

KSIĘŻYC

d	Wsch.	Kulm.	Zach.	A _w	A _z	α	δ	D	F
	λ=0°		φ=50°			0 ^h UT			
STYCZEŃ 2013									
	h m	h m	h m	-°	+°	h m s	° ' "	' "	
1	20 53	2 48	9 39	99	102	9 26 02	9 42.5	30.3	-0.88
2	22 01	3 33	10 02	92	96	10 13 55	5 31.1	30.5	-0.81
3	23 12	4 19	10 25	84	88	11 01 58	1 00.8	30.9	-0.72
4	—	5 06	10 49	—	81	11 50 52	- 3 37.6	31.2	-0.63
5	0 24	5 54	11 15	77	74	12 41 26	- 8 12.0	31.6	-0.52
6	1 38	6 46	11 45	70	67	13 34 28	-12 28.4	32.0	-0.41
7	2 54	7 41	12 21	64	62	14 30 34	-16 10.0	32.4	-0.30
8	4 09	8 40	13 07	59	58	15 30 00	-18 58.1	32.8	-0.20
9	5 19	9 42	14 03	56	56	16 32 17	-20 34.8	33.0	-0.11
10	6 21	10 44	15 11	57	57	17 36 12	-20 46.9	33.2	-0.05
11	7 12	11 46	16 26	60	61	18 40 02	-19 30.5	33.2	-0.01
12	7 54	12 45	17 45	65	67	19 42 03	-16 53.6	33.0	0.00
13	8 28	13 41	19 04	71	74	20 41 10	-13 13.1	32.7	0.02
14	8 56	14 33	20 20	79	82	21 37 02	- 8 50.5	32.3	0.07
15	9 22	15 22	21 34	86	90	22 29 55	- 4 07.0	31.8	0.13
16	9 45	16 09	22 44	94	98	23 20 27	0 39.4	31.3	0.22
17	10 09	16 54	23 52	101	105	0 09 24	5 14.6	30.8	0.31
18	10 33	17 40	—	107	—	0 57 31	9 27.6	30.3	0.40
19	11 00	18 25	0 58	113	111	1 45 28	13 10.0	30.0	0.50
20	11 30	19 12	2 01	118	116	2 33 45	16 14.7	29.7	0.60
21	12 05	19 59	3 01	121	120	3 22 42	18 35.8	29.6	0.69
22	12 46	20 47	3 58	123	123	4 12 27	20 08.2	29.5	0.77
23	13 33	21 35	4 49	123	123	5 02 51	20 47.7	29.5	0.84
24	14 26	22 23	5 35	122	123	5 53 38	20 31.8	29.6	0.91
25	15 26	23 12	6 14	119	120	6 44 25	19 20.4	29.7	0.95
26	16 29	23 59	6 48	114	116	7 34 50	17 15.8	29.9	0.98
27	17 35	—	7 18	108	111	8 24 38	14 22.8	30.1	1.00
28	18 43	0 46	7 44	102	105	9 13 46	10 48.8	30.3	-0.99
29	19 52	1 32	8 08	95	98	10 02 26	6 42.7	30.6	-0.97
30	21 02	2 18	8 32	87	91	10 51 00	2 15.1	30.9	-0.92
31	22 14	3 04	8 55	80	83	11 40 01	- 2 22.5	31.1	-0.85

ostatnia kwadra:	5	3 ^h 58 ^m	7	1.2 ^h	Saturn	4°N
nów:	11	19 ^h 44 ^m	10	11.6 ^h	Wenus	3°S
pierwsza kwadra:	18	23 ^h 45 ^m	11	13.8 ^h	Merkury	6°S
pełnia:	27	4 ^h 38 ^m	13	12.0 ^h	Mars	6°S
			14	17.1 ^h	Neptun	6°S
			17	5.3 ^h	Uran	5° S
perygeum:	10	10 ^h 28 ^m	22	3.1 ^h	Jowisz	0.5°N
apogeum:	22	10 ^h 53 ^m				