



Ephemeriden für Sternfreunde
von Karl-Heinz Bücke

www.buecke-info.de

Mars 2018

Datum	α	δ	b	Δ (AE)	E	mv	φ	\varnothing	k	q (")	l	r
1.01.	14:47	-15.2	0.9	1.956	56 W	1.5	30.1	4.79	0.932	0.32	194.1	1.631
4.01.	14:55	-15.8	0.9	1.929	58 W	1.5	30.6	4.85	0.930	0.34	195.4	1.629
7.01.	15:02	-16.3	0.9	1.903	59 W	1.4	31.1	4.92	0.928	0.35	196.8	1.626
10.01.	15:10	-16.9	0.8	1.876	60 W	1.4	31.6	4.99	0.926	0.37	198.2	1.623
13.01.	15:17	-17.4	0.8	1.849	61 W	1.4	32.1	5.06	0.924	0.39	199.6	1.621
16.01.	15:25	-17.9	0.8	1.821	62 W	1.3	32.6	5.14	0.921	0.40	200.9	1.618
19.01.	15:32	-18.4	0.8	1.793	63 W	1.3	33.0	5.22	0.919	0.42	202.3	1.615
22.01.	15:40	-18.8	0.7	1.765	65 W	1.3	33.5	5.30	0.917	0.44	203.7	1.613
25.01.	15:48	-19.2	0.7	1.737	66 W	1.3	33.9	5.39	0.915	0.46	205.1	1.610
28.01.	15:55	-19.7	0.7	1.709	67 W	1.2	34.4	5.48	0.913	0.48	206.5	1.607
31.01.	16:03	-20.1	0.7	1.681	68 W	1.2	34.8	5.57	0.911	0.50	207.9	1.604
3.02.	16:10	-20.4	0.6	1.652	70 W	1.2	35.2	5.66	0.908	0.52	209.4	1.600
6.02.	16:18	-20.8	0.6	1.624	71 W	1.1	35.6	5.76	0.906	0.54	210.8	1.597
9.02.	16:26	-21.1	0.6	1.595	72 W	1.1	36.0	5.87	0.904	0.56	212.2	1.594
12.02.	16:34	-21.4	0.5	1.566	73 W	1.0	36.4	5.98	0.902	0.58	213.6	1.591
15.02.	16:41	-21.7	0.5	1.537	74 W	1.0	36.8	6.09	0.900	0.61	215.1	1.588
18.02.	16:49	-22.0	0.4	1.508	76 W	1.0	37.2	6.21	0.898	0.63	216.5	1.584
21.02.	16:57	-22.2	0.4	1.479	77 W	0.9	37.5	6.33	0.897	0.65	218.0	1.581
24.02.	17:04	-22.5	0.4	1.450	78 W	0.9	37.9	6.45	0.895	0.68	219.4	1.577
27.02.	17:12	-22.7	0.3	1.421	79 W	0.8	38.2	6.59	0.893	0.71	220.9	1.574
2.03.	17:20	-22.9	0.3	1.392	81 W	0.8	38.5	6.72	0.891	0.73	222.4	1.570
5.03.	17:27	-23.0	0.2	1.364	82 W	0.7	38.8	6.86	0.890	0.76	223.8	1.567
8.03.	17:35	-23.2	0.2	1.335	83 W	0.7	39.1	7.01	0.888	0.78	225.3	1.563
11.03.	17:43	-23.3	0.1	1.306	84 W	0.7	39.3	7.17	0.887	0.81	226.8	1.559
14.03.	17:50	-23.4	0.1	1.277	85 W	0.6	39.6	7.33	0.885	0.84	228.3	1.556
17.03.	17:58	-23.4	0.0	1.249	87 W	0.6	39.8	7.50	0.884	0.87	229.8	1.552
20.03.	18:05	-23.5	-0.1	1.220	88 W	0.5	40.0	7.67	0.883	0.90	231.3	1.548
23.03.	18:13	-23.5	-0.1	1.192	89 W	0.4	40.2	7.85	0.882	0.93	232.8	1.544
26.03.	18:20	-23.6	-0.2	1.164	91 W	0.4	40.3	8.04	0.881	0.96	234.4	1.540
29.03.	18:27	-23.6	-0.3	1.136	92 W	0.3	40.5	8.24	0.880	0.99	235.9	1.537
1.04.	18:35	-23.5	-0.3	1.108	93 W	0.3	40.6	8.45	0.880	1.02	237.4	1.533
4.04.	18:42	-23.5	-0.4	1.081	94 W	0.2	40.7	8.66	0.879	1.05	239.0	1.529
7.04.	18:49	-23.5	-0.5	1.053	96 W	0.2	40.8	8.88	0.879	1.08	240.5	1.525
10.04.	18:56	-23.4	-0.6	1.026	97 W	0.1	40.8	9.12	0.879	1.11	242.1	1.521
13.04.	19:03	-23.3	-0.7	1.000	99 W	0.0	40.8	9.36	0.878	1.14	243.7	1.517
16.04.	19:10	-23.2	-0.8	0.973	100 W	0.0	40.8	9.62	0.879	1.17	245.3	1.513
19.04.	19:16	-23.1	-0.9	0.947	101 W	-0.1	40.7	9.89	0.879	1.20	246.9	1.509
22.04.	19:23	-23.0	-1.0	0.921	103 W	-0.2	40.6	10.16	0.879	1.22	248.5	1.505
25.04.	19:29	-22.9	-1.1	0.895	104 W	-0.2	40.5	10.46	0.880	1.25	250.1	1.501
28.04.	19:35	-22.8	-1.2	0.870	106 W	-0.3	40.3	10.76	0.881	1.28	251.7	1.498



Datum	α	δ	b	Δ (AE)	E	mv	φ	\emptyset	k	q (")	l	r
1.05.	19:42	-22.7	-1.3	0.845	107 W	-0.4	40.1	11.08	0.882	1.30	253.3	1.494
4.05.	19:48	-22.6	-1.4	0.820	109 W	-0.4	39.9	11.41	0.884	1.33	254.9	1.490
7.05.	19:53	-22.4	-1.6	0.796	110 W	-0.5	39.6	11.76	0.885	1.35	256.6	1.486
10.05.	19:59	-22.3	-1.7	0.772	112 W	-0.6	39.2	12.12	0.887	1.37	258.2	1.482
13.05.	20:04	-22.2	-1.8	0.749	113 W	-0.7	38.8	12.50	0.890	1.38	259.9	1.478
16.05.	20:10	-22.1	-2.0	0.726	115 W	-0.8	38.4	12.89	0.892	1.39	261.6	1.474
19.05.	20:15	-22.0	-2.1	0.704	117 W	-0.8	37.8	13.30	0.895	1.40	263.2	1.471
22.05.	20:19	-21.9	-2.3	0.682	119 W	-0.9	37.3	13.73	0.898	1.40	264.9	1.467
25.05.	20:24	-21.8	-2.5	0.660	121 W	-1.0	36.6	14.18	0.901	1.40	266.6	1.463
28.05.	20:28	-21.8	-2.6	0.639	122 W	-1.1	35.9	14.64	0.905	1.39	268.3	1.459
31.05.	20:32	-21.7	-2.8	0.619	124 W	-1.2	35.1	15.13	0.909	1.37	270.0	1.456
3.06.	20:36	-21.7	-3.0	0.599	126 W	-1.3	34.2	15.63	0.914	1.35	271.7	1.452
6.06.	20:39	-21.7	-3.2	0.580	129 W	-1.4	33.2	16.15	0.918	1.32	273.5	1.449
9.06.	20:42	-21.7	-3.4	0.561	131 W	-1.5	32.1	16.68	0.923	1.28	275.2	1.445
12.06.	20:45	-21.8	-3.6	0.543	133 W	-1.6	31.0	17.23	0.929	1.23	276.9	1.442
15.06.	20:47	-21.9	-3.8	0.526	135 W	-1.6	29.7	17.79	0.934	1.17	278.7	1.439
18.06.	20:49	-22.0	-4.0	0.510	138 W	-1.7	28.4	18.36	0.940	1.10	280.5	1.435
21.06.	20:50	-22.1	-4.3	0.494	140 W	-1.8	26.9	18.94	0.946	1.02	282.2	1.432
24.06.	20:51	-22.3	-4.5	0.479	143 W	-1.9	25.3	19.53	0.952	0.94	284.0	1.429
27.06.	20:52	-22.5	-4.7	0.465	146 W	-2.0	23.6	20.11	0.958	0.84	285.8	1.426
30.06.	20:52	-22.7	-4.9	0.453	149 W	-2.1	21.8	20.68	0.964	0.74	287.6	1.423
3.07.	20:51	-23.0	-5.2	0.441	152 W	-2.2	19.9	21.24	0.970	0.63	289.4	1.420
6.07.	20:50	-23.3	-5.4	0.430	155 W	-2.3	17.9	21.78	0.976	0.53	291.2	1.417
9.07.	20:49	-23.6	-5.6	0.420	158 W	-2.4	15.8	22.29	0.981	0.42	293.0	1.414
12.07.	20:47	-23.9	-5.8	0.411	161 W	-2.5	13.6	22.76	0.986	0.32	294.8	1.412
15.07.	20:45	-24.2	-6.0	0.404	164 W	-2.6	11.4	23.19	0.990	0.23	296.6	1.409
18.07.	20:42	-24.5	-6.1	0.397	167 W	-2.6	9.2	23.55	0.994	0.15	298.5	1.407
21.07.	20:39	-24.9	-6.3	0.392	170 W	-2.7	7.1	23.86	0.996	0.09	300.3	1.404
24.07.	20:36	-25.2	-6.4	0.389	173 W	-2.8	5.4	24.09	0.998	0.05	302.2	1.402
27.07.	20:32	-25.5	-6.5	0.386	174 W	-2.8	4.7	24.24	0.998	0.04	304.0	1.400
30.07.	20:29	-25.7	-6.5	0.385	173 O	-2.8	5.3	24.32	0.998	0.05	305.9	1.398
2.08.	20:26	-26.0	-6.6	0.385	170 O	-2.8	7.0	24.31	0.996	0.09	307.7	1.396
5.08.	20:22	-26.2	-6.6	0.386	167 O	-2.7	9.1	24.23	0.994	0.15	309.6	1.394
8.08.	20:19	-26.3	-6.6	0.389	164 O	-2.7	11.4	24.07	0.990	0.24	311.5	1.392
11.08.	20:16	-26.4	-6.5	0.393	161 O	-2.6	13.7	23.83	0.986	0.34	313.4	1.391
14.08.	20:14	-26.5	-6.5	0.398	158 O	-2.6	16.0	23.54	0.981	0.46	315.2	1.389
17.08.	20:12	-26.5	-6.4	0.404	155 O	-2.5	18.3	23.18	0.975	0.58	317.1	1.388
20.08.	20:10	-26.5	-6.3	0.411	151 O	-2.4	20.4	22.78	0.969	0.72	319.0	1.387
23.08.	20:09	-26.4	-6.1	0.419	148 O	-2.3	22.5	22.34	0.962	0.85	320.9	1.386
26.08.	20:08	-26.3	-6.0	0.428	145 O	-2.3	24.5	21.87	0.955	0.98	322.8	1.385
29.08.	20:08	-26.1	-5.8	0.438	143 O	-2.2	26.3	21.37	0.948	1.11	324.7	1.384



Datum	α	δ	b	Δ (AE)	E	mv	φ	\emptyset	k	q (")	l	r
1.09.	20:08	-25.9	-5.7	0.449	140 O	-2.1	28.0	20.86	0.941	1.22	326.6	1.383
4.09.	20:09	-25.7	-5.5	0.460	137 O	-2.0	29.7	20.34	0.934	1.33	328.5	1.382
7.09.	20:10	-25.5	-5.3	0.473	135 O	-1.9	31.2	19.81	0.928	1.43	330.4	1.382
10.09.	20:12	-25.2	-5.1	0.486	132 O	-1.9	32.6	19.28	0.921	1.52	332.3	1.382
13.09.	20:15	-24.9	-5.0	0.499	130 O	-1.8	33.9	18.75	0.915	1.59	334.2	1.381
16.09.	20:17	-24.6	-4.8	0.513	128 O	-1.7	35.1	18.23	0.909	1.66	336.1	1.381
19.09.	20:21	-24.2	-4.6	0.528	126 O	-1.6	36.2	17.72	0.904	1.71	338.0	1.381
22.09.	20:24	-23.8	-4.4	0.543	124 O	-1.5	37.2	17.22	0.898	1.75	339.9	1.382
25.09.	20:28	-23.4	-4.2	0.559	122 O	-1.5	38.1	16.74	0.893	1.78	341.8	1.382
28.09.	20:32	-23.0	-4.1	0.576	120 O	-1.4	38.9	16.26	0.889	1.81	343.7	1.382
1.10.	20:37	-22.5	-3.9	0.592	118 O	-1.3	39.7	15.80	0.885	1.82	345.6	1.383
4.10.	20:42	-22.1	-3.7	0.609	116 O	-1.2	40.4	15.36	0.881	1.83	347.5	1.384
7.10.	20:47	-21.6	-3.5	0.627	115 O	-1.2	41.0	14.93	0.877	1.83	349.4	1.384
10.10.	20:52	-21.1	-3.4	0.645	113 O	-1.1	41.5	14.51	0.874	1.82	351.3	1.385
13.10.	20:58	-20.5	-3.2	0.663	112 O	-1.0	42.0	14.11	0.871	1.81	353.2	1.386
16.10.	21:04	-20.0	-3.1	0.682	110 O	-1.0	42.5	13.72	0.869	1.80	355.1	1.388
19.10.	21:10	-19.4	-2.9	0.701	109 O	-0.9	42.8	13.35	0.867	1.78	357.0	1.389
22.10.	21:16	-18.8	-2.8	0.721	107 O	-0.8	43.2	12.99	0.865	1.76	358.9	1.390
25.10.	21:22	-18.1	-2.6	0.741	106 O	-0.8	43.4	12.64	0.863	1.73	0.8	1.392
28.10.	21:28	-17.5	-2.5	0.761	104 O	-0.7	43.7	12.31	0.862	1.70	2.6	1.394
31.10.	21:35	-16.8	-2.3	0.781	103 O	-0.6	43.9	11.98	0.860	1.67	4.5	1.395
3.11.	21:41	-16.2	-2.2	0.802	102 O	-0.6	44.0	11.67	0.859	1.64	6.4	1.397
6.11.	21:48	-15.5	-2.1	0.823	101 O	-0.5	44.2	11.38	0.859	1.61	8.2	1.399
9.11.	21:55	-14.8	-2.0	0.844	99 O	-0.4	44.2	11.09	0.858	1.57	10.1	1.401
12.11.	22:01	-14.0	-1.8	0.866	98 O	-0.4	44.3	10.81	0.858	1.54	11.9	1.404
15.11.	22:08	-13.3	-1.7	0.888	97 O	-0.3	44.3	10.54	0.858	1.50	13.8	1.406
18.11.	22:15	-12.5	-1.6	0.910	96 O	-0.3	44.3	10.29	0.858	1.46	15.6	1.408
21.11.	22:22	-11.7	-1.5	0.932	95 O	-0.2	44.3	10.04	0.858	1.43	17.4	1.411
24.11.	22:29	-11.0	-1.4	0.955	93 O	-0.2	44.2	9.80	0.858	1.39	19.3	1.414
27.11.	22:36	-10.2	-1.3	0.978	92 O	-0.1	44.1	9.57	0.859	1.35	21.1	1.416
30.11.	22:43	-9.3	-1.2	1.001	91 O	-0.1	44.0	9.35	0.860	1.31	22.9	1.419
3.12.	22:50	-8.5	-1.1	1.024	90 O	0.0	43.9	9.14	0.860	1.28	24.7	1.422
6.12.	22:57	-7.7	-1.0	1.048	89 O	0.1	43.7	8.93	0.861	1.24	26.5	1.425
9.12.	23:04	-6.9	-0.9	1.072	88 O	0.1	43.6	8.73	0.862	1.20	28.3	1.428
12.12.	23:12	-6.0	-0.8	1.096	87 O	0.2	43.4	8.54	0.863	1.17	30.0	1.431
15.12.	23:19	-5.2	-0.7	1.120	86 O	0.2	43.2	8.36	0.865	1.13	31.8	1.434
18.12.	23:26	-4.3	-0.6	1.145	85 O	0.2	43.0	8.18	0.866	1.10	33.6	1.438
21.12.	23:33	-3.5	-0.6	1.169	84 O	0.3	42.7	8.01	0.867	1.06	35.3	1.441
24.12.	23:40	-2.6	-0.5	1.194	82 O	0.3	42.5	7.84	0.869	1.03	37.1	1.444
27.12.	23:48	-1.7	-0.4	1.219	81 O	0.4	42.2	7.68	0.870	1.00	38.8	1.448
30.12.	23:55	-0.9	-0.3	1.244	80 O	0.4	41.9	7.52	0.872	0.96	40.5	1.451

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):

\emptyset : scheinbarer Durchmesser;

k: beleuchteter Teil; q: Phasendefekt (Beleuchtungsdefekt)

Heliozentrische Koordinaten:

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