

file: DISKH:[SIMMONS.MM71.MOONS]phobos_observations.lis

June 23, 1999 - kes

Observations on this list come from the MM71 TV Picture Catalog, JPL Technical Memorandum 33-585, Vol 2. An Addendum from this document lists changes to the geometry due to a Mars pole definition change; values in this list are from the original document and if the values changed then a second line lists the updated geometry. NOTE: Picture type A is Wide Angle, B is Narrow Angle; angles are in degrees, distances in Km. If there is no previous picture number then it is the first observation of the orbit (ie, Pic 1). # denotes a suspicious value.

```
=====
```

Orbit	Pict	Pic	Pic	View	Light	Phas	Height	Prev	Next
	Numb	siz	DAS	Ang		Angle		Pic	Pic
27	1	B	2,562,560	102.62	135.64		11995		
27	2	A	2,562,595	102.16	136.29		11958		2,564,310
31	16	B	2,711,170	102.43	37.32		4963	2,709,280	2,712,150
33	16	B	2,782,920	92.54	77.76	67.05	5115	2,781,170	
33	17	A	2,782,955	93.33	76.99	75.44	5054		2,784,040
34	3	B	2,816,100	118.44	92.07	80.38	9399	2,815,750	
34	4	B	2,816,170	119.69	89.54	80.38	9304		
34	5	B	2,816,240	120.31	87.82	80.38	9208		
34	6	B	2,816,310	120.33	86.16	80.38	9111		2,816,485
41	1	B	3,066,215	114.76	128.93		11226		
41	2	B	3,067,265	118.80	115.63		9942		
41	3	B	3,067,335	119.31	114.23		9851		3,067,615
41	13	B	3,069,015	133.49	74.72	76.27#	7444	3,068,280	
41	14	A	3,069,680	137.93	61.83	80.48	6374		
41	15	A	3,069,750	138.37	60.58	80.58	6258		
41	16	A	3,069,820	138.48	59.44	80.48	6141		3,071,535

43	1	B	3,136,565	96.39	151.14		12830		
43	2	A	3,136,600	95.99	152.13		12797		
43	3	B	3,137,335	94.47	113.89		12060		
43	4	A	3,137,370	93.84	114.18		12023		3,139,155
47	16	B	3,286,715	101.25	56.26	76.09	3875	3,284,265	
47	17	A	3,286,750	102.22	56.16	82.92	3814		3,287,135
48	17	B	3,320,805	133.44	81.47	77.82	6980	3,320,350	
48	18	B	3,320,875	133.95	79.52	77.82	6867		
48	19	B	3,320,945	134.12	77.94	77.82	6754		
48	20	B	3,321,015	134.37	76.96	77.82	6640		3,323,045
50	1	B	3,390,595	112.21	84.43	74.20	9910		
50	2	B	3,390,665	113.56	82.91	74.20	9819		3,390,945
53	16	B	3,501,965	116.50	83.20	81.19	4139	3,499,655	
53	17	A	3,502,000	115.23	83.70	82.73	4078		3,502,525
57	3	B	3,642,175	120.74	105.86	75.71	9408	3,641,895	
57	4	B	3,642,245	119.86	105.82	75.71	9313		
57	5	B	3,642,315	119.07	105.87	75.71	9217		
57	6	B	3,642,385	117.41	105.60	75.71	9120		3,642,560
59	1	B	3,711,125	90.14	126.15	.00	12656		3,713,505
73	3	B	4,215,685	111.71	131.47	.00	10616	4,212,605	4,217,575
77	24	A	4,365,030	128.35	47.33	60.27	2010	4,364,400	
77	25	B	4,365,065	129.15	47.36	60.09	1967		
77	26	A	4,365,100	130.72	47.33	60.27	1925		
77	27	B	4,365,135	131.56	47.40	60.09	1884		
77	28	A	4,365,170	133.17	47.36	60.27	1844		
77	29	B	4,365,205	134.10	47.45	60.09	1806		
77	30	A	4,365,240	135.78	47.41	60.27	1769		
77	31	B	4,365,275	136.66	47.53	60.09	1734		4,365,275
80	15	B	4,470,415	139.78	71.51	75.27	6047	4,470,205	

80	16	B	4,470,485	138.76	71.05	75.27	5929	
80	17	B	4,470,555	139.83	69.68	75.27	5811	
80	18	B	4,470,625	138.71	68.90	75.27	5691	4,472,025
87	1	B	4,720,595	131.39	106.70		8018	
87	2	B	4,720,665	130.68	106.68		7912	
87	3	B	4,720,735	129.95	106.67		7806	
87	4	B	4,720,805	130.75	104.98		7699	4,721,120
89	1	B	4,790,385	106.48	113.82		10718	
89	2	A	4,790,420	105.82	113.98		10676	
89	3	B	4,790,455	106.05	113.62		10633	
89	4	A	4,790,490	105.39	113.42		10591	
89	5	B	4,790,525	105.56	113.42		10548	IMAGE DELETED
89	6	A	4,790,560	104.91	113.53		10505	IMAGE DELETED
117	1	B	5,733,388	120.62	144.87		9982	4,776,503
129	6	B	6,209,278	109.75	104.57		3649	6,208,473
129	7	A	6,209,523	106.53	100.82	83.67	3261	
129	8	A	6,209,593	106.01	98.88	83.67	3153	
129	9	B	6,209,628	105.09	98.77		3100	
129	10	A	6,209,663	103.56	99.33	83.67	3147	4,210,223
131	1	B	6,278,438	123.71	134.93		8007	4,280,083
133	1	B	6,350,468	130.72	108.70		7794	6,351,973
139	2	A	6,568,971	104.53	55.75		3262	6,568,728
139	3	A	6,568,043	105.79	54.75		3154	
139	4	B	6,569,078	106.04	54.21	64.47	3101	6,569,638
145	1	B	6,781,038	112.08	153.19		9070	6,784,538
161	1	B	7,357,768	125.45	142.89		7969	
161	2	B	7,360,358	127.03	91.59		3832	7,360,743
171	31	A	7,725,933	114.30	150.73	74.80	6967	7,723,343

171	32	B	7,725,968	114.71	150.99	74.78	7021	
207	1	B	9,011,734	124.53	163.27		8981	
207	2	B	9,013,274	134.87	130.63		6727	9,015,444
221	1	B	9,518,254	127.92	112.32		3970	
221	2	A	9,518,289	126.45	112.63		3913	
221	2	B	9,518,464	108.55	128.41		3628	
221	4	A	9,518,499	106.30	130.42		3572	9,518,744