Venus 2020

Datum	α	δ	b	Δ (AE)	E	mv	φ	∅	k	q (")	Δα(h:m)	Δδ(°)	l	r
1.01.	21:09	-18.3	-1.8	1.278	34 O	-4.0	50.0	13.05	0.822	2.33	2:26	4.8	4.4	0.726
4.01.	21:24	-17.1	-1.8	1.261	35 O	-4.0	51.1	13.23	0.814	2.46	2:28	5.7	9.2	0.726
7.01.	21:38	-15.9	-1.8	1.244	36 O	-4.0	52.2	13.41	0.807	2.59	2:29	6.5	14.0	0.726
10.01.	21:53	-14.7	-1.7	1.226	36 O	-4.0	53.3	13.60	0.799	2.74	2:30	7.4	18.8	0.725
13.01.	22:07	-13.3	-1.6	1.208	37 O	-4.0	54.5	13.80	0.791	2.89	2:31	8.3	23.6	0.725
16.01.	22:20	-12.0	-1.5	1.190	37 O	-4.0	55.6	14.01	0.782	3.05	2:32	9.1	28.3	0.724
19.01.	22:34	-10.5	-1.5	1.172	38 O	-4.1	56.8	14.23	0.774	3.22	2:33	9.9	33.1	0.724
22.01.	22:48	-9.1	-1.3	1.153	39 O	-4.1	58.0	14.46	0.765	3.39	2:33	10.8	37.9	0.724
25.01.	23:01	-7.6	-1.2	1.135	39 O	-4.1	59.2	14.70	0.756	3.58	2:34	11.6	42.7	0.723
28.01.	23:14	-6.1	-1.1	1.115	40 O	-4.1	60.4	14.95	0.747	3.78	2:35	12.3	47.5	0.723
31.01.	23:27	-4.5	-0.9	1.096	40 O	-4.1	61.6	15.22	0.738	3.99	2:35	13.1	52.4	0.722
3.02.	23:40	-3.0	-0.8	1.076	41 O	-4.1	62.9	15.50	0.728	4.22	2:36	13.8	57.2	0.722
6.02.	23:53	-1.4	-0.6	1.057	41 O	-4.1	64.1	15.79	0.718	4.45	2:37	14.4	62.0	0.722
9.02.	0:05	0.2	-0.4	1.036	42 O	-4.1	65.4	16.09	0.708	4.70	2:37	15.1	66.8	0.721
12.02.	0:18	1.7	-0.2	1.016	42 O	-4.1	66.8	16.42	0.697	4.97	2:38	15.7	71.6	0.721
15.02.	0:30	3.3	0.0	0.995	43 O	-4.2	68.1	16.76	0.686	5.26	2:39	16.2	76.5	0.721
18.02.	0:43	4.9	0.2	0.975	43 O	-4.2	69.5	17.12	0.675	5.56	2:40	16.8	81.3	0.720
21.02.	0:55	6.4	0.4	0.953	43 O	-4.2	70.9	17.49	0.664	5.88	2:40	17.2	86.2	0.720
24.02.	1:07	7.9	0.6	0.932	44 O	-4.2	72.3	17.89	0.652	6.23	2:41	17.6	91.0	0.720
27.02.	1:20	9.4	0.9	0.911	44 O	-4.2	73.8	18.32	0.640	6.60	2:42	18.0	95.9	0.719
1.03.	1:32	10.9	1.1	0.889	45 O	-4.2	75.3	18.77	0.627	7.00	2:43	18.4	100.7	0.719
4.03.	1:44	12.3	1.4	0.867	45 O	-4.2	76.8	19.24	0.614	7.42	2:44	18.6	105.6	0.719
7.03.	1:57	13.7	1.6	0.845	45 O	-4.3	78.3	19.75	0.601	7.88	2:45	18.9	110.4	0.719
10.03.	2:09	15.0	1.8	0.822	45 O	-4.3	80.0	20.29	0.587	8.38	2:47	19.0	115.3	0.719
13.03.	2:21	16.3	2.1	0.800	46 O	-4.3	81.6	20.86	0.573	8.91	2:48	19.1	120.2	0.719
16.03.	2:33	17.6	2.3	0.777	46 O	-4.3	83.3	21.47	0.558	9.48	2:49	19.2	125.0	0.718
19.03.	2:45	18.7	2.6	0.754	46 O	-4.3	85.0	22.12	0.543	10.10	2:50	19.2	129.9	0.718
22.03.	2:58	19.9	2.8	0.731	46 O	-4.3	86.8	22.81	0.528	10.78	2:51	19.1	134.8	0.718
25.03.	3:10	20.9	3.1	0.708	46 O	-4.4	88.7	23.56	0.511	11.51	2:52	19.0	139.7	0.718
28.03.	3:21	21.9	3.3	0.685	46 O	-4.4	90.6	24.35	0.494	12.31	2:53	18.8	144.5	0.719
31.03.	3:33	22.8	3.5	0.662	46 O	-4.4	92.6	25.21	0.477	13.18	2:54	18.6	149.4	0.719
3.04.	3:45	23.7	3.7	0.638	46 O	-4.4	94.7	26.12	0.459	14.13	2:55	18.2	154.3	0.719
6.04.	3:56	24.4	3.9	0.615	46 O	-4.4	96.9	27.11	0.440	15.18	2:55	17.9	159.2	0.719
9.04.	4:07	25.1	4.1	0.592	45 O	-4.4	99.1	28.17	0.421	16.32	2:55	17.4	164.0	0.719
12.04.	4:17	25.7	4.3	0.569	45 O	-4.5	101.5	29.31	0.400	17.58	2:54	16.9	168.9	0.719
15.04.	4:27	26.3	4.4	0.546	44 O	-4.5	104.0	30.54	0.379	18.97	2:53	16.4	173.8	0.720
18.04.	4:37	26.7	4.6	0.523	43 O	-4.5	106.7	31.87	0.357	20.50	2:52	15.8	178.6	0.720
21.04.	4:46	27.1	4.7	0.501	43 O	-4.5	109.4	33.30	0.334	22.19	2:50	15.1	183.5	0.720
24.04.	4:54	27.4	4.8	0.479	41 O	-4.5	112.4	34.84	0.309	24.06	2:47	14.4	188.3	0.721
27.04.	5:02	27.6	4.8	0.457	40 O	-4.5	115.6	36.48	0.284	26.11	2:43	13.7	193.2	0.721
30.04.	5:08	27.7	4.8	0.436	39 O	-4.5	118.9	38.25	0.258	28.37	2:38	12.9	198.0	0.721

Venus 2020

Datum	α	δ	b	Δ (AE)	E	mv	φ	∅	k	q (")	Δα(h:m)	Δδ(°)	l	r
3.05.	5:14	27.8	4.8	0.416	37 O	-4.5	122.5	40.13	0.231	30.85	2:32	12.1	202.9	0.722
6.05.	5:18	27.8	4.7	0.396	35 O	-4.5	126.4	42.12	0.203	33.56	2:25	11.2	207.7	0.722
9.05.	5:21	27.7	4.5	0.377	33 O	-4.5	130.6	44.20	0.175	36.48	2:16	10.3	212.5	0.722
12.05.	5:23	27.5	4.3	0.360	30 O	-4.4	135.1	46.35	0.146	39.58	2:06	9.3	217.3	0.723
15.05.	5:23	27.2	4.1	0.344	27 O	-4.4	139.9	48.52	0.117	42.82	1:54	8.3	222.1	0.723
18.05.	5:21	26.9	3.7	0.329	24 O	-4.3	145.1	50.67	0.090	46.12	1:40	7.3	226.9	0.724
21.05.	5:18	26.4	3.3	0.317	20 O	-4.3	150.7	52.70	0.064	49.33	1:25	6.2	231.7	0.724
24.05.	5:13	25.8	2.8	0.306	16 O	-4.2	156.6	54.52	0.041	52.28	1:09	5.0	236.5	0.725
27.05.	5:07	25.1	2.2	0.298	12 O	-4.1	162.9	56.03	0.022	54.79	0:50	3.8	241.3	0.725
30.05.	5:00	24.3	1.6	0.292	8 O	-3.9	169.3	57.12	0.009	56.63	0:31	2.5	246.1	0.725
2.06.	4:53	23.4	0.9	0.289	3 O	-3.8	176.0	57.71	0.001	57.64	0:11	1.2	250.8	0.726
5.06.	4:45	22.5	0.2	0.289	2 W	-3.7	177.2	57.75	0.001	57.71	-0:09	-0.1	255.6	0.726
8.06.	4:37	21.6	-0.5	0.291	7 W	-3.9	170.6	57.23	0.007	56.84	-0:29	-1.3	260.4	0.726
11.06.	4:31	20.7	-1.2	0.297	11 W	-4.0	164.1	56.20	0.019	55.12	-0:48	-2.4	265.1	0.727
14.06.	4:25	19.8	-1.8	0.305	16 W	-4.1	157.8	54.74	0.037	52.71	-1:06	-3.5	269.9	0.727
17.06.	4:21	19.1	-2.4	0.315	20 W	-4.2	151.9	52.95	0.059	49.82	-1:23	-4.3	274.6	0.727
20.06.	4:18	18.4	-2.9	0.327	23 W	-4.3	146.3	50.94	0.084	46.65	-1:38	-5.0	279.4	0.727
23.06.	4:16	17.9	-3.3	0.342	27 W	-4.4	141.0	48.80	0.111	43.37	-1:52	-5.5	284.1	0.728
26.06.	4:16	17.6	-3.7	0.358	30 W	-4.4	136.2	46.63	0.139	40.13	-2:05	-5.8	288.9	0.728
29.06.	4:17	17.3	-3.9	0.375	32 W	-4.4	131.6	44.47	0.168	37.01	-2:16	-5.9	293.6	0.728
2.07.	4:20	17.2	-4.2	0.394	35 W	-4.5	127.5	42.38	0.196	34.08	-2:26	-5.8	298.3	0.728
5.07.	4:23	17.2	-4.3	0.413	37 W	-4.5	123.6	40.38	0.223	31.36	-2:35	-5.5	303.1	0.728
8.07.	4:28	17.3	-4.4	0.434	38 W	-4.5	120.0	38.48	0.250	28.85	-2:42	-5.2	307.8	0.728
11.07.	4:34	17.4	-4.5	0.455	40 W	-4.5	116.6	36.69	0.276	26.56	-2:49	-4.6	312.6	0.728
14.07.	4:41	17.6	-4.5	0.476	41 W	-4.5	113.5	35.02	0.301	24.48	-2:54	-4.0	317.3	0.728
17.07.	4:48	17.9	-4.5	0.498	42 W	-4.5	110.5	33.47	0.325	22.60	-2:59	-3.3	322.1	0.728
20.07.	4:56	18.1	-4.5	0.521	43 W	-4.4	107.7	32.02	0.348	20.89	-3:03	-2.5	326.8	0.728
23.07.	5:05	18.4	-4.4	0.544	44 W	-4.4	105.1	30.68	0.370	19.34	-3:06	-1.6	331.6	0.728
26.07.	5:14	18.7	-4.3	0.567	44 W	-4.4	102.6	29.43	0.391	17.94	-3:08	-0.6	336.3	0.728
29.07.	5:24	19.0	-4.2	0.590	45 W	-4.4	100.3	28.27	0.411	16.66	-3:10	0.3	341.1	0.728
1.08.	5:35	19.3	-4.0	0.613	45 W	-4.4	98.0	27.19	0.430	15.50	-3:11	1.3	345.8	0.727
4.08.	5:46	19.5	-3.9	0.637	45 W	-4.4	95.9	26.19	0.449	14.44	-3:12	2.4	350.6	0.727
7.08.	5:57	19.7	-3.7	0.660	46 W	-4.3	93.8	25.26	0.467	13.47	-3:12	3.4	355.4	0.727
10.08.	6:09	19.9	-3.5	0.684	46 W	-4.3	91.8	24.39	0.484	12.59	-3:12	4.4	0.1	0.727
13.08.	6:21	20.0	-3.3	0.707	46 W	-4.3	89.9	23.58	0.501	11.77	-3:11	5.5	4.9	0.726
16.08.	6:33	20.1	-3.1	0.731	46 W	-4.3	88.1	22.82	0.517	11.02	-3:10	6.5	9.7	0.726
19.08.	6:46	20.1	-2.9	0.754	46 W	-4.3	86.3	22.11	0.533	10.34	-3:09	7.4	14.5	0.726
22.08.	6:59	20.1	-2.7	0.778	46 W	-4.3	84.5	21.45	0.548	9.70	-3:07	8.4	19.3	0.725
25.08.	7:12	19.9	-2.4	0.801	45 W	-4.2	82.8	20.83	0.562	9.11	-3:05	9.3	24.0	0.725
28.08.	7:25	19.7	-2.2	0.824	45 W	-4.2	81.2	20.24	0.577	8.57	-3:02	10.1	28.8	0.724
31.08.	7:38	19.5	-2.0	0.847	45 W	-4.2	79.5	19.69	0.591	8.06	-2:60	10.9	33.6	0.724

Venus 2020

Datum	α	δ	b	Δ (AE)	E	mv	φ	∅	k	q (")	Δα(h:m)	Δδ(°)	l	r
3.09.	7:52	19.1	-1.8	0.870	45 W	-4.2	78.0	19.18	0.604	7.59	-2:57	11.7	38.4	0.724
6.09.	8:06	18.7	-1.5	0.892	44 W	-4.2	76.4	18.69	0.617	7.15	-2:55	12.4	43.2	0.723
9.09.	8:19	18.2	-1.3	0.915	44 W	-4.2	74.9	18.23	0.630	6.74	-2:52	13.0	48.0	0.723
12.09.	8:33	17.7	-1.1	0.937	43 W	-4.2	73.4	17.80	0.643	6.36	-2:49	13.6	52.8	0.722
15.09.	8:47	17.0	-0.8	0.959	43 W	-4.1	71.9	17.39	0.655	6.00	-2:46	14.1	57.7	0.722
18.09.	9:00	16.3	-0.6	0.981	43 W	-4.1	70.5	17.00	0.667	5.66	-2:43	14.6	62.5	0.722
21.09.	9:14	15.5	-0.4	1.003	42 W	-4.1	69.0	16.64	0.679	5.34	-2:40	14.9	67.3	0.721
24.09.	9:28	14.7	-0.2	1.024	42 W	-4.1	67.6	16.29	0.690	5.05	-2:37	15.3	72.1	0.721
27.09.	9:42	13.8	0.0	1.045	41 W	-4.1	66.2	15.96	0.701	4.77	-2:34	15.5	77.0	0.720
30.09.	9:55	12.8	0.2	1.066	41 W	-4.1	64.9	15.65	0.712	4.50	-2:31	15.7	81.8	0.720
3.10.	10:09	11.8	0.4	1.087	40 W	-4.1	63.5	15.35	0.723	4.25	-2:28	15.8	86.7	0.720
6.10.	10:23	10.7	0.6	1.107	40 W	-4.1	62.2	15.07	0.733	4.02	-2:25	15.9	91.5	0.720
9.10.	10:36	9.5	0.7	1.127	39 W	-4.1	60.8	14.80	0.744	3.80	-2:23	15.9	96.4	0.719
12.10.	10:50	8.3	0.9	1.147	38 W	-4.1	59.5	14.54	0.754	3.58	-2:20	15.8	101.2	0.719
15.10.	11:03	7.1	1.0	1.166	38 W	-4.0	58.2	14.30	0.763	3.39	-2:18	15.7	106.1	0.719
18.10.	11:17	5.8	1.2	1.186	37 W	-4.0	56.9	14.07	0.773	3.20	-2:16	15.6	110.9	0.719
21.10.	11:30	4.5	1.3	1.205	37 W	-4.0	55.7	13.85	0.782	3.02	-2:14	15.3	115.8	0.719
24.10.	11:44	3.2	1.4	1.223	36 W	-4.0	54.4	13.64	0.791	2.85	-2:11	15.1	120.7	0.719
27.10.	11:57	1.9	1.5	1.241	35 W	-4.0	53.2	13.44	0.800	2.69	-2:10	14.7	125.5	0.718
30.10.	12:11	0.5	1.6	1.259	35 W	-4.0	51.9	13.24	0.808	2.54	-2:08	14.3	130.4	0.718
2.11.	12:24	-0.9	1.6	1.277	34 W	-4.0	50.7	13.06	0.817	2.39	-2:06	13.9	135.3	0.718
5.11.	12:38	-2.3	1.7	1.294	33 W	-4.0	49.5	12.89	0.825	2.26	-2:04	13.5	140.2	0.718
8.11.	12:51	-3.7	1.7	1.312	33 W	-4.0	48.3	12.72	0.833	2.13	-2:03	13.0	145.0	0.719
11.11.	13:05	-5.1	1.8	1.328	32 W	-4.0	47.1	12.56	0.841	2.00	-2:01	12.4	149.9	0.719
14.11.	13:19	-6.4	1.8	1.345	31 W	-4.0	45.9	12.41	0.848	1.89	-1:60	11.8	154.8	0.719
17.11.	13:32	-7.8	1.8	1.361	31 W	-4.0	44.7	12.26	0.855	1.77	-1:58	11.2	159.7	0.719
20.11.	13:46	-9.1	1.8	1.376	30 W	-4.0	43.5	12.12	0.862	1.67	-1:57	10.6	164.5	0.719
23.11.	14:00	-10.5	1.8	1.392	29 W	-4.0	42.4	11.99	0.869	1.57	-1:55	9.9	169.4	0.719
26.11.	14:15	-11.7	1.7	1.407	29 W	-4.0	41.2	11.86	0.876	1.47	-1:54	9.3	174.3	0.720
29.11.	14:29	-13.0	1.7	1.421	28 W	-4.0	40.1	11.74	0.882	1.38	-1:52	8.5	179.1	0.720
2.12.	14:44	-14.2	1.6	1.436	27 W	-4.0	39.0	11.62	0.889	1.29	-1:51	7.8	184.0	0.720
5.12.	14:58	-15.3	1.6	1.450	27 W	-4.0	37.9	11.51	0.895	1.21	-1:49	7.1	188.8	0.721
8.12.	15:13	-16.4	1.5	1.463	26 W	-4.0	36.7	11.40	0.901	1.13	-1:47	6.3	193.7	0.721
11.12.	15:28	-17.4	1.4	1.477	25 W	-4.0	35.6	11.30	0.906	1.06	-1:45	5.6	198.5	0.721
14.12.	15:43	-18.4	1.3	1.490	25 W	-4.0	34.6	11.20	0.912	0.99	-1:43	4.8	203.4	0.722
17.12.	15:59	-19.3	1.2	1.502	24 W	-3.9	33.5	11.10	0.917	0.92	-1:41	4.1	208.2	0.722
20.12.	16:14	-20.1	1.1	1.514	23 W	-3.9	32.4	11.01	0.922	0.86	-1:39	3.3	213.0	0.723
23.12.	16:30	-20.8	1.0	1.526	22 W	-3.9	31.3	10.93	0.927	0.80	-1:37	2.6	217.8	0.723
26.12.	16:46	-21.5	0.9	1.538	22 W	-3.9	30.3	10.85	0.932	0.74	-1:34	1.9	222.6	0.723
29.12.	17:02	-22.0	0.8	1.549	21 W	-3.9	29.3	10.77	0.936	0.69	-1:31	1.2	227.4	0.724

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