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12 PAGES  
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CORONA J FLIGHT DATA BOOK

SYSTEM NO. J-24

VEHICLE NO. 1619

MISSION NO. 1024-1

CAMERA NOS. 172/173

DATE 09-27-65

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Declassified and Released by the N R O

In Accordance with E. O. 12958

on NOV 26 1997

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SYSTEM NO. 0724  
VEHICLE NO. 1819  
MISSION NO. 1824-1  
CAMERA NOS. 172/173

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SYSTEM NO. 0-24  
VEHICLE NO. 1619  
MISSION NO. 1024-1  
CAMERA NOS. 172/173

GENERAL FLIGHT DATA

MASTER CAMERA SERIAL NO. 172

SLAVE CAMERA SERIAL NO. 173

S/I -1 SERIAL NO. D69/72/84

S/I -2 SERIAL NO. D64/82/66

LAUNCH DATE 09-22-65

REACTIVATION DATE N/A

REACTIVATION ORBIT NO. N/A

ORBITAL PARAMETERS (REV. 41)

PERIOD 90.078 MIN.

ECCENTRICITY 0.01522

PERIGEE 95.934 NM

PERIGEE LAT. 18.438 DEG. N

APOGEE 205.320 NM

INCL. ANGLE 80.058 DEG.

RECOVERY ORBIT NO. 81

RECOVERY DATE 09-27-65

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SYSTEM NO. J-24  
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CAMERA NOS. 172/173

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FLIGHT LENS SETTINGS AND FILM TYPES

LENS SETTINGS

PANORAMIC CAMERA SETTINGS	CAMERA NO. 172	CAMERA NO. 173
PANORAMIC OPTICS SLIT WIDTH	0.225	IN 0.150
PANORAMIC OPTICS FILTER TYPE	WRATTEN 25	WRATTEN 21
HORIZON OPTICS EXP. TIME	1/100	SEC. 1/100 SEC
HORIZON OPTICS APERTURE	F6.8	SUPPLY F8.0 SUPPLY
HORIZON OPTICS APERTURE	F8.0	TAKE-UP F6.8 TAKE-UP
HORIZON OPTICS FILTER TYPE	WRATTEN 25	WRATTEN 25

STELLAR INDEX CAMERA SETTINGS

	D69/72/84		D64/82/66	
	STELLAR	INDEX	STELLAR	INDEX
EXPOSURE TIME	2.0	SEC 1/500	SEC 2.0	SEC 1/500
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. 172	CAMERA NO. 173
TYPE	7J-48	7J-48
LENGTH	16000 FT.	16000 FT.
SPLICES	5	5
EMUL. DATA	213-5-6-5	213-5-6-5

STELLAR/INDEX CAMERAS

	D69/72/84		D64/82/66	
	STELLAR	INDEX	STELLAR	INDEX
TYPE	3J-34	7J-33	3J-34	7J-33
EMUL. DATA	124-35-8-5	104-14-6-5	124-35-8-5	104-14-6-5

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SYSTEM NO. J-24  
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LENS DATA SUMMARY MASTER CAMERA NO. 172

LENS SERIAL NO. 1602435  
EQUIVALENT OPERATIONAL FOCAL LENGTH 689.602 MM

RESOLUTION

STATIC		LINES/MM	FILM TYPE	TARGET CONTRAST
	BENCH TEST	264	3404	HIGH
		141	3404	LOW
DYNAMIC		198	3404	HIGH
		131	3404	LOW
	AP	161	3404	HIGH
		113	3404	LOW

NOTE [REDACTED] RESOLUTION OF 198 LINES/MM REPORTED IN [REDACTED]

DISTORTION - POSITIVE (PINCUSHION)

ANGLE OFF AXIS-DEG.	3	2	1	0	359	358	357
MILLIMETERS	0.001	0.000	0.000	0.000	0.000	0.000	0.002

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 CAMERA NOS. 172/173

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LENS DATA SUMMARY (HORIZON CAMERAS FOR MASTER CAMERA NO. 172)

	TAKE-UP	SUPPLY
LENS SERIAL NO.	812276	812288
OPERATIONAL FOCAL LENGTH	54.19 MM	55.48 MM
RADIAL DISTORTION		
18 DEG. OFF AXIS	0.008 MM	0.003 MM
28 DEG. OFF AXIS	0.015 MM	0.005 MM
TANGENTIAL DISTORTION (MAXIMUM VECTOR)	0.008 MM	0.005 MM

RESOLUTION

ANGLE OFF AXIS-DEG.	0	10	15	20	25	30	0	10	15	20	25	2
RADIAL	184	162	141	122	125	-0	164	162	127	122	112	
TANGENTIAL	164	142	115	97	60	-0	164	142	108	91	64	
DYNAMIC (ZERO DEG)	148 LINES/MM						144 LINES/MM					

NOTE

1. DISTORTION AND RESOLUTION ARE READ AT EQUIVALENT OPERATIONAL FOCAL LENGTH.
2. RESOLUTION IN LINES PER MM ON 3484 FILM AND HIGH CONTRAST TARGET.

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VEHICLE NO. 1619  
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LENS DATA SUMMARY SLAVE CAMERA NO. 173

LENS SERIAL NO. 1522435  
EQUIVALENT OPERATIONAL FOCAL LENGTH 609.628 MM

RESOLUTION

STATIC	LINES/MM	FILM TYPE	TARGET CONTRAS
BENCH TEST	241	3404	HIGH
	138	3404	LOW

DYNAMIC

[REDACTED]	201	3404	HIGH
	129	3404	LOW
AP	181	3404	HIGH
[REDACTED]	111	3404	LOW

NOTE [REDACTED] 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	0.001	0.000	0.000	0.002	0.002	0.004

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SYSTEM NO. J-24  
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MISSION NO. 1824-1  
CAMERA NOS. 172/173

LENS DATA SUMMARY (HORIZON CAMERAS FOR SLAVE CAMERA NO. 173)

	TAKE-UP	SUPPLY
LENS SERIAL NO.	814018	813555
OPERATIONAL FOCAL LENGTH	54.93 MM	54.78 MM
RADIAL DISTORTION		
10 DEG. OFF AXIS	0.003 MM	0.001 MM
20 DEG. OFF AXIS	0.012 MM	0.005 MM
TANGENTIAL DISTORTION (MAXIMUM VECTOR)	0.004 MM	0.007 MM

RESOLUTION

ANGLE OFF AXIS-DEG.	0	10	15	20	25	30	0	10	15	20	25	2
RADIAL	170	112	97	86	92	-0	170	111	96	75	77	
TANGENTIAL	170	104	91	95	55	-0	170	104	89	66	55	
DYNAMIC (ZERO DEG) 140 LINES/MM							139 LINES/MM					

NOTE

1. DISTORTION AND RESOLUTION ARE READ AT EQUIVALENT OPERATIONAL FOCAL LENGTH.
2. RESOLUTION IN LINES PER MM ON 3484 FILM AND HIGH CONTRAST TARGET.



SYSTEM NO. J-24  
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 CAMERA NOS. 172/173

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FORMAT DIMENSIONS AND CALIBRATIONS

	CAMERA NO. 172	CAMERA NO. 173
A	76.039	75.963
B	354.865	354.780
C	709.636	709.500
D	56.469	56.525
E	56.533	56.482
XT	-0.063	-0.134
YT	-0.187	0.032
XS	-0.508	-0.094
YS	-0.045	0.072
XVO	-0.030	0.212
YVO	1.504	0.033
DTX	-0.074	-0.143
DTY	2.813	2.039
DSX	-0.473	-0.089
DSY	-2.045	-1.928
DMX	-0.023	0.362
DMY	21.504	20.525
HEIGHT	-0.000	-0.000
WIDTH	-0.000	-0.000
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. DT, DM, DS, X, AND Y DIMENSIONS ARE TAKEN 10MM ABOVE POINT DEFINING TARGET CENTER.  
 4. NEGATIVE VIEWED WITH EMULSION SIDE DOWN.  
 5. FORMAT SIGN CONVENTION

```

1
-X+Y 1 +X+Y
-----1-----
-X-Y 1 +X-Y
1

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LENS DATA SUMMARY STELLAR INDEX D69/72/84 -1 MISSION

	STELLAR	INDEX
LENS SERIAL NO.	10505	817718
RESEAU SERIAL NO.	84	72
FILTER TYPE	NONE	WRATTEN 21
APERTURE	F1.8	F4.5
EXPOSURE TIME	2.0 SEC.	1/500 SEC.
EQUIVALENT FOCAL LENGTH		MM 38.57 MM

RESOLUTION (INDEX)

ANGLE OFF AXIS	0	10	20	30	35
HIGH CONTRAST-R/T (3400 FILM)	84/84	84/74	99/71	99/55	86/50

AWAR 74 LINES/MM  
READ FROM 3400 FILM.

DISTORTION

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

ALIGNMENT	STELLAR	INDEX
	<del>0.0003 INCHES/.937 INCHES</del>	<del>0.0009 INCHES/2.25 IN</del>

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SYSTEM NO. J-24  
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CAMERA NOS. 172/173

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LENS DATA SUMMARY STELLAR INDEX D64/82/66 -2 MISSION

	STELLAR	INDEX
LENS SERIAL NO.	18578	817462
RESEAU SERIAL NO.	66	82
FILTER TYPE	NONE	WRATTEN 21
APERTURE	F1.8	F4.5
EXPOSURE TIME	2.8 SEC.	1/500 SEC.
EQUIVALENT FOCAL LENGTH		MM 38.377 MM

RESOLUTION (INDEX)

ANGLE OFF AXIS	0	10	20	30	35
HIGH CONTRAST-R/T (3400 FILM)	83/83	86/86	107/88	96/42	84/1

AWAR 72 LINES/MM  
READ FROM 3400 FILM.

DISTORTION

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

ALIGNMENT	STELLAR	INDEX
	-0.0027 INCHES/.937 INCHES	-0.0004 INCHES/2.25 INCHES

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SYSTEM NO. J-24  
VEHICLE NO. 1619  
MISSION NO. 1824-1  
CAMERA NOS. 172/173

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CYCLE PERIOD DATA

V/H LEVEL	RAMP AMPLITUDE	SETTING RAMP-SEC	---CALIBRATED---		---IN-FLIGHT---		ORB CYCLE PERIOD-SEC NO.
			MASTER	SLAVE	MASTER	SLAVE	
6	4	18	4.222	4.197	4.270	4.175	9
6	4	1530	2.314	2.314	2.320	2.325	16
6	4	1575	2.280	2.280	2.300	2.302	32
6	4	1653	2.254	2.250	2.274	2.269	47
6	4	1686	2.252	2.248	2.267	2.260	63

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A. 1824-I LAUNCH AT 2131Z ON 09/22/65  
 B. DRY  
 C. FINAL PERFORMANCE ESTIMATE, PART 1

OPERATIONS SUMMARY

FWD PAN CAMERA NUMBER 172

OPN NO	FRA	Q	LAT	LONG	HEIGHT	RANGE	DA	H	M	S	LTIM	S-TIM
PRE-FLT 110												
1	4	0	11	ON	2 62 41 154 24W	783532	812269	22	22	57	47	1240 82667
			11	OFF	2 60 59 153 5W	773191	801534	22	22	58	14	1245 82694
5	7	1	21	ON	2 75 56 91 12E	867776	899734	23	4	54	31	1059 17671
			21	OFF	2 72 31 101 31E	842304	873285	23	4	55	38	1141 17738
5	7	2	71	ON	2 60 51 116 12E	769554	797758	23	4	58	52	1243 17932
			71	OFF	2 48 28 122 19E	704224	729951	23	5	2	4	1311 18124
5	7	3	21	ON	2 46 0 123 6E	692715	718008	23	5	2	42	1315 18162
			21	OFF	2 42 32 124 5E	677350	702063	23	5	3	35	1319 18215
7	9	1	62	ON	2 52 17 75 30E	722433	748049	23	8	1	22	13 3 28882
			62	OFF	2 41 58 78 52E	675105	699732	23	8	3	59	1319 29039
7	9	2	69	ON	2 37 29 79 56E	657515	681481	23	8	5	7	1324 29107
			69	OFF	2 26 45 81 55E	624000	646706	23	8	7	48	1335 29268
7	9	3	19	ON	2 24 15 82 18E	618055	644538	23	8	8	25	1337 29305
			19	OFF	2 21 22 82 43E	612206	634470	23	8	9	8	1340 29348
7	9	4	28	ON	2 19 46 82 56E	609382	631540	23	8	9	32	1341 29372
			28	OFF	2 15 29 83 30E	603452	625388	23	8	10	36	1344 29436
9	4	0	11	ON	1 38 54 123 8W	1156793	1199990	23	10	39	40	227 38388
			11	OFF	1 41 53 122 25W	1145787	1188551	23	10	40	35	230 38435
9	4	1	99	ON	2 60 13 25 54E	758960	786762	23	10	59	35	1243 39575
			99	OFF	2 43 35 33 4E	676190	700859	23	11	3	51	1316 39831
16	4	0	10	ON	2 37 10 124 9W	637306	660512	23	21	36	20	1319 77700
			10	OFF	2 35 25 123 47W	631337	654319	23	21	36	46	1321 77806
18	4	1	30	ON	2 66 7 176 39E	775321	683745	24	0	29	6	1215 1746
			30	OFF	2 60 45 178 37W	744246	771489	24	0	30	32	1236 1832
20	6	1	48	ON	2 59 11 137 3E	733288	760116	24	3	31	11	1239 12671
			48	OFF	2 50 57 141 8E	691461	716706	24	3	33	19	1257 12799
21	6	1	140	ON	2 60 8 113 44E	737381	764363	24	5	1	3	1236 18063
			140	OFF	2 37 11 122 25E	634225	657316	24	5	6	54	1316 18414
21	6	2	34	ON	3 14 42 129 28E	626946	649763	24	5	19	43	1357 19103
			34	OFF	3 20 11 130 11E	646668	670225	24	5	21	4	14 1 19264
22	3	1	54	ON	2 50 23 92 11E	726766	753349	24	6	31	37	1240 23497
			54	OFF	2 49 10 96 26E	681279	706140	24	6	33	59	1259 23639
22	3	2	38	ON	2 43 36 98 10E	657372	681332	24	6	35	24	13 8 23724
			38	OFF	2 37 24 99 41E	634278	657370	24	6	36	57	1315 23817
22	3	3	18	ON	2 0 14 105 2E	592574	614102	24	6	46	9	1346 24369
			18	OFF	3 2 32 105 21E	596829	618517	24	6	46	50	1348 24410
23	5	1	91	ON	2 59 17 60 56E	730506	757220	24	8	1	29	1237 28809
			91	OFF	2 44 14 75 18E	659185	683213	24	8	5	20	13 6 29120
23	5	2	33	ON	2 34 40 77 34E	624822	647559	24	8	7	45	1318 29265
			33	OFF	2 29 36 78 30E	610646	632852	24	8	9	1	1323 29341
25	2	1	165	ON	2 50 19 24 10E	723130	749501	24	11	1	57	1238 39717
			165	OFF	2 41 12 30 45E	645808	669334	24	11	6	19	13 9 39979
29	7	1	51	ON	3 20 22 51 13W	652445	676219	24	17	21	57	1357 62517

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		OFF	3	29	1	49	55W	691698	716943	24	17	24	6	14	4	62646		
32	8	0	10	ON	2	37	19	127	5W	627743	658598	24	21	37	59	13	9	77879
		OFF	2	35	35	126	43W	622441	645889	24	21	38	25	1311		77985		
34	9	1	42	ON	2	78	22	167	57E	788783	889416	25	0	29	33	1141		1773
		OFF	2	63	3	176	43E	738318	765328	25	0	31	34	1218		1894		
35	9	1	54	ON	2	74	24	136	7E	886858	835654	25	1	58	25	11	2	7185
		OFF	2	65	12	152	4E	749848	776465	25	2	1	5	12	9	7265		
36	9	1	139	ON	2	64	38	138	4E	744888	771234	25	3	31	21	1211		12681
		OFF	2	41	34	141	12E	639418	662784	25	3	37	15	13	2	13835		
37	9	1	185	ON	2	36	58	119	38E	623334	646815	25	5	8	31	13	7	18511
		OFF	2	28	58	122	28E	598412	611868	25	5	12	27	1321		18747		
38	7	1	125	ON	2	59	16	88	47E	714158	748253	25	6	32	54	1228		23574
		OFF	2	39	15	96	25E	638313	653256	25	0	38	0	13	3	23888		
39	9	1	16	ON	2	47	25	71	38E	659277	683389	25	8	6	2	1252		29162
		OFF	2	44	45	72	19E	648878	672519	25	0	6	42	1256		29282		
39	9	2	91	ON	2	34	35	74	45E	615884	638286	25	8	9	15	13	8	29355
		OFF	2	28	38	77	2E	589661	611882	25	8	12	43	1328		29563		
40	1	1	166	ON	2	66	14	37	35E	749899	776527	25	9	31	12	12	1	34272
		OFF	2	39	23	51	2E	629521	652435	25	9	38	7	13	2	34687		
41	2	1	78	ON	2	55	27	22	55E	692585	717873	25	11	4	8	1235		39848
		OFF	2	44	16	27	7E	645662	669182	25	11	6	59	1255		48819		
46	7	1	28	ON	2	39	41	85	3W	626989	649725	25	18	38	29	1258		67189
		OFF	2	36	31	84	21W	617616	648883	25	18	39	16	13	1	67156		
47	7	1	28	ON	2	37	41	187	16W	628348	642989	25	20	9	3	1259		72543
		OFF	2	34	33	186	37W	611929	634183	25	28	9	58	13	3	72598		
58	4	1	48	ON	2	71	28	163	25E	766851	794953	26	8	38	27	1124		1827
		OFF	2	63	6	173	54E	721887	747453	26	8	32	44	12	8	1964		
52	4	1	62	ON	2	68	33	138	32E	786216	732819	26	3	33	31	1215		12811
		OFF	2	58	19	135	45E	668724	684811	26	3	36	9	1239		12969		
52	4	2	33	ON	2	45	42	137	19E	643285	666633	26	3	37	28	1246		13848
		OFF	2	48	38	138	43E	625965	648745	26	3	38	38	1253		13118		
53	4	1	43	ON	2	67	29	181	24E	741859	768182	26	5	1	43	1147		18183
		OFF	2	68	16	188	3E	783877	729592	26	5	3	39	1215		18219		
53	4	2	92	ON	2	42	46	115	29E	632585	655531	26	5	8	7	1258		18487
		OFF	2	28	43	118	25E	597298	619884	26	5	11	37	13	5	18697		
54	7	1	117	ON	2	46	36	91	42E	645849	668546	26	6	37	12	1244		23832
		OFF	2	28	41	95	45E	596933	618626	26	6	41	48	13	4	24188		
56	1	1	181	ON	2	59	25	48	37E	696948	722393	26	9	34	1	1216		34441
		OFF	2	43	24	47	18E	632752	655787	26	9	38	6	1247		34686		
57	1	1	28	ON	2	77	52	18	2W	883928	833434	26	18	58	38	946		39518
		OFF	2	75	4	4	48W	782283	818889	26	18	59	48	1848		39588		
57	1	2	28	ON	2	52	37	21	38E	666877	698365	26	11	5	49	1231		39949
		OFF	2	49	18	22	48E	652927	676728	26	11	6	48	1237		48888		
63	5	1	28	ON	2	38	34	118	7W	614727	637885	26	28	9	35	1249		72575
		OFF	2	35	22	189	26W	686962	629838	26	28	18	23	1252		72623		
66	7	1	58	ON	2	66	12	168	17E	728155	746486	27	8	32	35	1145		1955
		OFF	2	57	57	174	53E	681131	785987	27	8	34	46	1214		2886		
69	7	1	93	ON	2	64	22	182	18E	787968	733829	27	5	3	9	1151		18189
		OFF	2	49	19	118	51E	644495	667972	27	5	7	3	1238		18423		
69	7	2	37	ON	2	42	48	112	54E	622998	645659	27	5	8	43	1248		18523
		OFF	2	37	3	114	14E	688324	638443	27	5	18	7	1247		18687		

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69	7	3	21	ON	2	24	2	116	33E	588815	689374	27	5	13	21	1259	18801	
				OFF	2	28	48	117	0E	586153	687442	27	5	14	9	13	2	18849
70	5	1	104	ON	2	52	18	87	2E	654748	678610	27	6	36	19	1224	23779	
				OFF	2	36	25	91	43E	686509	628560	27	6	40	19	1247	24019	
72	3	1	102	ON	2	60	22	37	24E	686473	711531	27	9	34	16	12	3	34456
				OFF	2	44	25	44	26E	626529	649331	27	9	38	20	1236	34700	
73	2	1	34	ON	2	54	17	18	11E	660170	684236	27	11	5	51	1218	39951	
				OFF	2	48	56	20	21E	640485	663811	27	11	7	13	1228	40033	

OPERATIONS SUMMARY

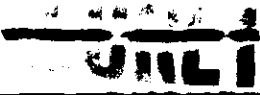
AFT PAN CAMERA NUMBER 173

OPN NO	FRA	Q	LAT	LONG	HEIGHT	RANGE	DA	H	M	S	LTIM	S-TIM						
PRE-FLT 113																		
1	4	0	11	ON	2	63	45	155	23W	783532	812269	22	22	57	47	1236	82667	
				OFF	2	62	2	153	57W	773191	801534	22	22	58	14	1242	82694	
5	7	1	21	ON	2	76	48	87	12E	867776	899734	23	4	54	31	1043	17671	
				OFF	2	73	31	99	0E	842304	873285	23	4	55	38	1131	17738	
5	7	2	71	ON	2	61	55	115	21E	769554	797758	23	4	58	52	1240	17932	
				OFF	2	49	28	121	54E	704224	729951	23	5	2	4	13	9	18124
5	7	3	21	ON	2	47	0	122	44E	692715	718008	23	5	2	42	1313	18162	
				OFF	2	43	30	123	46E	677350	702063	23	5	3	35	1318	18215	
7	9	1	62	ON	2	53	18	75	0E	722433	748849	23	8	1	22	13	1	28882
				OFF	2	42	56	78	33E	675105	699732	23	8	3	59	1318	29039	
7	9	2	69	ON	2	38	26	79	40E	657515	681481	23	8	5	7	1323	29107	
				OFF	2	27	39	81	43E	624000	646706	23	8	7	48	1334	29260	
7	9	3	19	ON	2	25	8	82	7E	618055	640538	23	8	8	25	1336	29305	
				OFF	2	22	15	82	32E	612206	634470	23	8	9	8	1339	29348	
7	9	4	28	ON	2	20	39	82	46E	609382	631540	23	8	9	32	1340	29372	
				OFF	2	16	21	83	20E	603452	625300	23	8	10	36	1343	29436	
9	4	0	11	ON	1	37	15	123	36W	1156793	1199990	23	10	39	48	225	38388	
				OFF	1	40	14	122	56W	1145787	1188551	23	10	40	35	228	38435	
9	4	1	99	ON	2	61	16	25	6E	758960	786762	23	10	59	35	1240	39575	
				OFF	2	44	33	32	44E	676190	700859	23	11	3	51	1314	39831	
16	4	0	11	ON	2	38	5	124	25W	637306	660512	23	21	36	20	1318	77780	
				OFF	2	36	20	124	2W	631337	654319	23	21	36	46	1320	77806	
18	4	1	30	ON	2	67	9	175	23E	775321	803745	24	0	29	6	1210	1746	
				OFF	2	61	46	179	26W	744246	771489	24	0	30	32	1232	1032	
20	6	1	48	ON	2	60	11	136	19E	733288	760116	24	3	31	11	1236	12671	
				OFF	2	51	55	140	41E	691461	716706	24	3	33	19	1256	12799	
21	6	1	140	ON	2	61	9	112	58E	737381	764363	24	5	1	3	1232	18063	
				OFF	2	38	6	122	9E	634225	657316	24	5	6	54	1315	18414	
21	6	2	34	ON	3	13	48	129	18E	626946	649763	24	5	19	43	1356	19183	
				OFF	3	19	15	130	0E	646668	670225	24	5	21	4	14	1	19264
22	3	1	54	ON	2	59	23	91	29E	726768	753349	24	6	31	37	1237	23497	
				OFF	2	50	8	96	1E	681279	706140	24	6	33	59	1258	23639	
22	3	2	39	ON	2	44	32	97	51E	657372	681332	24	6	35	24	13	6	23724
				OFF	2	38	18	99	25E	634270	657370	24	6	36	57	1314	23817	
22	3	3	18	ON	2	1	6	104	53E	592574	614102	24	6	46	9	1345	24369	
				OFF	3	1	40	105	12E	596829	610517	24	6	46	50	1347	24410	
23	5	1	91	ON	2	60	18	68	12E	730506	757228	24	8	1	29	1234	28889	
				OFF	2	45	11	74	58E	659185	603213	24	8	5	20	13	5	29120



23	5	2	33	ON	2	35	34	77	28E	624822	647559	24	8	7	45	1317	29265	
				OFF	2	38	29	78	17E	618646	632852	24	8	9	1	1322	29341	
25	2	1	185	ON	2	59	19	23	29E	723138	749581	24	11	1	57	1235	39717	
				OFF	2	42	8	38	27E	645888	669334	24	11	6	19	13	8	39979
29	7	1	52	ON	3	19	26	51	24W	652445	676219	24	17	21	57	1356	62517	
				OFF	3	28	1	58	8W	691698	716943	24	17	24	6	14	3	62646
32	8	8	11	ON	2	38	13	127	28W	627743	658598	24	21	37	59	13	8	77879
				OFF	2	36	29	126	57W	622441	645889	24	21	38	25	1318	77985	
34	9	1	42	ON	2	71	21	166	8E	788783	889416	25	8	29	33	1133	1773	
				OFF	2	64	3	175	46E	738318	765328	25	8	31	34	1214	1894	
35	9	1	55	ON	2	75	17	133	7E	886858	835654	25	1	58	25	1858	7185	
				OFF	2	66	12	158	56E	749848	776465	25	2	1	5	12	4	7265
36	9	1	148	ON	2	65	38	129	8E	744888	771234	25	3	31	21	12	7	12681
				OFF	2	42	29	148	55E	639418	662784	25	3	37	15	13	8	13835
37	9	1	186	ON	2	37	43	119	23E	623334	646815	25	5	8	31	13	6	18311
				OFF	2	21	49	122	18E	598412	611868	25	5	12	27	1321	18747	
38	7	1	125	ON	2	68	15	88	4E	714158	748253	25	6	32	54	1225	23574	
				OFF	2	48	18	96	9E	638313	653256	25	6	38	8	13	2	23888
39	9	1	16	ON	2	48	21	71	8E	659277	683389	25	8	6	2	1258	29162	
				OFF	2	45	48	71	59E	648878	672519	25	8	6	42	1254	29282	
39	9	2	93	ON	2	35	29	74	31E	615884	638286	25	8	9	15	13	7	29355
				OFF	2	21	29	76	52E	589661	611882	25	8	12	43	1328	29563	
48	1	1	166	ON	2	67	14	36	21E	749899	776527	25	9	31	12	1156	34272	
				OFF	2	48	17	58	46E	629521	652435	25	9	38	7	13	1	34687
41	2	1	78	ON	2	56	25	22	21E	692585	717873	25	11	4	8	1233	39848	
				OFF	2	45	11	26	47E	645662	669182	25	11	6	59	1254	48819	
46	7	1	28	ON	2	48	35	85	19W	626989	649725	25	18	38	29	1257	67189	
				OFF	2	37	25	84	35W	617616	648883	25	18	39	16	13	8	67156
47	7	1	28	ON	2	38	34	187	31W	628348	642989	25	28	9	3	1258	72543	
				OFF	2	35	26	186	51W	611929	634183	25	28	9	58	13	2	72598
58	4	1	49	ON	2	72	17	161	25E	766851	794953	26	8	38	27	1116	1827	
				OFF	2	64	5	172	59E	721887	747453	26	8	32	44	12	4	1964
52	4	1	63	ON	2	61	31	129	46E	786216	732819	26	3	33	31	1212	12811	
				OFF	2	51	15	135	28E	668724	684811	26	3	36	9	1237	12969	
52	4	2	33	ON	2	46	37	136	58E	643285	666633	26	3	37	28	1245	13848	
				OFF	2	41	24	138	27E	625965	648745	26	3	38	38	1252	13118	
53	4	1	43	ON	2	68	27	188	4E	741859	768182	26	5	1	43	1142	18183	
				OFF	2	61	14	187	18E	783877	729592	26	5	3	39	1212	18219	
53	4	2	93	ON	2	43	48	115	11E	632585	655531	26	5	8	7	1248	18487	
				OFF	2	29	35	118	13E	597298	619884	26	5	11	37	13	4	18697
54	7	1	118	ON	2	47	31	91	21E	645849	668546	26	6	37	12	1242	23832	
				OFF	2	29	33	95	33E	596933	618626	26	6	41	48	13	3	24188
56	1	1	182	ON	2	68	23	39	54E	696948	722393	26	9	34	1	1213	34441	
				OFF	2	44	18	47	8E	632752	655787	26	9	38	6	1246	34686	
57	1	1	21	ON	2	78	38	22	53W	883928	833434	26	18	58	38	926	39518	
				OFF	2	75	54	7	59W	782283	818889	26	18	59	48	1827	39588	
57	1	2	21	ON	2	53	34	21	2E	666877	698365	26	11	5	49	1229	39949	
				OFF	2	58	13	22	24E	652927	676728	26	11	6	48	1236	48888	
63	5	1	21	ON	2	39	27	118	22W	614727	637885	26	28	9	35	1248	72575	
				OFF	2	36	14	189	48W	686962	629838	26	28	18	23	1251	72623	
66	7	1	58	ON	2	67	9	167	7E	728155	746486	27	8	32	35	1141	1955	





	OFF	2	58	54	174	15E	681131	705987	27	0	34	46	1211	2086				
69	7	1	94	ON	2	65	19	101	10E	707960	733829	27	5	3	9	1147	18189	
	OFF	2	50	14	110	27E	644495	667972	27	5	7	3	1228	18423				
69	7	2	37	ON	2	43	33	112	36E	622990	645659	27	5	8	43	1239	18523	
	OFF	2	37	55	114	0E	608324	630443	27	5	10	7	1246	18627				
69	7	3	21	ON	2	24	52	116	22E	588015	609374	27	5	13	21	1258	18801	
	OFF	2	21	39	116	50E	586153	607442	27	5	14	9	13	1	18849			
70	5	1	104	ON	2	53	13	86	35E	654748	678610	27	6	36	19	1222	23779	
	OFF	2	37	17	91	28E	606509	620560	27	6	40	19	1246	24019				
72	3	1	182	ON	2	61	19	36	40E	686473	711531	27	9	34	16	12	0	34456
	OFF	2	45	18	44	7E	626529	649331	27	9	38	20	1234	34700				
73	2	1	35	ON	2	55	13	17	41E	660170	684236	27	11	5	51	1216	39951	
	OFF	2	49	50	19	58E	640485	663811	27	11	7	13	1227	40033				

PHOTOGRAPHIC SUMMARY

FWD PAN CAMERA NO 172 0.2250 SLIT W/25 FILTER 3404 FILM

OPN NO FRA FEET ET S-EL S-DIR EV FULL INT PRI

PRE-FLT 110 291.0

1	4	0	11	29.1	ON	229	26.8	33.9	11.69	11.93	11.33	10.73
					OFF	233	28.4	34.4	11.72	11.95	11.35	10.75
5	7	1	21	55.5	ON	208	13.6	31.7	11.55	11.39	10.79	10.19
					OFF	214	17.4	31.6	11.60	11.63	11.03	10.43
5	7	2	71	167.0	ON	235	28.6	33.7	11.73	11.95	11.35	10.75
					OFF	262	39.1	38.6	11.88	12.06	11.46	10.86
5	7	3	21	55.5	ON	267	41.1	39.9	11.91	12.27	11.47	10.07
					OFF	273	43.8	42.0	11.95	12.09	11.49	10.89
7	9	1	62	164.0	ON	258	36.0	36.4	11.86	12.04	11.44	10.04
					OFF	277	44.3	42.0	11.97	12.09	11.49	10.89
7	9	2	69	182.5	ON	285	47.7	45.3	12.01	12.10	11.50	10.90
					OFF	299	54.7	55.8	12.08	12.10	11.50	10.90
7	9	3	19	50.3	ON	302	56.1	58.9	12.09	12.10	11.50	10.90
					OFF	304	57.5	62.8	12.10	12.10	11.50	10.90
7	9	4	28	74.1	ON	305	58.2	65.1	12.11	12.10	11.50	10.90
					OFF	307	59.8	71.9	12.12	12.10	11.50	10.90
9	4	0	11	29.1	ON	159	-38.5	37.4	11.17	0.00	0.00	0.00
					OFF	160	-36.0	36.1	11.17	0.00	0.00	0.00
9	4	1	99	261.9	ON	253	29.2	33.2	11.83	11.96	11.36	10.76
					OFF	284	43.2	42.6	12.00	12.09	11.49	10.89
16	4	0	10	26.5	ON	207	48.5	43.6	12.02	12.10	11.50	10.90
					OFF	209	49.8	45.1	12.03	12.10	11.50	10.90
18	4	1	30	79.3	ON	231	23.8	30.2	11.70	11.86	11.26	10.66
					OFF	241	28.8	31.4	11.77	11.96	11.36	10.76
20	6	1	40	127.0	ON	243	30.3	31.5	11.77	11.98	11.38	10.78
					OFF	259	37.6	34.5	11.87	12.05	11.45	10.85
21	6	1	140	370.3	ON	241	29.4	31.1	11.76	11.97	11.37	10.77
					OFF	283	48.8	42.5	12.00	12.10	11.50	10.90
21	6	2	34	89.9	ON	266	57.4	124.5	12.01	12.10	11.50	10.90
					OFF	278	54.0	132.9	11.97	12.10	11.50	10.90
22	3	1	54	142.0	ON	246	31.1	31.4	11.79	11.99	11.39	10.79
					OFF	264	39.2	35.0	11.90	12.06	11.46	10.86
22	3	2	38	100.5	ON	275	43.0	37.9	11.95	12.09	11.49	10.89



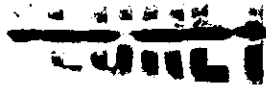
					OFF 234	48.7	42.2	12.88	12.16	11.58	10.98
22	3	3	18	47.6	ON 361	63.4	99.5	12.68	12.18	11.58	10.98
					OFF 299	62.8	104.9	12.88	12.18	11.58	10.98
23	5	1	91	248.7	ON 246	38.2	31.8	11.79	11.98	11.38	10.78
					OFF 275	43.3	37.4	11.95	12.89	11.49	10.89
23	5	2	33	87.3	ON 289	58.8	44.2	12.83	12.18	11.58	10.98
					OFF 295	54.4	49.1	12.86	12.18	11.58	10.98
25	2	1	185	277.7	ON 249	31.2	38.9	11.81	11.99	11.39	10.79
					OFF 288	45.9	38.8	11.98	12.18	11.58	10.98
29	7	1	51	134.9	ON 273	54.8	132.4	11.95	12.18	11.58	10.98
					OFF 258	48.4	148.1	11.86	12.18	11.58	10.98
32	8	8	18	26.5	ON 287	49.3	48.1	12.82	12.18	11.58	10.98
					OFF 289	58.7	41.4	12.83	12.18	11.58	10.98
34	9	1	42	111.1	ON 226	19.6	26.9	11.67	11.72	11.12	10.52
					OFF 241	26.9	28.1	11.76	11.93	11.33	10.73
35	9	1	54	142.8	ON 218	15.1	26.7	11.62	11.58	10.98	10.38
					OFF 236	24.8	27.5	11.74	11.88	11.28	10.68
36	9	1	139	367.7	ON 239	25.5	27.4	11.75	11.98	11.38	10.78
					OFF 283	46.1	36.2	12.88	12.18	11.58	10.98
37	9	1	185	277.7	ON 298	58.8	39.3	12.83	12.18	11.58	10.98
					OFF 384	61.8	57.8	12.18	12.18	11.58	10.98
38	7	1	125	338.6	ON 252	38.5	28.3	11.83	11.98	11.38	10.78
					OFF 287	48.1	37.3	12.82	12.18	11.58	10.98
39	9	1	16	42.3	ON 276	41.2	32.4	11.96	12.87	11.47	10.87
					OFF 288	43.5	33.8	11.98	12.89	11.49	10.89
39	9	2	91	248.7	ON 294	51.9	48.7	12.85	12.18	11.58	10.98
					OFF 384	61.4	57.8	12.18	12.18	11.58	10.98
48	1	1	166	439.1	ON 238	23.8	26.5	11.75	11.86	11.26	10.66
					OFF 288	48.1	36.8	12.82	12.18	11.58	10.98
41	2	1	78	185.1	ON 262	34.1	28.9	11.88	12.82	11.42	10.82
					OFF 281	44.8	33.6	11.99	12.89	11.49	10.89
46	7	1	28	52.9	ON 288	48.1	35.3	12.82	12.18	11.58	10.98
					OFF 292	58.7	37.5	12.84	12.18	11.58	10.98
47	7	1	28	52.9	ON 298	49.8	36.4	12.83	12.18	11.58	10.98
					OFF 293	52.4	38.8	12.85	12.18	11.58	10.98
58	4	1	48	127.8	ON 228	18.4	24.2	11.69	11.68	11.08	10.48
					OFF 246	26.9	25.3	11.88	11.93	11.33	10.73
52	4	1	62	164.8	ON 253	29.4	25.5	11.84	11.97	11.37	10.77
					OFF 272	39.8	28.6	11.94	12.86	11.46	10.86
52	4	2	33	87.3	ON 288	43.1	38.6	11.98	12.89	11.49	10.89
					OFF 287	47.7	33.4	12.82	12.18	11.58	10.98
53	4	1	43	113.7	ON 238	22.5	24.1	11.75	11.82	11.22	10.62
					OFF 253	29.6	25.4	11.84	11.97	11.37	10.77
53	4	2	92	243.3	ON 285	45.8	31.9	12.81	12.18	11.58	10.98
					OFF 388	57.3	42.9	12.88	12.18	11.58	10.98
54	7	1	117	389.5	ON 279	42.4	29.8	11.98	12.88	11.48	10.88
					OFF 388	57.4	42.6	12.88	12.18	11.58	10.98
56	1	1	181	267.1	ON 259	38.5	25.8	11.87	11.98	11.38	10.78
					OFF 286	45.3	38.9	12.81	12.89	11.49	10.89
57	1	1	28	52.9	ON 219	18.1	23.7	11.63	11.18	10.58	9.98
					OFF 225	14.8	23.2	11.67	11.43	10.83	10.23

57	1 2	20	52.9	ON	273	36.9	26.8	11.95	12.05	11.45	10.85
				OFF	279	40.0	28.0	11.98	12.07	11.47	10.87
63	5 1	20	52.9	ON	294	49.8	32.2	12.05	12.10	11.50	10.90
				OFF	297	52.5	34.4	12.07	12.10	11.50	10.90
66	7 1	50	132.3	ON	247	23.7	22.1	11.80	11.86	11.26	10.66
				OFF	264	32.0	23.6	11.90	12.00	11.40	10.80
69	7 1	93	246.0	ON	253	25.6	21.8	11.83	11.90	11.30	10.70
				OFF	281	40.2	25.6	11.99	12.07	11.47	10.87
69	7 2	37	97.9	ON	291	46.4	28.5	12.04	12.10	11.50	10.90
				OFF	297	51.4	31.7	12.07	12.10	11.50	10.90
69	7 3	21	55.5	ON	305	61.9	44.2	12.10	12.10	11.50	10.90
				OFF	305	64.2	48.9	12.11	12.10	11.50	10.90
70	5 1	104	275.1	ON	279	37.4	24.4	11.98	12.05	11.45	10.85
				OFF	299	52.0	31.9	12.08	12.10	11.50	10.90
72	3 1	102	269.8	ON	264	29.6	22.0	11.90	11.97	11.37	10.77
				OFF	290	44.9	27.0	12.03	12.09	11.49	10.89
73	2 1	34	89.9	ON	276	35.6	23.2	11.96	12.03	11.43	10.83
				OFF	284	40.7	24.9	12.00	12.07	11.47	10.87

**PHOTOGRAPHIC SUMMARY**

AFT PAN	CAMERA NO	173	0.1500	SLIT	W/21	FILTER	3404	FILM			
OPN NO	FRA	FEET	ET	S-EL	S-DIR	EV	FULL	INT	PRI		
PRE-FLT	113	298.9									
1 4 0	11	29.1	ON	347	25.9	32.6	12.29	12.56	11.96	11.36	
			OFF	353	27.4	33.2	12.31	12.59	11.99	11.39	
5 7 1	21	55.5	ON	314	12.4	27.6	12.15	11.96	11.36	10.76	
			OFF	324	16.3	28.9	12.19	12.22	11.62	11.02	
5 7 2	71	187.8	ON	356	27.6	32.5	12.33	12.59	11.99	11.39	
			OFF	395	38.3	37.7	12.48	12.71	12.11	11.51	
5 7 3	21	55.5	ON	403	40.3	39.0	12.51	12.72	12.12	11.52	
			OFF	412	43.1	41.1	12.54	12.73	12.13	11.53	
7 9 1	62	164.0	ON	389	35.2	35.5	12.46	12.68	12.08	11.48	
			OFF	418	43.6	41.1	12.56	12.74	12.14	11.54	
7 9 2	69	182.5	ON	430	47.8	44.3	12.60	12.75	12.15	11.55	
			OFF	451	54.2	54.6	12.67	12.75	12.15	11.55	
7 9 3	19	50.3	ON	455	55.6	57.6	12.68	12.75	12.15	11.55	
			OFF	458	57.1	61.4	12.69	12.75	12.15	11.55	
7 9 4	28	74.1	ON	460	57.9	63.7	12.70	12.75	12.15	11.55	
			OFF	463	59.6	70.3	12.71	12.75	12.15	11.55	
9 4 0	11	29.1	ON	242	-39.9	37.9	11.77	0.00	0.00	0.00	
			OFF	242	-37.4	36.4	11.77	0.00	0.00	0.00	
9 4 1	99	261.9	ON	382	28.3	32.1	12.43	12.60	12.00	11.40	
			OFF	429	42.4	39.7	12.60	12.73	12.13	11.53	
16 4 0	11	29.1	ON	433	47.8	42.7	12.61	12.75	12.15	11.55	
			OFF	436	49.1	44.1	12.62	12.75	12.15	11.55	
18 4 1	30	79.3	ON	349	22.8	28.7	12.30	12.48	11.88	11.28	
			OFF	365	27.9	30.4	12.36	12.59	11.99	11.39	
20 6 1	48	127.0	ON	369	29.4	30.5	12.38	12.62	12.02	11.42	
			OFF	395	36.7	33.7	12.48	12.69	12.09	11.49	
21 6 1	140	370.3	ON	367	28.5	30.0	12.37	12.60	12.00	11.40	
			OFF	431	48.1	41.6	12.60	12.75	12.15	11.55	

21	6	2	34	89.9	ON	435	57.9	123.3	12.62	12.75	12.15	11.55
					OFF	423	54.6	130.0	12.58	12.75	12.15	11.55
22	3	1	54	142.8	ON	374	30.2	30.4	12.40	12.63	12.03	11.43
					OFF	402	38.4	34.1	12.50	12.71	12.11	11.51
22	3	2	39	103.2	ON	418	43.1	37.1	12.56	12.73	12.13	11.53
					OFF	432	48.0	41.2	12.61	12.75	12.15	11.55
22	3	3	18	47.6	ON	457	63.6	97.7	12.69	12.75	12.15	11.55
					OFF	454	63.0	103.2	12.68	12.75	12.15	11.55
23	5	1	91	240.7	ON	374	29.3	30.0	12.40	12.62	12.02	11.42
					OFF	418	42.6	36.5	12.56	12.73	12.13	11.53
23	5	2	33	87.3	ON	440	50.2	43.2	12.63	12.75	12.15	11.55
					OFF	448	53.8	48.0	12.66	12.75	12.15	11.55
25	2	1	105	277.7	ON	379	30.3	29.9	12.42	12.63	12.03	11.43
					OFF	426	45.2	37.9	12.59	12.74	12.14	11.54
29	7	1	52	137.5	ON	416	55.5	131.5	12.55	12.75	12.15	11.55
					OFF	392	49.3	139.5	12.47	12.75	12.15	11.55
32	8	0	11	29.1	ON	436	48.6	39.1	12.62	12.75	12.15	11.55
					OFF	439	50.0	40.5	12.63	12.75	12.15	11.55
34	9	1	42	111.1	ON	341	18.5	25.0	12.27	12.33	11.73	11.13
					OFF	363	25.9	26.9	12.36	12.56	11.96	11.36
35	9	1	55	145.5	ON	330	14.0	23.6	12.22	12.08	11.48	10.88
					OFF	357	23.8	26.2	12.33	12.51	11.91	11.31
36	9	1	140	370.3	ON	361	24.5	26.2	12.35	12.53	11.93	11.33
					OFF	427	45.4	35.4	12.59	12.74	12.14	11.54
37	9	1	100	260.4	ON	438	49.3	38.4	12.63	12.75	12.15	11.55
					OFF	458	60.5	55.5	12.69	12.75	12.15	11.55
38	7	1	125	330.5	ON	380	29.5	27.3	12.42	12.62	12.02	11.42
					OFF	433	47.4	36.5	12.61	12.75	12.15	11.55
39	9	1	16	42.3	ON	416	40.4	31.6	12.55	12.72	12.12	11.52
					OFF	422	42.8	33.0	12.57	12.73	12.13	11.53
39	9	2	93	246.0	ON	444	51.2	39.7	12.64	12.75	12.15	11.55
					OFF	458	60.9	55.6	12.69	12.75	12.15	11.55
40	1	1	100	439.1	ON	360	22.8	25.1	12.34	12.48	11.88	11.28
					OFF	435	47.4	35.9	12.62	12.75	12.15	11.55
41	2	1	70	185.1	ON	395	33.2	28.0	12.48	12.66	12.06	11.46
					OFF	425	43.2	32.8	12.58	12.74	12.14	11.54
46	7	1	20	52.9	ON	435	47.4	34.4	12.62	12.75	12.15	11.55
					OFF	441	50.0	36.6	12.64	12.75	12.15	11.55
47	7	1	20	52.9	ON	442	49.1	35.6	12.64	12.75	12.15	11.55
					OFF	447	51.7	37.9	12.66	12.75	12.15	11.55
50	4	1	49	129.5	ON	349	17.4	22.1	12.30	12.28	11.68	11.08
					OFF	376	25.9	24.2	12.41	12.56	11.96	11.36
52	4	1	33	166.5	ON	386	28.4	24.5	12.45	12.60	12.00	11.40
					OFF	416	38.1	27.8	12.55	12.70	12.10	11.50
52	4	2	33	87.3	ON	428	42.3	29.8	12.59	12.73	12.13	11.53
					OFF	438	46.9	32.6	12.63	12.75	12.15	11.55
53	4	1	43	113.7	ON	364	21.5	22.6	12.36	12.44	11.84	11.24
					OFF	387	28.7	24.4	12.45	12.61	12.01	11.41
53	4	2	93	246.0	ON	435	45.0	31.1	12.62	12.74	12.14	11.54
					OFF	457	56.6	41.8	12.69	12.75	12.15	11.55
54	7	1	113	312.1	ON	426	41.6	29.0	12.59	12.73	12.13	11.53



				OFF 457	56.7	41.6	12.69	12.75	12.15	11.55
56	1	1	182	269.8 ON 395	29.5	24.1	12.48	12.62	12.82	11.42
				OFF 436	44.5	38.2	12.62	12.74	12.14	11.54
57	1	1	21	55.5 ON 334	9.8	18.8	12.23	11.63	11.83	18.43
				OFF 343	12.9	19.9	12.27	12.88	11.48	18.88
57	1	2	21	55.5 ON 415	36.1	26.8	12.55	12.69	12.89	11.49
				OFF 423	39.2	27.3	12.58	12.71	12.11	11.51
63	5	1	21	55.5 ON 447	49.8	31.4	12.65	12.75	12.15	11.55
				OFF 451	51.8	33.5	12.67	12.75	12.15	11.55
66	7	1	58	132.3 ON 376	22.8	28.7	12.41	12.48	11.88	11.28
				OFF 482	31.8	22.7	12.58	12.64	12.84	11.44
69	7	1	94	248.6 ON 384	24.6	28.7	12.44	12.53	11.93	11.33
				OFF 427	39.4	24.9	12.59	12.71	12.11	11.51
69	7	2	37	97.9 ON 442	45.6	27.8	12.64	12.74	12.14	11.54
				OFF 451	58.6	38.9	12.67	12.75	12.15	11.55
69	7	3	21	55.5 ON 463	61.3	42.9	12.71	12.75	12.15	11.55
				OFF 463	63.7	47.4	12.71	12.75	12.15	11.55
78	5	1	184	275.1 ON 423	36.6	23.7	12.58	12.69	12.89	11.49
				OFF 454	51.2	31.1	12.68	12.75	12.15	11.55
72	3	1	182	269.8 ON 481	28.7	21.1	12.58	12.61	12.81	11.41
				OFF 448	44.8	26.3	12.63	12.74	12.14	11.54
73	2	1	35	92.6 ON 428	34.7	22.5	12.56	12.68	12.88	11.48
				OFF 432	39.8	24.2	12.61	12.72	12.12	11.52

## STELLAR-INDEX SUMMARY

CAMERA DATA	ET	FILM FILTER	GRID	ASSEMBLY NO	D69
STELLAR	2.8	3481	NONE	72	
INDEX	1/588	3488	w/21	84	

## PERFORMANCE SUMMARY

OPN NO	FR	STEL FEET	INDX FEET	H	M	S	Q	ON LAT	ON LONG	Q	OFF LAT	OFF LONG	SEC DUR		
PRE-FLT	15	1.48	2.97												
1	4	8	2	8.28	8.48	22	57	47	2	62	154W	2	68	153W	27
5	7	1	3	8.38	8.59	4	54	31	2	75	91E	2	72	181E	67
5	7	2	18	8.99	1.98	4	58	52	2	68	116E	2	48	122E	192
5	7	3	3	8.38	8.59	5	2	42	2	46	123E	2	42	124E	53
7	9	1	9	8.89	1.78	8	1	22	2	52	75E	2	41	78E	157
7	9	2	18	8.99	1.98	8	5	7	2	37	79E	2	26	81E	161
7	9	3	2	8.28	8.48	8	8	25	2	24	82E	2	21	82E	43
7	9	4	4	8.48	8.79	8	9	32	2	19	82E	2	15	83E	64
9	4	8	2	8.28	8.48	18	39	48	1	38	123W	1	41	122W	47
9	4	1	14	1.39	2.77	18	59	35	2	68	28E	2	43	33E	256
16	4	8	2	8.28	8.48	21	36	28	2	37	124W	2	35	123W	26
18	4	1	4	8.48	8.79	8	29	6	2	66	176E	2	68	178W	86
28	6	1	7	8.69	1.39	3	31	11	2	59	137E	2	58	141E	128
21	6	1	28	1.98	3.96	5	1	3	2	68	113E	2	37	122E	351
21	6	2	5	8.58	8.99	5	19	43	3	14	129E	3	28	138E	81
22	3	1	7	8.69	1.39	6	31	37	2	58	92E	2	49	96E	142
22	3	2	6	8.59	1.19	6	35	24	2	43	98E	2	37	99E	93
22	3	3	2	8.28	8.48	6	46	9	2	8	185E	3	2	185E	41

23	5	1	13	1.29	2.57	8	1	29	2	59	68E	2	44	75E	231
23	5	2	5	0.50	0.99	8	7	45	2	34	77E	2	29	78E	76
25	2	1	15	1.48	2.97	11	1	57	2	58	24E	2	41	38E	262
29	7	1	7	0.69	1.39	17	21	57	3	20	51W	3	29	49W	129
32	8	0	2	0.20	0.40	21	37	59	2	37	127W	2	35	126W	26
34	9	1	6	0.59	1.19	0	29	33	2	70	167E	2	63	176E	121
35	9	1	7	0.69	1.39	1	58	25	2	74	130E	2	65	152E	160
36	9	1	20	1.98	3.96	3	31	21	2	64	130E	2	41	141E	354
37	9	1	15	1.48	2.97	5	8	31	2	36	119E	2	20	122E	236
38	7	1	13	1.78	3.56	6	32	54	2	59	88E	2	39	96E	306
39	9	1	2	0.20	0.40	0	6	2	2	47	71E	2	44	72E	40
39	9	2	13	1.29	2.57	8	9	15	2	34	74E	2	20	77E	208
40	1	1	24	2.58	4.75	9	31	12	2	66	37E	2	39	51E	415
41	2	1	10	0.99	1.98	11	4	8	2	55	22E	2	44	27E	171
46	7	1	3	0.30	0.59	18	38	29	2	39	85W	2	36	84W	47
47	7	1	3	0.30	0.59	20	9	3	2	37	107W	2	34	106W	47
50	4	1	7	0.69	1.39	0	30	27	2	71	163E	2	63	173E	137
52	4	1	9	0.89	1.78	3	33	31	2	60	130E	2	50	135E	158
52	4	2	4	0.40	0.79	3	37	20	2	45	137E	2	40	130E	70
53	4	1	6	0.59	1.19	5	1	43	2	67	101E	2	60	108E	116
53	4	2	14	1.39	2.77	5	8	7	2	42	115E	2	28	118E	210
54	7	1	16	1.58	3.17	6	37	12	2	46	91E	2	28	95E	268
56	1	1	15	1.48	2.97	9	34	1	2	59	40E	2	43	47E	245
57	1	1	3	0.30	0.59	10	58	38	2	77	10W	2	75	4W	62
57	1	2	2	0.20	0.40	11	5	49	2	52	21E	2	49	22E	51
63	5	1	3	0.30	0.59	20	9	35	2	30	110W	2	35	109W	48
66	7	1	7	0.69	1.39	0	32	35	2	66	168E	2	57	174E	131
69	7	1	14	1.39	2.77	5	3	9	2	64	102E	2	49	110E	234
69	7	2	5	0.50	0.99	5	8	43	2	42	112E	2	37	114E	84
69	7	3	3	0.30	0.59	5	13	21	2	24	116E	2	20	117E	48
70	5	1	15	1.48	2.97	6	36	19	2	52	87E	2	36	91E	240
72	3	1	14	1.39	2.77	9	34	16	2	60	37E	2	44	44E	244
73	2	1	5	0.50	0.99	11	5	51	2	54	10E	2	40	20E	82

A. 1024-1 LAUNCH AT 2131Z ON 09/22/65  
 B. DRY  
 C. FINAL PERFORMANCE ESTIMATE, PART 2

RATE ESTIMATE

FWD PAN CAMERA NUMBER 172

OPN NO	FR	R	A	TUR/DUR	INST CPS	INST ANG	SCAN RATE R/SEC	RATE I/SEC	PCT CALIB	RATE REQD		
1	4	0	11	8	3 ON	1207	0.3431	0.02895	2.155	51.73	-0.2	0.0
					OFF	27	0.3488	0.02943	2.192	52.60	-0.2	0.3
5	7	1	21	6	4 ON	846	0.3104	0.02619	1.951	46.81	-0.2	1.1
					OFF	67	0.3201	0.02701	2.011	48.27	-0.2	0.9
5	7	2	71	6	4 ON	1107	0.3519	0.02969	2.211	53.86	-0.2	0.7
					OFF	192	0.3912	0.03301	2.458	58.99	-0.2	1.0
5	7	3	21	6	4 ON	1337	0.3991	0.03367	2.508	60.18	-0.2	2.0
					OFF	53	0.4003	0.03445	2.566	61.57	-0.2	1.9
7	9	1	62	6	4 ON	1267	0.3854	0.03252	2.422	58.12	-0.2	3.0
					OFF	157	0.4143	0.03490	2.605	62.51	-0.2	3.0



7	9	2	69	6	4	ON	1492	0.4262	0.03596	2.678	64.26	-0.2	3.8
						OFF	161	0.4468	0.03770	2.807	67.38	-0.2	2.2
7	9	3	19	6	4	ON	1698	0.4508	0.03883	2.832	67.97	-0.2	2.1
						OFF	43	0.4548	0.03831	2.853	68.47	-0.2	1.8
7	9	4	23	6	4	ON	1757	0.4559	0.03847	2.865	68.76	-0.2	1.7
						OFF	64	0.4592	0.03874	2.885	69.24	-0.2	1.4
9	4	0	11	6	4	ON	43	0.2383	0.02011	1.497	35.93	-0.2	6.1
						OFF	47	0.2390	0.02016	1.501	36.83	-0.2	5.4
9	4	1	99	6	4	ON	1230	0.3779	0.03189	2.374	56.98	-0.2	6.1
						OFF	256	0.4248	0.03585	2.669	64.86	-0.2	5.5
16	4	0	10	6	4	ON	1510	0.4289	0.03619	2.695	64.68	-0.2	0.4
						OFF	26	0.4323	0.03648	2.716	65.19	-0.2	0.2
18	4	1	32	6	4	ON	1066	0.3449	0.02910	2.167	52.00	-0.2	-0.6
						OFF	86	0.3618	0.03046	2.268	54.43	-0.2	-0.4
20	6	1	48	6	4	ON	1184	0.3626	0.03059	2.278	54.68	-1.7	-1.5
						OFF	128	0.3876	0.03270	2.435	58.45	-1.7	-1.1
21	6	1	140	6	4	ON	1171	0.3600	0.03038	2.262	54.29	-1.7	-1.6
						OFF	351	0.4237	0.03575	2.662	63.90	-1.7	-1.4
21	6	2	34	6	4	ON	2292	0.4277	0.03608	2.687	64.49	-1.7	-1.6
						OFF	81	0.4161	0.03511	2.614	62.74	-1.7	-1.1
22	3	1	54	6	4	ON	1207	0.3674	0.03100	2.308	55.40	-1.7	-1.2
						OFF	142	0.3948	0.03331	2.480	59.53	-1.7	-0.9
22	3	2	30	6	4	ON	1434	0.4103	0.03462	2.578	61.88	-1.7	-0.8
						OFF	93	0.4244	0.03581	2.667	64.00	-1.7	-1.2
22	3	3	18	6	4	ON	2079	0.4493	0.03791	2.823	67.75	-1.7	-2.7
						OFF	41	0.4466	0.03768	2.806	67.35	-1.7	-2.5
23	5	1	91	6	4	ON	1207	0.3675	0.03101	2.309	55.41	-1.7	-0.6
						OFF	231	0.4106	0.03465	2.580	61.92	-1.7	-0.4
23	5	2	33	6	4	ON	1583	0.4323	0.03648	2.717	65.20	-1.7	-0.9
						OFF	76	0.4406	0.03718	2.768	66.44	-1.7	-1.5
25	2	1	105	6	4	ON	1229	0.3718	0.03137	2.336	56.06	-1.7	-0.5
						OFF	262	0.4189	0.03535	2.632	63.18	-1.7	-0.6
29	7	1	51	6	4	ON	2416	0.4005	0.03447	2.566	61.60	-1.7	-2.0
						OFF	129	0.3855	0.03252	2.422	58.13	-1.7	-1.6
32	8	0	10	6	4	ON	1557	0.4290	0.03620	2.696	64.69	-1.7	-1.2
						OFF	26	0.4320	0.03645	2.714	65.14	-1.7	-1.4
34	9	1	42	6	4	ON	1046	0.3375	0.02640	2.121	50.90	-1.3	-2.0
						OFF	121	0.3597	0.03035	2.260	54.24	-1.3	-1.6
35	9	1	54	6	4	ON	976	0.3267	0.02757	2.853	49.26	-1.3	-1.0
						OFF	160	0.3532	0.02981	2.219	53.27	-1.3	-1.9
36	9	1	109	6	4	ON	1152	0.3572	0.03014	2.244	53.56	-1.3	-1.5
						OFF	354	0.4228	0.03567	2.656	63.75	-1.3	-0.7
37	9	1	105	6	4	ON	1581	0.4337	0.03659	2.725	65.40	-1.3	-0.9
						OFF	236	0.4537	0.03828	2.850	68.41	-1.3	-2.1
38	7	1	125	6	4	ON	1243	0.3760	0.03173	2.363	56.71	-1.3	-0.7
						OFF	306	0.4290	0.03620	2.695	64.69	-1.3	-0.8
39	9	1	16	6	4	ON	1437	0.4124	0.03479	2.591	62.18	-1.3	0.0
						OFF	48	0.4184	0.03531	2.629	63.10	-1.3	-0.2
39	9	2	91	6	4	ON	1638	0.4395	0.03788	2.761	66.27	-1.3	-0.0
						OFF	208	0.4544	0.03834	2.855	68.53	-1.3	-2.1
40	1	1	165	6	4	ON	1147	0.3561	0.03004	2.237	53.69	-1.3	-1.0

						OFF	415	0.4327	0.03634	2.726	64.95	-1.3	-2.5
41	2	1	73	6	4	ON	1321	0.3913	0.03302	2.459	59.01	-1.3	0.0
						OFF	171	0.4206	0.03549	2.643	63.42	-1.3	-2.2
46	7	1	23	6	4	ON	1562	0.4311	0.03638	2.729	65.21	-1.3	-2.9
						OFF	47	0.4367	0.03685	2.744	65.86	-1.3	-1.2
47	7	1	23	6	4	ON	1596	0.4334	0.03657	2.723	65.36	-1.8	-1.4
						OFF	47	0.4384	0.03699	2.755	66.11	-1.8	-1.8
50	4	1	48	6	4	ON	1078	0.3410	0.02877	2.142	51.42	-1.8	-2.9
						OFF	137	0.3678	0.03103	2.311	55.46	-1.8	-1.9
52	4	1	62	6	4	ON	1262	0.3781	0.03190	2.376	57.01	-1.8	-1.4
						OFF	158	0.4070	0.03434	2.557	61.38	-1.8	-1.1
52	4	2	33	6	4	ON	1490	0.4189	0.03535	2.632	63.17	-1.8	-1.0
						OFF	78	0.4296	0.03625	2.699	64.79	-1.8	-1.4
53	4	1	43	6	4	ON	1154	0.3559	0.03003	2.236	53.66	-1.8	-2.3
						OFF	116	0.3789	0.03197	2.381	57.14	-1.8	-1.5
53	4	2	92	6	4	ON	1538	0.4259	0.03593	2.676	64.22	-1.8	-1.2
						OFF	210	0.4477	0.03777	2.813	67.51	-1.8	-2.2
54	7	1	117	6	4	ON	1483	0.4177	0.03525	2.625	62.99	-1.8	-1.0
						OFF	268	0.4479	0.03779	2.814	67.54	-1.8	-2.2
56	1	1	101	6	4	ON	1305	0.3865	0.03261	2.429	58.28	-1.8	-0.5
						OFF	245	0.4272	0.03604	2.684	64.42	-1.8	-0.8
57	1	1	23	6	4	ON	982	0.3277	0.02765	2.059	49.42	-1.3	-1.8
						OFF	62	0.3370	0.02844	2.118	50.82	-1.3	-1.9
57	1	2	20	6	4	ON	1414	0.4086	0.03447	2.567	61.61	-1.3	0.2
						OFF	51	0.4165	0.03515	2.617	62.01	-1.3	0.0
63	5	1	20	6	4	ON	1628	0.4395	0.03700	2.761	66.27	-1.3	-1.0
						OFF	48	0.4441	0.03747	2.790	66.97	-1.3	-1.3
66	7	1	56	6	4	ON	1210	0.3696	0.03118	2.322	55.73	-1.3	-1.5
						OFF	131	0.3949	0.03332	2.481	59.55	-1.3	-2.0
69	7	1	93	6	4	ON	1251	0.3779	0.03109	2.374	56.99	-1.3	-1.1
						OFF	234	0.4199	0.03543	2.638	63.31	-1.3	-0.6
69	7	2	37	6	4	ON	1586	0.4345	0.03666	2.730	65.52	-1.3	-0.7
						OFF	84	0.4436	0.03743	2.787	66.09	-1.3	-1.2
69	7	3	21	6	4	ON	1864	0.4555	0.03844	2.862	68.69	-1.3	-2.1
						OFF	48	0.4561	0.03849	2.866	68.79	-1.3	-2.3
70	5	1	104	6	4	ON	1462	0.4166	0.03516	2.618	62.83	-1.3	0.3
						OFF	240	0.4465	0.03767	2.805	67.33	-1.3	-0.0
72	3	1	102	6	4	ON	1334	0.3942	0.03326	2.477	59.44	-1.3	-0.2
						OFF	244	0.4332	0.03656	2.722	65.33	-1.3	-0.4
73	2	1	34	6	4	ON	1438	0.4127	0.03482	2.593	62.24	-1.3	0.3
						OFF	82	0.4251	0.03507	2.671	64.10	-1.3	0.0

## RATE ESTIMATE

AFT PAN CAMERA NUMBER 173

OPN NO	FR	R	A	TUR/	INST	INST	SCAN	RATE	PCT	RATE		
				DUR	CPS	ANG	VEL	R/SEC	I/SEC	CALIB	REQD	
1	4	0	11	0	3 ON	1207	0.3455	0.02916	2.171	52.11	0.3	0.0
					OFF	27	0.3513	0.02964	2.207	52.97	0.3	1.0
5	7	1	21	0	4 ON	846	0.3130	0.02641	1.966	47.20	0.3	1.9
					OFF	67	0.3226	0.02722	2.027	48.65	0.3	1.7
5	7	2	71	0	4 ON	1107	0.3543	0.02990	2.226	53.43	0.3	1.3

**CECNET**



					OFF	192	0.3935	0.03320	2.473	59.34	0.3	2.3
5	7	3	21	6	4 ON	1337	0.4014	0.03387	2.522	60.52	0.3	2.5
					OFF	53	0.4186	0.03464	2.580	61.91	0.3	2.4
7	9	1	62	6	4 ON	1267	0.3877	0.03272	2.436	58.47	0.3	3.5
					OFF	157	0.4168	0.03517	2.619	62.85	0.3	3.5
7	9	2	69	6	4 ON	1492	0.4284	0.03614	2.691	64.60	0.3	3.5
					OFF	161	0.4489	0.03788	2.821	67.78	0.3	2.7
7	9	3	19	6	4 ON	1690	0.4529	0.03821	2.846	68.30	0.3	2.5
					OFF	43	0.4562	0.03849	2.866	68.79	0.3	2.3
7	9	4	28	6	4 ON	1757	0.4581	0.03865	2.878	69.07	0.3	2.2
					OFF	64	0.4613	0.03892	2.898	69.56	0.3	1.9
9	4	0	11	6	4 ON	43	0.2410	0.02034	1.515	36.35	0.3	7.2
					OFF	47	0.2417	0.02039	1.519	36.45	0.3	6.4
9	4	1	99	6	4 ON	1230	0.3802	0.03208	2.389	57.34	0.3	6.7
					OFF	256	0.4270	0.03603	2.683	64.40	0.3	6.0
16	4	0	11	6	4 ON	1510	0.4311	0.03638	2.709	65.01	0.3	0.9
					OFF	26	0.4345	0.03666	2.730	65.52	0.3	0.7
18	4	1	30	6	4 ON	1066	0.3473	0.02930	2.182	52.37	0.3	0.1
					OFF	86	0.3634	0.03066	2.293	54.79	0.3	0.3
20	6	1	48	6	4 ON	1184	0.3679	0.03104	2.311	55.47	-0.4	-0.1
					OFF	128	0.3930	0.03316	2.469	59.26	-0.4	0.3
21	6	1	140	6	4 ON	1171	0.3653	0.03082	2.295	55.08	-0.4	-0.2
					OFF	351	0.4293	0.03623	2.698	64.74	-0.4	-0.0
21	6	2	34	6	4 ON	2292	0.4333	0.03656	2.722	65.34	-0.4	-0.3
					OFF	81	0.4216	0.03558	2.649	63.58	-0.4	0.3
22	3	1	54	6	4 ON	1207	0.3727	0.03145	2.342	56.20	-0.4	0.3
					OFF	142	0.4002	0.03377	2.515	60.35	-0.4	0.5
22	3	2	39	6	4 ON	1434	0.4159	0.03509	2.613	62.71	-0.4	0.6
					OFF	93	0.4300	0.03629	2.702	64.85	-0.4	0.1
22	3	3	18	6	4 ON	2079	0.4550	0.03839	2.859	68.61	-0.4	-1.4
					OFF	41	0.4523	0.03817	2.842	68.21	-0.4	-1.2
23	5	1	91	6	4 ON	1207	0.3728	0.03145	2.342	56.21	-0.4	0.8
					OFF	231	0.4162	0.03512	2.615	62.76	-0.4	0.9
23	5	2	33	6	4 ON	1583	0.4300	0.03696	2.752	66.05	-0.4	0.4
					OFF	76	0.4463	0.03766	2.804	67.30	-0.4	-0.2
25	2	1	105	6	4 ON	1229	0.3771	0.03182	2.369	56.86	-0.4	0.9
					OFF	262	0.4245	0.03582	2.667	64.02	-0.4	0.7
29	7	1	52	6	4 ON	2416	0.4140	0.03493	2.601	62.43	-0.4	-0.6
					OFF	129	0.3909	0.03298	2.456	58.94	-0.4	-0.2
32	8	0	11	6	4 ON	1557	0.4346	0.03667	2.731	65.54	-0.4	0.1
					OFF	26	0.4376	0.03692	2.750	65.99	-0.4	-0.1
34	9	1	42	6	4 ON	1046	0.3400	0.02869	2.136	51.27	-0.8	-1.2
					OFF	121	0.3620	0.03055	2.275	54.02	-0.8	-0.9
35	9	1	55	6	4 ON	976	0.3292	0.02777	2.068	49.64	-0.8	-1.0
					OFF	160	0.3556	0.03001	2.235	53.63	-0.8	-1.2
36	9	1	140	6	4 ON	1152	0.3596	0.03034	2.259	54.22	-0.8	-0.8
					OFF	354	0.4250	0.03506	2.670	64.00	-0.8	-0.2
37	9	1	106	6	4 ON	1581	0.4359	0.03678	2.739	65.73	-0.8	-0.4
					OFF	236	0.4550	0.03846	2.864	66.73	-0.8	-1.6
38	7	1	125	6	4 ON	1243	0.3784	0.03193	2.377	57.06	-0.8	-0.1
					OFF	306	0.4312	0.03638	2.709	65.02	-0.8	-0.3

39	9	1	16	6	4	ON	1437	0.4146	0.03498	2.605	62.52	-0.8	0.6
						OFF	48	0.4207	0.03550	2.643	63.44	-0.8	0.3
39	9	2	93	6	4	ON	1630	0.4417	0.03727	2.775	66.62	-0.8	-0.3
						OFF	208	0.4566	0.03852	2.869	68.85	-0.8	-1.6
40	1	1	166	6	4	ON	1147	0.3585	0.03025	2.252	54.06	-0.8	-0.4
						OFF	415	0.4329	0.03653	2.720	65.28	-0.8	-0.0
41	2	1	70	6	4	ON	1321	0.3936	0.03321	2.473	59.36	-0.8	0.6
						OFF	171	0.4228	0.03568	2.657	63.76	-0.8	0.3
46	7	1	20	6	4	ON	1562	0.4333	0.03656	2.723	65.34	-0.8	-0.3
						OFF	47	0.4389	0.03703	2.758	66.18	-0.8	-0.6
47	7	1	20	6	4	ON	1596	0.4404	0.03716	2.767	66.42	-0.2	0.2
						OFF	47	0.4455	0.03759	2.799	67.17	-0.2	-0.1
50	4	1	49	6	4	ON	1078	0.3472	0.02930	2.182	52.36	-0.2	-1.1
						OFF	137	0.3743	0.03158	2.352	56.44	-0.2	-0.1
52	4	1	63	6	4	ON	1262	0.3847	0.03246	2.417	58.00	-0.2	0.4
						OFF	158	0.4138	0.03492	2.600	62.40	-0.2	0.6
52	4	2	33	6	4	ON	1490	0.4258	0.03593	2.676	64.21	-0.2	0.6
						OFF	78	0.4366	0.03684	2.743	65.84	-0.2	0.3
53	4	1	43	6	4	ON	1154	0.3623	0.03057	2.276	54.65	-0.2	-0.5
						OFF	116	0.3855	0.03253	2.422	58.13	-0.2	0.2
53	4	2	93	6	4	ON	1538	0.4328	0.03652	2.720	65.27	-0.2	0.5
						OFF	210	0.4548	0.03838	2.858	68.59	-0.2	-0.6
54	7	1	118	6	4	ON	1483	0.4246	0.03583	2.668	64.33	-0.2	0.6
						OFF	268	0.4551	0.03840	2.859	68.62	-0.2	-0.6
56	1	1	102	6	4	ON	1305	0.3931	0.03317	2.470	59.28	-0.2	1.1
						OFF	245	0.4341	0.03663	2.728	65.47	-0.2	0.8
57	1	1	21	6	4	ON	982	0.3325	0.02805	2.089	50.13	-0.1	-0.3
						OFF	62	0.3418	0.02884	2.148	51.54	-0.1	-0.5
57	1	2	21	6	4	ON	1414	0.4136	0.03490	2.599	62.36	-0.1	1.4
						OFF	51	0.4217	0.03558	2.649	63.58	-0.1	1.2
63	5	1	21	6	4	ON	1628	0.4447	0.03752	2.794	67.06	-0.1	0.2
						OFF	48	0.4493	0.03791	2.823	67.76	-0.1	-0.1
66	7	1	50	6	4	ON	1210	0.3745	0.03160	2.353	56.47	-0.1	-0.2
						OFF	131	0.3999	0.03374	2.513	60.31	-0.1	0.4
69	7	1	94	6	4	ON	1251	0.3820	0.03230	2.405	57.73	-0.1	0.2
						OFF	234	0.4250	0.03586	2.670	64.08	-0.1	0.6
69	7	2	37	6	4	ON	1586	0.4397	0.03710	2.763	66.30	-0.1	0.4
						OFF	84	0.4488	0.03787	2.820	67.67	-0.1	-0.0
69	7	3	21	6	4	ON	1064	0.4000	0.03000	2.000	50.00	-0.1	-0.9
						OFF	40	0.4614	0.03893	2.899	69.58	-0.1	-1.1
70	5	1	104	6	4	ON	1462	0.4217	0.03559	2.650	63.60	-0.1	1.5
						OFF	240	0.4517	0.03811	2.830	68.11	-0.1	0.3
72	3	1	102	6	4	ON	1334	0.3992	0.03360	2.500	60.00	-0.1	1.1
						OFF	244	0.4384	0.03699	2.755	66.11	-0.1	0.8
73	2	1	33	6	4	ON	1430	0.4170	0.03525	2.625	63.00	-0.1	1.5
						OFF	82	0.4302	0.03630	2.703	64.88	-0.1	1.2

RAMP PROFILE

R= 8 A= 3 PERIOD= 3840

R= 0.3170 A= 0.1276

TUR PER CPS ANG V