



## Ephemeriden für Sternfreunde

von Karl-Heinz Bücke

### Jupiter

Januar 2019 (0<sup>h</sup> UT)

Tag	$\alpha$	$\delta$	$\Delta$	$\varphi$	$m_V$	$\varnothing_{\bar{A}}$	$\varnothing_P$	$D_S$	$D_E$	$q$	$l$	$b$	$r$
1	16:40	-21.4	6.19	5.0	-1.3	31.8"	29.7"	-2.9	-2.9	-0.1"	246.5	0.7	5.35
5	16:43	-21.6	6.16	5.5	-1.3	32.0"	29.9"	-2.9	-2.8	-0.1"	246.8	0.7	5.35
9	16:47	-21.7	6.12	6.1	-1.4	32.2"	30.1"	-2.9	-2.8	-0.1"	247.1	0.7	5.35
13	16:50	-21.8	6.08	6.5	-1.4	32.4"	30.2"	-2.9	-2.8	-0.1"	247.4	0.7	5.35
17	16:54	-21.9	6.04	7.0	-1.4	32.6"	30.4"	-2.9	-2.8	-0.1"	247.7	0.7	5.35
21	16:57	-22.0	6.00	7.5	-1.4	32.8"	30.6"	-2.9	-2.8	-0.1"	248.0	0.7	5.34
25	17:00	-22.0	5.95	7.9	-1.4	33.1"	30.9"	-2.9	-2.8	-0.2"	248.4	0.7	5.34
29	17:03	-22.1	5.90	8.3	-1.4	33.4"	31.2"	-2.9	-2.8	-0.2"	248.7	0.7	5.34

Februar 2019 (0<sup>h</sup> UT)

Tag	$\alpha$	$\delta$	$\Delta$	$\varphi$	$m_V$	$\varnothing_{\bar{A}}$	$\varnothing_P$	$D_S$	$D_E$	$q$	$l$	$b$	$r$
1	17:05	-22.2	5.86	8.6	-1.5	33.6"	31.4"	-2.9	-2.8	-0.2"	248.9	0.7	5.34
5	17:08	-22.2	5.81	8.9	-1.5	33.9"	31.6"	-2.9	-2.8	-0.2"	249.2	0.7	5.34
9	17:11	-22.3	5.75	9.3	-1.5	34.3"	32.0"	-2.9	-2.8	-0.2"	249.5	0.7	5.34
13	17:14	-22.4	5.69	9.6	-1.5	34.6"	32.3"	-2.9	-2.8	-0.2"	249.9	0.7	5.34
17	17:16	-22.4	5.63	9.9	-1.5	35.0"	32.7"	-2.9	-2.8	-0.3"	250.2	0.7	5.34
21	17:19	-22.5	5.57	10.1	-1.6	35.4"	33.0"	-2.9	-2.8	-0.3"	250.5	0.7	5.33
25	17:21	-22.5	5.51	10.3	-1.6	35.8"	33.4"	-2.9	-2.8	-0.3"	250.8	0.6	5.33

März 2019 (0<sup>h</sup> UT)

Tag	$\alpha$	$\delta$	$\Delta$	$\varphi$	$m_V$	$\varnothing_{\bar{A}}$	$\varnothing_P$	$D_S$	$D_E$	$q$	$l$	$b$	$r$
1	17:23	-22.5	5.45	10.5	-1.6	36.2"	33.8"	-2.9	-2.8	-0.3"	251.1	0.6	5.33
5	17:25	-22.6	5.38	10.6	-1.6	36.6"	34.2"	-2.8	-2.8	-0.3"	251.4	0.6	5.33
9	17:27	-22.6	5.32	10.7	-1.7	37.0"	34.5"	-2.8	-2.8	-0.3"	251.8	0.6	5.33
13	17:28	-22.6	5.25	10.7	-1.7	37.5"	35.0"	-2.8	-2.8	-0.3"	252.1	0.6	5.33
17	17:30	-22.6	5.19	10.7	-1.7	38.0"	35.5"	-2.8	-2.8	-0.3"	252.4	0.6	5.33
21	17:31	-22.7	5.12	10.7	-1.8	38.4"	35.8"	-2.8	-2.8	-0.3"	252.7	0.6	5.33
25	17:32	-22.7	5.06	10.6	-1.8	38.9"	36.3"	-2.8	-2.8	-0.3"	253.0	0.6	5.32
29	17:33	-22.7	4.99	10.5	-1.8	39.4"	36.8"	-2.8	-2.8	-0.3"	253.3	0.6	5.32

April 2019 (0<sup>h</sup> UT)

Tag	$\alpha$	$\delta$	$\Delta$	$\varphi$	$m_V$	$\varnothing_{\bar{A}}$	$\varnothing_P$	$D_S$	$D_E$	$q$	$l$	$b$	$r$
1	17:33	-22.7	4.95	10.3	-1.8	39.8"	37.1"	-2.8	-2.8	-0.3"	253.6	0.6	5.32
5	17:34	-22.7	4.89	10.1	-1.9	40.3"	37.6"	-2.8	-2.8	-0.3"	253.9	0.6	5.32
9	17:34	-22.7	4.83	9.9	-1.9	40.8"	38.1"	-2.8	-2.8	-0.3"	254.2	0.6	5.32
13	17:34	-22.7	4.77	9.5	-1.9	41.3"	38.5"	-2.8	-2.8	-0.3"	254.5	0.6	5.32
17	17:33	-22.7	4.71	9.2	-1.9	41.8"	39.0"	-2.8	-2.8	-0.3"	254.8	0.6	5.32
21	17:33	-22.7	4.66	8.7	-2.0	42.3"	39.5"	-2.8	-2.8	-0.2"	255.2	0.6	5.32
25	17:32	-22.7	4.61	8.3	-2.0	42.7"	39.9"	-2.7	-2.8	-0.2"	255.5	0.5	5.32
29	17:32	-22.7	4.56	7.8	-2.0	43.2"	40.3"	-2.7	-2.8	-0.2"	255.8	0.5	5.31

Mai 2019 (0<sup>h</sup> UT)

Tag	$\alpha$	$\delta$	$\Delta$	$\varphi$	$m_V$	$\varnothing_{\bar{A}}$	$\varnothing_P$	$D_S$	$D_E$	$q$	$l$	$b$	$r$
1	17:31	-22.7	4.54	7.5	-2.0	43.4"	40.5"	-2.7	-2.8	-0.2"	256.0	0.5	5.31
5	17:30	-22.7	4.49	6.9	-2.0	43.8"	40.9"	-2.7	-2.8	-0.2"	256.3	0.5	5.31
9	17:28	-22.7	4.45	6.3	-2.1	44.2"	41.3"	-2.7	-2.8	-0.1"	256.6	0.5	5.31
13	17:27	-22.7	4.42	5.6	-2.1	44.6"	41.6"	-2.7	-2.8	-0.1"	256.9	0.5	5.31
17	17:25	-22.7	4.38	4.9	-2.1	44.9"	41.9"	-2.7	-2.8	-0.1"	257.2	0.5	5.31
21	17:23	-22.7	4.36	4.1	-2.1	45.2"	42.2"	-2.7	-2.8	-0.1"	257.5	0.5	5.31
25	17:22	-22.6	4.33	3.4	-2.1	45.4"	42.4"	-2.7	-2.8	0.0"	257.9	0.5	5.31
29	17:19	-22.6	4.31	2.6	-2.1	45.6"	42.6"	-2.7	-2.8	0.0"	258.2	0.5	5.30

Juni 2019 (0<sup>h</sup> UT)

Tag	$\alpha$	$\delta$	$\Delta$	$\varphi$	$m_V$	$\varnothing_{\bar{A}}$	$\varnothing_P$	$D_S$	$D_E$	$q$	$l$	$b$	$r$
1	17:18	-22.6	4.30	2.0	-2.1	45.8"	42.7"	-2.7	-2.8	0.0"	258.4	0.5	5.30
5	17:16	-22.6	4.29	1.2	-2.1	45.9"	42.8"	-2.7	-2.8	0.0"	258.7	0.5	5.30
9	17:14	-22.5	4.29	0.3	-2.1	45.9"	42.8"	-2.6	-2.8	0.0"	259.1	0.5	5.30
13	17:11	-22.5	4.28	0.5	-2.1	46.0"	42.9"	-2.6	-2.8	0.0"	259.4	0.5	5.30
17	17:09	-22.5	4.29	1.3	-2.1	45.9"	42.8"	-2.6	-2.8	0.0"	259.7	0.5	5.30
21	17:07	-22.4	4.30	2.1	-2.1	45.8"	42.7"	-2.6	-2.7	0.0"	260.0	0.5	5.30
25	17:05	-22.4	4.31	2.9	-2.1	45.7"	42.7"	-2.6	-2.7	0.0"	260.3	0.4	5.30
29	17:03	-22.4	4.33	3.7	-2.1	45.5"	42.5"	-2.6	-2.7	0.0"	260.7	0.4	5.29

Juli 2019 (0<sup>h</sup> UT)

Tag	$\alpha$	$\delta$	$\Delta$	$\varphi$	$m_V$	$\varnothing_{\bar{A}}$	$\varnothing_P$	$D_S$	$D_E$	$q$	$l$	$b$	$r$
1	17:02	-22.3	4.34	4.1	-2.1	45.4"	42.4"	-2.6	-2.7	0.1"	260.8	0.4	5.29
5	17:00	-22.3	4.36	4.9	-2.1	45.2"	42.2"	-2.6	-2.7	0.1"	261.1	0.4	5.29
9	16:58	-22.3	4.39	5.6	-2.1	44.9"	41.9"	-2.6	-2.7	0.1"	261.5	0.4	5.29
13	16:57	-22.2	4.42	6.3	-2.1	44.6"	41.6"	-2.6	-2.7	0.1"	261.8	0.4	5.29
17	16:55	-22.2	4.46	6.9	-2.1	44.2"	41.3"	-2.6	-2.7	0.2"	262.1	0.4	5.29
21	16:54	-22.2	4.50	7.5	-2.1	43.8"	40.9"	-2.5	-2.7	0.2"	262.4	0.4	5.29
25	16:53	-22.2	4.54	8.1	-2.0	43.4"	40.5"	-2.5	-2.7	0.2"	262.8	0.4	5.28
29	16:52	-22.1	4.58	8.6	-2.0	43.0"	40.1"	-2.5	-2.7	0.2"	263.1	0.4	5.28

August 2019 (0<sup>h</sup> UT)

Tag	$\alpha$	$\delta$	$\Delta$	$\varphi$	$m_V$	$\varnothing_{\bar{A}}$	$\varnothing_P$	$D_S$	$D_E$	$q$	$l$	$b$	$r$
1	16:52	-22.1	4.62	8.9	-2.0	42.6"	39.8"	-2.5	-2.7	0.3"	263.3	0.4	5.28
5	16:52	-22.1	4.67	9.3	-2.0	42.2"	39.4"	-2.5	-2.7	0.3"	263.6	0.4	5.28
9	16:51	-22.1	4.72	9.7	-1.9	41.7"	38.9"	-2.5	-2.6	0.3"	264.0	0.4	5.28
13	16:51	-22.1	4.78	10.1	-1.9	41.2"	38.5"	-2.5	-2.6	0.3"	264.3	0.4	5.28
17	16:51	-22.2	4.83	10.3	-1.9	40.7"	38.0"	-2.5	-2.6	0.3"	264.6	0.4	5.28
21	16:52	-22.2	4.89	10.6	-1.9	40.3"	37.6"	-2.5	-2.6	0.3"	264.9	0.3	5.28
25	16:52	-22.2	4.95	10.8	-1.8	39.8"	37.1"	-2.5	-2.6	0.3"	265.2	0.3	5.27
29	16:53	-22.2	5.01	10.9	-1.8	39.3"	36.7"	-2.4	-2.6	0.4"	265.6	0.3	5.27

September 2019 (0<sup>h</sup> UT)

Tag	$\alpha$	$\delta$	$\Delta$	$\varphi$	$m_V$	$\varnothing_{\bar{A}}$	$\varnothing_P$	$D_S$	$D_E$	$q$	$l$	$b$	$r$
1	16:54	-22.2	5.06	11.0	-1.8	39.0"	36.4"	-2.4	-2.6	0.4"	265.8	0.3	5.27
5	16:55	-22.3	5.12	11.0	-1.8	38.5"	35.9"	-2.4	-2.6	0.4"	266.1	0.3	5.27
9	16:56	-22.3	5.18	11.0	-1.8	38.0"	35.5"	-2.4	-2.6	0.4"	266.5	0.3	5.27
13	16:58	-22.4	5.24	11.0	-1.7	37.6"	35.1"	-2.4	-2.5	0.3"	266.8	0.3	5.27
17	17:00	-22.4	5.30	10.9	-1.7	37.2"	34.7"	-2.4	-2.5	0.3"	267.1	0.3	5.27
21	17:02	-22.5	5.36	10.8	-1.7	36.7"	34.3"	-2.4	-2.5	0.3"	267.4	0.3	5.26
25	17:04	-22.5	5.42	10.6	-1.7	36.3"	33.9"	-2.4	-2.5	0.3"	267.8	0.3	5.26
29	17:06	-22.6	5.48	10.5	-1.6	35.9"	33.5"	-2.4	-2.5	0.3"	268.1	0.3	5.26

Oktober 2019 (0<sup>h</sup> UT)

Tag	$\alpha$	$\delta$	$\Delta$	$\varphi$	$m_V$	$\varnothing_{\bar{A}}$	$\varnothing_P$	$D_S$	$D_e$	$q$	$l$	$b$	$r$
1	17:07	-22.6	5.51	10.3	-1.6	35.8"	33.4"	-2.4	-2.5	0.3"	268.2	0.3	5.26
5	17:09	-22.7	5.56	10.1	-1.6	35.4"	33.0"	-2.3	-2.5	0.3"	268.6	0.3	5.26
9	17:12	-22.7	5.62	9.8	-1.6	35.0"	32.7"	-2.3	-2.4	0.3"	268.9	0.3	5.26
13	17:15	-22.8	5.67	9.5	-1.6	34.7"	32.4"	-2.3	-2.4	0.2"	269.2	0.3	5.26
17	17:18	-22.8	5.73	9.2	-1.5	34.4"	32.1"	-2.3	-2.4	0.2"	269.5	0.2	5.26
21	17:21	-22.9	5.78	8.8	-1.5	34.1"	31.8"	-2.3	-2.4	0.2"	269.9	0.2	5.25
25	17:24	-22.9	5.83	8.4	-1.5	33.8"	31.5"	-2.3	-2.4	0.2"	270.2	0.2	5.25
29	17:27	-23.0	5.87	8.0	-1.5	33.5"	31.3"	-2.3	-2.4	0.2"	270.5	0.2	5.25

November 2019 (0<sup>h</sup> UT)

Tag	$\alpha$	$\delta$	$\Delta$	$\varphi$	$m_V$	$\varnothing_{\bar{A}}$	$\varnothing_P$	$D_S$	$D_e$	$q$	$l$	$b$	$r$
1	17:29	-23.0	5.90	7.7	-1.5	33.4"	31.2"	-2.3	-2.4	0.2"	270.8	0.2	5.25
5	17:33	-23.1	5.95	7.2	-1.5	33.1"	30.9"	-2.2	-2.3	0.1"	271.1	0.2	5.25
9	17:36	-23.1	5.98	6.8	-1.4	32.9"	30.7"	-2.2	-2.3	0.1"	271.4	0.2	5.25
13	17:40	-23.2	6.02	6.3	-1.4	32.7"	30.5"	-2.2	-2.3	0.1"	271.7	0.2	5.25
17	17:43	-23.2	6.05	5.8	-1.4	32.5"	30.3"	-2.2	-2.3	0.1"	272.1	0.2	5.24
21	17:47	-23.2	6.08	5.2	-1.4	32.4"	30.2"	-2.2	-2.3	0.1"	272.4	0.2	5.24
25	17:51	-23.2	6.11	4.7	-1.4	32.2"	30.1"	-2.2	-2.2	0.1"	272.7	0.2	5.24
29	17:55	-23.3	6.14	4.2	-1.4	32.1"	30.0"	-2.2	-2.2	0.0"	273.0	0.2	5.24

Dezember 2019 (0<sup>h</sup> UT)

Tag	$\alpha$	$\delta$	$\Delta$	$\varphi$	$m_V$	$\varnothing_{\bar{A}}$	$\varnothing_P$	$D_S$	$D_e$	$q$	$l$	$b$	$r$
1	17:57	-23.3	6.15	3.9	-1.4	32.0"	29.9"	-2.2	-2.2	0.0"	273.2	0.2	5.24
5	18:00	-23.3	6.17	3.3	-1.4	31.9"	29.8"	-2.2	-2.2	0.0"	273.5	0.2	5.24
9	18:04	-23.3	6.18	2.8	-1.4	31.9"	29.8"	-2.1	-2.2	0.0"	273.9	0.2	5.24
13	18:08	-23.3	6.20	2.2	-1.4	31.8"	29.7"	-2.1	-2.1	0.0"	274.2	0.1	5.24
17	18:12	-23.3	6.20	1.6	-1.4	31.7"	29.6"	-2.1	-2.1	0.0"	274.5	0.1	5.23
21	18:16	-23.3	6.21	1.0	-1.4	31.7"	29.6"	-2.1	-2.1	0.0"	274.9	0.1	5.23
25	18:20	-23.2	6.21	0.4	-1.4	31.7"	29.6"	-2.1	-2.1	0.0"	275.2	0.1	5.23
29	18:24	-23.2	6.21	0.2	-1.4	31.7"	29.6"	-2.1	-2.1	0.0"	275.5	0.1	5.23