



Ephemeriden für Sternfreunde  
von Karl-Heinz Bücke

www.buecke-info.de

## Merkur 2018

Datum	$\alpha$	$\delta$	b	$\Delta$ (AE)	E	mv	$\varphi$	$\varnothing$	k	q (")	$\Delta\alpha$ (h:m)	$\Delta\delta$ (°)	l	r
1.01.	17:08	-20.9	2.0	0.999	23 W	-0.3	76.4	6.72	0.618	2.57	-1:37	2.1	181.5	0.390
4.01.	17:21	-21.6	1.6	1.058	23 W	-0.3	68.3	6.35	0.685	2.00	-1:37	1.2	192.7	0.406
7.01.	17:36	-22.2	1.1	1.113	22 W	-0.3	61.4	6.04	0.739	1.57	-1:36	0.2	203.2	0.421
10.01.	17:52	-22.7	0.7	1.162	21 W	-0.3	55.4	5.78	0.784	1.25	-1:32	-0.7	212.9	0.434
13.01.	18:10	-23.1	0.3	1.207	20 W	-0.3	50.2	5.57	0.820	1.00	-1:28	-1.6	222.2	0.445
16.01.	18:28	-23.4	-0.1	1.248	19 W	-0.3	45.4	5.39	0.851	0.80	-1:22	-2.4	231.2	0.454
19.01.	18:47	-23.5	-0.5	1.283	18 W	-0.3	41.2	5.24	0.876	0.65	-1:16	-3.1	239.7	0.461
22.01.	19:06	-23.4	-0.8	1.313	17 W	-0.4	37.3	5.12	0.898	0.52	-1:10	-3.6	248.1	0.465
25.01.	19:26	-23.1	-1.1	1.339	15 W	-0.4	33.6	5.02	0.917	0.42	-1:03	-4.1	256.3	0.467
28.01.	19:46	-22.6	-1.4	1.360	14 W	-0.5	30.0	4.94	0.933	0.33	-0:55	-4.4	264.5	0.466
31.01.	20:06	-21.9	-1.6	1.377	12 W	-0.5	26.5	4.88	0.948	0.26	-0:48	-4.5	272.8	0.462
3.02.	20:26	-21.1	-1.8	1.390	10 W	-0.7	22.8	4.83	0.961	0.19	-0:40	-4.5	281.3	0.456
6.02.	20:47	-19.9	-2.0	1.399	9 W	-0.8	19.0	4.80	0.973	0.13	-0:31	-4.3	290.2	0.448
9.02.	21:07	-18.6	-2.1	1.403	7 W	-1.0	15.1	4.79	0.983	0.08	-0:22	-3.9	299.5	0.438
12.02.	21:28	-17.1	-2.1	1.402	5 W	-1.2	10.9	4.79	0.991	0.04	-0:14	-3.3	309.3	0.425
15.02.	21:49	-15.4	-2.1	1.395	3 W	-1.4	6.8	4.82	0.996	0.02	-0:05	-2.6	319.6	0.411
18.02.	22:09	-13.4	-2.0	1.381	2 O	-1.6	5.0	4.87	0.998	0.01	0:04	-1.7	330.7	0.395
21.02.	22:30	-11.3	-1.8	1.361	3 O	-1.5	8.8	4.94	0.994	0.03	0:13	-0.6	342.7	0.378
24.02.	22:51	-8.9	-1.5	1.332	6 O	-1.5	15.7	5.05	0.981	0.09	0:23	0.6	356.0	0.360
27.02.	23:11	-6.4	-1.1	1.293	8 O	-1.4	24.3	5.20	0.956	0.23	0:32	2.0	10.6	0.343
2.03.	23:32	-3.8	-0.7	1.244	11 O	-1.3	34.5	5.40	0.912	0.47	0:41	3.5	26.6	0.328
5.03.	23:51	-1.1	-0.2	1.184	13 O	-1.2	46.2	5.68	0.846	0.88	0:49	5.1	43.9	0.317
8.03.	0:09	1.6	0.5	1.114	16 O	-1.0	59.3	6.03	0.755	1.47	0:56	6.6	62.2	0.309
11.03.	0:26	4.0	1.1	1.037	17 O	-0.8	73.3	6.48	0.643	2.31	1:02	7.8	81.0	0.308
14.03.	0:39	6.2	1.8	0.955	18 O	-0.5	88.1	7.04	0.517	3.40	1:04	8.8	99.7	0.311
17.03.	0:49	7.9	2.4	0.872	18 O	0.0	103.0	7.70	0.387	4.72	1:03	9.4	117.9	0.320
20.03.	0:55	9.1	2.9	0.795	17 O	0.7	118.0	8.46	0.265	6.22	0:58	9.4	135.0	0.333
23.03.	0:57	9.7	3.3	0.726	15 O	1.5	132.8	9.26	0.161	7.77	0:49	8.7	150.6	0.349
26.03.	0:54	9.6	3.4	0.669	12 O	2.6	147.1	10.04	0.080	9.24	0:35	7.5	164.8	0.367
29.03.	0:49	8.9	3.3	0.627	7 O	3.9	160.7	10.71	0.028	10.41	0:19	5.6	177.6	0.384
1.04.	0:41	7.7	3.0	0.601	3 O	5.1	171.8	11.19	0.005	11.13	0:00	3.3	189.2	0.401
4.04.	0:33	6.2	2.4	0.588	5 W	4.8	168.7	11.42	0.010	11.31	-0:19	0.6	199.9	0.416
7.04.	0:26	4.6	1.6	0.589	9 W	3.6	157.7	11.40	0.037	10.97	-0:37	-2.1	209.8	0.430
10.04.	0:21	3.2	0.8	0.602	14 W	2.7	146.8	11.15	0.082	10.24	-0:53	-4.7	219.3	0.442
13.04.	0:18	2.0	0.0	0.625	18 W	2.0	136.7	10.75	0.136	9.29	-1:07	-6.9	228.3	0.451
16.04.	0:18	1.2	-0.7	0.655	21 W	1.5	127.8	10.27	0.194	8.28	-1:18	-8.8	237.0	0.459
19.04.	0:21	0.9	-1.4	0.689	24 W	1.2	119.8	9.75	0.251	7.30	-1:26	-10.2	245.4	0.464
22.04.	0:27	0.9	-1.9	0.728	25 W	0.9	112.8	9.23	0.306	6.40	-1:32	-11.3	253.6	0.466
25.04.	0:34	1.2	-2.3	0.769	26 W	0.7	106.4	8.74	0.359	5.61	-1:35	-11.9	261.8	0.466
28.04.	0:44	1.9	-2.7	0.813	27 W	0.6	100.5	8.27	0.409	4.89	-1:37	-12.2	270.1	0.464



Datum	$\alpha$	$\delta$	b	$\Delta$ (AE)	E	mv	$\varphi$	$\varnothing$	k	q (")	$\Delta\alpha$ (h:m)	$\Delta\delta$ (°)	l	r
1.05.	0:55	2.8	-2.9	0.859	27 W	0.4	94.9	7.83	0.457	4.25	-1:38	-12.2	278.5	0.459
4.05.	1:07	4.0	-3.0	0.906	27 W	0.3	89.5	7.42	0.505	3.67	-1:37	-11.9	287.3	0.451
7.05.	1:21	5.3	-3.0	0.954	26 W	0.2	84.0	7.04	0.552	3.15	-1:34	-11.4	296.5	0.441
10.05.	1:36	6.9	-2.9	1.003	25 W	0.0	78.5	6.70	0.600	2.68	-1:31	-10.7	306.0	0.430
13.05.	1:52	8.6	-2.8	1.052	23 W	-0.1	72.8	6.39	0.648	2.25	-1:27	-9.7	316.2	0.416
16.05.	2:10	10.4	-2.5	1.099	21 W	-0.3	66.8	6.11	0.697	1.85	-1:21	-8.6	327.0	0.400
19.05.	2:28	12.4	-2.2	1.146	19 W	-0.5	60.2	5.86	0.749	1.47	-1:14	-7.3	338.7	0.384
22.05.	2:49	14.4	-1.8	1.191	17 W	-0.7	52.7	5.64	0.803	1.11	-1:06	-5.9	351.5	0.366
25.05.	3:11	16.4	-1.3	1.233	14 W	-0.9	44.3	5.45	0.858	0.77	-0:56	-4.5	5.7	0.349
28.05.	3:35	18.4	-0.8	1.269	11 W	-1.2	34.7	5.30	0.911	0.47	-0:44	-3.0	21.3	0.333
31.05.	4:00	20.3	-0.3	1.298	7 W	-1.5	24.0	5.18	0.957	0.22	-0:31	-1.6	38.2	0.320
3.06.	4:27	22.0	0.2	1.316	4 W	-1.9	12.4	5.11	0.988	0.06	-0:16	-0.3	56.2	0.311
6.06.	4:55	23.3	0.7	1.322	1 W	-2.3	2.4	5.08	1.000	0.00	-0:01	0.7	74.9	0.308
9.06.	5:23	24.3	1.2	1.315	4 O	-1.9	12.5	5.11	0.988	0.06	0:15	1.4	93.7	0.310
12.06.	5:52	25.0	1.5	1.296	7 O	-1.6	24.3	5.19	0.956	0.23	0:31	1.8	112.1	0.317
15.06.	6:19	25.2	1.8	1.266	11 O	-1.2	35.3	5.31	0.908	0.49	0:47	1.9	129.6	0.329
18.06.	6:46	25.0	1.9	1.228	14 O	-0.9	45.3	5.47	0.852	0.81	1:01	1.6	145.7	0.344
21.06.	7:11	24.4	2.0	1.184	17 O	-0.7	54.2	5.67	0.793	1.18	1:13	1.0	160.4	0.361
24.06.	7:34	23.6	1.9	1.138	19 O	-0.5	62.0	5.91	0.735	1.57	1:24	0.2	173.6	0.379
27.06.	7:55	22.5	1.7	1.089	21 O	-0.3	68.9	6.17	0.680	1.98	1:33	-0.8	185.6	0.396
30.06.	8:15	21.3	1.5	1.040	23 O	-0.1	75.2	6.46	0.627	2.41	1:39	-1.9	196.5	0.412
3.07.	8:32	20.0	1.1	0.991	24 O	0.1	81.2	6.78	0.577	2.87	1:44	-3.0	206.7	0.426
6.07.	8:48	18.6	0.7	0.942	25 O	0.2	86.9	7.14	0.527	3.38	1:48	-4.1	216.3	0.438
9.07.	9:01	17.1	0.2	0.893	26 O	0.4	92.5	7.53	0.478	3.93	1:49	-5.3	225.4	0.449
12.07.	9:13	15.7	-0.4	0.845	26 O	0.5	98.2	7.95	0.429	4.54	1:48	-6.3	234.2	0.457
15.07.	9:23	14.3	-1.0	0.800	26 O	0.7	104.0	8.40	0.379	5.22	1:46	-7.3	242.7	0.462
18.07.	9:30	13.0	-1.7	0.757	26 O	0.9	110.1	8.87	0.328	5.96	1:41	-8.1	251.0	0.466
21.07.	9:35	11.9	-2.3	0.718	24 O	1.1	116.6	9.36	0.276	6.77	1:35	-8.7	259.2	0.467
24.07.	9:38	10.9	-3.0	0.682	22 O	1.4	123.7	9.86	0.223	7.66	1:25	-9.0	267.4	0.465
27.07.	9:38	10.3	-3.6	0.650	20 O	1.8	131.6	10.34	0.168	8.60	1:13	-9.0	275.8	0.460
30.07.	9:35	9.9	-4.2	0.624	17 O	2.3	140.4	10.77	0.115	9.53	0:58	-8.7	284.4	0.454
2.08.	9:29	9.9	-4.7	0.605	13 O	3.0	149.9	11.10	0.067	10.35	0:41	-7.9	293.5	0.445
5.08.	9:21	10.3	-4.9	0.597	9 O	3.9	159.7	11.26	0.031	10.91	0:21	-6.7	302.9	0.434
8.08.	9:12	11.0	-4.9	0.600	5 O	4.7	167.4	11.21	0.012	11.07	0:01	-5.2	312.8	0.421
11.08.	9:04	11.9	-4.6	0.616	6 W	4.5	165.7	10.92	0.016	10.75	-0:19	-3.4	323.4	0.406
14.08.	8:57	13.0	-4.0	0.646	9 W	3.4	155.8	10.41	0.044	9.95	-0:37	-1.4	334.8	0.389
17.08.	8:53	14.0	-3.3	0.690	13 W	2.4	143.4	9.75	0.099	8.79	-0:52	0.6	347.3	0.372
20.08.	8:53	14.9	-2.5	0.747	16 W	1.4	130.1	9.00	0.178	7.40	-1:03	2.4	1.0	0.354
23.08.	8:57	15.6	-1.6	0.816	17 W	0.6	116.2	8.24	0.279	5.94	-1:10	4.0	16.1	0.338
26.08.	9:06	15.8	-0.7	0.893	18 W	0.0	101.9	7.52	0.397	4.53	-1:12	5.3	32.6	0.324
29.08.	9:20	15.6	0.1	0.975	18 W	-0.4	87.3	6.89	0.524	3.28	-1:10	6.2	50.3	0.313



Datum	$\alpha$	$\delta$	b	$\Delta$ (AE)	E	mv	$\varphi$	$\emptyset$	k	q (")	$\Delta\alpha$ (h:m)	$\Delta\delta$ (°)	l	r
1.09.	9:36	15.0	0.7	1.057	17 W	-0.8	72.8	6.36	0.648	2.24	-1:04	6.6	68.8	0.308
4.09.	9:55	13.9	1.2	1.134	15 W	-1.0	58.7	5.93	0.760	1.42	-0:55	6.6	87.6	0.308
7.09.	10:16	12.3	1.5	1.203	13 W	-1.2	45.4	5.59	0.851	0.83	-0:46	6.2	106.3	0.314
10.09.	10:38	10.5	1.7	1.262	10 W	-1.3	33.4	5.32	0.918	0.44	-0:35	5.5	124.1	0.324
13.09.	10:59	8.4	1.8	1.310	7 W	-1.4	22.7	5.13	0.961	0.20	-0:24	4.5	140.7	0.339
16.09.	11:20	6.1	1.8	1.347	5 W	-1.5	13.7	4.99	0.986	0.07	-0:14	3.4	155.8	0.355
19.09.	11:41	3.8	1.6	1.374	2 W	-1.6	6.5	4.89	0.997	0.02	-0:04	2.2	169.5	0.373
22.09.	12:01	1.4	1.4	1.393	2 O	-1.6	4.2	4.83	0.999	0.01	0:05	1.0	181.8	0.390
25.09.	12:20	-0.9	1.2	1.403	3 O	-1.3	8.5	4.79	0.995	0.03	0:14	-0.2	193.1	0.407
28.09.	12:39	-3.3	0.9	1.408	6 O	-1.1	13.3	4.77	0.987	0.06	0:22	-1.3	203.5	0.422
1.10.	12:57	-5.5	0.6	1.406	8 O	-0.9	17.9	4.78	0.976	0.12	0:29	-2.5	213.2	0.434
4.10.	13:15	-7.7	0.2	1.399	10 O	-0.7	22.2	4.80	0.963	0.18	0:36	-3.5	222.5	0.445
7.10.	13:33	-9.9	-0.1	1.387	12 O	-0.6	26.2	4.85	0.949	0.25	0:43	-4.5	231.4	0.454
10.10.	13:50	-11.9	-0.5	1.371	13 O	-0.5	30.0	4.90	0.933	0.33	0:50	-5.4	240.0	0.461
13.10.	14:08	-13.8	-0.8	1.350	15 O	-0.4	33.8	4.98	0.916	0.42	0:56	-6.2	248.3	0.465
16.10.	14:25	-15.6	-1.2	1.326	17 O	-0.3	37.5	5.07	0.897	0.52	1:02	-6.8	256.5	0.467
19.10.	14:42	-17.3	-1.5	1.298	18 O	-0.3	41.3	5.18	0.876	0.64	1:07	-7.4	264.7	0.466
22.10.	14:58	-18.8	-1.8	1.264	19 O	-0.2	45.3	5.31	0.852	0.79	1:13	-7.9	273.0	0.462
25.10.	15:15	-20.3	-2.1	1.227	20 O	-0.2	49.7	5.48	0.823	0.97	1:18	-8.3	281.6	0.456
28.10.	15:32	-21.5	-2.3	1.184	22 O	-0.2	54.5	5.67	0.790	1.19	1:23	-8.5	290.5	0.448
31.10.	15:48	-22.6	-2.5	1.137	22 O	-0.2	59.9	5.91	0.751	1.47	1:27	-8.6	299.8	0.437
3.11.	16:03	-23.5	-2.7	1.086	23 O	-0.2	66.0	6.19	0.703	1.84	1:31	-8.5	309.6	0.425
6.11.	16:17	-24.2	-2.8	1.030	23 O	-0.2	73.0	6.52	0.646	2.31	1:33	-8.3	319.9	0.411
9.11.	16:29	-24.6	-2.8	0.971	23 O	-0.1	81.2	6.92	0.576	2.93	1:33	-7.8	331.0	0.395
12.11.	16:39	-24.8	-2.6	0.909	22 O	0.0	91.0	7.40	0.491	3.76	1:31	-7.2	343.1	0.377
15.11.	16:45	-24.7	-2.4	0.845	21 O	0.2	102.9	7.95	0.388	4.86	1:25	-6.3	356.4	0.360
18.11.	16:47	-24.3	-1.9	0.783	18 O	0.7	117.4	8.58	0.270	6.26	1:14	-5.1	11.1	0.343
21.11.	16:42	-23.4	-1.2	0.729	14 O	1.5	134.8	9.22	0.148	7.86	0:57	-3.5	27.1	0.328
24.11.	16:30	-22.1	-0.2	0.692	8 O	3.1	155.0	9.72	0.047	9.27	0:33	-1.6	44.5	0.316
27.11.	16:15	-20.5	0.8	0.678	1 O	5.4	176.2	9.91	0.001	9.90	0:04	0.6	62.8	0.309
30.11.	15:59	-18.8	1.7	0.692	6 W	3.4	159.3	9.70	0.032	9.39	-0:24	2.8	81.6	0.308
3.12.	15:48	-17.6	2.3	0.733	12 W	1.7	137.7	9.17	0.130	7.98	-0:49	4.5	100.3	0.312
6.12.	15:42	-17.0	2.7	0.792	17 W	0.6	118.3	8.49	0.263	6.26	-1:07	5.5	118.4	0.321
9.12.	15:44	-17.0	2.7	0.861	19 W	0.0	101.7	7.80	0.398	4.69	-1:19	5.8	135.5	0.334
12.12.	15:50	-17.5	2.6	0.934	21 W	-0.3	87.9	7.20	0.519	3.47	-1:26	5.6	151.1	0.350
15.12.	16:00	-18.3	2.3	1.004	21 W	-0.4	76.4	6.70	0.618	2.56	-1:29	5.0	165.2	0.367
18.12.	16:13	-19.2	1.9	1.069	21 W	-0.4	66.9	6.29	0.696	1.91	-1:29	4.2	178.0	0.385
21.12.	16:28	-20.2	1.6	1.128	20 W	-0.4	59.1	5.96	0.757	1.45	-1:27	3.3	189.5	0.402
24.12.	16:44	-21.1	1.2	1.181	20 W	-0.4	52.3	5.69	0.805	1.11	-1:24	2.3	200.2	0.417
27.12.	17:02	-22.0	0.8	1.229	19 W	-0.4	46.5	5.47	0.844	0.85	-1:20	1.3	210.2	0.430
30.12.	17:20	-22.7	0.4	1.271	17 W	-0.4	41.4	5.29	0.875	0.66	-1:15	0.4	219.6	0.442

Die Ephemeriden gelten für 0 Uhr Weltzeit.

Geozentrische Koordinaten:

$\alpha$  und  $\delta$ : Rektaszension und Deklination zum Äquinoktium des Datums. b: ekliptikale Breite;  $\Delta$ : Abstand von der Erde.

E: Elongation (Winkel zwischen Planet und Sonnenmitte); mv: visuelle Helligkeit;  $\varphi$ : Phasenwinkel

Physische Ephemeriden (für Beobachtungen am Teleskop):

$\emptyset$ : scheinbarer Durchmesser;

k: beleuchteter Teil; q: Phasendefekt (Beleuchtungsdefekt)

Koordinaten für Tagesbeobachtungen:

$\Delta\alpha$  und  $\Delta\delta$ : Rektaszensions- und Deklinationsdifferenzen (Venus minus Sonne)

Heliozentrische Koordinaten:

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

14.09.2015