

~~SECRET~~



P C S #

COPY OF

DATE LISTED

PAGES



DELIVER TO

*DLT*  
*1040-1*  
*CONROY J Flight Book*

Declassified and Released by the NRO  
in Accordance with E. O. 12958

on NOV 26 1997

~~SECRET~~

~~SECRET~~  
12 PAGES  
(NOT INCLUDING PEST)

CORONA J FLIGHT DATA BOOK

SYSTEM NO. J-35

VEHICLE NO. 1636

MISSION NO. 1848-1

CAMERA NOS. 196/197

DATE 04-04-67

PAGE 1

~~SECRET~~

SYSTEM NO. J-35  
VEHICLE NO. 1636  
MISSION NO. 1848-1  
CAMERA NOS. 196/197

TABLE OF CONTENTS

PAGE NO.

GENERAL FLIGHT DATA	3
LENS SETTINGS AND FILM TYPES	4
LENS DATA SUMMARY MASTER CAMERA	5
LENS DATA SUMMARY MASTER CAMERA HORIZON OPTICS	6
LENS DATA SUMMARY SLAVE CAMERA	7
LENS DATA SUMMARY SLAVE CAMERA HORIZON OPTICS	8
PANORAMA IC CAMERA FORMAT CALIBRATION DIMENSIONS	9
LENS DATA SUMMARY STELLAR-INDEX -1	10
LENS DATA SUMMARY STELLAR-INDEX -2	11
CYCLE PERIOD DATA	12
PERFORMANCE ESTIMATE	13- UP

PAGE 2

SECRET

SYSTEM NO. J-35  
VEHICLE NO. 1636  
MISSION NO. 1048-1  
CAMERA NOS. 196/197

GENERAL FLIGHT DATA

MASTER CAMERA SERIAL NO. 196

SLAVE CAMERA SERIAL NO. 197

S/I -1 SERIAL NO. 078/95/96

S/I -2 SERIAL NO. 092/79/118

LAUNCH DATE 03-30-67

LAUNCH TIME 18-54-00 GMT

REACTIVATION DATE N/A

REACTIVATION ORBIT NO. N/A

ORBITAL PARAMETERS (REV. 42)

PERIOD 90.265 MIN.

ECCENTRICITY 0.01591

PERIGEE 99.668 NM

PERIGEE LAT. 28.271 DEG. N

APOGEE 214.130 NM

INCL. ANGLE 85.854 DEG.

RECOVERY ORBIT NO. 81

RECOVERY DATE 04-04-67

SYSTEM NO. J-35  
 VEHICLE NO. 1636  
 MISSION NO. 1040-1  
 CAMERA NOS. 196/197

FLIGHT LENS SETTINGS AND FILM TYPES

LENS SETTINGS

PANORAMIC CAMERA SETTINGS

CAMERA NO. 196      CAMERA NO. 197

PANORAMIC OPTICS SLIT WIDTH	.175	IN	.225	IN
PANORAMIC OPTICS FILTER TYPE	WRATTEN 21		WRATTEN 23A	
HORIZON OPTICS EXP. TIME	1/100	SEC.	1/100	SEC.
HORIZON OPTICS APERTURE	F6.3	SUPPLY	F6.3	SUPPLY
HORIZON OPTICS APERTURE	F8.0	TAKE-UP	F6.3	TAKE-UP
HORIZON OPTICS FILTER TYPE	WRATTEN 25		WRATTEN 25	

STELLAR INDEX CAMERA SETTINGS

	078/95/96		092/79/110	
	STELLAR	INDEX	STELLAR	INDEX
EXPOSURE TIME	1.0 SEC	1/500 SEC	2.0 SEC	1/500 SEC
APERTURE SETTING	F1.8	F4.5	F1.8	F4.5
FILTER TYPE	NONE	WRATTEN 21	NONE	WRATTEN 21

RATIO ONE STELLAR/INDEX FRAME PER 7 MASTER CAMERA FRAMES.

FILM

PANORAMIC CAMERAS

CAMERA NO. 196

CAMERA NO. 197

TYPE	7J-40	7J-40
LENGTH	16000 FT.	16000 FT.
SPLICES	2	3
EMUL. DATA	276-2-1-7	276-2-1-7
LG. BETWEEN	4525-5793-5782-	3650-5620-5630-
SPLICE TO CORE	- - -	1100- - -
	- - -	- - -
	- - -	- - -
	- - -	- - -

STELLAR/INDEX CAMERAS

	078/95/96		092/79/110	
	STELLAR	INDEX	STELLAR	INDEX
TYPE	3J-34	7J-33	3J-34	7J-33
EMUL. DATA	169-49-7-6	122-6-7-6	169-49-7-6	122-6-7-6

SYSTEM NO. J-35  
 VEHICLE NO. 1636  
 MISSION NO. 1040-1  
 CAMERA NOS. 196/197

LENS DATA SUMMARY MASTER CAMERA NO. 196

LENS SERIAL NO. 1952435  
 EQUIVALENT OPERATIONAL FOCAL LENGTH 609.602 MM.

RESOLUTION

STATIC	BENCH TEST	LINES/MM	FILM TYPE	TARGET CONTRAST
		250	3404	HIGH
		158	3404	LOW
DYNAMIC				
	BOSTON	201	3404	HIGH
		121	3404	LOW
	AP	169	3404	HIGH
		110	3404	LOW

NOTE BOSTON RESOLUTION OF 201 LINES/MM REPORTED IN [REDACTED]

DISTORTION - POSITIVE (PINCUSHION)

ANGLE OFF AXIS-DEG.	3	2	1	0	359	358	357
MILLIMETERS	0.002	0.0	0.0	0.0	0.001	0.002	0.004

~~SECRET~~

SYSTEM NO. J-35  
 VEHICLE NO. 1636  
 MISSION NO. 1248-1  
 CAMERA NOS. 196/197

LENS DATA SUMMARY (HORIZON CAMERAS FOR MASTER CAMERA NO. 196)

	TAKE-UP	SUPPLY
LENS SERIAL NO.	12847	12851
OPERATIONAL FOCAL LENGTH	55.88 MM	54.98 MM
RADIAL DISTORTION		
18 DEG. OFF AXIS	0.828 MM	0.812 MM
22 DEG. OFF AXIS	0.878 MM	0.848 MM
TANGENTIAL DISTORTION (MAXIMUM VECTOR)	0.818 MM	0.825 MM

RESOLUTION

ANGLE OFF AXIS-DEG.	0	5	10	15	20	25	27.5	32
TAKE-UP (RADIAL)	235	208	206	181	156	134	0	51
(TANGENTIAL)	209	185	161	138	116	96	0	62
SUPPLY (RADIAL)	209	208	206	181	175	106	0	36
(TANGENTIAL)	209	207	161	138	116	54	0	62

DYNAMIC (ZERO DEG)

TAKE-UP 0 LINES/MM  
 SUPPLY 2 LINES/MM

NOTE

1. DISTORTION AND RESOLUTION ARE READ AT EQUIVALENT OPERATIONAL FOCAL LENGTH.
2. RESOLUTION IN LINES PER MM ON 3404 FILM AND HIGH CONTRAST TARGET.

~~SECRET~~  
 12451

SYSTEM NO. J-35  
 VEHICLE NO. 1636  
 MISSION NO. 1040-1  
 CAMERA NOS. 196/197

LENS DATA SUMMARY SLAVE CAMERA NO. 197

LENS SERIAL NO. 1972435  
 EQUIVALENT OPERATIONAL FOCAL LENGTH 689.627 MM

RESOLUTION

STATIC	BENCH TEST	LINES/MM	FILM TYPE	TARGET CONTRAST
		259	3484	HIGH
		156	3484	LOW
DYNAMIC	BOSTON	190	3484	HIGH
		119	3484	LOW
	AP	187	3484	HIGH
		116	3484	LOW

NOTE BOSTON RESOLUTION OF 190 LINES/MM REPORTED IN [REDACTED]

DISTORTION - POSITIVE (PINCUSHION)

ANGLE OFF AXIS-DEG.	3	2	1	2	359	358	357
MILLIMETERS	0.002	0.001	0.0	0.0	0.002	0.003	0.005



SYSTEM NO. J-35  
 VEHICLE NO. 1636  
 MISSION NO. 1048-1  
 CAMERA NOS. 196/197

LENS DATA SUMMARY (HORIZON CAMERAS FOR SLAVE CAMERA NO. 197)

	TAKE-UP	SUPPLY
LENS SERIAL NO.	12884	12901
OPERATIONAL FOCAL LENGTH	55.00 MM	54.94 MM
RADIAL DISTORTION		
10 DEG. OFF AXIS	0.010 MM	0.010 MM
20 DEG. OFF AXIS	0.040 MM	0.030 MM
TANGENTIAL DISTORTION (MAXIMUM VECTOR)	0.020 MM	0.030 MM

RESOLUTION

ANGLE OFF AXIS-DEG.	0	5	10	15	20	25	27.5	30
TAKE-UP (RADIAL)	186	186	163	160	139	150	0	57
(TANGENTIAL)	185	185	161	138	116	86	0	62
SUPPLY (RADIAL)	209	208	184	160	88	150	0	81
(TANGENTIAL)	187	185	161	98	85	86	0	62

DYNAMIC (ZERO DEG)

TAKE-UP   0 LINES/MM  
 SUPPLY    0 LINES/MM

NOTE

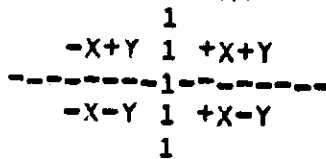
1. DISTORTION AND RESOLUTION ARE READ AT EQUIVALENT OPERATIONAL FOCAL LENGTH.
2. RESOLUTION IN LINES PER MM ON 3404 FILM AND HIGH CONTRAST TARGET.

SYSTEM NO. J-35  
 VEHICLE NO. 1636  
 MISSION NO. 1048-1  
 CAMERA NOS. 196/197

FORMAT DIMENSIONS AND CALIBRATIONS

	CAMERA NO. 196	CAMERA NO. 197
A	75.840	75.990
B	355.090	355.040
C	709.670	709.870
D	56.520	56.470
E	56.455	56.461
XT	2.465	2.343
YT	2.234	-2.105
XS	-2.780	-0.510
YS	-0.250	-0.137
XVO	1.110	-0.173
YVO	1.645	1.678
XTZ	2.470	0.332
DTY	3.034	1.895
DSX	-1.700	-0.512
DSY	-2.250	-2.137
DX	1.050	-0.125
DY	21.640	21.678
HEIGHT	55.200	54.398
LETH	753.000	753.040
DIRECTION	FLIGHT +Y	-Y
	SCAN +X	+X

- NOTE 1. ALL DIMENSIONS ARE IN MILLIMETERS AND ARE AVERAGE DIMENSIONS OF THREE FORMATS.  
 2. HEIGHT OF MAIN FORMAT IS TAKEN AT CENTER OF FORMAT.  
 3. XT, DT, DS, X, AND Y DIMENSIONS ARE TAKEN 10MM ABOVE POINT DEFINING TARGET CENTER.  
 4. NEGATIVE VIEWED WITH EMULSION SIDE DOWN.  
 5. FORMAT SIGN CONVENTION



SYSTEM NO. J-35  
 VEHICLE NO. 1636  
 MISSION NO. 1848-1  
 CAMERA NOS. 196/197

LENS DATA SUMMARY STELLAR INDEX D78/95/96 -1 MISSION

	STELLAR	INDEX
LENS SERIAL NO.	18757	819189
RESEAU SERIAL NO.	96	95
FILTER TYPE	NONE	WRATTEN 21
APERTURE	F1.8	F4.5
EXPOSURE TIME	1.8 SEC.	1/500 SEC.
EQUIVALENT FOCAL LENGTH	84 NOM	MM 38.5 MM

RESOLUTION (INDEX)

ANGLE OFF AXIS	0	10	20	30	35
HIGH CONTRAST-R/T (3476 FILM)	271/71	288/89	104/82	091/43	286/32

APAR 73 LINES/MM  
 READ FROM 4422 FILM.

DISTORTION

FULL DATA TO BE REPORTED AS PART OF PHOTOGONIOMETER  
 DATA REDUCTION.

ALIGNMENT

STELLAR	INDEX
0.0023 INCHES/.937 INCHES	0.0011 INCHES/2.25 INCHES

SYSTEM NO. J-35  
 VEHICLE NO. 1636  
 MISSION NO. 1848-1  
 CAMERA NOS. 196/197

LENS DATA SUMMARY STELLAR INDEX D92/79/110 -2 MISSION

	STELLAR	INDEX
LENS SERIAL NO.	12800	820193
RESEAL SERIAL NO.	118	79
FILTER TYPE	NONE	WRATTEN 21
APERTURE	F1.8	F4.5
EXPOSURE TIME	2.0 SEC.	1/500 SEC.
EQUIVALENT FOCAL LENGTH	84 MM	38.48 MM

RESOLUTION (INDEX)

ANGLE OFF AXIS	2	10	20	30	35
HIGH CONTRAST-R/T (39% FILM)	875/71	878/80	105/76	891/42	869/31

APAR 72 LINES/MM  
 REAR PROJ. 4428 FILM.

DISTORTION

FULL DATA TO BE REPORTED AS PART OF PHOTOGONIOMETER  
 DATA REDUCTION.

ALIGNMENT

STELLAR	INDEX
0.0006 INCHES/.937 INCHES	-0.0011 INCHES/2.25 INCHES

SYSTEM NO. J-35  
 VEHICLE NO. 1636  
 MISSION NO. 1040-1  
 CAMERA NOS. 196/197

CYCLE PERIOD DATA

V/F LEVEL	RAMP SETTING AMPLITUDE	TIME UP RAMP-SEC	---CALIBRATED---		---IN-FLIGHT---		ORBIT NO.
			MASTER	SLAVE	MASTER	SLAVE	
0	5	80	3.877	3.898	3.809	3.832	8
6	5	1705	2.236	2.260	2.242	2.273	16
5	5	1793	2.211	2.234	2.220	2.250	47
NOTE							

A B OR \* INDICATE NO DATA AVAILABLE.

1. 1040-1  
 2. DRY  
 3. PERFORMANCE ESTIMATE - PART ONE

OPERATIONS SUMMARY

CPN NO	FRA	Q	LAT	LONG	HEIGHT	RANGE	DA	H	M	S	LTIM	S-TIM
1	4	0	13 ON	2 57 28	146 9W	723360	749824	30	20	22	38	1037 73353
			OFF	2 54 52	145 37W	711648	737664	30	20	23	15	1040 73395
3	4	1	23 ON	2 70 52	162 37E	792672	821776	30	23	19	54	1010 83994
			OFF	2 67 9	164 58E	772080	800400	30	23	20	51	1020 84051
5	3	2	86 ON	2 65 42	120 18E	763216	791200	31	2	21	54	1023 6514
			OFF	2 52 51	124 19E	691952	717232	31	2	25	36	1042 6736
6	4	1	60 ON	2 76 28	80 13E	823616	853888	31	3	49	27	942 13767
			OFF	2 55 28	97 46E	761208	788912	31	3	52	19	1023 13939
8	4	2	13 ON	2 54 29	130 59E	707712	733584	31	3	55	2	1038 14102
			OFF	2 52 12	101 24E	697360	722848	31	3	55	37	1041 14137
9	4	5	40 ON	2 23 57	103 59E	611312	633552	31	4	3	16	1059 14596
			OFF	2 14 46	104 12E	608224	630352	31	4	4	47	11 1 14687
7	0	3	01 ON	2 64 29	70 25E	756192	783904	31	5	22	53	1024 19373
			OFF	2 54 19	70 10E	706624	732448	31	5	25	26	1030 19526
7	3	7	70 ON	2 42 23	70 59E	659088	683120	31	5	28	22	1040 19702
			OFF	2 30 52	80 51E	626736	649568	31	5	31	12	1054 19872
8	3	2	11 ON	1 30 47	100 00	1161056	1204432	31	6	34	5	2322 23645
			OFF	1 01 42	107 45W	1148256	1191136	31	6	34	50	2323 23690
9	0	5	12 ON	2 09 2	50 33E	728416	755072	31	6	54	35	1032 24875
			OFF	2 00 44	50 7E	717472	743712	31	6	55	9	1035 24909
8	3	7	23 ON	2 50 21	50 19E	689168	714336	31	6	56	45	1042 25005
			OFF	2 40 27	50 59E	673616	698208	31	6	57	43	1045 25063
9	0	3	20 ON	2 30 3	30 22E	029584	652512	31	8	31	35	1053 30695
			OFF	2 20 00	30 35E	022224	644880	31	8	32	28	1054 30740
9	0	8	00 ON	0 12 40	30 52E	659488	683536	31	8	42	31	1110 31351
			OFF	0 19 9	37 4E	605312	710336	31	8	44	5	1112 31445
10	0	0	41 ON	0 10 17	50 52E	062976	687168	31	14	43	59	11 8 53039
			OFF	0 20 7	50 39E	091568	716832	31	14	45	39	1111 53159
10	0	0	15 ON	2 03 29	120 30E	627520	650368	31	19	3	33	1049 65613
			OFF	2 01 2	120 23E	622432	645088	31	19	4	9	1050 65649
11	7	2	11 ON	0 70 11	100 49E	794416	823584	1	2	24	45	944 8635
			OFF	2 70 0	110 12E	732992	811728	1	2	25	17	954 8717
11	7	3	00 ON	2 50 10	121 22E	674608	699312	1	2	31	2	1035 9062
			OFF	2 30 33	122 49E	631504	654512	1	2	34	23	1045 9263
12	0	5	01 ON	2 43 21	90 32E	649840	673536	1	4	3	2	1041 14582
			OFF	2 30 22	100 12E	027936	650800	1	4	5	0	1045 14700
12	0	0	00 ON	2 20 05	100 42E	012768	635072	1	4	7	3	1049 14823
			OFF	2 20 40	100 57E	027360	629456	1	4	6	33	1052 14913
10	4	4	10 ON	2 51 00	70 48E	077792	702544	1	5	31	20	1034 10800
			OFF	2 40 0	70 10E	060416	692800	1	5	31	57	1036 10917
10	7	7	00 ON	2 20 00	70 7E	019600	631872	1	5	37	58	1050 20270
			OFF	2 17 00	70 23E	000272	628336	1	5	39	37	1053 20377

23	4	8	32	ON	2	13	20	78	32E	687328	629424	1	5	48	41	1854	28441	
			OFF	2	8	22		78	48E	611664	633920	1	5	41	54	1856	28514	
24	7	7	18	ON	2	41	14	54	23E	641728	665128	1	7	4	9	1841	25449	
			OFF	2	38	18		54	37E	633744	656832	1	7	4	52	1843	25492	
25	2	2	14	ON	2	61	26	28	9E	718112	744384	1	8	29	28	1822	30568	
			OFF	2	59	8		28	51E	787824	732888	1	8	38	5	1825	32685	
26	4	4	43	ON	2	19	14	18	34E	689984	632176	1	18	12	28	1854	36748	
			OFF	2	3	19		18	45E	628288	642864	1	18	14	1	1857	36841	
27	9	1	18	ON	2	11	29	12	8W	688976	631136	1	11	42	28	1853	42148	
			OFF	2	9	56		12	5W	618464	632672	1	11	42	43	1854	42163	
29	1	7	63	ON	3	7	45	57	8W	651848	675688	1	14	47	37	1859	53257	
			OFF	3	18	17		56	41W	694784	728176	1	14	58	11	11	3	53411
32	3	8	17	ON	2	42	25	81	48W	641424	664888	1	16	5	39	1838	57939	
			OFF	2	39	38		81	34W	633856	656944	1	16	6	28	1842	57982	
35	3	2	34	ON	2	67	2	161	46E	728976	726592	1	23	32	44	1819	84764	
			OFF	2	54	22		163	7E	677872	782624	1	23	34	8	1826	84848	
36	3	1	12	ON	2	63	57	135	17E	748968	768896	2	1	8	46	18	1	3646
			OFF	2	66	41		136	34E	729984	756784	2	1	1	21	18	7	3681
36	3	4	14	ON	2	54	38	148	24E	677472	782288	2	1	4	23	1826	3863	
			OFF	2	52	5		142	51E	668488	692864	2	1	4	59	1828	3899	
36	7	8	51	ON	3	19	33	144	35E	786432	732256	2	1	22	38	11	8	4958
			OFF	3	28	51		144	59E	756432	784144	2	1	24	47	11	4	5887
37	5	2	71	ON	2	75	5	127	3E	778864	799128	2	2	29	28	937	8968	
			OFF	2	62	45		115	32E	718784	736768	2	2	32	36	1814	9156	
37	5	5	14	ON	2	52	25	118	6E	668976	693392	2	2	35	9	1827	9389	
			OFF	2	58	19		118	29E	668888	684896	2	2	35	43	1829	9343	
38	6	1	65	ON	2	75	48	83	34E	772688	888944	2	3	59	35	933	14375	
			OFF	2	64	13		92	19E	716144	742336	2	4	2	31	1811	14551	
38	3	7	51	ON	2	13	22	98	28E	688848	638992	2	4	15	8	1848	15382	
			OFF	2	5	38		98	33E	628832	642688	2	4	16	55	1851	15415	
39	4	4	14	ON	2	47	31	73	38E	658568	674272	2	5	36	55	1838	22215	
			OFF	2	45	15		73	45E	643712	667168	2	5	37	28	1832	28248	
39	4	6	51	ON	2	14	25	75	37E	688888	638288	2	5	45	1	1847	28781	
			OFF	2	7	57		75	48E	615984	638328	2	5	46	35	1849	28795	
40	6	4	72	ON	2	55	44	49	14E	662352	787264	2	7	4	54	1821	25494	
			OFF	2	45	6		51	7E	642576	665984	2	7	7	46	1832	25566	
40	8	8	24	ON	2	41	7	51	32E	631928	654944	2	7	8	45	1834	25725	
			OFF	2	37	17		51	52E	623312	646888	2	7	9	41	1837	25781	
41	4	3	11	ON	2	55	6	26	54E	675184	699824	2	8	35	34	1823	38934	
			OFF	2	53	14		27	16E	668328	692784	2	8	36	2	1825	38962	
42	5	9	32	ON	2	9	16	7	45E	614572	637848	2	18	17	3	1848	37823	
			OFF	2	4	11		7	53E	624176	646896	2	18	18	18	1849	37893	
43	8	2	34	ON	2	15	8	15	5W	628864	638192	2	11	45	53	1845	42353	
			OFF	2	9	51		14	56W	614896	636448	2	11	47	18	1847	42438	
44	8	1	28	ON	2	82	14	62	33W	789376	818352	2	12	59	55	849	46795	
			OFF	2	78	42		58	7W	788568	889288	2	13	8	21	9	7	46821
45	7	9	51	ON	3	11	58	59	42W	678576	783344	2	14	53	1	1854	53581	
			OFF	3	21	1		59	24W	721584	747888	2	14	55	14	1857	53714	
45	7	1	14	ON	2	57	18	187	59W	786544	815488	2	16	8	26	848	57626	
			OFF	2	78	31		183	1W	776656	825152	2	16	8	56	9	8	57656
46	7	9	15	ON	2	75	16	97	15W	759424	787264	2	16	1	47	932	57787	

		OFF	2	72	42	94	28W	746528	773872	2	16	2	27	945	57747
47	8	1	60	ON	2	78	38	125	58W	775872	804336	2	17	31	8 9 7 63868
		OFF	2	68	11	113	38W	723696	758176	2	17	33	51	959	63231
47	8	3	19	ON	2	35	13	106	42W	616784	639232	2	17	42	8 1035 63720
		OFF	2	32	10	106	31W	612304	634592	2	17	42	45	1036	63765
51	4	3	14	ON	2	54	41	160	18E	664896	689152	2	23	38	11 1019 85091
		OFF	2	52	20	160	43E	656960	680928	2	23	38	46	1021	85126
52	4	1	26	ON	2	71	21	130	50E	732288	759088	3	1	4	15 947 3955
		OFF	2	66	52	133	44E	711744	737776	3	1	5	24	10	0 3924
52	4	3	44	ON	2	59	24	136	31E	681168	706032	3	1	7	16 1013 4036
		OFF	2	52	11	138	5E	655616	679520	3	1	9	3	1021	4143
52	6	6	29	ON	3	11	33	141	36E	681856	706752	3	1	24	38 1051 5078
		OFF	3	16	36	141	45E	705072	730848	3	1	25	52	1052	5152
53	9	1	48	ON	2	81	9	90	32E	780592	809232	3	2	31	55 834 9115
		OFF	2	72	43	106	57E	737520	764528	3	2	34	9	941	9249
53	9	5	44	ON	2	52	53	115	17E	657120	681088	3	2	39	6 1020 9546
		OFF	2	45	54	116	19E	636512	659712	3	2	40	49	1026	9649
54	1	2	57	ON	2	75	27	81	9E	749456	776912	3	4	3	40 928 14620
		OFF	2	65	36	88	59E	704144	729888	3	4	6	11	10	2 14771
54	1	4	91	ON	2	45	40	93	40E	635248	658400	3	4	11	7 1025 15067
		OFF	2	31	36	94	50E	609728	631920	3	4	14	34	1033	15274
54	1	7	46	ON	2	24	27	95	12E	605520	627552	3	4	16	18 1037 15370
		OFF	2	17	21	95	20E	607696	629808	3	4	18	2	1039	15482
55	6	1	53	ON	2	76	17	57	13E	752352	779904	3	5	33	41 922 20021
		OFF	2	67	5	65	36E	709392	735328	3	5	36	3	958	20163
55	3	6	15	ON	2	47	26	70	47E	639296	662592	3	5	40	55 1024 20455
		OFF	2	45	5	71	4E	633152	656208	3	5	41	30	1025	20490
56	3	1	13	ON	2	69	35	41	20E	719216	745520	3	7	5	38 951 25538
		OFF	2	67	15	42	51E	700960	734880	3	7	6	13	957	25573
56	3	4	152	ON	2	62	19	44	57E	688544	713696	3	7	7	27 10 25647
		OFF	2	39	22	49	3E	618368	640880	3	7	13	21	1029	26001
56	3	8	14	ON	2	12	57	50	17E	612704	635008	3	7	19	34 1040 26374
		OFF	2	11	19	50	20E	615152	637536	3	7	19	58	1041	26390
57	9	2	45	ON	2	62	40	22	11E	600096	714064	3	8	37	36 10 6 31056
		OFF	2	55	13	24	11E	661536	685664	3	8	39	27	1016	31167
57	9	5	94	ON	2	5	54	27	47E	623808	646528	3	8	51	16 1042 31076
		OFF	3	8	13	20	11E	671232	695728	3	8	54	58	1047	32090
51	5	2	36	ON	2	9	57	62	00W	019136	641680	3	14	51	24 1039 53484
		OFF	2	4	10	62	47E	032176	655200	3	14	52	49	1041	53569
57	7	2	37	ON	2	57	50	150	50E	662480	686640	3	23	40	54 10 8 85254
		OFF	2	51	54	150	12E	043856	667312	3	23	42	23	1015	85343
58	7	2	11	ON	2	63	46	130	3E	702224	727888	4	1	8	23 948 4103
		OFF	2	66	46	131	10E	694160	719520	4	1	8	53	953	4133
58	7	5	24	ON	3	5	12	130	50E	666944	691280	4	1	26	32 1041 5192
		OFF	3	9	20	130	56E	004000	708976	4	1	27	33	1043	5253
59	3	1	20	ON	2	73	32	120	33E	721728	748128	4	2	37	22 931 9442
		OFF	2	70	5	126	32E	706720	732560	4	2	38	15	944	9495
59	3	4	64	ON	2	52	47	112	43E	045088	668608	4	2	42	34 1013 9754
		OFF	2	42	44	114	4E	021152	643760	4	2	45	2	1021	9902
59	3	8	45	ON	2	28	50	115	4E	605048	627680	4	2	40	26 1020 10106
		OFF	2	21	50	115	23E	606528	628592	4	2	50	8	1031	10200



70	3	5	31	ON	2	47	30	90	53E	638720	653696	4	4	14	3	1017	15243
				OFF	2	42	33	91	26E	628368	642968	4	4	15	16	1021	15316
70	3	8	36	ON	2	34	24	92	5E	609008	631168	4	4	17	16	1025	15436
				OFF	2	28	44	92	25E	605600	627632	4	4	18	39	1028	15519
71	4	4	16	ON	2	52	45	67	25E	643648	667104	4	5	42	57	1012	20577
				OFF	2	50	16	67	50E	636928	660128	4	5	43	34	1014	20614
71	4	5	5	ON	2	42	22	68	48E	619664	642224	4	5	45	30	1020	20730
				OFF	2	41	29	68	53E	618064	640560	4	5	45	43	1021	20743

OPERATIONS SUMMARY

AFT	PAN	CAMERA	NUMBER	196														
OPN NO	FRA	Q	LAT	LONG	HEIGHT	RANGE	DA	H	M	S	LTIM	S-TIM						
PRE-FLT	148																	
1	4	6	13	ON	2	57	30	146	15W	719104	745408	30	20	22	51	1037	73371	
				OFF	2	55	0	140	42W	707520	733392	30	20	23	28	1040	73408	
3	4	1	22	ON	2	71	8	162	20E	787792	816704	30	23	20	7	109	84207	
				OFF	2	67	23	164	47E	767328	795456	30	23	21	4	1019	84064	
5	3	2	84	ON	2	65	53	120	3E	758576	766368	31	2	22	7	1022	8527	
				OFF	2	50	58	124	14E	688176	713312	31	2	25	49	1042	8749	
6	4	1	59	ON	2	76	46	87	42E	818608	848688	31	3	49	40	940	13780	
				OFF	2	65	33	97	36E	756400	784112	31	3	52	32	1022	13952	
6	4	2	13	ON	2	54	37	100	54E	703664	729392	31	3	55	15	1030	14115	
				OFF	2	52	17	101	20E	693488	718816	31	3	55	50	1040	14157	
6	4	5	39	ON	2	20	57	103	56E	610528	632736	31	4	3	29	1059	14609	
				OFF	2	14	45	104	8E	608200	630336	31	4	5	0	111	14700	
7	3	3	57	ON	2	64	42	75	17E	751616	779152	31	5	23	6	1024	19386	
				OFF	2	54	27	70	14E	702640	728320	31	5	25	39	1030	19539	
7	3	7	72	ON	2	42	27	79	54E	656048	679968	31	5	28	35	1040	19715	
				OFF	2	30	52	80	47E	624032	647504	31	5	31	25	1054	19885	
8	3	0	11	ON	1	37	57	100	10W	1157296	1200528	31	6	34	18	2321	23658	
				OFF	1	40	53	107	56W	1144384	1187104	31	6	35	3	2323	23703	
8	3	5	12	ON	2	59	12	54	27E	724112	750608	31	6	54	48	1032	24868	
				OFF	2	56	53	55	2E	713312	739392	31	6	55	22	1035	24922	
8	3	7	23	ON	2	50	27	56	14E	685472	710512	31	6	56	58	1041	25018	
				OFF	2	46	31	56	47E	670240	694688	31	6	57	56	1044	25076	
9	6	0	22	ON	2	32	4	35	19E	627560	650432	31	8	31	48	1252	30700	
				OFF	2	20	28	30	31E	620640	643232	31	8	32	41	1254	30761	
9	6	8	38	ON	3	12	39	36	47E	662816	666992	31	8	42	44	119	31364	
				OFF	3	19	3	37	0E	689280	714464	31	8	44	18	1112	31450	
13	0	6	40	ON	3	13	13	53	57W	666464	690704	31	14	44	12	118	53052	
				OFF	3	20	0	53	43W	695760	721104	31	14	45	52	1110	53152	
16	3	2	14	ON	2	33	30	123	34W	025504	648360	31	19	3	46	1049	60626	
				OFF	2	31	2	123	25W	620720	643312	31	19	4	22	1050	60662	
21	7	2	11	ON	2	75	26	109	24E	709064	818640	1	2	24	58	942	8690	
				OFF	2	73	22	111	52E	778288	806832	1	2	25	30	952	8730	
21	7	3	84	ON	2	50	15	121	18E	671296	695792	1	2	31	15	1036	9075	
				OFF	2	36	35	122	45E	629344	652256	1	2	34	36	1045	9276	
22	3	5	50	ON	2	43	24	99	28E	646992	670576	1	4	3	15	1040	14595	
				OFF	2	35	22	100	9E	625920	648704	1	4	5	13	1045	14713	
22	3	8	39	ON	2	26	05	100	38E	611600	633936	1	4	7	16	1049	14836	

		OFF	2	28	47	188	54E	686992	629872	1	4	8	46	1852	14926			
23	4	4	14	ON	2	51	36	75	43E	674384	698912	1	5	31	33	1834	19893	
		OFF	2	49	7	76	5E	665136	689488	1	5	32	18	1836	19938			
23	4	7	43	ON	2	24	28	78	4E	628896	631856	1	5	38	11	1858	26291	
		OFF	2	17	43	76	19E	686272	628336	1	5	39	58	1852	26398			
23	4	8	31	ON	2	13	19	78	27E	687872	629984	1	5	48	54	1854	26454	
		OFF	2	8	22	78	36E	612832	635136	1	5	42	7	1856	26527			
24	7	7	18	ON	2	41	16	54	19E	639152	662448	1	7	4	22	1841	25462	
		OFF	2	38	28	54	34E	631424	654432	1	7	5	5	1843	25585			
25	2	2	13	ON	2	61	35	28	2E	714816	748128	1	8	29	41	1821	38581	
		OFF	2	59	8	28	46E	783184	728888	1	8	38	18	1825	38618			
26	4	4	44	ON	2	18	13	18	38E	618968	633184	1	18	12	33	1854	36753	
		OFF	2	3	19	12	41E	622112	644752	1	18	14	14	1856	36854			
27	9	1	9	ON	2	11	28	12	12W	689824	632816	1	11	42	33	1853	42153	
		OFF	2	9	55	12	9W	611528	633776	1	11	42	56	1854	42176			
29	1	7	62	ON	3	7	42	57	4W	655856	678944	1	14	47	58	1859	53278	
		OFF	3	18	9	56	45W	699856	724592	1	14	58	24	11	3	53424		
38	8	2	17	ON	2	42	28	81	53W	638888	662168	1	16	5	52	1838	57952	
		OFF	2	39	48	81	37W	631568	654576	1	16	6	33	1839	57993			
38	8	2	33	ON	2	67	9	161	41E	697184	722672	1	23	32	57	1819	84777	
		OFF	2	54	27	163	3E	674432	699856	1	23	34	21	1826	84861			
38	8	1	12	ON	2	69	8	138	6E	736728	763696	2	1	8	59	18	1	3659
		OFF	2	68	51	136	24E	725888	752368	2	1	1	34	18	7	3694		
38	8	4	14	ON	2	54	35	148	23E	674848	698648	2	1	4	36	1825	3878	
		OFF	2	52	18	148	47E	665232	689584	2	1	5	12	1828	3912			
38	7	6	51	ON	3	19	24	144	31E	718944	736928	2	1	22	43	11	8	4963
		OFF	3	28	38	144	55E	761632	789552	2	1	25	8	11	4	5188		
37	8	2	69	ON	2	75	18	186	48E	766368	794464	2	2	29	41	936	8981	
		OFF	2	62	54	115	26E	786816	732656	2	2	32	49	1814	9169			
37	8	5	13	ON	2	52	33	118	2E	665744	698832	2	2	35	22	1827	9322	
		OFF	2	54	14	118	25E	657768	681744	2	2	35	56	1829	9386			
38	8	1	64	ON	2	75	53	83	9E	768112	796272	2	3	59	48	932	14388	
		OFF	2	64	21	92	12E	712192	738248	2	4	2	44	1811	14564			
38	8	7	58	ON	2	13	21	98	15E	689728	631984	2	4	15	13	1848	15313	
		OFF	2	5	38	98	29E	621888	644448	2	4	17	8	1858	15428			
39	8	4	13	ON	2	47	34	73	26E	647828	671424	2	5	37	8	1838	28228	
		OFF	2	45	17	73	43E	641128	664488	2	5	37	41	1832	28281			
39	4	8	41	ON	2	14	24	75	33E	628832	638992	2	5	45	14	1847	28714	
		OFF	2	7	57	75	44E	617456	639936	2	5	46	48	1849	28888			
39	8	4	71	ON	2	56	58	49	18E	678848	723632	2	7	5	7	1821	25587	
		OFF	2	45	8	51	4E	648816	663344	2	7	7	59	1832	25679			
39	8	8	24	ON	2	41	8	51	28E	629728	652672	2	7	8	58	1834	25738	
		OFF	2	37	18	51	47E	621488	644112	2	7	9	54	1836	25794			
41	4	3	18	ON	2	55	11	26	51E	671888	696328	2	8	35	47	1823	38947	
		OFF	2	53	19	27	12E	665888	689368	2	8	36	15	1824	38975			
42	8	3	32	ON	2	9	16	7	41E	616112	638544	2	18	17	16	1847	37236	
		OFF	2	4	11	7	49E	626224	649824	2	18	18	31	1849	37111			
43	8	2	33	ON	2	15	7	15	9W	628816	638968	2	11	46	6	1845	42368	
		OFF	2	9	51	15	8W	615884	637984	2	11	47	23	1847	42443			
44	8	1	8	ON	2	88	27	63	25W	784888	813688	2	13	8	8	846	48888	
		OFF	2	78	55	58	45W	776888	884544	2	13	8	34	9	5	48834		

45	7	9	52	ON	3	11	52	59	46W	682488	787488	2	14	53	14	1053	53594	
				OFF	3	20	51	59	28W	726224	752888	2	14	55	27	1057	53727	
46	7	1	18	ON	2	80	29	108	50W	782816	818784	2	16	8	39	845	57639	
				OFF	2	78	44	103	37W	772192	808512	2	16	1	9	9	6	57669
46	7	3	14	ON	2	75	28	97	36W	755128	782784	2	16	2	8	931	57728	
				OFF	2	72	54	94	36W	742272	769456	2	16	2	48	944	57768	
47	8	1	59	ON	2	75	51	126	35W	771448	799728	2	17	31	21	9	4	63861
				OFF	2	68	27	113	48W	719712	746848	2	17	34	4	958	63244	
47	8	3	19	ON	2	35	13	106	45W	615312	637712	2	17	42	13	1035	63733	
				OFF	2	32	10	106	33W	611248	633488	2	17	42	58	1036	63778	
51	4	3	14	ON	2	54	45	160	13E	661792	685936	2	23	38	24	1019	85104	
				OFF	2	52	24	160	43E	654848	677904	2	23	38	59	1021	85139	
52	4	1	25	ON	2	71	31	130	37E	728248	754896	3	1	4	28	946	3868	
				OFF	2	66	58	133	36E	707856	733744	3	1	5	37	959	3937	
52	4	3	43	ON	2	59	29	136	27E	677744	702488	3	1	7	29	1013	4049	
				OFF	2	52	14	138	1E	652736	676544	3	1	9	16	1021	4156	
52	6	6	28	ON	3	11	27	141	31E	685792	710832	3	1	24	51	1050	5091	
				OFF	3	15	28	141	40E	709536	735472	3	1	26	5	1052	5165	
53	9	1	48	ON	2	81	12	89	34E	776192	804656	3	2	32	8	830	9128	
				OFF	2	72	54	106	43E	733488	760256	3	2	34	22	941	9262	
53	9	5	43	ON	2	52	57	115	14E	654176	678832	3	2	39	19	1020	9559	
				OFF	2	45	56	116	15E	634168	657264	3	2	41	2	1025	9662	
54	1	2	56	ON	2	75	38	80	42E	745264	772568	3	4	3	53	925	14633	
				OFF	2	65	43	88	52E	720432	726832	3	4	6	24	10	1	14784
54	1	4	90	ON	2	45	41	93	37E	632968	656816	3	4	11	20	1025	15088	
				OFF	2	31	36	94	47E	608848	631888	3	4	14	47	1033	15287	
54	1	7	45	ON	2	24	26	95	9E	635488	627440	3	4	16	31	1036	15391	
				OFF	2	17	20	95	24E	603432	630576	3	4	18	15	1039	15495	
55	3	1	53	ON	2	75	29	56	52E	748128	775536	3	5	33	54	921	20234	
				OFF	2	67	13	65	28E	725616	731424	3	5	36	16	957	20176	
55	3	6	14	ON	2	47	28	70	43E	636864	662864	3	5	41	8	1023	20468	
				OFF	2	45	6	71	1E	630944	653920	3	5	41	43	1025	20503	
56	3	1	13	ON	2	69	44	41	13E	715296	741456	3	7	5	51	950	25551	
				OFF	2	67	23	42	43E	705168	730944	3	7	6	26	957	25586	
56	3	4	150	ON	2	62	26	44	52E	685856	710888	3	7	7	40	10	6	25660
				OFF	2	38	22	49	0E	616848	639296	3	7	13	34	1029	26014	
56	3	8	10	ON	2	12	57	50	13E	613984	636336	3	7	19	47	1040	26387	
				OFF	2	11	19	50	16E	616624	639272	3	7	20	11	1041	26411	
57	9	2	45	ON	2	52	46	22	5E	685376	710416	3	8	37	49	10	5	31069
				OFF	2	55	17	24	8E	658512	682528	3	8	39	40	1015	31180	
57	9	5	92	ON	2	6	55	27	43E	625848	648624	3	8	51	29	1042	31889	
				OFF	3	8	7	28	6E	674944	699568	3	8	55	11	1047	32111	
51	5	2	36	ON	2	9	57	63	0W	620896	643584	3	14	51	37	1039	53497	
				OFF	2	4	11	62	51W	634688	657728	3	14	53	2	1041	53582	
57	7	2	37	ON	2	57	59	156	54E	659520	683568	3	23	41	7	10	8	65267
				OFF	2	51	56	156	8E	641328	664784	3	23	42	36	1014	85356	
58	7	2	11	ON	2	68	54	129	55E	698648	724176	4	1	8	36	948	4116	
				OFF	2	66	53	131	3E	694656	715888	4	1	9	6	953	4146	
58	7	5	24	ON	3	5	7	138	45E	670528	694992	4	1	26	45	1041	5205	
				OFF	3	9	14	136	52E	688032	713168	4	1	27	46	1043	5266	
59	3	1	20	ON	2	73	41	103	19E	717688	744144	4	2	37	35	930	9455	

9 3 4	OFF 2 70 13 106 22E 703056 728752 4 2 38 28 943 9508
	64 ON 2 52 50 112 40E 642528 665952 4 2 42 47 1013 9767
	OFF 2 42 44 114 1E 619504 642048 4 2 45 15 1021 9915
9 3 8	45 ON 2 28 48 115 2E 605472 627504 4 2 48 39 1028 10119
	OFF 2 21 49 115 20E 607088 629184 4 2 50 21 1031 10221
9 3 5	31 ON 2 47 31 90 48E 628656 651552 4 4 14 16 1017 15256
	OFF 2 42 33 91 22E 618768 641296 4 4 15 29 1020 15320
9 3 6	36 ON 2 34 23 92 3E 608192 630320 4 4 17 29 1025 15449
	OFF 2 26 43 92 22E 605392 627408 4 4 18 52 1028 15532
1 4 4	14 ON 2 52 47 67 22E 641136 664496 4 5 43 10 1012 20590
	OFF 2 50 17 67 46E 634640 657760 4 5 43 47 1014 20627
1 4 5	5 ON 2 42 23 68 44E 618064 640560 4 5 45 43 1020 20743
	OFF 2 41 29 68 40E 616592 639040 4 5 45 56 1021 20756

PHOTOGRAPHIC SUMMARY

PH. NO	FRM	FEET	ET	S-EL	S-DIR	FILTER	EV	3404 FILM	FULL	INT	PRI
1 4 0	13	34.4	262	33.8	-16.9		11.89	12.34	11.74	11.14	
			OFF 266	36.1	-17.4		11.91	12.36	11.76	11.16	
5 4 1	20	52.9	238	27.5	-14.8		11.75	12.08	11.48	10.68	
			OFF 245	24.2	-15.4		11.79	12.19	11.59	10.99	
5 3 2	56	227.5	244	25.6	-15.0		11.78	12.22	11.62	11.02	
			OFF 270	40.0	-19.0		11.93	12.39	11.79	11.19	
5 4 1	00	153.7	227	14.0	-14.1		11.68	11.80	11.20	10.60	
			OFF 245	26.0	-16.0		11.79	12.23	11.63	11.03	
5 4 2	10	34.4	264	36.5	-18.1		11.90	12.36	11.76	11.16	
			OFF 266	38.7	-18.7		11.92	12.38	11.78	11.18	
5 4 5	40	105.8	301	66.7	-39.6		12.09	12.42	11.82	11.22	
			OFF 322	71.1	-51.1		12.09	12.42	11.82	11.22	
7 3 0	50	153.4	247	26.0	-16.3		11.80	12.24	11.64	11.04	
			OFF 265	36.7	-18.3		11.90	12.36	11.76	11.16	
7 3 7	70	193.1	283	47.9	-22.2		12.00	12.42	11.82	11.22	
			OFF 295	58.4	-29.0		12.06	12.42	11.82	11.22	
5 3 2	11	29.1	171	-46.2	338.5		11.25	0.0	0.0	0.0	
			OFF 172	-43.5	339.5		11.28	0.0	0.0	0.0	
5 3 5	12	31.7	257	32.1	-17.4		11.86	12.32	11.72	11.12	
			OFF 261	34.3	-17.9		11.88	12.34	11.74	11.14	
5 3 7	20	55.8	272	40.4	-19.5		11.94	12.39	11.79	11.19	
			OFF 275	44.1	-20.8		11.97	12.41	11.81	11.21	
5 3 5	20	00.0	295	57.3	-28.4		12.05	12.42	11.82	11.22	
			OFF 297	60.4	-31.4		12.07	12.42	11.82	11.22	
5 3 0	30	100.2	284	68.6	-135.2		12.00	12.42	11.82	11.22	
			OFF 275	63.6	-144.6		11.96	12.42	11.82	11.22	
5 3 0	41	100.4	262	67.8	-135.5		11.99	12.42	11.82	11.22	
			OFF 272	62.5	-145.0		11.94	12.42	11.82	11.22	
5 3 2	10	09.7	295	55.9	-28.7		12.06	12.42	11.82	11.22	
			OFF 297	58.0	-30.6		12.06	12.42	11.82	11.22	
5 7 2	11	29.1	233	4.0	-16.3		11.72	10.62	10.02	9.42	
			OFF 236	16.3	-16.4		11.74	11.99	11.39	10.79	

21	7	3	86	227.5 ON	276	48.5	-21.4	11.96	12.39	11.79	11.19
				OFF	293	53.8	-27.5	12.85	12.42	11.82	11.22
22	3	5	58	132.2 ON	286	46.8	-24.1	12.81	12.42	11.82	11.22
				OFF	294	54.8	-28.5	12.85	12.42	11.82	11.22
22	3	8	48	105.8 ON	328	61.2	-35.6	12.88	12.42	11.82	11.22
				OFF	322	66.8	-43.5	12.89	12.42	11.82	11.22
23	4	4	14	37.9 ON	275	39.2	-21.2	11.96	12.38	11.78	11.18
				OFF	279	41.5	-22.8	11.98	12.42	11.82	11.22
23	4	7	44	116.4 ON	321	63.2	-38.6	12.89	12.42	11.82	11.22
				OFF	322	68.1	-49.8	12.89	12.42	11.82	11.22
23	4	8	32	84.6 ON	321	72.7	-58.5	12.89	12.42	11.82	11.22
				OFF	322	72.8	-72.3	12.88	12.42	11.82	11.22
24	7	7	18	47.6 ON	289	48.7	-25.4	12.83	12.42	11.82	11.22
				OFF	292	51.4	-27.9	12.84	12.42	11.82	11.22
25	2	2	14	37.8 ON	258	29.8	-19.8	11.87	12.29	11.69	11.89
				OFF	264	32.1	-19.5	11.98	12.32	11.72	11.12
26	4	4	43	113.7 ON	328	71.9	-67.3	12.88	12.42	11.82	11.22
				OFF	296	73.3	-89.1	12.86	12.42	11.82	11.22
27	9	1	12	26.4 ON	328	71.3	-64.1	12.88	12.42	11.82	11.22
				OFF	328	71.9	-68.3	12.88	12.42	11.82	11.22
29	1	7	63	156.6 ON	264	69.9	-121.8	12.82	12.42	11.82	11.22
				OFF	269	62.8	-142.1	11.92	12.42	11.82	11.22
31	3	4	17	45.3 ON	289	47.5	-25.7	12.83	12.42	11.82	11.22
				OFF	292	52.2	-27.2	12.84	12.42	11.82	11.22
35	3	2	34	89.9 ON	266	31.1	-28.5	11.91	12.31	11.71	11.11
				OFF	275	36.4	-22.8	11.96	12.36	11.76	11.16
36	3	1	12	31.7 ON	251	22.5	-18.9	11.82	12.15	11.55	10.95
				OFF	255	24.7	-19.3	11.85	12.22	11.62	11.02
36	3	4	14	57.2 ON	275	36.3	-22.1	11.96	12.36	11.76	11.16
				OFF	279	38.6	-22.8	11.97	12.38	11.78	11.18
36	7	6	51	134.9 ON	264	61.3	-142.6	11.98	12.42	11.82	11.22
				OFF	248	53.7	-149.1	11.82	12.42	11.82	11.22
37	5	2	71	167.8 ON	239	16.5	-17.8	11.75	11.92	11.32	10.72
				OFF	252	28.5	-22.2	11.89	12.27	11.67	11.27
37	5	5	14	37.8 ON	278	38.2	-22.8	11.97	12.38	11.78	11.18
				OFF	281	42.3	-23.6	11.99	12.39	11.79	11.19
38	2	1	65	171.9 ON	239	15.9	-17.8	11.75	11.87	11.27	10.67
				OFF	262	27.1	-22.8	11.87	12.25	11.65	11.05
38	3	7	51	134.9 ON	322	69.5	-61.4	12.88	12.42	11.82	11.22
				OFF	295	71.9	-83.1	12.86	12.42	11.82	11.22
39	4	4	14	37.2 ON	285	42.7	-24.9	12.81	12.42	11.82	11.22
				OFF	288	44.5	-25.8	12.82	12.41	11.81	11.21
39	4	8	41	108.4 ON	322	68.9	-59.2	12.88	12.42	11.82	11.22
				OFF	297	71.4	-75.9	12.87	12.42	11.82	11.22
42	3	4	72	198.4 ON	273	34.2	-22.8	11.94	12.34	11.74	11.14
				OFF	288	44.9	-26.8	12.82	12.41	11.81	11.21
42	3	8	24	63.5 ON	293	48.5	-25.9	12.84	12.42	11.82	11.22
				OFF	296	51.9	-32.3	12.86	12.42	11.82	11.22
41	4	3	11	29.1 ON	276	35.7	-22.6	11.96	12.36	11.76	11.16
				OFF	279	37.4	-23.1	11.97	12.37	11.77	11.17
42	5	3	32	84.6 ON	297	72.7	-72.6	12.87	12.42	11.82	11.22

		OFF	293	71.6	-87.5	12.85	12.42	11.82	11.22		
+3	5	2	34	39.9 ON	388	68.2	-58.5	12.88	12.42	11.82	11.22
				OFF	297	78.5	-71.2	12.87	12.42	11.82	11.22
+4	6	1	9	23.8 ON	233	11.2	-17.1	11.72	11.52	18.92	18.32
				OFF	236	12.8	-17.7	11.73	11.66	11.86	18.46
+5	7	9	51	134.9 ON	275	65.9	-128.2	11.95	12.42	11.82	11.22
				OFF	268	59.5	-148.9	11.87	12.42	11.82	11.22
+6	7	1	18	26.4 ON	236	11.2	-17.3	11.73	11.52	18.92	18.32
				OFF	238	13.1	-18.8	11.75	11.68	11.88	18.48
+6	7	3	15	39.7 ON	245	16.4	-18.8	11.79	11.89	11.29	18.69
				OFF	258	18.9	-19.3	11.82	12.82	11.42	18.82
+7	8	1	62	158.7 ON	238	12.9	-18.8	11.75	11.67	11.87	18.47
				OFF	259	23.3	-28.3	11.87	12.17	11.57	18.97
+7	8	3	19	58.3 ON	321	53.4	-32.8	12.88	12.42	11.82	11.22
				OFF	302	56.8	-35.3	12.89	12.42	11.82	11.22
01	4	3	14	37.8 ON	282	36.8	-24.8	11.99	12.36	11.76	11.16
				OFF	285	38.2	-24.8	12.81	12.38	11.78	11.18
02	4	1	28	58.8 ON	255	28.3	-28.3	11.84	12.87	11.47	18.87
				OFF	263	24.6	-21.1	11.89	12.28	11.68	11.88
02	4	3	44	116.4 ON	275	31.6	-22.8	11.96	12.32	11.72	11.12
				OFF	285	38.3	-24.9	12.81	12.38	11.78	11.18
02	6	6	29	76.7 ON	273	65.6	-126.6	11.95	12.42	11.82	11.22
				OFF	265	62.3	-134.5	11.98	12.42	11.82	11.22
03	9	1	48	127.8 ON	236	18.4	-17.7	11.74	11.45	18.85	18.25
				OFF	252	18.9	-28.1	11.83	12.82	11.42	18.82
03	9	5	44	116.4 ON	285	37.6	-24.8	12.81	12.37	11.77	11.17
				OFF	293	44.8	-27.6	12.85	12.41	11.81	11.21
04	1	2	57	158.8 ON	245	16.3	-19.7	11.79	11.89	11.29	18.69
				OFF	263	25.8	-21.6	11.89	12.23	11.63	11.83
04	1	4	91	248.7 ON	291	44.2	-27.8	12.84	12.41	11.81	11.21
				OFF	322	56.1	-37.8	12.88	12.42	11.82	11.22
04	1	7	46	121.7 ON	321	61.6	-44.8	12.89	12.42	11.82	11.22
				OFF	308	66.2	-56.1	12.88	12.42	11.82	11.22
05	3	1	53	148.2 ON	244	15.4	-19.6	11.78	11.84	11.24	16.64
				OFF	261	24.4	-21.4	11.88	12.19	11.59	18.99
05	3	6	15	39.7 ON	289	42.6	-27.2	12.83	12.48	11.88	11.28
				OFF	292	44.7	-28.3	12.84	12.41	11.81	11.21
06	3	1	13	54.4 ON	257	22.8	-21.1	11.86	12.13	11.53	18.93
				OFF	261	24.2	-21.5	11.88	12.19	11.59	18.99
06	3	4	152	422.8 ON	272	28.9	-22.6	11.93	12.28	11.68	11.68
				OFF	297	58.5	-32.2	12.87	12.42	11.82	11.22
06	3	8	18	26.4 ON	297	68.2	-65.6	12.87	12.42	11.82	11.22
				OFF	296	68.8	-69.5	12.86	12.42	11.82	11.22
07	9	2	45	119.8 ON	269	28.6	-22.6	11.93	12.27	11.67	11.67
				OFF	281	35.5	-24.6	11.98	12.35	11.75	11.15
07	9	5	94	248.6 ON	293	69.8	-81.8	12.84	12.42	11.82	11.22
				OFF	274	66.9	-119.6	11.95	12.42	11.82	11.22
01	5	2	36	95.2 ON	294	68.8	-73.5	12.85	12.42	11.82	11.22
				OFF	289	69.7	-88.7	12.83	12.42	11.82	11.22
07	7	2	37	97.9 ON	288	32.9	-25.1	11.98	12.33	11.73	11.13
				OFF	258	38.4	-27.1	12.82	12.38	11.78	11.18

68	7 2	11	29.1 ON	264	22.8	-22.6	11.89	12.15	11.55	10.95
			OFF	267	24.7	-23.0	11.91	12.20	11.60	11.00
68	7 5	24	63.5 ON	275	67.1	-112.3	11.95	12.42	11.82	11.22
			OFF	268	65.3	-120.7	11.92	12.42	11.82	11.22
69	3 1	20	52.9 ON	255	18.2	-21.7	11.85	11.99	11.39	10.79
			OFF	261	21.5	-22.4	11.88	12.12	11.52	10.92
69	3 4	64	169.3 ON	287	37.5	-27.0	12.02	12.37	11.77	11.17
			OFF	296	46.4	-31.5	12.06	12.42	11.82	11.22
69	3 8	45	119.0 ON	301	57.6	-42.4	12.09	12.42	11.82	11.22
			OFF	300	62.4	-51.3	12.08	12.42	11.82	11.22
70	3 5	31	82.0 ON	293	42.2	-29.2	12.05	12.40	11.80	11.20
			OFF	297	46.5	-31.8	12.07	12.42	11.82	11.22
70	3 8	36	95.2 ON	301	53.3	-37.3	12.08	12.42	11.82	11.22
			OFF	321	57.6	-42.7	12.09	12.42	11.82	11.22
71	4 4	16	42.3 ON	287	37.5	-27.3	12.02	12.37	11.77	11.17
			OFF	290	39.8	-28.2	12.03	12.39	11.79	11.19
71	4 5	5	13.2 ON	297	46.6	-32.0	12.07	12.42	11.82	11.22
			OFF	298	47.4	-32.5	12.07	12.42	11.82	11.22

PHOTOGRAPHIC SUMMARY

AFT PAN CAMERA NO 196			x.1753 SLIT W/21			FILTER	3404	FILM	
OPN NO	FRA	FEET	ET	S-EL	S-DIR	EV	FULL	INT	PRI
PRE-FLT	140	391.5							
1 4 0	13	34.4 ON	332	33.6	-17.1	12.23	12.67	12.07	11.47
		OFF	337	36.0	-17.7	12.25	12.69	12.09	11.49
3 4 1	20	52.9 ON	321	20.2	-15.7	12.09	12.40	11.80	11.20
		OFF	310	23.9	-16.0	12.13	12.51	11.91	11.31
5 3 2	34	222.2 ON	308	25.4	-16.4	12.12	12.55	11.95	11.35
		OFF	342	39.9	-19.2	12.27	12.72	12.12	11.52
6 4 1	59	156.1 ON	287	14.5	-16.1	12.02	12.11	11.51	10.91
		OFF	310	25.7	-16.5	12.13	12.55	11.95	11.35
6 4 2	13	34.4 ON	335	36.3	-18.4	12.24	12.69	12.09	11.49
		OFF	340	38.6	-19.0	12.26	12.71	12.11	11.51
6 4 5	39	103.2 ON	381	66.7	-39.8	12.43	12.75	12.15	11.55
		OFF	381	71.1	-51.3	12.43	12.75	12.15	11.55
7 3 3	57	150.3 ON	312	26.6	-16.8	12.14	12.57	11.97	11.37
		OFF	336	36.5	-18.6	12.24	12.69	12.09	11.49
7 3 7	72	190.4 ON	359	47.9	-22.4	12.34	12.75	12.15	11.55
		OFF	375	53.4	-29.1	12.40	12.75	12.15	11.55
8 3 0	11	29.1 ON	217	-47.0	337.9	11.61	0.0	0.0	0.0
		OFF	217	-44.2	339.0	11.62	0.0	0.0	0.0
8 3 5	12	31.7 ON	326	31.9	-17.7	12.20	12.65	12.05	11.45
		OFF	331	34.2	-18.2	12.22	12.67	12.07	11.47
8 3 7	23	60.3 ON	345	40.3	-19.7	12.20	12.72	12.12	11.52
		OFF	352	44.0	-21.0	12.31	12.74	12.14	11.54
9 6 3	22	58.2 ON	374	57.3	-20.6	12.40	12.75	12.15	11.55
		OFF	378	60.4	-31.5	12.41	12.75	12.15	11.55
9 6 8	30	100.5 ON	360	68.6	-130.9	12.34	12.75	12.15	11.55
		OFF	349	63.7	-144.3	12.30	12.75	12.15	11.55
10 0 0	40	105.8 ON	357	67.9	-135.2	12.33	12.75	12.15	11.55

		OFF	344	62.6-144.7	12.28	12.75	12.15	11.55
16 3 8	14	37.8 ON	374	55.8 -28.8	12.48	12.75	12.15	11.55
		OFF	376	58.8 -38.7	12.41	12.75	12.15	11.55
21 7 2	11	29.1 ON	295	16.8 -17.6	12.86	12.28	11.68	11.88
		OFF	299	18.1 -17.6	12.88	12.31	11.71	11.11
21 7 3	84	222.2 ON	358	48.4 -21.6	12.38	12.72	12.12	11.52
		OFF	372	53.8 -27.7	12.39	12.75	12.15	11.55
22 3 5	58	132.2 ON	363	46.8 -24.3	12.35	12.75	12.15	11.55
		OFF	373	54.8 -28.6	12.48	12.75	12.15	11.55
22 3 8	39	183.2 ON	388	61.2 -35.7	12.42	12.75	12.15	11.55
		OFF	381	66.8 -43.7	12.42	12.75	12.15	11.55
23 4 4	14	37.8 ON	349	39.1 -21.5	12.38	12.71	12.11	11.51
		OFF	353	41.4 -22.2	12.32	12.73	12.13	11.53
23 4 7	43	113.7 ON	381	63.1 -38.8	12.42	12.75	12.15	11.55
		OFF	381	68.8 -49.2	12.43	12.75	12.15	11.55
23 4 8	31	82.8 ON	381	78.6 -58.7	12.42	12.75	12.15	11.55
		OFF	388	72.7 -72.4	12.42	12.75	12.15	11.55
24 7 7	18	47.6 ON	367	48.7 -25.6	12.37	12.75	12.15	11.55
		OFF	371	51.3 -27.1	12.39	12.75	12.15	11.55
25 2 2	13	34.4 ON	329	29.6 -19.4	12.21	12.62	12.82	11.42
		OFF	354	32.8 -19.8	12.24	12.65	12.85	11.45
26 4 4	44	116.4 ON	381	71.8 -67.4	12.42	12.75	12.15	11.55
		OFF	376	73.2 -89.1	12.48	12.75	12.15	11.55
27 9 1	9	23.8 ON	381	71.2 -64.2	12.42	12.75	12.15	11.55
		OFF	388	71.8 -68.4	12.42	12.75	12.15	11.55
29 1 7	62	164.8 ON	368	59.9-121.5	12.34	12.75	12.15	11.55
		OFF	348	62.9-139.8	12.26	12.75	12.15	11.55
38 3 8	17	45.8 ON	367	47.5 -25.9	12.37	12.75	12.15	11.55
		OFF	371	58.8 -27.3	12.39	12.75	12.15	11.55
35 3 2	33	67.3 ON	337	31.8 -28.9	12.25	12.64	12.84	11.44
		OFF	349	36.5 -22.2	12.38	12.69	12.89	11.49
36 3 1	12	31.7 ON	316	22.3 -19.6	12.15	12.47	11.87	11.27
		OFF	321	24.8 -19.9	12.18	12.53	11.93	11.33
36 3 4	14	37.8 ON	347	36.2 -22.3	12.29	12.69	12.89	11.49
		OFF	352	38.5 -23.8	12.31	12.71	12.11	11.51
36 7 0	51	134.9 ON	333	61.4-148.3	12.23	12.75	12.15	11.55
		OFF	312	53.8-148.8	12.14	12.75	12.15	11.55
37 5 2	69	182.5 ON	381	15.3 -19.4	12.89	12.22	11.62	11.82
		OFF	338	28.4 -28.6	12.22	12.68	12.88	11.48
37 5 5	13	34.4 ON	351	38.1 -23.1	12.31	12.78	12.18	11.58
		OFF	355	48.3 -23.8	12.33	12.72	12.12	11.52
38 8 1	64	169.3 ON	388	15.7 -19.5	12.88	12.18	11.58	18.98
		OFF	328	27.8 -24.5	12.21	12.58	11.98	11.38
38 8 7	58	132.2 ON	379	69.4 -61.6	12.42	12.75	12.15	11.55
		OFF	373	71.9 -83.1	12.48	12.75	12.15	11.55
39 4 4	13	34.4 ON	361	42.7 -25.8	12.35	12.73	12.13	11.53
		OFF	364	44.7 -26.8	12.36	12.74	12.14	11.54
39 4 8	41	188.4 ON	379	68.8 -59.4	12.42	12.75	12.15	11.55
		OFF	375	71.3 -76.8	12.48	12.75	12.15	11.55
40 8 4	71	187.8 ON	344	34.1 -22.2	12.28	12.67	12.87	11.47
		OFF	364	44.9 -26.2	12.36	12.74	12.14	11.54



40	8	8	24	63.5 ON	370	48.5	-28.1	12.38	12.75	12.15	11.55
				OFF	374	51.8	-30.4	12.40	12.75	12.15	11.55
41	4	3	10	26.4 ON	348	35.6	-22.8	12.38	12.68	12.08	11.48
				OFF	352	37.4	-23.3	12.31	12.70	12.10	11.50
42	5	3	32	84.6 ON	376	70.7	-72.7	12.41	12.75	12.15	11.55
				OFF	371	71.6	-87.4	12.39	12.75	12.15	11.55
43	5	2	33	87.3 ON	379	68.1	-58.6	12.42	12.75	12.15	11.55
				OFF	376	70.4	-71.3	12.41	12.75	12.15	11.55
44	6	1	6	21.2 ON	294	10.9	-20.7	12.05	11.83	11.23	10.63
				OFF	297	12.6	-20.3	12.07	11.97	11.37	10.77
45	7	9	52	137.5 ON	346	66.0	-127.9	12.29	12.75	12.15	11.55
				OFF	327	59.6	-140.5	12.20	12.75	12.15	11.55
46	7	1	10	26.4 ON	296	10.9	-20.9	12.06	11.83	11.23	10.63
				OFF	300	12.0	-20.5	12.08	11.99	11.39	10.79
46	7	3	14	37.4 ON	308	16.2	-20.3	12.12	12.21	11.61	11.01
				OFF	314	18.7	-20.4	12.15	12.34	11.74	11.14
47	8	1	50	156.1 ON	300	12.7	-20.6	12.08	11.98	11.38	10.78
				OFF	325	23.2	-20.9	12.20	12.49	11.89	11.29
47	8	3	19	50.3 ON	379	53.4	-33.0	12.42	12.75	12.15	11.55
				OFF	381	55.9	-35.4	12.43	12.75	12.15	11.55
51	4	3	14	37.0 ON	355	35.9	-24.2	12.32	12.69	12.09	11.49
				OFF	359	38.1	-25.0	12.34	12.70	12.10	11.50
52	4	1	20	66.1 ON	320	20.1	-21.2	12.17	12.39	11.79	11.19
				OFF	331	24.5	-21.7	12.22	12.53	11.93	11.33
52	4	3	43	113.7 ON	346	31.5	-23.1	12.29	12.64	12.04	11.44
				OFF	360	38.2	-25.2	12.34	12.71	12.11	11.51
52	6	6	26	74.1 ON	344	65.6	-126.3	12.20	12.75	12.15	11.55
				OFF	333	62.3	-134.1	12.23	12.75	12.15	11.55
53	9	1	40	127.0 ON	297	10.2	-21.8	12.07	11.76	11.16	10.56
				OFF	317	18.0	-21.2	12.16	12.34	11.74	11.14
53	9	5	43	113.7 ON	359	37.6	-25.1	12.34	12.70	12.10	11.50
				OFF	370	43.9	-27.7	12.38	12.74	12.14	11.54
54	1	2	56	148.1 ON	312	16.1	-21.2	12.14	12.21	11.61	11.01
				OFF	336	25.7	-22.1	12.24	12.55	11.95	11.35
54	1	4	90	238.0 ON	371	44.1	-28.0	12.39	12.74	12.14	11.54
				OFF	382	56.1	-37.1	12.43	12.75	12.15	11.55
54	1	7	45	119.0 ON	383	61.0	-45.0	12.43	12.75	12.15	11.55
				OFF	382	66.1	-56.2	12.43	12.75	12.15	11.55
55	3	1	53	140.2 ON	311	15.2	-21.3	12.13	12.15	11.55	10.95
				OFF	333	24.2	-22.0	12.23	12.52	11.92	11.32
55	3	6	14	37.2 ON	369	42.5	-27.4	12.38	12.73	12.13	11.53
				OFF	372	44.6	-28.4	12.39	12.74	12.14	11.54
56	3	1	13	34.4 ON	328	21.8	-21.8	12.21	12.45	11.85	11.25
				OFF	333	24.1	-22.1	12.23	12.52	11.92	11.32
56	3	4	150	396.7 ON	344	28.8	-23.0	12.20	12.61	12.01	11.41
				OFF	360	50.5	-32.3	12.42	12.75	12.15	11.55
56	3	6	10	26.4 ON	360	68.1	-65.7	12.42	12.75	12.15	11.55
				OFF	378	68.7	-69.6	12.42	12.75	12.15	11.55
57	9	2	45	119.0 ON	343	28.4	-23.0	12.28	12.60	12.00	11.40
				OFF	358	35.4	-24.8	12.34	12.60	12.00	11.40
57	9	5	92	243.3 ON	373	69.8	-81.0	12.40	12.75	12.15	11.55

			OFF	349	66.9-119.3	12.38	12.75	12.15	11.55	
61	5	2	36	95.2 ON	376	68.7 -73.6	12.41	12.75	12.15	11.55
				OFF	369	69.6 -88.7	12.38	12.75	12.15	11.55
67	7	2	37	97.9 ON	357	32.8 -25.4	12.33	12.66	12.06	11.46
				OFF	367	38.3 -27.3	12.37	12.71	12.11	11.51
68	7	2	11	29.1 ON	336	22.7 -23.3	12.24	12.48	11.88	11.28
				OFF	348	24.5 -23.6	12.26	12.53	11.93	11.33
68	7	5	24	63.5 ON	358	67.1-112.8	12.38	12.75	12.15	11.55
				OFF	342	65.3-128.4	12.27	12.75	12.15	11.55
69	3	1	28	52.9 ON	325	18.1 -22.9	12.28	12.31	11.71	11.11
				OFF	333	21.4 -23.2	12.23	12.44	11.84	11.24
69	3	4	64	169.3 ON	366	37.5 -27.2	12.37	12.78	12.18	11.56
				OFF	379	46.4 -31.7	12.42	12.75	12.15	11.55
69	3	6	45	119.8 ON	363	57.6 -42.5	12.43	12.75	12.15	11.55
				OFF	382	62.4 -51.4	12.43	12.75	12.15	11.55
70	3	5	31	82.8 ON	374	42.2 -29.4	12.48	12.73	12.13	11.53
				OFF	379	46.5 -31.9	12.42	12.75	12.15	11.55
73	3	6	36	95.2 ON	382	53.3 -37.4	12.43	12.75	12.15	11.55
				OFF	383	57.6 -42.8	12.43	12.75	12.15	11.55
71	4	4	14	37.8 ON	367	37.5 -27.5	12.37	12.78	12.18	11.58
				OFF	378	39.7 -28.4	12.39	12.72	12.12	11.52
71	4	5	6	13.2 ON	379	46.6 -32.2	12.42	12.75	12.15	11.55
				OFF	388	47.4 -32.7	12.42	12.75	12.15	11.55

STELLAR-INDEX SUMMARY

CAMERA DATA	ET	FILM	FILTER	GRID	ASSEMBLY NO D 78
STELLAR	1.8	4481	NONE	95	
INDEX	1/528	4488	W/21	96	

PERFORMANCE SUMMARY

OPN NO	FR	STEL FEET	INDX FEET	H	M	S	Q	ON LAT	ON LONG	Q	OFF LAT	OFF LONG	SEC DUR	
1	4	3	2.28	4.16										
1	4	3	2.38	2.59	28	22	38	2	57	146W	2	54	145W	58
3	4	1	4.42	2.79	23	19	54	2	78	162E	2	67	164E	78
5	3	2	1.29	2.57	2	21	54	2	65	126E	2	58	124E	235
6	4	1	.69	1.78	3	49	27	2	76	88E	2	65	97E	185
6	4	2	2.32	2.59	3	55	2	2	54	182E	2	52	181E	48
6	4	5	2.69	1.39	4	3	16	2	28	183E	2	14	184E	184
7	3	3	2.39	1.75	5	22	53	2	64	75E	2	54	78E	166
7	3	7	1.69	2.12	5	25	22	2	42	79E	2	38	88E	183
8	6	4	2.27	2.42	6	34	5	1	38	188W	1	41	187W	58
8	6	5	2.29	2.42	6	54	35	2	59	54E	2	56	55E	47
8	6	7	2.42	2.79	6	56	45	2	58	56E	2	46	56E	71
9	6	3	2.42	2.79	8	31	35	2	32	35E	2	28	35E	66
10	6	8	2.59	1.19	8	42	31	3	12	36E	3	19	37E	187
10	6	6	2.69	1.39	14	43	59	3	13	53W	3	28	53W	113
11	7	2	2.32	2.59	19	3	33	2	33	123W	2	31	123W	49
11	7	2	2.27	2.42	2	24	45	2	75	189E	2	73	112E	45
12	5	5	1.29	2.57	2	31	2	2	58	121E	2	36	122E	214
12	5	5	2.79	1.58	4	3	2	2	43	99E	2	35	188E	131

22	3	8	7	0.69	1.39	4	7	3	2	26	100E	2	20	100E	103
23	4	4	3	0.30	0.59	5	31	20	2	51	75E	2	49	76E	50
23	4	7	7	0.69	1.39	5	37	58	2	24	78E	2	17	78E	112
23	4	8	5	0.49	0.99	5	40	41	2	13	78E	2	8	78E	86
24	7	7	3	0.30	0.59	7	4	9	2	41	54E	2	38	54E	56
25	2	2	3	0.30	0.59	8	29	28	2	61	28E	2	59	28E	50
26	4	4	7	0.69	1.39	10	12	20	2	10	10E	2	3	10E	114
27	9	1	2	0.20	0.40	11	42	20	2	11	12W	2	9	12W	36
29	1	7	10	0.99	1.98	14	47	37	3	7	57W	3	18	56W	167
30	3	0	3	0.30	0.59	16	5	39	2	42	81W	2	39	81W	54
35	3	2	6	0.59	1.19	23	32	44	2	60	161E	2	54	163E	97
36	3	1	2	0.20	0.40	1	0	46	2	68	135E	2	66	136E	48
36	3	4	3	0.30	0.59	1	4	23	2	54	140E	2	52	140E	49
36	7	0	8	0.79	1.58	1	22	30	3	19	144E	3	28	144E	150
37	0	2	11	1.09	2.18	2	29	20	2	75	107E	2	62	115E	201
37	0	5	3	2.30	0.59	2	35	9	2	52	118E	2	50	118E	47
38	0	1	10	0.99	1.98	3	59	30	2	75	83E	2	64	92E	189
38	0	7	0	0.79	1.58	4	15	0	2	13	98E	2	5	98E	120
39	4	4	3	0.30	0.59	5	36	50	2	47	73E	2	45	73E	46
39	4	0	7	0.69	1.39	5	45	1	2	14	75E	2	7	75E	107
40	0	4	11	1.09	2.18	7	4	54	2	56	49E	2	45	51E	185
40	0	0	4	0.40	0.79	7	6	45	2	41	51E	2	37	51E	69
41	4	0	2	0.20	0.40	6	30	34	2	55	26E	2	53	27E	41
42	0	3	5	0.49	0.99	10	17	3	2	9	7E	2	4	7E	60
43	5	2	6	0.59	1.19	11	45	53	2	15	15W	2	9	14W	90
44	6	1	2	0.20	0.40	12	59	50	2	00	62W	2	78	58W	39
45	7	9	0	0.79	1.58	14	53	1	3	11	59W	3	21	59W	146
46	7	1	0	0.20	0.40	16	0	26	2	00	107W	2	78	103W	43
46	7	3	0	0.30	0.59	16	1	47	2	75	97W	2	72	94W	53
47	0	1	0	0.89	1.78	17	31	0	2	78	125W	2	68	113W	176
47	0	3	3	0.30	0.59	17	42	0	2	35	106W	2	32	106W	50
01	4	0	0	0.30	0.59	23	30	11	2	54	160E	2	52	160E	40
02	4	1	0	0.40	0.79	1	4	10	2	71	130E	2	66	133E	82
02	4	0	7	0.09	1.39	1	7	10	2	59	136E	2	52	138E	120
02	6	6	5	0.49	0.99	1	24	30	3	11	141E	3	16	141E	87
03	9	1	0	0.79	1.50	2	31	00	2	81	90E	2	72	106E	147
03	9	5	7	0.69	1.39	2	39	0	2	52	115E	2	45	116E	116
04	1	2	9	0.89	1.78	4	0	40	2	75	81E	2	65	88E	164
04	1	4	14	1.39	2.77	4	11	7	2	45	93E	2	31	94E	220
04	1	7	7	0.69	1.39	4	16	10	2	24	95E	2	17	95E	117
05	3	1	0	0.79	1.50	5	33	41	2	76	57E	2	67	65E	155
05	3	0	3	0.30	0.59	5	40	00	2	47	70E	2	45	71E	40
05	3	4	23	2.20	0.55	7	7	27	2	69	41E	2	67	42E	40
05	0	0	2	0.20	0.40	7	19	34	2	62	44E	2	30	49E	367
07	9	2	7	0.69	1.39	8	37	00	2	62	22E	2	55	24E	124
07	9	5	14	1.39	2.77	8	51	10	2	6	27E	3	8	28E	235
01	5	2	6	0.59	1.19	14	51	24	2	9	62W	2	4	62W	98
07	7	2	6	0.59	1.19	23	40	54	2	57	156E	2	51	158E	102
08	7	2	2	0.20	0.40	1	0	23	2	60	130E	2	66	131E	43
00	7	5	4	0.40	0.79	1	20	02	3	5	130E	3	9	130E	74

09	3	1	4	0.48	0.79	2	37	22	2	73	183E	2	70	186E	66
09	3	4	18	0.99	1.98	2	42	34	2	52	112E	2	42	114E	161
09	3	8	7	0.69	1.39	2	48	26	2	28	115E	2	21	115E	115
70	3	5	5	0.49	0.99	4	14	3	2	47	98E	2	42	91E	86
70	3	8	6	0.59	1.19	4	17	16	2	34	92E	2	28	92E	96
71	4	4	3	0.30	0.59	5	42	57	2	52	67E	2	50	67E	50
71	4	5	1	0.10	0.20	5	45	30	2	42	68E	2	41	68E	26

NOTE - MISSION 1040 IS BEING FLOWN WITH THE AGENA MOVING NOSE-FIRST THROUGH ORBIT INSTEAD OF THE USUAL TAIL-FIRST FLIGHT.

AS A RESULT OF THIS CHANGE IN AGENA ORIENTATION THE FOLLOWING VARIATIONS IN NORMAL SYSTEM PARAMETERS SHOULD BE NOTED -

- (1) AT THE DESCENDING NODE THE STELLAR CAMERA NOW LOOKS WESTWARD INSTEAD OF EASTWARD.
- (2) THE MASTER PAN CAMERA, INSTRUMENT 196, IS THE AFT LOOKING CAMERA AND THE SLAVE PAN CAMERA, INSTRUMENT 197, IS THE FORWARD LOOKING CAMERA.

NOTE - OPERATION 71-4-5 ACTUALLY CONSISTED OF 5 MORE FRAMES FOR THE FWD PAN CAMERA AND 6 MORE FOR THE AFT PAN CAMERA THAN WAS REPORTED. THESE FRAMES WILL BE INCLUDED IN THE B MISSION RECOVERY BUCKET.

NOTE - TLM DATA INDICATED NORMAL CAMERA SYSTEM PERFORMANCE DURING THE ENTIRE A MISSION.

- A. 1840-1
- B. DRY
- C. PERFORMANCE ESTIMATE - PART TWO

RATE ESTIMATE

FID PAN CAMERA NUMBER 197

JPIN NO	FR	R	A	TUR/ DUR	INST CPS	INST ANG-VEL	SCAN R/SEC	RATE I/SEC	PCT CALIB	RATE REQD
1 4 0	13	6	5 ON	1385	0.3916	0.03305	2.461	59.06	0.2	4.0
			OFF	37	0.3980	0.03358	2.501	60.01	0.2	3.9
3 4 1	28	6	5 ON	1107	0.3558	0.03002	2.235	53.65	0.2	4.2
			OFF	57	0.3665	0.02892	2.303	55.26	0.2	4.4
5 3 2	86	6	5 ON	1153	0.3643	0.03074	2.289	54.94	0.2	2.6
			OFF	222	0.4033	0.03403	2.534	60.82	0.2	2.3
6 4 1	60	6	5 ON	990	0.3391	0.02861	2.131	51.14	0.2	3.6
			OFF	172	0.3652	0.03090	2.301	55.21	0.2	2.8
6 4 2	13	6	5 ON	1325	0.3950	0.03333	2.482	59.57	0.2	2.6
			OFF	35	0.4009	0.03383	2.519	60.45	0.2	2.5
6 4 5	42	6	5 ON	1819	0.4497	0.03795	2.826	67.82	0.2	0.1
			OFF	91	0.4513	0.03808	2.835	68.05	0.2	-0.1
7 3 3	50	6	5 ON	1177	0.3689	0.03113	2.318	55.63	0.2	2.0
			OFF	153	0.3960	0.03342	2.488	59.72	0.2	2.7
7 3 7	73	6	5 ON	1507	0.4227	0.03567	2.656	63.75	0.2	1.0
			OFF	170	0.4412	0.03723	2.772	66.54	0.2	0.0
8 3 0	11	6	5 ON	35	0.2449	0.02066	1.539	36.93	0.2	8.4
			OFF	45	0.2449	0.02066	1.539	36.93	0.2	7.3
8 3 5	12	6	5 ON	1265	0.3847	0.03246	2.417	58.00	0.2	3.0
			OFF	34	0.3900	0.03297	2.455	58.93	0.2	3.0
8 3 7	23	6	5 ON	1394	0.4064	0.03429	2.553	61.28	0.2	2.6
			OFF	58	0.4152	0.03504	2.609	62.61	0.2	2.4
9 6 3	23	6	5 ON	1665	0.4400	0.03714	2.766	66.38	0.2	1.1
			OFF	53	0.4444	0.03749	2.792	67.01	0.2	0.0
9 6 8	39	6	5 ON	2021	0.4243	0.03500	2.666	63.98	0.2	2.3
			OFF	94	0.4109	0.03467	2.582	61.97	0.2	3.2
13 6 6	41	6	5 ON	2343	0.4210	0.03553	2.645	63.49	0.1	2.1
			OFF	100	0.4063	0.03429	2.553	61.27	0.1	3.1
16 3 0	15	6	5 ON	1670	0.4404	0.03716	2.767	66.41	0.1	0.5
			OFF	36	0.4433	0.03740	2.785	66.85	0.1	0.6
21 7 2	11	6	5 ON	1063	0.3490	0.02945	2.193	52.63	0.1	2.6
			OFF	32	0.3536	0.02904	2.222	53.32	0.1	2.4
21 7 3	86	6	5 ON	1440	0.4132	0.03406	2.596	62.31	0.1	2.0
			OFF	201	0.4370	0.03604	2.751	66.02	0.1	0.0
22 3 5	50	6	5 ON	1544	0.4273	0.03605	2.685	64.43	0.1	1.0
			OFF	118	0.4397	0.03710	2.763	66.31	0.1	0.7
22 3 8	40	6	5 ON	1786	0.4481	0.03791	2.815	67.57	0.1	-0.0
			OFF	90	0.4509	0.03805	2.833	67.99	0.1	-0.3
23 4 4	14	6	5 ON	1428	0.4113	0.03471	2.585	62.03	0.1	2.1
			OFF	37	0.4160	0.03517	2.619	62.85	0.1	1.9
23 4 7	44	6	5 ON	1826	0.4497	0.03794	2.825	67.81	0.1	-0.2
			OFF	99	0.4510	0.03805	2.834	68.01	0.1	-0.5

23	4	8	32	6	5 ON	1989	0.4504	0.03820	2.830	67.91	0.1	-0.4
					OFF	73	0.4475	0.03777	2.813	67.50	0.1	-0.3
24	7	7	18	6	5 ON	1583	0.4313	0.03644	2.713	65.12	0.1	1.2
					OFF	43	0.4364	0.03682	2.742	65.81	0.1	0.9
25	2	2	14	6	5 ON	1287	0.3683	0.03276	2.440	58.55	0.1	2.5
					OFF	37	0.3946	0.03330	2.480	59.51	0.1	2.4
26	4	4	43	6	5 ON	2045	0.4484	0.03784	2.818	67.62	0.1	-0.4
					OFF	131	0.4422	0.03731	2.778	66.60	0.1	0.0
27	9	1	10	6	5 ON	2031	0.4490	0.03789	2.821	67.71	0.1	-0.4
					OFF	23	0.4480	0.03780	2.815	67.56	0.1	-0.4
29	1	7	63	6	5 ON	2318	0.4243	0.03500	2.666	63.98	0.1	1.1
					OFF	154	0.4015	0.03389	2.523	60.56	0.1	2.4
30	3	0	17	6	5 ON	1596	0.4321	0.03646	2.715	65.16	0.1	1.2
					OFF	41	0.4365	0.03683	2.742	65.82	0.1	0.9
35	3	2	34	6	5 ON	1342	0.3977	0.03356	2.499	59.97	0.1	2.3
					OFF	34	0.4112	0.03469	2.583	62.00	0.1	2.1
36	3	1	12	6	5 ON	1211	0.3745	0.03160	2.353	56.48	0.1	2.2
					OFF	35	0.3899	0.03214	2.393	57.44	0.1	2.3
36	3	4	14	6	5 ON	1428	0.4110	0.03468	2.583	61.98	0.1	2.0
					OFF	36	0.4163	0.03513	2.616	62.78	0.1	1.0
36	7	0	51	6	5 ON	2515	0.3945	0.03329	2.479	59.49	0.1	2.4
					OFF	137	0.3701	0.03123	2.326	55.82	0.1	3.3
37	5	2	71	6	5 ON	1119	0.3576	0.03017	2.247	53.93	0.1	1.0
					OFF	188	0.3910	0.03305	2.461	59.06	0.1	2.2
37	5	5	14	6	5 ON	1460	0.4153	0.03508	2.613	62.70	0.1	1.0
					OFF	34	0.4206	0.03549	2.643	63.43	0.1	1.6
38	8	1	65	6	5 ON	1114	0.3566	0.03009	2.241	53.78	0.1	1.0
					OFF	176	0.3886	0.03279	2.441	58.59	0.1	2.2
38	8	7	51	6	5 ON	2039	0.4484	0.03784	2.818	67.62	0.1	-0.6
					OFF	115	0.4413	0.03724	2.773	66.55	0.1	-0.2
39	4	4	14	6	5 ON	1541	0.4260	0.03600	2.680	64.33	0.1	1.4
					OFF	33	0.4386	0.03634	2.706	64.94	0.1	1.2
39	4	8	41	6	5 ON	2027	0.4489	0.03788	2.820	67.69	0.1	-0.6
					OFF	94	0.4437	0.03744	2.788	66.92	0.1	-0.4
40	8	4	72	6	5 ON	1408	0.4080	0.03442	2.563	61.52	0.1	2.0
					OFF	172	0.4312	0.03638	2.709	65.02	0.1	1.2
40	8	8	24	6	5 ON	1638	0.4372	0.03689	2.747	65.93	0.1	0.8
					OFF	56	0.4421	0.03731	2.778	66.67	0.1	0.5
41	4	3	11	6	5 ON	1437	0.4123	0.03479	2.591	62.18	0.1	1.9
					OFF	28	0.4164	0.03514	2.616	62.79	0.1	1.8
42	5	3	32	6	5 ON	2114	0.4443	0.03749	2.792	67.00	0.1	-0.5
					OFF	75	0.4384	0.03699	2.754	66.10	0.1	-0.2
43	5	2	34	6	5 ON	2031	0.4487	0.03786	2.819	67.67	0.1	-0.6
					OFF	77	0.4446	0.03752	2.794	67.05	0.1	-0.5
44	6	1	9	6	5 ON	1061	0.3486	0.02941	2.190	52.56	0.1	1.0
					OFF	26	0.3523	0.02972	2.213	53.12	0.1	1.7
45	7	9	51	6	5 ON	2435	0.4105	0.03464	2.579	61.91	0.8	2.1
					OFF	133	0.3881	0.03275	2.439	58.53	0.8	3.0
46	7	1	10	6	5 ON	1068	0.3523	0.02973	2.214	53.12	0.8	2.5
					OFF	30	0.3565	0.03008	2.240	53.76	0.8	2.3
46	7	3	15	6	5 ON	1149	0.3661	0.03089	2.300	55.21	0.8	2.6

				OFF	40	0.3736	0.03153	2.348	56.34	0.8	2.0	
47	8	1	53	6	5 ON	1297	0.3564	0.03307	2.239	53.75	0.8	2.2
				OFF	163	0.3865	0.03262	2.429	58.29	0.8	2.0	
47	8	3	19	6	5 ON	1749	0.4493	0.03791	2.823	67.76	0.8	1.0
				OFF	45	0.4517	0.03811	2.838	68.11	0.8	0.7	
51	4	3	14	6	5 ON	1474	0.4210	0.03552	2.645	63.49	0.8	2.4
				OFF	35	0.4258	0.03593	2.676	64.21	0.8	2.2	
52	4	1	26	6	5 ON	1227	0.3805	0.03210	2.391	57.38	0.8	2.5
				OFF	69	0.3928	0.03315	2.468	59.24	0.8	2.7	
52	4	3	44	6	5 ON	1428	0.4112	0.03469	2.583	62.00	0.8	2.6
				OFF	137	0.4256	0.03600	2.681	64.33	0.8	2.2	
52	6	6	29	6	5 ON	2449	0.4083	0.03445	2.566	61.57	0.8	2.1
				OFF	74	0.3960	0.03341	2.488	59.71	0.8	2.6	
53	9	1	48	6	5 ON	1076	0.3534	0.02982	2.220	53.29	0.8	2.0
				OFF	134	0.3773	0.03184	2.371	56.90	0.8	2.3	
53	9	5	44	6	5 ON	1507	0.4256	0.03591	2.674	64.18	0.8	2.2
				OFF	103	0.4379	0.03695	2.752	66.04	0.8	1.7	
54	1	2	57	6	5 ON	1170	0.3668	0.03095	2.304	55.31	-0.0	1.3
				OFF	151	0.3937	0.03322	2.473	59.36	-0.0	1.0	
54	1	4	91	6	5 ON	1617	0.4347	0.03668	2.732	65.56	-0.0	0.8
				OFF	207	0.4489	0.03798	2.821	67.78	-0.0	-0.3	
54	1	7	46	6	5 ON	1928	0.4503	0.03800	2.829	67.90	-0.0	-0.7
				OFF	104	0.4483	0.03782	2.817	67.60	-0.0	-0.6	
55	3	1	53	6	5 ON	1159	0.3648	0.03078	2.292	55.01	-0.0	1.2
				OFF	142	0.3903	0.03293	2.452	58.85	-0.0	1.7	
55	3	6	15	6	5 ON	1594	0.4323	0.03647	2.716	65.18	-0.0	0.9
				OFF	35	0.4359	0.03678	2.739	65.73	-0.0	0.7	
56	3	1	13	6	5 ON	1269	0.3845	0.03245	2.416	57.99	-0.0	1.7
				OFF	35	0.3900	0.03297	2.455	58.93	-0.0	1.7	
56	3	4	152	6	5 ON	1378	0.4030	0.03400	2.532	60.76	-0.0	1.7
				OFF	354	0.4444	0.03750	2.792	67.02	-0.0	0.1	
56	3	8	10	6	5 ON	2104	0.4445	0.03751	2.793	67.03	-0.0	-0.8
				OFF	24	0.4429	0.03737	2.783	66.78	-0.0	-0.7	
57	9	2	45	6	5 ON	1377	0.4028	0.03399	2.531	60.74	-0.0	1.7
				OFF	111	0.4194	0.03539	2.635	63.24	-0.0	1.5	
57	9	5	94	6	5 ON	2197	0.4372	0.03689	2.747	65.93	-0.0	-0.5
				OFF	222	0.4095	0.03455	2.573	61.75	-0.0	0.7	
61	5	2	36	6	5 ON	2166	0.4399	0.03712	2.764	66.34	-0.0	-0.7
				OFF	85	0.4316	0.03642	2.712	65.09	-0.0	-0.4	
67	7	2	37	6	5 ON	1482	0.4185	0.03531	2.629	63.10	-0.0	1.4
				OFF	89	0.4298	0.03627	2.701	64.82	-0.0	1.1	
68	7	2	11	6	5 ON	1323	0.3939	0.03324	2.475	59.40	-0.0	1.5
				OFF	30	0.3990	0.03367	2.507	60.17	-0.0	1.6	
68	7	5	24	6	5 ON	2412	0.4105	0.03464	2.580	61.91	-0.0	0.3
				OFF	61	0.4010	0.03383	2.519	60.47	-0.0	0.7	
69	3	1	20	6	5 ON	1251	0.3815	0.03219	2.397	57.53	-0.0	1.3
				OFF	53	0.3900	0.03298	2.456	58.93	-0.0	1.4	
69	3	4	64	6	5 ON	1563	0.4288	0.03618	2.694	64.66	-0.0	1.0
				OFF	148	0.4429	0.03738	2.783	66.79	-0.0	0.3	
69	3	8	45	6	5 ON	1915	0.4503	0.03800	2.829	67.91	-0.0	-0.7
				OFF	102	0.4480	0.03787	2.820	67.68	-0.0	-0.9	

70	3	5	31	6	5 ON	1647	0.4376	0.03693	2.750	65.99	-0.0	0.7
					OFF	73	0.4436	0.03743	2.787	66.89	-0.0	0.3
70	3	8	36	6	5 ON	1839	0.4494	0.03792	2.824	67.77	-0.0	-0.3
					OFF	83	0.4503	0.03800	2.829	67.91	-0.0	-0.7
71	4	4	16	6	5 ON	1570	0.4297	0.03625	2.700	64.79	-0.0	1.0
					OFF	37	0.4338	0.03660	2.725	65.41	-0.0	0.8
71	4	5	5	6	5 ON	1723	0.4438	0.03744	2.788	66.92	-0.0	0.2
					OFF	13	0.4447	0.03752	2.794	67.05	-0.0	0.1

RATE ESTIMATE  
AFT PAN CAMERA NUMBER 196

OPN NO	FR	R	A	TUR/ DUR	INST CPS	INST ANG-VEL	SCAN R/SEC	RATE I/SEC	PCT CALIB	RATE REQD		
1	4	0	13	6	5 ON	1318	0.3858	0.03255	2.424	58.18	-2.1	2.0
					OFF	37	0.3921	0.03309	2.464	59.13	-2.1	1.9
3	4	1	20	6	5 ON	1120	0.3500	0.02953	2.199	52.78	-2.1	2.0
					OFF	57	0.3686	0.03043	2.266	54.38	-2.1	2.2
5	3	2	84	6	5 ON	1166	0.3585	0.03025	2.252	54.06	-2.1	0.4
					OFF	222	0.3975	0.03354	2.498	59.94	-2.1	0.3
6	4	1	59	6	5 ON	1203	0.3334	0.02813	2.095	50.28	-2.1	1.3
					OFF	172	0.3603	0.03040	2.264	54.34	-2.1	0.6
6	4	2	13	6	5 ON	1338	0.3892	0.03284	2.445	58.69	-2.1	0.5
					OFF	35	0.3950	0.03333	2.482	59.57	-2.1	0.5
6	4	5	39	6	5 ON	1832	0.4428	0.03737	2.782	66.78	-2.1	-1.6
					OFF	91	0.4431	0.03739	2.784	66.82	-2.1	-1.9
7	3	3	57	6	5 ON	1190	0.3631	0.03063	2.281	54.75	-2.1	0.6
					OFF	153	0.3902	0.03292	2.452	58.84	-2.1	0.6
7	3	7	72	6	5 ON	1520	0.4170	0.03519	2.620	62.88	-2.1	0.0
					OFF	170	0.4356	0.03676	2.737	65.69	-2.1	-0.8
8	3	0	11	6	5 ON	40	0.2392	0.02019	1.503	36.07	-2.1	5.9
					OFF	45	0.2392	0.02019	1.503	36.07	-2.1	4.7
8	3	5	12	6	5 ON	1278	0.3788	0.03196	2.380	57.12	-2.1	0.9
					OFF	34	0.3849	0.03248	2.418	58.04	-2.1	0.9
8	3	7	23	6	5 ON	1407	0.4006	0.03380	2.517	60.41	-2.1	0.6
					OFF	58	0.4094	0.03455	2.573	61.74	-2.1	0.4
9	6	3	22	6	5 ON	1678	0.4346	0.03667	2.731	65.53	-2.1	-0.6
					OFF	53	0.4388	0.03703	2.757	66.17	-2.1	-0.8
9	6	8	38	6	5 ON	2334	0.4185	0.03532	2.630	63.11	-2.1	1.5
					OFF	94	0.4051	0.03418	2.545	61.09	-2.1	2.4
13	6	6	40	6	5 ON	2356	0.4151	0.03502	2.608	62.59	-2.2	1.3
					OFF	100	0.4003	0.03378	2.515	60.36	-2.2	2.2
15	3	0	14	6	5 ON	1683	0.4346	0.03667	2.731	65.53	-2.2	-0.9
					OFF	36	0.4375	0.03692	2.749	65.97	-2.2	-1.0
21	7	2	11	6	5 ON	1076	0.3431	0.02895	2.156	51.74	-2.2	0.3
					OFF	32	0.3476	0.02933	2.184	52.42	-2.2	0.0
21	7	3	84	6	5 ON	1453	0.4072	0.03436	2.558	61.40	-2.2	0.1
					OFF	201	0.4320	0.03645	2.714	65.14	-2.2	-0.9
22	3	5	50	6	5 ON	1557	0.4213	0.03555	2.647	63.54	-2.2	-0.4
					OFF	118	0.4339	0.03661	2.726	65.43	-2.2	-1.0
22	3	8	39	6	5 ON	1799	0.4421	0.03731	2.778	66.67	-2.2	-1.5



				OFF	98	0.4426	0.03734	2.781	66.74	-2.2	-2.3	
23	4	4	14	6	5 ON	1441	0.4053	0.03420	2.547	61.12	-2.2	0.1
					OFF	37	0.4188	0.03466	2.581	61.95	-2.2	-0.8
23	4	7	43	6	5 ON	1839	0.4424	0.03733	2.779	66.71	-2.2	-2.6
					OFF	99	0.4426	0.03735	2.781	66.74	-2.2	-2.4
23	4	8	31	6	5 ON	2002	0.4425	0.03734	2.780	66.72	-2.2	-2.1
					OFF	73	0.4419	0.03729	2.776	66.63	-2.2	-1.4
24	7	7	18	6	5 ON	1596	0.4259	0.03594	2.676	64.23	-2.2	-0.6
					OFF	43	0.4306	0.03633	2.705	64.93	-2.2	-0.8
25	2	2	13	6	5 ON	1300	0.3822	0.03225	2.402	57.64	-2.2	0.3
					OFF	37	0.3896	0.03279	2.442	58.60	-2.2	0.3
26	4	4	44	6	5 ON	2058	0.4422	0.03731	2.776	66.68	-2.2	-1.6
					OFF	101	0.4364	0.03682	2.742	65.80	-2.2	-1.8
27	9	1	9	6	5 ON	2644	0.4423	0.03732	2.779	66.69	-2.2	-1.5
					OFF	23	0.4421	0.03730	2.778	66.67	-2.2	0.3
29	1	7	62	5	5 ON	2331	0.4184	0.03530	2.629	63.09	-2.2	1.6
					OFF	154	0.3956	0.03338	2.486	59.65	-2.2	-0.6
30	3	2	17	6	5 ON	1599	0.4262	0.03596	2.678	64.27	-2.2	-0.8
					OFF	41	0.4306	0.03634	2.706	64.94	-2.2	0.2
35	3	2	33	6	5 ON	1355	0.3917	0.03305	2.461	59.06	-2.2	0.1
					OFF	64	0.4252	0.03419	2.546	61.10	-2.2	-0.4
36	3	1	12	6	5 ON	1224	0.3670	0.03097	2.306	55.34	-2.7	-0.3
					OFF	35	0.3733	0.03150	2.345	56.29	-2.7	-0.4
36	3	4	14	6	5 ON	1441	0.4034	0.03404	2.534	60.83	-2.7	-0.5
					OFF	36	0.4087	0.03448	2.568	61.63	-2.7	1.2
36	7	6	51	6	5 ON	2528	0.3869	0.03264	2.431	58.34	-2.7	2.0
					OFF	137	0.3626	0.03060	2.278	54.68	-2.7	-0.9
37	5	2	69	6	5 ON	1132	0.3502	0.02955	2.200	52.81	-2.7	-0.3
					OFF	188	0.3840	0.03240	2.413	57.91	-2.7	-0.6
37	5	5	13	6	5 ON	1473	0.4081	0.03444	2.564	61.54	-2.7	-0.7
					OFF	34	0.4130	0.03484	2.595	62.27	-2.7	-0.9
38	8	1	64	5	5 ON	1127	0.3492	0.02947	2.194	52.66	-2.7	-0.3
					OFF	176	0.3809	0.03214	2.393	57.44	-2.7	-2.3
38	6	7	59	6	5 ON	2052	0.4401	0.03714	2.765	66.37	-2.7	-1.7
					OFF	115	0.4337	0.03660	2.725	65.40	-2.7	-0.9
39	4	4	13	6	5 ON	1554	0.4190	0.03535	2.632	63.18	-2.7	-1.2
					OFF	33	0.4230	0.03569	2.658	63.78	-2.7	-2.5
39	4	6	41	5	5 ON	2240	0.4402	0.03714	2.766	66.38	-2.7	-1.9
					OFF	94	0.4362	0.03680	2.740	65.77	-2.7	-0.5
42	6	4	71	6	5 ON	1421	0.4003	0.03377	2.515	60.36	-2.7	-1.1
					OFF	172	0.4235	0.03574	2.661	63.87	-2.7	-1.3
42	6	6	24	6	5 ON	1651	0.4296	0.03625	2.699	64.78	-2.7	-1.6
					OFF	56	0.4345	0.03667	2.730	65.53	-2.7	-0.5
41	4	3	10	6	5 ON	1450	0.4047	0.03415	2.543	61.02	-2.7	-2.0
					OFF	28	0.4087	0.03449	2.568	61.64	-2.7	-1.6
42	5	3	32	5	5 ON	2127	0.4367	0.03605	2.744	65.86	-2.7	-2.5
					OFF	75	0.4307	0.03634	2.706	64.95	-2.7	-2.0
43	5	2	33	6	5 ON	2244	0.4402	0.03714	2.766	66.37	-2.7	-1.6
					OFF	77	0.4370	0.03688	2.746	65.90	-2.7	-2.5
44	6	1	0	6	5 ON	1074	0.3412	0.02879	2.144	51.45	-2.7	-0.9
					OFF	25	0.3449	0.02910	2.167	52.01	-2.7	-1.1

45	7	9	52	6	5 ON	2448	0.4620	0.03392	2.526	60.62	-2.1	2.7
					OFF	133	0.3797	0.03204	2.386	57.26	-2.1	1.6
46	7	1	10	6	5 ON	1081	0.3442	0.02904	2.163	51.90	-2.1	-0.4
					OFF	30	0.3484	0.02940	2.189	52.53	-2.1	-0.6
46	7	3	14	6	5 ON	1162	0.3579	0.03020	2.249	53.97	-2.1	-0.3
					OFF	40	0.3653	0.03082	2.295	55.09	-2.1	-0.1
47	8	1	59	6	5 ON	1110	0.3483	0.02939	2.188	52.52	-2.1	-0.7
					OFF	163	0.3781	0.03191	2.376	57.02	-2.1	0.1
47	8	3	19	6	5 ON	1762	0.4400	0.03720	2.770	66.48	-2.1	-1.2
					OFF	45	0.4427	0.03735	2.781	66.75	-2.1	-1.5
51	4	3	14	6	5 ON	1487	0.4125	0.03480	2.592	62.20	-2.1	-0.2
					OFF	35	0.4173	0.03521	2.622	62.93	-2.1	-0.2
52	4	1	25	6	5 ON	1240	0.3721	0.03140	2.330	56.11	-2.1	-0.3
					OFF	69	0.3844	0.03243	2.415	57.96	-2.1	-0.1
52	4	3	43	6	5 ON	1421	0.4026	0.03397	2.530	60.72	-2.1	-0.0
					OFF	107	0.4181	0.03528	2.627	63.05	-2.1	-0.3
52	6	6	28	6	5 ON	2462	0.3998	0.03374	2.512	60.29	-2.1	0.0
					OFF	74	0.3875	0.03270	2.435	58.43	-2.1	1.1
53	9	1	48	6	5 ON	1089	0.3453	0.02913	2.169	52.06	-2.1	-0.9
					OFF	134	0.3690	0.03114	2.316	55.64	-2.1	-0.4
53	9	5	43	6	5 ON	1520	0.4171	0.03519	2.620	62.89	-2.1	-0.3
					OFF	103	0.4294	0.03623	2.698	64.75	-2.1	-0.6
54	1	2	56	6	5 ON	1183	0.3629	0.03062	2.280	54.73	-1.8	-0.3
					OFF	151	0.3900	0.03291	2.450	58.81	-1.8	0.3
54	1	4	90	6	5 ON	1630	0.4315	0.03641	2.711	65.07	-1.8	-0.4
					OFF	207	0.4444	0.03750	2.792	67.01	-1.8	-1.5
54	1	7	45	6	5 ON	1941	0.4446	0.03752	2.794	67.05	-1.8	-2.0
					OFF	104	0.4443	0.03749	2.791	66.99	-1.8	-1.6
55	3	1	53	6	5 ON	1172	0.3610	0.03046	2.260	54.43	-1.8	-0.4
					OFF	142	0.3866	0.03262	2.429	58.30	-1.8	0.2
55	3	6	14	6	5 ON	1607	0.4290	0.03620	2.696	64.69	-1.8	-0.3
					OFF	35	0.4327	0.03651	2.719	65.25	-1.8	-0.4
56	3	1	13	6	5 ON	1282	0.3800	0.03213	2.393	57.42	-1.8	0.1
					OFF	35	0.3871	0.03266	2.432	58.37	-1.8	0.2
56	3	4	150	6	5 ON	1391	0.3994	0.03370	2.509	60.22	-1.8	0.3
					OFF	354	0.4413	0.03724	2.773	66.55	-1.8	-0.0
56	3	8	10	6	5 ON	2117	0.4414	0.03725	2.774	66.57	-1.8	-1.2
					OFF	24	0.4397	0.03710	2.763	66.31	-1.8	-1.2
57	9	2	45	6	5 ON	1390	0.3992	0.03360	2.500	60.20	-1.8	0.3
					OFF	111	0.4159	0.03510	2.613	62.72	-1.8	0.2
57	9	5	92	6	5 ON	2210	0.4340	0.03662	2.727	65.44	-1.8	-0.9
					OFF	222	0.4060	0.03425	2.551	61.22	-1.8	0.5
61	5	2	36	6	5 ON	2179	0.4360	0.03685	2.744	65.07	-1.8	-1.1
					OFF	85	0.4284	0.03614	2.691	64.59	-1.8	-0.7
67	7	2	37	6	5 ON	1495	0.4150	0.03502	2.600	62.59	-1.8	0.1
					OFF	89	0.4265	0.03599	2.600	64.32	-1.8	-0.1
68	7	2	11	6	5 ON	1336	0.3903	0.03293	2.452	58.05	-1.8	0.1
					OFF	30	0.3954	0.03336	2.484	59.63	-1.8	0.2
68	7	5	24	6	5 ON	2425	0.4070	0.03434	2.557	61.38	-1.8	0.0
					OFF	61	0.3974	0.03353	2.497	59.92	-1.8	0.4
69	3	1	20	6	5 ON	1264	0.3777	0.03187	2.373	56.96	-1.8	-0.3