



## Ephemeriden für Sternfreunde

von Karl-Heinz Bücke

### Jupiter

Januar 2017 (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	13:19	-6.9	5.54	10.2	-1.5	35.5"	33.1"	-2.5	-2.8	-0.3"	190.7	1.3	5.45
5	13:20	-7.1	5.48	10.3	-1.6	35.9"	33.5"	-2.5	-2.8	-0.3"	191.0	1.3	5.45
9	13:22	-7.2	5.42	10.4	-1.6	36.4"	34.0"	-2.5	-2.9	-0.3"	191.3	1.3	5.45
13	13:23	-7.3	5.35	10.4	-1.6	36.8"	34.3"	-2.5	-2.9	-0.3"	191.6	1.3	5.45
17	13:24	-7.5	5.29	10.4	-1.6	37.3"	34.8"	-2.5	-2.9	-0.3"	191.9	1.3	5.45
21	13:25	-7.5	5.22	10.3	-1.7	37.7"	35.2"	-2.6	-2.9	-0.3"	192.2	1.3	5.45
25	13:25	-7.6	5.16	10.2	-1.7	38.2"	35.7"	-2.6	-3.0	-0.3"	192.5	1.3	5.45
29	13:26	-7.6	5.10	10.0	-1.7	38.6"	36.0"	-2.6	-3.0	-0.3"	192.8	1.3	5.45

Februar 2017 (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	13:26	-7.7	5.05	9.8	-1.7	39.0"	36.4"	-2.6	-3.0	-0.3"	193.0	1.3	5.45
5	13:26	-7.7	4.99	9.6	-1.8	39.5"	36.9"	-2.6	-3.0	-0.3"	193.3	1.3	5.45
9	13:26	-7.7	4.93	9.2	-1.8	39.9"	37.2"	-2.6	-3.0	-0.3"	193.6	1.3	5.45
13	13:26	-7.7	4.87	8.9	-1.8	40.4"	37.7"	-2.6	-3.0	-0.2"	193.9	1.3	5.45
17	13:25	-7.6	4.82	8.5	-1.8	40.9"	38.2"	-2.6	-3.1	-0.2"	194.2	1.3	5.45
21	13:25	-7.6	4.77	8.0	-1.9	41.3"	38.5"	-2.6	-3.1	-0.2"	194.5	1.3	5.45
25	13:24	-7.5	4.72	7.5	-1.9	41.7"	38.9"	-2.6	-3.1	-0.2"	194.8	1.3	5.45

März 2017 (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	13:23	-7.4	4.68	6.9	-1.9	42.1"	39.3"	-2.6	-3.1	-0.2"	195.1	1.3	5.45
5	13:22	-7.3	4.63	6.3	-1.9	42.5"	39.7"	-2.7	-3.1	-0.1"	195.4	1.3	5.45
9	13:21	-7.2	4.60	5.7	-1.9	42.9"	40.0"	-2.7	-3.1	-0.1"	195.7	1.3	5.45
13	13:19	-7.0	4.56	5.0	-2.0	43.2"	40.3"	-2.7	-3.1	-0.1"	196.0	1.3	5.45
17	13:18	-6.9	4.53	4.3	-2.0	43.5"	40.6"	-2.7	-3.1	-0.1"	196.3	1.3	5.45
21	13:16	-6.7	4.51	3.6	-2.0	43.7"	40.8"	-2.7	-3.1	0.0"	196.6	1.3	5.45
25	13:14	-6.5	4.49	2.8	-2.0	43.9"	41.0"	-2.7	-3.1	0.0"	196.9	1.3	5.45
29	13:13	-6.3	4.47	2.0	-2.0	44.0"	41.1"	-2.7	-3.0	0.0"	197.2	1.3	5.45

April 2017 (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	13:11	-6.2	4.46	1.4	-2.0	44.1"	41.2"	-2.7	-3.0	0.0"	197.5	1.3	5.45
5	13:09	-6.0	4.46	0.6	-2.0	44.2"	41.3"	-2.7	-3.0	0.0"	197.8	1.3	5.45
9	13:07	-5.8	4.45	0.2	-2.0	44.2"	41.3"	-2.7	-3.0	0.0"	198.1	1.3	5.45
13	13:05	-5.6	4.46	1.0	-2.0	44.2"	41.3"	-2.7	-3.0	0.0"	198.4	1.3	5.45
17	13:04	-5.4	4.46	1.9	-2.0	44.1"	41.2"	-2.7	-3.0	0.0"	198.7	1.3	5.45
21	13:02	-5.2	4.48	2.6	-2.0	44.0"	41.1"	-2.7	-3.0	0.0"	199.0	1.3	5.45
25	13:00	-5.1	4.49	3.4	-2.0	43.8"	40.9"	-2.8	-2.9	0.0"	199.3	1.3	5.45
29	12:58	-4.9	4.51	4.2	-2.0	43.6"	40.7"	-2.8	-2.9	0.1"	199.6	1.3	5.45

Mai 2017 (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	12:57	-4.8	4.53	4.5	-2.0	43.5"	40.6"	-2.8	-2.9	0.1"	199.7	1.3	5.45
5	12:56	-4.6	4.55	5.3	-2.0	43.2"	40.3"	-2.8	-2.9	0.1"	200.0	1.3	5.45
9	12:55	-4.5	4.59	5.9	-1.9	42.9"	40.0"	-2.8	-2.9	0.1"	200.3	1.3	5.45
13	12:53	-4.4	4.62	6.6	-1.9	42.6"	39.8"	-2.8	-2.8	0.1"	200.6	1.3	5.45
17	12:52	-4.3	4.66	7.2	-1.9	42.2"	39.4"	-2.8	-2.8	0.2"	200.9	1.3	5.45
21	12:51	-4.2	4.71	7.7	-1.9	41.9"	39.1"	-2.8	-2.8	0.2"	201.2	1.3	5.45
25	12:51	-4.1	4.75	8.2	-1.9	41.4"	38.6"	-2.8	-2.8	0.2"	201.6	1.3	5.45
29	12:50	-4.0	4.80	8.7	-1.8	41.0"	38.3"	-2.8	-2.8	0.2"	201.9	1.3	5.45

Juni 2017 (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	12:50	-4.0	4.84	9.0	-1.8	40.7"	38.0"	-2.8	-2.7	0.3"	202.1	1.3	5.45
5	12:49	-4.0	4.89	9.4	-1.8	40.3"	37.6"	-2.8	-2.7	0.3"	202.4	1.3	5.45
9	12:49	-3.9	4.95	9.7	-1.8	39.8"	37.1"	-2.8	-2.7	0.3"	202.7	1.3	5.45
13	12:49	-4.0	5.00	10.0	-1.8	39.4"	36.8"	-2.8	-2.7	0.3"	203.0	1.3	5.45
17	12:49	-4.0	5.06	10.2	-1.7	38.9"	36.3"	-2.9	-2.7	0.3"	203.3	1.3	5.45
21	12:50	-4.0	5.12	10.4	-1.7	38.4"	35.8"	-2.9	-2.7	0.3"	203.6	1.3	5.45
25	12:50	-4.1	5.18	10.6	-1.7	38.0"	35.5"	-2.9	-2.6	0.3"	203.9	1.3	5.45
29	12:51	-4.2	5.24	10.7	-1.6	37.5"	35.0"	-2.9	-2.6	0.3"	204.2	1.3	5.45

Juli 2017 (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	12:52	-4.2	5.28	10.7	-1.6	37.3"	34.8"	-2.9	-2.6	0.3"	204.3	1.3	5.45
5	12:53	-4.3	5.34	10.7	-1.6	36.9"	34.4"	-2.9	-2.6	0.3"	204.7	1.3	5.45
9	12:54	-4.4	5.40	10.7	-1.6	36.5"	34.1"	-2.9	-2.6	0.3"	205.0	1.3	5.45
13	12:55	-4.6	5.46	10.7	-1.6	36.1"	33.7"	-2.9	-2.6	0.3"	205.3	1.3	5.45
17	12:57	-4.7	5.52	10.6	-1.5	35.7"	33.3"	-2.9	-2.6	0.3"	205.6	1.3	5.45
21	12:58	-4.9	5.58	10.5	-1.5	35.3"	32.9"	-2.9	-2.6	0.3"	205.9	1.3	5.45
25	13:00	-5.1	5.64	10.3	-1.5	34.9"	32.6"	-2.9	-2.6	0.3"	206.2	1.3	5.45
29	13:02	-5.3	5.70	10.1	-1.5	34.5"	32.2"	-2.9	-2.6	0.3"	206.5	1.2	5.45

August 2017 (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	13:03	-5.4	5.75	9.9	-1.5	34.3"	32.0"	-2.9	-2.6	0.3"	206.7	1.2	5.45
5	13:05	-5.6	5.80	9.7	-1.4	33.9"	31.6"	-2.9	-2.6	0.2"	207.0	1.2	5.45
9	13:07	-5.9	5.86	9.4	-1.4	33.6"	31.4"	-2.9	-2.6	0.2"	207.3	1.2	5.45
13	13:10	-6.1	5.91	9.1	-1.4	33.3"	31.1"	-2.9	-2.6	0.2"	207.6	1.2	5.45
17	13:12	-6.3	5.96	8.8	-1.4	33.0"	30.8"	-2.9	-2.6	0.2"	207.9	1.2	5.45
21	13:15	-6.6	6.01	8.4	-1.4	32.8"	30.6"	-3.0	-2.6	0.2"	208.2	1.2	5.45
25	13:17	-6.9	6.06	8.0	-1.3	32.5"	30.3"	-3.0	-2.6	0.2"	208.5	1.2	5.45
29	13:20	-7.1	6.10	7.6	-1.3	32.3"	30.1"	-3.0	-2.6	0.1"	208.8	1.2	5.45

September 2017 (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	13:22	-7.3	6.14	7.3	-1.3	32.1"	30.0"	-3.0	-2.6	0.1"	209.0	1.2	5.45
5	13:25	-7.6	6.18	6.8	-1.3	31.9"	29.8"	-3.0	-2.7	0.1"	209.3	1.2	5.45
9	13:27	-7.9	6.22	6.4	-1.3	31.7"	29.6"	-3.0	-2.7	0.1"	209.6	1.2	5.44
13	13:30	-8.2	6.25	5.9	-1.3	31.5"	29.4"	-3.0	-2.7	0.1"	210.0	1.2	5.44
17	13:33	-8.5	6.28	5.4	-1.3	31.3"	29.2"	-3.0	-2.7	0.1"	210.3	1.2	5.44
21	13:36	-8.8	6.31	4.9	-1.2	31.2"	29.1"	-3.0	-2.7	0.1"	210.6	1.2	5.44
25	13:39	-9.1	6.34	4.4	-1.2	31.1"	29.0"	-3.0	-2.7	0.0"	210.9	1.2	5.44
29	13:43	-9.4	6.36	3.9	-1.2	31.0"	28.9"	-3.0	-2.7	0.0"	211.2	1.2	5.44

Oktober 2017 (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	13:44	-9.5	6.37	3.6	-1.2	30.9"	28.8"	-3.0	-2.7	0.0"	211.3	1.2	5.44
5	13:47	-9.8	6.39	3.1	-1.2	30.8"	28.7"	-3.0	-2.8	0.0"	211.6	1.2	5.44
9	13:51	-10.1	6.41	2.5	-1.2	30.7"	28.7"	-3.0	-2.8	0.0"	211.9	1.2	5.44
13	13:54	-10.4	6.42	1.9	-1.2	30.7"	28.7"	-3.0	-2.8	0.0"	212.2	1.2	5.44
17	13:57	-10.7	6.43	1.4	-1.2	30.6"	28.6"	-3.0	-2.8	0.0"	212.5	1.2	5.44
21	14:01	-11.0	6.43	0.8	-1.2	30.6"	28.6"	-3.0	-2.8	0.0"	212.8	1.2	5.44
25	14:04	-11.3	6.43	0.2	-1.2	30.6"	28.6"	-3.0	-2.8	0.0"	213.1	1.2	5.44
29	14:07	-11.6	6.43	0.3	-1.2	30.6"	28.6"	-3.0	-2.9	0.0"	213.4	1.2	5.44

November 2017 (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	14:10	-11.9	6.43	0.7	-1.2	30.6"	28.6"	-3.0	-2.9	0.0"	213.7	1.2	5.44
5	14:13	-12.2	6.42	1.3	-1.2	30.7"	28.7"	-3.0	-2.9	0.0"	214.0	1.2	5.44
9	14:16	-12.4	6.41	1.9	-1.2	30.7"	28.7"	-3.0	-2.9	0.0"	214.3	1.2	5.44
13	14:20	-12.7	6.39	2.4	-1.2	30.8"	28.7"	-3.0	-2.9	0.0"	214.6	1.2	5.44
17	14:23	-13.0	6.38	3.0	-1.2	30.9"	28.8"	-3.0	-2.9	0.0"	214.9	1.2	5.44
21	14:26	-13.3	6.36	3.5	-1.2	31.0"	28.9"	-3.1	-3.0	0.0"	215.2	1.2	5.44
25	14:30	-13.6	6.33	4.1	-1.2	31.1"	29.0"	-3.1	-3.0	0.0"	215.5	1.2	5.44
29	14:33	-13.8	6.30	4.6	-1.3	31.2"	29.1"	-3.1	-3.0	-0.1"	215.8	1.2	5.44

Dezember 2017 (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	14:35	-14.0	6.29	4.9	-1.3	31.3"	29.2"	-3.1	-3.0	-0.1"	215.9	1.2	5.44
5	14:38	-14.2	6.25	5.4	-1.3	31.5"	29.4"	-3.1	-3.0	-0.1"	216.3	1.2	5.43
9	14:41	-14.5	6.22	5.9	-1.3	31.7"	29.6"	-3.1	-3.0	-0.1"	216.6	1.2	5.43
13	14:44	-14.7	6.18	6.4	-1.3	31.9"	29.8"	-3.1	-3.1	-0.1"	216.9	1.2	5.43
17	14:47	-14.9	6.14	6.8	-1.3	32.1"	30.0"	-3.1	-3.1	-0.1"	217.2	1.2	5.43
21	14:50	-15.1	6.09	7.3	-1.3	32.3"	30.1"	-3.1	-3.1	-0.1"	217.5	1.2	5.43
25	14:53	-15.4	6.05	7.7	-1.3	32.6"	30.4"	-3.1	-3.1	-0.1"	217.8	1.2	5.43
29	14:56	-15.6	6.00	8.1	-1.4	32.8"	30.6"	-3.1	-3.1	-0.2"	218.1	1.2	5.43