 51' 28.2"	10.057	10.619	0.6	53.3	4.5	-32.85	83.86	12.86	83.3	Sgr
3 Mar 2019	19h16m16.08s	-21 50' 50.9"	10.057	10.605	0.6	54.2	4.6	-32.30	84.59	12.70	83.2	Sgr
4 Mar 2019	19h16m37.60s	-21 50' 14.0"	10.057	10.591	0.6	55.1	4.6	-31.74	85.32	12.53	83.2	Sgr
5 Mar 2019	19h16m58.83s	-21 49' 37.4"	10.057	10.578	0.6	56.0	4.7	-31.18	86.04	12.35	83.2	Sgr
6 Mar 2019	19h17m19.77s	-21 49' 01.2"	10.057	10.564	0.6	57.0	4.7	-30.62	86.76	12.18	83.1	Sgr
7 Mar 2019	19h17m40.41s	-21 48' 25.4"	10.057	10.550	0.6	57.9	4.8	-30.06	87.48	12.00	83.1	Sgr
8 Mar 2019	19h18m00.75s	-21 47' 49.9"	10.057	10.535	0.6	58.8	4.8	-29.50	88.19	11.82	83.1	Sgr
9 Mar 2019	19h18m20.77s	-21 47' 14.8"	10.057	10.521	0.6	59.7	4.9	-28.93	88.90	11.64	83.1	Sgr
10 Mar 2019	19h18m40.49s	-21 46' 40.1"	10.057	10.506	0.6	60.7	4.9	-28.37	89.61	11.46	83.1	Sgr
11 Mar 2019	19h18m59.89s	-21 46' 05.9"	10.057	10.492	0.6	61.6	5.0	-27.80	90.32	11.27	83.0	Sgr
12 Mar 2019	19h19m18.97s	-21 45' 32.1"	10.057	10.477	0.6	62.5	5.0	-27.24	91.02	11.08	83.0	Sgr
13 Mar 2019	19h19m37.72s	-21 44' 58.8"	10.057	10.462	0.6	63.4	5.1	-26.67	91.72	10.89	83.0	Sgr
14 Mar 2019	19h19m56.15s	-21 44' 25.9"	10.057	10.447	0.6	64.3	5.1	-26.10	92.42	10.70	83.0	Sgr
15 Mar 2019	19h20m14.25s	-21 43' 53.5"	10.057	10.432	0.6	65.3	5.2	-25.54	93.12	10.50	83.0	Sgr

EPHEMERIDE 2019 – SATURN

Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
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16 Mar 2019	19h20m32.02s	-21 43' 21.6"	10.057	10.417	0.6	66.2	5.2	-24.97	93.81	10.31	82.9	Sgr
17 Mar 2019	19h20m49.45s	-21 42' 50.3"	10.057	10.401	0.6	67.1	5.2	-24.40	94.51	10.11	82.9	Sgr
18 Mar 2019	19h21m06.55s	-21 42' 19.4"	10.057	10.386	0.6	68.1	5.3	-23.83	95.20	9.91	82.9	Sgr
19 Mar 2019	19h21m23.30s	-21 41' 49.1"	10.057	10.370	0.6	69.0	5.3	-23.26	95.89	9.71	82.9	Sgr
20 Mar 2019	19h21m39.71s	-21 41' 19.4"	10.057	10.355	0.6	69.9	5.3	-22.70	96.58	9.50	82.9	Sgr
21 Mar 2019	19h21m55.77s	-21 40' 50.2"	10.056	10.339	0.6	70.8	5.4	-22.13	97.27	9.30	82.9	Sgr
22 Mar 2019	19h22m11.48s	-21 40' 21.6"	10.056	10.323	0.6	71.8	5.4	-21.56	97.96	9.09	82.9	Sgr
23 Mar 2019	19h22m26.84s	-21 39' 53.6"	10.056	10.307	0.6	72.7	5.4	-20.99	98.65	8.88	82.9	Sgr
24 Mar 2019	19h22m41.84s	-21 39' 26.3"	10.056	10.291	0.6	73.6	5.5	-20.42	99.33	8.67	82.9	Sgr
25 Mar 2019	19h22m56.48s	-21 38' 59.5"	10.056	10.275	0.6	74.6	5.5	-19.86	100.02	8.46	82.9	Sgr
26 Mar 2019	19h23m10.76s	-21 38' 33.4"	10.056	10.259	0.6	75.5	5.5	-19.29	100.71	8.24	82.9	Sgr
27 Mar 2019	19h23m24.67s	-21 38' 07.9"	10.056	10.243	0.6	76.5	5.5	-18.72	101.40	8.02	82.9	Sgr
28 Mar 2019	19h23m38.21s	-21 37' 43.1"	10.056	10.227	0.6	77.4	5.6	-18.15	102.08	7.80	82.9	Sgr
29 Mar 2019	19h23m51.38s	-21 37' 19.0"	10.056	10.210	0.6	78.3	5.6	-17.59	102.77	7.58	82.9	Sgr
30 Mar 2019	19h24m04.18s	-21 36' 55.5"	10.056	10.194	0.6	79.3	5.6	-17.02	103.46	7.36	82.9	Sgr
31 Mar 2019	19h24m16.59s	-21 36' 32.8"	10.056	10.178	0.6	80.2	5.6	-16.46	104.15	7.13	82.9	Sgr
1 Apr 2019	19h24m28.62s	-21 36' 10.8"	10.056	10.161	0.6	81.1	5.6	-15.90	104.84	6.91	82.9	Sgr
2 Apr 2019	19h24m42.27s	-21 35' 49.5"	10.056	10.145	0.6	82.1	5.6	-15.33	105.53	6.68	82.9	Sgr
3 Apr 2019	19h24m51.53s	-21 35' 28.9"	10.056	10.128	0.6	83.0	5.7	-14.77	106.23	6.45	83.0	Sgr
4 Apr 2019	19h25m02.39s	-21 35' 09.0"	10.056	10.111	0.6	84.0	5.7	-14.21	106.92	6.21	83.0	Sgr
5 Apr 2019	19h25m12.87s	-21 34' 50.0"	10.056	10.095	0.6	84.9	5.7	-13.66	107.62	5.98	83.0	Sgr
6 Apr 2019	19h25m22.95s	-21 34' 31.7"	10.056	10.078	0.6	85.9	5.7	-13.10	108.31	5.75	83.0	Sgr
7 Apr 2019	19h25m32.63s	-21 34' 14.1"	10.056	10.061	0.6	86.8	5.7	-12.54	109.01	5.51	83.1	Sgr
8 Apr 2019	19h25m41.91s	-21 33' 57.4"	10.055	10.045	0.6	87.8	5.7	-11.99	109.71	5.27	83.1	Sgr
9 Apr 2019	19h25m50.79s	-21 33' 41.4"	10.055	10.028	0.5	88.7	5.7	-11.43	110.41	5.03	83.2	Sgr
10 Apr 2019	19h25m59.26s	-21 33' 26.3"	10.055	10.011	0.5	89.7	5.7	-10.88	111.12	4.79	83.2	Sgr
11 Apr 2019	19h26m07.33s	-21 33' 11.9"	10.055	9.995	0.5	90.6	5.7	-10.33	111.82	4.55	83.3	Sgr
12 Apr 2019	19h26m15.00s	-21 32' 58.4"	10.055	9.978	0.5	91.6	5.7	-9.79	112.53	4.31	83.4	Sgr
13 Apr 2019	19h26m22.26s	-21 32' 45.7"	10.055	9.961	0.5	92.5	5.7	-9.24	113.25	4.07	83.5	Sgr
14 Apr 2019	19h26m29.11s	-21 32' 33.8"	10.055	9.945	0.5	93.5	5.7	-8.70	113.96	3.83	83.6	Sgr
15 Apr 2019	19h26m35.55s	-21 32' 22.8"	10.055	9.928	0.5	94.4	5.7	-8.16	114.68	3.59	83.7	Sgr
16 Apr 2019	19h26m41.58s	-21 32' 12.6"	10.055	9.911	0.5	95.4	5.7	-7.62	115.40	3.35	83.9	Sgr
17 Apr 2019	19h26m47.20s	-21 32' 03.3"	10.055	9.895	0.5	96.3	5.7	-7.08	116.12	3.10	84.0	Sgr
18 Apr 2019	19h26m52.41s	-21 31' 54.8"	10.055	9.878	0.5	97.3	5.7	-6.55	116.84	2.86	84.2	Sgr
19 Apr 2019	19h26m57.21s	-21 31' 47.2"	10.055	9.862	0.5	98.2	5.7	-6.02	117.57	2.61	84.5	Sgr
20 Apr 2019	19h27m01.60s	-21 31' 40.5"	10.055	9.845	0.5	99.2	5.7	-5.49	118.31	2.37	84.8	Sgr
21 Apr 2019	19h27m05.57s	-21 31' 34.6"	10.055	9.829	0.5	100.2	5.6	-4.96	119.04	2.13	85.2	Sgr
22 Apr 2019	19h27m09.13s	-21 31' 29.6"	10.055	9.812	0.5	101.1	5.6	-4.44	119.78	1.88	85.6	Sgr
23 Apr 2019	19h27m12.28s	-21 31' 25.5"	10.055	9.796	0.5	102.1	5.6	-3.92	120.52	1.63	86.2	Sgr
24 Apr 2019	19h27m15.01s	-21 31' 22.2"	10.055	9.780	0.5	103.1	5.6	-3.40	121.27	1.39	87.1	Sgr
25 Apr 2019	19h27m17.32s	-21 31' 19.9"	10.054	9.763	0.5	104.0	5.6	-2.89	122.02	1.14	88.3	Sgr
26 Apr 2019	19h27m19.22s	-21 31' 18.4"	10.054	9.747	0.5	105.0	5.5	-2.38	122.78	0.90	90.2	Sgr
27 Apr 2019	19h27m20.70s	-21 31' 17.8"	10.054	9.731	0.5	106.0	5.5	-1.88	123.54	0.65	93.4	Sgr
28 Apr 2019	19h27m21.76s	-21 31' 18.2"	10.054	9.715	0.5	106.9	5.5	-1.37	124.30	0.41	100.6	Sgr
29 Apr 2019	19h27m22.40s	-21 31' 19.4"	10.054	9.699	0.5	107.9	5.5	-0.88	125.07	0.20	125.0	Sgr
30 Apr 2019	19h27m22.63s	-21 31' 21.5"	10.054	9.683	0.5	108.9	5.4	-0.38	125.84	0.17	209.4	Sgr
1 Mai 2019	19h27m22.44s	-21 31' 24.4"	10.054	9.667	0.5	109.8	5.4	0.11	126.61	0.38	240.5	Sgr
2 Mai 2019	19h27m21.82s	-21 31' 28.3"	10.054	9.652	0.5	110.8	5.4	0.59	127.39	0.62	248.8	Sgr
3 Mai 2019	19h27m20.80s	-21 31' 33.1"	10.054	9.636	0.4	111.8	5.3	1.07	128.18	0.86	252.4	Sgr
4 Mai 2019	19h27m19.35s	-21 31' 38.8"	10.054	9.621	0.4	112.8	5.3	1.55	128.97	1.10	254.4	Sgr
5 Mai 2019	19h27m17.49s	-21 31' 45.3"	10.054	9.605	0.4	113.7	5.3	2.02	129.77	1.35	255.7	Sgr
6 Mai 2019	19h27m15.22s	-21 31' 52.7"	10.054	9.590	0.4	114.7	5.2	2.49	130.57	1.59	256.6	Sgr
7 Mai 2019	19h27m12.54s	-21 32' 01.0"	10.054	9.575	0.4	115.7	5.2	2.95	131.37	1.83	257.3	Sgr
8 Mai 2019	19h27m09.44s	-21 32' 10.2"	10.054	9.560	0.4	116.7	5.1	3.41	132.18	2.08	257.8	Sgr
9 Mai 2019	19h27m05.94s	-21 32' 20.3"	10.054	9.545	0.4	117.7	5.1	3.86	133.00	2.32	258.1	Sgr
10 Mai 2019	19h27m02.03s	-21 32' 31.2"	10.054	9.530	0.4	118.6	5.1	4.31	133.82	2.55	258.5	Sgr
11 Mai 2019	19h26m57.72s	-21 32' 43.0"	10.053	9.516	0.4	119.6	5.0	4.75	134.64	2.79	258.7	Sgr
12 Mai 2019	19h26m53.01s	-21 32' 55.7"	10.053	9.501	0.4	120.6	5.0	5.18	135.47	3.03	258.9	Sgr
13 Mai 2019	19h26m47.90s	-21 33' 09.1"	10.053	9.487	0.4	121.6	4.9	5.61	136.31	3.26	259.1	Sgr
14 Mai 2019	19h26m42.39s	-21 33' 23.5"	10.053	9.473	0.4	122.6	4.9	6.03	137.15	3.50	259.3	Sgr
15 Mai 2019	19h26m36.50s	-21 33' 38.6"	10.053	9.459	0.4	123.6	4.8	6.45	138.00	3.73	259.4	Sgr
16 Mai 2019	19h26m30.22s	-21 33' 54.6"	10.053	9.445	0.4	124.6	4.8	6.86	138.85	3.95	259.6	Sgr
17 Mai 2019	19h26m23.55s	-21 34' 11.4"	10.053	9.432	0.4	125.5	4.7	7.26	139.71	4.18	259.7	Sgr
18 Mai 2019	19h26m16.50s	-21 34' 29.0"	10.053	9.418	0.4	126.5	4.6	7.66	140.58	4.41	259.8	Sgr
19 Mai 2019	19h26m09.07s	-21 34' 47.5"	10.053	9.405	0.4	127.5	4.6	8.05	141.45	4.63	259.9	Sgr
20 Mai 2019	19h26m01.26s	-21 35' 06.7"	10.053	9.392	0.4	128.5	4.5	8.43	142.32	4.85	259.9	Sgr
21 Mai 2019	19h25m53.09s	-21 35' 26.6"	10.053	9.379	0.3	129.5	4.5	8.81	143.20	5.07	260.0	Sgr
22 Mai 2019	19h25m44.54s	-21 35' 47.4"	10.053	9.366	0.3	130.5	4.4	9.17	144.09	5.29	260.1	Sgr
23 Mai 2019	19h25m35.62s	-21 36' 08.9"	10.053	9.353	0.3	131.5	4.3	9.54	144.98	5.50	260.2	Sgr
24 Mai 2019	19h25m26.35s	-21 36' 31.1"	10.053	9.341	0.3	132.5	4.3	9.89	145.88	5.72	260.2	Sgr
25 Mai 2019	19h25m16.71s	-21 36' 54.1"	10.053	9.329	0.3	133.5	4.2	10.23	146.78	5.93	260.3	Sgr
26 Mai 2019	19h25m06.72s	-21 37' 17.8"	10.053	9.316	0.3	134.5	4.1	10.57	147.69	6.13	260.4	Sgr
27 Mai 2019	19h24m56.38s	-21 37' 42.2"	10.052	9.305	0.3	135.5	4.1	10.90	148.60	6.34	260.4	Sgr
28 Mai 2019	19h24m45.69s	-21 38' 07.3"	10.052	9.293	0.3	136.5	4.0	11.22	149.52	6.54	260.5	Sgr

EPHEMERIDE 2019 – SATURN

Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
29 Mai 2019	19h24m34.66s	-21 38' 33.1"	10.052	9.282	0.3	137.5	3.9	11.53	150.45	6.74	260.5	Sgr
30 Mai 2019	19h24m23.29s	-21 38' 59.6"	10.052	9.270	0.3	138.5	3.8	11.83	151.38	6.94	260.6	Sgr
31 Mai 2019	19h24m11.59s	-21 39' 26.7"	10.052	9.259	0.3	139.5	3.8	12.12	152.32	7.13	260.6	Sgr
1 Jun 2019	19h23m59.57s	-21 39' 54.4"	10.052	9.249	0.3	140.5	3.7	12.41	153.26	7.32	260.7	Sgr
2 Jun 2019	19h23m47.22s	-21 40' 22.8"	10.052	9.238	0.3	141.5	3.6	12.68	154.20	7.51	260.7	Sgr
3 Jun 2019	19h23m34.56s	-21 40' 51.8"	10.052	9.228	0.3	142.5	3.5	12.95	155.16	7.69	260.7	Sgr
4 Jun 2019	19h23m21.59s	-21 41' 21.3"	10.052	9.218	0.3	143.6	3.4	13.21	156.11	7.87	260.8	Sgr
5 Jun 2019	19h23m08.32s	-21 41' 51.5"	10.052	9.208	0.3	144.6	3.4	13.45	157.07	8.05	260.8	Sgr
6 Jun 2019	19h22m54.75s	-21 42' 22.2"	10.052	9.198	0.2	145.6	3.3	13.69	158.04	8.22	260.9	Sgr
7 Jun 2019	19h22m40.89s	-21 42' 53.4"	10.052	9.189	0.2	146.6	3.2	13.92	159.01	8.39	260.9	Sgr
8 Jun 2019	19h22m26.76s	-21 43' 25.2"	10.052	9.180	0.2	147.6	3.1	14.13	159.99	8.55	260.9	Sgr
9 Jun 2019	19h22m12.35s	-21 43' 57.4"	10.052	9.171	0.2	148.6	3.0	14.34	160.97	8.71	261.0	Sgr
10 Jun 2019	19h21m57.67s	-21 44' 30.2"	10.052	9.163	0.2	149.6	2.9	14.54	161.95	8.86	261.0	Sgr
11 Jun 2019	19h21m42.74s	-21 45' 03.4"	10.051	9.154	0.2	150.6	2.8	14.72	162.94	9.01	261.0	Sgr
12 Jun 2019	19h21m27.55s	-21 45' 37.1"	10.051	9.146	0.2	151.7	2.7	14.90	163.93	9.15	261.1	Sgr
13 Jun 2019	19h21m12.12s	-21 46' 11.1"	10.051	9.138	0.2	152.7	2.7	15.06	164.92	9.29	261.1	Sgr
14 Jun 2019	19h20m56.46s	-21 46' 45.6"	10.051	9.131	0.2	153.7	2.6	15.22	165.92	9.43	261.1	Sgr
15 Jun 2019	19h20m40.89s	-21 47' 20.5"	10.051	9.124	0.2	154.7	2.5	15.36	166.92	9.56	261.2	Sgr
16 Jun 2019	19h20m24.45s	-21 47' 55.8"	10.051	9.116	0.2	155.7	2.4	15.49	167.93	9.69	261.2	Sgr
17 Jun 2019	19h20m08.12s	-21 48' 31.4"	10.051	9.110	0.2	156.7	2.3	15.61	168.94	9.81	261.2	Sgr
18 Jun 2019	19h19m51.58s	-21 49' 07.3"	10.051	9.103	0.2	157.8	2.2	15.72	169.95	9.93	261.3	Sgr
19 Jun 2019	19h19m34.84s	-21 49' 43.6"	10.051	9.097	0.2	158.8	2.1	15.82	170.96	10.04	261.3	Sgr
20 Jun 2019	19h19m17.92s	-21 50' 20.2"	10.051	9.091	0.2	159.8	2.0	15.90	171.98	10.15	261.3	Sgr
21 Jun 2019	19h19m00.81s	-21 50' 57.0"	10.051	9.085	0.2	160.8	1.9	15.98	172.99	10.25	261.4	Sgr
22 Jun 2019	19h18m43.52s	-21 51' 34.1"	10.051	9.080	0.1	161.8	1.8	16.04	174.01	10.35	261.4	Sgr
23 Jun 2019	19h18m26.06s	-21 52' 11.4"	10.051	9.075	0.1	162.9	1.7	16.09	175.03	10.45	261.4	Sgr
24 Jun 2019	19h18m08.45s	-21 52' 49.0"	10.051	9.070	0.1	163.9	1.6	16.13	176.06	10.54	261.5	Sgr
25 Jun 2019	19h17m50.68s	-21 53' 26.7"	10.051	9.066	0.1	164.9	1.5	16.16	177.08	10.62	261.5	Sgr
26 Jun 2019	19h17m32.77s	-21 54' 04.6"	10.050	9.061	0.1	165.9	1.4	16.18	178.10	10.70	261.5	Sgr
27 Jun 2019	19h17m14.73s	-21 54' 42.7"	10.050	9.057	0.1	167.0	1.3	16.18	179.13	10.77	261.5	Sgr
28 Jun 2019	19h16m56.56s	-21 55' 20.9"	10.050	9.054	0.1	168.0	1.2	16.18	180.16	10.84	261.6	Sgr
29 Jun 2019	19h16m38.28s	-21 55' 59.3"	10.050	9.050	0.1	169.0	1.1	16.16	181.18	10.90	261.6	Sgr
30 Jun 2019	19h16m19.89s	-21 56' 37.7"	10.050	9.047	0.1	170.0	1.0	16.13	182.21	10.96	261.6	Sgr
1 Jul 2019	19h16m01.41s	-21 57' 16.3"	10.050	9.044	0.1	171.1	0.9	16.09	183.23	11.01	261.7	Sgr
2 Jul 2019	19h15m42.83s	-21 57' 54.9"	10.050	9.042	0.1	172.1	0.8	16.03	184.26	11.06	261.7	Sgr
3 Jul 2019	19h15m24.18s	-21 58' 33.5"	10.050	9.040	0.1	173.1	0.7	15.97	185.28	11.10	261.7	Sgr
4 Jul 2019	19h15m05.47s	-21 59' 12.1"	10.050	9.038	0.1	174.1	0.6	15.89	186.30	11.13	261.8	Sgr
5 Jul 2019	19h14m46.69s	-21 59' 50.8"	10.050	9.036	0.1	175.2	0.5	15.80	187.32	11.16	261.8	Sgr
6 Jul 2019	19h14m27.87s	-22 00' 29.4"	10.050	9.035	0.1	176.2	0.4	15.70	188.34	11.18	261.8	Sgr
7 Jul 2019	19h14m09.02s	-22 01' 08.0"	10.050	9.034	0.1	177.2	0.3	15.59	189.36	11.20	261.8	Sgr
8 Jul 2019	19h13m50.14s	-22 01' 46.6"	10.050	9.033	0.1	178.2	0.2	15.47	190.38	11.21	261.9	Sgr
9 Jul 2019	19h13m31.24s	-22 02' 25.1"	10.050	9.033	0.1	179.2	0.1	15.33	191.39	11.21	261.9	Sgr
10 Jul 2019	19h13m12.33s	-22 03' 03.5"	10.049	9.033	0.0	179.6	0.0	15.19	192.40	11.21	261.9	Sgr
11 Jul 2019	19h12m53.43s	-22 03' 41.8"	10.049	9.033	0.1	178.6	0.1	15.03	193.41	11.20	261.9	Sgr
12 Jul 2019	19h12m34.54s	-22 04' 19.9"	10.049	9.033	0.1	177.6	0.2	14.86	194.42	11.19	262.0	Sgr
13 Jul 2019	19h12m15.67s	-22 04' 58.0"	10.049	9.034	0.1	176.6	0.3	14.68	195.42	11.17	262.0	Sgr
14 Jul 2019	19h11m56.83s	-22 05' 35.8"	10.049	9.035	0.1	175.6	0.4	14.49	196.42	11.15	262.0	Sgr
15 Jul 2019	19h11m38.04s	-22 06' 13.5"	10.049	9.037	0.1	174.6	0.6	14.29	197.42	11.12	262.0	Sgr
16 Jul 2019	19h11m19.29s	-22 06' 51.0"	10.049	9.038	0.1	173.5	0.7	14.08	198.41	11.09	262.1	Sgr
17 Jul 2019	19h11m00.60s	-22 07' 28.3"	10.049	9.040	0.1	172.5	0.8	13.85	199.40	11.05	262.1	Sgr
18 Jul 2019	19h10m41.97s	-22 08' 05.4"	10.049	9.043	0.1	171.5	0.9	13.62	200.39	11.00	262.1	Sgr
19 Jul 2019	19h10m23.42s	-22 08' 42.3"	10.049	9.045	0.1	170.4	1.0	13.38	201.37	10.95	262.1	Sgr
20 Jul 2019	19h10m04.96s	-22 09' 18.9"	10.049	9.048	0.1	169.4	1.1	13.12	202.35	10.90	262.1	Sgr
21 Jul 2019	19h09m46.59s	-22 09' 55.2"	10.049	9.051	0.1	168.4	1.2	12.86	203.32	10.84	262.2	Sgr
22 Jul 2019	19h09m28.32s	-22 10' 31.3"	10.049	9.055	0.1	167.4	1.3	12.59	204.29	10.77	262.2	Sgr
23 Jul 2019	19h09m10.16s	-22 11' 07.1"	10.048	9.058	0.1	166.3	1.4	12.30	205.25	10.70	262.2	Sgr
24 Jul 2019	19h08m52.13s	-22 11' 42.5"	10.048	9.062	0.1	165.3	1.5	12.01	206.21	10.62	262.2	Sgr
25 Jul 2019	19h08m34.22s	-22 12' 17.7"	10.048	9.067	0.1	164.3	1.6	11.71	207.16	10.54	262.2	Sgr
26 Jul 2019	19h08m16.46s	-22 12' 52.5"	10.048	9.071	0.1	163.3	1.7	11.39	208.11	10.46	262.3	Sgr
27 Jul 2019	19h07m58.84s	-22 13' 27.0"	10.048	9.076	0.1	162.3	1.8	11.07	209.06	10.36	262.3	Sgr
28 Jul 2019	19h07m41.38s	-22 14' 01.1"	10.048	9.081	0.1	161.2	1.9	10.74	210.00	10.27	262.3	Sgr
29 Jul 2019	19h07m24.08s	-22 14' 34.9"	10.048	9.087	0.1	160.2	2.0	10.40	210.93	10.16	262.3	Sgr
30 Jul 2019	19h07m06.96s	-22 15' 08.3"	10.048	9.092	0.1	159.2	2.1	10.05	211.86	10.05	262.3	Sgr
31 Jul 2019	19h06m50.03s	-22 15' 41.3"	10.048	9.098	0.1	158.2	2.2	9.70	212.78	9.94	262.3	Sgr
1 Aug 2019	19h06m33.29s	-22 16' 13.9"	10.048	9.105	0.2	157.1	2.2	9.33	213.70	9.82	262.3	Sgr
2 Aug 2019	19h06m16.75s	-22 16' 46.1"	10.048	9.111	0.2	156.1	2.3	8.96	214.62	9.70	262.4	Sgr
3 Aug 2019	19h06m00.43s	-22 17' 17.8"	10.048	9.118	0.2	155.1	2.4	8.58	215.52	9.57	262.4	Sgr
4 Aug 2019	19h05m44.32s	-22 17' 49.2"	10.048	9.125	0.2	154.1	2.5	8.19	216.43	9.43	262.4	Sgr
5 Aug 2019	19h05m28.45s	-22 18' 20.1"	10.048	9.133	0.2	153.1	2.6	7.79	217.32	9.29	262.4	Sgr
6 Aug 2019	19h05m12.81s	-22 18' 50.5"	10.047	9.140	0.2	152.0	2.7	7.39	218.22	9.15	262.4	Sgr
7 Aug 2019	19h04m57.42s	-22 19' 20.5"	10.047	9.148	0.2	151.0	2.8	6.97	219.10	9.00	262.4	Sgr
8 Aug 2019	19h04m42.28s	-22 19' 50.1"	10.047	9.156	0.2	150.0	2.9	6.55	219.98	8.85	262.4	Sgr
9 Aug 2019	19h04m27.40s	-22 20' 19.1"	10.047	9.165	0.2	149.0	3.0	6.13	220.86	8.69	262.4	Sgr
10 Aug 2019	19h04m12.79s	-22 20' 47.7"	10.047	9.173	0.2	148.0	3.1	5.69	221.73	8.53	262.4	Sgr

EPHEMERIDE 2019 – SATURN

Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
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11 Aug 2019	19h03m58.45s	-22 21' 15.8"	10.047	9.182	0.2	147.0	3.2	5.26	222.60	8.37	262.4	Sgr
12 Aug 2019	19h03m44.39s	-22 21' 43.4"	10.047	9.191	0.2	145.9	3.2	4.81	223.46	8.20	262.4	Sgr
13 Aug 2019	19h03m30.62s	-22 22' 10.5"	10.047	9.201	0.2	144.9	3.3	4.36	224.31	8.03	262.3	Sgr
14 Aug 2019	19h03m17.14s	-22 22' 37.1"	10.047	9.210	0.2	143.9	3.4	3.90	225.16	7.85	262.3	Sgr
15 Aug 2019	19h03m03.95s	-22 23' 03.2"	10.047	9.220	0.2	142.9	3.5	3.43	226.00	7.68	262.3	Sgr
16 Aug 2019	19h02m51.07s	-22 23' 28.7"	10.047	9.230	0.2	141.9	3.6	2.96	226.84	7.49	262.3	Sgr
17 Aug 2019	19h02m38.51s	-22 23' 53.8"	10.047	9.241	0.2	140.9	3.6	2.49	227.68	7.31	262.3	Sgr
18 Aug 2019	19h02m26.25s	-22 24' 18.3"	10.047	9.251	0.2	139.9	3.7	2.00	228.51	7.12	262.3	Sgr
19 Aug 2019	19h02m14.32s	-22 24' 42.2"	10.046	9.262	0.3	138.9	3.8	1.52	229.33	6.93	262.2	Sgr
20 Aug 2019	19h02m02.72s	-22 25' 05.7"	10.046	9.273	0.3	137.9	3.9	1.03	230.15	6.73	262.2	Sgr
21 Aug 2019	19h01m51.45s	-22 25' 28.6"	10.046	9.284	0.3	136.9	3.9	0.53	230.97	6.54	262.2	Sgr
22 Aug 2019	19h01m40.52s	-22 25' 50.9"	10.046	9.296	0.3	135.9	4.0	0.03	231.78	6.33	262.1	Sgr
23 Aug 2019	19h01m29.93s	-22 26' 12.7"	10.046	9.307	0.3	134.9	4.1	-0.48	232.58	6.13	262.1	Sgr
24 Aug 2019	19h01m19.69s	-22 26' 34.0"	10.046	9.319	0.3	133.8	4.2	-0.99	233.39	5.92	262.0	Sgr
25 Aug 2019	19h01m09.81s	-22 26' 54.7"	10.046	9.331	0.3	132.8	4.2	-1.51	234.18	5.71	262.0	Sgr
26 Aug 2019	19h01m00.28s	-22 27' 14.8"	10.046	9.343	0.3	131.8	4.3	-2.03	234.98	5.50	261.9	Sgr
27 Aug 2019	19h00m51.13s	-22 27' 34.3"	10.046	9.356	0.3	130.8	4.4	-2.55	235.76	5.28	261.9	Sgr
28 Aug 2019	19h00m42.34s	-22 27' 53.3"	10.046	9.368	0.3	129.8	4.4	-3.08	236.55	5.06	261.8	Sgr
29 Aug 2019	19h00m33.92s	-22 28' 11.7"	10.046	9.381	0.3	128.8	4.5	-3.61	237.33	4.84	261.7	Sgr
30 Aug 2019	19h00m25.89s	-22 28' 29.6"	10.046	9.394	0.3	127.8	4.6	-4.15	238.11	4.62	261.6	Sgr
31 Aug 2019	19h00m18.23s	-22 28' 46.8"	10.045	9.407	0.3	126.9	4.6	-4.68	238.88	4.39	261.5	Sgr
1 Sep 2019	19h00m10.97s	-22 29' 03.5"	10.045	9.421	0.3	125.9	4.7	-5.23	239.65	4.16	261.3	Sgr
2 Sep 2019	19h00m04.10s	-22 29' 19.6"	10.045	9.434	0.3	124.9	4.7	-5.77	240.41	3.93	261.2	Sgr
3 Sep 2019	18h59m57.63s	-22 29' 35.1"	10.045	9.448	0.3	123.9	4.8	-6.32	241.18	3.70	261.0	Sgr
4 Sep 2019	18h59m51.55s	-22 29' 50.1"	10.045	9.462	0.3	122.9	4.8	-6.87	241.94	3.46	260.8	Sgr
5 Sep 2019	18h59m45.87s	-22 30' 04.4"	10.045	9.476	0.3	121.9	4.9	-7.43	242.69	3.23	260.6	Sgr
6 Sep 2019	18h59m40.60s	-22 30' 18.1"	10.045	9.490	0.4	120.9	4.9	-7.98	243.44	2.99	260.3	Sgr
7 Sep 2019	18h59m35.74s	-22 30' 31.3"	10.045	9.504	0.4	119.9	5.0	-8.54	244.19	2.75	260.0	Sgr
8 Sep 2019	18h59m31.28s	-22 30' 43.8"	10.045	9.519	0.4	118.9	5.0	-9.10	244.94	2.51	259.6	Sgr
9 Sep 2019	18h59m27.23s	-22 30' 55.8"	10.045	9.533	0.4	117.9	5.1	-9.67	245.69	2.27	259.1	Sgr
10 Sep 2019	18h59m23.59s	-22 31' 07.2"	10.045	9.548	0.4	116.9	5.1	-10.24	246.43	2.03	258.5	Sgr
11 Sep 2019	18h59m20.37s	-22 31' 17.9"	10.045	9.563	0.4	116.0	5.2	-10.80	247.17	1.79	257.8	Sgr
12 Sep 2019	18h59m17.56s	-22 31' 28.1"	10.044	9.578	0.4	115.0	5.2	-11.37	247.91	1.55	256.8	Sgr
13 Sep 2019	18h59m15.16s	-22 31' 37.6"	10.044	9.593	0.4	114.0	5.3	-11.95	248.64	1.30	255.4	Sgr
14 Sep 2019	18h59m13.18s	-22 31' 46.6"	10.044	9.608	0.4	113.0	5.3	-12.52	249.37	1.06	253.4	Sgr
15 Sep 2019	18h59m11.62s	-22 31' 54.9"	10.044	9.623	0.4	112.0	5.3	-13.10	250.11	0.82	250.3	Sgr
16 Sep 2019	18h59m10.48s	-22 32' 02.7"	10.044	9.639	0.4	111.1	5.4	-13.67	250.83	0.59	244.5	Sgr
17 Sep 2019	18h59m09.76s	-22 32' 09.8"	10.044	9.654	0.4	110.1	5.4	-14.25	251.56	0.36	231.4	Sgr
18 Sep 2019	18h59m09.46s	-22 32' 16.3"	10.044	9.670	0.4	109.1	5.4	-14.83	252.29	0.21	191.0	Sgr
19 Sep 2019	18h59m09.58s	-22 32' 22.2"	10.044	9.686	0.4	108.1	5.5	-15.41	253.02	0.27	130.5	Sgr
20 Sep 2019	18h59m10.12s	-22 32' 27.5"	10.044	9.702	0.4	107.2	5.5	-15.99	253.74	0.48	108.5	Sgr
21 Sep 2019	18h59m11.09s	-22 32' 32.2"	10.044	9.717	0.4	106.2	5.5	-16.58	254.46	0.71	100.2	Sgr
22 Sep 2019	18h59m12.48s	-22 32' 36.3"	10.044	9.733	0.4	105.2	5.5	-17.16	255.19	0.95	96.1	Sgr
23 Sep 2019	18h59m14.30s	-22 32' 39.7"	10.044	9.749	0.4	104.2	5.6	-17.75	255.91	1.20	93.6	Sgr
24 Sep 2019	18h59m16.54s	-22 32' 42.5"	10.043	9.766	0.4	103.3	5.6	-18.33	256.63	1.44	92.0	Sgr
25 Sep 2019	18h59m19.21s	-22 32' 44.7"	10.043	9.782	0.4	102.3	5.6	-18.92	257.35	1.69	90.8	Sgr
26 Sep 2019	18h59m22.30s	-22 32' 46.3"	10.043	9.798	0.4	101.3	5.6	-19.50	258.07	1.94	89.9	Sgr
27 Sep 2019	18h59m25.82s	-22 32' 47.3"	10.043	9.814	0.5	100.4	5.6	-20.09	258.79	2.19	89.3	Sgr
28 Sep 2019	18h59m29.77s	-22 32' 47.6"	10.043	9.831	0.5	99.4	5.7	-20.68	259.51	2.44	88.7	Sgr
29 Sep 2019	18h59m34.14s	-22 32' 47.3"	10.043	9.847	0.5	98.4	5.7	-21.26	260.24	2.69	88.3	Sgr
30 Sep 2019	18h59m38.94s	-22 32' 46.4"	10.043	9.864	0.5	97.5	5.7	-21.85	260.96	2.94	88.0	Sgr
1 Okt 2019	18h59m44.16s	-22 32' 44.9"	10.043	9.880	0.5	96.5	5.7	-22.44	261.68	3.18	87.6	Sgr
2 Okt 2019	18h59m49.81s	-22 32' 42.7"	10.043	9.897	0.5	95.5	5.7	-23.03	262.40	3.43	87.4	Sgr
3 Okt 2019	18h59m55.87s	-22 32' 39.9"	10.043	9.913	0.5	94.6	5.7	-23.61	263.13	3.68	87.2	Sgr
4 Okt 2019	19h00m02.36s	-22 32' 36.5"	10.043	9.930	0.5	93.6	5.7	-24.20	263.85	3.92	86.9	Sgr
5 Okt 2019	19h00m09.27s	-22 32' 32.4"	10.043	9.946	0.5	92.7	5.7	-24.78	264.58	4.17	86.8	Sgr
6 Okt 2019	19h00m16.59s	-22 32' 27.7"	10.042	9.963	0.5	91.7	5.7	-25.37	265.31	4.41	86.6	Sgr
7 Okt 2019	19h00m24.33s	-22 32' 22.4"	10.042	9.979	0.5	90.8	5.7	-25.95	266.04	4.65	86.5	Sgr
8 Okt 2019	19h00m32.47s	-22 32' 16.4"	10.042	9.996	0.5	89.8	5.7	-26.54	266.77	4.89	86.3	Sgr
9 Okt 2019	19h00m41.03s	-22 32' 09.7"	10.042	10.013	0.5	88.8	5.7	-27.12	267.51	5.13	86.2	Sgr
10 Okt 2019	19h00m49.99s	-22 32' 02.5"	10.042	10.029	0.5	87.9	5.7	-27.71	268.25	5.37	86.1	Sgr
11 Okt 2019	19h00m59.36s	-22 31' 54.6"	10.042	10.046	0.5	86.9	5.7	-28.29	268.98	5.60	86.0	Sgr
12 Okt 2019	19h01m09.14s	-22 31' 46.0"	10.042	10.062	0.5	86.0	5.7	-28.87	269.73	5.84	85.9	Sgr
13 Okt 2019	19h01m19.31s	-22 31' 36.8"	10.042	10.079	0.5	85.0	5.7	-29.45	270.47	6.07	85.8	Sgr
14 Okt 2019	19h01m29.88s	-22 31' 27.0"	10.042	10.095	0.5	84.1	5.7	-30.03	271.22	6.31	85.7	Sgr
15 Okt 2019	19h01m40.84s	-22 31' 16.5"	10.042	10.112	0.5	83.1	5.7	-30.60	271.97	6.54	85.6	Sgr
16 Okt 2019	19h01m52.20s	-22 31' 05.3"	10.042	10.128	0.5	82.2	5.6	-31.18	272.73	6.77	85.6	Sgr
17 Okt 2019	19h02m03.95s	-22 30' 53.5"	10.042	10.145	0.5	81.3	5.6	-31.75	273.49	6.99	85.5	Sgr
18 Okt 2019	19h02m16.09s	-22 30' 41.1"	10.041	10.161	0.5	80.3	5.6	-32.33	274.25	7.22	85.4	Sgr
19 Okt 2019	19h02m28.61s	-22 30' 28.0"	10.041	10.177	0.5	79.4	5.6	-32.90	275.02	7.45	85.3	Sgr
20 Okt 2019	19h02m41.52s	-22 30' 14.2"	10.041	10.194	0.5	78.4	5.6	-33.46	275.79	7.67	85.3	Sgr
21 Okt 2019	19h02m54.80s	-22 29' 59.8"	10.041	10.210	0.5	77.5	5.6	-34.03	276.57	7.89	85.2	Sgr
22 Okt 2019	19h03m08.47s	-22 29' 44.7"	10.041	10.226	0.5	76.5	5.5	-34.60	277.35	8.11	85.2	Sgr
23 Okt 2019	19h03m22.51s	-22 29' 28.9"	10.041	10.242	0.5	75.6	5.5	-35.16	278.14	8.33	85.1	Sgr

EPHEMERIDE 2019 – SATURN

Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
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24 Okt 2019	19h03m36.93s	-22 29' 12.5"	10.041	10.258	0.5	74.7	5.5	-35.72	278.93	8.55	85.0	Sgr
25 Okt 2019	19h03m51.71s	-22 28' 55.5"	10.041	10.274	0.5	73.7	5.5	-36.28	279.73	8.77	85.0	Sgr
26 Okt 2019	19h04m06.87s	-22 28' 37.7"	10.041	10.290	0.6	72.8	5.4	-36.84	280.53	8.98	84.9	Sgr
27 Okt 2019	19h04m22.39s	-22 28' 19.3"	10.041	10.306	0.6	71.8	5.4	-37.39	281.34	9.20	84.9	Sgr
28 Okt 2019	19h04m38.27s	-22 28' 00.2"	10.041	10.322	0.6	70.9	5.4	-37.94	282.16	9.41	84.8	Sgr
29 Okt 2019	19h04m54.50s	-22 27' 40.5"	10.040	10.337	0.6	70.0	5.3	-38.49	282.98	9.62	84.8	Sgr
30 Okt 2019	19h05m11.10s	-22 27' 20.0"	10.040	10.353	0.6	69.0	5.3	-39.03	283.82	9.82	84.7	Sgr
31 Okt 2019	19h05m28.04s	-22 26' 58.9"	10.040	10.368	0.6	68.1	5.3	-39.58	284.66	10.03	84.7	Sgr
1 Nov 2019	19h05m45.32s	-22 26' 37.2"	10.040	10.384	0.6	67.2	5.2	-40.11	285.50	10.23	84.6	Sgr
2 Nov 2019	19h06m02.95s	-22 26' 14.7"	10.040	10.399	0.6	66.2	5.2	-40.65	286.36	10.43	84.6	Sgr
3 Nov 2019	19h06m20.92s	-22 25' 51.6"	10.040	10.414	0.6	65.3	5.2	-41.18	287.22	10.63	84.5	Sgr
4 Nov 2019	19h06m39.22s	-22 25' 27.8"	10.040	10.429	0.6	64.4	5.1	-41.71	288.09	10.82	84.5	Sgr
5 Nov 2019	19h06m57.84s	-22 25' 03.3"	10.040	10.444	0.6	63.4	5.1	-42.24	288.97	11.01	84.4	Sgr
6 Nov 2019	19h07m16.79s	-22 24' 38.1"	10.040	10.459	0.6	62.5	5.0	-42.76	289.86	11.20	84.4	Sgr
7 Nov 2019	19h07m36.06s	-22 24' 12.3"	10.040	10.473	0.6	61.6	5.0	-43.28	290.76	11.39	84.3	Sgr
8 Nov 2019	19h07m55.65s	-22 23' 45.8"	10.040	10.488	0.6	60.7	4.9	-43.79	291.67	11.57	84.3	Sgr
9 Nov 2019	19h08m15.54s	-22 23' 18.6"	10.039	10.502	0.6	59.7	4.9	-44.30	292.59	11.76	84.2	Sgr
10 Nov 2019	19h08m35.75s	-22 22' 50.7"	10.039	10.517	0.6	58.8	4.8	-44.81	293.52	11.94	84.2	Sgr
11 Nov 2019	19h08m56.25s	-22 22' 22.1"	10.039	10.531	0.6	57.9	4.8	-45.31	294.47	12.11	84.1	Sgr
12 Nov 2019	19h09m17.06s	-22 21' 52.9"	10.039	10.545	0.6	57.0	4.7	-45.80	295.42	12.29	84.1	Sgr
13 Nov 2019	19h09m38.15s	-22 21' 22.9"	10.039	10.558	0.6	56.0	4.7	-46.29	296.38	12.46	84.1	Sgr
14 Nov 2019	19h09m59.54s	-22 20' 52.3"	10.039	10.572	0.6	55.1	4.6	-46.78	297.36	12.63	84.0	Sgr
15 Nov 2019	19h10m21.22s	-22 20' 21.0"	10.039	10.586	0.6	54.2	4.6	-47.26	298.35	12.80	84.0	Sgr
16 Nov 2019	19h10m43.18s	-22 19' 49.0"	10.039	10.599	0.6	53.3	4.5	-47.74	299.35	12.97	83.9	Sgr
17 Nov 2019	19h11m05.41s	-22 19' 16.4"	10.039	10.612	0.6	52.3	4.5	-48.21	300.37	13.13	83.9	Sgr
18 Nov 2019	19h11m27.92s	-22 18' 43.0"	10.039	10.625	0.6	51.4	4.4	-48.67	301.40	13.29	83.8	Sgr
19 Nov 2019	19h11m50.70s	-22 18' 09.0"	10.039	10.638	0.6	50.5	4.4	-49.13	302.44	13.45	83.8	Sgr
20 Nov 2019	19h12m13.75s	-22 17' 34.3"	10.038	10.651	0.6	49.6	4.3	-49.58	303.50	13.61	83.7	Sgr
21 Nov 2019	19h12m37.06s	-22 16' 58.9"	10.038	10.663	0.6	48.7	4.2	-50.03	304.57	13.76	83.7	Sgr
22 Nov 2019	19h13m00.63s	-22 16' 22.9"	10.038	10.676	0.6	47.7	4.2	-50.46	305.65	13.91	83.6	Sgr
23 Nov 2019	19h13m24.45s	-22 15' 46.1"	10.038	10.688	0.6	46.8	4.1	-50.90	306.75	14.06	83.6	Sgr
24 Nov 2019	19h13m48.52s	-22 15' 08.7"	10.038	10.700	0.6	45.9	4.1	-51.32	307.87	14.21	83.6	Sgr
25 Nov 2019	19h14m12.84s	-22 14' 30.6"	10.038	10.712	0.6	45.0	4.0	-51.74	309.00	14.35	83.5	Sgr
26 Nov 2019	19h14m37.40s	-22 13' 51.9"	10.038	10.723	0.6	44.1	3.9	-52.15	310.15	14.49	83.5	Sgr
27 Nov 2019	19h15m02.19s	-22 13' 12.4"	10.038	10.735	0.6	43.2	3.9	-52.55	311.31	14.63	83.4	Sgr
28 Nov 2019	19h15m27.21s	-22 12' 32.3"	10.038	10.746	0.6	42.2	3.8	-52.95	312.49	14.77	83.4	Sgr
29 Nov 2019	19h15m52.46s	-22 11' 51.5"	10.038	10.757	0.6	41.3	3.7	-53.33	313.69	14.90	83.3	Sgr
30 Nov 2019	19h16m17.92s	-22 11' 10.1"	10.037	10.768	0.6	40.4	3.7	-53.71	314.90	15.03	83.3	Sgr
1 Dez 2019	19h16m43.60s	-22 10' 28.0"	10.037	10.779	0.6	39.5	3.6	-54.08	316.14	15.16	83.2	Sgr
2 Dez 2019	19h17m09.49s	-22 09' 45.2"	10.037	10.789	0.6	38.6	3.5	-54.44	317.38	15.28	83.2	Sgr
3 Dez 2019	19h17m35.58s	-22 09' 01.8"	10.037	10.799	0.6	37.7	3.4	-54.79	318.65	15.40	83.1	Sgr
4 Dez 2019	19h18m01.87s	-22 08' 17.7"	10.037	10.809	0.6	36.8	3.4	-55.13	319.93	15.52	83.1	Sgr
5 Dez 2019	19h18m28.36s	-22 07' 32.9"	10.037	10.819	0.6	35.9	3.3	-55.46	321.23	15.63	83.1	Sgr
6 Dez 2019	19h18m55.03s	-22 06' 47.6"	10.037	10.829	0.6	34.9	3.2	-55.78	322.55	15.74	83.0	Sgr
7 Dez 2019	19h19m21.88s	-22 06' 01.5"	10.037	10.838	0.6	34.0	3.1	-56.10	323.89	15.85	83.0	Sgr
8 Dez 2019	19h19m48.92s	-22 05' 14.9"	10.037	10.847	0.6	33.1	3.1	-56.40	325.24	15.96	82.9	Sgr
9 Dez 2019	19h20m16.12s	-22 04' 27.5"	10.037	10.856	0.6	32.2	3.0	-56.68	326.61	16.06	82.9	Sgr
10 Dez 2019	19h20m43.50s	-22 03' 39.6"	10.037	10.865	0.6	31.3	2.9	-56.96	328.00	16.16	82.8	Sgr
11 Dez 2019	19h21m11.04s	-22 02' 51.0"	10.036	10.873	0.6	30.4	2.8	-57.23	329.40	16.26	82.8	Sgr
12 Dez 2019	19h21m38.73s	-22 02' 01.9"	10.036	10.882	0.6	29.5	2.8	-57.48	330.82	16.35	82.7	Sgr
13 Dez 2019	19h22m06.58s	-22 01' 12.0"	10.036	10.890	0.6	28.6	2.7	-57.72	332.26	16.45	82.7	Sgr
14 Dez 2019	19h22m34.59s	-22 00' 21.6"	10.036	10.898	0.6	27.7	2.6	-57.95	333.71	16.54	82.6	Sgr
15 Dez 2019	19h23m02.73s	-21 59' 30.6"	10.036	10.905	0.6	26.8	2.5	-58.17	335.17	16.62	82.6	Sgr
16 Dez 2019	19h23m31.02s	-21 58' 39.0"	10.036	10.912	0.6	25.9	2.5	-58.38	336.65	16.71	82.5	Sgr
17 Dez 2019	19h23m59.45s	-21 57' 46.7"	10.036	10.920	0.6	25.0	2.4	-58.57	338.15	16.79	82.5	Sgr
18 Dez 2019	19h24m28.01s	-21 56' 53.9"	10.036	10.926	0.6	24.0	2.3	-58.74	339.66	16.87	82.4	Sgr
19 Dez 2019	19h24m56.69s	-21 56' 00.5"	10.036	10.933	0.6	23.1	2.2	-58.91	341.18	16.95	82.4	Sgr
20 Dez 2019	19h25m25.50s	-21 55' 06.5"	10.036	10.939	0.6	22.2	2.1	-59.06	342.71	17.02	82.4	Sgr
21 Dez 2019	19h25m54.42s	-21 54' 11.9"	10.035	10.945	0.6	21.3	2.0	-59.20	344.25	17.09	82.3	Sgr
22 Dez 2019	19h26m23.46s	-21 53' 16.8"	10.035	10.951	0.6	20.4	2.0	-59.32	345.80	17.16	82.3	Sgr
23 Dez 2019	19h26m52.61s	-21 52' 21.1"	10.035	10.957	0.6	19.5	1.9	-59.43	347.36	17.23	82.2	Sgr
24 Dez 2019	19h27m21.86s	-21 51' 24.8"	10.035	10.962	0.6	18.6	1.8	-59.52	348.93	17.29	82.2	Sgr
25 Dez 2019	19h27m51.21s	-21 50' 28.0"	10.035	10.968	0.6	17.7	1.7	-59.60	350.51	17.35	82.1	Sgr
26 Dez 2019	19h28m20.65s	-21 49' 30.6"	10.035	10.972	0.6	16.8	1.6	-59.66	352.09	17.40	82.1	Sgr
27 Dez 2019	19h28m50.17s	-21 48' 32.8"	10.035	10.977	0.6	15.9	1.5	-59.71	353.67	17.46	82.0	Sgr
28 Dez 2019	19h29m19.78s	-21 47' 34.3"	10.035	10.981	0.5	15.0	1.5	-59.75	355.26	17.50	82.0	Sgr
29 Dez 2019	19h29m49.46s	-21 46' 35.4"	10.035	10.986	0.5	14.1	1.4	-59.77	356.85	17.55	81.9	Sgr
30 Dez 2019	19h30m19.21s	-21 45' 36.0"	10.035	10.989	0.5	13.2	1.3	-59.77	358.44	17.59	81.9	Sgr
31 Dez 2019	19h30m49.03s	-21 44' 36.1"	10.034	10.993	0.5	12.3	1.2	-59.76	0.03	17.63	81.8	Sgr
1 Jan 2020	19h31m18.91s	-21 43' 35.7"	10.034	10.996	0.5	11.4	1.1	-59.74	1.62	17.67	81.8	Sgr