

KSIĘŻYC

d	Wsch.	Kulm.	Zach.	A _w	A _z	α	δ	D	F
	λ=0°		φ=50°			0 ^h UT			
SIERPIEŃ 2013									
	h m	h m	h m	-°	+°	h m s	° ' "	' "	
1	—	7 46	15 42	—	122	4 09 59	19 10.4	29.7	-0.29
2	0 37	8 34	16 31	122	122	5 00 19	19 57.6	29.5	-0.21
3	1 26	9 22	17 14	122	121	5 50 37	19 51.7	29.4	-0.14
4	2 20	10 09	17 52	120	118	6 40 35	18 53.6	29.5	-0.08
5	3 18	10 56	18 24	117	114	7 29 59	17 05.8	29.5	-0.04
6	4 19	11 41	18 53	112	109	8 18 37	14 33.2	29.6	-0.01
7	5 23	12 26	19 19	106	103	9 06 32	11 22.0	29.8	0.00
8	6 28	13 11	19 43	100	97	9 53 52	7 40.0	30.0	0.01
9	7 34	13 56	20 06	93	90	10 41 01	3 35.9	30.2	0.04
10	8 41	14 41	20 30	86	83	11 28 26	-0 40.8	30.5	0.09
11	9 50	15 28	20 56	79	76	12 16 43	-4 59.7	30.8	0.16
12	11 00	16 16	21 24	73	70	13 06 30	-9 09.2	31.1	0.25
13	12 11	17 08	21 58	67	65	13 58 24	-12 56.6	31.4	0.34
14	13 21	18 02	22 39	62	60	14 52 52	-16 08.0	31.8	0.45
15	14 29	19 00	23 28	59	58	15 50 06	-18 28.4	32.1	0.56
16	15 32	19 59	—	58	—	16 49 49	-19 44.2	32.5	0.67
17	16 26	21 00	0 28	59	58	17 51 11	-19 44.6	32.7	0.78
18	17 13	21 59	1 37	63	61	18 53 01	-18 25.8	32.9	0.87
19	17 52	22 57	2 53	69	65	19 54 05	-15 52.2	33.0	0.94
20	18 25	23 52	4 12	76	72	20 53 26	-12 16.2	32.9	0.98
21	18 54	—	5 31	83	79	21 50 38	-7 56.1	32.7	1.00
22	19 22	0 45	6 48	91	87	22 45 43	-3 12.4	32.4	-0.99
23	19 48	1 37	8 04	98	95	23 39 02	1 35.2	32.0	-0.95
24	20 15	2 26	9 17	105	102	0 31 04	6 09.6	31.5	-0.89
25	20 44	3 15	10 26	111	109	1 22 19	10 17.2	31.1	-0.82
26	21 16	4 04	11 33	116	114	2 13 10	13 47.7	30.6	-0.73
27	21 53	4 52	12 35	119	118	3 03 55	16 33.7	30.2	-0.64
28	22 34	5 40	13 33	121	121	3 54 40	18 30.4	29.9	-0.54
29	23 21	6 29	14 25	122	122	4 45 21	19 34.7	29.7	-0.44
30	—	7 17	15 10	—	121	5 35 51	19 45.9	29.6	-0.35
31	0 13	8 04	15 50	120	119	6 25 56	19 04.6	29.5	-0.26

nów	6 VIII	21 ^h 51 ^m	3 VIII	22.5 ^h	Jowisz	4°N
pierwsza kwadra	14 VIII	10 ^h 56 ^m	4 VIII	11.4 ^h	Mars	5°N
pełnia:	21 VIII	1 ^h 45 ^m	5 VIII	8.7 ^h	Merkury	4°N
ostatnia kwadra:	28 VIII	9 ^h 35 ^m	10 VIII	2.4 ^h	Wenus	5°N
			13 VIII	8.5 ^h	Saturn	3°N
apogeum:	3 VIII	8 ^h 54 ^m	21 VIII	14.9 ^h	Neptun	6°S
perygeum:	19 VIII	1 ^h 27 ^m	24 VIII	6.6 ^h	Uran	3°S
apogeum:	30 VIII	23 ^h 47 ^m	31 VIII	21.4 ^h	Jowisz	5°N