Ephemeriden für Sternfreunde
von Karl-Heinz Bücke

www.buecke-info.de

Venus 2017

Datum	α	δ	b	Δ (AE)	E	mv	φ	∅	k	q (")	Δα(h:m)	Δδ(°)	l	r
1.01.	22:00	-13.7	-1.4	0.769	47 O	-4.3	82.4	21.68	0.566	9.40	3:14	9.3	49.9	0.723
4.01.	22:12	-12.4	-1.2	0.747	47 O	-4.4	84.0	22.32	0.552	9.99	3:13	10.3	54.7	0.722
7.01.	22:24	-11.0	-1.0	0.725	47 O	-4.4	85.6	23.00	0.538	10.62	3:12	11.4	59.5	0.722
10.01.	22:36	-9.6	-0.8	0.703	47 O	-4.4	87.3	23.73	0.523	11.31	3:10	12.3	64.4	0.721
13.01.	22:47	-8.2	-0.5	0.681	47 O	-4.4	89.1	24.50	0.508	12.05	3:08	13.3	69.2	0.721
16.01.	22:58	-6.8	-0.2	0.659	47 O	-4.5	90.9	25.33	0.492	12.86	3:06	14.2	74.0	0.721
19.01.	23:08	-5.4	0.1	0.636	47 O	-4.5	92.8	26.21	0.476	13.74	3:04	15.0	78.9	0.720
22.01.	23:18	-3.9	0.5	0.614	47 O	-4.5	94.7	27.16	0.459	14.70	3:01	15.8	83.7	0.720
25.01.	23:28	-2.5	0.8	0.592	47 O	-4.5	96.8	28.18	0.441	15.76	2:58	16.5	88.5	0.720
28.01.	23:37	-1.1	1.2	0.570	46 O	-4.5	98.9	29.27	0.422	16.91	2:55	17.1	93.4	0.719
31.01.	23:46	0.3	1.6	0.548	46 O	-4.6	101.2	30.44	0.403	18.17	2:51	17.7	98.2	0.719
3.02.	23:54	1.7	2.1	0.526	45 O	-4.6	103.6	31.69	0.383	19.56	2:48	18.2	103.1	0.719
6.02.	0:02	3.0	2.5	0.505	44 O	-4.6	106.1	33.04	0.362	21.09	2:43	18.6	108.0	0.719
9.02.	0:09	4.3	3.0	0.484	44 O	-4.6	108.7	34.49	0.340	22.78	2:39	19.0	112.8	0.719
12.02.	0:16	5.5	3.5	0.463	43 O	-4.6	111.5	36.05	0.317	24.64	2:33	19.2	117.7	0.719
15.02.	0:22	6.7	4.0	0.442	41 O	-4.6	114.5	37.72	0.292	26.69	2:27	19.4	122.6	0.718
18.02.	0:27	7.8	4.5	0.422	40 O	-4.6	117.7	39.50	0.267	28.94	2:21	19.5	127.4	0.718
21.02.	0:31	8.8	5.0	0.403	38 O	-4.6	121.1	41.39	0.241	31.40	2:13	19.4	132.3	0.718
24.02.	0:34	9.7	5.5	0.384	37 O	-4.6	124.8	43.38	0.215	34.07	2:05	19.2	137.2	0.718
27.02.	0:36	10.5	6.0	0.367	34 O	-4.6	128.7	45.47	0.187	36.96	1:56	18.9	142.1	0.719
2.03.	0:37	11.2	6.6	0.350	32 O	-4.6	133.0	47.62	0.159	40.04	1:45	18.4	146.9	0.719
5.03.	0:37	11.7	7.1	0.335	29 O	-4.5	137.5	49.80	0.131	43.26	1:34	17.7	151.8	0.719
8.03.	0:35	12.0	7.5	0.321	26 O	-4.5	142.3	51.95	0.104	46.53	1:21	16.9	156.7	0.719
11.03.	0:32	12.1	7.9	0.309	23 O	-4.4	147.4	54.00	0.079	49.75	1:07	15.8	161.6	0.719
14.03.	0:28	12.0	8.2	0.299	19 O	-4.3	152.7	55.85	0.056	52.74	0:52	14.5	166.4	0.719
17.03.	0:22	11.6	8.4	0.291	16 O	-4.3	158.0	57.41	0.036	55.33	0:35	13.0	171.3	0.720
20.03.	0:16	11.1	8.5	0.285	12 O	-4.2	163.1	58.56	0.022	57.29	0:18	11.3	176.2	0.720
23.03.	0:10	10.3	8.4	0.282	9 O	-4.1	167.1	59.22	0.013	58.47	0:01	9.3	181.0	0.720
26.03.	0:03	9.4	8.2	0.281	8 W	-4.0	168.5	59.33	0.010	58.73	-0:17	7.2	185.9	0.720
29.03.	23:57	8.4	7.9	0.283	10 W	-4.1	166.4	58.88	0.014	58.05	-0:34	5.0	190.7	0.721
1.04.	23:51	7.3	7.5	0.288	13 W	-4.2	162.1	57.90	0.024	56.50	-0:50	2.7	195.6	0.721
4.04.	23:47	6.2	6.9	0.295	16 W	-4.2	157.0	56.47	0.040	54.22	-1:06	0.5	200.4	0.722
7.04.	23:43	5.1	6.3	0.305	20 W	-4.3	151.7	54.69	0.060	51.42	-1:20	-1.7	205.2	0.722
10.04.	23:41	4.2	5.6	0.317	23 W	-4.4	146.5	52.66	0.083	48.28	-1:33	-3.7	210.1	0.722
13.04.	23:41	3.4	5.0	0.330	27 W	-4.4	141.5	50.48	0.109	44.99	-1:45	-5.7	214.9	0.723
16.04.	23:41	2.7	4.3	0.346	30 W	-4.5	136.8	48.23	0.136	41.69	-1:55	-7.4	219.7	0.723
19.04.	23:43	2.2	3.6	0.363	32 W	-4.5	132.4	46.00	0.163	38.50	-2:05	-9.0	224.5	0.724
22.04.	23:46	1.8	3.0	0.381	34 W	-4.5	128.3	43.81	0.190	35.47	-2:13	-10.3	229.3	0.724
25.04.	23:51	1.6	2.4	0.400	36 W	-4.5	124.4	41.71	0.217	32.64	-2:20	-11.6	234.1	0.724
28.04.	23:56	1.6	1.8	0.420	38 W	-4.5	120.8	39.72	0.244	30.04	-2:26	-12.6	238.9	0.725

Venus 2017

Datum	α	δ	b	Δ (AE)	E	mv	φ	∅	k	q (")	Δα(h:m)	Δδ(°)	l	r
1.05.	0:02	1.6	1.3	0.441	40 W	-4.5	117.5	37.84	0.269	27.65	-2:31	-13.4	243.7	0.725
4.05.	0:08	1.8	0.8	0.462	41 W	-4.5	114.3	36.08	0.294	25.48	-2:36	-14.1	248.4	0.726
7.05.	0:16	2.1	0.3	0.484	42 W	-4.5	111.4	34.43	0.318	23.50	-2:40	-14.7	253.2	0.726
10.05.	0:24	2.5	-0.1	0.507	43 W	-4.5	108.6	32.90	0.340	21.70	-2:44	-15.1	258.0	0.726
13.05.	0:32	3.0	-0.5	0.530	44 W	-4.5	106.0	31.48	0.362	20.08	-2:47	-15.4	262.7	0.727
16.05.	0:41	3.6	-0.8	0.553	44 W	-4.4	103.5	30.16	0.383	18.61	-2:50	-15.5	267.5	0.727
19.05.	0:51	4.2	-1.1	0.577	45 W	-4.4	101.2	28.93	0.403	17.26	-2:53	-15.5	272.2	0.727
22.05.	1:00	4.9	-1.4	0.600	45 W	-4.4	98.9	27.78	0.423	16.04	-2:55	-15.4	277.0	0.727
25.05.	1:10	5.7	-1.7	0.624	46 W	-4.4	96.8	26.72	0.441	14.93	-2:57	-15.2	281.7	0.728
28.05.	1:21	6.5	-1.9	0.648	46 W	-4.4	94.7	25.73	0.459	13.92	-2:59	-14.9	286.5	0.728
31.05.	1:31	7.4	-2.1	0.672	46 W	-4.3	92.7	24.81	0.476	12.99	-3:01	-14.5	291.2	0.728
3.06.	1:42	8.2	-2.2	0.696	46 W	-4.3	90.8	23.95	0.493	12.14	-3:02	-14.1	295.9	0.728
6.06.	1:53	9.1	-2.4	0.721	46 W	-4.3	88.9	23.15	0.509	11.36	-3:03	-13.5	300.7	0.728
9.06.	2:05	10.1	-2.5	0.745	46 W	-4.3	87.1	22.40	0.525	10.64	-3:04	-12.9	305.4	0.728
12.06.	2:16	11.0	-2.6	0.769	46 W	-4.2	85.4	21.70	0.540	9.98	-3:05	-12.2	310.2	0.728
15.06.	2:28	11.9	-2.6	0.793	45 W	-4.2	83.7	21.04	0.555	9.36	-3:06	-11.4	314.9	0.728
18.06.	2:40	12.8	-2.7	0.817	45 W	-4.2	82.0	20.42	0.569	8.79	-3:06	-10.6	319.7	0.728
21.06.	2:53	13.7	-2.7	0.840	45 W	-4.2	80.4	19.85	0.583	8.27	-3:06	-9.7	324.4	0.728
24.06.	3:05	14.6	-2.7	0.864	45 W	-4.2	78.8	19.30	0.597	7.78	-3:06	-8.8	329.2	0.728
27.06.	3:18	15.5	-2.7	0.888	44 W	-4.2	77.3	18.79	0.610	7.33	-3:06	-7.8	333.9	0.728
30.06.	3:31	16.3	-2.7	0.911	44 W	-4.1	75.8	18.31	0.623	6.90	-3:05	-6.9	338.7	0.728
3.07.	3:44	17.1	-2.6	0.934	44 W	-4.1	74.3	17.85	0.636	6.51	-3:04	-5.9	343.4	0.728
6.07.	3:58	17.9	-2.6	0.957	43 W	-4.1	72.8	17.42	0.648	6.13	-3:03	-4.8	348.2	0.727
9.07.	4:11	18.6	-2.5	0.980	43 W	-4.1	71.4	17.02	0.660	5.79	-3:02	-3.8	353.0	0.727
12.07.	4:25	19.2	-2.4	1.003	42 W	-4.1	69.9	16.63	0.672	5.46	-3:00	-2.8	357.7	0.727
15.07.	4:39	19.8	-2.3	1.025	42 W	-4.1	68.5	16.27	0.683	5.16	-2:59	-1.7	2.5	0.726
18.07.	4:53	20.3	-2.2	1.047	41 W	-4.1	67.1	15.93	0.694	4.87	-2:57	-0.7	7.3	0.726
21.07.	5:08	20.8	-2.1	1.069	41 W	-4.0	65.7	15.60	0.705	4.60	-2:54	0.3	12.0	0.726
24.07.	5:22	21.2	-2.0	1.091	40 W	-4.0	64.4	15.29	0.716	4.34	-2:52	1.3	16.8	0.725
27.07.	5:37	21.5	-1.8	1.112	40 W	-4.0	63.0	15.00	0.727	4.10	-2:49	2.3	21.6	0.725
30.07.	5:51	21.7	-1.7	1.133	39 W	-4.0	61.7	14.72	0.737	3.87	-2:46	3.2	26.4	0.725
2.08.	6:06	21.9	-1.5	1.154	38 W	-4.0	60.4	14.45	0.747	3.65	-2:43	4.1	31.2	0.724
5.08.	6:21	22.0	-1.4	1.174	38 W	-4.0	59.1	14.20	0.757	3.45	-2:39	5.0	36.0	0.724
8.08.	6:36	22.0	-1.2	1.195	37 W	-4.0	57.8	13.96	0.767	3.26	-2:36	5.8	40.8	0.723
11.08.	6:52	21.8	-1.0	1.214	36 W	-4.0	56.5	13.73	0.776	3.07	-2:32	6.6	45.6	0.723
14.08.	7:07	21.6	-0.9	1.234	36 W	-4.0	55.2	13.52	0.786	2.90	-2:28	7.3	50.4	0.723
17.08.	7:22	21.4	-0.7	1.253	35 W	-4.0	53.9	13.31	0.795	2.73	-2:24	7.9	55.2	0.722
20.08.	7:37	21.0	-0.6	1.272	35 W	-4.0	52.6	13.11	0.804	2.58	-2:20	8.5	60.0	0.722
23.08.	7:52	20.5	-0.4	1.290	34 W	-4.0	51.4	12.93	0.812	2.43	-2:16	9.1	64.9	0.721
26.08.	8:07	20.0	-0.2	1.308	33 W	-4.0	50.1	12.75	0.821	2.29	-2:12	9.6	69.7	0.721
29.08.	8:22	19.3	-0.1	1.326	32 W	-4.0	48.8	12.58	0.829	2.15	-2:08	10.0	74.5	0.721

Venus 2017

Datum	α	δ	b	Δ (AE)	E	mv	φ	∅	k	q (")	Δα(h:m)	Δδ(°)	l	r
1.09.	8:37	18.6	0.1	1.343	32 W	-4.0	47.6	12.42	0.837	2.02	-2:04	10.3	79.4	0.720
4.09.	8:52	17.8	0.2	1.360	31 W	-4.0	46.4	12.26	0.845	1.90	-2:00	10.6	84.2	0.720
7.09.	9:07	16.9	0.4	1.377	30 W	-4.0	45.1	12.11	0.853	1.78	-1:56	10.9	89.0	0.720
10.09.	9:21	16.0	0.5	1.393	30 W	-3.9	43.9	11.97	0.860	1.67	-1:52	11.0	93.9	0.719
13.09.	9:36	15.0	0.6	1.409	29 W	-3.9	42.7	11.84	0.868	1.57	-1:49	11.2	98.7	0.719
16.09.	9:50	13.9	0.8	1.424	28 W	-3.9	41.5	11.71	0.875	1.47	-1:45	11.2	103.6	0.719
19.09.	10:04	12.7	0.9	1.439	28 W	-3.9	40.3	11.59	0.882	1.37	-1:42	11.3	108.5	0.719
22.09.	10:18	11.6	1.0	1.454	27 W	-3.9	39.1	11.47	0.888	1.28	-1:38	11.2	113.3	0.719
25.09.	10:32	10.3	1.1	1.468	26 W	-3.9	37.9	11.36	0.895	1.20	-1:35	11.2	118.2	0.719
28.09.	10:46	9.0	1.2	1.482	25 W	-3.9	36.7	11.26	0.901	1.11	-1:32	11.0	123.1	0.718
1.10.	11:00	7.7	1.3	1.495	25 W	-3.9	35.5	11.16	0.907	1.04	-1:29	10.9	127.9	0.718
4.10.	11:14	6.3	1.3	1.508	24 W	-3.9	34.3	11.06	0.913	0.96	-1:26	10.7	132.8	0.718
7.10.	11:28	4.9	1.4	1.521	23 W	-3.9	33.1	10.97	0.919	0.89	-1:23	10.4	137.7	0.718
10.10.	11:42	3.5	1.5	1.533	22 W	-3.9	32.0	10.88	0.924	0.83	-1:20	10.1	142.6	0.719
13.10.	11:55	2.1	1.5	1.544	22 W	-3.9	30.8	10.80	0.929	0.76	-1:17	9.8	147.4	0.719
16.10.	12:09	0.6	1.5	1.556	21 W	-3.9	29.7	10.72	0.934	0.70	-1:15	9.5	152.3	0.719
19.10.	12:23	-0.9	1.5	1.567	20 W	-3.9	28.5	10.65	0.939	0.65	-1:12	9.1	157.2	0.719
22.10.	12:37	-2.3	1.5	1.577	19 W	-3.9	27.4	10.58	0.944	0.59	-1:10	8.7	162.1	0.719
25.10.	12:50	-3.8	1.5	1.587	19 W	-3.9	26.3	10.51	0.948	0.54	-1:08	8.3	166.9	0.719
28.10.	13:04	-5.2	1.5	1.597	18 W	-3.9	25.1	10.45	0.953	0.50	-1:05	7.9	171.8	0.720
31.10.	13:18	-6.7	1.5	1.606	17 W	-3.9	24.0	10.39	0.957	0.45	-1:03	7.4	176.7	0.720
3.11.	13:32	-8.1	1.5	1.615	16 W	-3.9	22.9	10.33	0.961	0.41	-1:01	7.0	181.5	0.720
6.11.	13:46	-9.5	1.4	1.623	16 W	-3.9	21.8	10.28	0.964	0.37	-0:59	6.5	186.4	0.720
9.11.	14:00	-10.9	1.4	1.631	15 W	-3.9	20.7	10.23	0.968	0.33	-0:56	6.0	191.2	0.721
12.11.	14:15	-12.2	1.3	1.639	14 W	-3.9	19.7	10.18	0.971	0.30	-0:54	5.5	196.1	0.721
15.11.	14:29	-13.5	1.2	1.646	13 W	-3.9	18.6	10.13	0.974	0.26	-0:52	5.0	200.9	0.722
18.11.	14:44	-14.7	1.2	1.653	13 W	-3.9	17.5	10.09	0.977	0.23	-0:50	4.5	205.7	0.722
21.11.	14:59	-15.9	1.1	1.659	12 W	-3.9	16.5	10.05	0.980	0.21	-0:47	4.0	210.6	0.722
24.11.	15:14	-17.0	1.0	1.665	11 W	-3.9	15.4	10.02	0.982	0.18	-0:45	3.5	215.4	0.723
27.11.	15:29	-18.0	0.9	1.671	10 W	-3.9	14.4	9.98	0.984	0.16	-0:42	3.1	220.2	0.723
30.11.	15:44	-19.0	0.8	1.676	10 W	-3.9	13.3	9.95	0.987	0.13	-0:40	2.6	225.0	0.724
3.12.	16:00	-19.9	0.7	1.681	9 W	-3.9	12.3	9.92	0.989	0.11	-0:37	2.2	229.8	0.724
6.12.	16:16	-20.7	0.6	1.686	8 W	-3.9	11.3	9.90	0.990	0.10	-0:35	1.8	234.6	0.724
9.12.	16:31	-21.5	0.4	1.690	8 W	-3.9	10.2	9.87	0.992	0.08	-0:32	1.4	239.4	0.725
12.12.	16:48	-22.1	0.3	1.693	7 W	-3.9	9.2	9.85	0.994	0.06	-0:29	1.0	244.1	0.725
15.12.	17:04	-22.6	0.2	1.697	6 W	-3.9	8.2	9.83	0.995	0.05	-0:26	0.7	248.9	0.726
18.12.	17:20	-23.0	0.1	1.700	5 W	-3.9	7.2	9.81	0.996	0.04	-0:23	0.3	253.7	0.726
21.12.	17:36	-23.4	0.0	1.703	5 W	-3.9	6.3	9.80	0.997	0.03	-0:20	0.1	258.4	0.726
24.12.	17:53	-23.6	-0.2	1.705	4 W	-3.9	5.3	9.78	0.998	0.02	-0:17	-0.2	263.2	0.727
27.12.	18:09	-23.7	-0.3	1.707	3 W	-3.9	4.3	9.77	0.999	0.01	-0:14	-0.4	267.9	0.727
30.12.	18:26	-23.7	-0.4	1.708	2 W	-3.9	3.4	9.76	0.999	0.01	-0:11	-0.5	272.7	0.727

Die Ephemeriden gelten für 0 Uhr Weltzeit.

Geozentrische Koordinaten:
α und δ: Rektaszension und Deklination zum Äquinoktium des Datums. b: ekliptikale Breite; Δ: Abstand von der Erde.
E: Elongation (Winkel zwischen Planet und Sonnenmitte); mv: visuelle Helligkeit; φ: Phasenwinkel

Physische Ephemeriden (für Beobachtungen am Teleskop):
∅: scheinbarer Durchmesser;
k: beleuchteter Teil; q: Phasendefekt (Beleuchtungsdefekt)

Koordinaten für Tagesbeobachtungen:
Δα und Δδ: Rektaszensions- und Deklinationsdifferenzen (Venus minus Sonne)

Heliozentrische Koordinaten:
l: Länge zum Äquinoktium des Datums; r: Abstand von der Sonne.

14.09.2015