

### MERKURY

M d 2020	Wsch.	Kulm.	Zach.	A	$\alpha$	$\delta$	D	F	V	$\Delta I$
	$\lambda=0$			$\varphi=50$	$0^hUT$					
	h m	h m	h m	°	h m	° ' "	"		m	°
I 0	7 45	11 37	15 30	50	18 12.4	- 24 35	4.7	0.99	-0.8	-6
4	7 57	11 49	15 42	51	18 40.2	- 24 38	4.7	0.99	-1.0	-4
8	8 07	12 02	15 57	51	19 08.4	- 24 18	4.7	1.00	-1.1	-2
12	8 14	12 14	16 15	53	19 36.7	- 23 35	4.7	1.00	-1.2	-2
16	8 20	12 27	16 36	55	20 05.2	- 22 28	4.8	0.99	-1.2	4
20	8 22	12 40	16 58	58	20 33.5	- 20 55	4.9	0.98	-1.1	6
24	8 23	12 52	17 22	61	21 01.5	- 18 59	5.1	0.96	-1.1	9
28	8 21	13 03	17 47	65	21 28.7	- 16 39	5.3	0.92	-1.1	12
II 1	8 17	13 13	18 11	69	21 54.6	- 13 59	5.6	0.85	-1.0	14
5	8 09	13 20	18 33	74	22 18.0	- 11 09	6.1	0.74	-0.9	17
9	7 59	13 23	18 49	78	22 37.1	- 8 21	6.8	0.59	-0.7	18
13	7 43	13 19	18 55	82	22 49.7	- 5 59	7.6	0.41	-0.1	18
17	7 24	13 05	18 47	84	22 53.2	- 4 28	8.7	0.22	0.8	15
21	7 00	12 42	18 23	84	22 47.0	- 4 11	9.7	0.08	2.5	10
25	6 35	12 12	17 48	82	22 33.3	- 5 06	10.4	0.01	4.5	4
29	6 12	11 41	17 08	80	22 17.6	- 6 49	10.7	0.03	3.8	-7
III 4	5 54	11 14	16 33	77	22 05.4	- 8 39	10.4	0.10	2.3	-14
8	5 40	10 53	16 06	75	21 59.6	- 10 08	9.9	0.20	1.4	-20
12	5 30	10 39	15 48	73	22 00.7	- 11 03	9.2	0.29	0.9	-24
16	5 23	10 31	15 38	73	22 07.5	- 11 22	8.5	0.38	0.6	-26
20	5 17	10 26	15 36	73	22 18.7	- 11 09	7.9	0.46	0.4	-27
24	5 12	10 26	15 39	75	22 33.2	- 10 27	7.4	0.52	0.3	-28
28	5 08	10 27	15 47	76	22 50.2	- 9 19	7.0	0.58	0.2	-27
IV 1	5 04	10 30	15 58	79	23 09.2	- 7 47	6.6	0.63	0.1	-27
5	4 59	10 35	16 13	82	23 29.6	- 5 53	6.3	0.68	-0.0	-25
9	4 54	10 41	16 30	86	23 51.5	- 3 40	6.0	0.73	-0.1	-23
13	4 50	10 49	16 50	90	0 14.6	- 1 08	5.7	0.78	-0.3	-21
17	4 45	10 58	17 12	94	0 39.0	1 40	5.5	0.83	-0.5	-18
21	4 41	11 08	17 38	99	1 05.0	4 42	5.3	0.88	-0.7	-15
25	4 37	11 20	18 06	104	1 32.7	7 56	5.2	0.93	-1.1	-11
29	4 34	11 34	18 38	109	2 02.3	11 17	5.1	0.97	-1.5	-7
V 3	4 32	11 51	19 12	115	2 34.0	14 39	5.1	1.00	-2.0	-2
7	4 32	12 09	19 48	120	3 07.6	17 50	5.1	0.99	-2.1	3
11	4 35	12 28	20 24	125	3 42.3	20 39	5.2	0.95	-1.6	7
15	4 39	12 47	20 56	129	4 17.0	22 54	5.5	0.88	-1.2	12
19	4 46	13 04	21 23	131	4 50.4	24 28	5.8	0.77	-0.9	16
23	4 55	13 19	21 43	133	5 21.4	25 22	6.3	0.67	-0.5	19
27	5 05	13 30	21 56	133	5 49.0	25 40	6.8	0.56	-0.2	21
31	5 15	13 38	22 01	133	6 12.9	25 27	7.4	0.47	0.2	23
VI 4	5 23	13 41	21 59	131	6 32.6	24 52	8.1	0.38	0.5	24
8	5 28	13 40	21 51	130	6 47.7	24 00	8.8	0.30	0.9	23
12	5 29	13 34	21 37	128	6 57.9	22 57	9.6	0.23	1.3	22
16	5 25	13 22	21 18	126	7 02.9	21 51	10.4	0.16	1.9	19
20	5 16	13 05	20 54	124	7 02.7	20 45	11.2	0.10	2.6	16
24	5 01	12 44	20 27	122	6 57.7	19 47	11.7	0.05	3.5	11
28	4 40	12 19	19 58	121	6 49.0	19 02	12.0	0.01	4.6	6

**MERKURY (c.d.)**

M d 2020	Wsch.	Kulm.	Zach.	A	$\alpha$	$\delta$	D	F	V	$\Delta I$
	$\lambda=0$		$\varphi=50$		$0^hUT$					
	h m	h m	h m	°	h m	° ' "	"		m	°
VII 2	4 17	11 54	19 30	120	6 38.8	18 34	11.9	0.01	5.0	-5
6	3 53	11 29	19 05	120	6 29.7	18 27	11.4	0.03	3.9	-9
10	3 31	11 08	18 46	121	6 24.1	18 40	10.7	0.08	2.8	-13
14	3 12	10 53	18 35	122	6 23.7	19 11	9.7	0.15	1.8	-17
18	2 58	10 44	18 30	123	6 29.4	19 52	8.8	0.25	1.0	-19
22	2 50	10 41	18 32	124	6 41.4	20 37	7.9	0.36	0.4	-20
26	2 49	10 44	18 39	125	6 59.6	21 13	7.1	0.49	-0.1	-20
30	2 55	10 52	18 50	126	7 23.6	21 30	6.4	0.63	-0.6	-18
VIII 3	3 10	11 06	19 01	125	7 52.4	21 14	5.9	0.76	-1.0	-15
7	3 33	11 23	19 11	123	8 24.5	20 19	5.5	0.88	-1.3	-11
11	4 00	11 41	19 19	120	8 58.1	18 42	5.2	0.96	-1.6	-7
15	4 31	11 58	19 23	116	9 31.2	16 30	5.0	0.99	-1.8	-3
19	5 01	12 13	19 24	112	10 02.8	13 51	4.9	1.00	-1.8	-2
23	5 30	12 27	19 22	107	10 32.4	10 56	4.9	0.98	-1.4	6
27	5 57	12 39	19 18	102	11 00.0	7 53	4.9	0.96	-1.0	9
31	6 22	12 48	19 13	97	11 25.8	4 47	5.0	0.93	-0.7	12
IX 4	6 46	12 57	19 06	92	11 50.0	1 43	5.1	0.90	-0.5	15
8	7 07	13 04	18 59	88	12 12.9	- 1 17	5.2	0.87	-0.3	18
12	7 27	13 10	18 51	83	12 34.6	- 4 11	5.4	0.83	-0.2	20
16	7 45	13 14	18 42	79	12 55.3	- 6 56	5.6	0.80	-0.1	22
20	8 01	13 18	18 33	75	13 15.1	- 9 32	5.8	0.76	-0.0	23
24	8 16	13 21	18 24	71	13 33.7	- 11 54	6.1	0.71	-0.0	25
28	8 29	13 22	18 15	68	13 51.0	- 14 02	6.4	0.66	0.0	26
X 2	8 38	13 22	18 05	65	14 06.6	- 15 52	6.8	0.59	0.1	26
6	8 43	13 18	17 54	63	14 19.6	- 17 19	7.3	0.52	0.2	25
10	8 41	13 11	17 42	61	14 28.9	- 18 15	7.9	0.42	0.3	24
14	8 29	12 58	17 28	61	14 32.6	- 18 30	8.6	0.30	0.7	21
18	8 05	12 38	17 12	63	14 29.0	- 17 48	9.4	0.17	1.5	16
22	7 26	12 10	16 55	66	14 17.2	- 15 56	9.9	0.05	3.1	9
26	6 38	11 37	16 37	71	14 00.0	- 13 08	10.0	0.00	5.5	1
30	5 54	11 07	16 21	75	13 44.9	- 10 18	9.4	0.07	2.6	-9
XI 3	5 24	10 46	16 08	77	13 38.5	- 8 35	8.5	0.23	0.8	-15
7	5 13	10 35	15 58	77	13 42.7	- 8 22	7.5	0.43	-0.2	-18
11	5 15	10 33	15 50	76	13 55.2	- 9 21	6.7	0.60	-0.6	-19
15	5 26	10 35	15 44	73	14 13.2	- 11 05	6.1	0.73	-0.7	-18
19	5 42	10 41	15 39	69	14 34.3	- 13 09	5.7	0.82	-0.7	-17
23	6 01	10 48	15 35	66	14 57.3	- 15 19	5.3	0.88	-0.7	-15
27	6 21	10 57	15 32	62	15 21.4	- 17 24	5.1	0.93	-0.7	-13
XII 1	6 41	11 06	15 30	59	15 46.4	- 19 20	4.9	0.96	-0.8	-11
5	7 01	11 16	15 30	56	16 12.1	- 21 02	4.8	0.97	-0.8	-8
9	7 21	11 27	15 32	54	16 38.4	- 22 29	4.7	0.99	-0.9	-6
13	7 39	11 38	15 36	52	17 05.2	- 23 38	4.7	0.99	-1.0	-4
17	7 56	11 50	15 43	51	17 32.5	- 24 28	4.6	1.00	-1.1	-2
21	8 11	12 02	15 52	50	18 00.3	- 24 57	4.6	1.00	-1.2	-2
25	8 24	12 14	16 04	50	18 28.4	- 25 05	4.7	1.00	-1.1	3
29	8 35	12 27	16 19	50	18 56.7	- 24 49	4.8	0.99	-1.0	6
2021 I 2	8 43	12 39	16 36	52	19 25.1	- 24 09	4.9	0.97	-0.9	8