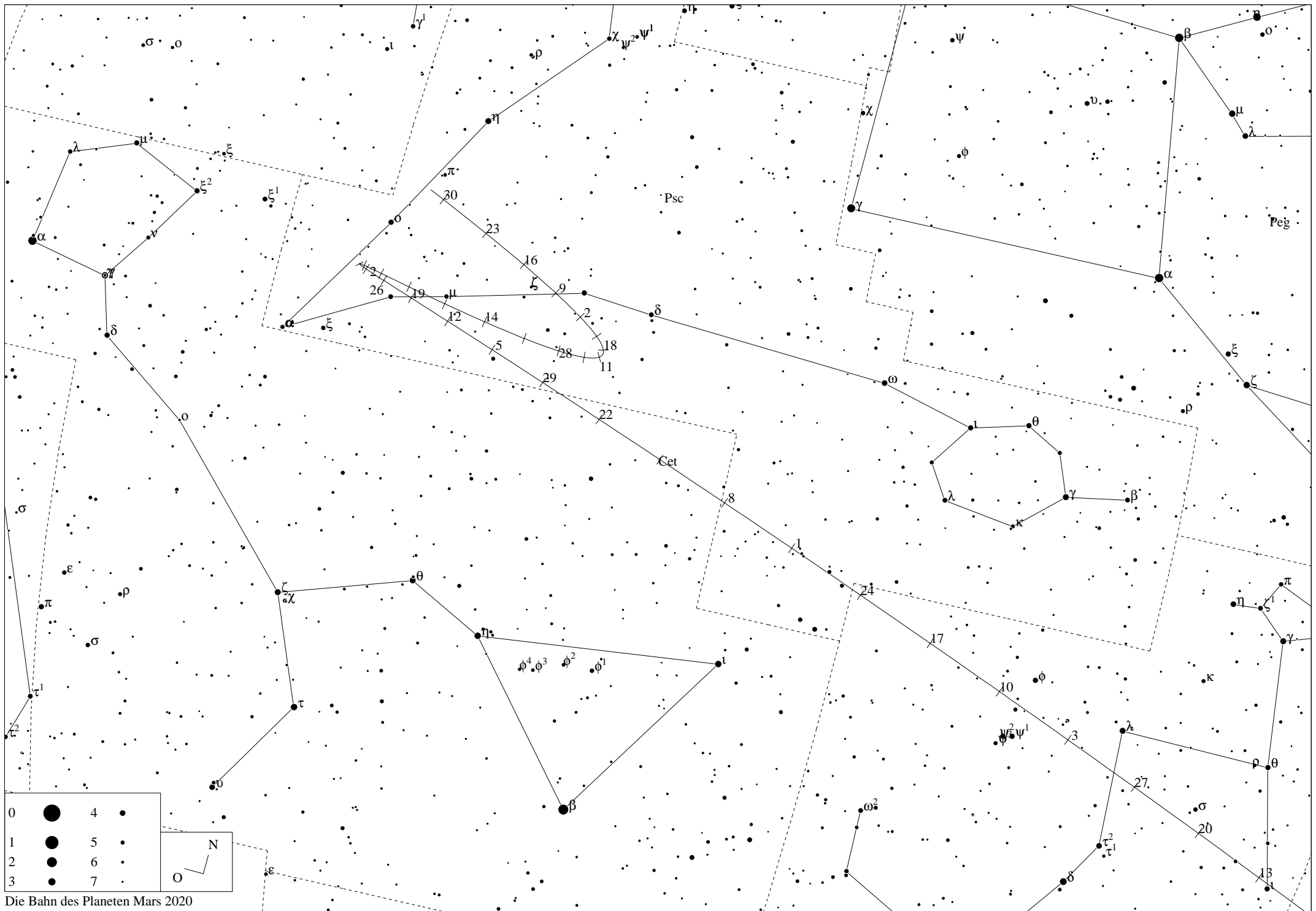


Die Bahn des Planeten Mars 2020



EPHEMERIDE 2020 – MARS

Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
1 Jan 2020	15h43m47.36s	-19 23' 09.5"	1.5898	2.1844	1.6	41.6	24.3	-34.90	76.56	101.18	103.8	Lib
2 Jan 2020	15h46m33.77s	-19 32' 38.8"	1.5887	2.1772	1.6	42.0	24.5	-34.85	76.94	101.22	103.6	Lib
3 Jan 2020	15h49m20.57s	-19 41' 59.0"	1.5876	2.1700	1.6	42.3	24.6	-34.79	77.31	101.27	103.3	Lib
4 Jan 2020	15h52m07.78s	-19 51' 09.9"	1.5865	2.1627	1.6	42.7	24.8	-34.74	77.68	101.31	103.1	Lib
5 Jan 2020	15h54m55.38s	-20 00' 11.4"	1.5853	2.1554	1.5	43.0	25.0	-34.68	78.05	101.36	102.9	Lib
6 Jan 2020	15h57m43.38s	-20 09' 03.4"	1.5842	2.1481	1.5	43.4	25.2	-34.62	78.42	101.41	102.6	Lib
7 Jan 2020	16h00m31.78s	-20 17' 45.9"	1.5831	2.1407	1.5	43.7	25.4	-34.56	78.78	101.46	102.4	Lib
8 Jan 2020	16h03m20.58s	-20 26' 18.6"	1.5819	2.1334	1.5	44.0	25.6	-34.49	79.13	101.51	102.2	Sco
9 Jan 2020	16h06m09.77s	-20 34' 41.6"	1.5808	2.1259	1.5	44.4	25.8	-34.43	79.48	101.56	101.9	Sco
10 Jan 2020	16h08m59.35s	-20 42' 54.7"	1.5796	2.1185	1.5	44.7	26.0	-34.36	79.83	101.61	101.7	Sco
11 Jan 2020	16h11m49.33s	-20 50' 57.8"	1.5785	2.1110	1.5	45.1	26.2	-34.30	80.17	101.66	101.4	Sco
12 Jan 2020	16h14m39.70s	-20 58' 50.9"	1.5773	2.1035	1.5	45.4	26.4	-34.23	80.51	101.72	101.2	Sco
13 Jan 2020	16h17m30.46s	-21 06' 33.8"	1.5761	2.0960	1.5	45.8	26.6	-34.16	80.85	101.77	100.9	Sco
14 Jan 2020	16h20m21.60s	-21 14' 06.5"	1.5750	2.0884	1.5	46.1	26.7	-34.09	81.18	101.83	100.7	Sco
15 Jan 2020	16h23m13.13s	-21 21' 28.8"	1.5738	2.0808	1.5	46.4	26.9	-34.01	81.50	101.88	100.4	Sco
16 Jan 2020	16h26m05.04s	-21 28' 40.7"	1.5726	2.0732	1.5	46.8	27.1	-33.94	81.82	101.94	100.2	Oph
17 Jan 2020	16h28m57.32s	-21 35' 42.1"	1.5714	2.0656	1.5	47.1	27.3	-33.86	82.14	101.99	99.9	Oph
18 Jan 2020	16h31m49.97s	-21 42' 32.8"	1.5702	2.0579	1.5	47.5	27.5	-33.79	82.45	102.04	99.7	Oph
19 Jan 2020	16h34m42.98s	-21 49' 12.8"	1.5690	2.0502	1.5	47.8	27.7	-33.71	82.76	102.09	99.4	Oph
20 Jan 2020	16h37m36.34s	-21 55' 42.0"	1.5678	2.0425	1.5	48.1	27.9	-33.63	83.07	102.14	99.1	Oph
21 Jan 2020	16h40m30.04s	-22 02' 00.2"	1.5666	2.0348	1.4	48.5	28.1	-33.55	83.37	102.19	98.9	Oph
22 Jan 2020	16h43m24.08s	-22 08' 07.4"	1.5654	2.0270	1.4	48.8	28.2	-33.46	83.67	102.24	98.6	Oph
23 Jan 2020	16h46m18.45s	-22 14' 03.6"	1.5642	2.0192	1.4	49.2	28.4	-33.38	83.96	102.28	98.4	Oph
24 Jan 2020	16h49m13.14s	-22 19' 48.5"	1.5630	2.0114	1.4	49.5	28.6	-33.29	84.25	102.32	98.1	Oph
25 Jan 2020	16h52m08.14s	-22 25' 22.1"	1.5617	2.0035	1.4	49.8	28.8	-33.20	84.53	102.37	97.8	Oph
26 Jan 2020	16h55m03.44s	-22 30' 44.3"	1.5605	1.9957	1.4	50.2	29.0	-33.11	84.81	102.41	97.5	Oph
27 Jan 2020	16h57m59.04s	-22 35' 55.2"	1.5593	1.9878	1.4	50.5	29.2	-33.02	85.09	102.45	97.3	Oph
28 Jan 2020	17h00m54.92s	-22 40' 54.5"	1.5581	1.9799	1.4	50.8	29.3	-32.92	85.36	102.49	97.0	Oph
29 Jan 2020	17h03m51.09s	-22 45' 42.1"	1.5568	1.9720	1.4	51.2	29.5	-32.83	85.63	102.53	96.7	Oph
30 Jan 2020	17h06m47.53s	-22 50' 18.2"	1.5556	1.9641	1.4	51.5	29.7	-32.73	85.89	102.57	96.5	Oph
31 Jan 2020	17h09m44.23s	-22 54' 42.5"	1.5543	1.9561	1.4	51.8	29.9	-32.63	86.15	102.60	96.2	Oph
1 Feb 2020	17h12m41.19s	-22 58' 55.0"	1.5531	1.9481	1.4	52.2	30.1	-32.53	86.41	102.64	95.9	Oph
2 Feb 2020	17h15m38.40s	-23 02' 55.7"	1.5518	1.9401	1.4	52.5	30.3	-32.43	86.66	102.68	95.6	Oph
3 Feb 2020	17h18m35.85s	-23 06' 44.4"	1.5506	1.9322	1.3	52.8	30.4	-32.32	86.91	102.72	95.3	Oph
4 Feb 2020	17h21m33.54s	-23 10' 21.2"	1.5493	1.9241	1.3	53.2	30.6	-32.21	87.15	102.76	95.1	Oph
5 Feb 2020	17h24m31.47s	-23 13' 46.0"	1.5481	1.9161	1.3	53.5	30.8	-32.10	87.39	102.81	94.8	Oph
6 Feb 2020	17h27m29.61s	-23 16' 58.8"	1.5468	1.9081	1.3	53.8	31.0	-31.99	87.63	102.85	94.5	Oph
7 Feb 2020	17h30m27.97s	-23 19' 59.4"	1.5455	1.9000	1.3	54.2	31.1	-31.88	87.86	102.89	94.2	Oph
8 Feb 2020	17h33m26.55s	-23 22' 47.9"	1.5442	1.8920	1.3	54.5	31.3	-31.77	88.09	102.94	93.9	Oph
9 Feb 2020	17h36m25.33s	-23 25' 24.2"	1.5430	1.8839	1.3	54.8	31.5	-31.65	88.32	102.98	93.6	Oph
10 Feb 2020	17h39m24.31s	-23 27' 48.3"	1.5417	1.8758	1.3	55.1	31.7	-31.53	88.54	103.03	93.4	Oph
11 Feb 2020	17h42m23.48s	-23 30' 00.1"	1.5404	1.8677	1.3	55.5	31.9	-31.41	88.76	103.08	93.1	Oph
12 Feb 2020	17h45m22.83s	-23 31' 59.6"	1.5391	1.8596	1.3	55.8	32.0	-31.28	88.97	103.13	92.8	Sgr
13 Feb 2020	17h48m22.36s	-23 33' 46.8"	1.5379	1.8515	1.3	56.1	32.2	-31.16	89.18	103.17	92.5	Sgr
14 Feb 2020	17h51m22.05s	-23 35' 21.6"	1.5366	1.8434	1.3	56.4	32.4	-31.03	89.39	103.22	92.2	Sgr
15 Feb 2020	17h54m21.89s	-23 36' 44.0"	1.5353	1.8352	1.3	56.8	32.6	-30.90	89.59	103.27	91.9	Sgr
16 Feb 2020	17h57m21.87s	-23 37' 54.0"	1.5340	1.8271	1.2	57.1	32.7	-30.77	89.79	103.31	91.6	Sgr
17 Feb 2020	18h00m21.99s	-23 38' 51.6"	1.5327	1.8189	1.2	57.4	32.9	-30.64	89.99	103.35	91.4	Sgr
18 Feb 2020	18h03m22.21s	-23 39' 36.6"	1.5314	1.8108	1.2	57.7	33.1	-30.50	90.18	103.39	91.1	Sgr
19 Feb 2020	18h06m22.55s	-23 40' 09.2"	1.5301	1.8026	1.2	58.1	33.2	-30.36	90.37	103.43	90.8	Sgr
20 Feb 2020	18h09m22.97s	-23 40' 29.3"	1.5288	1.7944	1.2	58.4	33.4	-30.22	90.56	103.46	90.5	Sgr
21 Feb 2020	18h12m23.47s	-23 40' 36.8"	1.5275	1.7863	1.2	58.7	33.6	-30.08	90.74	103.50	90.2	Sgr
22 Feb 2020	18h15m24.03s	-23 40' 31.8"	1.5262	1.7781	1.2	59.0	33.8	-29.93	90.92	103.53	89.9	Sgr
23 Feb 2020	18h18m24.65s	-23 40' 14.2"	1.5249	1.7699	1.2	59.3	33.9	-29.78	91.10	103.56	89.6	Sgr
24 Feb 2020	18h21m25.31s	-23 39' 44.1"	1.5236	1.7617	1.2	59.7	34.1	-29.63	91.27	103.59	89.3	Sgr
25 Feb 2020	18h24m26.00s	-23 39' 01.5"	1.5223	1.7535	1.2	60.0	34.3	-29.48	91.44	103.62	89.0	Sgr
26 Feb 2020	18h27m26.71s	-23 38' 06.3"	1.5210	1.7453	1.2	60.3	34.4	-29.32	91.61	103.64	88.8	Sgr
27 Feb 2020	18h30m27.43s	-23 36' 58.6"	1.5197	1.7371	1.1	60.6	34.6	-29.16	91.78	103.67	88.5	Sgr
28 Feb 2020	18h33m28.14s	-23 35' 38.4"	1.5184	1.7288	1.1	60.9	34.8	-29.00	91.94	103.70	88.2	Sgr
29 Feb 2020	18h36m28.84s	-23 34' 05.7"	1.5171	1.7206	1.1	61.2	34.9	-28.84	92.10	103.72	87.9	Sgr
1 Mar 2020	18h39m29.52s	-23 32' 20.5"	1.5158	1.7124	1.1	61.6	35.1	-28.67	92.26	103.75	87.6	Sgr
2 Mar 2020	18h42m30.17s	-23 30' 22.9"	1.5145	1.7042	1.1	61.9	35.2	-28.50	92.41	103.77	87.3	Sgr
3 Mar 2020	18h45m30.78s	-23 28' 12.9"	1.5132	1.6960	1.1	62.2	35.4	-28.33	92.56	103.80	87.0	Sgr
4 Mar 2020	18h48m31.34s	-23 25' 50.4"	1.5119	1.6878	1.1	62.5	35.6	-28.16	92.71	103.82	86.8	Sgr
5 Mar 2020	18h51m31.84s	-23 23' 15.6"	1.5105	1.6796	1.1	62.8	35.7	-27.98	92.86	103.85	86.5	Sgr
6 Mar 2020	18h54m32.28s	-23 20' 28.5"	1.5092	1.6714	1.1	63.1	35.9	-27.80	93.00	103.88	86.2	Sgr
7 Mar 2020	18h57m32.64s	-23 17' 29.1"	1.5079	1.6632	1.1	63.4	36.1	-27.62	93.14	103.91	85.9	Sgr
8 Mar 2020	19h00m32.93s	-23 14' 17.4"	1.5066	1.6550	1.0	63.7	36.2	-27.43	93.28	103.94	85.6	Sgr
9 Mar 2020	19h03m33.14s	-23 10' 53.6"	1.5053	1.6469	1.0	64.0	36.4	-27.25	93.42	103.97	85.4	Sgr
10 Mar 2020	19h06m33.26s	-23 07' 17.5"	1.5040	1.6387	1.0	64.3	36.5	-27.06	93.56	104.00	85.1	Sgr
11 Mar 2020	19h09m33.28s	-23 03' 29.4"	1.5027	1.6305	1.0	64.6	36.7	-26.86	93.69	104.03	84.8	Sgr
12 Mar 2020	19h12m33.19s	-22 59' 29.1"	1.5014	1.6223	1.0	64.9	36.8	-26.67	93.82	104.06	84.5	Sgr
13 Mar 2020	19h15m32.99s	-22 55' 16.9"	1.5001	1.6142	1.0	65.3	37.0	-26.47	93.95	104.09	84.3	Sgr
14 Mar 2020	19h18m32.66s	-22 50' 52.7"	1.4988	1.6060	1.0	65.6	37.1	-26.27	94.07	104.12	84.0	Sgr

EPHEMERIDE 2020 – MARS

Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
15 Mar 2020	19h21m32.20s	-22 46' 16.5"	1.4975	1.5979	1.0	65.9	37.3	-26.06	94.20	104.15	83.7	Sgr
16 Mar 2020	19h24m31.59s	-22 41' 28.6"	1.4962	1.5897	1.0	66.2	37.5	-25.85	94.32	104.17	83.4	Sgr
17 Mar 2020	19h27m30.82s	-22 36' 28.8"	1.4949	1.5816	1.0	66.5	37.6	-25.64	94.44	104.19	83.2	Sgr
18 Mar 2020	19h30m29.87s	-22 31' 17.4"	1.4936	1.5734	0.9	66.8	37.8	-25.43	94.56	104.21	82.9	Sgr
19 Mar 2020	19h33m28.75s	-22 25' 54.3"	1.4923	1.5653	0.9	67.1	37.9	-25.22	94.67	104.22	82.6	Sgr
20 Mar 2020	19h36m27.42s	-22 20' 19.6"	1.4910	1.5572	0.9	67.4	38.1	-25.00	94.79	104.24	82.4	Sgr
21 Mar 2020	19h39m25.90s	-22 14' 33.5"	1.4897	1.5491	0.9	67.7	38.2	-24.77	94.90	104.25	82.1	Sgr
22 Mar 2020	19h42m24.16s	-22 08' 36.0"	1.4884	1.5410	0.9	68.0	38.4	-24.55	95.02	104.26	81.8	Sgr
23 Mar 2020	19h45m22.19s	-22 02' 27.1"	1.4871	1.5329	0.9	68.3	38.5	-24.32	95.13	104.26	81.6	Sgr
24 Mar 2020	19h48m19.98s	-21 56' 07.1"	1.4858	1.5248	0.9	68.6	38.7	-24.09	95.24	104.27	81.3	Sgr
25 Mar 2020	19h51m17.54s	-21 49' 35.9"	1.4845	1.5167	0.9	68.9	38.8	-23.86	95.34	104.27	81.1	Sgr
26 Mar 2020	19h54m14.84s	-21 42' 53.8"	1.4832	1.5087	0.9	69.2	38.9	-23.62	95.45	104.27	80.8	Sgr
27 Mar 2020	19h57m11.87s	-21 36' 00.6"	1.4820	1.5006	0.8	69.4	39.1	-23.38	95.56	104.27	80.6	Sgr
28 Mar 2020	20h00m08.65s	-21 28' 56.7"	1.4807	1.4926	0.8	69.7	39.2	-23.14	95.66	104.26	80.3	Sgr
29 Mar 2020	20h03m05.14s	-21 21' 42.0"	1.4794	1.4846	0.8	70.0	39.4	-22.89	95.76	104.26	80.1	Sgr
30 Mar 2020	20h06m01.35s	-21 14' 16.8"	1.4781	1.4765	0.8	70.3	39.5	-22.64	95.87	104.25	79.8	Sgr
31 Mar 2020	20h08m57.28s	-21 06' 41.0"	1.4769	1.4685	0.8	70.6	39.7	-22.39	95.97	104.25	79.6	Cap
1 Apr 2020	20h11m52.92s	-20 58' 54.7"	1.4756	1.4606	0.8	70.9	39.8	-22.14	96.07	104.24	79.3	Cap
2 Apr 2020	20h14m48.26s	-20 50' 58.2"	1.4743	1.4526	0.8	71.2	39.9	-21.88	96.17	104.24	79.1	Cap
3 Apr 2020	20h17m43.30s	-20 42' 51.5"	1.4731	1.4446	0.8	71.5	40.1	-21.62	96.27	104.23	78.9	Cap
4 Apr 2020	20h20m38.04s	-20 34' 34.7"	1.4718	1.4367	0.7	71.8	40.2	-21.36	96.37	104.23	78.6	Cap
5 Apr 2020	20h23m32.47s	-20 26' 08.0"	1.4706	1.4288	0.7	72.1	40.3	-21.09	96.46	104.22	78.4	Cap
6 Apr 2020	20h26m26.60s	-20 17' 31.3"	1.4693	1.4209	0.7	72.4	40.5	-20.82	96.56	104.22	78.2	Cap
7 Apr 2020	20h29m20.43s	-20 08' 44.9"	1.4681	1.4130	0.7	72.7	40.6	-20.55	96.66	104.21	77.9	Cap
8 Apr 2020	20h32m13.94s	-19 59' 48.8"	1.4668	1.4051	0.7	72.9	40.7	-20.27	96.75	104.21	77.7	Cap
9 Apr 2020	20h35m07.15s	-19 50' 43.2"	1.4656	1.3973	0.7	73.2	40.9	-20.00	96.85	104.21	77.5	Cap
10 Apr 2020	20h38m00.03s	-19 41' 28.2"	1.4643	1.3894	0.7	73.5	41.0	-19.72	96.94	104.20	77.3	Cap
11 Apr 2020	20h40m52.60s	-19 32' 03.9"	1.4631	1.3816	0.7	73.8	41.1	-19.43	97.04	104.19	77.0	Cap
12 Apr 2020	20h43m44.84s	-19 22' 30.4"	1.4619	1.3738	0.7	74.1	41.3	-19.15	97.13	104.18	76.8	Cap
13 Apr 2020	20h46m36.74s	-19 12' 47.8"	1.4607	1.3660	0.6	74.4	41.4	-18.86	97.23	104.17	76.6	Cap
14 Apr 2020	20h49m28.30s	-19 02' 56.4"	1.4595	1.3582	0.6	74.7	41.5	-18.57	97.32	104.15	76.4	Cap
15 Apr 2020	20h52m19.52s	-18 52' 56.2"	1.4582	1.3505	0.6	74.9	41.6	-18.27	97.41	104.12	76.2	Cap
16 Apr 2020	20h55m10.38s	-18 42' 47.4"	1.4570	1.3427	0.6	75.2	41.8	-17.97	97.51	104.10	76.0	Cap
17 Apr 2020	20h58m00.87s	-18 32' 30.1"	1.4558	1.3350	0.6	75.5	41.9	-17.67	97.60	104.07	75.8	Cap
18 Apr 2020	21h00m51.00s	-18 22' 04.5"	1.4546	1.3273	0.6	75.8	42.0	-17.37	97.69	104.03	75.6	Cap
19 Apr 2020	21h03m40.75s	-18 11' 30.7"	1.4534	1.3196	0.6	76.1	42.1	-17.06	97.79	103.99	75.4	Cap
20 Apr 2020	21h06m30.12s	-18 00' 48.9"	1.4523	1.3120	0.6	76.4	42.2	-16.75	97.88	103.95	75.2	Cap
21 Apr 2020	21h09m19.10s	-17 49' 59.3"	1.4511	1.3043	0.5	76.6	42.4	-16.44	97.97	103.90	75.0	Cap
22 Apr 2020	21h12m07.70s	-17 39' 01.9"	1.4499	1.2967	0.5	76.9	42.5	-16.13	98.07	103.85	74.8	Cap
23 Apr 2020	21h14m55.89s	-17 27' 57.0"	1.4487	1.2891	0.5	77.2	42.6	-15.81	98.16	103.80	74.6	Cap
24 Apr 2020	21h17m43.69s	-17 16' 44.8"	1.4476	1.2815	0.5	77.5	42.7	-15.49	98.26	103.74	74.4	Cap
25 Apr 2020	21h20m31.08s	-17 05' 25.2"	1.4464	1.2739	0.5	77.8	42.8	-15.17	98.35	103.68	74.3	Cap
26 Apr 2020	21h23m18.06s	-16 53' 58.6"	1.4453	1.2663	0.5	78.1	42.9	-14.85	98.45	103.62	74.1	Cap
27 Apr 2020	21h26m04.63s	-16 42' 25.1"	1.4441	1.2588	0.5	78.3	43.0	-14.52	98.54	103.55	73.9	Cap
28 Apr 2020	21h28m50.80s	-16 30' 44.8"	1.4430	1.2513	0.5	78.6	43.2	-14.19	98.64	103.49	73.7	Cap
29 Apr 2020	21h31m36.55s	-16 18' 57.9"	1.4419	1.2438	0.4	78.9	43.3	-13.86	98.73	103.42	73.6	Cap
30 Apr 2020	21h34m21.89s	-16 07' 04.6"	1.4407	1.2363	0.4	79.2	43.4	-13.52	98.83	103.34	73.4	Cap
1 Mai 2020	21h37m06.82s	-15 55' 04.9"	1.4396	1.2289	0.4	79.5	43.5	-13.18	98.93	103.27	73.2	Cap
2 Mai 2020	21h39m51.34s	-15 42' 59.1"	1.4385	1.2215	0.4	79.7	43.6	-12.84	99.03	103.20	73.1	Cap
3 Mai 2020	21h42m35.46s	-15 30' 47.3"	1.4374	1.2141	0.4	80.0	43.7	-12.50	99.13	103.12	72.9	Cap
4 Mai 2020	21h45m19.16s	-15 18' 29.6"	1.4363	1.2067	0.4	80.3	43.8	-12.16	99.23	103.05	72.8	Cap
5 Mai 2020	21h48m02.47s	-15 06' 06.2"	1.4352	1.1994	0.4	80.6	43.9	-11.81	99.33	102.97	72.6	Cap
6 Mai 2020	21h50m45.37s	-14 53' 37.3"	1.4342	1.1920	0.3	80.9	44.0	-11.46	99.43	102.90	72.5	Cap
7 Mai 2020	21h53m27.87s	-14 41' 02.8"	1.4331	1.1847	0.3	81.1	44.1	-11.11	99.53	102.82	72.3	Cap
8 Mai 2020	21h56m09.98s	-14 28' 23.1"	1.4320	1.1774	0.3	81.4	44.2	-10.76	99.63	102.74	72.2	Cap
9 Mai 2020	21h58m51.68s	-14 15' 38.3"	1.4310	1.1702	0.3	81.7	44.3	-10.40	99.74	102.65	72.0	Aqr
10 Mai 2020	22h01m32.98s	-14 02' 48.5"	1.4299	1.1630	0.3	82.0	44.4	-10.04	99.84	102.56	71.9	Aqr
11 Mai 2020	22h04m13.87s	-13 49' 54.0"	1.4289	1.1557	0.3	82.3	44.5	-9.68	99.95	102.47	71.8	Aqr
12 Mai 2020	22h06m54.35s	-13 36' 54.8"	1.4278	1.1485	0.3	82.5	44.6	-9.32	100.06	102.37	71.6	Aqr
13 Mai 2020	22h09m34.41s	-13 23' 51.2"	1.4268	1.1414	0.3	82.8	44.6	-8.96	100.16	102.26	71.5	Aqr
14 Mai 2020	22h12m14.05s	-13 10' 43.3"	1.4258	1.1342	0.2	83.1	44.7	-8.59	100.27	102.15	71.4	Aqr
15 Mai 2020	22h14m53.27s	-12 57' 31.4"	1.4248	1.1271	0.2	83.4	44.8	-8.22	100.38	102.03	71.2	Aqr
16 Mai 2020	22h17m32.05s	-12 44' 15.6"	1.4238	1.1200	0.2	83.7	44.9	-7.85	100.49	101.90	71.1	Aqr
17 Mai 2020	22h20m10.39s	-12 30' 56.2"	1.4228	1.1129	0.2	84.0	45.0	-7.48	100.61	101.77	71.0	Aqr
18 Mai 2020	22h22m48.29s	-12 17' 33.2"	1.4218	1.1058	0.2	84.2	45.1	-7.10	100.72	101.63	70.9	Aqr
19 Mai 2020	22h25m25.75s	-12 04' 07.0"	1.4209	1.0988	0.2	84.5	45.1	-6.73	100.83	101.48	70.8	Aqr
20 Mai 2020	22h28m02.75s	-11 50' 37.6"	1.4199	1.0918	0.2	84.8	45.2	-6.35	100.95	101.33	70.7	Aqr
21 Mai 2020	22h30m39.30s	-11 37' 05.4"	1.4190	1.0848	0.1	85.1	45.3	-5.97	101.07	101.17	70.6	Aqr
22 Mai 2020	22h33m15.38s	-11 23' 30.4"	1.4180	1.0778	0.1	85.4	45.4	-5.59	101.19	101.00	70.5	Aqr
23 Mai 2020	22h35m51.01s	-11 09' 52.9"	1.4171	1.0708	0.1	85.7	45.4	-5.21	101.31	100.83	70.4	Aqr
24 Mai 2020	22h38m26.16s	-10 56' 13.1"	1.4162	1.0639	0.1	86.0	45.5	-4.82	101.43	100.65	70.3	Aqr
25 Mai 2020	22h41m00.85s	-10 42' 31.1"	1.4152	1.0570	0.1	86.2	45.6	-4.43	101.56	100.47	70.2	Aqr
26 Mai 2020	22h43m35.06s	-10 28' 47.1"	1.4143	1.0501	0.1	86.5	45.6	-4.05	101.68	100.28	70.1	Aqr
27 Mai 2020	22h46m08.80s	-10 15' 01.3"	1.4134	1.0433	0.1	86.8	45.7	-3.66	101.81	100.09	70.0	Aqr

EPHEMERIDE 2020 – MARS

Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
28 Mai 2020	22h48m42.06s	-10 01' 13.9"	1.4126	1.0364	0.0	87.1	45.8	-3.26	101.94	99.89	69.9	Aqr
29 Mai 2020	22h51m14.85s	-09 47' 25.1"	1.4117	1.0296	0.0	87.4	45.8	-2.87	102.07	99.69	69.9	Aqr
30 Mai 2020	22h53m47.17s	-09 33' 35.0"	1.4108	1.0229	0.0	87.7	45.9	-2.48	102.20	99.49	69.8	Aqr
31 Mai 2020	22h56m19.01s	-09 19' 43.8"	1.4100	1.0161	-0.0	88.0	45.9	-2.08	102.34	99.28	69.7	Aqr
1 Jun 2020	22h58m50.38s	-09 05' 51.5"	1.4091	1.0094	-0.0	88.3	46.0	-1.68	102.48	99.07	69.6	Aqr
2 Jun 2020	23h01m21.23s	-08 51' 58.5"	1.4083	1.0026	-0.0	88.6	46.0	-1.28	102.62	98.85	69.6	Aqr
3 Jun 2020	23h03m51.71s	-08 38' 04.8"	1.4075	0.9960	-0.0	88.9	46.1	-0.88	102.76	98.63	69.5	Aqr
4 Jun 2020	23h06m21.67s	-08 24' 10.7"	1.4067	0.9893	-0.1	89.2	46.1	-0.48	102.90	98.41	69.4	Aqr
5 Jun 2020	23h08m51.16s	-08 10' 16.1"	1.4059	0.9827	-0.1	89.5	46.2	-0.08	103.04	98.18	69.4	Aqr
6 Jun 2020	23h11m20.17s	-07 56' 21.4"	1.4051	0.9761	-0.1	89.8	46.2	0.32	103.19	97.95	69.3	Aqr
7 Jun 2020	23h13m48.70s	-07 42' 26.8"	1.4043	0.9695	-0.1	90.1	46.3	0.73	103.34	97.70	69.3	Aqr
8 Jun 2020	23h16m16.75s	-07 28' 32.3"	1.4036	0.9629	-0.1	90.4	46.3	1.13	103.49	97.45	69.2	Aqr
9 Jun 2020	23h18m44.30s	-07 14' 38.2"	1.4028	0.9564	-0.1	90.7	46.4	1.54	103.64	97.19	69.2	Aqr
10 Jun 2020	23h21m11.36s	-07 00' 44.6"	1.4021	0.9498	-0.2	91.0	46.4	1.95	103.80	96.92	69.1	Aqr
11 Jun 2020	23h23m37.90s	-06 46' 51.9"	1.4013	0.9433	-0.2	91.3	46.4	2.36	103.96	96.64	69.1	Aqr
12 Jun 2020	23h26m03.92s	-06 33' 00.2"	1.4006	0.9369	-0.2	91.6	46.4	2.77	104.12	96.35	69.0	Aqr
13 Jun 2020	23h28m29.41s	-06 19' 09.6"	1.3999	0.9304	-0.2	91.9	46.5	3.18	104.28	96.05	69.0	Aqr
14 Jun 2020	23h30m54.36s	-06 05' 20.5"	1.3992	0.9240	-0.2	92.2	46.5	3.59	104.44	95.73	69.0	Aqr
15 Jun 2020	23h33m18.76s	-05 51' 33.0"	1.3985	0.9176	-0.2	92.5	46.5	4.01	104.61	95.41	68.9	Aqr
16 Jun 2020	23h35m42.60s	-05 37' 47.3"	1.3979	0.9112	-0.3	92.8	46.5	4.42	104.78	95.07	68.9	Aqr
17 Jun 2020	23h38m05.86s	-05 24' 03.7"	1.3972	0.9048	-0.3	93.2	46.6	4.84	104.96	94.72	68.9	Aqr
18 Jun 2020	23h40m28.54s	-05 10' 22.4"	1.3966	0.8984	-0.3	93.5	46.6	5.25	105.13	94.36	68.9	Aqr
19 Jun 2020	23h42m50.62s	-04 56' 43.4"	1.3959	0.8921	-0.3	93.8	46.6	5.67	105.31	93.99	68.8	Aqr
20 Jun 2020	23h45m12.09s	-04 43' 07.2"	1.3953	0.8858	-0.3	94.1	46.6	6.09	105.50	93.61	68.8	Aqr
21 Jun 2020	23h47m32.94s	-04 29' 33.8"	1.3947	0.8795	-0.3	94.5	46.6	6.50	105.68	93.22	68.8	Aqr
22 Jun 2020	23h49m53.16s	-04 16' 03.5"	1.3941	0.8733	-0.3	94.8	46.6	6.92	105.87	92.81	68.8	Aqr
23 Jun 2020	23h52m12.74s	-04 02' 36.5"	1.3935	0.8670	-0.4	95.1	46.6	7.34	106.06	92.40	68.8	Aqr
24 Jun 2020	23h54m31.67s	-03 49' 12.9"	1.3930	0.8608	-0.4	95.4	46.6	7.76	106.26	91.97	68.8	Aqr
25 Jun 2020	23h56m49.95s	-03 35' 53.0"	1.3924	0.8546	-0.4	95.8	46.6	8.19	106.46	91.53	68.8	Psc
26 Jun 2020	23h59m07.55s	-03 22' 36.9"	1.3919	0.8485	-0.4	96.1	46.6	8.61	106.66	91.09	68.8	Psc
27 Jun 2020	00h01m24.47s	-03 09' 24.7"	1.3913	0.8423	-0.4	96.5	46.6	9.03	106.87	90.64	68.8	Psc
28 Jun 2020	00h03m40.72s	-02 56' 16.6"	1.3908	0.8362	-0.4	96.8	46.5	9.45	107.08	90.18	68.8	Psc
29 Jun 2020	00h05m56.27s	-02 43' 12.9"	1.3903	0.8301	-0.5	97.2	46.5	9.88	107.29	89.71	68.8	Psc
30 Jun 2020	00h08m11.12s	-02 30' 13.5"	1.3898	0.8240	-0.5	97.5	46.5	10.30	107.51	89.23	68.8	Psc
1 Jul 2020	00h10m25.26s	-02 17' 18.7"	1.3893	0.8180	-0.5	97.9	46.5	10.73	107.73	88.74	68.8	Psc
2 Jul 2020	00h12m38.69s	-02 04' 28.6"	1.3889	0.8120	-0.5	98.2	46.4	11.15	107.96	88.25	68.8	Psc
3 Jul 2020	00h14m51.38s	-01 51' 43.4"	1.3884	0.8060	-0.5	98.6	46.4	11.58	108.19	87.74	68.8	Psc
4 Jul 2020	00h17m03.34s	-01 39' 03.2"	1.3880	0.8000	-0.6	98.9	46.4	12.00	108.42	87.22	68.8	Psc
5 Jul 2020	00h19m14.53s	-01 26' 28.3"	1.3876	0.7940	-0.6	99.3	46.3	12.43	108.66	86.68	68.8	Psc
6 Jul 2020	00h21m24.96s	-01 13' 58.7"	1.3872	0.7881	-0.6	99.7	46.3	12.86	108.91	86.14	68.8	Psc
7 Jul 2020	00h23m34.58s	-01 01' 34.7"	1.3868	0.7822	-0.6	100.1	46.2	13.28	109.15	85.57	68.9	Psc
8 Jul 2020	00h25m43.39s	-00 49' 16.4"	1.3864	0.7763	-0.6	100.4	46.2	13.71	109.41	84.99	68.9	Psc
9 Jul 2020	00h27m51.37s	-00 37' 04.2"	1.3860	0.7705	-0.6	100.8	46.1	14.14	109.66	84.39	68.9	Cet
10 Jul 2020	00h29m58.48s	-00 24' 58.1"	1.3857	0.7646	-0.7	101.2	46.0	14.57	109.93	83.77	68.9	Cet
11 Jul 2020	00h32m04.70s	-00 12' 58.4"	1.3853	0.7588	-0.7	101.6	46.0	15.00	110.19	83.13	69.0	Cet
12 Jul 2020	00h34m10.02s	-00 01' 05.3"	1.3850	0.7530	-0.7	102.0	45.9	15.43	110.47	82.48	69.0	Cet
13 Jul 2020	00h36m14.39s	+00 10' 40.9"	1.3847	0.7472	-0.7	102.4	45.8	15.86	110.75	81.80	69.0	Cet
14 Jul 2020	00h38m17.80s	+00 22' 20.2"	1.3844	0.7414	-0.7	102.8	45.7	16.29	111.03	81.10	69.1	Cet
15 Jul 2020	00h40m20.22s	+00 33' 52.3"	1.3841	0.7357	-0.8	103.2	45.6	16.72	111.32	80.38	69.1	Cet
16 Jul 2020	00h42m21.61s	+00 45' 16.9"	1.3838	0.7300	-0.8	103.6	45.6	17.15	111.62	79.64	69.1	Cet
17 Jul 2020	00h44m21.95s	+00 56' 33.8"	1.3836	0.7243	-0.8	104.0	45.5	17.58	111.92	78.88	69.2	Cet
18 Jul 2020	00h46m21.21s	+01 07' 42.9"	1.3833	0.7186	-0.8	104.4	45.4	18.01	112.23	78.10	69.2	Cet
19 Jul 2020	00h48m19.36s	+01 18' 44.0"	1.3831	0.7130	-0.8	104.9	45.3	18.44	112.55	77.30	69.2	Cet
20 Jul 2020	00h50m16.37s	+01 29' 36.8"	1.3829	0.7074	-0.8	105.3	45.1	18.88	112.87	76.47	69.3	Cet
21 Jul 2020	00h52m12.20s	+01 40' 21.2"	1.3827	0.7018	-0.9	105.7	45.0	19.31	113.20	75.63	69.3	Cet
22 Jul 2020	00h54m06.84s	+01 50' 56.9"	1.3825	0.6962	-0.9	106.2	44.9	19.74	113.54	74.76	69.4	Cet
23 Jul 2020	00h56m00.24s	+02 01' 23.9"	1.3823	0.6906	-0.9	106.6	44.8	20.17	113.88	73.88	69.4	Cet
24 Jul 2020	00h57m52.39s	+02 11' 41.9"	1.3822	0.6851	-0.9	107.1	44.6	20.61	114.24	72.97	69.4	Cet
25 Jul 2020	00h59m43.25s	+02 21' 50.9"	1.3820	0.6796	-0.9	107.5	44.5	21.04	114.60	72.05	69.5	Cet
26 Jul 2020	01h01m32.80s	+02 31' 50.7"	1.3819	0.6742	-1.0	108.0	44.3	21.48	114.97	71.11	69.5	Cet
27 Jul 2020	01h03m21.01s	+02 41' 41.2"	1.3818	0.6687	-1.0	108.5	44.2	21.91	115.35	70.15	69.6	Psc
28 Jul 2020	01h05m07.86s	+02 51' 22.3"	1.3817	0.6633	-1.0	109.0	44.0	22.34	115.73	69.17	69.6	Psc
29 Jul 2020	01h06m53.31s	+03 00' 53.8"	1.3816	0.6579	-1.0	109.5	43.9	22.78	116.13	68.17	69.7	Psc
30 Jul 2020	01h08m37.33s	+03 10' 15.6"	1.3815	0.6526	-1.0	109.9	43.7	23.21	116.54	67.16	69.7	Psc
31 Jul 2020	01h10m19.90s	+03 19' 27.6"	1.3815	0.6472	-1.1	110.4	43.5	23.65	116.95	66.12	69.8	Psc
1 Aug 2020	01h12m00.97s	+03 28' 29.7"	1.3814	0.6419	-1.1	111.0	43.3	24.08	117.37	65.05	69.8	Psc
2 Aug 2020	01h13m40.51s	+03 37' 21.7"	1.3814	0.6367	-1.1	111.5	43.1	24.52	117.81	63.96	69.8	Psc
3 Aug 2020	01h15m18.48s	+03 46' 03.5"	1.3814	0.6314	-1.1	112.0	42.9	24.95	118.25	62.85	69.9	Psc
4 Aug 2020	01h16m54.84s	+03 54' 34.9"	1.3814	0.6262	-1.2	112.5	42.7	25.39	118.71	61.70	69.9	Psc
5 Aug 2020	01h18m29.53s	+04 02' 55.7"	1.3814	0.6210	-1.2	113.1	42.5	25.83	119.17	60.53	69.9	Psc
6 Aug 2020	01h20m02.52s	+04 11' 05.8"	1.3814	0.6159	-1.2	113.6	42.3	26.26	119.65	59.32	70.0	Psc
7 Aug 2020	01h21m33.75s	+04 19' 05.0"	1.3815	0.6108	-1.2	114.2	42.1	26.70	120.14	58.08	70.0	Psc
8 Aug 2020	01h23m03.18s	+04 26' 53.0"	1.3815	0.6057	-1.2	114.7	41.8	27.13	120.64	56.81	70.1	Psc
9 Aug 2020	01h24m30.75s	+04 34' 29.7"	1.3816	0.6006	-1.3	115.3	41.6	27.57	121.16	55.51	70.1	Psc

EPHEMERIDE 2020 – MARS

Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
10 Aug 2020	01h25m56.40s	+04 41' 54.9"	1.3817	0.5956	-1.3	115.9	41.3	28.00	121.69	54.17	70.1	Psc
11 Aug 2020	01h27m20.09s	+04 49' 08.5"	1.3818	0.5906	-1.3	116.5	41.0	28.44	122.23	52.79	70.1	Psc
12 Aug 2020	01h28m41.76s	+04 56' 10.1"	1.3819	0.5856	-1.3	117.1	40.8	28.87	122.78	51.38	70.2	Psc
13 Aug 2020	01h30m01.35s	+05 02' 59.8"	1.3820	0.5807	-1.3	117.7	40.5	29.31	123.35	49.94	70.2	Psc
14 Aug 2020	01h31m18.80s	+05 09' 37.1"	1.3822	0.5758	-1.4	118.3	40.2	29.74	123.94	48.46	70.2	Psc
15 Aug 2020	01h32m34.07s	+05 16' 02.1"	1.3824	0.5709	-1.4	118.9	39.9	30.18	124.54	46.94	70.2	Psc
16 Aug 2020	01h33m47.08s	+05 22' 14.5"	1.3825	0.5661	-1.4	119.5	39.6	30.61	125.15	45.39	70.2	Psc
17 Aug 2020	01h34m57.78s	+05 28' 14.1"	1.3827	0.5613	-1.4	120.2	39.3	31.04	125.79	43.80	70.2	Psc
18 Aug 2020	01h36m06.12s	+05 34' 00.8"	1.3829	0.5566	-1.5	120.9	38.9	31.48	126.44	42.17	70.2	Psc
19 Aug 2020	01h37m12.04s	+05 39' 34.5"	1.3831	0.5519	-1.5	121.5	38.6	31.91	127.10	40.52	70.1	Psc
20 Aug 2020	01h38m15.50s	+05 44' 55.0"	1.3834	0.5473	-1.5	122.2	38.2	32.34	127.79	38.83	70.1	Psc
21 Aug 2020	01h39m16.43s	+05 50' 02.3"	1.3836	0.5427	-1.5	122.9	37.9	32.77	128.49	37.11	70.0	Psc
22 Aug 2020	01h40m14.79s	+05 54' 56.2"	1.3839	0.5381	-1.6	123.6	37.5	33.20	129.22	35.37	70.0	Psc
23 Aug 2020	01h41m10.53s	+05 59' 36.8"	1.3842	0.5336	-1.6	124.3	37.1	33.62	129.96	33.60	69.9	Psc
24 Aug 2020	01h42m03.62s	+06 04' 04.0"	1.3844	0.5291	-1.6	125.0	36.7	34.05	130.73	31.80	69.8	Psc
25 Aug 2020	01h42m54.00s	+06 08' 17.8"	1.3847	0.5247	-1.6	125.8	36.3	34.47	131.51	29.97	69.6	Psc
26 Aug 2020	01h43m41.63s	+06 12' 18.0"	1.3851	0.5204	-1.7	126.5	35.9	34.89	132.32	28.12	69.5	Psc
27 Aug 2020	01h44m26.47s	+06 16' 04.7"	1.3854	0.5161	-1.7	127.3	35.5	35.31	133.15	26.25	69.2	Psc
28 Aug 2020	01h45m08.47s	+06 19' 37.9"	1.3857	0.5119	-1.7	128.1	35.0	35.72	134.00	24.34	69.0	Psc
29 Aug 2020	01h45m47.58s	+06 22' 57.4"	1.3861	0.5077	-1.7	128.9	34.6	36.13	134.87	22.41	68.6	Psc
30 Aug 2020	01h46m23.75s	+06 26' 03.3"	1.3865	0.5036	-1.8	129.7	34.1	36.54	135.77	20.45	68.2	Psc
31 Aug 2020	01h46m56.93s	+06 28' 55.4"	1.3869	0.4995	-1.8	130.5	33.6	36.95	136.69	18.46	67.7	Psc
1 Sep 2020	01h47m27.08s	+06 31' 33.8"	1.3873	0.4955	-1.8	131.3	33.1	37.35	137.64	16.45	67.0	Psc
2 Sep 2020	01h47m54.14s	+06 33' 58.2"	1.3877	0.4916	-1.8	132.2	32.6	37.74	138.62	14.40	66.0	Psc
3 Sep 2020	01h48m18.07s	+06 36' 08.7"	1.3881	0.4877	-1.9	133.0	32.1	38.13	139.62	12.34	64.7	Psc
4 Sep 2020	01h48m38.81s	+06 38' 05.3"	1.3885	0.4839	-1.9	133.9	31.6	38.52	140.65	10.26	62.9	Psc
5 Sep 2020	01h48m56.33s	+06 39' 47.7"	1.3890	0.4802	-1.9	134.8	31.0	38.90	141.70	8.17	60.0	Psc
6 Sep 2020	01h49m10.58s	+06 41' 16.1"	1.3895	0.4766	-1.9	135.7	30.5	39.27	142.79	6.09	55.0	Psc
7 Sep 2020	01h49m21.52s	+06 42' 30.4"	1.3899	0.4730	-2.0	136.6	29.9	39.63	143.90	4.09	44.8	Psc
8 Sep 2020	01h49m29.10s	+06 43' 30.5"	1.3904	0.4695	-2.0	137.5	29.3	39.99	145.04	2.43	18.1	Psc
9 Sep 2020	01h49m33.31s	+06 44' 16.4"	1.3909	0.4661	-2.0	138.5	28.7	40.34	146.21	2.21	320.9	Psc
10 Sep 2020	01h49m34.10s	+06 44' 48.1"	1.3915	0.4628	-2.0	139.4	28.1	40.68	147.41	3.73	287.5	Psc
11 Sep 2020	01h49m31.45s	+06 45' 05.8"	1.3920	0.4595	-2.1	140.4	27.4	41.01	148.65	5.75	275.3	Psc
12 Sep 2020	01h49m25.35s	+06 45' 09.4"	1.3925	0.4563	-2.1	141.4	26.8	41.33	149.91	7.91	269.5	Psc
13 Sep 2020	01h49m15.78s	+06 44' 58.9"	1.3931	0.4533	-2.1	142.4	26.1	41.64	151.21	10.12	266.3	Psc
14 Sep 2020	01h49m02.74s	+06 44' 34.7"	1.3937	0.4503	-2.1	143.4	25.5	41.93	152.53	12.35	264.3	Psc
15 Sep 2020	01h48m46.23s	+06 43' 56.7"	1.3942	0.4474	-2.1	144.5	24.8	42.22	153.89	14.58	262.9	Psc
16 Sep 2020	01h48m26.27s	+06 43' 05.2"	1.3948	0.4447	-2.2	145.5	24.1	42.48	155.28	16.81	261.9	Psc
17 Sep 2020	01h48m02.87s	+06 42' 00.4"	1.3955	0.4420	-2.2	146.6	23.4	42.74	156.70	19.01	261.2	Psc
18 Sep 2020	01h47m36.09s	+06 40' 42.7"	1.3961	0.4394	-2.2	147.7	22.7	42.98	158.15	21.19	260.6	Psc
19 Sep 2020	01h47m05.96s	+06 39' 12.4"	1.3967	0.4370	-2.2	148.7	21.9	43.20	159.63	23.34	260.2	Psc
20 Sep 2020	01h46m32.54s	+06 37' 29.9"	1.3974	0.4346	-2.3	149.9	21.2	43.41	161.14	25.44	259.8	Psc
21 Sep 2020	01h45m55.90s	+06 35' 35.7"	1.3980	0.4324	-2.3	151.0	20.4	43.59	162.68	27.50	259.6	Psc
22 Sep 2020	01h45m16.11s	+06 33' 30.2"	1.3987	0.4303	-2.3	152.1	19.6	43.76	164.24	29.50	259.4	Psc
23 Sep 2020	01h44m33.26s	+06 31' 13.9"	1.3994	0.4283	-2.3	153.3	18.8	43.91	165.84	31.45	259.2	Psc
24 Sep 2020	01h43m47.43s	+06 28' 47.3"	1.4001	0.4265	-2.4	154.4	18.0	44.04	167.45	33.33	259.1	Psc
25 Sep 2020	01h42m58.72s	+06 26' 10.9"	1.4008	0.4248	-2.4	155.6	17.2	44.14	169.09	35.15	259.0	Psc
26 Sep 2020	01h42m07.22s	+06 23' 25.4"	1.4015	0.4232	-2.4	156.8	16.4	44.23	170.75	36.90	258.9	Psc
27 Sep 2020	01h41m13.05s	+06 20' 31.2"	1.4022	0.4217	-2.4	158.0	15.5	44.29	172.43	38.58	258.9	Psc
28 Sep 2020	01h40m16.32s	+06 17' 28.9"	1.4030	0.4204	-2.4	159.2	14.7	44.32	174.13	40.18	258.8	Psc
29 Sep 2020	01h39m17.14s	+06 14' 19.2"	1.4037	0.4192	-2.4	160.4	13.9	44.34	175.84	41.70	258.8	Psc
30 Sep 2020	01h38m15.64s	+06 11' 02.6"	1.4045	0.4182	-2.5	161.6	13.0	44.33	177.57	43.13	258.8	Psc
1 Okt 2020	01h37m11.95s	+06 07' 39.8"	1.4053	0.4172	-2.5	162.8	12.1	44.29	179.31	44.47	258.8	Psc
2 Okt 2020	01h36m06.23s	+06 04' 11.5"	1.4061	0.4165	-2.5	164.1	11.3	44.23	181.06	45.71	258.8	Psc
3 Okt 2020	01h34m58.60s	+06 00' 38.3"	1.4069	0.4159	-2.5	165.3	10.4	44.15	182.81	46.86	258.9	Psc
4 Okt 2020	01h33m49.23s	+05 57' 00.9"	1.4077	0.4154	-2.5	166.6	9.5	44.04	184.57	47.90	258.9	Psc
5 Okt 2020	01h32m38.28s	+05 53' 20.1"	1.4085	0.4151	-2.5	167.8	8.6	43.90	186.33	48.83	259.0	Psc
6 Okt 2020	01h31m25.91s	+05 49' 36.7"	1.4093	0.4149	-2.6	169.1	7.7	43.74	188.10	49.65	259.0	Psc
7 Okt 2020	01h30m12.29s	+05 45' 51.4"	1.4102	0.4149	-2.6	170.3	6.9	43.55	189.86	50.35	259.1	Psc
8 Okt 2020	01h28m57.61s	+05 42' 05.0"	1.4110	0.4150	-2.6	171.5	6.0	43.34	191.61	50.94	259.2	Psc
9 Okt 2020	01h27m42.05s	+05 38' 18.4"	1.4119	0.4153	-2.6	172.7	5.1	43.11	193.36	51.40	259.3	Psc
10 Okt 2020	01h26m25.79s	+05 34' 32.3"	1.4127	0.4158	-2.6	173.9	4.3	42.85	195.10	51.73	259.4	Psc
11 Okt 2020	01h25m09.02s	+05 30' 47.7"	1.4136	0.4164	-2.6	175.0	3.5	42.56	196.83	51.94	259.5	Psc
12 Okt 2020	01h23m51.95s	+05 27' 05.3"	1.4145	0.4172	-2.6	176.0	2.9	42.26	198.54	52.02	259.7	Psc
13 Okt 2020	01h22m34.76s	+05 23' 26.2"	1.4154	0.4181	-2.6	176.7	2.3	41.93	200.24	51.97	259.8	Psc
14 Okt 2020	01h21m17.67s	+05 19' 51.1"	1.4163	0.4192	-2.6	177.0	2.1	41.58	201.92	51.78	260.0	Psc
15 Okt 2020	01h20m00.88s	+05 16' 21.1"	1.4173	0.4205	-2.6	176.8	2.3	41.22	203.59	51.46	260.2	Psc
16 Okt 2020	01h18m44.59s	+05 12' 56.9"	1.4182	0.4219	-2.6	176.1	2.7	40.83	205.23	51.00	260.4	Psc
17 Okt 2020	01h17m29.00s	+05 09' 39.6"	1.4191	0.4235	-2.6	175.1	3.4	40.43	206.85	50.41	260.6	Psc
18 Okt 2020	01h16m14.32s	+05 06' 30.0"	1.4201	0.4253	-2.5	174.1	4.2	40.00	208.45	49.69	260.9	Psc
19 Okt 2020	01h15m00.74s	+05 03' 29.1"	1.4211	0.4272	-2.5	172.9	5.0	39.57	210.03	48.85	261.2	Psc
20 Okt 2020	01h13m48.46s	+05 00' 37.6"	1.4220	0.4293	-2.5	171.7	5.8	39.12	211.58	47.89	261.5	Psc
21 Okt 2020	01h12m37.64s	+04 57' 56.3"	1.4230	0.4316	-2.5	170.5	6.6	38.65	213.11	46.82	261.8	Psc
22 Okt 2020	01h11m28.45s	+04 55' 26.0"	1.4240	0.4340	-2.4	169.3	7.5	38.17	214.61	45.64	262.2	Psc

EPHEMERIDE 2020 – MARS

Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
23 Okt 2020	01h10m21.06s	+04 53' 07.3"	1.4250	0.4366	-2.4	168.1	8.3	37.69	216.09	44.37	262.6	Psc
24 Okt 2020	01h09m15.59s	+04 51' 00.8"	1.4260	0.4393	-2.4	166.9	9.1	37.19	217.54	43.01	263.1	Psc
25 Okt 2020	01h08m12.20s	+04 49' 07.0"	1.4270	0.4422	-2.4	165.6	10.0	36.68	218.96	41.57	263.6	Psc
26 Okt 2020	01h07m11.00s	+04 47' 26.5"	1.4280	0.4453	-2.3	164.4	10.8	36.17	220.36	40.06	264.2	Psc
27 Okt 2020	01h06m12.10s	+04 45' 59.6"	1.4291	0.4485	-2.3	163.2	11.6	35.65	221.73	38.48	264.8	Psc
28 Okt 2020	01h05m15.61s	+04 44' 46.7"	1.4301	0.4518	-2.3	162.0	12.4	35.12	223.08	36.84	265.5	Psc
29 Okt 2020	01h04m21.63s	+04 43' 48.1"	1.4312	0.4553	-2.2	160.8	13.2	34.59	224.40	35.15	266.2	Psc
30 Okt 2020	01h03m30.23s	+04 43' 04.2"	1.4322	0.4590	-2.2	159.6	14.0	34.06	225.69	33.42	267.1	Psc
31 Okt 2020	01h02m41.51s	+04 42' 35.2"	1.4333	0.4628	-2.2	158.4	14.8	33.52	226.96	31.65	268.1	Psc
1 Nov 2020	01h01m55.52s	+04 42' 21.3"	1.4344	0.4667	-2.1	157.3	15.5	32.98	228.21	29.84	269.2	Psc
2 Nov 2020	01h01m12.32s	+04 42' 22.6"	1.4354	0.4708	-2.1	156.1	16.3	32.44	229.43	28.02	270.4	Psc
3 Nov 2020	01h00m31.98s	+04 42' 39.4"	1.4365	0.4750	-2.1	155.0	17.0	31.90	230.63	26.18	271.8	Psc
4 Nov 2020	00h59m54.54s	+04 43' 11.6"	1.4376	0.4794	-2.0	153.8	17.7	31.36	231.80	24.33	273.5	Psc
5 Nov 2020	00h59m20.03s	+04 43' 59.4"	1.4387	0.4839	-2.0	152.7	18.4	30.82	232.96	22.48	275.5	Psc
6 Nov 2020	00h58m48.50s	+04 45' 02.8"	1.4398	0.4885	-2.0	151.6	19.1	30.28	234.09	20.64	277.8	Psc
7 Nov 2020	00h58m19.97s	+04 46' 21.9"	1.4409	0.4933	-1.9	150.5	19.8	29.75	235.20	18.83	280.5	Psc
8 Nov 2020	00h57m54.46s	+04 47' 56.6"	1.4421	0.4982	-1.9	149.4	20.5	29.21	236.29	17.06	283.9	Psc
9 Nov 2020	00h57m32.00s	+04 49' 47.0"	1.4432	0.5032	-1.9	148.3	21.1	28.68	237.36	15.35	288.0	Psc
10 Nov 2020	00h57m12.59s	+04 51' 53.0"	1.4443	0.5083	-1.8	147.3	21.8	28.15	238.41	13.73	293.1	Psc
11 Nov 2020	00h56m56.26s	+04 54' 14.5"	1.4455	0.5136	-1.8	146.2	22.4	27.63	239.44	12.24	299.5	Psc
12 Nov 2020	00h56m43.00s	+04 56' 51.6"	1.4466	0.5190	-1.8	145.2	23.0	27.11	240.45	10.95	307.6	Psc
13 Nov 2020	00h56m32.83s	+04 59' 44.2"	1.4478	0.5245	-1.7	144.2	23.6	26.60	241.45	9.92	317.5	Psc
14 Nov 2020	00h56m25.73s	+05 02' 52.3"	1.4489	0.5302	-1.7	143.1	24.2	26.09	242.42	9.26	329.3	Psc
15 Nov 2020	00h56m21.72s	+05 06' 15.6"	1.4501	0.5359	-1.7	142.1	24.8	25.59	243.38	9.03	342.2	Psc
16 Nov 2020	00h56m20.77s	+05 09' 54.2"	1.4513	0.5418	-1.6	141.2	25.3	25.09	244.33	9.26	355.0	Psc
17 Nov 2020	00h56m22.86s	+05 13' 47.9"	1.4524	0.5477	-1.6	140.2	25.8	24.60	245.25	9.91	6.6	Psc
18 Nov 2020	00h56m27.99s	+05 17' 56.4"	1.4536	0.5538	-1.6	139.2	26.4	24.11	246.17	10.90	16.3	Psc
19 Nov 2020	00h56m36.11s	+05 22' 19.7"	1.4548	0.5600	-1.5	138.3	26.9	23.64	247.06	12.13	24.2	Psc
20 Nov 2020	00h56m47.19s	+05 26' 57.5"	1.4560	0.5663	-1.5	137.3	27.4	23.16	247.95	13.52	30.4	Psc
21 Nov 2020	00h56m01.19s	+05 31' 49.5"	1.4572	0.5727	-1.5	136.4	27.9	22.70	248.82	15.02	35.4	Psc
22 Nov 2020	00h57m18.07s	+05 36' 55.4"	1.4584	0.5792	-1.4	135.5	28.3	22.24	249.67	16.58	39.4	Psc
23 Nov 2020	00h57m37.78s	+05 42' 14.9"	1.4596	0.5858	-1.4	134.6	28.8	21.79	250.52	18.17	42.6	Psc
24 Nov 2020	00h58m00.27s	+05 47' 47.7"	1.4608	0.5924	-1.4	133.7	29.2	21.34	251.35	19.79	45.3	Psc
25 Nov 2020	00h58m25.51s	+05 53' 33.6"	1.4621	0.5992	-1.3	132.8	29.7	20.91	252.17	21.41	47.5	Psc
26 Nov 2020	00h58m53.43s	+05 59' 32.1"	1.4633	0.6060	-1.3	132.0	30.1	20.48	252.98	23.02	49.4	Psc
27 Nov 2020	00h59m23.98s	+06 05' 42.9"	1.4645	0.6130	-1.3	131.1	30.5	20.05	253.77	24.62	51.0	Psc
28 Nov 2020	00h59m57.12s	+06 12' 05.8"	1.4658	0.6200	-1.2	130.3	30.9	19.63	254.56	26.20	52.4	Psc
29 Nov 2020	01h00m32.80s	+06 18' 40.4"	1.4670	0.6271	-1.2	129.4	31.3	19.22	255.34	27.76	53.7	Psc
30 Nov 2020	01h01m10.96s	+06 25' 26.3"	1.4682	0.6343	-1.2	128.6	31.7	18.82	256.10	29.29	54.7	Psc
1 Dez 2020	01h01m51.55s	+06 32' 23.3"	1.4695	0.6416	-1.1	127.8	32.0	18.42	256.86	30.80	55.7	Psc
2 Dez 2020	01h02m34.53s	+06 39' 30.9"	1.4707	0.6489	-1.1	127.0	32.4	18.03	257.60	32.29	56.6	Psc
3 Dez 2020	01h03m19.85s	+06 46' 49.0"	1.4720	0.6564	-1.1	126.2	32.7	17.65	258.34	33.75	57.3	Psc
4 Dez 2020	01h04m07.45s	+06 54' 17.2"	1.4732	0.6639	-1.0	125.4	33.0	17.27	259.07	35.18	58.0	Psc
5 Dez 2020	01h04m57.30s	+07 01' 55.2"	1.4745	0.6714	-1.0	124.6	33.4	16.90	259.79	36.58	58.6	Psc
6 Dez 2020	01h05m49.35s	+07 09' 42.7"	1.4758	0.6791	-1.0	123.9	33.7	16.54	260.50	37.96	59.2	Psc
7 Dez 2020	01h06m43.56s	+07 17' 39.5"	1.4770	0.6868	-0.9	123.1	34.0	16.18	261.21	39.31	59.8	Psc
8 Dez 2020	01h07m39.89s	+07 25' 45.2"	1.4783	0.6946	-0.9	122.4	34.3	15.83	261.91	40.64	60.2	Psc
9 Dez 2020	01h08m38.30s	+07 33' 59.7"	1.4796	0.7024	-0.9	121.6	34.5	15.48	262.59	41.94	60.7	Psc
10 Dez 2020	01h09m38.75s	+07 42' 22.6"	1.4808	0.7104	-0.9	120.9	34.8	15.14	263.28	43.22	61.1	Psc
11 Dez 2020	01h10m41.20s	+07 50' 53.8"	1.4821	0.7183	-0.8	120.2	35.1	14.81	263.95	44.47	61.5	Psc
12 Dez 2020	01h11m45.63s	+07 59' 33.0"	1.4834	0.7264	-0.8	119.5	35.3	14.48	264.62	45.70	61.9	Psc
13 Dez 2020	01h12m52.00s	+08 08' 20.0"	1.4847	0.7345	-0.8	118.7	35.5	14.16	265.28	46.91	62.2	Psc
14 Dez 2020	01h14m00.27s	+08 17' 14.6"	1.4860	0.7427	-0.7	118.0	35.8	13.85	265.94	48.09	62.6	Psc
15 Dez 2020	01h15m10.41s	+08 26' 16.5"	1.4872	0.7509	-0.7	117.3	36.0	13.54	266.59	49.25	62.9	Psc
16 Dez 2020	01h16m22.37s	+08 35' 25.5"	1.4885	0.7592	-0.7	116.7	36.2	13.24	267.23	50.39	63.2	Psc
17 Dez 2020	01h17m36.13s	+08 44' 41.4"	1.4898	0.7676	-0.6	116.0	36.4	12.94	267.87	51.49	63.4	Psc
18 Dez 2020	01h18m51.64s	+08 54' 03.8"	1.4911	0.7760	-0.6	115.3	36.6	12.65	268.50	52.57	63.7	Psc
19 Dez 2020	01h20m08.87s	+09 03' 32.5"	1.4924	0.7844	-0.6	114.6	36.8	12.36	269.12	53.62	64.0	Psc
20 Dez 2020	01h21m27.76s	+09 13' 07.3"	1.4937	0.7930	-0.6	114.0	37.0	12.08	269.74	54.64	64.2	Psc
21 Dez 2020	01h22m48.29s	+09 22' 47.8"	1.4950	0.8015	-0.5	113.3	37.2	11.81	270.36	55.64	64.4	Psc
22 Dez 2020	01h24m10.41s	+09 32' 33.7"	1.4963	0.8101	-0.5	112.7	37.3	11.54	270.96	56.60	64.6	Psc
23 Dez 2020	01h25m34.09s	+09 42' 24.9"	1.4976	0.8188	-0.5	112.1	37.5	11.27	271.57	57.54	64.9	Psc
24 Dez 2020	01h26m59.28s	+09 52' 21.0"	1.4989	0.8275	-0.4	111.4	37.7	11.01	272.17	58.46	65.1	Psc
25 Dez 2020	01h28m25.96s	+10 02' 21.7"	1.5002	0.8362	-0.4	110.8	37.8	10.76	272.76	59.34	65.3	Psc
26 Dez 2020	01h29m54.09s	+10 12' 26.8"	1.5015	0.8450	-0.4	110.2	37.9	10.51	273.35	60.21	65.5	Psc
27 Dez 2020	01h31m23.63s	+10 22' 36.0"	1.5028	0.8538	-0.4	109.6	38.1	10.26	273.94	61.05	65.7	Psc
28 Dez 2020	01h32m54.56s	+10 32' 49.1"	1.5041	0.8627	-0.3	109.0	38.2	10.02	274.52	61.86	65.8	Psc
29 Dez 2020	01h34m26.83s	+10 43' 05.7"	1.5054	0.8716	-0.3	108.3	38.3	9.79	275.09	62.65	66.0	Psc
30 Dez 2020	01h36m00.42s	+10 53' 25.8"	1.5067	0.8805	-0.3	107.7	38.4	9.56	275.67	63.42	66.2	Psc
31 Dez 2020	01h37m35.31s	+11 03' 48.9"	1.5080	0.8895	-0.3	107.2	38.5	9.33	276.23	64.17	66.4	Psc
1 Jan 2021	01h39m11.46s	+11 14' 14.9"	1.5093	0.8986	-0.2	106.6	38.6	9.11	276.80	64.90	66.5	Psc