

KSIĘŻYC

d	Wsch.	Kulm.	Zach.	A _W	A _Z	α	δ	D	F
	λ=0°		φ=50°			0 ^h UT			
SIERPIEŃ 2017									
	h m	h m	h m	-°	+°	h m s	° ' "	' "	
1	14 36	19 28	—	66	—	15 31 57	-13 40.2	29.6	0.63
2	15 35	20 15	0 15	62	64	16 19 55	-16 12.8	29.5	0.72
3	16 30	21 02	0 51	60	61	17 08 50	-18 03.9	29.5	0.80
4	17 22	21 50	1 32	59	59	17 58 43	-19 08.4	29.6	0.87
5	18 08	22 39	2 19	59	59	18 49 25	-19 22.0	29.7	0.93
6	18 48	23 28	3 13	62	60	19 40 35	-18 42.5	29.9	0.97
7	19 24	—	4 12	66	63	20 31 51	-17 10.0	30.1	0.99
8	19 56	0 17	5 15	71	67	21 22 52	-14 47.5	30.3	-1.00
9	20 24	1 05	6 22	76	73	22 13 28	-11 40.7	30.6	-0.98
10	20 51	1 53	7 30	83	79	23 03 40	- 7 57.7	30.9	-0.95
11	21 17	2 40	8 40	90	86	23 53 43	- 3 48.6	31.1	-0.89
12	21 43	3 28	9 52	97	94	0 44 04	0 35.4	31.4	-0.82
13	22 11	4 17	11 04	104	101	1 35 17	5 01.6	31.7	-0.72
14	22 43	5 08	12 17	110	108	2 27 58	9 16.3	31.9	-0.62
15	23 20	6 01	13 31	115	113	3 22 40	13 04.6	32.2	-0.51
16	—	6 57	14 43	—	118	4 19 41	16 10.9	32.4	-0.39
17	0 05	7 55	15 51	119	120	5 18 58	18 20.1	32.5	-0.28
18	0 58	8 55	16 52	121	121	6 19 52	19 19.7	32.6	-0.18
19	2 00	9 55	17 44	120	119	7 21 19	19 03.1	32.6	-0.10
20	3 09	10 53	18 27	117	115	8 22 03	17 31.3	32.5	-0.04
21	4 23	11 49	19 04	112	109	9 20 57	14 53.4	32.3	-0.01
22	5 37	12 42	19 35	106	103	10 17 23	11 24.3	32.0	0.00
23	6 50	13 32	20 02	99	96	11 11 11	7 21.5	31.7	0.02
24	8 02	14 20	20 28	92	89	12 02 39	3 02.1	31.3	0.06
25	9 10	15 07	20 53	85	82	12 52 18	- 1 19.0	30.8	0.12
26	10 17	15 52	21 18	79	76	13 40 43	- 5 29.5	30.5	0.20
27	11 22	16 37	21 45	73	70	14 28 31	- 9 19.4	30.1	0.28
28	12 24	17 23	22 15	67	66	15 16 15	-12 40.8	29.8	0.37
29	13 24	18 09	22 48	63	62	16 04 21	-15 27.2	29.7	0.47
30	14 21	18 56	23 27	60	60	16 53 06	-17 33.0	29.6	0.56
31	15 14	19 43	—	59	—	17 42 40	-18 53.0	29.6	0.66

pełnia:	7 VIII	18 ^h 11 ^m	3 VIII	7.2 ^h	Saturn	3.5°S
ostatnia kwadra:	15 VIII	1 ^h 15 ^m	9 VIII	22.7 ^h	Neptun	1°N
nów:	21 VIII	18 ^h 30 ^m	13 VIII	5.3 ^h	Uran	4°N
pierwsza kwadra:	29 VIII	8 ^h 13 ^m	19 VIII	4.8 ^h	Wenus	2°N
			21 VIII	4.9 ^h	Mars	1.5°N
apogeum:	2 VIII	17 ^h 54 ^m	22 VIII	6.0 ^h	Merkury	6°S
perygeum:	18 VIII	13 ^h 17 ^m	25 VIII	13.1 ^h	Jowisz	3.5°S
apogeum:	30 VIII	11 ^h 27 ^m	30 VIII	14.8 ^h	Saturn	3.5°S