



Die Bahn des Planeten Jupiter 2019

# EPHEMERIDE 2019 – JUPITER

Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
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1 Jan 2019	16h40m16.87s	-21 32' 19.6"	5.3499	6.1935	-1.8	28.5	5.0	-44.64	64.98	31.64	98.0	Oph
2 Jan 2019	16h41m10.43s	-21 34' 03.2"	5.3496	6.1854	-1.8	29.3	5.2	-44.24	65.79	31.52	97.9	Oph
3 Jan 2019	16h42m03.82s	-21 35' 45.1"	5.3493	6.1772	-1.8	30.1	5.3	-43.83	66.60	31.39	97.8	Oph
4 Jan 2019	16h42m57.00s	-21 37' 25.5"	5.3491	6.1687	-1.8	30.9	5.4	-43.42	67.40	31.26	97.8	Oph
5 Jan 2019	16h43m49.98s	-21 39' 04.4"	5.3488	6.1600	-1.8	31.7	5.5	-43.00	68.19	31.13	97.7	Oph
6 Jan 2019	16h44m42.76s	-21 40' 41.7"	5.3485	6.1511	-1.8	32.6	5.7	-42.58	68.98	30.99	97.6	Oph
7 Jan 2019	16h45m35.31s	-21 42' 17.5"	5.3482	6.1420	-1.8	33.4	5.8	-42.16	69.75	30.84	97.5	Oph
8 Jan 2019	16h46m27.64s	-21 43' 51.7"	5.3479	6.1328	-1.8	34.2	5.9	-41.74	70.52	30.69	97.4	Oph
9 Jan 2019	16h47m19.73s	-21 45' 24.3"	5.3476	6.1233	-1.8	35.0	6.1	-41.31	71.29	30.54	97.3	Oph
10 Jan 2019	16h48m11.59s	-21 46' 55.4"	5.3473	6.1137	-1.8	35.8	6.2	-40.88	72.04	30.39	97.3	Oph
11 Jan 2019	16h49m03.19s	-21 48' 24.9"	5.3470	6.1039	-1.8	36.6	6.3	-40.45	72.80	30.23	97.2	Oph
12 Jan 2019	16h49m54.55s	-21 49' 52.9"	5.3467	6.0939	-1.8	37.5	6.4	-40.01	73.54	30.06	97.1	Oph
13 Jan 2019	16h50m45.63s	-21 51' 19.3"	5.3464	6.0837	-1.8	38.3	6.5	-39.57	74.28	29.89	97.0	Oph
14 Jan 2019	16h51m36.46s	-21 52' 44.2"	5.3461	6.0734	-1.8	39.1	6.7	-39.13	75.01	29.72	96.9	Oph
15 Jan 2019	16h52m27.00s	-21 54' 07.5"	5.3458	6.0629	-1.8	39.9	6.8	-38.68	75.74	29.54	96.8	Oph
16 Jan 2019	16h53m17.26s	-21 55' 29.3"	5.3455	6.0522	-1.8	40.7	6.9	-38.23	76.46	29.37	96.8	Oph
17 Jan 2019	16h54m07.23s	-21 56' 49.6"	5.3452	6.0413	-1.8	41.6	7.0	-37.78	77.17	29.18	96.7	Oph
18 Jan 2019	16h54m56.91s	-21 58' 08.4"	5.3449	6.0303	-1.8	42.4	7.1	-37.33	77.88	29.00	96.6	Oph
19 Jan 2019	16h55m46.28s	-21 59' 25.7"	5.3446	6.0191	-1.8	43.2	7.2	-36.88	78.59	28.81	96.5	Oph
20 Jan 2019	16h56m35.35s	-22 00' 41.5"	5.3443	6.0077	-1.8	44.0	7.4	-36.42	79.29	28.61	96.4	Oph
21 Jan 2019	16h57m24.10s	-22 01' 55.7"	5.3440	5.9962	-1.8	44.9	7.5	-35.96	79.98	28.42	96.4	Oph
22 Jan 2019	16h58m12.53s	-22 03' 08.5"	5.3437	5.9845	-1.8	45.7	7.6	-35.50	80.68	28.22	96.3	Oph
23 Jan 2019	16h59m00.63s	-22 04' 19.9"	5.3434	5.9727	-1.8	46.5	7.7	-35.04	81.36	28.01	96.2	Oph
24 Jan 2019	16h59m48.40s	-22 05' 29.8"	5.3431	5.9607	-1.8	47.4	7.8	-34.57	82.05	27.80	96.1	Oph
25 Jan 2019	17h00m35.83s	-22 06' 38.2"	5.3428	5.9485	-1.8	48.2	7.9	-34.10	82.72	27.59	96.0	Oph
26 Jan 2019	17h01m22.90s	-22 07' 45.2"	5.3425	5.9362	-1.9	49.0	8.0	-33.63	83.40	27.38	96.0	Oph
27 Jan 2019	17h02m09.62s	-22 08' 50.8"	5.3422	5.9237	-1.9	49.9	8.1	-33.16	84.07	27.15	95.9	Oph
28 Jan 2019	17h02m55.98s	-22 09' 55.0"	5.3419	5.9111	-1.9	50.7	8.2	-32.69	84.74	26.93	95.8	Oph
29 Jan 2019	17h03m41.95s	-22 10' 57.8"	5.3416	5.8984	-1.9	51.5	8.3	-32.22	85.41	26.70	95.7	Oph
30 Jan 2019	17h04m27.55s	-22 11' 59.1"	5.3413	5.8855	-1.9	52.4	8.4	-31.74	86.07	26.46	95.7	Oph
31 Jan 2019	17h05m12.76s	-22 12' 59.1"	5.3410	5.8724	-1.9	53.2	8.5	-31.26	86.73	26.23	95.6	Oph
1 Feb 2019	17h05m57.57s	-22 13' 57.7"	5.3407	5.8592	-1.9	54.1	8.6	-30.78	87.38	25.98	95.5	Oph
2 Feb 2019	17h06m41.97s	-22 14' 54.9"	5.3404	5.8459	-1.9	54.9	8.7	-30.30	88.04	25.73	95.5	Oph
3 Feb 2019	17h07m25.95s	-22 15' 50.8"	5.3401	5.8325	-1.9	55.7	8.8	-29.82	88.69	25.48	95.4	Oph
4 Feb 2019	17h08m09.51s	-22 16' 45.3"	5.3398	5.8189	-1.9	56.6	8.9	-29.33	89.34	25.22	95.3	Oph
5 Feb 2019	17h08m52.64s	-22 17' 38.5"	5.3395	5.8052	-1.9	57.4	9.0	-28.85	89.99	24.96	95.2	Oph
6 Feb 2019	17h09m35.33s	-22 18' 30.4"	5.3392	5.7913	-1.9	58.3	9.0	-28.36	90.63	24.69	95.2	Oph
7 Feb 2019	17h10m17.57s	-22 19' 21.0"	5.3389	5.7774	-1.9	59.1	9.1	-27.87	91.27	24.42	95.1	Oph
8 Feb 2019	17h10m59.35s	-22 20' 10.3"	5.3386	5.7633	-1.9	60.0	9.2	-27.38	91.92	24.15	95.0	Oph
9 Feb 2019	17h11m40.67s	-22 20' 58.3"	5.3383	5.7491	-1.9	60.8	9.3	-26.89	92.56	23.87	95.0	Oph
10 Feb 2019	17h12m21.52s	-22 21' 45.0"	5.3380	5.7347	-1.9	61.7	9.4	-26.40	93.20	23.58	94.9	Oph
11 Feb 2019	17h13m01.89s	-22 22' 30.5"	5.3377	5.7203	-1.9	62.5	9.4	-25.90	93.83	23.29	94.8	Oph
12 Feb 2019	17h13m41.77s	-22 23' 14.7"	5.3374	5.7058	-1.9	63.4	9.5	-25.41	94.47	23.00	94.8	Oph
13 Feb 2019	17h14m21.16s	-22 23' 57.7"	5.3371	5.6911	-1.9	64.3	9.6	-24.91	95.10	22.71	94.7	Oph
14 Feb 2019	17h15m00.05s	-22 24' 39.6"	5.3368	5.6764	-1.9	65.1	9.7	-24.41	95.74	22.41	94.6	Oph
15 Feb 2019	17h15m38.42s	-22 25' 20.2"	5.3365	5.6616	-2.0	66.0	9.7	-23.92	96.37	22.10	94.6	Oph
16 Feb 2019	17h16m16.29s	-22 25' 59.7"	5.3362	5.6466	-2.0	66.9	9.8	-23.42	97.01	21.80	94.5	Oph
17 Feb 2019	17h16m53.63s	-22 26' 38.0"	5.3359	5.6316	-2.0	67.7	9.9	-22.92	97.64	21.48	94.5	Oph
18 Feb 2019	17h17m30.45s	-22 27' 15.2"	5.3356	5.6165	-2.0	68.6	9.9	-22.42	98.27	21.17	94.4	Oph
19 Feb 2019	17h18m06.73s	-22 27' 51.3"	5.3353	5.6013	-2.0	69.5	10.0	-21.92	98.90	20.85	94.3	Oph
20 Feb 2019	17h18m42.47s	-22 28' 26.2"	5.3350	5.5860	-2.0	70.3	10.0	-21.41	99.54	20.53	94.3	Oph
21 Feb 2019	17h19m17.67s	-22 29' 00.2"	5.3347	5.5707	-2.0	71.2	10.1	-20.91	100.17	20.20	94.2	Oph
22 Feb 2019	17h19m52.30s	-22 29' 33.0"	5.3343	5.5552	-2.0	72.1	10.2	-20.41	100.80	19.87	94.2	Oph
23 Feb 2019	17h20m26.38s	-22 30' 04.9"	5.3340	5.5397	-2.0	72.9	10.2	-19.90	101.44	19.54	94.1	Oph
24 Feb 2019	17h21m09.88s	-22 30' 35.7"	5.3337	5.5241	-2.0	73.8	10.3	-19.40	102.07	19.20	94.1	Oph
25 Feb 2019	17h21m32.80s	-22 31' 05.5"	5.3334	5.5085	-2.0	74.7	10.3	-18.89	102.70	18.85	94.0	Oph
26 Feb 2019	17h22m05.13s	-22 31' 34.3"	5.3331	5.4927	-2.0	75.6	10.4	-18.39	103.34	18.50	94.0	Oph
27 Feb 2019	17h22m36.87s	-22 32' 02.1"	5.3328	5.4770	-2.0	76.5	10.4	-17.88	103.98	18.15	93.9	Oph
28 Feb 2019	17h23m08.00s	-22 32' 29.0"	5.3325	5.4611	-2.0	77.3	10.4	-17.38	104.61	17.79	93.9	Oph
1 Mar 2019	17h23m38.52s	-22 32' 54.9"	5.3322	5.4452	-2.0	78.2	10.5	-16.87	105.25	17.43	93.8	Oph
2 Mar 2019	17h24m08.41s	-22 33' 19.9"	5.3319	5.4293	-2.0	79.1	10.5	-16.37	105.89	17.06	93.8	Oph
3 Mar 2019	17h24m37.68s	-22 33' 44.0"	5.3316	5.4133	-2.0	80.0	10.6	-15.86	106.53	16.69	93.7	Oph
4 Mar 2019	17h25m06.31s	-22 34' 07.2"	5.3313	5.3973	-2.1	80.9	10.6	-15.35	107.18	16.31	93.7	Oph
5 Mar 2019	17h25m34.29s	-22 34' 29.5"	5.3310	5.3812	-2.1	81.8	10.6	-14.85	107.82	15.93	93.6	Oph
6 Mar 2019	17h26m01.62s	-22 34' 51.0"	5.3306	5.3651	-2.1	82.7	10.6	-14.34	108.47	15.54	93.6	Oph
7 Mar 2019	17h26m28.29s	-22 35' 11.6"	5.3303	5.3490	-2.1	83.6	10.7	-13.83	109.12	15.15	93.6	Oph
8 Mar 2019	17h26m54.29s	-22 35' 31.4"	5.3300	5.3328	-2.1	84.5	10.7	-13.33	109.77	14.76	93.5	Oph
9 Mar 2019	17h27m19.62s	-22 35' 50.4"	5.3297	5.3166	-2.1	85.4	10.7	-12.82	110.42	14.36	93.5	Oph
10 Mar 2019	17h27m44.26s	-22 36' 08.5"	5.3294	5.3004	-2.1	86.3	10.7	-12.32	111.08	13.96	93.4	Oph
11 Mar 2019	17h28m08.22s	-22 36' 25.9"	5.3291	5.2842	-2.1	87.2	10.7	-11.81	111.73	13.56	93.4	Oph
12 Mar 2019	17h28m31.48s	-22 36' 42.5"	5.3288	5.2680	-2.1	88.1	10.7	-11.31	112.39	13.15	93.4	Oph
13 Mar 2019	17h28m54.04s	-22 36' 58.4"	5.3285	5.2517	-2.1	89.0	10.7	-10.80	113.06	12.74	93.3	Oph
14 Mar 2019	17h29m15.90s	-22 37' 13.5"	5.3282	5.2355	-2.1	89.9	10.8	-10.30	113.72	12.32	93.3	Oph
15 Mar 2019	17h29m37.04s	-22 37' 27.9"	5.3278	5.2193	-2.1	90.9	10.8	-9.80	114.39	11.91	93.3	Oph

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Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
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16 Mar 2019	17h29m57.47s	-22 37' 41.7"	5.3275	5.2030	-2.1	91.8	10.8	-9.30	115.06	11.49	93.3	Oph
17 Mar 2019	17h30m17.18s	-22 37' 54.7"	5.3272	5.1868	-2.1	92.7	10.8	-8.80	115.74	11.06	93.2	Oph
18 Mar 2019	17h30m36.16s	-22 38' 07.1"	5.3269	5.1706	-2.1	93.6	10.7	-8.30	116.42	10.64	93.2	Oph
19 Mar 2019	17h30m54.41s	-22 38' 18.8"	5.3266	5.1544	-2.2	94.5	10.7	-7.80	117.10	10.21	93.2	Oph
20 Mar 2019	17h31m11.93s	-22 38' 29.9"	5.3263	5.1383	-2.2	95.5	10.7	-7.30	117.79	9.78	93.2	Oph
21 Mar 2019	17h31m28.70s	-22 38' 40.4"	5.3260	5.1221	-2.2	96.4	10.7	-6.81	118.48	9.34	93.2	Oph
22 Mar 2019	17h31m44.72s	-22 38' 50.3"	5.3256	5.1060	-2.2	97.3	10.7	-6.31	119.17	8.90	93.2	Oph
23 Mar 2019	17h32m00.00s	-22 38' 59.6"	5.3253	5.0899	-2.2	98.3	10.7	-5.82	119.87	8.46	93.2	Oph
24 Mar 2019	17h32m14.52s	-22 39' 08.3"	5.3250	5.0739	-2.2	99.2	10.6	-5.33	120.57	8.02	93.2	Oph
25 Mar 2019	17h32m28.27s	-22 39' 16.5"	5.3247	5.0579	-2.2	100.1	10.6	-4.84	121.27	7.57	93.2	Oph
26 Mar 2019	17h32m41.25s	-22 39' 24.1"	5.3244	5.0419	-2.2	101.1	10.6	-4.35	121.98	7.12	93.2	Oph
27 Mar 2019	17h32m53.46s	-22 39' 31.2"	5.3241	5.0260	-2.2	102.0	10.6	-3.87	122.70	6.67	93.2	Oph
28 Mar 2019	17h33m04.89s	-22 39' 37.7"	5.3237	5.0102	-2.2	103.0	10.5	-3.38	123.42	6.21	93.2	Oph
29 Mar 2019	17h33m15.53s	-22 39' 43.7"	5.3234	4.9944	-2.2	103.9	10.5	-2.90	124.14	5.75	93.3	Oph
30 Mar 2019	17h33m25.38s	-22 39' 49.1"	5.3231	4.9786	-2.2	104.9	10.4	-2.42	124.87	5.29	93.3	Oph
31 Mar 2019	17h33m34.44s	-22 39' 54.1"	5.3228	4.9630	-2.2	105.8	10.4	-1.95	125.61	4.82	93.4	Oph
1 Apr 2019	17h33m42.69s	-22 39' 58.5"	5.3225	4.9474	-2.2	106.8	10.4	-1.47	126.35	4.36	93.5	Oph
2 Apr 2019	17h33m50.15s	-22 40' 02.5"	5.3222	4.9319	-2.3	107.7	10.3	-1.00	127.09	3.89	93.6	Oph
3 Apr 2019	17h33m56.80s	-22 40' 05.9"	5.3218	4.9164	-2.3	108.7	10.2	-0.54	127.84	3.42	93.7	Oph
4 Apr 2019	17h34m02.63s	-22 40' 08.9"	5.3215	4.9011	-2.3	109.7	10.2	-0.07	128.60	2.95	93.9	Oph
5 Apr 2019	17h34m07.66s	-22 40' 11.4"	5.3212	4.8858	-2.3	110.6	10.1	0.39	129.36	2.47	94.1	Oph
6 Apr 2019	17h34m11.88s	-22 40' 13.4"	5.3209	4.8706	-2.3	111.6	10.1	0.85	130.12	2.00	94.5	Oph
7 Apr 2019	17h34m15.28s	-22 40' 14.9"	5.3206	4.8556	-2.3	112.6	10.0	1.30	130.90	1.52	95.2	Oph
8 Apr 2019	17h34m17.86s	-22 40' 16.0"	5.3203	4.8406	-2.3	113.5	9.9	1.76	131.67	1.05	96.4	Oph
9 Apr 2019	17h34m19.63s	-22 40' 16.6"	5.3199	4.8257	-2.3	114.5	9.9	2.20	132.46	0.58	99.7	Oph
10 Apr 2019	17h34m20.57s	-22 40' 16.8"	5.3196	4.8110	-2.3	115.5	9.8	2.65	133.25	0.12	129.7	Oph
11 Apr 2019	17h34m20.71s	-22 40' 16.5"	5.3193	4.7964	-2.3	116.5	9.7	3.09	134.04	0.39	261.5	Oph
12 Apr 2019	17h34m20.03s	-22 40' 15.8"	5.3190	4.7819	-2.3	117.5	9.6	3.52	134.85	0.86	267.5	Oph
13 Apr 2019	17h34m18.53s	-22 40' 14.7"	5.3187	4.7675	-2.3	118.5	9.5	3.95	135.66	1.33	269.2	Oph
14 Apr 2019	17h34m16.23s	-22 40' 13.1"	5.3183	4.7532	-2.3	119.4	9.5	4.38	136.47	1.80	270.0	Oph
15 Apr 2019	17h34m13.11s	-22 40' 11.0"	5.3180	4.7391	-2.3	120.4	9.4	4.80	137.29	2.27	270.5	Oph
16 Apr 2019	17h34m09.19s	-22 40' 08.6"	5.3177	4.7252	-2.4	121.4	9.3	5.22	138.12	2.74	270.8	Oph
17 Apr 2019	17h34m04.46s	-22 40' 05.7"	5.3174	4.7113	-2.4	122.4	9.2	5.63	138.96	3.21	271.1	Oph
18 Apr 2019	17h33m58.93s	-22 40' 02.4"	5.3170	4.6977	-2.4	123.4	9.1	6.03	139.80	3.67	271.2	Oph
19 Apr 2019	17h33m52.59s	-22 39' 58.6"	5.3167	4.6841	-2.4	124.4	9.0	6.43	140.65	4.14	271.4	Oph
20 Apr 2019	17h33m45.47s	-22 39' 54.5"	5.3164	4.6708	-2.4	125.4	8.9	6.83	141.50	4.60	271.5	Oph
21 Apr 2019	17h33m37.54s	-22 39' 49.9"	5.3161	4.6576	-2.4	126.4	8.7	7.22	142.37	5.07	271.5	Oph
22 Apr 2019	17h33m28.82s	-22 39' 44.8"	5.3158	4.6445	-2.4	127.4	8.6	7.60	143.24	5.53	271.6	Oph
23 Apr 2019	17h33m19.31s	-22 39' 39.3"	5.3154	4.6316	-2.4	128.5	8.5	7.97	144.11	5.98	271.7	Oph
24 Apr 2019	17h33m09.02s	-22 39' 33.4"	5.3151	4.6189	-2.4	129.5	8.4	8.34	145.00	6.44	271.8	Oph
25 Apr 2019	17h32m57.95s	-22 39' 27.0"	5.3148	4.6064	-2.4	130.5	8.3	8.71	145.89	6.89	271.8	Oph
26 Apr 2019	17h32m46.09s	-22 39' 20.2"	5.3145	4.5941	-2.4	131.5	8.2	9.06	146.78	7.34	271.9	Oph
27 Apr 2019	17h32m33.47s	-22 39' 12.9"	5.3141	4.5819	-2.4	132.5	8.0	9.41	147.69	7.79	271.9	Oph
28 Apr 2019	17h32m20.07s	-22 39' 05.1"	5.3138	4.5699	-2.4	133.6	7.9	9.75	148.60	8.24	272.0	Oph
29 Apr 2019	17h32m05.92s	-22 38' 56.9"	5.3135	4.5581	-2.4	134.6	7.8	10.08	149.52	8.68	272.0	Oph
30 Apr 2019	17h31m51.02s	-22 38' 48.2"	5.3132	4.5466	-2.4	135.6	7.6	10.41	150.44	9.11	272.0	Oph
1 Mai 2019	17h31m35.37s	-22 38' 38.9"	5.3128	4.5352	-2.5	136.6	7.5	10.73	151.37	9.54	272.1	Oph
2 Mai 2019	17h31m18.98s	-22 38' 29.2"	5.3125	4.5240	-2.5	137.7	7.3	11.03	152.31	9.97	272.1	Oph
3 Mai 2019	17h31m01.87s	-22 38' 19.0"	5.3122	4.5131	-2.5	138.7	7.2	11.33	153.26	10.39	272.2	Oph
4 Mai 2019	17h30m44.03s	-22 38' 08.3"	5.3119	4.5023	-2.5	139.7	7.0	11.63	154.21	10.80	272.2	Oph
5 Mai 2019	17h30m25.49s	-22 37' 57.1"	5.3115	4.4918	-2.5	140.8	6.9	11.91	155.17	11.21	272.2	Oph
6 Mai 2019	17h30m06.26s	-22 37' 45.3"	5.3112	4.4815	-2.5	141.8	6.7	12.18	156.14	11.61	272.3	Oph
7 Mai 2019	17h29m46.34s	-22 37' 33.1"	5.3109	4.4714	-2.5	142.9	6.6	12.45	157.11	12.01	272.3	Oph
8 Mai 2019	17h29m25.75s	-22 37' 20.3"	5.3106	4.4616	-2.5	143.9	6.4	12.70	158.09	12.39	272.4	Oph
9 Mai 2019	17h29m04.51s	-22 37' 07.0"	5.3102	4.4520	-2.5	145.0	6.3	12.95	159.07	12.77	272.4	Oph
10 Mai 2019	17h28m42.62s	-22 36' 53.1"	5.3099	4.4426	-2.5	146.0	6.1	13.18	160.06	13.14	272.4	Oph
11 Mai 2019	17h28m20.10s	-22 36' 38.7"	5.3096	4.4335	-2.5	147.1	5.9	13.41	161.06	13.50	272.5	Oph
12 Mai 2019	17h27m56.97s	-22 36' 23.8"	5.3093	4.4246	-2.5	148.1	5.8	13.62	162.07	13.85	272.5	Oph
13 Mai 2019	17h27m33.25s	-22 36' 08.4"	5.3089	4.4159	-2.5	149.2	5.6	13.83	163.07	14.20	272.6	Oph
14 Mai 2019	17h27m08.94s	-22 35' 52.4"	5.3086	4.4076	-2.5	150.2	5.4	14.02	164.09	14.53	272.6	Oph
15 Mai 2019	17h26m44.06s	-22 35' 35.9"	5.3083	4.3994	-2.5	151.3	5.2	14.20	165.11	14.86	272.6	Oph
16 Mai 2019	17h26m18.63s	-22 35' 18.9"	5.3079	4.3915	-2.5	152.4	5.1	14.38	166.13	15.17	272.7	Oph
17 Mai 2019	17h25m52.67s	-22 35' 01.3"	5.3076	4.3839	-2.5	153.4	4.9	14.54	167.16	15.48	272.7	Oph
18 Mai 2019	17h25m26.19s	-22 34' 43.1"	5.3073	4.3766	-2.5	154.5	4.7	14.69	168.20	15.78	272.8	Oph
19 Mai 2019	17h24m59.20s	-22 34' 24.5"	5.3070	4.3695	-2.6	155.6	4.5	14.82	169.24	16.07	272.8	Oph
20 Mai 2019	17h24m31.73s	-22 34' 05.2"	5.3066	4.3626	-2.6	156.6	4.3	14.95	170.28	16.34	272.8	Oph
21 Mai 2019	17h24m03.78s	-22 33' 45.5"	5.3063	4.3561	-2.6	157.7	4.1	15.06	171.32	16.61	272.9	Oph
22 Mai 2019	17h23m35.39s	-22 33' 25.1"	5.3060	4.3498	-2.6	158.8	4.0	15.16	172.38	16.87	272.9	Oph
23 Mai 2019	17h23m06.55s	-22 33' 04.3"	5.3056	4.3438	-2.6	159.8	3.8	15.25	173.43	17.12	273.0	Oph
24 Mai 2019	17h22m37.30s	-22 32' 42.8"	5.3053	4.3380	-2.6	160.9	3.6	15.33	174.49	17.36	273.0	Oph
25 Mai 2019	17h22m07.66s	-22 32' 20.9"	5.3050	4.3326	-2.6	162.0	3.4	15.40	175.55	17.58	273.0	Oph
26 Mai 2019	17h21m37.63s	-22 31' 58.4"	5.3046	4.3274	-2.6	163.1	3.2	15.45	176.61	17.80	273.1	Oph
27 Mai 2019	17h21m07.24s	-22 31' 35.3"	5.3043	4.3225	-2.6	164.1	3.0	15.49	177.67	18.00	273.1	Oph
28 Mai 2019	17h20m36.52s	-22 31' 11.7"	5.3040	4.3179	-2.6	165.2	2.8	15.52	178.74	18.19	273.2	Oph

# EPHEMERIDE 2019 – JUPITER

Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
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29 Mai 2019	17h20m05.48s	-22 30' 47.6"	5.3037	4.3136	-2.6	166.3	2.6	15.53	179.81	18.37	273.2	Oph
30 Mai 2019	17h19m34.14s	-22 30' 23.0"	5.3033	4.3095	-2.6	167.4	2.4	15.54	180.88	18.53	273.3	Oph
31 Mai 2019	17h19m02.53s	-22 29' 57.8"	5.3030	4.3058	-2.6	168.5	2.2	15.53	181.95	18.69	273.3	Oph
1 Jun 2019	17h18m30.66s	-22 29' 32.2"	5.3027	4.3023	-2.6	169.5	2.0	15.50	183.02	18.83	273.4	Oph
2 Jun 2019	17h17m58.57s	-22 29' 06.1"	5.3023	4.2992	-2.6	170.6	1.8	15.47	184.10	18.95	273.4	Oph
3 Jun 2019	17h17m06.27s	-22 28' 39.5"	5.3020	4.2963	-2.6	171.7	1.6	15.42	185.17	19.07	273.4	Oph
4 Jun 2019	17h16m53.79s	-22 28' 12.5"	5.3017	4.2937	-2.6	172.8	1.4	15.36	186.24	19.16	273.5	Oph
5 Jun 2019	17h16m21.15s	-22 27' 45.1"	5.3013	4.2915	-2.6	173.9	1.2	15.28	187.31	19.25	273.5	Oph
6 Jun 2019	17h15m48.38s	-22 27' 17.2"	5.3010	4.2895	-2.6	174.9	1.0	15.20	188.38	19.32	273.6	Oph
7 Jun 2019	17h15m15.50s	-22 26' 49.0"	5.3007	4.2878	-2.6	176.0	0.8	15.10	189.45	19.37	273.6	Oph
8 Jun 2019	17h14m42.54s	-22 26' 20.4"	5.3003	4.2864	-2.6	177.1	0.6	14.98	190.52	19.42	273.7	Oph
9 Jun 2019	17h14m09.52s	-22 25' 51.4"	5.3000	4.2853	-2.6	178.1	0.4	14.86	191.59	19.44	273.7	Oph
10 Jun 2019	17h13m36.46s	-22 25' 22.1"	5.2997	4.2846	-2.6	179.1	0.2	14.72	192.65	19.46	273.7	Oph
11 Jun 2019	17h13m03.39s	-22 24' 52.6"	5.2993	4.2841	-2.6	179.3	0.1	14.57	193.71	19.46	273.8	Oph
12 Jun 2019	17h12m30.32s	-22 24' 22.8"	5.2990	4.2839	-2.6	178.4	0.3	14.41	194.77	19.44	273.8	Oph
13 Jun 2019	17h11m57.30s	-22 23' 52.7"	5.2987	4.2840	-2.6	177.4	0.5	14.23	195.83	19.42	273.9	Oph
14 Jun 2019	17h11m24.32s	-22 23' 22.5"	5.2983	4.2844	-2.6	176.3	0.7	14.05	196.88	19.38	273.9	Oph
15 Jun 2019	17h10m51.43s	-22 22' 52.0"	5.2980	4.2851	-2.6	175.2	0.9	13.85	197.93	19.32	273.9	Oph
16 Jun 2019	17h10m18.64s	-22 22' 21.4"	5.2976	4.2861	-2.6	174.2	1.1	13.64	198.98	19.26	274.0	Oph
17 Jun 2019	17h09m45.96s	-22 21' 50.6"	5.2973	4.2874	-2.6	173.1	1.3	13.41	200.02	19.18	274.0	Oph
18 Jun 2019	17h09m13.43s	-22 21' 19.8"	5.2970	4.2890	-2.6	172.0	1.5	13.18	201.06	19.09	274.1	Oph
19 Jun 2019	17h08m41.07s	-22 20' 48.8"	5.2966	4.2909	-2.6	170.9	1.7	12.93	202.09	18.99	274.1	Oph
20 Jun 2019	17h08m08.89s	-22 20' 17.8"	5.2963	4.2930	-2.6	169.9	1.9	12.68	203.12	18.87	274.1	Oph
21 Jun 2019	17h07m36.91s	-22 19' 46.8"	5.2960	4.2955	-2.6	168.8	2.1	12.41	204.14	18.74	274.2	Oph
22 Jun 2019	17h07m05.17s	-22 19' 15.8"	5.2956	4.2982	-2.6	167.7	2.3	12.13	205.16	18.60	274.2	Oph
23 Jun 2019	17h06m33.67s	-22 18' 44.8"	5.2953	4.3013	-2.6	166.6	2.5	11.84	206.18	18.45	274.2	Oph
24 Jun 2019	17h06m02.44s	-22 18' 13.9"	5.2950	4.3046	-2.6	165.6	2.7	11.54	207.18	18.29	274.3	Oph
25 Jun 2019	17h05m31.51s	-22 17' 43.1"	5.2946	4.3082	-2.6	164.5	2.9	11.22	208.19	18.11	274.3	Oph
26 Jun 2019	17h05m00.89s	-22 17' 12.5"	5.2943	4.3121	-2.6	163.4	3.1	10.90	209.18	17.92	274.3	Oph
27 Jun 2019	17h04m30.60s	-22 16' 42.0"	5.2939	4.3163	-2.6	162.3	3.3	10.57	210.18	17.72	274.4	Oph
28 Jun 2019	17h04m00.66s	-22 16' 11.8"	5.2936	4.3207	-2.6	161.3	3.5	10.23	211.16	17.50	274.4	Oph
29 Jun 2019	17h03m31.11s	-22 15' 41.8"	5.2933	4.3255	-2.6	160.2	3.7	9.88	212.14	17.28	274.4	Oph
30 Jun 2019	17h03m01.94s	-22 15' 12.1"	5.2929	4.3305	-2.6	159.1	3.9	9.52	213.11	17.04	274.4	Oph
1 Jul 2019	17h02m33.19s	-22 14' 42.7"	5.2926	4.3358	-2.6	158.1	4.1	9.15	214.08	16.79	274.5	Oph
2 Jul 2019	17h02m04.88s	-22 14' 13.7"	5.2923	4.3413	-2.6	157.0	4.3	8.77	215.04	16.52	274.5	Oph
3 Jul 2019	17h01m37.02s	-22 13' 45.1"	5.2919	4.3472	-2.6	156.0	4.5	8.38	215.99	16.25	274.5	Oph
4 Jul 2019	17h01m09.64s	-22 13' 17.0"	5.2916	4.3533	-2.6	154.9	4.7	7.99	216.94	15.97	274.5	Oph
5 Jul 2019	17h00m42.75s	-22 12' 49.4"	5.2912	4.3596	-2.6	153.8	4.9	7.58	217.88	15.67	274.5	Oph
6 Jul 2019	17h00m16.37s	-22 12' 22.3"	5.2909	4.3663	-2.6	152.8	5.0	7.17	218.82	15.36	274.5	Oph
7 Jul 2019	16h59m50.51s	-22 11' 55.8"	5.2906	4.3731	-2.6	151.7	5.2	6.75	219.74	15.05	274.5	Oph
8 Jul 2019	16h59m25.21s	-22 11' 29.8"	5.2902	4.3803	-2.5	150.7	5.4	6.32	220.66	14.72	274.5	Oph
9 Jul 2019	16h59m00.46s	-22 11' 04.6"	5.2899	4.3877	-2.5	149.6	5.6	5.89	221.58	14.39	274.5	Oph
10 Jul 2019	16h58m36.29s	-22 10' 40.0"	5.2895	4.3953	-2.5	148.6	5.8	5.44	222.49	14.05	274.5	Oph
11 Jul 2019	16h58m12.71s	-22 10' 16.1"	5.2892	4.4032	-2.5	147.5	5.9	4.99	223.39	13.70	274.5	Oph
12 Jul 2019	16h57m49.72s	-22 09' 53.0"	5.2889	4.4113	-2.5	146.5	6.1	4.54	224.28	13.34	274.5	Oph
13 Jul 2019	16h57m27.35s	-22 09' 30.6"	5.2885	4.4197	-2.5	145.5	6.3	4.08	225.17	12.97	274.5	Oph
14 Jul 2019	16h57m05.61s	-22 09' 09.1"	5.2882	4.4283	-2.5	144.4	6.4	3.61	226.05	12.60	274.5	Oph
15 Jul 2019	16h56m44.50s	-22 08' 48.3"	5.2878	4.4371	-2.5	143.4	6.6	3.13	226.93	12.22	274.5	Oph
16 Jul 2019	16h56m24.04s	-22 08' 28.5"	5.2875	4.4461	-2.5	142.3	6.7	2.65	227.79	11.84	274.4	Oph
17 Jul 2019	16h56m04.24s	-22 08' 09.5"	5.2872	4.4554	-2.5	141.3	6.9	2.16	228.66	11.45	274.4	Oph
18 Jul 2019	16h55m45.10s	-22 07' 51.5"	5.2868	4.4649	-2.5	140.3	7.1	1.67	229.51	11.05	274.4	Oph
19 Jul 2019	16h55m26.65s	-22 07' 34.3"	5.2865	4.4746	-2.5	139.3	7.2	1.17	230.36	10.65	274.3	Oph
20 Jul 2019	16h55m08.88s	-22 07' 18.2"	5.2861	4.4845	-2.5	138.2	7.4	0.67	231.20	10.24	274.3	Oph
21 Jul 2019	16h54m51.81s	-22 07' 03.0"	5.2858	4.4947	-2.5	137.2	7.5	0.16	232.04	9.83	274.2	Oph
22 Jul 2019	16h54m35.44s	-22 06' 48.9"	5.2854	4.5050	-2.5	136.2	7.6	-0.35	232.87	9.41	274.1	Oph
23 Jul 2019	16h54m19.79s	-22 06' 35.8"	5.2851	4.5155	-2.5	135.2	7.8	-0.86	233.70	8.99	274.0	Oph
24 Jul 2019	16h54m04.86s	-22 06' 23.8"	5.2848	4.5263	-2.5	134.2	7.9	-1.38	234.52	8.56	273.9	Oph
25 Jul 2019	16h53m50.66s	-22 06' 12.8"	5.2844	4.5372	-2.5	133.2	8.1	-1.91	235.33	8.12	273.8	Oph
26 Jul 2019	16h53m37.20s	-22 06' 03.0"	5.2841	4.5483	-2.5	132.2	8.2	-2.44	236.14	7.69	273.7	Oph
27 Jul 2019	16h53m24.49s	-22 05' 54.2"	5.2837	4.5596	-2.4	131.2	8.3	-2.97	236.94	7.24	273.6	Oph
28 Jul 2019	16h53m12.53s	-22 05' 46.7"	5.2834	4.5711	-2.4	130.2	8.4	-3.51	237.74	6.80	273.4	Oph
29 Jul 2019	16h53m01.33s	-22 05' 40.2"	5.2830	4.5828	-2.4	129.2	8.6	-4.05	238.53	6.35	273.2	Oph
30 Jul 2019	16h52m50.89s	-22 05' 35.0"	5.2827	4.5946	-2.4	128.2	8.7	-4.59	239.31	5.90	273.0	Oph
31 Jul 2019	16h52m41.23s	-22 05' 31.0"	5.2824	4.6066	-2.4	127.2	8.8	-5.13	240.10	5.44	272.7	Oph
1 Aug 2019	16h52m32.35s	-22 05' 28.2"	5.2820	4.6188	-2.4	126.2	8.9	-5.68	240.87	4.98	272.3	Oph
2 Aug 2019	16h52m24.25s	-22 05' 26.6"	5.2817	4.6312	-2.4	125.2	9.0	-6.23	241.64	4.52	271.9	Oph
3 Aug 2019	16h52m16.94s	-22 05' 26.3"	5.2813	4.6437	-2.4	124.2	9.1	-6.79	242.41	4.05	271.4	Oph
4 Aug 2019	16h52m10.43s	-22 05' 27.3"	5.2810	4.6563	-2.4	123.2	9.2	-7.34	243.17	3.59	270.7	Oph
5 Aug 2019	16h52m04.70s	-22 05' 29.5"	5.2806	4.6691	-2.4	122.2	9.4	-7.90	243.93	3.12	269.9	Oph
6 Aug 2019	16h51m59.77s	-22 05' 33.0"	5.2803	4.6821	-2.4	121.3	9.5	-8.46	244.68	2.65	268.7	Oph
7 Aug 2019	16h51m55.64s	-22 05' 37.8"	5.2799	4.6951	-2.4	120.3	9.5	-9.02	245.43	2.19	267.0	Oph
8 Aug 2019	16h51m52.31s	-22 05' 43.9"	5.2796	4.7084	-2.4	119.3	9.6	-9.58	246.18	1.73	264.4	Oph
9 Aug 2019	16h51m49.78s	-22 05' 51.2"	5.2792	4.7217	-2.4	118.4	9.7	-10.15	246.92	1.27	260.0	Oph
10 Aug 2019	16h51m48.04s	-22 05' 59.8"	5.2789	4.7352	-2.4	117.4	9.8	-10.71	247.65	0.83	250.7	Oph

# EPHEMERIDE 2019 – JUPITER

Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
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11 Aug 2019	16h51m47.10s	-22 06' 09.7"	5.2786	4.7488	-2.4	116.4	9.9	-11.28	248.39	0.46	224.0	Oph
12 Aug 2019	16h51m46.96s	-22 06' 20.9"	5.2782	4.7625	-2.3	115.5	10.0	-11.85	249.11	0.41	158.6	Oph
13 Aug 2019	16h51m47.61s	-22 06' 33.4"	5.2779	4.7763	-2.3	114.5	10.1	-12.42	249.84	0.75	125.3	Oph
14 Aug 2019	16h51m49.06s	-22 06' 47.1"	5.2775	4.7902	-2.3	113.6	10.1	-12.99	250.56	1.18	114.3	Oph
15 Aug 2019	16h51m51.30s	-22 07' 02.1"	5.2772	4.8042	-2.3	112.6	10.2	-13.57	251.28	1.63	109.3	Oph
16 Aug 2019	16h51m54.34s	-22 07' 18.3"	5.2768	4.8184	-2.3	111.7	10.3	-14.14	252.00	2.09	106.5	Oph
17 Aug 2019	16h51m58.16s	-22 07' 35.8"	5.2765	4.8326	-2.3	110.7	10.3	-14.71	252.71	2.55	104.6	Oph
18 Aug 2019	16h52m02.77s	-22 07' 54.5"	5.2761	4.8469	-2.3	109.8	10.4	-15.29	253.42	3.01	103.4	Oph
19 Aug 2019	16h52m08.17s	-22 08' 14.4"	5.2758	4.8613	-2.3	108.8	10.5	-15.86	254.13	3.47	102.4	Oph
20 Aug 2019	16h52m14.35s	-22 08' 35.6"	5.2754	4.8758	-2.3	107.9	10.5	-16.43	254.84	3.93	101.7	Oph
21 Aug 2019	16h52m21.31s	-22 08' 57.9"	5.2751	4.8904	-2.3	107.0	10.6	-17.01	255.54	4.39	101.2	Oph
22 Aug 2019	16h52m29.06s	-22 09' 21.5"	5.2747	4.9050	-2.3	106.0	10.6	-17.58	256.24	4.84	100.7	Oph
23 Aug 2019	16h52m37.59s	-22 09' 46.2"	5.2744	4.9197	-2.3	105.1	10.7	-18.16	256.94	5.30	100.3	Oph
24 Aug 2019	16h52m46.89s	-22 10' 12.1"	5.2740	4.9345	-2.3	104.2	10.7	-18.73	257.64	5.75	100.0	Oph
25 Aug 2019	16h52m56.96s	-22 10' 39.2"	5.2737	4.9494	-2.3	103.2	10.8	-19.31	258.34	6.21	99.7	Oph
26 Aug 2019	16h53m07.81s	-22 11' 07.4"	5.2733	4.9643	-2.3	102.3	10.8	-19.88	259.03	6.66	99.5	Oph
27 Aug 2019	16h53m19.43s	-22 11' 36.7"	5.2730	4.9792	-2.2	101.4	10.8	-20.46	259.72	7.11	99.2	Oph
28 Aug 2019	16h53m31.82s	-22 12' 07.1"	5.2726	4.9943	-2.2	100.5	10.9	-21.03	260.42	7.56	99.0	Oph
29 Aug 2019	16h53m44.97s	-22 12' 38.7"	5.2723	5.0093	-2.2	99.6	10.9	-21.60	261.11	8.01	98.9	Oph
30 Aug 2019	16h53m58.88s	-22 13' 11.3"	5.2719	5.0244	-2.2	98.7	10.9	-22.18	261.80	8.45	98.7	Oph
31 Aug 2019	16h54m13.56s	-22 13' 45.0"	5.2716	5.0396	-2.2	97.8	10.9	-22.75	262.49	8.89	98.6	Oph
1 Sep 2019	16h54m28.98s	-22 14' 19.8"	5.2712	5.0548	-2.2	96.8	11.0	-23.32	263.17	9.33	98.4	Oph
2 Sep 2019	16h54m45.15s	-22 14' 55.6"	5.2709	5.0700	-2.2	95.9	11.0	-23.89	263.86	9.77	98.3	Oph
3 Sep 2019	16h55m02.07s	-22 15' 32.4"	5.2705	5.0852	-2.2	95.0	11.0	-24.46	264.55	10.20	98.2	Oph
4 Sep 2019	16h55m19.72s	-22 16' 10.1"	5.2702	5.1005	-2.2	94.1	11.0	-25.03	265.24	10.63	98.1	Oph
5 Sep 2019	16h55m38.10s	-22 16' 48.8"	5.2698	5.1157	-2.2	93.2	11.0	-25.59	265.92	11.06	98.0	Oph
6 Sep 2019	16h55m57.21s	-22 17' 28.5"	5.2695	5.1310	-2.2	92.3	11.0	-26.16	266.61	11.48	97.9	Oph
7 Sep 2019	16h56m17.04s	-22 18' 09.0"	5.2691	5.1463	-2.2	91.5	11.0	-26.72	267.30	11.90	97.8	Oph
8 Sep 2019	16h56m37.58s	-22 18' 50.4"	5.2688	5.1616	-2.2	90.6	11.0	-27.28	267.99	12.31	97.7	Oph
9 Sep 2019	16h56m58.83s	-22 19' 32.6"	5.2684	5.1769	-2.2	89.7	11.0	-27.85	268.68	12.72	97.6	Oph
10 Sep 2019	16h57m20.78s	-22 20' 15.7"	5.2681	5.1922	-2.2	88.8	11.0	-28.41	269.37	13.13	97.5	Oph
11 Sep 2019	16h57m43.42s	-22 20' 59.5"	5.2677	5.2075	-2.2	87.9	11.0	-28.96	270.06	13.53	97.4	Oph
12 Sep 2019	16h58m06.75s	-22 21' 44.1"	5.2674	5.2228	-2.1	87.0	11.0	-29.52	270.75	13.93	97.3	Oph
13 Sep 2019	16h58m30.76s	-22 22' 29.4"	5.2670	5.2381	-2.1	86.1	11.0	-30.08	271.44	14.32	97.3	Oph
14 Sep 2019	16h58m55.45s	-22 23' 15.4"	5.2667	5.2533	-2.1	85.3	11.0	-30.63	272.14	14.72	97.2	Oph
15 Sep 2019	16h59m20.80s	-22 24' 02.0"	5.2663	5.2685	-2.1	84.4	11.0	-31.18	272.84	15.10	97.1	Oph
16 Sep 2019	16h59m46.82s	-22 24' 49.3"	5.2660	5.2838	-2.1	83.5	10.9	-31.73	273.54	15.49	97.0	Oph
17 Sep 2019	17h00m13.50s	-22 25' 37.3"	5.2656	5.2989	-2.1	82.7	10.9	-32.28	274.24	15.87	97.0	Oph
18 Sep 2019	17h00m40.83s	-22 26' 25.7"	5.2653	5.3141	-2.1	81.8	10.9	-32.82	274.94	16.24	96.9	Oph
19 Sep 2019	17h01m08.81s	-22 27' 14.8"	5.2649	5.3292	-2.1	80.9	10.9	-33.37	275.65	16.62	96.8	Oph
20 Sep 2019	17h01m37.43s	-22 28' 04.3"	5.2646	5.3443	-2.1	80.1	10.8	-33.91	276.35	16.99	96.7	Oph
21 Sep 2019	17h02m06.69s	-22 28' 54.4"	5.2642	5.3594	-2.1	79.2	10.8	-34.45	277.07	17.36	96.7	Oph
22 Sep 2019	17h02m36.58s	-22 29' 44.9"	5.2639	5.3744	-2.1	78.3	10.8	-34.98	277.78	17.72	96.6	Oph
23 Sep 2019	17h03m07.09s	-22 30' 35.8"	5.2635	5.3893	-2.1	77.5	10.7	-35.52	278.50	18.08	96.5	Oph
24 Sep 2019	17h03m38.22s	-22 31' 27.2"	5.2632	5.4042	-2.1	76.6	10.7	-36.05	279.22	18.44	96.4	Oph
25 Sep 2019	17h04m09.97s	-22 32' 18.9"	5.2628	5.4191	-2.1	75.8	10.6	-36.58	279.94	18.79	96.4	Oph
26 Sep 2019	17h04m42.33s	-22 33' 10.9"	5.2625	5.4339	-2.1	74.9	10.6	-37.11	280.67	19.14	96.3	Oph
27 Sep 2019	17h05m15.29s	-22 34' 03.3"	5.2621	5.4487	-2.1	74.0	10.6	-37.63	281.40	19.49	96.2	Oph
28 Sep 2019	17h05m48.85s	-22 34' 56.0"	5.2618	5.4633	-2.1	73.2	10.5	-38.15	282.14	19.83	96.2	Oph
29 Sep 2019	17h06m22.99s	-22 35' 48.9"	5.2614	5.4779	-2.0	72.3	10.5	-38.67	282.88	20.17	96.1	Oph
30 Sep 2019	17h06m57.73s	-22 36' 42.1"	5.2610	5.4925	-2.0	71.5	10.4	-39.19	283.63	20.50	96.0	Oph
1 Okt 2019	17h07m33.04s	-22 37' 35.4"	5.2607	5.5070	-2.0	70.7	10.3	-39.70	284.38	20.83	95.9	Oph
2 Okt 2019	17h08m08.92s	-22 38' 28.9"	5.2603	5.5213	-2.0	69.8	10.3	-40.21	285.13	21.16	95.9	Oph
3 Okt 2019	17h08m45.36s	-22 39' 22.6"	5.2600	5.5357	-2.0	69.0	10.2	-40.71	285.90	21.48	95.8	Oph
4 Okt 2019	17h09m22.35s	-22 40' 16.3"	5.2596	5.5499	-2.0	68.1	10.2	-41.22	286.66	21.79	95.7	Oph
5 Okt 2019	17h09m59.89s	-22 41' 10.0"	5.2593	5.5640	-2.0	67.3	10.1	-41.72	287.44	22.10	95.6	Oph
6 Okt 2019	17h10m37.97s	-22 42' 03.8"	5.2589	5.5781	-2.0	66.4	10.0	-42.21	288.21	22.41	95.6	Oph
7 Okt 2019	17h11m16.58s	-22 42' 57.6"	5.2586	5.5920	-2.0	65.6	10.0	-42.71	289.00	22.71	95.5	Oph
8 Okt 2019	17h11m55.72s	-22 43' 51.3"	5.2582	5.6059	-2.0	64.8	9.9	-43.20	289.79	23.01	95.4	Oph
9 Okt 2019	17h12m35.37s	-22 44' 44.9"	5.2579	5.6196	-2.0	63.9	9.8	-43.68	290.59	23.30	95.3	Oph
10 Okt 2019	17h13m15.53s	-22 45' 38.5"	5.2575	5.6333	-2.0	63.1	9.8	-44.17	291.40	23.59	95.3	Oph
11 Okt 2019	17h13m56.20s	-22 46' 31.8"	5.2571	5.6468	-2.0	62.3	9.7	-44.64	292.21	23.88	95.2	Oph
12 Okt 2019	17h14m37.36s	-22 47' 25.0"	5.2568	5.6603	-2.0	61.4	9.6	-45.12	293.03	24.16	95.1	Oph
13 Okt 2019	17h15m19.01s	-22 48' 18.0"	5.2564	5.6736	-2.0	60.6	9.5	-45.59	293.86	24.44	95.0	Oph
14 Okt 2019	17h16m01.15s	-22 49' 10.7"	5.2561	5.6869	-2.0	59.8	9.4	-46.06	294.69	24.71	95.0	Oph
15 Okt 2019	17h16m43.76s	-22 50' 03.2"	5.2557	5.7000	-2.0	59.0	9.4	-46.52	295.54	24.98	94.9	Oph
16 Okt 2019	17h17m26.84s	-22 50' 55.4"	5.2554	5.7130	-2.0	58.1	9.3	-46.98	296.39	25.25	94.8	Oph
17 Okt 2019	17h18m10.39s	-22 51' 47.2"	5.2550	5.7259	-2.0	57.3	9.2	-47.43	297.25	25.51	94.7	Oph
18 Okt 2019	17h18m54.40s	-22 52' 38.7"	5.2546	5.7386	-2.0	56.5	9.1	-47.88	298.13	25.77	94.6	Oph
19 Okt 2019	17h19m38.86s	-22 53' 29.8"	5.2543	5.7513	-2.0	55.7	9.0	-48.32	299.01	26.03	94.6	Oph
20 Okt 2019	17h20m23.77s	-22 54' 20.5"	5.2539	5.7638	-1.9	54.9	8.9	-48.76	299.90	26.28	94.5	Oph
21 Okt 2019	17h21m09.12s	-22 55' 10.7"	5.2536	5.7762	-1.9	54.0	8.8	-49.20	300.80	26.53	94.4	Oph
22 Okt 2019	17h21m54.90s	-22 56' 00.5"	5.2532	5.7884	-1.9	53.2	8.7	-49.63	301.71	26.77	94.3	Oph
23 Okt 2019	17h22m41.12s	-22 56' 49.7"	5.2529	5.8006	-1.9	52.4	8.6	-50.05	302.63	27.02	94.2	Oph

# EPHEMERIDE 2019 – JUPITER

Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
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24 Okt 2019	17h23m27.76s	-22 57' 38.5"	5.2525	5.8126	-1.9	51.6	8.5	-50.47	303.56	27.25	94.2	Oph
25 Okt 2019	17h24m14.81s	-22 58' 26.6"	5.2521	5.8244	-1.9	50.8	8.4	-50.89	304.50	27.49	94.1	Oph
26 Okt 2019	17h25m02.28s	-22 59' 14.2"	5.2518	5.8361	-1.9	50.0	8.3	-51.30	305.46	27.72	94.0	Oph
27 Okt 2019	17h25m50.16s	-23 00' 01.2"	5.2514	5.8477	-1.9	49.1	8.2	-51.70	306.42	27.95	93.9	Oph
28 Okt 2019	17h26m38.43s	-23 00' 47.6"	5.2511	5.8591	-1.9	48.3	8.1	-52.10	307.40	28.17	93.8	Oph
29 Okt 2019	17h27m27.10s	-23 01' 33.3"	5.2507	5.8704	-1.9	47.5	8.0	-52.49	308.39	28.39	93.7	Oph
30 Okt 2019	17h28m16.15s	-23 02' 18.3"	5.2504	5.8815	-1.9	46.7	7.9	-52.87	309.39	28.60	93.7	Oph
31 Okt 2019	17h29m05.57s	-23 03' 02.6"	5.2500	5.8925	-1.9	45.9	7.8	-53.25	310.40	28.81	93.6	Oph
1 Nov 2019	17h29m55.36s	-23 03' 46.1"	5.2496	5.9033	-1.9	45.1	7.7	-53.62	311.43	29.02	93.5	Oph
2 Nov 2019	17h30m45.52s	-23 04' 28.8"	5.2493	5.9139	-1.9	44.3	7.6	-53.99	312.47	29.22	93.4	Oph
3 Nov 2019	17h31m36.02s	-23 05' 10.8"	5.2489	5.9244	-1.9	43.5	7.5	-54.35	313.52	29.42	93.3	Oph
4 Nov 2019	17h32m26.88s	-23 05' 51.9"	5.2486	5.9347	-1.9	42.7	7.4	-54.70	314.59	29.61	93.2	Oph
5 Nov 2019	17h33m18.07s	-23 06' 32.1"	5.2482	5.9449	-1.9	41.9	7.2	-55.05	315.67	29.80	93.1	Oph
6 Nov 2019	17h34m09.59s	-23 07' 11.5"	5.2478	5.9549	-1.9	41.1	7.1	-55.39	316.76	29.98	93.0	Oph
7 Nov 2019	17h35m01.45s	-23 07' 50.0"	5.2475	5.9647	-1.9	40.3	7.0	-55.72	317.87	30.17	93.0	Oph
8 Nov 2019	17h35m53.61s	-23 08' 27.5"	5.2471	5.9744	-1.9	39.5	6.9	-56.04	318.98	30.34	92.9	Oph
9 Nov 2019	17h36m46.10s	-23 09' 04.1"	5.2468	5.9839	-1.9	38.6	6.8	-56.36	320.12	30.52	92.8	Oph
10 Nov 2019	17h37m38.88s	-23 09' 39.7"	5.2464	5.9932	-1.9	37.8	6.7	-56.66	321.27	30.69	92.7	Oph
11 Nov 2019	17h38m31.97s	-23 10' 14.2"	5.2461	6.0024	-1.9	37.0	6.5	-56.96	322.43	30.85	92.6	Oph
12 Nov 2019	17h39m25.35s	-23 10' 47.8"	5.2457	6.0113	-1.9	36.2	6.4	-57.25	323.60	31.02	92.5	Oph
13 Nov 2019	17h40m19.02s	-23 11' 20.3"	5.2453	6.0202	-1.9	35.4	6.3	-57.54	324.79	31.18	92.4	Oph
14 Nov 2019	17h41m12.97s	-23 11' 51.8"	5.2450	6.0288	-1.9	34.6	6.2	-57.81	326.00	31.33	92.3	Oph
15 Nov 2019	17h42m07.20s	-23 12' 22.2"	5.2446	6.0372	-1.9	33.8	6.0	-58.08	327.21	31.49	92.2	Oph
16 Nov 2019	17h43m01.69s	-23 12' 51.5"	5.2443	6.0455	-1.9	33.1	5.9	-58.33	328.44	31.64	92.1	Oph
17 Nov 2019	17h43m56.45s	-23 13' 19.7"	5.2439	6.0536	-1.9	32.3	5.8	-58.58	329.69	31.78	92.0	Sgr
18 Nov 2019	17h44m51.47s	-23 13' 46.7"	5.2435	6.0615	-1.9	31.5	5.6	-58.82	330.94	31.93	92.0	Sgr
19 Nov 2019	17h45m46.75s	-23 14' 12.6"	5.2432	6.0692	-1.9	30.7	5.5	-59.05	332.21	32.07	91.9	Sgr
20 Nov 2019	17h46m42.27s	-23 14' 37.3"	5.2428	6.0767	-1.9	29.9	5.4	-59.26	333.50	32.21	91.8	Sgr
21 Nov 2019	17h47m38.04s	-23 15' 00.8"	5.2425	6.0840	-1.9	29.1	5.3	-59.47	334.79	32.34	91.7	Sgr
22 Nov 2019	17h48m34.04s	-23 15' 23.2"	5.2421	6.0912	-1.9	28.3	5.1	-59.67	336.10	32.47	91.6	Sgr
23 Nov 2019	17h49m30.27s	-23 15' 44.3"	5.2417	6.0981	-1.9	27.5	5.0	-59.86	337.42	32.60	91.5	Sgr
24 Nov 2019	17h50m26.72s	-23 16' 04.2"	5.2414	6.1049	-1.9	26.7	4.9	-60.04	338.75	32.72	91.4	Sgr
25 Nov 2019	17h51m23.40s	-23 16' 22.8"	5.2410	6.1115	-1.8	25.9	4.7	-60.20	340.09	32.84	91.3	Sgr
26 Nov 2019	17h52m20.28s	-23 16' 40.1"	5.2406	6.1178	-1.8	25.1	4.6	-60.36	341.44	32.96	91.2	Sgr
27 Nov 2019	17h53m17.36s	-23 16' 56.2"	5.2403	6.1240	-1.8	24.3	4.4	-60.50	342.80	33.07	91.1	Sgr
28 Nov 2019	17h54m14.64s	-23 17' 11.0"	5.2399	6.1300	-1.8	23.5	4.3	-60.64	344.17	33.18	91.0	Sgr
29 Nov 2019	17h55m12.11s	-23 17' 24.5"	5.2396	6.1357	-1.8	22.7	4.2	-60.76	345.55	33.28	90.9	Sgr
30 Nov 2019	17h56m09.76s	-23 17' 36.6"	5.2392	6.1413	-1.8	21.9	4.0	-60.87	346.93	33.38	90.8	Sgr
1 Dez 2019	17h57m07.58s	-23 17' 47.4"	5.2388	6.1467	-1.8	21.1	3.9	-60.98	348.32	33.48	90.7	Sgr
2 Dez 2019	17h58m05.57s	-23 17' 56.9"	5.2385	6.1518	-1.8	20.3	3.8	-61.06	349.72	33.57	90.6	Sgr
3 Dez 2019	17h59m03.72s	-23 18' 05.0"	5.2381	6.1568	-1.8	19.5	3.6	-61.14	351.13	33.66	90.5	Sgr
4 Dez 2019	18h00m02.02s	-23 18' 11.7"	5.2378	6.1615	-1.8	18.8	3.5	-61.21	352.53	33.74	90.4	Sgr
5 Dez 2019	18h01m00.47s	-23 18' 17.0"	5.2374	6.1661	-1.8	18.0	3.3	-61.26	353.95	33.82	90.3	Sgr
6 Dez 2019	18h01m59.06s	-23 18' 20.9"	5.2370	6.1704	-1.8	17.2	3.2	-61.31	355.36	33.90	90.2	Sgr
7 Dez 2019	18h02m57.78s	-23 18' 23.4"	5.2367	6.1746	-1.8	16.4	3.0	-61.34	356.78	33.97	90.1	Sgr
8 Dez 2019	18h03m56.63s	-23 18' 24.5"	5.2363	6.1785	-1.8	15.6	2.9	-61.36	358.19	34.04	90.0	Sgr
9 Dez 2019	18h04m55.60s	-23 18' 24.2"	5.2359	6.1822	-1.8	14.8	2.8	-61.37	359.61	34.11	89.9	Sgr
10 Dez 2019	18h05m54.68s	-23 18' 22.5"	5.2356	6.1857	-1.8	14.0	2.6	-61.36	1.03	34.18	89.9	Sgr
11 Dez 2019	18h06m53.88s	-23 18' 19.3"	5.2352	6.1890	-1.8	13.2	2.5	-61.35	2.45	34.24	89.8	Sgr
12 Dez 2019	18h07m53.18s	-23 18' 14.7"	5.2349	6.1921	-1.8	12.4	2.3	-61.32	3.86	34.29	89.7	Sgr
13 Dez 2019	18h08m52.57s	-23 18' 08.7"	5.2345	6.1950	-1.8	11.6	2.2	-61.28	5.27	34.35	89.6	Sgr
14 Dez 2019	18h09m52.06s	-23 18' 01.2"	5.2341	6.1976	-1.8	10.9	2.0	-61.23	6.67	34.40	89.5	Sgr
15 Dez 2019	18h10m51.64s	-23 17' 52.2"	5.2338	6.2001	-1.8	10.1	1.9	-61.17	8.07	34.45	89.4	Sgr
16 Dez 2019	18h11m51.30s	-23 17' 41.8"	5.2334	6.2023	-1.8	9.3	1.7	-61.10	9.47	34.50	89.3	Sgr
17 Dez 2019	18h12m51.04s	-23 17' 30.0"	5.2330	6.2044	-1.8	8.5	1.6	-61.02	10.86	34.54	89.2	Sgr
18 Dez 2019	18h13m50.85s	-23 17' 16.7"	5.2327	6.2062	-1.8	7.7	1.4	-60.92	12.24	34.58	89.1	Sgr
19 Dez 2019	18h14m50.72s	-23 17' 01.9"	5.2323	6.2078	-1.8	6.9	1.3	-60.81	13.61	34.62	89.0	Sgr
20 Dez 2019	18h15m50.66s	-23 16' 45.7"	5.2320	6.2092	-1.8	6.1	1.2	-60.70	14.97	34.65	88.9	Sgr
21 Dez 2019	18h16m50.64s	-23 16' 28.0"	5.2316	6.2103	-1.8	5.3	1.0	-60.57	16.32	34.68	88.8	Sgr
22 Dez 2019	18h17m50.68s	-23 16' 08.8"	5.2312	6.2113	-1.8	4.6	0.9	-60.43	17.67	34.71	88.7	Sgr
23 Dez 2019	18h18m50.75s	-23 15' 48.2"	5.2309	6.2120	-1.8	3.8	0.7	-60.28	19.00	34.73	88.6	Sgr
24 Dez 2019	18h19m50.86s	-23 15' 26.1"	5.2305	6.2126	-1.8	3.0	0.6	-60.12	20.32	34.75	88.5	Sgr
25 Dez 2019	18h20m50.99s	-23 15' 02.6"	5.2301	6.2129	-1.8	2.2	0.4	-59.96	21.63	34.77	88.4	Sgr
26 Dez 2019	18h21m51.14s	-23 14' 37.6"	5.2298	6.2130	-1.8	1.4	0.3	-59.78	22.93	34.78	88.3	Sgr
27 Dez 2019	18h22m51.31s	-23 14' 11.1"	5.2294	6.2128	-1.8	0.6	0.1	-59.59	24.21	34.79	88.2	Sgr
28 Dez 2019	18h23m51.48s	-23 13' 43.2"	5.2290	6.2125	-1.8	0.2	0.0	-59.39	25.48	34.79	88.1	Sgr
29 Dez 2019	18h24m51.65s	-23 13' 13.8"	5.2287	6.2119	-1.8	1.0	0.2	-59.18	26.74	34.79	88.0	Sgr
30 Dez 2019	18h25m51.80s	-23 12' 43.0"	5.2283	6.2111	-1.8	1.8	0.3	-58.96	27.99	34.79	87.9	Sgr
31 Dez 2019	18h26m51.95s	-23 12' 10.8"	5.2280	6.2102	-1.8	2.6	0.5	-58.74	29.22	34.78	87.8	Sgr
1 Jan 2020	18h27m52.07s	-23 11' 37.1"	5.2276	6.2089	-1.8	3.3	0.6	-58.50	30.44	34.77	87.7	Sgr