

KSIĘŻYC

d	Wsch.	Kulm.	Zach.	A _w	A _z	α	δ	D	F
	λ=0°		φ=50°			0 ^h UT			
KWIECIEŃ 2013									
	h m	h m	h m	-°	+°	h m s	° ' "	' "	
1	—	4 17	8 42	—	57	16 44 58	-20 05.0	32.5	-0.74
2	0 50	5 16	9 45	58	58	17 45 55	-20 05.2	32.4	-0.64
3	1 40	6 14	10 54	60	61	18 45 51	-18 48.6	32.2	-0.52
4	2 21	7 10	12 06	64	66	19 43 54	-16 23.8	32.1	-0.41
5	2 55	8 03	13 20	70	73	20 39 37	-13 03.8	31.9	-0.30
6	3 24	8 53	14 33	77	80	21 33 03	-9 03.8	31.6	-0.21
7	3 50	9 42	15 45	84	87	22 24 34	-4 39.2	31.4	-0.13
8	4 15	10 29	16 55	91	95	23 14 43	-0 05.0	31.1	-0.06
9	4 39	11 16	18 05	98	102	0 04 05	4 25.3	30.9	-0.02
10	5 04	12 02	19 12	105	108	0 53 12	8 39.1	30.6	-0.00
11	5 31	12 49	20 18	111	114	1 42 30	12 25.1	30.3	0.00
12	6 02	13 37	21 21	116	118	2 32 14	15 33.7	30.1	0.03
13	6 37	14 25	22 19	119	121	3 22 26	17 57.3	29.8	0.07
14	7 17	15 13	23 12	122	122	4 13 00	19 30.4	29.7	0.12
15	8 03	16 02	23 58	122	122	5 03 39	20 10.0	29.5	0.19
16	8 54	16 49	—	121	—	5 54 06	19 55.4	29.5	0.27
17	9 51	17 36	0 39	119	120	6 44 02	18 48.0	29.6	0.36
18	10 51	18 23	1 14	115	116	7 33 20	16 51.0	29.7	0.45
19	11 54	19 08	1 44	110	112	8 22 03	14 08.8	29.9	0.55
20	13 00	19 54	2 11	103	106	9 10 24	10 46.8	30.3	0.64
21	14 08	20 41	2 37	97	100	9 58 47	6 51.4	30.7	0.74
22	15 19	21 28	3 01	89	93	10 47 46	2 30.5	31.1	0.82
23	16 32	22 18	3 26	82	86	11 37 59	-2 05.7	31.6	0.90
24	17 48	23 10	3 53	74	78	12 30 08	-6 44.2	32.0	0.95
25	19 06	—	4 23	67	71	13 24 48	-11 08.7	32.4	0.99
26	20 23	0 06	4 58	62	65	14 22 20	-14 59.7	32.8	-1.00
27	21 36	1 05	5 41	58	60	15 22 37	-17 57.2	32.9	-0.98
28	22 41	2 06	6 33	57	58	16 24 53	-19 43.6	33.0	-0.93
29	23 36	3 07	7 34	59	58	17 27 50	-20 08.5	32.9	-0.86
30	—	4 07	8 43	—	60	18 29 55	-19 10.9	32.7	-0.77

ostatnia kwadra:	3 IV	4 ^h 36 ^m		7 IV	0.7 ^h	Neptun	6°S
nów	10 IV	9 ^h 35 ^m		8 IV	9.8 ^h	Merkury	7°S
pierwsza kwadra:	18 IV	12 ^h 31 ^m		9 IV	15.0 ^h	Uran	4°S
pełnia:	25 IV	19 ^h 57 ^m		10 IV	15.2 ^h	Mars	3°S
				10 IV	18.9 ^h	Wenus	3°S
apogeum:	15 IV	22 ^h 23 ^m		14 IV	18.5 ^h	Jowisz	2°N
perygeum:	27 IV	19 ^h 49 ^m		26 IV	2.1 ^h	Saturn	4°N