

KSIĘŻYC

d	Wsch.	Kulm.	Zach.	A _w	A _z	α	δ	D	F
	λ=0°		φ=50°			0 ^h UT			
GRUDZIEŃ 2014									
	h m	h m	h m	-°	+°	h m s	° ' "	' "	
1	13 26	19 57	1 25	96	92	23 54 44	1 14.4	32.1	0.68
2	13 56	20 48	2 39	102	99	0 47 53	5 37.0	32.0	0.78
3	14 28	21 40	3 51	108	106	1 41 23	9 39.7	31.8	0.86
4	15 03	22 32	5 02	114	112	2 35 30	13 09.0	31.6	0.93
5	15 43	23 25	6 10	117	116	3 30 16	15 53.2	31.3	0.97
6	16 29	—	7 13	119	119	4 25 23	17 43.6	31.0	1.00
7	17 20	0 18	8 09	120	120	5 20 18	18 35.4	30.7	-1.00
8	18 16	1 10	8 57	118	119	6 14 21	18 28.5	30.4	-0.97
9	19 15	2 00	9 39	115	117	7 06 56	17 26.6	30.2	-0.94
10	20 15	2 48	10 14	111	113	7 57 41	15 36.8	29.9	-0.88
11	21 16	3 35	10 45	106	108	8 46 32	13 07.4	29.7	-0.81
12	22 17	4 19	11 12	101	103	9 33 42	10 07.0	29.6	-0.73
13	23 19	5 02	11 36	95	98	10 19 35	6 43.7	29.5	-0.64
14	—	5 44	12 00	—	92	11 04 46	3 05.0	29.6	-0.55
15	0 21	6 27	12 24	89	86	11 49 56	-0 42.3	29.7	-0.46
16	1 23	7 10	12 48	82	80	12 35 46	-4 30.9	30.0	-0.36
17	2 28	7 56	13 16	76	74	13 23 02	-8 12.9	30.3	-0.27
18	3 33	8 43	13 47	71	69	14 12 22	-11 38.9	30.7	-0.19
19	4 40	9 34	14 23	66	64	15 04 21	-14 37.5	31.1	-0.11
20	5 46	10 28	15 07	62	61	15 59 13	-16 55.5	31.6	-0.05
21	6 50	11 25	16 00	60	60	16 56 48	-18 19.4	32.0	-0.02
22	7 48	12 24	17 02	60	61	17 56 26	-18 37.9	32.3	-0.00
23	8 39	13 23	18 12	63	64	18 57 00	-17 45.0	32.6	0.01
24	9 23	14 21	19 26	67	69	19 57 18	-15 42.1	32.7	0.05
25	10 00	15 17	20 43	72	75	20 56 20	-12 38.3	32.8	0.12
26	10 33	16 11	21 59	79	82	21 53 37	-8 48.5	32.7	0.20
27	11 03	17 03	23 15	86	90	22 49 06	-4 29.8	32.5	0.30
28	11 32	17 55	—	93	—	23 43 11	0 00.5	32.3	0.41
29	12 01	18 45	0 29	100	97	0 36 23	4 26.4	32.0	0.53
30	12 31	19 36	1 41	106	104	1 29 18	8 34.0	31.7	0.64
31	13 04	20 27	2 52	112	110	2 22 24	12 10.8	31.4	0.74

pełnia:	6 XII	12 ^h 27 ^m	2 XII	0.0 ^h	Uran	1°S
ostatnia kwadra:	14 XII	12 ^h 51 ^m	12 XII	3.8 ^h	Jowisz	5°N
nów:	22 XII	1 ^h 36 ^m	19 XII	20.6 ^h	Saturn	1.5°S
pierwsza kwadra:	28 XII	18 ^h 31 ^m	22 XII	16.9 ^h	Merkury	7°S
			23 XII	4.7 ^h	Wenus	6°S
apogeum:	12 XII	23 ^h 02 ^m	25 XII	7.7 ^h	Mars	6°S
perygeum:	24 XII	16 ^h 43 ^m	26 XII	15.5 ^h	Neptun	4°S