

### MARS

Data 2018	0 <sup>h</sup> UT			Data 2018	0 <sup>h</sup> UT				
	P	B <sub>0</sub>	L <sub>0</sub>		P	B <sub>0</sub>	L <sub>0</sub>		
I	1	38.48	15.58	227.62	II	18	33.32	3.83	123.82
	2	38.48	15.36	217.92		19	33.11	3.57	114.18
	3	38.47	15.13	208.23		20	32.90	3.32	104.55
	4	38.46	14.91	198.54		21	32.69	3.06	94.92
	5	38.45	14.68	188.85		22	32.47	2.81	85.28
	6	38.43	14.46	179.16		23	32.25	2.55	75.65
	7	38.40	14.23	169.47		24	32.03	2.30	66.02
	8	38.37	14.00	159.79		25	31.81	2.05	56.40
	9	38.34	13.77	150.10		26	31.58	1.79	46.77
	10	38.30	13.53	140.42		27	31.35	1.54	37.14
	11	38.25	13.30	130.74		28	31.11	1.29	27.51
	12	38.20	13.07	121.06	III	1	30.88	1.03	17.89
	13	38.15	12.83	111.38		2	30.64	0.78	8.26
	14	38.09	12.59	101.70		3	30.39	0.53	358.64
	15	38.03	12.35	92.03		4	30.15	0.28	349.02
	16	37.96	12.11	82.35		5	29.90	0.03	339.39
	17	37.89	11.87	72.68		6	29.65	-0.22	329.77
	18	37.81	11.63	63.01		7	29.40	-0.47	320.15
	19	37.73	11.39	53.34		8	29.14	-0.72	310.53
	20	37.64	11.14	43.67		9	28.89	-0.96	300.91
	21	37.55	10.90	34.00		10	28.63	-1.21	291.29
	22	37.45	10.66	24.34		11	28.36	-1.45	281.68
	23	37.35	10.41	14.67		12	28.10	-1.70	272.06
	24	37.25	10.16	5.01		13	27.83	-1.94	262.44
	25	37.14	9.91	355.35		14	27.56	-2.19	252.83
	26	37.03	9.67	345.69		15	27.29	-2.43	243.21
	27	36.91	9.42	336.03		16	27.02	-2.67	233.60
	28	36.79	9.17	326.37		17	26.74	-2.91	223.99
	29	36.66	8.92	316.72		18	26.47	-3.15	214.37
	30	36.53	8.67	307.06		19	26.19	-3.38	204.76
	31	36.40	8.41	297.41		20	25.91	-3.62	195.15
II	1	36.26	8.16	287.75		21	25.63	-3.85	185.54
	2	36.12	7.91	278.10		22	25.34	-4.09	175.94
	3	35.97	7.66	268.45		23	25.06	-4.32	166.33
	4	35.82	7.40	258.80		24	24.77	-4.55	156.72
	5	35.67	7.15	249.15		25	24.49	-4.78	147.12
	6	35.51	6.89	239.50		26	24.20	-5.01	137.51
	7	35.35	6.64	229.86		27	23.91	-5.23	127.91
	8	35.18	6.38	220.21		28	23.62	-5.46	118.31
	9	35.01	6.13	210.57		29	23.32	-5.68	108.70
	10	34.84	5.87	200.93		30	23.03	-5.90	99.10
	11	34.66	5.62	191.28		31	22.74	-6.12	89.50
	12	34.48	5.36	181.64	IV	1	22.44	-6.34	79.90
	13	34.29	5.11	172.00		2	22.14	-6.56	70.31
	14	34.10	4.85	162.36		3	21.85	-6.77	60.71
	15	33.91	4.60	152.72		4	21.55	-6.99	51.11
	16	33.72	4.34	143.09		5	21.25	-7.20	41.52
II	17	33.52	4.08	133.45	IV	6	20.95	-7.41	31.93

MARS

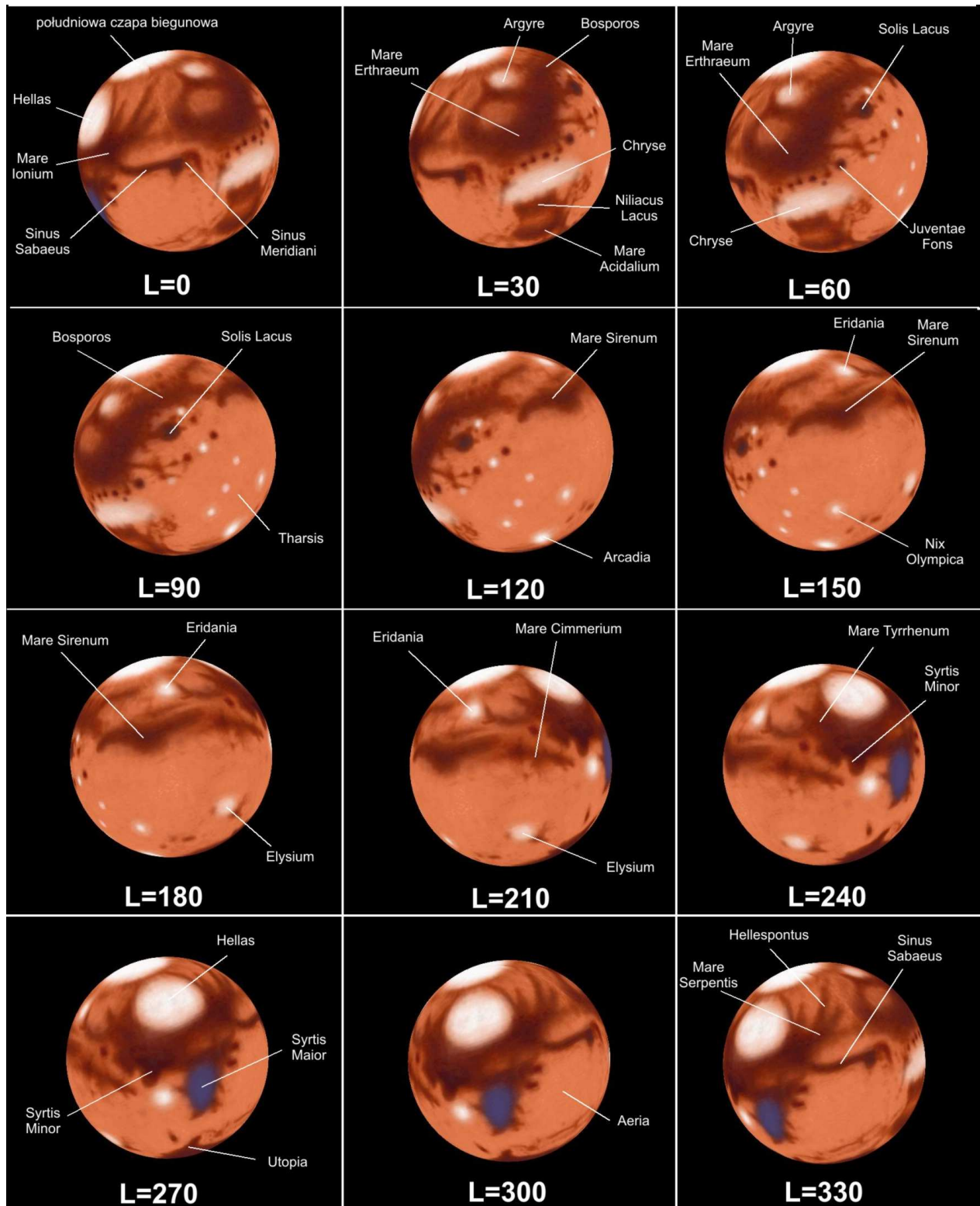
Data 2018	0 <sup>h</sup> UT			Data 2018	0 <sup>h</sup> UT				
	P	B <sub>0</sub>	L <sub>0</sub>		P	B <sub>0</sub>	L <sub>0</sub>		
IV	7	20.65	-7.62	22.33	V	25	7.25	-14.53	284.68
	8	20.35	-7.82	12.74		26	7.03	-14.59	275.25
	9	20.05	-8.02	3.15		27	6.81	-14.65	265.82
	10	19.75	-8.23	353.56		28	6.60	-14.71	256.40
	11	19.45	-8.43	343.98		29	6.39	-14.76	246.98
	12	19.14	-8.62	334.39		30	6.19	-14.81	237.58
	13	18.84	-8.82	324.81		31	6.00	-14.85	228.18
	14	18.54	-9.01	315.23	VI	1	5.80	-14.89	218.78
	15	18.24	-9.20	305.64		2	5.62	-14.93	209.40
	16	17.94	-9.39	296.07		3	5.43	-14.96	200.02
	17	17.64	-9.58	286.49		4	5.26	-14.99	190.65
	18	17.34	-9.76	276.91		5	5.09	-15.01	181.29
	19	17.04	-9.94	267.34		6	4.92	-15.03	171.94
	20	16.74	-10.12	257.77		7	4.76	-15.05	162.60
	21	16.44	-10.30	248.20		8	4.61	-15.06	153.26
	22	16.14	-10.47	238.63		9	4.46	-15.06	143.94
	23	15.84	-10.64	229.07		10	4.32	-15.07	134.62
	24	15.55	-10.81	219.50		11	4.18	-15.07	125.32
	25	15.25	-10.98	209.94		12	4.05	-15.06	116.02
	26	14.95	-11.14	200.38		13	3.93	-15.05	106.74
	27	14.66	-11.30	190.83		14	3.82	-15.03	97.46
	28	14.37	-11.46	181.27		15	3.71	-15.01	88.20
	29	14.08	-11.62	171.72		16	3.61	-14.99	78.94
	30	13.79	-11.77	162.17		17	3.51	-14.96	69.70
V	1	13.50	-11.92	152.63		18	3.43	-14.93	60.47
	2	13.21	-12.06	143.09		19	3.35	-14.89	51.25
	3	12.92	-12.21	133.55		20	3.28	-14.85	42.04
	4	12.64	-12.35	124.01		21	3.21	-14.81	32.84
	5	12.36	-12.49	114.47		22	3.16	-14.76	23.65
	6	12.07	-12.62	104.94		23	3.11	-14.71	14.48
	7	11.80	-12.75	95.42		24	3.07	-14.65	5.32
	8	11.52	-12.88	85.89		25	3.03	-14.59	356.16
	9	11.24	-13.00	76.37		26	3.01	-14.52	347.02
	10	10.97	-13.13	66.86		27	2.99	-14.45	337.89
	11	10.70	-13.24	57.34		28	2.98	-14.38	328.78
	12	10.44	-13.36	47.84		29	2.98	-14.30	319.67
	13	10.17	-13.47	38.33		30	2.99	-14.22	310.58
	14	9.91	-13.58	28.83	VII	1	3.00	-14.14	301.50
	15	9.65	-13.68	19.34		2	3.02	-14.05	292.43
	16	9.40	-13.78	9.85		3	3.05	-13.96	283.38
	17	9.14	-13.88	0.37		4	3.09	-13.86	274.33
	18	8.89	-13.97	350.89		5	3.14	-13.76	265.30
	19	8.65	-14.06	341.41		6	3.19	-13.66	256.28
	20	8.40	-14.15	331.94		7	3.26	-13.55	247.27
	21	8.17	-14.23	322.48		8	3.33	-13.45	238.28
	22	7.93	-14.31	313.02		9	3.41	-13.33	229.29
	23	7.70	-14.39	303.57		10	3.50	-13.22	220.32
V	24	7.47	-14.46	294.12	VII	11	3.59	-13.11	211.36

**MARS**

Data 2018		0 <sup>h</sup> UT			Data 2018		0 <sup>h</sup> UT		
		P	B <sub>0</sub>	L <sub>0</sub>			P	B <sub>0</sub>	L <sub>0</sub>
VII	12	3.69	-12.99	202.40	VIII	29	9.55	-9.73	133.87
	13	3.80	-12.87	193.46		30	9.54	-9.79	124.75
	14	3.91	-12.75	184.53		31	9.52	-9.85	115.61
	15	4.04	-12.62	175.60	IX	1	9.50	-9.93	106.47
	16	4.16	-12.50	166.69		2	9.47	-10.00	97.31
	17	4.30	-12.37	157.78		3	9.43	-10.08	88.14
	18	4.44	-12.25	148.88		4	9.38	-10.17	78.96
	19	4.58	-12.12	139.99		5	9.32	-10.26	69.77
	20	4.73	-11.99	131.11		6	9.25	-10.36	60.56
	21	4.88	-11.87	122.23		7	9.18	-10.47	51.34
	22	5.04	-11.74	113.35		8	9.10	-10.57	42.11
	23	5.20	-11.61	104.48		9	9.01	-10.69	32.87
	24	5.36	-11.49	95.62		10	8.91	-10.81	23.62
	25	5.53	-11.37	86.75		11	8.81	-10.93	14.35
	26	5.70	-11.25	77.89		12	8.69	-11.06	5.07
	27	5.87	-11.13	69.04		13	8.57	-11.19	355.78
	28	6.04	-11.01	60.18		14	8.44	-11.32	346.48
	29	6.21	-10.89	51.32		15	8.31	-11.46	337.16
	30	6.38	-10.78	42.47		16	8.16	-11.61	327.84
	31	6.55	-10.67	33.61		17	8.01	-11.76	318.50
VIII	1	6.72	-10.56	24.75		18	7.86	-11.91	309.15
	2	6.89	-10.46	15.90		19	7.69	-12.06	299.80
	3	7.06	-10.36	7.03		20	7.52	-12.22	290.43
	4	7.23	-10.27	358.17		21	7.34	-12.38	281.05
	5	7.39	-10.18	349.30		22	7.16	-12.55	271.66
	6	7.55	-10.09	340.43		23	6.97	-12.72	262.26
	7	7.71	-10.01	331.55		24	6.77	-12.89	252.85
	8	7.86	-9.93	322.66		25	6.57	-13.06	243.43
	9	8.01	-9.86	313.77		26	6.36	-13.23	234.00
	10	8.15	-9.80	304.87		27	6.15	-13.41	224.57
	11	8.29	-9.74	295.97		28	5.93	-13.59	215.12
	12	8.42	-9.68	287.05		29	5.70	-13.77	205.66
	13	8.55	-9.64	278.13		30	5.47	-13.96	196.20
	14	8.67	-9.59	269.20	X	1	5.24	-14.14	186.72
	15	8.78	-9.56	260.26		2	5.00	-14.33	177.24
	16	8.89	-9.53	251.30		3	4.75	-14.52	167.75
	17	8.99	-9.51	242.34		4	4.50	-14.71	158.25
	18	9.08	-9.49	233.37		5	4.24	-14.90	148.74
	19	9.16	-9.48	224.38		6	3.98	-15.10	139.23
	20	9.24	-9.48	215.38		7	3.72	-15.29	129.70
	21	9.30	-9.48	206.37		8	3.45	-15.49	120.17
	22	9.36	-9.49	197.35		9	3.17	-15.68	110.63
	23	9.42	-9.50	188.32		10	2.89	-15.88	101.08
	24	9.46	-9.53	179.28		11	2.61	-16.08	91.53
	25	9.49	-9.55	170.22		12	2.32	-16.28	81.96
	26	9.52	-9.59	161.15		13	2.03	-16.48	72.39
	27	9.54	-9.63	152.07		14	1.73	-16.68	62.82
VIII	28	9.55	-9.68	142.97	X	15	1.43	-16.88	53.23

### MARS

Data 2018	0 <sup>h</sup> UT			Data 2018	0 <sup>h</sup> UT				
	P	B <sub>0</sub>	L <sub>0</sub>		P	B <sub>0</sub>	L <sub>0</sub>		
X	16	1.13	-17.08	43.64	XII	1	344.55	-24.76	316.36
	17	0.82	-17.28	34.04		2	344.16	-24.87	306.53
	18	0.51	-17.48	24.43		3	343.78	-24.97	296.71
	19	0.19	-17.68	14.82		4	343.40	-25.07	286.88
	20	359.88	-17.87	5.20		5	343.01	-25.16	277.05
	21	359.55	-18.07	355.57		6	342.63	-25.26	267.21
	22	359.23	-18.27	345.94		7	342.24	-25.34	257.37
	23	358.90	-18.47	336.30		8	341.86	-25.43	247.53
	24	358.57	-18.66	326.65		9	341.48	-25.51	237.69
	25	358.24	-18.86	317.00		10	341.10	-25.58	227.85
	26	357.90	-19.06	307.35		11	340.72	-25.65	218.00
	27	357.56	-19.25	297.68		12	340.34	-25.72	208.15
	28	357.22	-19.44	288.01		13	339.96	-25.79	198.30
	29	356.87	-19.63	278.34		14	339.59	-25.84	188.44
	30	356.53	-19.82	268.66		15	339.21	-25.90	178.59
	31	356.18	-20.01	258.97		16	338.84	-25.95	168.73
XI	1	355.82	-20.20	249.28		17	338.47	-26.00	158.87
	2	355.47	-20.39	239.59		18	338.10	-26.04	149.01
	3	355.11	-20.57	229.88		19	337.73	-26.08	139.15
	4	354.75	-20.75	220.18		20	337.36	-26.12	129.28
	5	354.39	-20.93	210.46		21	337.00	-26.15	119.42
	6	354.03	-21.11	200.75		22	336.64	-26.18	109.55
	7	353.67	-21.29	191.02		23	336.28	-26.20	99.68
	8	353.30	-21.46	181.30		24	335.92	-26.22	89.82
	9	352.93	-21.64	171.56		25	335.57	-26.23	79.95
	10	352.56	-21.81	161.83		26	335.21	-26.24	70.08
	11	352.19	-21.98	152.08		27	334.86	-26.25	60.21
	12	351.82	-22.14	142.33		28	334.52	-26.25	50.33
	13	351.44	-22.31	132.58		29	334.17	-26.25	40.46
	14	351.06	-22.47	122.83		30	333.83	-26.24	30.59
	15	350.69	-22.63	113.06	XII	31	333.49	-26.23	20.71
	16	350.31	-22.78	103.30					
	17	349.93	-22.94	93.53					
	18	349.55	-23.09	83.76					
	19	349.17	-23.23	73.98					
	20	348.78	-23.38	64.20					
	21	348.40	-23.52	54.41					
	22	348.02	-23.66	44.62					
	23	347.63	-23.80	34.83					
	24	347.25	-23.93	25.03					
	25	346.86	-24.06	15.23					
	26	346.48	-24.18	5.43					
	27	346.09	-24.31	355.62					
	28	345.71	-24.43	345.81					
	29	345.32	-24.54	335.99					
XI	30	344.94	-24.65	326.18					



Widok Marsa w teleskopie (południe u góry) w czasie opozycji w 2018 r. przy różnych długościach południka centralnego