

~~SECRET~~

12 PAGES  
(NOT INCLUDING PEST)



CORONA J FLIGHT DATA BOOK

SYSTEM NO. J-27

VEHICLE NO. 1623

MISSION NO. 1829-1

CAMERA NOS. 178/179

DATE 2-7-66

Declassified and Released by the NRO

In Accordance with E. O. 12958

on NOV 26 1997

PAGE 1

~~SECRET~~

~~SECRET~~  
~~SECRET~~

SYSTEM NO. J-27  
VEHICLE NO. 1623  
MISSION NO. 1829-1  
CAMERA NOS. 178/179

	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
	PANORAMIC 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~~

~~SECRET~~

SYSTEM NO. J-27  
VEHICLE NO. 1623  
MISSION NO. 1829-1  
CAMERA NOS. 178/179

GENERAL FLIGHT DATA

MASTER CAMERA SERIAL NO. 178

SLAVE CAMERA SERIAL NO. 179

S/I -1 SERIAL NO. D79/94/91

S/I -2 SERIAL NO. D76/78/94

LAUNCH DATE 2-2-66

REACTIVATION DATE N/A

REACTIVATION ORBIT NO. N/A

ORBIAL PARAMETERS (REV. 42)

PERIOD 98.688 MIN. ECCENTRICITY 0.81862

PERIGEE 99.841 NM PERIGEE LAT. 28.761 DEG. N

APOGEE 233.438 NM INCL. ANGLE 75.845 DEG.

RECOVERY ORBIT NO. 81

RECOVERY DATE 2-7-66

PAGE 3

~~SECRET~~

~~SECRET~~  
**SECRET**

SYSTEM NO. J-27  
VEHICLE NO. 1623  
MISSION NO. 1829-1  
CAMERA NOS. 178/179

**FLIGHT LENS SETTINGS AND FILM TYPES**

**LENS SETTINGS**

PANORAMIC CAMERA SETTINGS		CAMERA NO. 178	CAMERA NO.
PANORAMIC OPTICS SLIT WIDTH	.275	IN	.175
PANORAMIC OPTICS FILTER TYPE	WRATTEN 25		WRATTEN 21
HORIZON OPTICS EXP. TIME	1/100	SEC.	1/100
HORIZON OPTICS APERTURE	F6.3	SUPPLY	F8.0
HORIZON OPTICS APERTURE	F8.0	TAKE-UP	F6.3
HORIZON OPTICS FILTER TYPE	WRATTEN 25		WRATTEN 25

**STELLAR INDEX CAMERA SETTINGS**

	D79/94/91		D76/78/94				
	STELLAR	INDEX	STELLAR	IND			
EXPOSURE TIME	2.0	SEC	1/500	SEC	2.0	SEC	1/5
APERTURE SETTING	F1.8		F4.5		F1.8		F4.
FILTER TYPE	NONE		WRATTEN 21		NONE		WRA

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

**FILM**

PANORAMIC CAMERAS	CAMERA NO. 178	CAMERA NO. 179
TYPE	3484	3484
LENGTH	16000 FT.	16000 FT.
SPLICES	5	4
EMUL. DATA	235-12/1-12-5	235-12/1-12-5

**STELLAR/INDEX CAMERAS**

	D79/94/91		D76/78/94	
	STELLAR	INDEX	STELLAR	IND
TYPE	4481	4488	4481	448
EMUL. DATA	124-35-18-5	186-14-8-5	124-35-18-5	186

~~SECRET~~  
**SECRET**

~~SECRET~~  
~~SECRET~~

SYSTEM NO. J-27  
VEHICLE NO. 1623  
MISSION NO. 1829-1  
CAMERA NOS. 178/179

LENS DATA SUMMARY MASTER CAMERA NO. 178

LENS SERIAL NO. 1882435  
EQUIVALENT OPERATIONAL FOCAL LENGTH 618.418 MM

RESOLUTION

STATIC	BENCH TEST	LINES/MM	FILM TYPE	TARGET CONT
		238	3484	HIGH
		151	3484	LOW
DYNAMIC	[REDACTED]	198	3484	HIGH
		129	3484	LOW
	AP	176	3484	HIGH
		188	3484	LOW

NOTE [REDACTED] RESOLUTION OF 283 LINES/MM REPORTED IN [REDACTED]

DISTORTION - POSITIVE (PINCUSHION)

ANGLE OFF AXIS-DEG.	3	2	1	0	359	358	357
MILLIMETERS	0.000	0.001	0.001	0.000	0.000	0.000	0.005

~~SECRET~~

SYSTEM NO. J-27  
VEHICLE NO. 1623  
MISSION NO. 1829-1  
CAMERA NOS. 178/179

LENS DATA SUMMARY (HORIZON CAMERAS FOR MASTER CAMERA NO. 178)

	TAKE-UP	SUPPLY
LENS SERIAL NO.	12848	12839
OPERATIONAL FOCAL LENGTH	55.88 MM	55.88 MM
RADIAL DISTORTION		
18 DEG. OFF AXIS	0.828 MM	0.828 MM
28 DEG. OFF AXIS	0.888 MM	0.898 MM
TANGENTIAL DISTORTION (MAXIMUM VECTOR)	0.838 MM	0.825 MM

RESOLUTION

ANGLE OFF  
AXIS-DEG.

	0	5	10	15	20	25	27.5	30
TAKE-UP (RADIAL)	166	165	184	143	156	134	-8	45
(TANGENTIAL)	166	164	161	138	116	96	-8	78
SUPPLY (RADIAL)	187	208	184	143	99	158	-8	57
(TANGENTIAL)	166	164	128	98	58	96	-8	62

DYNAMIC (ZERO DEG)

TAKE-UP -8 LINES/MM  
SUPPLY -8 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-27  
VEHICLE NO. 1623  
MISSION NO. 1829-1  
CAMERA NOS. 178/179

LENS DATA SUMMARY SLAVE CAMERA NO. 179

LENS SERIAL NO. 1812435  
EQUIVALENT OPERATIONAL FOCAL LENGTH 618.428 MM

RESOLUTION

STATIC	BENCH TEST	LINES/MM	FILM TYPE	TARGET CONT
		257	3484	HIGH
		148	3484	LOW
DYNAMIC		283	3484	HIGH
		129	3484	LOW
	AP	174	3484	HIGH
		113	3484	LOW

NOTE BOSTON RESOLUTION OF 283 LINES/MM REPORTED IN [REDACTED]

DISTORTION - POSITIVE (PINCUSHION)

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

~~SECRET~~

SYSTEM NO. J-27  
VEHICLE NO. 1623  
MISSION NO. 1829-1  
CAMERA NOS. 178/179

LENS DATA SUMMARY (HORIZON CAMERAS FOR SLAVE CAMERA NO. 179)

	TAKE-UP	SUPPLY
LENS SERIAL NO.	12899	12897
OPERATIONAL FOCAL LENGTH	54.95 MM	54.95 MM
RADIAL DISTORTION		
18 DEG. OFF AXIS	0.028 MM	0.038 MM
28 DEG. OFF AXIS	0.088 MM	0.058 MM
TANGENTIAL DISTORTION (MAXIMUM VECTOR)	0.028 MM	0.025 MM

RESOLUTION

ANGLE OFF  
AXIS-DEG.

	0	5	10	15	20	25	27.5	30
TAKE-UP (RADIAL)	187	208	206	143	156	158	-8	64
(TANGENTIAL)	132	131	144	138	138	96	-8	62
SUPPLY (RADIAL)	209	208	184	168	124	158	-8	64
(TANGENTIAL)	209	185	161	133	103	96	-8	78

DYNAMIC (ZERO DEG)

TAKE-UP -8 LINES/MM  
SUPPLY -8 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.

~~SECRET~~



SYSTEM NO. J-27  
VEHICLE NO. 1623  
MISSION NO. 1829-1  
CAMERA NOS. 178/179

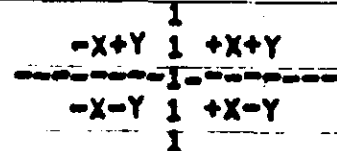
FORMAT DIMENSIONS AND CALIBRATIONS

CAMERA NO. 178

CAMERA NO. 179

A	76.150	76.120
B	355.040	355.110
C	710.040	710.080
D	56.516	56.524
E	56.570	56.482
XT	8.457	8.460
YT	-8.132	-8.318
XS	-8.298	-8.746
YS	-8.187	-8.143
XVO	1.175	-1.002
YVO	1.991	2.134
DTX	8.446	8.449
DTY	1.868	1.698
DSX	-8.298	-8.753
DSY	-3.187	-2.143
DMX	1.189	-8.954
DMY	21.991	22.134
HEIGHT	55.211	55.365
WIDTH	754.600	756.180
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



~~SECRET~~

SYSTEM NO. J-27  
VEHICLE NO. 1623  
MISSION NO. 1829-1  
CAMERA NOS. 178/179

LENS DATA SUMMARY STELLAR INDEX D79/94/91 -1 MISSION

	STELLAR	INDEX
LENS SERIAL NO.	18576	819191
RESEAU SERIAL NO.	91	94
FILTER TYPE	NONE	WRATTEN 21
APERTURE	F1.8	F4.5
EXPOSURE TIME	2.8 SEC.	1/588 SEC.
EQUIVALENT FOCAL LENGTH	84 NOM	MM 38.49 MM

RESOLUTION (INDEX)

ANGLE OFF AXIS	0	10	20	30	3
HIGH CONTRAST-R/T (3488 FILM)	888/88	888/82	188/84	887/41	882

AWAR 71 LINES/MM  
READ FROM 4488 FILM.

DISTORTION

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

ALIGNMENT	STELLAR	INDEX
	8.8883 INCHES/.937 INCHES	8.8881 INCHES/2.25

~~SECRET~~

~~SECRET~~

SYSTEM NO. J-27  
VEHICLE NO. 1623  
MISSION NO. 1829-1  
CAMERA NOS. 178/179

LENS DATA SUMMARY STELLAR INDEX D76/78/94 -2 MISSION

	STELLAR	INDEX
LENS SERIAL NO.	18682	817788
RESEAU SERIAL NO.	94	78
FILTER TYPE	NONE	WRATTEN 21
APERTURE	F1.8	F4.5
EXPOSURE TIME	2.8 SEC.	1/500 SEC.
EQUIVALENT FOCAL LENGTH	84 NOM	MM 38.49 MM

RESOLUTION (INDEX)

ANGLE OFF AXIS	8	10	20	30	3
HIGH CONTRAST-R/T (3488 FILM)	874/66	874/98	181/81	891/46	881

AWAR 72 LINES/MM  
READ FROM 4488 FILM.

DISTORTION

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

ALIGNMENT	STELLAR	INDEX
	-8.8885 INCHES/.937 INCHES	-8.8886 INCHES/2.25

~~SECRET~~

SYSTEM NO. J-27  
VEHICLE NO. 1623  
MISSION NO. 1829-1  
CAMERA NOS. 178/179

CYCLE PERIOD DATA

V/H RAMP SETTING LEVEL	AMPLITUDE	TIME UP RAMP-SEC	---CALIBRATED---		---IN-FLIGHT---		O N
			CYCLE PERIOD-SEC MASTER	SLAVE	CYCLE PERIOD-SEC MASTER	SLAVE	
8	3	136	5.158	5.079	5.085	5.148	
8	3	1784	2.267	2.262	2.258	2.318	
8	2	1745	2.285	2.284	2.228	2.258	
8	2	1717	2.286	2.286	2.227	2.265	
8	2	1783	2.285	2.283	2.217	2.268	
8	2	1735	2.286	2.285	2.228	2.257	

NOTE

A -B OR \* INDICATE NO DATA AVAILABLE.

- A. 1829-1
- B. DRY
- C. PERFORMANCE ESTIMATE PART ONE

**OPERATIONS SUMMARY**

FWD PAN CAMERA NUMBER 178

OPN	NO	FRA		Q	LAT	LONG	HEIGHT	RANGE	DA	H	M	S	LTIM	S-TIM
PRE-FLT 128														
1	4	8	15	ON	2	54 58	154 8W	712253	738284	2	23	1	7	1245 82867
				OFF	2	52 17	152 7W	698548	724852	2	23	1	49	1253 82989
3	5	1	38	ON	2	65 24	147 36E	777796	886315	3	1	59	21	1149 7161
				OFF	2	59 4	156 21E	734999	761891	3	2	1	14	1226 7274
3	5	2	21	ON	2	54 24	168 35E	787885	733668	3	2	2	32	1244 7352
				OFF	2	51 1	163 8E	698877	715278	3	2	3	27	1255 7487
5	2	1	21	ON	2	52 16	116 26E	694179	719527	3	5	4	25	1258 18265
				OFF	2	48 53	118 35E	677558	782271	3	5	5	28	1259 18328
5	2	2	38	ON	2	48 17	122 45E	642468	665868	3	5	7	35	1318 18455
				OFF	2	34 27	124 53E	624581	647389	3	5	9	5	1328 18545
6	2	1	24	ON	2	57 22	89 27E	728979	747348	3	6	33	48	1231 23628
				OFF	2	53 38	92 41E	699435	724981	3	6	34	44	1245 23684
6	2	2	28	ON	2	42 58	98 48E	658891	674688	3	6	37	34	1312 23854
				OFF	2	38 28	188 36E	635548	658688	3	6	38	42	1321 23922
6	2	3	49	ON	2	23 52	185 7E	684478	626444	3	6	42	25	1342 24145
				OFF	2	16 39	186 52E	681281	623853	3	6	44	14	1351 24254
7	5	1	28	ON	2	57 49	66 18E	722377	748791	3	8	4	11	1228 29851
				OFF	2	54 27	69 6E	783362	729857	3	8	5	7	1241 29187
7	5	2	87	ON	2	47 48	73 28E	678542	694998	3	8	6	54	13 8 29214
				OFF	2	34 28	79 18E	623177	645852	3	8	18	22	1327 29422
6	6	1	75	ON	2	65 42	32 44E	772933	881266	3	9	32	38	1143 34358
				OFF	2	53 32	46 56E	697321	722787	3	9	36	1	1243 34561
9	6	8	18	ON	1	38 47	117 3W	1287519	1252728	3	18	45	44	257 38744
				OFF	1	41 41	115 53W	1189933	1234438	3	18	46	32	3 3 38792
9	3	1	57	ON	2	58 43	19 33E	725168	751688	3	11	5	12	1223 39912
				OFF	2	49 28	26 48E	676825	788688	3	11	7	44	1254 48864
14	4	1	17	ON	2	48 7	82 54W	636857	659216	3	18	43	23	1311 67483
				OFF	2	37 28	81 53W	627965	658828	3	18	44	4	1316 67444
14	4	2	17	ON	2	29 9	79 18E	689113	631262	3	18	46	11	1329 67571
				OFF	2	26 32	78 24W	685327	627333	3	18	46	51	1333 67611
14	4	3	45	ON	3	24 55	66 55W	746153	773466	3	18	59	49	1432 68389
				OFF	3	33 24	64 27W	884198	833712	3	19	1	59	1444 68519
16	4	8	16	ON	2	34 8	126 26W	618849	641362	3	21	46	11	1328 78371
				OFF	2	31 37	125 37W	613429	635739	3	21	46	58	1324 78418
18	9	1	41	ON	2	65 41	164 12E	762537	798475	4	8	38	51	1135 2331
				OFF	2	59 4	173 28E	719752	746867	4	8	48	49	1214 2449
19	9	1	38	ON	2	64 38	143 12E	754889	781786	4	2	9	48	1142 7788
				OFF	2	58 31	151 11E	715716	741879	4	2	11	36	1216 7896
21	8	1	114	ON	2	65 34	95 58E	758588	786368	4	5	18	46	1134 18646
				OFF	2	47 25	113 48E	659726	683775	4	5	15	52	1258 18952
22	3	1	29	ON	2	55 48	85 15E	697434	722985	4	6	44	17	1225 24257
				OFF	2	58 59	88 42E	674586	699112	4	6	45	33	1248 24333
22	3	2	28	ON	2	41 7	93 49E	636885	659245	4	6	48	9	13 3 24489

			OFF	2	37	58	95	4E	626689	649497	4	6	48	58	13	9	24538
22	3	3	88 ON	2	33	48	96	34E	616124	638535	4	6	58	4	1316		24684
			OFF	2	28	35	188	14E	681895	622943	4	6	53	23	1334		24883
24	1	1	119 ON	2	65	39	27	8E	755998	783688	4	9	42	37	1131		34957
			OFF	2	46	57	45	22E	655987	679812	4	9	47	52	1249		35272
26	2	8	6 ON	1	21	14	158	52W	1288719	1328825	4	12	21	44	218		44584
			OFF	1	22	55	158	27W	1272182	1319948	4	12	22	12	228		44532
26	2	1	54 ON	2	21	38	8	33E	681894	622942	4	12	55	36	1329		46536
			OFF	2	13	36	18	25E	684448	626413	4	12	57	37	1339		46657
27	2	8	5 ON	1	21	18	173	42W	1279183	1327145	4	13	52	22	217		49942
			OFF	1	22	54	173	18W	1278936	1318653	4	13	52	49	219		49969
27	2	1	47 ON	2	26	38	15	35W	683954	625989	4	14	24	57	1322		51897
			OFF	2	19	33	13	47W	688987	622838	4	14	26	45	1331		52885
31	2	1	21 ON	2	34	1	189	13W	614528	636879	4	28	25	32	13	8	73532
			OFF	2	38	55	188	14W	689889	631236	4	28	26	19	1313		73579
34	9	1	26 ON	2	64	34	168	38E	739266	766321	5	8	49	5	1131		2945
			OFF	2	68	34	166	8E	714742	748867	5	8	58	17	1154		3817
36	9	1	39 ON	2	64	37	114	43E	737783	764781	5	3	58	17	1129		13817
			OFF	2	58	33	122	38E	781964	727686	5	3	52	4	12	2	13924
36	9	2	27 ON	2	45	35	131	58E	644668	668142	5	3	55	34	1242		14134
			OFF	2	41	32	133	42E	631598	654581	5	3	56	37	1251		14197
36	9	3	38 ON	3	25	55	158	33E	772816	888312	5	4	13	42	1415		15222
			OFF	3	33	24	152	45E	825327	855656	5	4	15	37	1426		15337
37	9	1	138 ON	2	41	36	118	58E	631348	654331	5	5	27	13	1258		19633
			OFF	2	21	37	117	11E	681819	623694	5	5	32	19	1321		19939
38	3	1	29 ON	2	55	48	79	37E	685677	718784	5	6	54	5	1212		24845
			OFF	2	51	3	83	1E	664694	688938	5	6	55	28	1227		24928
38	3	2	51 ON	2	42	18	87	44E	632645	655676	5	6	57	48	1248		25868
			OFF	2	34	35	98	38E	614819	636351	5	6	59	37	13	2	25177
38	3	3	79 ON	2	26	11	93	9E	683231	625159	5	7	1	46	1314		25386
			OFF	2	14	39	95	58E	685972	628883	5	7	4	48	1328		25488
38	3	4	23 ON	2	4	48	98	3E	624724	647456	5	7	7	9	1339		25629
			OFF	2	1	13	98	47E	635285	658413	5	7	8	3	1343		25683
38	3	5	17 ON	3	1	7	99	16E	643267	666695	5	7	8	38	1345		25718
			OFF	3	3	46	99	49E	653218	677821	5	7	9	18	1348		25758
39	4	1	81 ON	2	55	43	56	44E	685166	718173	5	8	24	48	1211		38288
			OFF	2	43	33	64	16E	636448	659621	5	8	27	55	1245		38475
48	5	1	88 ON	2	61	48	27	48E	716812	742185	5	9	53	35	1144		35615
			OFF	2	49	31	38	17E	657216	681171	5	9	56	57	1238		35817
47	5	1	17 ON	2	37	36	116	3W	617479	639941	5	28	34	13	1249		74853
			OFF	2	35	2	115	8W	612471	634746	5	28	34	52	1254		74892
52	9	1	48 ON	2	58	32	117	5E	689419	714588	6	4	1	34	1149		14494
			OFF	2	52	26	122	14E	661634	685755	6	4	3	15	1212		14595
52	9	2	42 ON	2	44	32	126	47E	633612	656679	6	4	5	28	1232		14728
			OFF	2	38	28	129	23E	617931	648418	6	4	6	54	1244		14814
53	4	1	28 ON	2	57	36	95	18E	684136	789185	6	5	32	25	1153		19945
			OFF	2	54	27	97	53E	669638	694861	6	5	33	17	12	4	19997
53	4	2	173 ON	2	41	37	185	15E	625133	647882	6	5	36	41	1237		28281
			OFF	2	16	34	112	49E	686479	628528	6	5	43	3	1314		28583
54	5	1	74 ON	2	59	33	78	28E	693888	718386	6	7	2	27	1143		25347
			OFF	2	48	26	79	4E	645436	668947	6	7	5	29	1221		25529

55 7 1	16 ON	2 69 59	28 11E	757796	785553	6 8 29	44 1022	38584
	OFF	2 67 43	34 28E	748749	767859	6 8 30	32 1048	38632
55 7 2	88 ON	2 65 32	39 1E	726262	752824	6 8 31	15 11 7	38675
	OFF	2 53 26	52 58E	664144	688359	6 8 34	43 12 6	38883
55 7 3	55 ON	2 43 29	58 45E	629588	652413	6 8 37	21 1232	31841
	OFF	2 35 27	61 56E	611688	633858	6 8 39	25 1247	31165
63 7 1	17 ON	2 38 27	128 47W	618387	632588	6 28 44	8 1248	74648
	OFF	2 32 57	119 57W	687877	629149	6 28 44	38 1244	74678
68 4 1	113 ON	2 52 5	117 8E	651724	675472	7 4 12	28 12 8	15148
	OFF	2 35 27	125 8E	689574	631748	7 4 16	49 1236	15489
69 4 1	28 ON	2 42 48	99 28E	622831	645494	7 5 45	38 1222	28738
	OFF	2 38 31	181 2E	614233	636574	7 5 46	34 1238	28794
69 4 2	184 ON	2 31 39	183 24E	685377	627385	7 5 48	28 1241	28988
	OFF	2 16 35	187 21E	618487	632683	7 5 52	9 13 1	21129
78 7 1	49 ON	2 68 34	49 42E	733216	768842	7 7 8	45 1827	25725
	OFF	2 61 36	62 25E	692871	717348	7 7 18	56 1128	25856
78 7 2	184 ON	2 59 37	64 47E	682265	787163	7 7 11	38 1138	25898
	OFF	2 44 31	75 38E	627186	649938	7 7 15	35 1218	26135
72 8 1	48 ON	2 68 39	17 56E	685853	718887	7 18 12	19 1124	36739
	OFF	2 54 35	23 48E	659181	683127	7 18 14	1 1149	36841
72 8 2	27 ON	2 32 7	34 44E	685684	627621	7 18 19	53 1238	37193
	OFF	2 28 18	35 55E	683617	625568	7 18 28	53 1244	37253
72 8 3	28 ON	2 24 39	36 52E	683797	625746	7 18 21	47 1249	37387
	OFF	2 21 48	37 38E	685393	627482	7 18 22	32 1253	37352
74 2 1	48 ON	2 25 46	9 5W	683727	625673	7 13 22	36 1246	48156
	OFF	2 18 43	7 19W	688791	638926	7 13 24	23 1255	48263
78 5 1	21 ON	2 32 46	182 28W	685716	627737	7 19 23	2 1233	69782
	OFF	2 29 48	181 31W	684881	626841	7 19 23	49 1237	69829
79 5 8	21 ON	2 48 37	128 9W	615886	638285	7 28 51	34 1218	75894
	OFF	2 37 34	126 57W	618813	633826	7 28 52	21 1224	75141
81 3 1	22 ON	2 62 46	169 38E	689866	715851	7 23 46	39 11 5	85599
	OFF	2 59 29	173 43E	674191	698785	7 23 47	36 1122	85656

OPERATIONS SUMMARY

AFT PAN CAMERA	NUMBER	179												
OPN NO FRA	Q	LAT	LONG	HEIGHT	RANGE	DA	H	M	S	LTIM	S-TIM			
PRE-FLT 119														
1 4 8	14	ON	2 55 46	154 58W	712253	738284	2 23	1 7	1241	82867				
		OFF	2 53 13	152 58W	698548	724852	2 23	1 49	1258	82989				
3 5 1	37	ON	2 66 17	145 58E	777796	886315	3 1	59 21	1142	7161				
		OFF	2 68 8	155 16E	734999	761891	3 2	1 14	1222	7274				
3 5 2	28	ON	2 55 28	159 47E	787885	733668	3 2	2 32	1241	7352				
		OFF	2 51 56	162 19E	698877	715278	3 2	3 27	1252	7487				
5 2 1	28	ON	2 53 12	115 42E	694179	719527	3 5	4 25	1247	18265				
		OFF	2 49 48	117 58E	677558	782271	3 5	5 28	1257	18328				
5 2 2	37	ON	2 41 18	122 19E	642468	665868	3 5	7 35	1316	18455				
		OFF	2 35 28	124 32E	624581	647389	3 5	9 5	1327	18545				
6 2 1	23	ON	2 58 18	88 29E	728979	747348	3 6	33 48	1227	23628				
		OFF	2 54 25	91 55E	699435	724981	3 6	34 44	1242	23684				
6 2 2	27	ON	2 43 44	98 28E	658891	674688	3 6	37 34	1318	23854				

		OFF	2	39	21	188	12E	635548	658688	3	6	38	42	1319	23922			
6	2	3	47	ON	2	24	43	184	51E	684478	626444	3	6	42	25	1341	24145	
		OFF	2	17	38	186	37E	681281	623853	3	6	44	14	1358	24254			
7	5	1	28	ON	2	58	45	65	18E	722377	748791	3	8	4	11	1224	29851	
		OFF	2	55	23	68	17E	783362	729857	3	8	5	7	1238	29187			
7	5	2	85	ON	2	48	43	72	53E	678542	694998	3	8	6	54	1258	29214	
		OFF	2	35	28	78	49E	623177	645852	3	8	18	22	1325	29422			
8	6	1	73	ON	2	66	34	38	56E	772933	881266	3	9	32	38	1136	34358	
		OFF	2	54	28	46	18E	697321	722787	3	9	36	1	1248	34561			
9	6	8	9	ON	1	37	6	117	47W	1287519	1252728	3	18	45	44	254	38744	
		OFF	1	48	2	116	48W	1189933	1234438	3	18	46	32	259	38792			
9	3	1	56	ON	2	59	38	18	38E	725168	751688	3	11	5	12	1219	39912	
		OFF	2	58	22	26	11E	676825	788688	3	11	7	44	1252	48864			
14	4	1	16	ON	2	41	8	83	19W	636857	659216	3	18	43	23	1318	67483	
		OFF	2	38	21	82	16W	627965	658828	3	18	44	4	1314	67444			
14	4	2	17	ON	2	38	8	79	28W	689113	631262	3	18	46	11	1328	67571	
		OFF	2	27	23	78	43W	685327	627333	3	18	46	51	1331	67611			
14	4	3	44	ON	3	23	51	67	15W	746153	773466	3	18	59	49	1438	68389	
		OFF	3	32	16	64	53W	884198	833712	3	19	1	59	1442	68519			
16	4	8	16	ON	2	34	59	126	46W	618849	641362	3	21	46	11	1319	78371	
		OFF	2	32	28	125	57W	613429	635739	3	21	46	58	1323	78418			
18	9	1	48	ON	2	66	33	162	26E	762537	798475	4	8	38	51	1128	2331	
		OFF	2	59	58	172	24E	719752	746867	4	8	48	49	1218	2449			
19	9	1	37	ON	2	65	38	141	35E	754889	781786	4	2	9	48	1136	7788	
		OFF	2	59	26	158	9E	715716	741879	4	2	11	36	1212	7896			
21	8	1	112	ON	2	66	26	94	6E	758588	786368	4	5	18	46	1127	18646	
		OFF	2	48	19	113	7E	659726	683775	4	5	15	52	1248	18952			
22	3	1	28	ON	2	56	34	84	24E	697434	722985	4	6	44	17	1221	24257	
		OFF	2	51	53	88	3E	674586	699112	4	6	45	33	1237	24333			
22	3	2	28	ON	2	42	8	93	23E	636885	659245	4	6	48	9	13	1	24489
		OFF	2	38	51	94	41E	626689	649497	4	6	48	58	13	7	24538		
22	3	3	86	ON	2	34	32	96	14E	616124	638535	4	6	58	4	1315	24684	
		OFF	2	21	25	99	58E	681895	622943	4	6	53	23	1333	24883			
24	1	1	116	ON	2	66	38	25	23E	755998	783688	4	9	42	37	1124	34957	
		OFF	2	47	51	44	49E	655987	679812	4	9	47	52	1247	35272			
26	2	8	5	ON	1	19	25	151	25W	1288719	1328825	4	12	21	44	216	44584	
		OFF	1	21	7	151	1W	1272182	1319948	4	12	22	12	218	44532			
26	2	1	53	ON	2	22	29	8	17E	681894	622942	4	12	55	36	1328	46536	
		OFF	2	14	27	18	18E	684448	626413	4	12	57	37	1338	46657			
27	2	8	5	ON	1	19	38	174	15W	1279183	1327145	4	13	52	22	215	49942	
		OFF	1	21	7	173	52W	1278936	1318653	4	13	52	49	217	49969			
27	2	1	46	ON	2	27	29	15	52W	683954	625989	4	14	24	67	1321	51897	
		OFF	2	28	24	14	2W	688987	622838	4	14	26	45	1338	52885			
31	2	1	28	ON	2	34	53	189	33W	614528	636879	4	28	25	32	13	7	73532
		OFF	2	31	47	188	33W	689889	631236	4	28	26	19	1312	73579			
34	9	1	25	ON	2	65	26	158	56E	739266	766321	5	8	49	5	1124	2945	
		OFF	2	61	27	164	58E	714742	748867	5	8	58	17	1158	3817			
36	9	1	38	ON	2	65	29	113	8E	737783	764781	5	3	58	17	1122	13817	
		OFF	2	59	27	121	38E	781964	727686	5	3	52	4	1158	13924			
36	9	2	26	ON	2	46	28	131	28E	644668	668142	5	3	55	34	1248	14134	
		OFF	2	42	25	133	16E	631598	654581	5	3	56	37	1249	14197			



36	9	3	38	ON	3	24	58	158	11E	772816	888312	5	4	13	42	1414	15222	
				OFF	3	32	15	152	18E	825327	855656	5	4	15	37	1424	15337	
37	9	1	135	ON	2	42	28	118	24E	631348	654331	5	5	27	13	1248	19633	
				OFF	2	22	28	116	55E	681819	623694	5	5	32	19	1328	19939	
38	3	1	29	ON	2	56	34	78	46E	685677	718784	5	6	54	5	12	9	24845
				OFF	2	51	57	82	22E	664694	688938	5	6	55	28	1224	24928	
38	3	2	58	ON	2	43	3	87	17E	632645	655676	5	6	57	48	1246	25868	
				OFF	2	35	26	98	17E	614819	636351	5	6	59	37	13	8	25177
38	3	3	78	ON	2	27	2	92	52E	683251	625159	5	7	1	46	1313	25386	
				OFF	2	15	31	95	43E	685972	628883	5	7	4	48	1327	25488	
38	3	4	23	ON	2	5	41	97	49E	624724	647456	5	7	7	9	1338	25629	
				OFF	2	2	7	98	33E	635285	658413	5	7	8	3	1342	25683	
38	3	5	16	ON	3	8	13	99	2E	643267	666695	5	7	8	38	1344	25718	
				OFF	3	2	51	99	34E	653218	677821	5	7	9	18	1347	25758	
39	4	1	88	ON	2	56	36	55	53E	685166	718173	5	8	24	48	12	8	38288
				OFF	2	44	25	63	48E	636448	659621	5	8	27	55	1243	38475	
48	5	1	78	ON	2	62	32	26	26E	716812	742186	5	9	53	35	1139	35615	
				OFF	2	58	24	37	41E	657216	681171	5	9	56	57	1227	35817	
47	5	1	16	ON	2	38	27	116	26W	617479	639941	5	28	34	13	1248	74853	
				OFF	2	35	53	115	29W	612471	634746	5	28	34	52	1252	74892	
52	9	1	39	ON	2	59	25	116	6E	689419	714588	6	4	1	34	1145	14494	
				OFF	2	53	18	121	33E	661634	685755	6	4	3	13	12	9	14595
52	9	2	48	ON	2	45	24	126	18E	633612	656679	6	4	5	28	1238	14728	
				OFF	2	39	19	128	59E	617931	648418	6	4	6	54	1242	14814	
53	4	1	28	ON	2	58	29	94	14E	684136	789185	6	5	32	25	1149	19945	
				OFF	2	55	28	97	7E	669638	694861	6	5	33	17	12	1	19997
53	4	2	169	ON	2	42	29	184	58E	625133	647882	6	5	36	41	1236	28281	
				OFF	2	17	26	112	34E	686479	628528	6	5	43	3	1313	28583	
54	5	1	73	ON	2	68	25	69	17E	693888	718386	6	7	2	27	1139	25347	
				OFF	2	49	18	78	38E	645436	668947	6	7	5	29	1219	25529	
55	7	1	16	ON	2	78	42	25	38E	757796	785553	6	8	29	44	1812	38584	
				OFF	2	68	38	32	26E	748749	767859	6	8	38	32	1848	38632	
55	7	2	79	ON	2	66	21	37	21E	726262	752824	6	8	31	15	11	8	38675
				OFF	2	54	19	52	15E	664144	688359	6	8	34	43	12	3	38883
55	7	3	54	ON	2	44	21	58	17E	629588	652413	6	8	37	21	1238	31841	
				OFF	2	36	18	61	35E	611688	633858	6	8	39	25	1245	31165	
63	7	1	16	ON	2	36	18	121	8W	618387	632588	6	28	44	8	1239	74648	
				OFF	2	33	48	128	17W	687877	629149	6	28	44	38	1243	74678	
68	4	1	111	ON	2	52	57	116	28E	651724	675472	7	4	12	28	1157	15148	
				OFF	2	36	18	124	39E	689574	631748	7	4	16	49	1235	15489	
69	4	1	27	ON	2	43	32	98	53E	622831	645494	7	5	45	38	1221	28738	
				OFF	2	39	23	188	39E	614233	636574	7	5	46	34	1229	28794	
69	4	2	182	ON	2	32	38	183	5E	685377	627385	7	5	48	28	1248	28988	
				OFF	2	17	26	187	6E	618487	632683	7	5	52	9	13	8	21129
78	7	1	47	ON	2	69	19	47	32E	733216	768842	7	7	8	45	1818	25725	
				OFF	2	62	27	61	14E	692871	717348	7	7	18	56	1115	25856	
78	7	2	181	ON	2	68	29	63	45E	682265	787163	7	7	11	38	1126	25898	
				OFF	2	45	23	75	18E	627186	649938	7	7	15	35	1216	26135	
71	5	1	67	ON	2	66	28	31	39E	713684	739769	7	8	48	16	1846	31216	
				OFF	2	56	31	44	58E	663987	688197	7	8	43	18	1143	31398	
72	8	1	39	ON	2	61	38	16	49E	685853	718887	7	18	12	19	1119	36739	

		OFF 2	55	27	23	3E	659181	683127	7	18	14	1	1146	36841			
72	8	2	26	ON 2	32	58	34	25E	685684	627621	7	18	19	53	1237	37193	
		OFF 2	29	8	35	37E	683617	625568	7	18	28	53	1243	37253			
72	8	3	28	ON 2	25	38	36	36E	683797	625746	7	18	21	47	1248	37387	
		OFF 2	22	32	37	22E	685393	627482	7	18	22	32	1252	37352			
74	2	1	47	ON 2	26	37	9	22W	683727	625673	7	13	22	36	1245	48156	
		OFF 2	19	34	7	34W	688791	638926	7	13	24	23	1254	48263			
78	5	1	28	ON 2	33	36	182	48W	685716	627737	7	19	23	2	1231	69782	
		OFF 2	38	31	181	58W	684881	626841	7	19	23	49	1236	69829			
79	5	8	28	ON 2	41	28	128	33W	615886	638285	7	28	51	34	1217	75894	
		OFF 2	38	25	127	28W	618813	633826	7	28	52	21	1223	75141			
81	3	1	21	ON 2	63	36	168	21E	689867	715853	8	23	46	39	11	8	85599
		OFF 2	68	22	172	48E	674324	698923	7	23	47	36	1118	85656			

**PHOTOGRAPHIC SUMMARY**

FWD PAN CAMERA NO 178		B.2758		SLIT W/25		FILTER		3484 FILM	
OPN NO	FRA	FEET	ET	S-EL	S-DIR	EV	FULL	INT	PRI
PRE-FLT	128	317.4							
1 4 8	15	39.7	ON 283	18.1	34.9	11.52	11.66	11.86	18.46
			OFF 288	20.4	35.4	11.56	11.76	11.16	18.56
3 5 1	38	188.5	ON 178	7.8	33.4	11.33	18.84	18.24	9.64
			OFF 193	14.2	33.9	11.45	11.44	18.84	18.24
3 5 2	21	55.5	ON 284	18.6	34.6	11.52	11.68	11.88	18.48
			OFF 218	21.7	35.3	11.57	11.88	11.28	18.68
5 2 1	21	55.5	ON 218	28.6	34.6	11.56	11.76	11.16	18.56
			OFF 216	23.7	35.4	11.61	11.86	11.26	18.66
5 2 2	38	188.5	ON 238	31.1	38.2	11.78	11.99	11.39	18.79
			OFF 237	35.9	48.7	11.74	12.84	11.44	18.84
6 2 1	24	63.5	ON 199	15.9	33.5	11.49	11.55	18.95	18.35
			OFF 287	19.5	34.2	11.55	11.72	11.12	18.52
6 2 2	28	74.1	ON 226	29.8	37.8	11.68	11.96	11.36	18.76
			OFF 232	32.7	38.7	11.71	12.81	11.41	18.81
6 2 3	49	129.6	ON 246	44.8	46.9	11.79	12.89	11.49	18.89
			OFF 247	48.9	52.9	11.88	12.18	11.58	18.98
7 5 1	28	52.9	ON 199	15.5	33.2	11.49	11.52	18.92	18.32
			OFF 286	18.7	33.8	11.54	11.69	11.89	18.49
7 5 2	87	238.1	ON 219	24.7	35.3	11.63	11.88	11.28	18.68
			OFF 237	36.8	48.3	11.74	12.84	11.44	18.84
8 6 1	75	198.4	ON 188	7.5	32.4	11.35	18.88	18.28	9.68
			OFF 288	19.6	33.8	11.55	11.72	11.12	18.52
9 6 8	18	26.5	ON 183	-47.9	58.8	18.54	8.88	8.88	8.88
			OFF 184	-45.9	48.3	18.55	8.88	8.88	8.88
9 3 1	57	158.8	ON 197	14.7	32.7	11.48	11.47	18.87	18.27
			OFF 216	23.3	34.5	11.61	11.85	11.25	18.65
14 4 1	17	45.8	ON 232	31.8	36.3	11.71	12.88	11.48	18.88
			OFF 235	34.8	37.4	11.73	12.82	11.42	18.82
14 4 2	17	45.8	ON 244	48.8	41.6	11.78	12.87	11.47	18.87
			OFF 245	42.9	43.2	11.79	12.88	11.48	18.88
14 4 3	45	119.8	ON 281	56.6	114.3	11.58	12.18	11.58	18.98
			OFF 184	52.2	125.1	11.37	12.18	11.58	18.98

# ST-11 SLURRY

16	4	8	16	42.3	ON	248	37.8	38.5	11.76	12.85	11.45	18.85
					OFF	242	39.8	39.7	11.77	12.86	11.46	18.86
18	9	1	41	188.4	ON	183	7.6	38.5	11.37	18.81	18.21	9.61
					OFF	199	14.5	38.9	11.49	11.46	18.86	18.26
19	9	1	38	188.5	ON	186	8.7	38.3	11.48	18.95	18.35	9.75
					OFF	288	15.1	38.8	11.58	11.58	18.98	18.38
21	8	1	114	381.5	ON	184	7.7	29.9	11.38	18.83	18.23	9.63
					OFF	222	25.7	32.5	11.65	11.98	11.38	18.78
22	3	1	29	76.7	ON	288	18.8	38.8	11.55	11.65	11.85	18.45
					OFF	216	22.4	31.4	11.61	11.82	11.22	18.62
22	3	2	28	52.9	ON	232	31.4	34.2	11.71	11.99	11.39	18.79
					OFF	236	34.1	35.4	11.74	12.82	11.42	18.82
22	3	3	88	232.8	ON	241	37.8	37.3	11.77	12.85	11.45	18.85
					OFF	248	48.1	45.7	11.81	12.18	11.58	18.98
24	1	1	119	314.8	ON	185	7.7	29.3	11.39	18.82	18.22	9.62
					OFF	224	26.2	32.8	11.66	11.91	11.31	18.71
26	2	8	6	15.9	ON	182	-68.1	69.9	18.54	8.88	8.88	8.88
					OFF	182	-59.5	67.1	18.54	8.88	8.88	8.88
26	2	1	54	142.8	ON	245	47.8	43.9	11.79	12.18	11.58	18.98
					OFF	244	53.4	31.4	11.79	12.18	11.58	18.98
27	2	8	5	13.2	ON	181	-68.3	69.6	18.52	8.88	8.88	8.88
					OFF	181	-59.6	66.9	18.52	8.88	8.88	8.88
27	2	1	47	124.3	ON	244	44.8	48.1	11.78	12.89	11.49	18.89
					OFF	245	49.4	45.4	11.79	12.18	11.58	18.98
31	2	1	21	55.5	ON	246	38.1	35.1	11.79	12.85	11.45	18.85
					OFF	248	48.8	36.6	11.81	12.87	11.47	18.87
34	9	1	26	68.8	ON	191	8.9	27.3	11.43	18.97	18.37	9.77
					OFF	281	13.2	27.5	11.58	11.37	18.77	18.17
36	9	1	39	183.2	ON	191	8.8	26.9	11.43	18.96	18.36	9.76
					OFF	286	15.3	27.3	11.54	11.51	18.91	18.31
36	9	2	27	71.4	ON	232	28.8	29.8	11.71	11.95	11.35	18.75
					OFF	238	31.7	31.8	11.75	12.88	11.48	18.88
36	9	3	38	188.5	ON	191	59.9	119.6	11.43	12.18	11.58	18.98
					OFF	175	55.4	129.8	11.38	12.18	11.58	18.98
37	9	1	138	365.8	ON	238	31.7	38.8	11.75	12.88	11.48	18.88
					OFF	253	48.9	41.2	11.83	12.18	11.58	18.98
38	3	1	29	76.7	ON	215	18.3	27.3	11.68	11.67	11.87	18.47
					OFF	224	22.8	28.1	11.66	11.83	11.23	18.63
38	3	2	51	134.9	ON	239	31.2	38.3	11.76	11.99	11.39	18.79
					OFF	248	38.1	33.2	11.81	12.85	11.45	18.85
38	3	3	79	289.8	ON	253	45.3	37.7	11.84	12.89	11.49	18.89
					OFF	253	54.2	47.3	11.84	12.18	11.58	18.98
38	3	4	23	68.8	ON	246	68.3	68.8	11.88	12.18	11.58	18.98
					OFF	242	62.8	66.1	11.77	12.18	11.58	18.98
38	3	5	17	45.8	ON	239	62.9	78.4	11.75	12.18	11.58	18.98
					OFF	236	63.7	75.6	11.73	12.18	11.58	18.98
39	4	1	81	214.2	ON	215	18.3	27.1	11.68	11.67	11.87	18.47
					OFF	237	38.8	29.7	11.74	11.97	11.37	18.77
48	5	1	88	211.6	ON	282	12.1	26.3	11.51	11.28	18.68	18.88
					OFF	228	24.4	28.8	11.68	11.87	11.27	18.67
47	5	1	17	45.8	ON	246	35.9	29.9	11.88	12.84	11.44	18.84

~~SECRET~~  
~~SECRET~~

PAGE 28

				OFF 249	38.2	38.9	11.81	12.86	11.46	18.86	
52	9	1	48	185.8	ON 213	15.5	24.1	11.59	11.52	18.92	18.32
					OFF 225	21.8	24.9	11.67	11.88	11.28	18.68
52	9	2	42	111.1	ON 239	29.5	26.6	11.75	11.97	11.37	18.77
					OFF 246	35.3	28.4	11.79	12.83	11.43	18.83
53	4	1	28	52.9	ON 215	16.5	24.8	11.68	11.58	18.98	18.38
					OFF 221	19.8	24.4	11.64	11.73	11.13	18.53
53	4	2	173	457.6	ON 243	32.4	27.2	11.78	12.88	11.48	18.88
					OFF 253	54.4	41.2	11.84	12.18	11.58	18.98
54	5	1	74	195.7	ON 211	14.5	23.6	11.58	11.46	18.86	18.26
					OFF 233	25.8	25.2	11.72	11.91	11.31	18.71
55	7	1	16	42.3	ON 183	2.1	23.4	11.37	9.98	9.38	8.78
					OFF 198	5.1	23.2	11.42	18.48	9.88	9.28
55	7	2	88	211.6	ON 196	7.8	23.2	11.47	18.84	18.24	9.64
					OFF 224	28.8	24.1	11.66	11.77	11.17	18.57
55	7	3	55	145.5	ON 241	38.6	26.2	11.77	11.98	11.38	18.78
					OFF 258	38.2	28.8	11.82	12.86	11.46	18.86
63	7	1	17	45.8	ON 251	38.6	26.9	11.82	12.86	11.46	18.86
					OFF 252	48.9	27.9	11.83	12.87	11.47	18.87
68	4	1	113	298.9	ON 231	22.4	21.6	11.78	11.82	11.22	18.62
					OFF 251	38.8	25.7	11.83	12.86	11.46	18.86
69	4	1	28	74.1	ON 245	31.8	23.3	11.79	12.88	11.48	18.88
					OFF 249	35.9	24.4	11.81	12.84	11.44	18.84
69	4	2	184	275.1	ON 254	42.4	26.9	11.84	12.88	11.48	18.88
					OFF 253	55.9	36.4	11.83	12.18	11.58	18.98
78	7	1	49	129.6	ON 193	3.9	28.4	11.44	18.28	9.68	9.88
					OFF 211	12.2	28.3	11.58	11.29	18.69	18.89
78	7	2	184	275.1	ON 216	14.4	28.4	11.61	11.45	18.85	18.25
					OFF 242	38.8	22.6	11.77	11.98	11.38	18.78
72	8	1	48	185.8	ON 215	13.3	19.9	11.68	11.37	18.77	18.17
					OFF 227	19.8	28.5	11.68	11.74	11.14	18.54
72	8	2	27	71.4	ON 254	42.1	26.8	11.84	12.88	11.48	18.88
					OFF 255	45.8	27.7	11.85	12.18	11.58	18.98
72	8	3	28	52.9	ON 255	49.8	29.6	11.85	12.18	11.58	18.98
					OFF 255	51.7	31.5	11.84	12.18	11.58	18.98
74	2	1	48	127.8	ON 255	48.1	28.4	11.85	12.18	11.58	18.98
					OFF 253	54.5	33.1	11.84	12.18	11.58	18.98
78	5	1	21	55.5	ON 254	41.8	24.2	11.84	12.88	11.48	18.88
					OFF 255	44.7	25.4	11.85	12.89	11.49	18.89
79	5	8	21	55.5	ON 249	34.1	21.5	11.81	12.82	11.42	18.82
					OFF 251	37.1	22.3	11.82	12.85	11.45	18.85
81	3	1	22	58.2	ON 218	18.9	18.1	11.57	11.17	18.57	9.97
					OFF 217	14.6	18.2	11.62	11.46	18.86	18.26

PHOTOGRAPHIC SUMMARY

AFT PAN CAMERA NO	179	8.1758	SLIT W/21	FILTER	3484	FILM			
OPN NO	FRA	FEET	ET	S-EL	S-DIR	EV	FULL	INT	PRI
PRE-FLT	119	314.8							
1 4 8	14	37.8	ON 389	17.3	34.8	12.12	12.27	11.67	11.87
			OFF 316	19.6	34.6	12.16	12.38	11.78	11.18

~~SECRET~~

3 5 1	37	97.9	ON 271	6.8	31.6	11.94	11.37	10.77	10.17
			OFF 294	13.3	32.7	12.05	12.02	11.42	10.82
3 5 2	28	52.9	ON 309	17.7	33.7	12.13	12.29	11.69	11.09
			OFF 319	28.8	34.5	12.17	12.42	11.02	11.22
5 2 1	28	52.9	ON 318	19.8	33.8	12.17	12.38	11.78	11.18
			OFF 327	22.9	34.7	12.21	12.49	11.89	11.29
5 2 2	37	97.9	ON 348	30.4	37.5	12.38	12.63	12.03	11.43
			OFF 359	35.2	48.8	12.34	12.68	12.08	11.48
6 2 1	23	68.8	ON 303	15.8	32.5	12.09	12.14	11.54	10.94
			OFF 314	18.7	33.3	12.15	12.34	11.74	11.14
6 2 2	27	71.4	ON 343	20.2	36.3	12.28	12.60	12.00	11.40
			OFF 352	31.9	38.8	12.31	12.63	12.05	11.45
6 2 3	47	124.3	ON 372	43.4	46.1	12.39	12.74	12.14	11.54
			OFF 375	48.3	51.9	12.40	12.75	12.15	11.55
7 5 1	28	52.9	ON 302	14.6	32.2	12.09	12.11	11.51	10.91
			OFF 312	17.8	32.9	12.14	12.30	11.70	11.10
7 5 2	85	224.8	ON 332	23.9	34.6	12.23	12.51	11.91	11.31
			OFF 360	35.3	39.6	12.34	12.68	12.08	11.48
8 6 1	73	193.1	ON 274	6.5	30.6	11.95	11.33	10.73	10.13
			OFF 315	18.7	32.9	12.15	12.34	11.74	11.14
9 6 0	9	23.8	ON 159	-49.1	51.8	11.16	0.00	0.00	0.00
			OFF 160	-47.2	49.1	11.17	0.00	0.00	0.00
9 3 1	56	148.1	ON 299	13.8	31.6	12.08	12.06	11.46	10.86
			OFF 327	22.5	33.7	12.21	12.48	11.88	11.28
14 4 1	16	42.3	ON 352	31.1	35.6	12.31	12.64	12.04	11.44
			OFF 357	33.3	36.7	12.33	12.66	12.06	11.46
14 4 2	17	45.0	ON 369	40.2	40.9	12.38	12.72	12.12	11.52
			OFF 371	42.2	42.5	12.39	12.73	12.13	11.53
14 4 3	44	116.4	ON 305	57.1	112.9	12.10	12.75	12.15	11.55
			OFF 279	52.9	124.1	11.98	12.75	12.15	11.55
16 4 0	16	42.3	ON 363	36.3	37.8	12.36	12.69	12.09	11.49
			OFF 366	38.4	39.0	12.37	12.71	12.11	11.51
18 9 1	40	105.0	ON 279	6.6	28.7	11.90	11.34	10.74	10.14
			OFF 303	13.6	29.8	12.09	12.05	11.45	10.85
19 9 1	37	97.9	ON 204	7.8	28.7	12.00	11.49	10.89	10.29
			OFF 305	14.2	29.7	12.10	12.09	11.49	10.89
21 8 1	112	296.2	ON 201	6.7	28.1	11.99	11.36	10.76	10.16
			OFF 337	24.9	31.8	12.25	12.54	11.94	11.34
22 3 1	28	74.1	ON 316	17.1	29.6	12.15	12.26	11.66	11.06
			OFF 329	21.6	30.6	12.21	12.45	11.85	11.25
22 3 2	28	52.9	ON 353	30.6	33.5	12.31	12.63	12.03	11.43
			OFF 358	33.4	34.7	12.34	12.66	12.06	11.46
22 3 3	86	227.5	ON 365	37.1	36.7	12.36	12.70	12.10	11.50
			OFF 375	47.5	44.9	12.40	12.75	12.15	11.55
24 1 1	116	306.0	ON 202	6.7	27.5	11.99	11.35	10.75	10.15
			OFF 340	25.4	31.3	12.26	12.55	11.95	11.35
26 2 0	5	13.2	ON 150	-60.0	72.0	11.16	0.00	0.00	0.00
			OFF 150	-60.3	69.0	11.16	0.00	0.00	0.00
26 2 1	53	140.2	ON 375	47.1	43.1	12.40	12.75	12.15	11.55
			OFF 374	52.9	50.4	12.40	12.75	12.15	11.55
27 2 0	5	13.2	ON 150	-61.0	72.5	11.16	0.00	0.00	0.00

~~SECRET~~  
~~SECRET~~

PAGE 22

				OFF 158	-68.4	69.7	11.16	8.88	8.88	8.88	
27	2	1	46	121.7	ON 375	43.3	39.4	12.48	12.74	12.14	11.54
					OFF 376	48.8	44.5	12.41	12.75	12.15	11.55
31	2	1	28	52.9	ON 377	37.4	34.4	12.41	12.78	12.18	11.58
					OFF 388	48.1	36.8	12.42	12.72	12.12	11.52
34	9	1	25	66.1	ON 293	7.9	25.8	12.85	11.51	18.91	18.31
					OFF 388	12.3	26.4	12.12	11.94	11.34	18.74
36	9	1	38	188.5	ON 294	7.9	25.4	12.85	11.58	18.98	18.38
					OFF 317	14.4	26.3	12.16	12.18	11.58	18.98
36	9	2	26	68.8	ON 356	27.2	29.1	12.33	12.58	11.98	11.38
					OFF 365	38.9	38.4	12.36	12.64	12.84	11.44
36	9	3	38	188.5	ON 294	68.5	118.1	12.85	12.75	12.15	11.55
					OFF 269	56.3	128.7	11.92	12.75	12.15	11.55
37	9	1	135	357.1	ON 365	38.9	38.1	12.36	12.64	12.84	11.44
					OFF 387	48.2	48.4	12.45	12.75	12.15	11.55
38	3	1	29	76.7	ON 329	17.4	26.4	12.22	12.28	11.68	11.88
					OFF 343	22.8	27.3	12.27	12.46	11.86	11.26
38	3	2	58	132.3	ON 366	38.4	29.7	12.37	12.63	12.83	11.43
					OFF 379	37.3	32.6	12.42	12.78	12.18	11.58
38	3	3	78	286.3	ON 387	44.6	37.8	12.45	12.74	12.14	11.54
					OFF 387	53.6	46.2	12.45	12.75	12.15	11.55
38	3	4	23	68.8	ON 376	59.9	58.6	12.41	12.75	12.15	11.55
					OFF 378	61.6	64.4	12.38	12.75	12.15	11.55
38	3	5	16	42.3	ON 365	62.6	68.6	12.36	12.75	12.15	11.55
					OFF 368	63.5	73.7	12.34	12.75	12.15	11.55
39	4	1	88	211.6	ON 338	17.4	26.2	12.22	12.28	11.68	11.88
					OFF 363	29.2	29.1	12.35	12.61	12.81	11.41
48	5	1	78	286.3	ON 389	11.2	25.8	12.12	11.85	11.25	18.65
					OFF 348	23.5	27.3	12.29	12.58	11.98	11.38
47	5	1	16	42.3	ON 376	35.1	29.3	12.41	12.68	12.88	11.48
					OFF 388	37.4	38.3	12.42	12.78	12.18	11.58
52	9	1	39	183.2	ON 325	14.6	23.1	12.28	12.11	11.51	18.91
					OFF 344	28.9	24.2	12.28	12.42	11.82	11.22
52	9	2	48	185.8	ON 365	28.7	26.8	12.36	12.61	12.81	11.41
					OFF 376	34.5	27.8	12.48	12.67	12.87	11.47
53	4	1	28	52.9	ON 329	15.6	23.1	12.21	12.18	11.58	18.98
					OFF 339	18.9	23.6	12.26	12.35	11.75	11.15
53	4	2	169	447.8	ON 371	31.5	26.6	12.39	12.64	12.84	11.44
					OFF 387	53.7	48.3	12.45	12.75	12.15	11.55
54	5	1	73	193.1	ON 323	13.5	22.6	12.19	12.84	11.44	18.84
					OFF 356	24.9	24.6	12.33	12.54	11.94	11.34
55	7	1	16	42.3	ON 288	1.1	28.9	11.98	18.43	9.83	9.23
					OFF 291	4.1	21.3	12.84	18.97	18.37	9.77
55	7	2	79	289.8	ON 381	6.8	21.6	12.89	11.36	18.76	18.16
					OFF 343	19.9	23.3	12.27	12.39	11.79	11.19
55	7	3	54	142.8	ON 368	29.8	25.6	12.38	12.62	12.82	11.42
					OFF 381	37.4	28.2	12.43	12.78	12.18	11.58
63	7	1	16	42.3	ON 383	37.8	26.3	12.43	12.78	12.18	11.58
					OFF 385	48.1	27.3	12.44	12.72	12.12	11.52
68	4	1	111	293.6	ON 352	21.5	28.9	12.31	12.44	11.84	11.24
					OFF 383	38.8	25.1	12.43	12.78	12.18	11.58

~~SECRET~~

69 4 1	27	71.4	ON 374	31.8	22.7	12.48	12.64	12.84	11.44
			OFF 388	35.1	23.8	12.42	12.68	12.88	11.48
69 4 2	182	269.8	ON 387	41.6	26.3	12.45	12.73	12.13	11.53
			OFF 386	55.2	35.5	12.44	12.75	12.15	11.55
78 7 1	47	124.3	ON 295	2.8	18.3	12.86	18.76	18.16	9.56
			OFF 323	11.3	19.1	12.19	11.86	11.26	18.66
78 7 2	181	267.1	ON 331	13.5	19.4	12.22	12.84	11.44	18.84
			OFF 378	29.2	22.8	12.38	12.61	12.81	11.41
71 5 1	67	177.2	ON 389	6.5	18.4	12.12	11.33	18.73	18.13
			OFF 343	17.8	19.7	12.28	12.38	11.78	11.18
72 8 1	39	183.2	ON 328	12.3	18.8	12.21	11.95	11.35	18.75
			OFF 347	18.9	19.7	12.29	12.35	11.75	11.15
72 8 2	26	68.8	ON 387	41.3	25.4	12.45	12.73	12.13	11.53
			OFF 389	45.8	27.1	12.45	12.74	12.14	11.54
72 8 3	28	52.9	ON 389	48.3	28.9	12.46	12.75	12.15	11.55
			OFF 388	51.8	38.8	12.45	12.75	12.15	11.55
74 2 1	47	124.3	ON 389	47.4	27.8	12.46	12.75	12.15	11.55
			OFF 387	53.7	32.3	12.45	12.75	12.15	11.55
78 5 1	28	52.9	ON 387	48.9	23.6	12.45	12.72	12.12	11.52
			OFF 389	43.9	24.8	12.45	12.74	12.14	11.54
79 5 8	28	52.9	ON 379	33.3	28.9	12.42	12.66	12.86	11.46
			OFF 383	36.3	21.8	12.43	12.69	12.89	11.49
81 3 1	21	55.5	ON 321	18.2	16.8	12.18	11.75	11.15	18.55
			OFF 332	13.6	17.2	12.23	12.84	11.44	18.84

STELLAR-INDEX SUMMARY

CAMERA DATA	ET	FILM	FILTER	GRID	ASSEMBLY NO D79
STELLAR	2.8	4481	NONE	94	
INDEX	1/500	4488	W/21	91	

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	17	1.68	3.37										
1 4 8	2	8.28	8.48	23	1	7	2	54	154W	2	52	152W	42
3 5 1	5	8.58	8.99	1	59	21	2	65	147E	2	59	158E	113
3 5 2	3	8.38	8.59	2	2	32	2	54	168E	2	51	163E	55
5 2 1	3	8.38	8.59	5	4	25	2	52	116E	2	48	118E	55
5 2 2	6	8.59	1.19	5	7	35	2	48	122E	2	34	124E	98
6 2 1	3	8.38	8.59	6	33	48	2	57	89E	2	53	92E	64
6 2 2	4	8.48	8.79	6	37	34	2	42	98E	2	38	188E	68
6 2 3	7	8.69	1.39	6	42	25	2	23	185E	2	16	186E	189
7 5 1	3	8.38	8.59	8	4	11	2	57	66E	2	54	69E	56
7 5 2	12	1.19	2.38	8	6	54	2	47	73E	2	34	79E	288
8 6 1	11	1.89	2.18	9	32	38	2	65	32E	2	53	46E	211
9 6 8	2	8.28	8.48	18	45	44	1	38	117W	1	41	115W	48
9 3 1	8	8.79	1.58	11	5	12	2	58	19E	2	49	26E	152
14 4 1	2	8.28	8.48	18	43	23	2	48	82W	2	37	81W	41
14 4 2	3	8.38	8.59	18	46	11	2	29	79W	2	26	78W	48
14 4 3	6	8.59	1.19	18	59	49	3	24	66W	3	33	64W	138
16 4 8	2	8.28	8.48	21	46	11	2	34	126W	2	31	125W	39

~~SECRET~~  
~~SECRET~~

PAGE 24

18	9	1	6	0.59	1.19	8	38	51	2	65	164E	2	59	173E	118
19	9	1	6	0.59	1.19	2	9	48	2	64	143E	2	58	151E	188
21	8	1	16	1.58	3.17	5	18	46	2	65	95E	2	47	113E	306
22	3	1	4	0.48	0.79	6	44	17	2	55	85E	2	58	88E	76
22	3	2	3	0.38	0.59	6	48	9	2	41	93E	2	37	95E	49
22	3	3	12	1.19	2.38	6	58	4	2	33	96E	2	28	108E	199
24	1	1	17	1.68	3.37	9	42	37	2	65	27E	2	46	45E	315
26	2	0	1	0.18	0.28	12	21	44	1	21	150W	1	22	150W	28
26	2	1	8	0.79	1.58	12	55	36	2	21	8E	2	13	18E	121
27	2	0	1	0.18	0.28	13	52	22	1	21	173W	1	22	173W	27
27	2	1	6	0.59	1.19	14	24	57	2	26	15W	2	19	13W	188
31	2	1	3	0.38	0.59	28	25	32	2	34	109W	2	38	108W	47
34	9	1	4	0.48	0.79	8	49	5	2	64	168E	2	68	166E	72
36	9	1	6	0.59	1.19	3	58	17	2	64	114E	2	58	122E	187
36	9	2	4	0.48	0.79	3	55	34	2	45	131E	2	41	133E	63
36	9	3	5	0.58	0.99	4	13	42	3	25	158E	3	33	152E	115
37	9	1	20	1.98	3.96	5	27	13	2	41	118E	2	21	117E	386
38	3	1	4	0.48	0.79	6	54	5	2	55	79E	2	51	83E	75
38	3	2	7	0.69	1.39	6	57	48	2	42	87E	2	34	98E	117
38	3	3	11	1.89	2.18	7	1	46	2	26	93E	2	14	95E	174
38	3	4	4	0.48	0.79	7	7	9	2	4	98E	2	1	98E	54
38	3	5	2	0.28	0.48	7	8	38	3	1	99E	3	3	99E	48
39	4	1	12	1.19	2.38	8	24	48	2	55	56E	2	43	64E	195
48	5	1	11	1.89	2.18	9	53	35	2	61	27E	2	49	38E	282
47	5	1	3	0.38	0.59	28	34	13	2	37	116W	2	35	115W	39
52	9	1	5	0.58	0.99	4	1	34	2	58	117E	2	52	122E	181
52	9	2	6	0.59	1.19	4	5	28	2	44	126E	2	38	129E	94
53	4	1	3	0.38	0.59	5	32	25	2	57	95E	2	54	97E	52
53	4	2	25	2.47	4.95	5	36	41	2	41	185E	2	16	112E	382
54	5	1	18	0.99	1.98	7	2	27	2	59	78E	2	48	79E	182
55	7	1	3	0.38	0.59	8	29	44	2	69	28E	2	67	34E	48
55	7	2	11	1.89	2.18	8	31	15	2	65	39E	2	53	52E	288
55	7	3	8	0.79	1.58	8	37	21	2	43	58E	2	35	61E	124
63	7	1	2	0.28	0.48	28	44	8	2	35	128W	2	32	119W	38
68	4	1	17	1.68	3.37	4	12	28	2	52	117E	2	35	125E	261
69	4	1	4	0.48	0.79	5	45	38	2	42	99E	2	38	181E	64
69	4	2	14	1.39	2.77	5	48	28	2	31	183E	2	16	187E	229
78	7	1	7	0.69	1.39	7	8	45	2	68	49E	2	61	62E	131
78	7	2	15	1.48	2.97	7	11	38	2	59	64E	2	44	75E	245
72	8	1	6	0.59	1.19	18	12	19	2	68	17E	2	54	23E	182
72	8	2	4	0.48	0.79	18	19	53	2	32	34E	2	28	35E	68
72	8	3	3	0.38	0.59	18	21	47	2	24	36E	2	21	37E	45
74	2	1	7	0.69	1.39	13	22	36	2	25	9W	2	18	7W	187
78	5	1	3	0.38	0.59	19	23	2	2	32	182W	2	29	181W	47
79	5	8	3	0.38	0.59	28	51	34	2	48	128W	2	37	126W	47
81	3	1	3	0.38	0.59	23	46	39	2	62	169E	2	59	173E	57

NOTE - T/M DATA INDICATE ALL SYSTEMS OPERATING NORMALLY

NOTE - T/M DATA INDICATE THE INDEX CAMERA WAS OUT OF FILM AT THE BEGINNING OF OPERATION 879-85-8

~~SECRET~~  
~~SECRET~~



NOTE - OPERATION #81-#3-1 ACTUALLY CONSISTED OF FIVE MORE CYCLES THAN SHOWN IN THIS REPORT. THE LAST FIVE CYCLES ARE CONTAINED IN THE B MISSION RECOVERY CAPSULE

NOTE - OPERATIONS #79-#5-# AND #81-#3-1 DID NOT COVER THE PLANNED STEREO LATITUDES DUE TO AN H-TIMER BIAS FOR RECOVERY

A. 1829-1

B. DRY

C. PERFORMANCE ESTIMATE PART TWO

## RATE ESTIMATE

FWD PAN CAMERA NUMBER 178

OPN NO	FR	R	A	TUR/ DUR	INST CPS	INST ANG VEL	SCAN RATE R/SEC	SCAN RATE I/SEC	PCT CALIB	RATE REQD
1 4 8	15	8	3 ON	1389	0.3728	0.03139	2.337	56.18	0.9	-1.7
			OFF	42	0.3888	0.03213	2.393	57.42	0.9	-1.5
3 5 1	38	8	3 ON	1128	0.3258	0.02749	2.847	49.13	0.9	-5.7
			OFF	113	0.3532	0.02988	2.219	53.26	0.9	-3.6
3 5 2	21	8	3 ON	1311	0.3726	0.03144	2.341	56.19	0.9	-2.3
			OFF	55	0.3844	0.03243	2.415	57.96	0.9	-1.8
5 2 1	21	8	3 ON	1358	0.3831	0.03233	2.487	57.77	0.9	-1.5
			OFF	55	0.3942	0.03326	2.477	59.45	0.9	-1.3
5 2 2	38	8	3 ON	1548	0.4282	0.03546	2.648	63.37	0.9	-8.5
			OFF	98	0.4331	0.03654	2.721	65.31	0.9	-8.5
6 2 1	24	8	3 ON	1276	0.3644	0.03875	2.289	54.95	0.9	-2.5
			OFF	64	0.3786	0.03194	2.379	57.89	0.9	-1.9
6 2 2	28	8	3 ON	1511	0.4139	0.03492	2.681	62.41	0.9	-8.6
			OFF	68	0.4247	0.03583	2.668	64.84	0.9	-8.6
6 2 3	49	8	3 ON	1882	0.4489	0.03788	2.821	67.69	0.9	-8.3
			OFF	189	0.4522	0.03816	2.841	68.19	0.9	-8.2
7 5 1	28	8	3 ON	1273	0.3636	0.03868	2.284	54.83	0.9	-2.5
			OFF	56	0.3768	0.03172	2.362	56.69	0.9	-2.8
7 5 2	87	8	3 ON	1436	0.3998	0.03374	2.512	68.29	0.9	-8.9
			OFF	288	0.4348	0.03662	2.727	65.44	0.9	-8.5
8 6 1	75	8	3 ON	1134	0.3291	0.02777	2.868	49.63	0.9	-5.4
			OFF	211	0.3794	0.03282	2.384	57.22	0.9	-2.8
9 6 8	18	8	3 ON	91	0.1885	0.01591	1.185	28.43	0.9	-12.7
			OFF	48	0.1899	0.01683	1.193	28.64	0.9	-13.8
9 3 1	57	8	3 ON	1259	0.3682	0.03848	2.263	54.32	0.9	-3.1
			OFF	152	0.3948	0.03324	2.475	59.41	0.9	-1.6
14 4 1	17	8	3 ON	1569	0.4244	0.03581	2.666	64.88	1.1	-8.6
			OFF	41	0.4388	0.03629	2.782	64.85	1.1	-8.6
14 4 2	17	8	3 ON	1737	0.4451	0.03756	2.797	67.12	1.1	-8.4
			OFF	48	0.4479	0.03788	2.815	67.55	1.1	-8.4
14 4 3	45	8	3 ON	2555	0.3668	0.03893	2.385	55.32	1.1	1.9
			OFF	138	0.3356	0.02832	2.189	58.61	1.1	1.1
16 4 8	16	8	3 ON	1667	0.4388	0.03695	2.752	66.84	1.1	-8.3
			OFF	39	0.4418	0.03728	2.776	66.63	1.1	-8.4
18 9 1	41	8	3 ON	1156	0.3355	0.02831	2.188	58.59	1.1	-4.9
			OFF	118	0.3639	0.03878	2.286	54.87	1.1	-2.9
19 9 1	38	8	3 ON	1178	0.3489	0.02876	2.142	51.48	1.1	-4.5
			OFF	188	0.3665	0.03892	2.383	55.26	1.1	-2.7
21 8 1	114	8	3 ON	1164	0.3373	0.02846	2.128	58.87	1.1	-4.9
			OFF	386	0.4865	0.03438	2.554	61.38	1.1	-1.8
22 3 1	29	8	3 ON	1348	0.3798	0.03284	2.386	57.27	1.1	-1.9
			OFF	76	0.3957	0.03339	2.486	59.67	1.1	-1.4
22 3 2	28	8	3 ON	1572	0.4249	0.03585	2.678	64.87	1.1	-8.5

					OFF	49	0.4316	0.03642	2.712	65.00	1.1	-0.5
22	3	3	88	8	3 ON	1687	0.4402	0.03714	2.766	66.38	1.1	-0.3
					OFF	199	0.4527	0.03820	2.844	68.27	1.1	-0.1
24	1	1	119	8	3 ON	1169	0.3387	0.02850	2.128	51.00	1.1	-4.8
					OFF	315	0.4093	0.03453	2.571	61.71	1.1	-1.0
26	2	0	6	8	3 ON	0	0.1877	0.01584	1.180	28.31	1.1	-5.9
					OFF	28	0.1877	0.01584	1.180	28.31	1.1	-6.7
26	2	1	54	8	3 ON	1879	0.4478	0.03779	2.814	67.53	0.0	-1.2
					OFF	121	0.4468	0.03778	2.807	67.37	0.0	-0.8
27	2	0	5	8	3 ON	0	0.1857	0.01567	1.167	28.01	0.0	-7.2
					OFF	27	0.1857	0.01567	1.167	28.01	0.0	-8.0
27	2	1	47	8	3 ON	1806	0.4451	0.03756	2.797	67.12	0.0	-1.3
					OFF	180	0.4482	0.03782	2.816	67.59	0.0	-1.1
31	2	1	21	8	2 ON	1700	0.4493	0.03791	2.823	67.76	0.0	1.5
					OFF	47	0.4539	0.03838	2.852	68.44	0.0	1.6
34	9	1	26	8	2 ON	1213	0.3488	0.02943	2.192	52.68	0.0	-4.3
					OFF	72	0.3669	0.03096	2.385	55.33	0.0	-2.8
36	9	1	39	8	2 ON	1217	0.3500	0.02953	2.199	52.78	0.0	-4.1
					OFF	187	0.3771	0.03182	2.370	56.87	0.0	-1.9
36	9	2	27	8	2 ON	1534	0.4245	0.03582	2.667	64.01	0.0	0.9
					OFF	63	0.4349	0.03670	2.733	65.58	0.0	1.1
36	9	3	38	8	2 ON	2622	0.3501	0.02954	2.200	52.79	0.0	0.9
					OFF	115	0.3194	0.02695	2.007	48.16	0.0	-1.1
37	9	1	138	8	2 ON	1598	0.4355	0.03675	2.736	65.67	0.0	1.2
					OFF	386	0.4618	0.03897	2.982	69.64	0.0	2.0
38	3	1	29	8	2 ON	1376	0.3932	0.03318	2.471	59.30	0.7	-0.2
					OFF	75	0.4890	0.03458	2.575	61.79	0.7	0.6
38	3	2	51	8	2 ON	1592	0.4373	0.03690	2.748	65.94	0.7	1.0
					OFF	117	0.4530	0.03822	2.846	68.31	0.7	2.2
38	3	3	79	8	2 ON	1837	0.4631	0.03900	2.910	69.04	0.7	2.6
					OFF	174	0.4620	0.03905	2.900	69.79	0.7	3.0
38	3	4	23	8	2 ON	2160	0.4490	0.03795	2.826	67.03	0.7	3.4
					OFF	54	0.4429	0.03737	2.783	66.79	0.7	3.6
38	3	5	17	8	2 ON	2250	0.4369	0.03686	2.745	65.00	0.7	3.5
					OFF	40	0.4306	0.03633	2.705	64.93	0.7	3.7
39	4	1	81	8	2 ON	1370	0.3936	0.03321	2.473	59.36	0.7	-0.2
					OFF	195	0.4335	0.03650	2.724	65.30	0.7	1.6
40	5	1	00	8	2 ON	1279	0.3607	0.03111	2.316	55.60	0.7	-2.1
					OFF	202	0.4159	0.03509	2.613	62.71	0.7	0.9
47	5	1	17	8	2 ON	1600	0.4500	0.03797	2.827	67.05	0.7	2.1
					OFF	39	0.4541	0.03832	2.853	68.40	0.7	2.2
52	9	1	40	8	2 ON	1357	0.3806	0.03279	2.442	58.60	0.7	-0.0
					OFF	101	0.4112	0.03470	2.504	62.01	0.7	0.5
52	9	2	42	8	2 ON	1503	0.4359	0.03670	2.739	65.74	0.7	1.7
					OFF	94	0.4493	0.03791	2.823	67.75	0.7	2.1
53	4	1	20	8	2 ON	1376	0.3931	0.03317	2.470	59.20	0.7	-0.5
					OFF	52	0.4045	0.03413	2.542	61.00	0.7	0.1
53	4	2	173	8	2 ON	1632	0.4435	0.03742	2.706	66.07	0.7	2.0
					OFF	302	0.4627	0.03904	2.907	69.70	0.7	3.0
54	5	1	74	8	2 ON	1344	0.3864	0.03261	2.420	58.27	0.9	-0.0
					OFF	102	0.4262	0.03596	2.670	64.26	0.9	1.4

55	7	1	16	8	2	ON	1149	8.3344	8.82821	2.181	58.42	8.9	-5.9
						OFF	48	8.3468	8.82927	2.179	52.38	8.9	-4.6
55	7	2	88	8	2	ON	1239	8.3592	8.83831	2.257	54.16	8.9	-3.2
						OFF	288	8.4188	8.83459	2.576	61.82	8.9	8.5
55	7	3	55	8	2	ON	1686	8.4486	8.83718	2.769	66.44	8.9	2.1
						OFF	124	8.4563	8.83858	2.867	68.81	8.9	2.5
63	7	1	17	8	2	ON	1747	8.4582	8.83866	2.879	69.89	8.9	2.7
						OFF	38	8.4611	8.83898	2.897	69.52	8.9	2.8
68	4	1	113	8	2	ON	1499	8.4214	8.83556	2.648	63.54	8.9	1.3
						OFF	261	8.4598	8.83873	2.884	69.22	8.9	2.8
69	4	1	28	8	2	ON	1651	8.4472	8.83773	2.818	67.44	8.9	2.4
						OFF	64	8.4547	8.83837	2.857	68.57	8.9	2.6
69	4	2	184	8	2	ON	1821	8.4634	8.83918	2.912	69.88	8.9	3.8
						OFF	229	8.4618	8.83896	2.982	69.64	8.9	3.5
78	7	1	49	8	2	ON	1215	8.3525	8.82974	2.215	53.15	8.9	-4.1
						OFF	131	8.3859	8.83257	2.425	58.28	8.9	-1.1
78	7	2	184	8	2	ON	1388	8.3951	8.83334	2.482	59.58	8.9	-8.3
						OFF	245	8.4438	8.83738	2.783	66.88	8.9	2.2
72	8	1	48	8	2	ON	1368	8.3921	8.83389	2.464	59.13	8.9	-8.5
						OFF	182	8.4146	8.83499	2.685	62.52	8.9	8.9
72	8	2	27	8	2	ON	1821	8.4635	8.83911	2.912	69.89	8.9	3.8
						OFF	68	8.4656	8.83929	2.925	78.21	8.9	3.1
72	8	3	28	8	2	ON	1935	8.4668	8.83932	2.928	78.27	8.9	3.3
						OFF	45	8.4652	8.83925	2.923	78.14	8.9	3.4
74	2	1	48	8	2	ON	1923	8.4668	8.83932	2.928	78.28	8.9	3.3
						OFF	187	8.4638	8.83986	2.989	69.81	8.9	3.5
78	5	1	21	8	2	ON	1826	8.4637	8.83913	2.914	69.92	8.9	3.1
						OFF	47	8.4654	8.83927	2.924	78.18	8.9	3.2
79	5	8	21	8	2	ON	1786	8.4541	8.83832	2.853	68.48	8.9	2.7
						OFF	47	8.4585	8.83869	2.881	69.14	8.9	2.9
81	3	1	22	8	2	ON	1333	8.3836	8.83237	2.418	57.85	8.9	-2.1
						OFF	57	8.3968	8.83348	2.493	59.84	8.9	-1.1

RATE ESTIMATE  
AFT PAN CAMERA NUMBER 179

OPN NO	FR	R	A	TUR/ DUR	INST CPS	INST ANG VEL	SCAN R/SEC	RATE I/SEC	PCT CALIB	RATE REQD
1	4	8	14	8	3	ON	1389	8.3591	8.83838	2.256 54.15 -2.8 -5.4
						OFF	42	8.3675	8.83181	2.389 55.41 -2.8 -5.2
3	5	1	37	8	3	ON	1128	8.3152	8.82668	1.988 47.53 -2.8 -9.3
						OFF	113	8.3413	8.82879	2.144 51.46 -2.8 -7.2
3	5	2	28	8	3	ON	1311	8.3597	8.83835	2.268 54.24 -2.8 -5.9
						OFF	55	8.3789	8.83129	2.338 55.93 -2.8 -5.6
5	2	1	28	8	3	ON	1358	8.3697	8.83119	2.323 55.75 -2.8 -5.2
						OFF	55	8.3882	8.83288	2.389 57.34 -2.8 -5.8
5	2	2	37	8	3	ON	1548	8.4858	8.83417	2.544 61.87 -2.8 -4.3
						OFF	98	8.4172	8.83528	2.621 62.91 -2.8 -4.3
6	2	1	23	8	3	ON	1276	8.3519	8.82969	2.211 53.86 -2.8 -6.2
						OFF	64	8.3654	8.83883	2.296 55.18 -2.8 -5.6
6	2	2	27	8	3	ON	1511	8.3989	8.83366	2.587 68.16 -2.8 -4.4