

KSIĘŻYC

d	Wsch.	Kulm.	Zach.	A _w	A _z	α	δ	D	F
	λ=0°		φ=50°			0 ^h UT			
LISTOPAD 2014									
	h m	h m	h m	-°	+°	h m s	° ' "	' "	
1	13 54	19 25	—	77	81	21 24 21	-10 29.0	32.3	0.60
2	14 25	20 18	1 07	84	80	22 19 39	- 6 26.2	32.4	0.71
3	14 54	21 10	2 23	91	87	23 14 21	- 2 00.1	32.5	0.81
4	15 24	22 03	3 39	98	95	0 08 51	2 33.3	32.4	0.89
5	15 55	22 56	4 54	105	102	1 03 33	6 57.3	32.3	0.95
6	16 29	23 50	6 08	111	108	1 58 42	10 55.5	32.1	0.99
7	17 08	—	7 20	115	114	2 54 21	14 13.3	31.8	-1.00
8	17 51	0 43	8 26	118	117	3 50 15	16 39.4	31.4	-0.99
9	18 40	1 37	9 26	120	119	4 45 53	18 07.0	31.1	-0.95
10	19 33	2 30	10 19	119	119	5 40 38	18 34.5	30.7	-0.89
11	20 30	3 20	11 04	117	118	6 33 56	18 04.5	30.3	-0.82
12	21 29	4 09	11 42	113	115	7 25 24	16 43.1	30.0	-0.74
13	22 29	4 56	12 14	109	111	8 14 56	14 37.9	29.8	-0.65
14	23 30	5 41	12 43	104	106	9 02 44	11 57.0	29.6	-0.56
15	—	6 24	13 09	98	101	9 49 10	8 48.0	29.6	-0.47
16	0 32	7 07	13 33	98	95	10 34 46	5 18.2	29.6	-0.37
17	1 33	7 50	13 57	92	89	11 20 09	1 34.5	29.7	-0.28
18	2 36	8 33	14 21	86	83	12 05 59	- 2 16.0	29.9	-0.20
19	3 41	9 18	14 47	79	77	12 52 55	- 6 05.4	30.2	-0.13
20	4 47	10 05	15 17	74	71	13 41 36	- 9 44.0	30.5	-0.07
21	5 53	10 55	15 51	68	66	14 32 30	-13 00.8	30.9	-0.03
22	7 00	11 48	16 31	64	63	15 25 54	-15 43.2	31.2	-0.00
23	8 04	12 42	17 19	61	60	16 21 45	-17 37.9	31.6	0.00
24	9 04	13 39	18 15	60	60	17 19 32	-18 33.5	31.8	0.03
25	9 58	14 36	19 19	61	62	18 18 23	-18 22.7	32.1	0.08
26	10 44	15 33	20 28	64	66	19 17 18	-17 03.8	32.2	0.15
27	11 23	16 28	21 41	69	71	20 15 23	-14 41.8	32.3	0.24
28	11 58	17 22	22 56	75	78	21 12 06	-11 27.0	32.3	0.34
29	12 29	18 14	—	82	—	22 07 21	- 7 32.7	32.3	0.45
30	12 58	19 06	0 11	89	85	23 01 24	- 3 13.8	32.2	0.57

pełnia:	6 XI	22 ^h 23 ^m	2 XI	3.6 ^h	Neptun	5°S
ostatnia kwadra:	14 XI	15 ^h 16 ^m	4 XI	18.4 ^h	Uran	1°S
nów:	22 XI	12 ^h 32 ^m	14 XI	17.8 ^h	Jowisz	5°N
pierwsza kwadra:	29 XI	10 ^h 06 ^m	21 XI	17.3 ^h	Merkury	2°S
			22 XI	5.4 ^h	Saturn	1°S
perygeum:	3 XI	0 ^h 28 ^m	23 XI	1.1 ^h	Wenus	4°S
apogeum:	15 XI	1 ^h 55 ^m	26 XI	10.2 ^h	Mars	7°S
perygeum:	27 XI	23 ^h 13 ^m				