

~~SECRET~~



1033-1



CORONA J FL
DATA BOOK

Declassified and Released by the N R C

In Accordance with E. O. 12958

on NOV 26 1997

~~SECRET~~
~~SECRET~~

~~SECRET~~

12 PAGES
(NOT INCLUDING PEST)

CORONA J FLIGHT DATA BOOK

SYSTEM NO. J-33

VEHICLE NO. 1638

MISSION NO. 1833-1

CAMERA NOS. 194/195

DATE 5-28-66

PAGE 1

~~SECRET~~
~~SECRET~~

~~SECRET~~

SYSTEM NO. J-33
VEHICLE NO. 1630
MISSION NO. 1033-1
CAMERA NOS. 194/195

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-33
VEHICLE NO. 1638
MISSION NO. 1033-1
CAMERA NOS. 194/195

GENERAL FLIGHT DATA

MASTER CAMERA SERIAL NO. 194

SLAVE CAMERA SERIAL NO. 195

S/I -1 SERIAL NO. D91/105/109

S/I -2 SERIAL NO. D84/075/102

LAUNCH DATE 05-24-66

LAUNCH TIME 02-00-33 GMT

REACTIVATION DATE N/A

REACTIVATION ORBIT NO. N/A

ORBIAL PARAMETERS (REV. 42)

PERIOD 88.928 MIN.

ECCENTRICITY 0.00739

PERIGEE 101.830 NM

PERIGEE LAT. 60.748 DEG. N

APOGEE 154.550 NM

INCL. ANGLE 66.032 DEG.

RECOVERY ORBIT NO. 83

RECOVERY DATE 5-28-66

SYSTEM NO. J-33
VEHICLE NO. 1638
MISSION NO. 1033-1
CAMERA NOS. 194/195

FLIGHT LENS SETTINGS AND FILM TYPES

LENS SETTINGS

PANORAMIC CAMERA SETTINGS		CAMERA NO. 194	CAMERA NO.
PANORAMIC OPTICS SLIT WIDTH	.288	IN	.288
PANORAMIC OPTICS FILTER TYPE	WRATTEN 21		WRATTEN 21
HORIZON OPTICS EXP. TIME	1/100	SEC.	1/100
HORIZON OPTICS APERTURE	F6.3	SUPPLY	F8.0 SU
HORIZON OPTICS APERTURE	F8.0	TAKE-UP	F6.3 TAK
HORIZON OPTICS FILTER TYPE	WRATTEN 25		WRATTEN 25

STELLAR INDEX CAMERA SETTINGS

	D91/105/109		D84/075/102	
	STELLAR	INDEX	STELLAR	INDEX
EXPOSURE TIME	2.0	SEC	1/500	SEC
APERTURE SETTING	F1.0		F4.5	
FILTER TYPE	NONE		WRATTEN 21	NONE

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

FILM

PANORAMIC CAMERAS	CAMERA NO. 194	CAMERA NO. 195
TYPE	7J-48	7J-48
LENGTH	16000 FT.	16000 FT.
SPLICES	5	4
EMUL. DATA	244-3-4-6	244-3-4-6
LG. BETWEEN	2369-3982-3598-	3436-3950-3680-
SPLICES	3584-0486-1918C	3685-1249C

STELLAR/INDEX CAMERAS

	D91/105/109		D84/075/102	
	STELLAR	INDEX	STELLAR	INDEX
TYPE	3J-34	7J-33	3J-34	7J-33
EMUL. DATA	151-48-3-6	113-2-3-6	151-48-3-6	113-

SYSTEM NO. J-33
VEHICLE NO. 1638
MISSION NO. 1833-1
CAMERA NOS. 194/195

LENS DATA SUMMARY MASTER CAMERA NO. 194

LENS SERIAL NO. 2882435
EQUIVALENT OPERATIONAL FOCAL LENGTH 689.682 MM

RESOLUTION

STATIC	BENCH TEST	LINES/MM	FILM TYPE	TARGET CONTR.
		262	3484	HIGH
		152	3484	LOW
DYNAMIC				
	BOSTON	187	3484	HIGH
		119	3484	LOW
	AP	182	3484	HIGH
		116	3484	LOW

NOTE BOSTON RESOLUTION OF 187 LINES/MM REPORTED IN 

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	0.002	0.003

SYSTEM NO. J-33
VEHICLE NO. 1638
MISSION NO. 1833-1
CAMERA NOS. 194/195

LENS DATA SUMMARY (HORIZON CAMERAS FOR MASTER CAMERA NO. 194)

	TAKE-UP	SUPPLY
LENS SERIAL NO.	12895	12836
OPERATIONAL FOCAL LENGTH	55.88 MM	55.88 MM
RADIAL DISTORTION		
18 DEG. OFF AXIS	0.018 MM	0.018 MM
28 DEG. OFF AXIS	0.048 MM	0.048 MM
TANGENTIAL DISTORTION	0.038 MM	0.015 MM
(MAXIMUM VECTOR)		

RESOLUTION

ANGLE OFF AXIS-DEG.	0	5	18	15	28	25	27.5	38
TAKE-UP (RADIAL)	187	234	286	168	139	158	-8	81
(TANGENTIAL)	166	185	181	133	58	86	-8	62
SUPPLY (RADIAL)	209	288	286	127	159	134	-8	55
(TANGENTIAL)	187	164	181	123	83	43	-8	51

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-33
VEHICLE NO. 1630
MISSION NO. 1033-1
CAMERA NOS. 194/195

LENS DATA SUMMARY SLAVE CAMERA NO. 195

LENS SERIAL NO. 1962435
EQUIVALENT OPERATIONAL FOCAL LENGTH 689.682 MM

RESOLUTION

STATIC		LINES/MM	FILM TYPE	TARGET CONTRA
	BENCH TEST	250	3484	HIGH
		152	3484	LOW
DYNAMIC				
	BOSTON	192	3484	HIGH
		119	3484	LOW
	AP	169	3484	HIGH
		116	3484	LOW

NOTE BOSTON RESOLUTION OF 192 LINES/MM REPORTED IN [REDACTED]

DISTORTION - POSITIVE (PINCUSHION)

ANGLE OFF AXIS-DEG.	3	2	1	0	359	358	357
MILLIMETERS	0.003	0.001	0.000	0.000	0.000	0.000	0.001

SYSTEM NO. J-33
VEHICLE NO. 1630
MISSION NO. 1033-1
CAMERA NOS. 194/195

LENS DATA SUMMARY (HORIZON CAMERAS FOR SLAVE CAMERA NO. 195)

	TAKE-UP	SUPPLY
LENS SERIAL NO.	12874	12849
OPERATIONAL FOCAL LENGTH	54.98 MM	55.88 MM
RADIAL DISTORTION		
10 DEG. OFF AXIS	0.020 MM	0.020 MM
20 DEG. OFF AXIS	0.070 MM	0.050 MM
TANGENTIAL DISTORTION (MAXIMUM VECTOR)	0.010 MM	0.020 MM

RESOLUTION

ANGLE OFF AXIS-DEG.	0	5	10	15	20	25	27.5	30
TAKE-UP (RADIAL)	209	186	206	202	156	95	-0	41
(TANGENTIAL)	187	164	161	155	121	109	-0	62
SUPPLY (RADIAL)	166	165	206	181	175	150	-0	57
(TANGENTIAL)	187	185	181	155	103	96	-0	62

DYNAMIC (ZERO DEG)

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

NOTE

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

SYSTEM NO. J-33
VEHICLE NO. 1630
MISSION NO. 1033-1
CAMERA NOS. 194/195

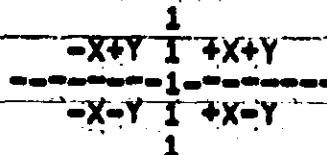
FORMAT DIMENSIONS AND CALIBRATIONS

CAMERA NO. 194

CAMERA NO. 195

A	76.020	76.850
B	355.010	355.030
C	709.710	709.330
D	56.309	56.543
E	56.457	56.527
XT	0.177	0.601
YT	-0.079	-0.380
XS	-0.599	-0.702
YS	-0.006	0.017
XVO	-0.022	0.462
YVO	1.256	1.591
DTX	0.176	0.590
DTY	-2.079	-2.380
DSX	-0.579	-0.704
DSY	-2.006	2.017
DMX	-0.074	0.496
DMY	21.256	21.591
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



SYSTEM NO. J-33
VEHICLE NO. 1638
MISSION NO. 1833-1
CAMERA NOS. 194/195

LENS DATA SUMMARY STELLAR INDEX D91/185/189 -1 MISSION

	STELLAR	INDEX
LENS SERIAL NO.	11359	819198
RESEAU SERIAL NO.	189	185
FILTER TYPE	NONE	WRATTEN 21
APERTURE	F1.8	F4.5
EXPOSURE TIME	2.8 SEC.	1/500 SEC.
EQUIVALENT FOCAL LENGTH	84 NOM	MM 38.45 MM

RESOLUTION (INDEX)

ANGLE OFF AXIS	8	18	28	38	35
HIGH CONTRAST-R/T (3400 FILM)	871/71	878/85	182/84	899/43	889/3

AWAR 74 LINES/MM
READ FROM 4400 FILM.

DISTORTION

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

ALIGNMENT	STELLAR	INDEX
	0.0003 INCHES/0.937 INCHES	-0.0007 INCHES/2.25 IN

~~SECRET~~

SYSTEM NO. J-33
VEHICLE NO. 1630
MISSION NO. 1033-1
CAMERA NOS. 194/195

LENS DATA SUMMARY STELLAR INDEX D84/075/102 -2 MISSION

	STELLAR	INDEX
LENS SERIAL NO.	10727	819957
RESEAU SERIAL NO.	75	102
FILTER TYPE	NONE	WRATTEN 21
APERTURE	F1.8	F4.5
EXPOSURE TIME	2.0 SEC.	1/500 SEC.
EQUIVALENT FOCAL LENGTH	84 NOM	MM 38.37 MM

RESOLUTION (INDEX)

ANGLE OFF AXIS	0	10	20	30	35
HIGH CONTRAST-R/T (3400 FILM)	071/71	083/87	098/87	090/43	086/31

AWAR 73 LINES/MM
READ FROM 4400 FILM.

DISTORTION

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

ALIGNMENT	STELLAR	INDEX
	-0.0006 INCHES/.937 INCHES	0.0008 INCHES/2.25 IN

~~SECRET~~
~~SECRET~~

~~SECRET~~

SYSTEM NO. J-33
VEHICLE NO. 1630
MISSION NO. 1033-1
CAMERA NOS. 194/195

CYCLE PERIOD DATA

V/H LEVEL	RAMP AMPLITUDE	SETTING RAMP-SEC	TIME UP RAMP-SEC	---CALIBRATED---		---IN-FLIGHT---		OR CYCLE PERIOD-SEC NO
				MASTER	SLAVE	MASTER	SLAVE	
4	8		1540	2.345	-0.000	2.340	2.330	11
4	8		2990	2.703	2.600	2.675	2.690	10
3	8		3095	2.635	2.612	2.620	2.593	32
3	8		3095	2.633	2.610	2.620	2.620	40
3	8		1642	2.229	2.220	2.200	2.230	74

NOTE

A -0 OR * INDICATE NO DATA AVAILABLE.

PAGE 12

~~SECRET~~
~~SECRET~~

- A. 1033-1
- B. DRY
- C. PERFORMANCE ESTIMATE PART ONE

OPERATIONS SUMMARY

FWD PAN CAMERA NUMBER 194

OPN	NO	FRA	Q	LAT	LONG	HEIGHT	RANGE	DA	H	M	S	LTIM	S-TIM	
PRE-FLT 102														
D	1	2	0	18	ON	2	51 17 158 24W	666987	691226	24	3	28	9	1654 12489
					OFF	2	48 47 155 25W	671487	695896	24	3	28	57	17 7 12537
A	2	2	1	16	ON	1	44 19 62 55E	628777	643363	24	4	39	45	851 16785
					OFF	1	46 26 64 54E	628871	642638	24	4	48	23	9 8 16823
	2	2	2	22	ON	1	53 24 73 15E	619592	642134	24	4	42	34	935 16954
					OFF	1	55 56 77 23E	628167	642731	24	4	43	26	952 17886
A	3	2	1	188	ON	1	46 58 42 45E	628279	642846	24	6	9	38	9 8 22178
					OFF	1	58 56 61 8E	621728	644358	24	6	13	33	1817 22413
A	4	2	1	119	ON	1	46 46 28 8E	628688	643188	24	7	38	38	859 27518
					OFF	1	59 51 48 45E	622543	645195	24	7	42	57	1826 27777
D	6	3	1	35	ON	2	55 34 82 32E	659132	683159	24	18	51	46	1621 39186
					OFF	2	58 58 89 18E	667228	691568	24	18	53	18	1658 39198
	6	3	2	11	ON	2	41 39 98 33E	684333	789389	24	18	56	8	1738 39368
					OFF	2	39 48 99 58E	687981	713812	24	18	56	48	1736 39488
D	7	3	1	13	ON	2	63 1 48 21E	644229	667695	24	12	17	48	1459 44268
					OFF	2	61 54 44 42E	646659	678217	24	12	18	15	1517 44295
	7	3	2	16	ON	2	58 5 55 6E	653943	677775	24	12	19	51	16 8 44391
					OFF	2	56 14 58 48E	657273	681238	24	12	28	32	1615 44432
	7	3	3	11	ON	2	46 41 71 33E	674241	698836	24	12	23	38	17 9 44618
					OFF	2	45 5 73 5E	677198	781985	24	12	24	7	1716 44647
D	8	5	1	78	ON	2	57 18 34 28E	654922	678798	24	13	49	12	16 7 49752
					OFF	2	47 9 48 33E	672723	697261	24	13	52	38	17 6 49958
D	9	5	1	44	ON	2	51 16 21 19E	664677	688913	24	15	28	13	1645 55213
					OFF	2	45 11 27 56E	675665	788314	24	15	22	6	1713 55326
A	18	5	8	28	ON	1	38 8 122 14W	622884	645549	24	16	29	59	821 59399
					OFF	1	41 3 128 6W	628835	643423	24	16	38	49	838 59449
A	15	5	1	33	ON	1	21 7 115 45E	643816	666436	24	23	58	13	733 85813
					OFF	1	26 14 118 18E	634615	657719	24	23	51	37	744 85897
	15	5	2	13	ON	1	38 5 128 18E	629372	652279	24	23	52	41	753 85961
					OFF	1	32 8 121 19E	626955	649772	24	23	53	15	758 85995
	15	5	3	58	ON	1	36 33 124 2E	622597	645251	24	23	54	38	818 86878
					OFF	1	43 32 129 16E	618881	648566	24	23	56	31	833 86191
A	16	2	1	7	ON	1	49 37 112 48E	616262	638679	25	1	27	28	858 5248
					OFF	1	58 35 113 58E	616199	638614	25	1	27	38	9 3 5258
D	16	2	8	14	ON	2	33 44 121 17W	696887	722336	25	1	48	28	1743 6588
					OFF	2	31 17 119 52W	782116	727762	25	1	49	1	1749 6541
A	18	2	1	14	ON	1	44 36 62 37E	617895	639543	25	4	23	46	834 15826
					OFF	1	46 32 64 26E	616478	638982	25	4	24	21	842 15861
	18	2	2	28	ON	1	53 37 73 1E	616859	638468	25	4	26	35	918 15995
					OFF	1	55 59 76 55E	616616	639846	25	4	27	24	935 16844
A	19	4	1	52	ON	1	47 7 42 38E	616892	638582	25	5	53	38	843 21218
					OFF	1	53 32 58 22E	615837	638238	25	5	55	32	917 21332

A	19	4	2	22	ON	1	56	42	55	43E	616663	639898	25	5	56	37	939	21397	
					OFF	1	59	1	60	48E	617753	640226	25	5	57	38	18	0	21450
D	22	4	1	11	ON	2	55	41	81	51E	654760	678622	25	10	35	30	16	2	38130
					OFF	2	54	13	84	16E	657328	681278	25	10	36	8	1613	38160	
	22	4	2	11	ON	2	41	43	98	2E	679839	704645	25	10	39	53	1712	38393	
					OFF	2	40	3	99	19E	683044	707971	25	10	40	22	1717	38422	
D	23	4	1	45	ON	2	64	57	29	8E	635534	658674	25	12	8	7	1356	43207	
					OFF	2	61	56	44	6E	642982	666402	25	12	1	57	1450	43317	
	23	4	2	16	ON	2	58	9	54	38E	658235	673927	25	12	3	34	1541	43414	
					OFF	2	56	18	58	13E	653534	677351	25	12	4	15	1557	43455	
	23	4	3	11	ON	2	51	43	65	21E	661586	685785	25	12	5	48	1627	43548	
					OFF	2	50	11	67	17E	664278	688499	25	12	6	17	1635	43577	
	23	4	4	11	ON	2	46	45	71	2E	670395	694846	25	12	7	21	1651	43641	
					OFF	2	45	9	72	34E	673303	697863	25	12	7	50	1658	43670	
D	24	3	1	119	ON	2	61	6	24	19E	644534	668012	25	13	31	19	15	8	48679
					OFF	2	47	11	48	4E	669464	693880	25	13	36	11	1648	48971	
A	31	2	1	14	ON	1	30	5	119	47E	624728	647461	25	23	36	7	735	84967	
					OFF	1	32	6	120	55E	622489	645138	25	23	36	41	748	85001	
A	32	2	1	28	ON	1	49	36	112	25E	612967	635260	26	1	10	44	840	4244	
					OFF	1	52	0	115	24E	613067	635365	26	1	11	30	853	4290	
D	32	4	0	15	ON	2	33	43	121	39W	693853	719187	26	1	31	43	1725	5503	
					OFF	2	31	16	120	14W	698959	724487	26	1	32	24	1731	5544	
A	34	2	1	15	ON	1	44	36	62	17E	613396	635705	26	4	7	5	816	14825	
					OFF	1	46	33	64	7E	612911	635202	26	4	7	40	824	14860	
	34	2	2	21	ON	1	53	39	72	44E	612990	635284	26	4	9	54	9	0	14994
					OFF	1	56	2	76	39E	613712	636034	26	4	10	43	917	15043	
	35	4	1	54	ON	1	47	9	42	12E	612550	634027	26	5	36	47	825	20207	
					OFF	1	53	33	50	3E	612749	635034	26	5	38	49	859	20329	
	35	4	2	23	ON	1	56	43	55	25E	613795	636119	26	5	39	54	921	20394	
					OFF	1	59	2	60	20E	615033	637404	26	5	40	46	942	20446	
A	36	4	1	117	ON	1	47	10	19	42E	612290	634558	26	7	5	43	824	25543	
					OFF	1	60	1	40	21E	615547	637938	26	7	10	7	951	25807	
D	38	4	1	12	ON	2	55	38	81	38E	652860	676651	26	10	18	41	1545	37121	
					OFF	2	54	10	84	3E	655395	679281	26	10	19	11	1555	37151	
	38	4	2	11	ON	2	41	38	97	47E	677531	702250	26	10	23	4	1654	37384	
					OFF	2	39	58	99	4E	680650	705487	26	10	23	33	1659	37413	
	39	4	1	46	ON	2	64	55	28	56E	633705	656776	26	11	43	16	1339	42196	
					OFF	2	61	53	44	0E	641216	664569	26	11	45	7	1441	42307	
	39	4	2	17	ON	2	58	5	54	20E	648424	672048	26	11	46	42	1524	42402	
					OFF	2	56	13	58	4E	651742	675491	26	11	47	23	1539	42443	
	39	4	3	12	ON	2	51	40	65	7E	659607	683652	26	11	48	56	16	9	42536
					OFF	2	50	7	67	4E	662302	686448	26	11	49	26	1617	42566	
	39	4	4	11	ON	2	46	40	70	49E	668333	692706	26	11	50	30	1633	42630	
					OFF	2	45	4	72	21E	671184	695665	26	11	50	59	1640	42659	
	40	3	1	119	ON	2	61	0	24	9E	642756	666168	26	13	14	25	1451	47665	
					OFF	2	47	5	47	53E	667490	691831	26	13	19	18	1630	47950	
	47	4	1	35	ON	1	21	8	115	10E	630128	653064	26	23	16	26	657	83786	
					OFF	1	26	14	117	35E	622544	645196	26	23	17	50	7	8	83870
	48	2	1	19	ON	1	49	37	112	14E	607231	629310	27	0	53	27	822	3207	
					OFF	1	51	59	115	12E	607504	629592	27	0	54	12	835	3252	
	48	4	0	15	ON	2	33	48	121	54W	689278	714440	27	1	14	25	17	6	4465

A	50	5	1	97	OFF	2	31	18	120	27W	694392	719747	27	1	15	7	1713	4507	
					ON	1	44	33	62	3E	606565	628619	27	3	49	40	757	13780	
					OFF	1	55	58	76	21E	607634	629728	27	3	53	18	858	13998	
	51	4	1	53	ON	1	47	3	41	56E	606362	628400	27	5	19	19	8	7	19159
					OFF	1	53	28	49	46E	606953	629022	27	5	21	20	840	19280	
	51	4	2	23	ON	1	56	38	55	4E	608185	630300	27	5	22	26	9	2	19346
					OFF	1	58	55	59	55E	609549	631715	27	5	23	18	923	19398	
	53	4	1	19	ON	2	52	15	109	14E	654109	677947	27	8	33	20	1550	30800	
					OFF	2	49	44	112	25E	650340	682337	27	8	34	8	16	3	30848
	54	6	1	36	ON	2	55	43	81	22E	648227	671044	27	10	1	2	1526	36062	
					OFF	2	51	12	88	7E	655750	679650	27	10	2	33	1555	36153	
	54	6	2	11	ON	2	41	45	97	35E	671883	696309	27	10	5	25	1635	36325	
					OFF	2	40	4	98	53E	674895	699515	27	10	5	54	1641	36354	
	54	6	3	56	ON	2	26	24	107	7E	701729	727360	27	10	9	45	1710	36585	
					OFF	2	17	9	111	20E	722693	749117	27	10	12	17	1737	36737	
	55	6	1	105	ON	2	64	58	28	29E	629001	652726	27	11	25	33	1319	41133	
					OFF	2	56	14	57	56E	647296	678070	27	11	29	43	1521	41303	
	55	6	2	12	ON	2	51	42	64	57E	654775	678638	27	11	31	15	1551	41475	
					OFF	2	50	9	66	55E	657345	681304	27	11	31	45	1559	41505	
	55	6	3	11	ON	2	46	42	70	41E	663007	687263	27	11	32	49	1615	41569	
					OFF	2	45	6	72	13E	665791	690060	27	11	33	10	1622	41598	
	56	5	1	80	ON	2	57	8	33	44E	645763	669207	27	12	50	16	1513	46696	
					OFF	2	47	8	47	45E	662159	686300	27	13	1	33	1612	46893	
	63	3	1	35	ON	1	21	6	115	10E	624061	646769	27	22	50	17	630	82697	
					OFF	1	26	11	117	34E	617103	639551	27	22	59	40	649	82700	
	63	3	2	14	ON	1	30	3	119	34E	612059	635147	27	23	0	44	659	82844	
					OFF	1	32	6	120	43E	610975	633193	27	23	1	10	7	4	82870
	64	2	1	20	ON	1	49	36	112	14E	603959	625915	28	0	35	14	8	4	2114
					OFF	1	52	0	115	14E	604430	626404	28	0	36	0	016	2160	
	65	7	0	9	ON	1	5	35	63	51E	653381	677109	28	1	51	46	6	7	6706
					OFF	1	7	3	64	25E	649020	673503	28	1	52	10	6	9	6730
	65	7	1	72	ON	1	41	1	81	39E	604167	626130	28	2	1	31	720	7291	
					OFF	1	50	2	90	15E	603377	625311	28	2	4	13	8	5	7453
	66	5	1	97	ON	1	44	40	62	12E	602624	624529	28	3	31	24	740	12684	
					OFF	1	56	2	76	31E	604020	626016	28	3	35	1	041	12901	
	67	2	1	100	ON	1	47	1	41	58E	602274	624167	28	5	0	57	740	10057	
					OFF	1	58	58	60	6E	606506	620641	28	5	4	50	9	5	10290
	68	2	1	119	ON	1	47	2	19	30E	602072	623957	28	6	29	47	747	23307	
					OFF	1	59	58	40	10E	607256	629336	28	6	34	12	914	23652	
	69	2	1	26	ON	1	63	25	29	41E	611131	633356	28	8	4	40	10	3	29000
					OFF	1	64	53	38	15E	613991	636323	28	8	5	40	1030	29140	
	69	2	2	19	ON	2	52	15	109	19E	651100	674825	28	8	14	53	1532	29693	
					OFF	2	49	43	112	31E	655262	679143	28	8	15	42	1545	29742	
	70	4	1	11	ON	2	55	42	81	30E	645156	668657	28	9	42	32	15	0	34952
					OFF	2	54	15	83	53E	647540	671131	28	9	43	2	1510	34902	
	70	4	2	11	ON	2	41	47	97	39E	668302	692674	28	9	46	54	1617	35214	
					OFF	2	40	3	98	59E	671329	695014	28	9	47	24	1623	35244	
	71	4	1	46	ON	2	64	57	28	40E	626339	649134	28	11	7	1	13	1	40021
					OFF	2	61	55	43	53E	633796	656071	28	11	8	52	14	4	40132
	71	4	2	16	ON	2	50	10	54	11E	640732	664060	28	11	10	27	1447	40227	
					OFF	2	56	16	57	59E	643940	667404	28	11	11	9	15	3	40269

71	4	3	11	ON	2	51	44	65	1E	651481	675137	28	11	12	41	1532	48361	
				OFF	2	58	11	66	59E	653951	677783	28	11	13	11	1541	48391	
71	4	4	11	ON	2	46	44	78	45E	659614	683659	28	11	14	15	1557	48455	
				OFF	2	45	8	72	18E	662291	686436	28	11	14	44	16	3	48484
72	3	1	122	ON	2	61	8	23	59E	635131	658256	28	12	38	3	1414	45483	
				OFF	2	47	8	47	52E	658654	682662	28	12	42	57	1554	45777	
74	4	8	21	ON	1	38	12	122	48W	682788	624788	28	15	28	5	7	8	55285
				OFF	1	41	8	128	39W	681676	623546	28	15	28	55	718	55255	
79	5	1	34	ON	1	28	53	115	16E	616885	639241	28	22	39	21	628	81561	
				OFF	1	25	54	117	37E	618183	632372	28	22	40	43	631	81643	
79	5	2	14	ON	1	29	49	119	38E	686888	628115	28	22	41	48	648	81788	
				OFF	1	31	58	128	46E	684327	626296	28	22	42	22	645	81742	
79	5	3	53	ON	1	36	17	123	28E	681388	623156	28	22	43	37	657	81817	
				OFF	1	43	17	128	48E	598882	628564	28	22	45	38	728	81938	
88	2	1	28	ON	1	49	17	112	4E	598348	628886	29	8	16	14	744	974	
				OFF	1	51	47	115	8E	598926	628693	29	8	17	1	757	1821	
82	6	1	73	ON	1	38	57	57	58E	598574	628328	29	3	18	46	7	2	11446
				OFF	1	48	12	65	54E	597281	618987	29	3	13	38	737	11618	

OPERATIONS SUMMARY

AFT PAN CAMERA NUMBER 195

OPN NO	FRA	θ	LAT	LONG	HEIGHT	RANGE	DA	H	M	S	LTIM	S-TIM						
PRE-FLT 188																		
1	2	8	18	ON	2	51	24	158	37W	668858	692412	24	3	28	21	1653	12581	
				OFF	2	48	54	155	36W	672686	697148	24	3	29	9	17	6	12549
2	2	1	16	ON	1	44	16	62	49E	628518	643894	24	4	39	57	851	16797	
				OFF	1	46	23	64	47E	619899	642452	24	4	48	35	859	16835	
2	2	2	22	ON	1	53	28	73	7E	619691	642236	24	4	42	46	935	16966	
				OFF	1	55	53	77	14E	628368	642931	24	4	43	38	952	17818	
3	2	1	189	ON	1	46	47	42	38E	628121	642682	24	6	9	42	9	8	22182
				OFF	1	58	53	68	58E	622828	644661	24	6	13	45	1816	22425	
4	2	1	128	ON	1	46	42	28	2E	628445	643819	24	7	38	42	858	27522	
				OFF	1	59	48	48	35E	622875	645548	24	7	43	9	1825	27789	
6	3	1	35	ON	2	55	39	82	19E	668173	684239	24	18	51	58	1621	39118	
				OFF	2	51	5	89	6E	668378	692745	24	18	53	38	1649	39218	
6	3	2	11	ON	2	41	47	98	23E	685689	718716	24	18	56	28	1729	39388	
				OFF	2	39	57	99	47E	689381	714464	24	18	56	52	1735	39412	
7	3	1	13	ON	2	63	4	48	5E	645881	668588	24	12	17	52	1458	44272	
				OFF	2	61	57	44	27E	647545	671136	24	12	18	27	1516	44387	
7	3	2	16	ON	2	58	18	54	52E	654926	678794	24	12	28	3	1559	44483	
				OFF	2	56	19	58	35E	658297	682293	24	12	28	44	1614	44444	
7	3	3	11	ON	2	46	49	71	22E	675488	788122	24	12	23	58	17	9	44638
				OFF	2	45	13	72	54E	678474	783229	24	12	24	19	1715	44659	
8	5	1	66	ON	2	55	48	36	58E	658548	682553	24	13	49	55	1617	49795	
				OFF	2	47	17	48	22E	673958	698534	24	13	52	41	17	5	49961
18	5	8	28	ON	1	38	4	122	28W	622335	644979	24	16	38	11	828	59411	
				OFF	1	41	8	128	12W	628414	642986	24	16	31	1	838	59461	
15	5	1	33	ON	1	21	1	115	39E	641677	665846	24	23	58	25	732	85825	
				OFF	1	26	9	118	4E	633526	656589	24	23	51	49	743	85989	
15	5	2	14	ON	1	38	8	128	4E	628469	651343	24	23	52	53	753	85973	

		OFF	1	32	3	121	13E	626149	648936	24	23	53	27	758	86887			
15	5	3	58	ON	1	36	38	123	56E	621997	644628	24	23	54	42	818	86882	
		OFF	1	43	28	129	9E	617785	648259	24	23	56	43	833	86283			
16	2	1	19	ON	1	49	34	112	41E	616214	638629	25	1	27	32	858	5252	
		OFF	1	51	57	115	39E	616251	638667	25	1	28	17	918	5297			
16	2	8	15	ON	2	33	54	121	27W	698432	723948	25	1	48	32	1742	6512	
		OFF	2	31	28	128	2W	783722	729429	25	1	49	13	1748	6553			
18	2	1	14	ON	1	44	33	62	31E	616858	639289	25	4	23	58	833	15838	
		OFF	1	46	28	64	28E	616311	638729	25	4	24	33	841	15873			
18	2	2	21	ON	1	53	34	72	53E	616165	638578	25	4	26	47	918	16887	
		OFF	1	55	57	76	47E	616889	639247	25	4	27	36	934	16856			
19	4	1	53	ON	1	47	4	42	24E	615952	638357	25	5	53	42	843	21222	
		OFF	1	53	29	58	15E	615944	638349	25	5	55	44	916	21344			
19	4	2	23	ON	1	56	39	55	34E	616886	639326	25	5	56	49	938	21489	
		OFF	1	58	59	68	31E	618868	648544	25	5	57	42	959	21462			
28	4	1	116	ON	1	47	3	19	51E	615719	638115	25	7	22	48	841	26568	
		OFF	1	59	59	48	31E	618542	641845	25	7	27	5	18	8	26825		
22	4	1	11	ON	2	55	46	81	38E	655792	679694	25	18	35	42	16	2	38142
		OFF	2	54	19	84	4E	658384	682383	25	18	36	12	1612	38172			
22	4	2	18	ON	2	41	51	97	52E	681179	786836	25	18	48	5	1711	38485	
		OFF	2	48	11	99	9E	684424	789483	25	18	48	34	1717	38434			
23	4	1	45	ON	2	64	59	28	44E	636317	659487	25	12	8	19	1355	43219	
		OFF	2	61	59	43	51E	643868	667322	25	12	2	9	1457	43329			
23	4	2	16	ON	2	58	13	54	17E	651213	674942	25	12	3	46	1548	43426	
		OFF	2	56	23	58	8E	654553	678488	25	12	4	27	1556	43467			
23	4	3	11	ON	2	51	49	65	9E	662783	686864	25	12	6	8	1626	43568	
		OFF	2	58	17	67	5E	665429	689693	25	12	6	29	1634	43589			
23	4	4	11	ON	2	46	52	78	51E	671628	696117	25	12	7	33	1658	43653	
		OFF	2	45	16	72	24E	674564	699171	25	12	8	2	1657	43682			
24	3	1	119	ON	2	61	18	24	4E	645442	668954	25	13	31	31	15	7	48691
		OFF	2	47	18	47	53E	678678	695139	25	13	36	23	1647	48983			
31	2	1	14	ON	1	38	8	119	42E	623881	646582	25	23	36	19	734	84979	
		OFF	1	32	2	128	58E	621737	644359	25	23	36	53	748	85813			
32	2	1	7	ON	1	49	33	112	18E	612961	635254	26	1	18	56	839	4256	
		OFF	1	58	33	113	29E	612999	635294	26	1	11	15	845	4275			
32	4	8	15	ON	2	33	53	121	49W	695359	728758	26	1	31	55	1724	5515	
		OFF	2	31	26	128	23W	788524	726111	26	1	32	36	1738	5556			
34	2	1	15	ON	1	44	33	62	11E	613288	635582	26	4	7	17	815	14837	
		OFF	1	46	38	64	1E	612793	635888	26	4	7	52	823	14872			
34	2	2	21	ON	1	53	36	72	36E	613138	635438	26	4	18	6	9	8	15886
		OFF	1	56	8	76	31E	613945	636275	26	4	18	55	916	15855			
35	4	1	54	ON	1	47	6	42	5E	612458	634732	26	5	36	59	825	28219	
		OFF	1	53	38	49	56E	612897	635187	26	5	39	1	858	28341			
35	4	2	23	ON	1	56	41	55	17E	614855	636389	26	5	48	6	921	28486	
		OFF	1	58	59	68	12E	615374	637758	26	5	48	58	941	28458			
36	4	1	118	ON	1	47	7	19	36E	612284	634468	26	7	5	55	824	25555	
		OFF	1	59	59	48	12E	615926	638331	26	7	18	19	958	25819			
38	4	1	12	ON	2	55	43	81	25E	653882	677711	26	18	18	53	1544	37133	
		OFF	2	54	16	83	51E	656446	688372	26	18	19	23	1554	37163			
38	4	2	11	ON	2	41	46	97	37E	678842	783611	26	18	23	16	1653	37396	
		OFF	2	48	7	98	54E	681998	786885	26	18	23	45	1659	37425			

39	4	1	47	ON	2	64	57	28	48E	634499	657688	26	11	43	28	1337	42288
				OFF	2	61	56	43	45E	642183	665498	26	11	45	19	1448	42319
39	4	2	17	ON	2	58	18	54	7E	649395	673856	26	11	46	54	1523	42414
				OFF	2	56	18	57	52E	652751	676538	26	11	47	35	1538	42455
39	4	3	12	ON	2	51	46	64	55E	668787	684793	26	11	49	8	16	8
				OFF	2	58	13	66	53E	663434	687622	26	11	49	38	1616	42578
39	4	4	11	ON	2	46	47	78	39E	669534	693952	26	11	58	42	1633	42642
				OFF	2	45	11	72	11E	672428	696946	26	11	51	11	1639	42671
48	3	1	119	ON	2	61	7	23	54E	643663	667189	26	13	14	37	1458	47677
				OFF	2	47	12	47	43E	668682	693868	26	13	19	38	1638	47978
47	4	1	35	ON	1	21	3	115	5E	628986	651795	26	23	16	38	656	83798
				OFF	1	26	18	117	29E	621578	644185	26	23	18	2	7	7
48	2	1	19	ON	1	49	34	112	8E	687273	629353	27	8	53	39	821	3219
				OFF	1	51	57	115	5E	687632	629726	27	8	54	24	834	3264
48	4	8	15	ON	2	33	58	122	4W	698756	715974	27	1	14	37	17	6
				OFF	2	31	28	128	36W	695928	721348	27	1	15	19	1712	4519
58	5	1	98	ON	1	44	31	61	58E	686415	628463	27	3	49	52	757	13792
				OFF	1	55	56	76	14E	687985	638889	27	3	53	38	858	14818
51	4	1	53	ON	1	47	1	41	51E	686313	628357	27	5	19	31	8	6
				OFF	1	53	25	49	39E	687139	629214	27	5	21	32	839	19292
51	4	2	23	ON	1	56	35	54	57E	688479	638685	27	5	22	38	9	2
				OFF	1	58	53	59	47E	689928	632188	27	5	23	38	922	19418
53	4	1	19	ON	2	52	21	189	2E	655167	679845	27	8	33	32	1549	38812
				OFF	2	49	58	112	14E	659446	683484	27	8	34	28	16	3
54	6	1	37	ON	2	55	47	81	18E	649211	672865	27	18	1	14	1525	36874
				OFF	2	51	17	87	56E	656818	688758	27	18	2	45	1554	36165
54	6	2	11	ON	2	41	52	97	25E	673136	697698	27	18	5	37	1635	36337
				OFF	2	48	12	98	43E	676184	788853	27	18	6	6	1648	36366
54	6	3	56	ON	2	26	35	186	57E	783327	729819	27	18	9	57	1717	36597
				OFF	2	17	22	111	11E	724587	751888	27	18	12	29	1737	36749
55	6	1	186	ON	2	64	59	28	14E	638572	653526	27	11	25	45	1318	41145
				OFF	2	56	19	57	44E	648262	671888	27	11	29	55	1528	41395
55	6	2	12	ON	2	51	48	64	46E	655823	679725	27	11	31	27	1558	41487
				OFF	2	58	15	66	44E	658421	682421	27	11	31	57	1558	41517
55	6	3	11	ON	2	46	49	78	31E	664229	688448	27	11	33	1	1614	41581
				OFF	2	45	13	72	3E	666965	691286	27	11	33	38	1621	41618
56	5	1	81	ON	2	57	12	33	31E	646783	678263	27	12	58	28	1512	46788
				OFF	2	47	15	47	34E	663281	687464	27	13	1	45	1611	46985
63	3	1	35	ON	1	21	2	115	5E	622928	645593	27	22	58	29	638	82789
				OFF	1	26	7	117	29E	616213	638627	27	22	59	52	649	82792
63	3	2	14	ON	1	38	8	119	29E	612149	634411	27	23	8	56	658	82856
				OFF	1	32	3	128	38E	618358	632553	27	23	1	38	7	3
64	2	1	28	ON	1	49	33	112	8E	684855	626814	28	8	35	26	8	3
				OFF	1	51	57	115	8E	684688	626589	28	8	36	12	816	2172
65	7	8	9	ON	1	5	28	63	45E	651517	675256	28	1	51	58	6	6
				OFF	1	6	56	64	19E	648832	671648	28	1	52	22	6	9
65	7	1	72	ON	1	48	59	81	34E	683943	625898	28	2	1	43	727	7383
				OFF	1	58	8	98	18E	683494	625433	28	2	4	25	8	4
66	5	1	98	ON	1	44	38	62	7E	682548	624451	28	3	31	36	739	12696
				OFF	1	55	59	76	24E	685151	627152	28	3	35	13	848	12913
67	2	1	189	ON	1	46	59	41	53E	682298	624184	28	5	1	9	748	18869

		OFF	1	58	56	59	59E	687884	629874	28	5	5	18	9	4	18318		
69	2	1	27	ON	1	63	24	29	31E	611694	633948	28	8	4	52	18	2	29892
		OFF	1	64	52	38	4E	614613	636968	28	8	5	52	18	37	29152		
69	2	2	19	ON	2	52	28	189	8E	652137	675981	28	8	15	5	1531	29785	
		OFF	2	49	49	112	28E	656343	688264	28	8	15	54	15	45	29754		
78	4	1	11	ON	2	55	46	81	18E	646132	669678	28	9	42	44	15	7	34964
		OFF	2	54	28	83	42E	648548	672169	28	9	43	14	15	17	34994		
78	4	2	11	ON	2	41	54	97	38E	669525	693942	28	9	47	6	1616	35226	
		OFF	2	48	11	98	58E	672586	697118	28	9	47	36	16	22	35256		
71	4	1	46	ON	2	64	59	28	26E	627129	649954	28	11	7	13	13	8	48833
		OFF	2	61	58	43	39E	634662	657778	28	11	9	4	14	3	48144		
71	4	2	16	ON	2	58	13	53	59E	641665	665835	28	11	18	39	14	46	48239
		OFF	2	56	21	57	47E	644913	668485	28	11	11	21	15	2	48281		
71	4	3	11	ON	2	51	58	64	58E	652448	676215	28	11	12	53	15	32	48373
		OFF	2	58	17	66	49E	655817	678889	28	11	13	23	15	48	48483		
71	4	4	11	ON	2	46	51	78	35E	668748	684828	28	11	14	27	15	56	48467
		OFF	2	45	15	72	8E	663446	687635	28	11	14	56	16	3	48496		
72	3	1	122	ON	2	61	11	23	46E	636818	659168	28	12	38	15	14	13	45495
		OFF	2	47	15	47	41E	659769	683828	28	12	43	9	15	53	45789		
74	4	8	21	ON	1	38	9	122	53W	682471	624371	28	15	28	17	7	8	55217
		OFF	1	41	5	128	43W	681479	623342	28	15	21	7	7	17	55267		
79	5	1	35	ON	1	28	49	115	11E	615711	638186	28	22	39	33	6	28	81573
		OFF	1	25	51	117	32E	689329	631485	28	22	48	55	6	38	81655		
79	5	2	14	ON	1	29	47	119	34E	685488	627417	28	22	42	8	6	48	81728
		OFF	1	31	48	128	41E	683746	625694	28	22	42	34	6	45	81754		
79	5	3	53	ON	1	36	15	123	24E	688914	622756	28	22	43	49	6	57	81829
		OFF	1	43	15	128	35E	598788	628459	28	22	45	58	7	19	81958		
88	2	1	28	ON	1	49	15	111	59E	598468	628218	29	8	16	26	7	44	986
		OFF	1	51	45	115	3E	599131	628987	29	8	17	13	7	57	1833		
82	6	1	78	ON	1	38	55	57	46E	598387	628851	29	3	18	58	7	1	11458
		OFF	1	48	46	66	29E	597467	619188	29	3	13	53	7	39	11633		
82	6	2	16	ON	1	55	38	75	59E	688844	621854	29	3	16	7	8	19	11767
		OFF	1	57	28	79	11E	681158	623881	29	3	16	44	8	33	11884		

PHOTOGRAPHIC SUMMARY

FWD PAN CAMERA NO	194	0.2888	SLIT W/21	FILTER	3484	FILM						
OPN NO	FRA	FEET	ET	S-EL	S-DIR	EV	FULL	INT	PRI			
PRE-FLT	182	269.8										
1	2	8	18	47.6	ON	385	25.6	132.6	12.18	12.55	11.95	11.35
					OFF	383	23.4	133.7	12.18	12.58	11.98	11.38
2	2	1	16	42.3	ON	328	45.2	72.1	12.21	12.74	12.14	11.54
					OFF	329	46.8	74.7	12.21	12.75	12.15	11.55
2	2	2	22	58.2	ON	329	47.7	84.3	12.21	12.75	12.15	11.55
					OFF	328	47.9	88.3	12.21	12.75	12.15	11.55
3	2	1	188	285.7	ON	329	45.9	74.9	12.21	12.75	12.15	11.55
					OFF	328	47.8	93.1	12.21	12.75	12.15	11.55
4	2	1	119	314.8	ON	329	45.7	74.5	12.21	12.75	12.15	11.55
					OFF	327	47.7	94.4	12.21	12.75	12.15	11.55
6	3	1	35	92.6	ON	294	38.3	129.2	12.85	12.63	12.83	11.43
					OFF	288	26.2	131.7	12.82	12.56	11.96	11.36

6	3	2	11	29.1	ON 278	18.3	135.8	11.97	12.32	11.72	11.12
					OFF 276	16.8	135.5	11.96	12.25	11.65	11.85
7	3	1	13	34.4	ON 385	37.7	122.2	12.18	12.78	12.18	11.58
					OFF 383	36.5	123.7	12.18	12.69	12.89	11.49
7	3	2	16	42.3	ON 297	32.7	127.2	12.87	12.66	12.86	11.46
					OFF 295	31.8	128.6	12.86	12.64	12.84	11.44
7	3	3	11	29.1	ON 282	22.8	133.2	11.99	12.48	11.88	11.28
					OFF 281	21.4	133.8	11.99	12.44	11.84	11.24
8	5	1	78	286.3	ON 296	32.8	127.7	12.86	12.65	12.85	11.45
					OFF 283	23.4	132.9	12.88	12.58	11.98	11.38
9	5	1	44	116.4	ON 288	27.1	138.9	12.82	12.58	11.98	11.38
					OFF 281	21.9	133.4	11.99	12.46	11.86	11.26
10	5	8	28	52.9	ON 389	48.7	63.8	12.12	12.72	12.12	11.52
					OFF 311	42.2	66.6	12.13	12.73	12.13	11.53
15	5	1	33	87.3	ON 292	29.8	51.5	12.84	12.61	12.81	11.41
					OFF 297	32.5	54.2	12.87	12.65	12.85	11.45
15	5	2	13	34.4	ON 381	35.8	56.6	12.89	12.68	12.88	11.48
					OFF 383	36.2	58.8	12.18	12.69	12.89	11.49
15	5	3	58	132.3	ON 388	38.8	61.5	12.12	12.71	12.11	11.51
					OFF 313	42.4	67.9	12.14	12.73	12.13	11.53
16	2	1	7	18.5	ON 317	44.7	74.5	12.16	12.74	12.14	11.54
					OFF 317	45.8	75.7	12.16	12.74	12.14	11.54
16	2	8	14	37.8	ON 273	14.2	135.5	11.95	12.89	11.49	18.89
					OFF 271	12.1	135.8	11.94	11.93	11.33	18.73
18	2	1	14	37.8	ON 314	42.4	68.1	12.15	12.73	12.13	11.53
					OFF 315	43.1	78.3	12.15	12.73	12.13	11.53
18	2	2	28	52.9	ON 319	45.7	79.8	12.17	12.75	12.15	11.55
					OFF 319	46.2	82.6	12.17	12.75	12.15	11.55
19	4	1	52	137.5	ON 316	43.3	78.5	12.15	12.74	12.14	11.54
					OFF 319	45.4	78.7	12.17	12.74	12.14	11.54
19	4	2	22	58.2	ON 328	46.3	83.2	12.17	12.75	12.15	11.55
					OFF 328	46.5	87.2	12.17	12.75	12.15	11.55
22	4	1	11	29.1	ON 296	33.2	125.4	12.86	12.66	12.86	11.46
					OFF 295	31.9	126.3	12.86	12.65	12.85	11.45
22	4	2	11	29.1	ON 288	22.8	132.5	11.98	12.46	11.86	11.26
					OFF 279	28.5	132.9	11.97	12.41	11.81	11.21
23	4	1	45	119.8	ON 311	42.8	113.4	12.13	12.73	12.13	11.53
					OFF 386	38.6	118.9	12.11	12.71	12.11	11.51
23	4	2	16	42.3	ON 388	35.4	123.1	12.88	12.68	12.88	11.48
					OFF 297	33.7	124.5	12.87	12.67	12.87	11.47
23	4	3	11	29.1	ON 291	38.2	127.8	12.84	12.63	12.83	11.43
					OFF 289	28.8	128.5	12.83	12.61	12.81	11.41
23	4	4	11	29.1	ON 285	26.2	138.3	12.81	12.56	11.96	11.36
					OFF 283	24.8	138.9	12.88	12.53	11.93	11.33
24	3	1	119	314.8	ON 384	38.1	119.7	12.18	12.78	12.18	11.58
					OFF 285	26.6	129.8	12.81	12.57	11.97	11.37
31	2	1	14	37.8	ON 319	31.2	54.3	12.17	12.64	12.84	11.44
					OFF 321	32.4	55.6	12.18	12.65	12.85	11.45
32	2	1	28	52.9	ON 331	42.1	69.7	12.22	12.73	12.13	11.53
					OFF 332	43.1	72.6	12.23	12.73	12.13	11.53
32	4	8	15	39.7	ON 288	18.8	133.5	11.98	12.31	11.71	11.11

				OFF 279	15.9	133.8	11.98	12.28	11.68	11.88
34	2	1	15	39.7 ON 332	39.4	64.8	12.23	12.71	12.11	11.51
				OFF 333	48.2	66.2	12.23	12.72	12.12	11.52
34	2	2	21	55.5 ON 335	43.7	73.8	12.24	12.74	12.14	11.54
				OFF 335	44.3	77.3	12.24	12.74	12.14	11.54
35	4	1	54	142.8 ON 334	48.5	66.2	12.23	12.72	12.12	11.52
				OFF 335	43.2	73.6	12.24	12.74	12.14	11.54
35	4	2	23	68.8 ON 335	44.7	77.6	12.24	12.74	12.14	11.54
				OFF 335	45.1	81.5	12.24	12.74	12.14	11.54
36	4	1	117	389.5 ON 334	48.4	65.9	12.23	12.72	12.12	11.52
				OFF 335	45.2	82.8	12.24	12.74	12.14	11.54
38	4	1	12	31.7 ON 385	35.9	121.5	12.18	12.69	12.89	11.49
				OFF 383	34.6	122.5	12.18	12.68	12.88	11.48
38	4	2	11	29.1 ON 298	25.5	138.8	12.83	12.55	11.95	11.35
				OFF 288	24.8	138.4	12.82	12.51	11.91	11.31
39	4	1	46	121.7 ON 321	43.4	188.8	12.18	12.74	12.14	11.54
				OFF 315	48.4	114.1	12.15	12.72	12.12	11.52
39	4	2	17	45.8 ON 388	37.9	118.9	12.12	12.78	12.18	11.58
				OFF 386	36.2	128.5	12.11	12.69	12.89	11.49
39	4	3	12	31.7 ON 299	33.2	124.3	12.88	12.66	12.86	11.46
				OFF 298	31.8	125.1	12.87	12.65	12.85	11.45
39	4	4	11	29.1 ON 294	29.5	127.4	12.85	12.62	12.82	11.42
				OFF 293	28.8	127.9	12.85	12.68	12.88	11.48
48	3	1	119	314.8 ON 313	48.3	115.1	12.14	12.72	12.12	11.52
				OFF 295	29.7	126.7	12.86	12.62	12.82	11.42
47	4	1	35	92.6 ON 314	28.9	48.4	12.14	12.43	11.83	11.23
				OFF 318	24.6	58.7	12.17	12.53	11.93	11.33
48	2	1	19	58.3 ON 334	39.5	65.2	12.24	12.71	12.11	11.51
				OFF 335	48.6	68.8	12.24	12.72	12.12	11.52
48	4	8	15	39.7 ON 283	21.8	131.4	12.88	12.46	11.86	11.26
				OFF 281	19.8	131.9	11.99	12.38	11.78	11.18
58	5	1	97	256.6 ON 336	36.2	68.3	12.24	12.69	12.89	11.49
				OFF 339	42.2	72.1	12.26	12.73	12.13	11.53
51	4	1	53	148.2 ON 337	37.6	62.1	12.25	12.78	12.18	11.58
				OFF 338	48.9	68.8	12.25	12.72	12.12	11.52
51	4	2	23	68.8 ON 339	42.6	72.3	12.26	12.73	12.13	11.53
				OFF 338	43.4	75.8	12.25	12.74	12.14	11.54
53	4	1	19	58.3 ON 383	36.1	128.5	12.89	12.69	12.89	11.49
				OFF 388	34.2	122.3	12.88	12.67	12.87	11.47
54	6	1	36	95.2 ON 388	38.6	117.2	12.12	12.71	12.11	11.51
				OFF 382	35.3	128.9	12.89	12.68	12.88	11.48
54	6	2	11	29.1 ON 293	29.1	127.2	12.85	12.61	12.81	11.41
				OFF 291	27.6	127.8	12.84	12.59	11.99	11.39
54	6	3	56	148.1 ON 288	17.7	132.9	11.98	12.29	11.69	11.89
				OFF 275	18.4	134.5	11.95	11.78	11.18	18.58
55	6	1	185	277.7 ON 324	44.6	182.1	12.19	12.74	12.14	11.54
				OFF 389	38.8	116.2	12.12	12.71	12.11	11.51
55	6	2	12	31.7 ON 382	36.1	128.5	12.89	12.69	12.89	11.49
				OFF 381	34.8	121.5	12.88	12.68	12.88	11.48
55	6	3	11	29.1 ON 297	32.7	124.1	12.87	12.66	12.86	11.46
				OFF 296	31.4	124.9	12.86	12.64	12.84	11.44

56	5	1	88	211.6	ON 318	39.8	115.1	12.13	12.72	12.12	11.52
					OFF 298	33.8	123.4	12.07	12.66	12.86	11.46
63	3	1	35	92.6	ON 316	16.9	47.8	12.16	12.25	11.65	11.85
					OFF 321	28.6	48.8	12.18	12.42	11.82	11.22
63	3	2	14	37.8	ON 325	23.6	49.9	12.28	12.58	11.98	11.38
					OFF 327	25.8	51.8	12.28	12.54	11.94	11.34
64	2	1	28	52.9	ON 338	36.8	61.1	12.25	12.69	12.89	11.49
					OFF 338	38.8	63.6	12.25	12.78	12.18	11.58
65	7	8	9	23.8	ON 296	4.4	44.5	12.86	11.82	18.42	9.82
					OFF 297	5.6	45.8	12.87	11.19	18.59	9.99
65	7	1	72	198.4	ON 338	38.9	54.8	12.22	12.64	12.84	11.44
					OFF 334	36.7	61.6	12.23	12.69	12.89	11.49
66	5	1	97	256.6	ON 332	33.2	56.9	12.23	12.66	12.86	11.46
					OFF 335	48.1	67.3	12.24	12.72	12.12	11.52
67	2	1	188	285.7	ON 333	34.6	58.4	12.23	12.68	12.88	11.48
					OFF 334	41.6	78.7	12.24	12.73	12.13	11.53
68	2	1	119	314.8	ON 333	34.4	58.2	12.23	12.67	12.87	11.47
					OFF 334	42.1	71.8	12.24	12.73	12.13	11.53
69	2	1	26	68.8	ON 332	44.1	77.6	12.23	12.74	12.14	11.54
					OFF 331	44.7	81.8	12.22	12.74	12.14	11.54
69	2	2	19	58.3	ON 388	39.8	116.6	12.88	12.71	12.11	11.51
					OFF 297	37.2	118.6	12.87	12.78	12.18	11.58
78	4	1	11	29.1	ON 384	41.1	112.7	12.18	12.72	12.12	11.52
					OFF 383	48.8	114.1	12.89	12.72	12.12	11.52
78	4	2	11	29.1	ON 289	32.6	124.4	12.83	12.66	12.86	11.46
					OFF 288	31.2	125.1	12.82	12.64	12.84	11.44
71	4	1	46	121.7	ON 321	45.5	96.3	12.18	12.74	12.14	11.54
					OFF 314	44.8	103.6	12.15	12.74	12.14	11.54
71	4	2	16	42.3	ON 388	42.5	189.4	12.12	12.73	12.13	11.53
					OFF 385	41.2	111.6	12.11	12.73	12.13	11.53
71	4	3	11	29.1	ON 299	39.8	116.5	12.88	12.71	12.11	11.51
					OFF 297	37.8	117.7	12.87	12.78	12.18	11.58
71	4	4	11	29.1	ON 294	36.8	128.8	12.85	12.69	12.89	11.49
					OFF 293	34.7	121.7	12.85	12.68	12.88	11.48
72	3	1	122	322.7	ON 313	44.1	184.7	12.14	12.74	12.14	11.54
					OFF 294	36.2	128.8	12.85	12.69	12.89	11.49
74	4	8	21	55.5	ON 328	27.8	51.7	12.21	12.58	11.98	11.38
					OFF 338	29.8	53.5	12.22	12.61	12.81	11.41
79	5	1	34	89.9	ON 313	12.7	45.6	12.14	11.98	11.38	18.78
					OFF 318	16.5	47.8	12.16	12.23	11.63	11.83
79	5	2	14	37.8	ON 321	19.6	47.7	12.18	12.38	11.78	11.18
					OFF 323	21.1	48.7	12.19	12.43	11.83	11.23
79	5	3	53	148.2	ON 327	24.5	58.8	12.28	12.53	11.93	11.33
					OFF 331	29.5	53.7	12.22	12.62	12.82	11.42
88	2	1	28	52.9	ON 334	33.7	57.8	12.23	12.67	12.87	11.47
					OFF 334	35.3	59.3	12.24	12.68	12.88	11.48
82	6	1	73	193.1	ON 327	25.8	58.7	12.28	12.56	11.96	11.36
					OFF 332	32.4	56.1	12.23	12.65	12.85	11.45

PHOTOGRAPHIC SUMMARY

SECRET

AFT PAN	CAMERA NO	195	8.2000	SLIT	W/21	FILTER	3484	FILM			
OPN NO	FRA	FEET	ET	S-EL	S-DIR	EV	FULL	INT	PRI		
PRE-FLT	188	264.5									
1 2 0	18	47.6	ON 384	25.7	131.7	12.10	12.55	11.95	11.35		
			OFF 382	23.5	132.9	12.89	12.58	11.98	11.38		
2 2 1	16	42.3	ON 329	45.1	71.5	12.21	12.74	12.14	11.54		
			OFF 329	45.9	74.8	12.22	12.75	12.15	11.55		
2 2 2	22	58.2	ON 329	47.6	83.3	12.22	12.75	12.15	11.55		
			OFF 329	47.9	87.1	12.21	12.75	12.15	11.55		
3 2 1	109	288.3	ON 329	45.9	74.2	12.22	12.75	12.15	11.55		
			OFF 328	47.8	91.7	12.21	12.75	12.15	11.55		
4 2 1	128	317.4	ON 329	45.7	73.8	12.22	12.74	12.14	11.54		
			OFF 328	47.7	93.8	12.21	12.75	12.15	11.55		
6 3 1	35	92.6	ON 294	38.4	128.1	12.85	12.63	12.83	11.43		
			OFF 288	26.4	138.8	12.82	12.57	11.97	11.37		
6 3 2	11	29.1	ON 277	18.5	134.4	11.97	12.33	11.73	11.13		
			OFF 275	17.8	134.9	11.96	12.26	11.66	11.86		
7 3 1	13	34.4	ON 385	37.8	128.4	12.18	12.78	12.18	11.58		
			OFF 383	36.6	122.8	12.18	12.69	12.89	11.49		
7 3 2	16	42.3	ON 297	32.8	125.9	12.87	12.66	12.86	11.46		
			OFF 295	31.1	127.4	12.86	12.64	12.84	11.44		
7 3 3	11	29.1	ON 282	22.9	132.5	11.99	12.49	11.89	11.29		
			OFF 288	21.6	133.1	11.98	12.45	11.85	11.25		
8 5 1	66	174.6	ON 294	38.8	127.5	12.85	12.64	12.84	11.44		
			OFF 283	23.5	132.2	11.99	12.58	11.98	11.38		
10 5 8	28	52.9	ON 312	48.7	63.3	12.14	12.72	12.12	11.52		
			OFF 314	42.1	66.8	12.15	12.73	12.13	11.53		
15 5 1	33	87.3	ON 294	28.9	51.3	12.85	12.61	12.81	11.41		
			OFF 388	32.4	54.8	12.88	12.65	12.85	11.45		
15 5 2	14	37.8	ON 384	34.9	56.3	12.18	12.68	12.88	11.48		
			OFF 386	36.1	57.7	12.11	12.69	12.89	11.49		
15 5 3	58	132.3	ON 318	38.7	61.8	12.13	12.71	12.11	11.51		
			OFF 316	42.3	67.3	12.16	12.73	12.13	11.53		
16 2 1	19	58.3	ON 328	44.7	73.5	12.18	12.74	12.14	11.54		
			OFF 321	45.4	76.7	12.18	12.74	12.14	11.54		
16 2 8	15	39.7	ON 275	14.4	135.1	11.95	12.18	11.58	18.98		
			OFF 273	12.3	135.4	11.94	11.94	11.34	18.74		
18 2 1	14	37.8	ON 317	42.3	67.4	12.16	12.73	12.13	11.53		
			OFF 318	43.1	69.7	12.17	12.73	12.13	11.53		
18 2 2	21	55.5	ON 322	45.7	78.8	12.18	12.75	12.15	11.55		
			OFF 323	46.1	81.5	12.19	12.75	12.15	11.55		
19 4 1	53	148.2	ON 319	43.2	69.8	12.17	12.74	12.14	11.54		
			OFF 322	45.4	77.7	12.18	12.74	12.14	11.54		
19 4 2	23	68.8	ON 323	46.3	82.1	12.19	12.75	12.15	11.55		
			OFF 323	46.5	85.9	12.19	12.75	12.15	11.55		
28 4 1	116	386.8	ON 319	43.1	69.5	12.17	12.73	12.13	11.53		
			OFF 323	46.5	87.2	12.19	12.75	12.15	11.55		
22 4 1	11	29.1	ON 299	33.3	124.2	12.88	12.66	12.86	11.46		
			OFF 297	32.8	125.2	12.87	12.65	12.85	11.45		
22 4 2	18	26.5	ON 282	22.1	131.9	11.99	12.46	11.86	11.26		
			OFF 288	28.7	132.4	11.98	12.42	11.82	11.22		

SECRET

23	4	1	45	119.0	ON 314	42.0	111.3	12.15	12.73	12.13	11.53
					OFF 308	38.6	117.2	12.12	12.71	12.11	11.51
23	4	2	16	42.3	ON 302	35.5	121.8	12.09	12.68	12.08	11.48
					OFF 300	33.8	123.4	12.08	12.67	12.07	11.47
23	4	3	11	29.1	ON 293	30.3	126.8	12.05	12.63	12.03	11.43
					OFF 291	28.9	127.6	12.04	12.61	12.01	11.41
23	4	4	11	29.1	ON 287	26.3	129.6	12.02	12.57	11.97	11.37
					OFF 285	24.9	130.2	12.01	12.54	11.94	11.34
24	3	1	119	314.8	ON 307	38.2	118.2	12.11	12.71	12.11	11.51
					OFF 287	26.7	129.8	12.02	12.57	11.97	11.37
31	2	1	14	37.0	ON 322	31.1	53.9	12.18	12.64	12.04	11.44
					OFF 324	32.4	55.3	12.19	12.65	12.05	11.45
32	2	1	7	18.5	ON 335	42.2	68.8	12.24	12.73	12.13	11.53
					OFF 335	42.4	70.2	12.24	12.73	12.13	11.53
32	4	0	15	39.7	ON 282	18.2	133.1	11.99	12.32	11.72	11.12
					OFF 280	16.1	133.5	11.98	12.21	11.61	11.01
34	2	1	15	39.7	ON 334	39.3	63.4	12.24	12.71	12.11	11.51
					OFF 335	40.2	65.6	12.24	12.72	12.12	11.52
34	2	2	21	55.5	ON 337	43.6	72.8	12.25	12.74	12.14	11.54
					OFF 337	44.2	76.2	12.25	12.74	12.14	11.54
35	4	1	54	142.8	ON 336	40.5	65.5	12.24	12.72	12.12	11.52
					OFF 337	43.2	72.7	12.25	12.74	12.14	11.54
35	4	2	23	60.8	ON 337	44.6	76.5	12.25	12.74	12.14	11.54
					OFF 337	45.0	80.2	12.25	12.74	12.14	11.54
36	4	1	118	312.1	ON 336	40.3	65.3	12.24	12.72	12.12	11.52
					OFF 337	45.2	81.4	12.25	12.74	12.14	11.54
38	4	1	12	31.7	ON 306	36.0	120.3	12.11	12.69	12.09	11.49
					OFF 304	34.7	121.4	12.10	12.68	12.08	11.48
38	4	2	11	29.1	ON 298	25.6	129.4	12.03	12.55	11.95	11.35
					OFF 289	24.1	129.8	12.03	12.52	11.92	11.32
39	4	1	47	124.3	ON 323	43.4	105.9	12.19	12.74	12.14	11.54
					OFF 316	40.5	112.4	12.16	12.72	12.12	11.52
39	4	2	17	45.0	ON 310	38.0	117.6	12.13	12.70	12.10	11.50
					OFF 307	36.3	119.3	12.11	12.69	12.09	11.49
39	4	3	12	31.7	ON 300	33.3	123.4	12.08	12.66	12.06	11.46
					OFF 299	31.9	124.2	12.07	12.65	12.05	11.45
39	4	4	11	29.1	ON 295	29.6	126.6	12.06	12.62	12.02	11.42
					OFF 294	28.2	127.3	12.05	12.60	12.00	11.40
40	3	1	119	314.8	ON 315	40.3	113.5	12.15	12.72	12.12	11.52
					OFF 296	29.9	125.9	12.06	12.62	12.02	11.42
47	4	1	35	92.6	ON 315	20.8	48.3	12.15	12.42	11.82	11.22
					OFF 320	24.5	50.4	12.17	12.53	11.93	11.33
48	2	1	19	50.3	ON 336	39.5	64.5	12.25	12.71	12.11	11.51
					OFF 337	40.5	67.2	12.25	12.72	12.12	11.52
48	4	0	15	39.7	ON 284	22.0	131.0	12.00	12.45	11.86	11.26
					OFF 282	19.9	131.6	11.99	12.39	11.79	11.19
50	5	1	98	259.2	ON 338	36.2	59.7	12.25	12.69	12.09	11.49
					OFF 341	42.2	71.0	12.27	12.73	12.13	11.53
51	4	1	53	140.2	ON 339	37.5	61.5	12.26	12.70	12.10	11.50
					OFF 341	40.8	67.8	12.27	12.72	12.12	11.52
51	4	2	23	60.8	ON 341	42.6	71.2	12.27	12.73	12.13	11.53

				OFF 341	43.3	74.6	12.27	12.74	12.14	11.54	
53	4	1	19	58.3	ON 304	36.2	119.6	12.10	12.69	12.89	11.49
				OFF 302	34.3	121.4	12.89	12.67	12.87	11.47	
54	6	1	37	97.9	ON 310	38.7	116.8	12.13	12.71	12.11	11.51
				OFF 303	35.4	120.8	12.10	12.68	12.88	11.48	
54	6	2	11	29.1	ON 294	29.2	126.6	12.85	12.61	12.81	11.41
				OFF 292	27.8	127.2	12.84	12.59	11.99	11.39	
54	6	3	56	148.1	ON 281	17.9	132.6	11.99	12.38	11.78	11.18
				OFF 275	18.7	134.3	11.96	11.88	11.28	10.68	
55	6	1	106	280.4	ON 327	44.6	100.1	12.20	12.74	12.14	11.54
				OFF 311	38.9	115.8	12.13	12.71	12.11	11.51	
55	6	2	12	31.7	ON 304	36.2	119.6	12.18	12.69	12.89	11.49
				OFF 302	34.9	120.6	12.89	12.68	12.88	11.48	
55	6	3	11	29.1	ON 299	32.9	123.4	12.87	12.66	12.86	11.46
				OFF 297	31.5	124.2	12.87	12.64	12.84	11.44	
56	5	1	81	214.2	ON 312	39.9	113.9	12.14	12.72	12.12	11.52
				OFF 299	33.1	122.6	12.88	12.66	12.86	11.46	
63	3	1	35	92.6	ON 319	16.8	46.9	12.17	12.25	11.65	11.85
				OFF 324	28.6	48.6	12.19	12.41	11.81	11.21	
63	3	2	14	37.8	ON 328	23.5	49.6	12.21	12.58	11.98	11.38
				OFF 329	24.9	50.7	12.22	12.54	11.94	11.34	
64	2	1	20	52.9	ON 340	36.7	60.4	12.26	12.69	12.89	11.49
				OFF 341	38.8	62.8	12.27	12.70	12.10	11.50	
65	7	0	9	23.8	ON 297	4.3	44.5	12.87	11.88	10.48	9.88
				OFF 298	5.4	44.9	12.87	11.18	10.58	9.98	
65	7	1	72	190.4	ON 332	38.8	54.3	12.23	12.64	12.84	11.44
				OFF 336	36.6	60.8	12.24	12.69	12.89	11.49	
66	5	1	98	259.2	ON 334	33.1	56.4	12.24	12.66	12.86	11.46
				OFF 337	40.0	66.2	12.25	12.72	12.12	11.52	
67	2	1	109	288.3	ON 335	34.5	57.7	12.24	12.67	12.87	11.47
				OFF 337	41.6	69.4	12.25	12.73	12.13	11.53	
69	2	1	27	71.4	ON 334	44.1	75.8	12.24	12.74	12.14	11.54
				OFF 333	44.6	79.8	12.23	12.74	12.14	11.54	
69	2	2	19	58.3	ON 301	39.1	115.6	12.88	12.71	12.11	11.51
				OFF 298	37.3	117.7	12.87	12.70	12.10	11.50	
70	4	1	11	29.1	ON 306	41.2	111.6	12.11	12.72	12.12	11.52
				OFF 304	40.1	113.0	12.10	12.72	12.12	11.52	
70	4	2	11	29.1	ON 290	32.7	123.8	12.83	12.66	12.86	11.46
				OFF 289	31.3	124.6	12.83	12.64	12.84	11.44	
71	4	1	46	121.7	ON 323	45.5	94.3	12.19	12.74	12.14	11.54
				OFF 316	44.8	101.9	12.16	12.74	12.14	11.54	
71	4	2	16	42.3	ON 309	42.6	100.1	12.13	12.73	12.13	11.53
				OFF 307	41.3	110.4	12.11	12.73	12.13	11.53	
71	4	3	11	29.1	ON 308	39.1	115.6	12.88	12.71	12.11	11.51
				OFF 298	37.9	116.9	12.87	12.70	12.10	11.50	
71	4	4	11	29.1	ON 295	36.1	120.8	12.86	12.69	12.89	11.49
				OFF 293	34.8	121.0	12.85	12.68	12.88	11.48	
72	3	1	122	322.7	ON 314	44.1	103.1	12.15	12.74	12.14	11.54
				OFF 295	36.3	119.2	12.86	12.69	12.89	11.49	
74	4	0	21	55.5	ON 330	26.9	51.3	12.22	12.58	11.98	11.38
				OFF 332	28.9	53.0	12.23	12.61	12.81	11.41	

79 5 1	35	92.6	ON 314	12.6	45.4	12.15	11.97	11.37	10.77
			OFF 319	16.5	46.7	12.17	12.23	11.63	11.03
79 5 2	14	37.8	ON 323	19.5	47.5	12.19	12.37	11.77	11.17
			OFF 325	21.8	48.4	12.28	12.43	11.83	11.23
79 5 3	53	148.2	ON 329	24.4	49.7	12.21	12.53	11.93	11.33
			OFF 333	29.4	53.2	12.23	12.62	12.82	11.42
88 2 1	28	52.9	ON 336	33.7	56.3	12.24	12.67	12.87	11.47
			OFF 336	35.2	58.5	12.25	12.68	12.88	11.48
82 6 1	78	286.3	ON 329	21.8	56.5	12.21	12.45	11.85	11.25
			OFF 335	32.8	55.8	12.24	12.66	12.86	11.46
82 6 2	16	42.3	ON 337	32.1	65.8	12.25	12.65	12.85	11.45
			OFF 337	38.7	63.8	12.25	12.71	12.11	11.51

STELLAR-INDEX SUMMARY

CAMERA DATA ET FILM FILTER GRID ASSEMBLY NOD891

STELLAR 2.8 4481 NONE 185
INDEX 1/500 4488 W/21 189

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	14	1.39	2.77										
1 2 0	3	8.38	8.59	3	28	9	2	51	158W	2	48	155W	48
2 2 1	3	8.38	8.59	4	39	45	1	44	62E	1	46	64E	38
2 2 2	3	8.38	8.59	4	42	34	1	53	73E	1	55	77E	52
3 2 1	16	1.58	3.17	6	9	38	1	46	42E	1	58	61E	243
4 2 1	17	1.68	3.37	7	38	38	1	46	28E	1	59	48E	267
6 3 1	6	8.59	1.19	18	51	46	2	55	82E	2	58	89E	92
6 3 2	1	8.18	8.28	18	56	8	2	41	98E	2	39	99E	32
7 3 1	3	8.38	8.59	12	17	48	2	63	48E	2	61	44E	35
7 3 2	2	8.28	8.48	12	19	51	2	58	55E	2	56	58E	41
7 3 3	2	8.28	8.48	12	23	38	2	46	71E	2	45	73E	29
8 5 1	11	1.89	2.18	13	49	12	2	57	34E	2	47	48E	198
9 5 1	6	8.59	1.19	15	28	13	2	51	21E	2	45	27E	113
18 5 8	3	8.38	8.59	16	29	59	1	38	122W	1	41	128W	58
15 5 1	5	8.58	8.99	23	58	13	1	21	115E	1	26	118E	84
15 5 2	3	8.38	8.59	23	52	41	1	38	128E	1	32	121E	34
15 5 3	7	8.69	1.39	23	54	38	1	36	124E	1	43	129E	121
16 2 1	1	8.18	8.28	1	27	28	1	49	112E	1	58	113E	18
16 2 8	2	8.28	8.48	1	48	28	2	33	121W	2	31	119W	41
18 2 1	2	8.28	8.48	4	23	46	1	44	62E	1	46	64E	35
18 2 2	3	8.38	8.59	4	26	35	1	53	73E	1	85	76E	49
19 4 1	8	8.79	1.58	5	53	38	1	47	42E	1	53	58E	122
19 4 2	3	8.38	8.59	5	56	37	1	56	55E	1	59	68E	53
22 4 1	2	8.28	8.48	18	35	38	2	55	81E	2	54	84E	38
22 4 2	1	8.18	8.28	18	39	53	2	41	98E	2	48	99E	29
23 4 1	7	8.69	1.39	12	8	7	2	64	29E	2	61	44E	118
23 4 2	3	8.38	8.59	12	3	34	2	58	54E	2	56	58E	41
23 4 3	2	8.28	8.48	12	5	48	2	51	65E	2	58	67E	29
23 4 4	1	8.18	8.28	12	7	21	2	46	71E	2	45	72E	29
24 3 1	18	1.78	3.56	13	31	19	2	61	24E	2	47	48E	292

31	2	1	2	0.20	0.40	23	36	7	1	30	119E	1	32	120E	34
32	2	1	3	0.30	0.59	1	18	44	1	49	112E	1	52	115E	46
32	4	0	3	0.30	0.59	1	31	43	2	33	121W	2	31	120W	41
34	2	1	2	0.20	0.40	4	7	5	1	44	62E	1	46	64E	35
34	2	2	4	0.40	0.79	4	9	54	1	53	72E	1	56	76E	49
35	4	1	8	0.79	1.58	5	36	47	1	47	42E	1	53	58E	122
35	4	2	3	0.30	0.59	5	39	54	1	56	55E	1	59	60E	52
36	4	1	17	1.68	3.37	7	5	43	1	47	19E	1	60	48E	264
38	4	1	2	0.20	0.40	18	18	41	2	55	81E	2	54	84E	30
38	4	2	2	0.20	0.40	18	23	4	2	41	97E	2	39	99E	29
39	4	1	7	0.69	1.39	11	43	16	2	64	28E	2	61	44E	111
39	4	2	3	0.30	0.59	11	46	42	2	58	54E	2	56	58E	41
39	4	3	2	0.20	0.40	11	48	56	2	51	65E	2	50	67E	30
39	4	4	1	0.10	0.20	11	50	30	2	46	70E	2	45	72E	29
40	3	1	18	1.78	3.56	13	14	25	2	61	24E	2	47	47E	293
47	4	1	5	0.50	0.99	23	16	26	1	21	115E	1	26	117E	84
48	2	1	3	0.30	0.59	0	53	27	1	49	112E	1	51	115E	45
48	4	0	2	0.20	0.40	1	14	25	2	33	121W	2	31	120W	42
50	5	1	15	1.48	2.97	3	49	40	1	44	62E	1	55	76E	218
51	4	1	7	0.69	1.39	5	19	19	1	47	41E	1	53	49E	121
51	4	2	4	0.40	0.79	5	22	26	1	56	55E	1	58	59E	52
53	4	1	3	0.30	0.59	8	33	20	2	52	109E	2	49	112E	40
54	6	1	5	0.50	0.99	10	1	2	2	55	81E	2	51	88E	91
54	6	2	2	0.20	0.40	18	5	25	2	41	97E	2	40	98E	29
54	6	3	9	0.89	1.78	10	9	45	2	26	107E	2	17	111E	152
55	6	1	15	1.48	2.97	11	25	33	2	64	20E	2	56	57E	250
55	6	2	2	0.20	0.40	11	31	15	2	51	64E	2	50	66E	30
55	6	3	2	0.20	0.40	11	32	49	2	46	70E	2	45	72E	29
56	5	1	11	1.09	2.18	12	58	16	2	57	33E	2	47	47E	197
63	3	1	6	0.59	1.19	22	58	17	1	21	115E	1	26	117E	83
63	3	2	2	0.20	0.40	23	0	44	1	30	119E	1	32	120E	34
64	2	1	3	0.30	0.59	0	35	14	1	49	112E	1	52	115E	46
65	7	0	2	0.20	0.40	1	51	46	1	5	63E	1	7	64E	24
65	7	1	18	0.99	1.98	2	1	31	1	41	81E	1	50	90E	162
66	5	1	14	1.39	2.77	3	31	24	1	44	62E	1	56	76E	217
67	2	1	16	1.58	3.17	5	0	57	1	47	41E	1	58	60E	241
68	2	1	17	1.68	3.37	6	29	47	1	47	19E	1	59	48E	265
69	2	1	4	0.40	0.79	8	4	40	1	63	29E	1	64	30E	60
69	2	2	3	0.30	0.59	8	14	53	2	52	109E	2	49	112E	49
70	4	1	2	0.20	0.40	9	42	32	2	55	81E	2	54	83E	30
70	4	2	2	0.20	0.40	9	45	54	2	41	97E	2	40	98E	30
71	4	1	7	0.69	1.39	11	7	1	2	64	28E	2	61	43E	111
71	4	2	3	0.30	0.59	11	18	27	2	58	54E	2	56	57E	42
71	4	3	1	0.10	0.20	11	12	41	2	51	65E	2	50	66E	30
71	4	4	2	0.20	0.40	11	14	15	2	46	70E	2	45	72E	29
72	3	1	18	1.78	3.56	12	30	3	2	61	23E	2	47	47E	294
74	4	0	3	0.30	0.59	15	20	5	1	38	122W	1	41	120W	50
79	5	1	5	0.50	0.99	22	39	21	1	20	115E	1	25	117E	82
79	5	2	3	0.30	0.59	22	41	40	1	29	119E	1	31	120E	34
79	5	3	8	0.79	1.58	22	43	37	1	36	123E	1	43	120E	121
80	2	1	3	0.30	0.59	0	16	14	1	49	112E	1	51	115E	47

~~SECRET~~

PAGE 28

82 6 1 10 0.99 1.98 3 10 46 1 38 57E 1 48 65E 164

NOTE - DUE TO THE UNCERTAINTY OF THE PERIOD, THE OPERATIONS ON REVS 1-4 ARE SLIGHTLY BIASED.

NOTE - TLM DATA INDICATE NORMAL SYSTEM PERFORMANCE.

NOTE - OPERATION 82-86-81 FOR PAN CAMERA 194 AND OPERATION 82-86-82 FOR PAN CAMERA 195 ACTUALLY CONSISTED OF FIVE MORE FRAMES EACH THAN WAS REPORTED. THESE FRAMES WILL BE INCLUDED IN THE B BUCKET.

NOTE - DUE TO THE NECESSITY TO BIAS THE H-TIMER FOR RECOVERY DURING THE REV 82 [REDACTED] ACQUISITION, OPERATIONS 82-86-81 AND 82-86-82 DO NOT COVER THE PROGRAMED LATITUDES.

~~SECRET~~
~~SECRET~~

- A. 1833-1
- B. DRY
- C. PERFORMANCE ESTIMATE PART TWO

RATE ESTIMATE

FWD PAN CAMERA NUMBER 194

OPN NO	FR	R	A	TUR/ DUR	INST CPS	INST ANG VEL	SCAN R/SEC	RATE I/SEC	PCT CALIB	RATE REQD	
1 2 0	18	2	9	ON	2751	0.4046	0.03414	2.542	61.01	-3.2	1.2
				OFF	48	0.4026	0.03397	2.529	60.71	-3.2	1.4
2 2 1	16	2	9	ON	1809	0.4363	0.03681	2.741	65.79	-3.2	1.1
				OFF	38	0.4366	0.03684	2.743	65.84	-3.2	1.1
2 2 2	22	2	9	ON	1978	0.4368	0.03685	2.744	65.86	-3.2	1.0
				OFF	52	0.4363	0.03681	2.741	65.79	-3.2	1.0
3 2 1	108	2	9	ON	1854	0.4367	0.03685	2.744	65.86	-3.2	1.1
				OFF	243	0.4352	0.03672	2.734	65.63	-3.2	1.0
4 2 1	119	2	9	ON	1854	0.4367	0.03685	2.744	65.85	-3.2	1.2
				OFF	267	0.4347	0.03668	2.731	65.55	-3.2	1.0
6 3 1	35	4	8	ON	2562	0.3906	0.03295	2.454	58.89	-3.2	-3.7
				OFF	92	0.3828	0.03238	2.485	57.72	-3.2	-4.4
6 3 2	11	4	8	ON	2823	0.3698	0.03114	2.319	55.65	-3.2	-5.4
				OFF	32	0.3671	0.03097	2.306	55.38	-3.2	-5.3
7 3 1	13	4	8	ON	2376	0.4058	0.03418	2.545	61.08	-3.2	-2.5
				OFF	35	0.4028	0.03399	2.531	60.74	-3.2	-2.6
7 3 2	16	4	8	ON	2587	0.3951	0.03334	2.482	59.58	-3.2	-3.4
				OFF	41	0.3919	0.03307	2.463	59.10	-3.2	-3.6
7 3 3	11	4	8	ON	2734	0.3752	0.03166	2.358	56.58	-3.2	-5.3
				OFF	29	0.3733	0.03150	2.345	56.29	-3.2	-5.4
8 5 1	78	4	8	ON	2529	0.3933	0.03319	2.471	59.31	-3.2	-3.7
				OFF	198	0.3762	0.03174	2.364	56.73	-3.2	-5.3
9 5 1	44	4	8	ON	2651	0.3828	0.03238	2.485	57.72	-3.2	-4.8
				OFF	113	0.3733	0.03150	2.345	56.29	-3.2	-5.6
10 5 0	20	4	8	ON	1497	0.4104	0.03463	2.579	61.89	-2.4	-4.7
				OFF	58	0.4134	0.03488	2.598	62.34	-2.4	-4.3
15 5 1	33	4	8	ON	1213	0.3879	0.03273	2.437	58.49	-2.4	-7.1
				OFF	84	0.3949	0.03332	2.481	59.55	-2.4	-6.7
15 5 2	13	4	8	ON	1368	0.4004	0.03379	2.516	60.38	-2.4	-6.1
				OFF	34	0.4029	0.03399	2.531	60.75	-2.4	-5.9
15 5 3	58	4	8	ON	1469	0.4086	0.03447	2.567	61.61	-2.4	-5.3
				OFF	121	0.4158	0.03509	2.613	62.71	-2.4	-4.2
16 2 1	7	4	8	ON	1700	0.4210	0.03553	2.645	63.49	-2.4	-3.3
				OFF	18	0.4216	0.03557	2.649	63.57	-2.4	-3.2
16 2 0	14	4	8	ON	2960	0.3627	0.03061	2.279	54.70	-2.4	-5.1
				OFF	41	0.3603	0.03048	2.264	54.33	-2.4	-5.0
18 2 1	14	4	8	ON	1688	0.4170	0.03518	2.620	62.88	-2.4	-4.1
				OFF	35	0.4185	0.03531	2.629	63.11	-2.4	-3.9
18 2 2	20	4	8	ON	1777	0.4234	0.03573	2.660	63.85	-2.4	-2.8
				OFF	49	0.4244	0.03581	2.666	63.99	-2.4	-2.4
19 4 1	52	4	8	ON	1654	0.4191	0.03537	2.634	63.21	-2.4	-3.8
				OFF	122	0.4233	0.03572	2.660	63.83	-2.4	-2.8

19	4	2	22	4	8 ON	1841	0.4246	0.03583	2.668	64.03	-2.4	-2.4
					OFF	53	0.4251	0.03587	2.671	64.10	-2.4	-2.1
22	4	1	11	4	8 ON	2559	0.3937	0.03322	2.474	59.37	-2.4	-3.6
					OFF	30	0.3914	0.03302	2.459	59.02	-2.4	-3.8
22	4	2	11	4	8 ON	2822	0.3719	0.03138	2.337	56.00	-2.4	-5.3
					OFF	29	0.3701	0.03123	2.326	55.81	-2.4	-5.3
23	4	1	45	4	8 ON	2299	0.4131	0.03486	2.596	62.30	-2.4	-1.9
					OFF	110	0.4059	0.03425	2.551	61.21	-2.4	-2.4
23	4	2	16	4	8 ON	2586	0.3982	0.03350	2.502	60.05	-2.4	-3.2
					OFF	41	0.3950	0.03333	2.482	59.57	-2.4	-3.4
23	4	3	11	4	8 ON	2640	0.3866	0.03262	2.429	58.30	-2.4	-4.3
					OFF	29	0.3843	0.03242	2.414	57.94	-2.4	-4.5
23	4	4	11	4	8 ON	2733	0.3782	0.03191	2.376	57.03	-2.4	-5.1
					OFF	29	0.3762	0.03174	2.364	56.73	-2.4	-5.2
24	3	1	119	4	8 ON	2433	0.4040	0.03409	2.530	60.92	-2.4	-2.7
					OFF	292	0.3792	0.03200	2.383	57.18	-2.4	-5.0
31	2	1	14	3	8 ON	1459	0.4240	0.03578	2.664	63.94	-2.4	-1.0
					OFF	34	0.4261	0.03596	2.678	64.26	-2.4	-0.9
32	2	1	20	3	8 ON	1799	0.4401	0.03714	2.765	66.37	-2.4	0.6
					OFF	46	0.4408	0.03720	2.770	66.48	-2.4	0.8
32	4	0	15	3	8 ON	3059	0.3726	0.03144	2.341	56.19	-2.4	-2.0
					OFF	41	0.3703	0.03125	2.327	55.84	-2.4	-2.6
34	2	1	15	3	8 ON	1706	0.4415	0.03726	2.774	66.58	-1.5	1.1
					OFF	35	0.4426	0.03735	2.781	66.75	-1.5	1.2
34	2	2	21	3	8 ON	1876	0.4453	0.03757	2.790	67.15	-1.5	1.0
					OFF	49	0.4455	0.03759	2.799	67.18	-1.5	1.9
35	4	1	54	3	8 ON	1753	0.4431	0.03738	2.784	66.81	-1.5	1.2
					OFF	122	0.4453	0.03757	2.798	67.15	-1.5	1.7
35	4	2	23	3	8 ON	1940	0.4454	0.03759	2.799	67.17	-1.5	2.0
					OFF	52	0.4451	0.03755	2.796	67.11	-1.5	2.1
36	4	1	117	3	8 ON	1752	0.4430	0.03738	2.784	66.81	-1.5	1.2
					OFF	264	0.4447	0.03752	2.794	67.06	-1.5	2.1
38	4	1	12	3	8 ON	2659	0.4049	0.03417	2.544	61.06	-1.5	-1.0
					OFF	30	0.4024	0.03396	2.529	60.68	-1.5	-1.2
38	4	2	11	3	8 ON	2922	0.3850	0.03248	2.419	58.05	-1.5	-2.1
					OFF	29	0.3832	0.03234	2.408	57.79	-1.5	-2.0
39	4	1	46	3	8 ON	2398	0.4267	0.03600	2.681	64.34	-1.5	1.0
					OFF	111	0.4183	0.03530	2.628	63.08	-1.5	0.3
39	4	2	17	3	8 ON	2605	0.4098	0.03457	2.575	61.79	-1.5	-0.5
					OFF	41	0.4063	0.03420	2.553	61.27	-1.5	-0.8
39	4	3	12	3	8 ON	2738	0.3976	0.03355	2.498	59.96	-1.5	-1.7
					OFF	30	0.3957	0.03338	2.486	59.66	-1.5	-1.0
39	4	4	11	3	8 ON	2832	0.3910	0.03299	2.457	58.97	-1.5	-2.0
					OFF	29	0.3893	0.03285	2.446	58.70	-1.5	-2.0
40	3	1	119	3	8 ON	2531	0.4162	0.03512	2.615	62.76	-1.5	0.1
					OFF	293	0.3918	0.03306	2.462	59.08	-1.5	-1.9
47	4	1	35	3	8 ON	1311	0.4165	0.03514	2.617	62.80	-1.5	-1.9
					OFF	84	0.4230	0.03569	2.658	63.79	-1.5	-1.6
48	2	1	19	3	8 ON	1798	0.4442	0.03748	2.791	66.98	-1.5	0.6
					OFF	45	0.4449	0.03754	2.796	67.09	-1.5	0.8
48	4	0	15	3	8 ON	3056	0.3763	0.03175	2.364	56.74	-1.5	-2.5

					OFF	42	0.3739	0.03155	2.349	56.38	-1.5	-2.3
58	5	1	97	3	8 ON	1785	0.4457	0.03761	2.888	67.21	-0.6	0.8
					OFF	218	0.4497	0.03795	2.826	67.82	-0.6	1.9
51	4	1	53	3	8 ON	1751	0.4472	0.03774	2.818	67.44	-0.6	1.1
					OFF	121	0.4495	0.03793	2.824	67.78	-0.6	1.7
51	4	2	23	3	8 ON	1938	0.4497	0.03794	2.825	67.81	-0.6	1.9
					OFF	52	0.4493	0.03791	2.823	67.75	-0.6	2.1
53	4	1	19	3	8 ON	2728	0.4823	0.03395	2.528	68.67	-0.6	-1.4
					OFF	48	0.3988	0.03365	2.586	68.14	-0.6	-1.6
54	6	1	36	3	8 ON	2657	0.4889	0.03458	2.569	61.66	-0.6	-0.8
					OFF	91	0.4888	0.03382	2.519	68.45	-0.6	-1.5
54	6	2	11	3	8 ON	2928	0.3887	0.03288	2.443	58.62	-0.6	-2.8
					OFF	29	0.3878	0.03265	2.431	58.36	-0.6	-1.9
54	6	3	56	3	8 ON	3188	0.3725	0.03143	2.348	56.16	-0.6	-1.5
					OFF	152	0.3648	0.03078	2.292	55.88	-0.6	-0.5
55	6	1	105	3	8 ON	2395	0.4389	0.03636	2.788	64.99	-0.6	1.4
					OFF	258	0.4183	0.03462	2.578	61.87	-0.6	-0.6
55	6	2	12	3	8 ON	2737	0.4815	0.03388	2.523	68.54	-0.6	-1.5
					OFF	38	0.3995	0.03371	2.518	68.24	-0.6	-1.6
55	6	3	11	3	8 ON	2831	0.3948	0.03331	2.481	59.54	-0.6	-1.8
					OFF	29	0.3938	0.03316	2.478	59.27	-0.6	-1.8
56	5	1	88	3	8 ON	2625	0.4118	0.03475	2.587	62.18	-0.6	-0.5
					OFF	197	0.3956	0.03338	2.486	59.66	-0.6	-1.8
63	3	1	35	3	8 ON	1311	0.4284	0.03547	2.641	63.39	-0.6	-1.9
					OFF	83	0.4269	0.03682	2.683	64.38	-0.6	-1.6
63	3	2	14	3	8 ON	1458	0.4328	0.03645	2.714	65.14	-0.6	-1.1
					OFF	34	0.4342	0.03663	2.728	65.47	-0.6	-1.8
64	2	1	28	3	8 ON	1797	0.4484	0.03783	2.817	67.61	-0.6	1.8
					OFF	46	0.4491	0.03798	2.822	67.73	-0.6	1.2
65	7	8	9	3	8 ON	1859	0.3938	0.03323	2.474	59.38	-1.7	-3.6
					OFF	24	0.3952	0.03334	2.483	59.59	-1.7	-3.8
65	7	1	72	3	8 ON	1643	0.4388	0.03696	2.752	66.85	-1.7	-1.3
					OFF	162	0.4433	0.03741	2.786	66.85	-1.7	-0.3
66	5	1	97	3	8 ON	1786	0.4486	0.03718	2.768	66.44	-1.7	-1.8
					OFF	217	0.4446	0.03751	2.793	67.84	-1.7	0.2
67	2	1	188	3	8 ON	1749	0.4428	0.03738	2.777	66.65	-1.7	-0.7
					OFF	241	0.4442	0.03748	2.791	66.98	-1.7	0.5
68	2	1	119	3	8 ON	1749	0.4428	0.03738	2.777	66.65	-1.7	-0.8
					OFF	265	0.4438	0.03745	2.789	66.93	-1.7	0.5
69	2	1	26	3	8 ON	2113	0.4413	0.03724	2.773	66.55	-1.7	0.6
					OFF	68	0.4391	0.03785	2.759	66.22	-1.7	0.6
69	2	2	19	3	8 ON	2725	0.3979	0.03358	2.588	68.81	-1.7	-3.8
					OFF	49	0.3944	0.03328	2.478	59.48	-1.7	-3.2
78	4	1	11	3	8 ON	2655	0.4844	0.03412	2.541	68.98	-1.7	-2.4
					OFF	38	0.4819	0.03391	2.525	68.61	-1.7	-2.6
78	4	2	11	3	8 ON	2917	0.3845	0.03244	2.416	57.98	-1.7	-3.7
					OFF	38	0.3827	0.03229	2.484	57.78	-1.7	-3.6
71	4	1	46	3	8 ON	2394	0.4261	0.03595	2.677	64.25	-1.7	-0.3
					OFF	111	0.4177	0.03524	2.624	62.99	-1.7	-1.8
71	4	2	16	3	8 ON	2681	0.4892	0.03453	2.571	61.71	-1.7	-1.9
					OFF	42	0.4858	0.03424	2.558	61.19	-1.7	-2.2

71	4	3	11	3	8	ON	2735	0.3971	0.03351	2.495	59.88	-1.7	-3.2
						OFF	30	0.3951	0.03334	2.482	59.58	-1.7	-3.3
71	4	4	11	3	8	ON	2829	0.3985	0.03295	2.453	58.88	-1.7	-3.5
						OFF	29	0.3887	0.03280	2.442	58.61	-1.7	-3.5
72	3	1	122	3	8	ON	2527	0.4156	0.03587	2.611	62.67	-1.7	-1.3
						OFF	294	0.3912	0.03301	2.458	58.99	-1.7	-3.5
74	4	0	21	3	8	ON	1593	0.4355	0.03675	2.736	65.67	-1.7	-2.1
						OFF	50	0.4379	0.03695	2.751	66.03	-1.7	-1.8
79	5	1	34	3	8	ON	1310	0.4155	0.03586	2.611	62.66	-1.7	-4.4
						OFF	82	0.4219	0.03560	2.651	63.62	-1.7	-4.0
79	5	2	14	3	8	ON	1457	0.4270	0.03603	2.683	64.39	-1.7	-3.5
						OFF	34	0.4291	0.03621	2.696	64.71	-1.7	-3.3
79	5	3	53	3	8	ON	1565	0.4340	0.03662	2.727	65.44	-1.7	-2.7
						OFF	121	0.4397	0.03710	2.763	66.31	-1.7	-1.9
80	2	1	20	3	8	ON	1794	0.4432	0.03740	2.785	66.03	-1.7	-1.2
						OFF	47	0.4440	0.03746	2.790	66.95	-1.7	-0.9
82	6	1	73	3	8	ON	1567	0.4340	0.03662	2.727	65.45	-1.7	-3.2
						OFF	164	0.4413	0.03724	2.773	66.55	-1.7	-1.8

RATE ESTIMATE

AFT PAN CAMERA NUMBER 195

OPN NO	FR	R	A	TUR/ DUR	INST CPS	INST ANG VEL	SCAN R/SEC	RATE I/SEC	PCT CALIB	RATE REQD			
1	2	0	10	2	9	ON	2763	0.4039	0.03400	2.530	60.91	-4.3	1.2
						OFF	48	0.4018	0.03390	2.524	60.59	-4.3	1.4
2	2	1	16	2	9	ON	1821	0.4371	0.03688	2.746	65.91	-4.3	1.2
						OFF	38	0.4375	0.03691	2.749	65.97	-4.3	1.2
2	2	2	22	2	9	ON	1990	0.4376	0.03693	2.750	65.99	-4.3	1.2
						OFF	52	0.4371	0.03688	2.747	65.92	-4.3	1.2
3	2	1	109	2	9	ON	1866	0.4376	0.03692	2.749	65.98	-4.3	1.3
						OFF	243	0.4360	0.03679	2.739	65.74	-4.3	1.2
4	2	1	120	2	9	ON	1866	0.4376	0.03692	2.749	65.98	-4.3	1.3
						OFF	267	0.4355	0.03674	2.736	65.67	-4.3	1.2
6	3	1	35	4	8	ON	2574	0.3901	0.03292	2.451	58.03	-4.3	-3.6
						OFF	92	0.3821	0.03224	2.401	57.63	-4.3	-4.4
6	3	2	11	4	8	ON	2835	0.3600	0.03105	2.312	55.49	-4.3	-5.5
						OFF	32	0.3660	0.03088	2.299	55.19	-4.3	-5.4
7	3	1	13	4	8	ON	2388	0.4050	0.03417	2.545	61.07	-4.3	-2.3
						OFF	35	0.4027	0.03398	2.530	60.73	-4.3	-2.5
7	3	2	16	4	8	ON	2519	0.3940	0.03331	2.480	59.53	-4.3	-3.3
						OFF	41	0.3915	0.03304	2.460	59.04	-4.3	-3.6
7	3	3	11	4	8	ON	2746	0.3744	0.03159	2.352	56.45	-4.3	-5.3
						OFF	29	0.3724	0.03142	2.340	56.15	-4.3	-5.4
8	5	1	66	4	8	ON	2572	0.3903	0.03293	2.452	58.05	-4.3	-3.9
						OFF	166	0.3754	0.03167	2.359	56.61	-4.3	-5.3
10	5	0	20	4	8	ON	1509	0.4144	0.03496	2.603	62.40	-2.7	-3.0
						OFF	50	0.4174	0.03522	2.623	62.95	-2.7	-3.4
15	5	1	33	4	8	ON	1225	0.3909	0.03298	2.456	58.95	-2.7	-6.5
						OFF	84	0.3902	0.03360	2.502	60.05	-2.7	-6.0
15	5	2	14	4	8	ON	1372	0.4039	0.03400	2.530	60.91	-2.7	-5.4

					OFF	34	0.4865	0.83438	2.554	61.29	-2.7	-5.1
15	5	3	58	4	8 ON	1481	0.4124	0.83488	2.591	62.19	-2.7	-4.4
					OFF	121	0.4199	0.83543	2.639	63.33	-2.7	-3.3
16	2	1	19	4	8 ON	1712	0.4254	0.83589	2.673	64.14	-2.7	-2.3
					OFF	45	0.4268	0.83682	2.682	64.36	-2.7	-1.9
16	2	8	15	4	8 ON	2972	0.3648	0.83878	2.292	55.81	-2.7	-4.3
					OFF	41	0.3623	0.83857	2.276	54.63	-2.7	-4.1
18	2	1	14	4	8 ON	1628	0.4211	0.83553	2.646	63.58	-2.7	-3.1
					OFF	35	0.4227	0.83567	2.656	63.74	-2.7	-2.9
18	2	2	21	4	8 ON	1789	0.4278	0.83618	2.688	64.51	-2.7	-1.7
					OFF	49	0.4288	0.83618	2.694	64.66	-2.7	-1.3
19	4	1	53	4	8 ON	1666	0.4234	0.83572	2.668	63.84	-2.7	-2.8
					OFF	122	0.4277	0.83689	2.687	64.58	-2.7	-1.7
19	4	2	23	4	8 ON	1853	0.4291	0.83621	2.696	64.71	-2.7	-1.3
					OFF	53	0.4296	0.83625	2.699	64.78	-2.7	-1.8
28	4	1	116	4	8 ON	1664	0.4233	0.83572	2.668	63.84	-2.7	-2.8
					OFF	265	0.4296	0.83625	2.788	64.79	-2.7	-8.9
22	4	1	11	4	8 ON	2571	0.3978	0.83358	2.494	59.86	-2.7	-2.5
					OFF	38	0.3946	0.83329	2.479	59.58	-2.7	-2.7
22	4	2	18	4	8 ON	2834	0.3743	0.83159	2.352	56.45	-2.7	-4.4
					OFF	29	0.3725	0.83143	2.348	56.17	-2.7	-4.4
23	4	1	45	4	8 ON	2311	0.4172	0.83528	2.621	62.91	-2.7	-8.8
					OFF	118	0.4897	0.83457	2.574	61.78	-2.7	-1.3
23	4	2	16	4	8 ON	2518	0.4816	0.83389	2.524	68.57	-2.7	-2.1
					OFF	41	0.3984	0.83361	2.583	68.87	-2.7	-2.4
23	4	3	11	4	8 ON	2652	0.3896	0.83287	2.448	58.75	-2.7	-3.3
					OFF	29	0.3872	0.83267	2.433	58.38	-2.7	-3.5
23	4	4	11	4	8 ON	2745	0.3889	0.83214	2.393	57.43	-2.7	-4.2
					OFF	29	0.3788	0.83196	2.388	57.12	-2.7	-4.2
24	3	1	119	4	8 ON	2445	0.4876	0.83448	2.561	61.47	-2.7	-1.6
					OFF	292	0.3819	0.83222	2.488	57.59	-2.7	-4.8
31	2	1	14	3	8 ON	1471	0.4281	0.83612	2.698	64.56	-2.7	-8.2
					OFF	34	0.4383	0.83631	2.784	64.88	-2.7	-8.1
32	2	1	7	3	8 ON	1811	0.4448	0.83753	2.795	67.87	-2.7	1.7
					OFF	19	0.4451	0.83756	2.797	67.12	-2.7	1.8
32	4	8	15	3	8 ON	3871	0.3747	0.83162	2.354	56.51	-2.7	-2.8
					OFF	41	0.3723	0.83142	2.339	56.14	-2.7	-1.8
34	2	1	15	3	8 ON	1718	0.4442	0.83748	2.791	66.98	-2.2	1.6
					OFF	35	0.4453	0.83757	2.798	67.15	-2.2	1.8
34	2	2	21	3	8 ON	1888	0.4481	0.83781	2.815	67.57	-2.2	2.4
					OFF	49	0.4482	0.83782	2.816	67.59	-2.2	2.6
35	4	1	54	3	8 ON	1765	0.4457	0.83761	2.881	67.21	-2.2	1.8
					OFF	122	0.4488	0.83788	2.815	67.56	-2.2	2.4
35	4	2	23	3	8 ON	1952	0.4482	0.83782	2.816	67.59	-2.2	2.6
					OFF	52	0.4478	0.83778	2.814	67.53	-2.2	2.7
36	4	1	118	3	8 ON	1764	0.4457	0.83761	2.888	67.21	-2.2	1.8
					OFF	264	0.4475	0.83776	2.811	67.47	-2.2	2.7
38	4	1	12	3	8 ON	2671	0.4863	0.83428	2.553	61.27	-2.2	-8.5
					OFF	38	0.4837	0.83487	2.537	68.88	-2.2	-8.7
38	4	2	11	3	8 ON	2934	0.3857	0.83254	2.423	58.16	-2.2	-1.7
					OFF	29	0.3839	0.83239	2.412	57.89	-2.2	-1.6

39	4	1	47	3	8	ON	2418	0.4288	0.83618	2.694	64.67	-2.2	1.7
						OFF	111	0.4281	0.83545	2.648	63.36	-2.2	0.9
39	4	2	17	3	8	ON	2617	0.4113	0.83471	2.584	62.83	-2.2	0.8
						OFF	41	0.4878	0.83441	2.562	61.49	-2.2	-0.3
39	4	3	12	3	8	ON	2758	0.3987	0.83365	2.585	68.13	-2.2	-1.3
						OFF	38	0.3967	0.83348	2.493	59.83	-2.2	-1.3
39	4	4	11	3	8	ON	2844	0.3928	0.83387	2.463	59.11	-2.2	-1.5
						OFF	29	0.3981	0.83292	2.451	58.83	-2.2	-1.5
48	3	1	119	3	8	ON	2543	0.4188	0.83527	2.626	63.83	-2.2	0.6
						OFF	293	0.3928	0.83314	2.468	59.23	-2.2	-1.5
47	4	1	35	3	8	ON	1323	0.4182	0.83529	2.628	63.87	-2.2	-1.6
						OFF	84	0.4258	0.83586	2.678	64.89	-2.2	-1.3
48	2	1	19	3	8	ON	1818	0.4469	0.83771	2.888	67.39	-2.2	1.2
						OFF	45	0.4477	0.83777	2.813	67.51	-2.2	1.4
48	4	8	15	3	8	ON	3868	0.3767	0.83179	2.367	56.81	-2.2	-2.1
						OFF	42	0.3742	0.83158	2.351	56.43	-2.2	-2.8
58	5	1	98	3	8	ON	1717	0.4493	0.83792	2.823	67.76	-1.8	1.6
						OFF	218	0.4535	0.83827	2.849	68.39	-1.8	2.7
51	4	1	53	3	8	ON	1763	0.4589	0.83885	2.833	68.88	-1.8	1.9
						OFF	121	0.4533	0.83825	2.848	68.35	-1.8	2.5
51	4	2	23	3	8	ON	1958	0.4535	0.83826	2.849	68.38	-1.8	2.8
						OFF	52	0.4531	0.83823	2.847	68.32	-1.8	3.8
53	4	1	19	3	8	ON	2748	0.4844	0.83412	2.541	68.99	-1.8	-8.7
						OFF	48	0.4888	0.83382	2.518	68.44	-1.8	-8.9
54	6	1	37	3	8	ON	2669	0.4112	0.83478	2.584	62.81	-1.8	-8.8
						OFF	91	0.4829	0.83399	2.531	68.75	-1.8	-8.8
54	6	2	11	3	8	ON	2932	0.3983	0.83294	2.453	58.86	-1.8	-1.3
						OFF	29	0.3885	0.83278	2.441	58.59	-1.8	-1.3
54	6	3	56	3	8	ON	3192	0.3735	0.83151	2.347	56.32	-1.8	-1.8
						OFF	152	0.3655	0.83884	2.296	55.12	-1.8	8.8
55	6	1	186	3	8	ON	2487	0.4341	0.83663	2.727	65.46	-1.8	2.2
						OFF	258	0.4126	0.83482	2.593	62.22	-1.8	8.2
55	6	2	12	3	8	ON	2749	0.4835	0.83485	2.536	68.85	-1.8	-8.8
						OFF	38	0.4815	0.83388	2.523	68.54	-1.8	-8.9
55	6	3	11	3	8	ON	2843	0.3966	0.83347	2.492	59.81	-1.8	-1.2
						OFF	29	0.3948	0.83331	2.481	59.53	-1.8	-1.2
56	5	1	81	3	8	ON	2637	0.4142	0.83495	2.683	62.46	-1.8	8.3
						OFF	197	0.3975	0.83354	2.497	59.94	-1.8	-1.1
63	3	1	35	3	8	ON	1323	0.4231	0.83578	2.658	63.88	-1.8	-1.5
						OFF	83	0.4299	0.83628	2.781	64.83	-1.8	-1.8
63	3	2	14	3	8	ON	1478	0.4351	0.83672	2.734	65.62	-1.8	-8.5
						OFF	34	0.4374	0.83691	2.748	65.96	-1.8	-8.3
64	2	1	28	3	8	ON	1889	0.4521	0.83815	2.841	68.18	-1.8	1.8
						OFF	46	0.4529	0.83822	2.846	68.38	-1.8	2.1
65	7	8	9	3	8	ON	1871	0.3958	0.83333	2.482	59.56	-2.4	-3.6
						OFF	24	0.3965	0.83345	2.491	59.78	-2.4	-3.8
65	7	1	72	3	8	ON	1655	0.4487	0.83719	2.769	66.46	-2.4	-8.7
						OFF	162	0.4463	0.83765	2.884	67.29	-2.4	8.4
66	5	1	98	3	8	ON	1718	0.4434	0.83742	2.786	66.87	-2.4	-8.4
						OFF	217	0.4475	0.83776	2.812	67.48	-2.4	1.8
67	2	1	189	3	8	ON	1761	0.4449	0.83754	2.795	67.89	-2.4	-8.1

				OFF	241	0.4471	0.03773	2.889	67.42	-2.4	1.2	
69	2	1	27	3	8 ON	2125	0.4441	0.03748	2.791	66.97	-2.4	1.3
				OFF	68	0.4419	0.03729	2.777	66.64	-2.4	1.3	
69	2	2	19	3	8 ON	2737	0.3993	0.03369	2.589	68.22	-2.4	-2.5
				OFF	49	0.3957	0.03339	2.486	59.67	-2.4	-2.7	
70	4	1	11	3	8 ON	2667	0.4860	0.03425	2.551	61.22	-2.4	-1.8
				OFF	38	0.4834	0.03404	2.535	60.84	-2.4	-2.0	
70	4	2	11	3	8 ON	2929	0.3854	0.03252	2.421	58.11	-2.4	-3.2
				OFF	38	0.3835	0.03236	2.410	57.83	-2.4	-3.2	
71	4	1	46	3	8 ON	2486	0.4284	0.03615	2.692	64.68	-2.4	0.4
				OFF	111	0.4197	0.03542	2.637	63.29	-2.4	-0.4	
71	4	2	16	3	8 ON	2613	0.4110	0.03468	2.582	61.98	-2.4	-1.3
				OFF	42	0.4074	0.03438	2.560	61.44	-2.4	-1.7	
71	4	3	11	3	8 ON	2747	0.3984	0.03362	2.503	60.88	-2.4	-2.7
				OFF	38	0.3963	0.03344	2.490	59.77	-2.4	-2.8	
71	4	4	11	3	8 ON	2841	0.3916	0.03304	2.460	59.05	-2.4	-3.0
				OFF	29	0.3890	0.03289	2.449	58.77	-2.4	-3.1	
72	3	1	122	3	8 ON	2539	0.4176	0.03524	2.624	62.97	-2.4	-0.7
				OFF	294	0.3923	0.03311	2.465	59.16	-2.4	-3.0	
74	4	0	21	3	8 ON	1605	0.4301	0.03697	2.753	66.07	-2.4	-1.6
				OFF	50	0.4286	0.03710	2.768	66.44	-2.4	-1.2	
79	5	1	35	3	8 ON	1322	0.4175	0.03522	2.623	62.95	-2.4	-4.1
				OFF	82	0.4241	0.03579	2.665	63.95	-2.4	-3.6	
79	5	2	14	3	8 ON	1469	0.4293	0.03623	2.698	64.74	-2.4	-3.1
				OFF	34	0.4315	0.03641	2.711	65.07	-2.4	-2.9	
79	5	3	53	3	8 ON	1577	0.4366	0.03684	2.743	65.03	-2.4	-2.2
				OFF	121	0.4425	0.03734	2.780	66.73	-2.4	-1.2	
80	2	1	20	3	8 ON	1806	0.4461	0.03764	2.803	67.27	-2.4	-0.5
				OFF	47	0.4469	0.03771	2.808	67.39	-2.4	-0.2	
82	6	1	78	3	8 ON	1579	0.4366	0.03684	2.743	65.04	-2.4	-2.7
				OFF	175	0.4446	0.03751	2.793	67.04	-2.4	-1.0	
82	6	2	16	3	8 ON	1888	0.4473	0.03775	2.811	67.46	-2.4	0.0
				OFF	37	0.4475	0.03776	2.812	67.48	-2.4	0.3	

RAMP PROFILE

R= 2 A= 9 PERIOD= 3840

R= 0.4182 A= 0.0330

TUR	PER	CPS	ANG V
-0	2.596	0.3852	0.03484
100	2.594	0.3855	0.03487
200	2.587	0.3865	0.03496
300	2.576	0.3882	0.03511
400	2.561	0.3905	0.03532
500	2.543	0.3933	0.03557
600	2.521	0.3966	0.03587
700	2.497	0.4004	0.03622
800	2.472	0.4046	0.03659
900	2.445	0.4090	0.03699
1000	2.418	0.4136	0.03741
1100	2.390	0.4184	0.03784

1200	2.355	0.4246	0.03841
1300	2.322	0.4307	0.03895
1400	2.292	0.4362	0.03946
1500	2.267	0.4411	0.03990
1600	2.246	0.4452	0.04027
1700	2.230	0.4483	0.04055
1800	2.221	0.4503	0.04073
1900	2.216	0.4512	0.04081
2000	2.218	0.4508	0.04077
2100	2.226	0.4493	0.04063
2200	2.239	0.4466	0.04039
2300	2.258	0.4429	0.04006
2400	2.282	0.4383	0.03964
2500	2.310	0.4330	0.03916
2600	2.341	0.4271	0.03863
2700	2.376	0.4209	0.03807
2800	2.407	0.4155	0.03758
2900	2.434	0.4108	0.03716
3000	2.461	0.4063	0.03675
3100	2.487	0.4021	0.03636
3200	2.512	0.3981	0.03601
3300	2.534	0.3946	0.03569
3400	2.554	0.3915	0.03541
3500	2.570	0.3890	0.03519
3600	2.583	0.3871	0.03501
3700	2.592	0.3859	0.03490
3800	2.596	0.3853	0.03484

RAMP PROFILE

R= 4 A= 8 PERIOD= 3840

R= 0.3067 A= 0.0490

TUR	PER	CPS	ANG V
-0	2.961	0.3377	0.03054
100	2.957	0.3382	0.03059
200	2.944	0.3397	0.03072
300	2.923	0.3422	0.03095
400	2.894	0.3455	0.03125
500	2.859	0.3497	0.03163
600	2.819	0.3547	0.03208
700	2.775	0.3603	0.03259
800	2.729	0.3665	0.03315
900	2.681	0.3731	0.03374
1000	2.632	0.3799	0.03436
1100	2.584	0.3870	0.03500
1200	2.524	0.3963	0.03584
1300	2.468	0.4052	0.03665
1400	2.419	0.4135	0.03748
1500	2.377	0.4208	0.03806
1600	2.343	0.4268	0.03861
1700	2.318	0.4314	0.03902
1800	2.302	0.4344	0.03929

1900	2.295	0.4357	0.03940
2000	2.298	0.4351	0.03936
2100	2.310	0.4328	0.03915
2200	2.332	0.4289	0.03879
2300	2.362	0.4234	0.03829
2400	2.401	0.4165	0.03767
2500	2.447	0.4086	0.03696
2600	2.501	0.3999	0.03617
2700	2.559	0.3907	0.03534
2800	2.613	0.3827	0.03461
2900	2.661	0.3758	0.03399
3000	2.710	0.3691	0.03338
3100	2.757	0.3627	0.03281
3200	2.802	0.3569	0.03228
3300	2.844	0.3516	0.03180
3400	2.881	0.3471	0.03139
3500	2.912	0.3434	0.03106
3600	2.936	0.3406	0.03080
3700	2.953	0.3387	0.03063
3800	2.961	0.3378	0.03055

RAMP PROFILE

R= 3 A= 8 PERIOD= 3840
R= 0.4033 A= 0.0490

TUR	PER	CPS	ANG V
-0	2.822	0.3543	0.03204
100	2.818	0.3548	0.03209
200	2.807	0.3563	0.03223
300	2.787	0.3588	0.03245
400	2.762	0.3621	0.03275
500	2.730	0.3663	0.03313
600	2.693	0.3713	0.03358
700	2.653	0.3769	0.03409
800	2.610	0.3831	0.03465
900	2.566	0.3897	0.03524
1000	2.522	0.3965	0.03586
1100	2.478	0.4036	0.03650
1200	2.422	0.4129	0.03734
1300	2.371	0.4218	0.03815
1400	2.325	0.4301	0.03898
1500	2.286	0.4374	0.03956
1600	2.255	0.4434	0.04011
1700	2.232	0.4480	0.04052
1800	2.217	0.4510	0.04079
1900	2.211	0.4523	0.04091
2000	2.214	0.4517	0.04086
2100	2.225	0.4494	0.04065
2200	2.245	0.4455	0.04029
2300	2.273	0.4400	0.03979
2400	2.309	0.4331	0.03917
2500	2.352	0.4252	0.03846

2600	2.401	0.4165	0.03767
2700	2.455	0.4073	0.03684
2800	2.504	0.3993	0.03611
2900	2.549	0.3924	0.03549
3000	2.593	0.3857	0.03488
3100	2.636	0.3793	0.03431
3200	2.678	0.3735	0.03378
3300	2.716	0.3682	0.03338
3400	2.749	0.3637	0.03290
3500	2.778	0.3600	0.03256
3600	2.800	0.3572	0.03230
3700	2.815	0.3553	0.03213
3800	2.822	0.3544	0.03205

CLOCK SUMMARY

SYS TIME I/P	ORDER FIT 1 CL TIME I/P	COMP SYS TM	DELTA ST	REV	STA
0.594591630 05	0.2814487210 06	0.5945915880 05	0.0042	10	
0.656485800 04	0.3149544270 06	0.6564861800 04	-0.0038	16	
0.584769400 05	0.3668665160 06	0.5847694620 05	-0.0062	26	
0.556763800 04	0.4003572250 06	0.5567652200 04	-0.0142	32	
0.574574780 05	0.4522470520 06	0.5745747460 05	0.0034	42	
0.452987800 04	0.4857194390 06	0.4529858600 04	0.0194	48	
0.563891130 05	0.7077890000 03	0.5638911600 05	-0.0030	58	
0.338817100 04	0.3410682500 05	0.3388149010 04	0.0220	64	
0.550429350 05	0.8576162700 05	0.5504294640 05	-0.0114	74	
0.207594800 04	0.1191946420 06	0.2075958440 04	-0.0104	80	

AB=-0.22198953720 06 AI=0.9999999109820 00
 SIGMA=0.01125 NO. POINTS= 10
 RATIO OF CLOCK TIME TO SYS TIME= 0.1000000089020 01

SYS TIME I/P	ORDER FIT 2 CL TIME I/P	COMP SYS TM	DELTA ST	REV	STA
0.594591630 05	0.2814487210 06	0.5945915280 05	0.0102	10	
0.656485800 04	0.3149544270 06	0.6564859190 04	-0.0012	16	
0.584769400 05	0.3668665160 06	0.5847694750 05	-0.0075	26	
0.556763800 04	0.4003572250 06	0.5567655210 04	-0.0172	32	
0.574574780 05	0.4522470520 06	0.5745747890 05	-0.0009	42	
0.452987800 04	0.4857194390 06	0.4529862910 04	0.0151	48	
0.563891130 05	0.7077890000 03	0.5638911900 05	-0.0060	58	
0.338817100 04	0.3410682500 05	0.3388150310 04	0.0207	64	
0.550429350 05	0.8576162700 05	0.5504294380 05	-0.0008	74	
0.207594800 04	0.1191946420 06	0.2075952440 04	-0.0044	80	

AB=-0.22198959790 06 AI=0.1000000188710 01
 A2=-0.29623649847710-12
 SIGMA=0.01065 NO. POINTS= 10

CLOCK OPERATIONS
 FWD PAN CAMERA NUMBER 194

OPN NO	FR		H	M	S	DEC	BINARY
1 2 0	18	ON	3	28	9	234478	01101111110011101100110110000
		OFF	3	28	57	234526	01101111110101001010100110000
2 2 1	16	ON	4	39	45	238774	011100001110110110011011110000
		OFF	4	40	23	238812	0111000011101111111101101100000
2 2 2	22	ON	4	42	34	238944	0111000011110111111111100000000
		OFF	4	43	26	238996	0111000011111011001010001000000
3 2 1	100	ON	6	9	30	244160	01110100011011001011000000000
		OFF	6	13	33	244403	01110100100010100101100111000
4 2 1	119	ON	7	38	38	249499	011101101111100000110101111000
		OFF	7	42	57	249766	011101110001100100000001110000
6 3 1	35	ON	10	51	46	261096	011110010000000000001001000000
		OFF	10	53	10	261100	01111001000101101001101000000
6 3 2	11	ON	10	56	8	261357	0111100100111111110111001000
		OFF	10	56	40	261309	0111100101000111101011001000
7 3 1	13	ON	12	17	40	266250	01111101111101010011100010000
		OFF	12	18	15	266285	01111101111100101111111001000
7 3 2	16	ON	12	19	51	266381	01111111000001010011011001000
		OFF	12	20	32	266422	01111111000010100011011110000
7 3 3	11	ON	12	23	30	266600	01111111001000001110110000000
		OFF	12	24	7	266637	01111111001001000111011001000
8 5 1	78	ON	13	49	12	271741	10000001100100111000001001000
		OFF	13	52	30	271939	10000001101010111010110111000
9 5 1	44	ON	15	20	13	277202	10000100001011100010001010000
		OFF	15	22	6	277315	10000100001110111101101110000
10 5 0	20	ON	16	29	59	281309	10000110001011010011111001000
		OFF	16	30	49	281439	100001100011001101011100011000
15 5 1	33	ON	23	50	13	307003	10010010110001011001011111000
		OFF	23	51	37	307007	10010010110011111101110011000
15 5 2	13	ON	23	52	41	307951	10010010110101111010110011000
		OFF	23	53	15	307905	10010010110110111011011010100
15 5 3	50	ON	23	54	30	308059	10010010111001001101101111000
		OFF	23	56	31	308100	10010010111100111010000100000
16 2 1	7	ON	1	27	20	313629	10010101100011001100101001000
		OFF	1	27	30	313647	10010101100011101111110011000
16 2 0	14	ON	1	48	20	314000	10010110001001101001100101000
		OFF	1	49	1	314930	10010110001010111001101010000
18 2 1	14	ON	4	23	46	324215	100110101001100100000011011000
		OFF	4	24	21	324250	10011010100111010100110010000
18 2 2	20	ON	4	26	35	324304	10011010101011011010100000000
		OFF	4	27	24	324433	10011010101100111010001101000
19 4 1	52	ON	5	53	30	329599	100111010010101001000000011000
		OFF	5	55	32	329721	10011101001110010010010101000
19 4 2	22	ON	5	56	37	329707	10011101010000010011001111000
		OFF	5	57	30	329040	10011101010001111010110000000
22 4 1	11	ON	10	35	30	346520	10100101001110111100111000000
		OFF	10	36	0	346550	10100101001111110111011110000
22 4 2	11	ON	10	39	53	346703	10100101010110111110100011000
		OFF	10	40	22	346012	10100101010111110111001100000
23 4 1	45	ON	12	0	7	351597	1010011110100111100011001000
		OFF	12	1	57	351707	10100111101101001111101111000

23	4	2	16	ON	12	3	34	351884	10100111110000001101001100000
				OFF	12	4	15	351845	10100111110001011101010001000
23	4	3	11	ON	12	5	48	351938	10100111110100010010111010000
				OFF	12	6	17	351967	10100111110101001011100011000
23	4	4	11	ON	12	7	21	352031	10100111110111001000100011000
				OFF	12	7	50	352060	101001111110000000001001100000
24	3	1	119	ON	13	31	19	357068	10101010010000110110011100000
				OFF	13	36	11	357360	10101010011001110000110000000
31	2	1	14	ON	23	36	7	393357	10111011100100010011011001000
				OFF	23	36	41	393391	10111011100101010101110011000
32	2	1	20	ON	1	10	44	399033	10111110010001100001010101000
				OFF	1	11	30	399079	10111110010010111011001011000
32	4	0	15	ON	1	31	43	400293	10111110110111111110010001000
				OFF	1	32	24	400334	10111110111001001110010110000
34	2	1	15	ON	4	7	5	409614	11000011010100011011010110000
				OFF	4	7	40	409649	11000011010101011111101101000
34	2	2	21	ON	4	9	54	409784	11000011011001100111011000000
				OFF	4	10	43	409833	11000011011011000111000101000
35	4	1	54	ON	5	36	47	414996	11000101111000101011000100000
				OFF	5	38	49	415118	11000101111100011001010110000
35	4	2	23	ON	5	39	54	415184	11000101111110011010010000000
				OFF	5	40	46	415236	110001011111111111111110100000
36	4	1	117	ON	7	5	43	420333	11001000011011100010111001000
				OFF	7	10	7	420597	11001000100011100110100001000
38	4	1	12	ON	10	18	41	431910	11001101111100110110001110000
				OFF	10	19	11	431940	11001101111101110000110100000
38	4	2	11	ON	10	23	4	432173	11001110000100110111111001000
				OFF	10	23	33	432202	11001110000101110000100010000
39	4	1	46	ON	11	43	16	436985	11010000010111101110010101000
				OFF	11	45	7	437096	11010000011011000111001000000
39	4	2	17	ON	11	46	42	437192	11010000011111000001010100000
				OFF	11	47	23	437233	11010000011110100101011010000
39	4	3	12	ON	11	48	56	437326	11010000100010001000010110000
				OFF	11	49	26	437356	11010000100011000010111100000
39	4	4	11	ON	11	50	30	437419	11010000100100111101111111000
				OFF	11	50	59	437448	11010000100101110110101000000
40	3	1	119	ON	13	14	25	442454	11010010111110100111111110000
				OFF	13	19	18	442747	11010011000111100100001111000
47	4	1	35	ON	23	16	26	478576	11100100001100111110110000000
				OFF	23	17	50	478668	11100100001111100010110100000
48	2	1	19	ON	0	53	27	484396	11100110111110100101111100000
				OFF	0	54	12	484441	111001101111111111101110101000
48	4	0	15	ON	1	14	25	485654	11100111100100111110111110000
				OFF	1	15	7	485696	11100111100110010001000000000
50	5	1	97	ON	3	49	40	494970	11101100000001010010010010000
				OFF	3	53	18	495100	11101100000111111000001000000
51	4	1	53	ON	5	19	19	500348	11101110100110111010001100000
				OFF	5	21	20	500469	11101110101001000110100001000
51	4	2	23	ON	5	22	26	500535	11101110101010001110110110000
				OFF	5	23	18	500587	11101110101100101100111111000
53	4	1	19	ON	8	33	20	511989	11110100001000101010100001000

			OFF	8	34	8	512037	11110100001010001000010001000	
54	6	1	36	ON	10	1	2	517252	11110101010001010000110100000
			OFF	10	2	33	517343	1111010101000000001100001000	
54	6	2	11	ON	10	5	25	517515	11110101100010100011011111000
			OFF	10	5	54	517544	1111010110010001100001000000	
54	6	3	56	ON	10	9	45	517774	1111010111001001101010110000
			OFF	10	12	17	517926	1111010111101110110110001110000	
55	6	1	105	ON	11	25	33	522323	11110010001000000010000111000
			OFF	11	29	43	522573	1111001001011101010011001000	
55	6	2	12	ON	11	31	15	522664	1111001001110011100001000000
			OFF	11	31	45	522694	1111001001111010110101110000	
55	6	3	11	ON	11	32	49	522750	1111001010001010011101110000
			OFF	11	33	18	522787	1111001010010001100010111000	
56	5	1	80	ON	12	58	16	527085	1111011101101110001011001000
			OFF	13	1	33	520082	1111011110011110010001010000	
63	3	1	35	ON	22	58	17	27016	0000110011100001101101000000
			OFF	22	59	40	27099	0000110011101011111101111000	
63	3	2	14	ON	23	0	44	27163	00001100111100111100101111000
			OFF	23	1	10	27197	00001100111101111111001001000	
64	2	1	20	ON	0	35	14	32833	0000111101001111110111101000
			OFF	0	36	0	32879	000011110101011011000110011000	
65	7	0	9	ON	1	51	46	37425	0001000111011000011101101000
			OFF	1	52	10	37449	00010001110110110110100101000	
65	7	1	72	ON	2	1	31	30009	0001001000011111100010101000
			OFF	2	4	13	30171	00010010001100111000101111000	
66	5	1	97	ON	3	31	24	43403	00010100101100100011011111000
			OFF	3	35	1	43620	00010100110011001011010100000	
67	2	1	108	ON	5	0	57	40775	0001011010000001111101011000
			OFF	5	4	50	49016	0001011010111110110011000000	
68	2	1	119	ON	6	29	47	54105	0001001110011001001110101000
			OFF	6	34	12	54370	0001001111011001111011010000	
69	2	1	26	ON	8	4	40	59799	000110010000011101011011000
			OFF	8	5	40	59859	0001100100010110000000111000	
69	2	2	19	ON	8	14	53	60411	0001100110011100110001111000
			OFF	8	15	42	60460	000110011010100010111100000	
70	4	1	11	ON	9	42	32	65671	000111101010000011101011000
			OFF	9	43	2	65701	0001111010101000010010001000	
70	4	2	11	ON	9	46	54	65932	000111101110000010101100000
			OFF	9	47	24	65962	000111101110100000000010000	
71	4	1	46	ON	11	7	1	70739	0010000110110110010000111000
			OFF	11	8	52	70850	0010000111001000101011101000	
71	4	2	16	ON	11	10	27	70946	0010000110101000100110101000
			OFF	11	11	9	70980	0010000110110011000011100000	
71	4	3	11	ON	11	12	41	71000	0010000111001001100001000000
			OFF	11	13	11	71110	0010000111101000011010110000	
71	4	4	11	ON	11	14	15	71173	0010000111100000001110001000
			OFF	11	14	44	71202	0010000111100111010011010000	
72	3	1	122	ON	12	38	3	76201	0010010001010101110000101000
			OFF	12	42	57	76495	00100100011110011100010011000	
74	4	0	21	ON	15	20	5	85924	00101000111110001100010100000
			OFF	15	20	55	85974	0010100011111101101111110000	

79 5 1	34	ON	22 39 21	112280	00110101100010100000111000000
		OFF	22 40 43	112362	00110101100101000001000010000
79 5 2	14	ON	22 41 48	112427	0011010110011011111111111000
		OFF	22 42 22	112461	00110101101000000010011001000
79 5 3	53	ON	22 43 37	112535	00110101101010010010111011000
		OFF	22 45 38	112656	00110101101101111111010000000
80 2 1	20	ON	0 16 14	118092	00111000010011111000011100000
		OFF	0 17 1	118139	00111000010101010100001111000
82 6 1	73	ON	3 10 46	128564	00111101010011011101100100000
		OFF	3 13 30	128728	00111101011000011101111000000

CLOCK OPERATIONS

AFT PAN CAMERA NUMBER 195

OPN NO	FR		H	M	S	DEC	BINARY
1 2 0	18	ON	3	28	21	234491	01101111110100000110001111000
		OFF	3	29	9	234539	01101111110101100011111111000
2 2 1	16	ON	4	39	57	238787	01110001110111001100110111000
		OFF	4	40	35	238825	01110001111000010111000101000
2 2 2	22	ON	4	42	46	238956	01110001111100010110111100000
		OFF	4	43	38	239008	01110001111101111100100000000
3 2 1	109	ON	6	9	42	244172	01110100011011100010011100000
		OFF	6	13	45	244415	01110100100010111101000011000
4 2 1	120	ON	7	30	42	249511	01110110111110011110001011000
		OFF	7	43	9	249778	01110111000110100111101010000
6 3 1	35	ON	10	51	58	261108	01111100100000011000100100000
		OFF	10	53	38	261200	01111100100011001100010000000
6 3 2	11	ON	10	56	20	261369	01111100101000010110010101000
		OFF	10	56	52	261401	01111100101001010100110101000
7 3 1	13	ON	12	17	52	266262	01111110111101101010111110000
		OFF	12	18	27	266297	01111110111110101111010101000
7 3 2	16	ON	12	20	3	266393	01111111000001010101010101000
		OFF	12	20	44	266434	01111111000010110101011010000
7 3 3	11	ON	12	23	50	266620	01111111001000100110001100000
		OFF	12	24	19	266649	01111111001001011110110101000
8 5 1	66	ON	13	49	55	271705	10000001100110001110000101000
		OFF	13	52	41	271951	10000001101011010010010011000
10 5 0	20	ON	16	30	11	281401	10000110001011101011010101000
		OFF	16	31	1	281451	10000110001101001100111111000
15 5 1	33	ON	23	50	25	307815	10010010110001110001001011000
		OFF	23	51	49	307899	10010010110100010101001111000
15 5 2	14	ON	23	52	53	307963	10010010110110010010001111000
		OFF	23	53	27	307997	10010010110111010100101001000
15 5 3	50	ON	23	54	42	308072	10010010111001100111001000000
		OFF	23	56	43	308193	10010010111101010011011101000
16 2 1	19	ON	1	27	32	313642	10010101100011100110000010000
		OFF	1	28	17	313687	10010101100100111101111011000
16 2 0	15	ON	1	48	32	314901	10010110001010000001000001000
		OFF	1	49	13	314942	10010110001011010001000110000
18 2 1	14	ON	4	23	50	324227	10011010100110100111110111000
		OFF	4	24	33	324262	10011010100111101100001110000

18	2	2	21	ON	4	26	47	324396	1001101010101111000111100000
				OFF	4	27	36	324445	100110101010101010001101001000
19	4	1	53	ON	5	53	42	329611	10011101001010111011011111000
				OFF	5	55	44	329733	10011101001110101001110001000
19	4	2	23	ON	5	56	49	329799	10011101010000101010101011000
				OFF	5	57	42	329852	100111010100100100100011000000
20	4	1	116	ON	7	22	40	334950	10011111101101110111001110000
				OFF	7	27	5	335215	10011111110101111100110011000
22	4	1	11	ON	10	35	42	346532	10100101001111010100010100000
				OFF	10	36	12	346562	1010010101000000111011010000
22	4	2	10	ON	10	40	5	346795	10100101010111010101111111000
				OFF	10	40	34	346824	10100101011000001110101000000
23	4	1	45	ON	12	0	19	351609	10100111101010010000010101000
				OFF	12	2	9	351719	10100111101101100111001011000
23	4	2	16	ON	12	3	46	351816	10100111110000100100101000000
				OFF	12	4	27	351857	10100111110001110100101101000
23	4	3	11	ON	12	6	0	351950	10100111110100101010010110000
				OFF	12	6	29	351979	10100111110101100010111111000
23	4	4	11	ON	12	7	33	352043	10100111110111011111111111000
				OFF	12	8	2	352072	10100111111000011000101000000
24	3	1	119	ON	13	31	31	357001	10101010010001001111110101000
				OFF	13	36	23	357373	10101010011010001010001001000
31	2	1	14	ON	23	36	19	393369	1011011100100101010110101000
				OFF	23	36	53	393403	1011011100101101101001111000
32	2	1	7	ON	1	10	56	399045	1011110010001111000110001000
				OFF	1	11	15	399064	1011110010010011101111000000
32	4	0	15	ON	1	31	55	400305	10111101110000101011010101000
				OFF	1	32	36	400346	101111011100100101110010000
34	2	1	15	ON	4	7	17	409627	1100001010100110100101111000
				OFF	4	7	52	409662	1100001010101111001000110000
34	2	2	21	ON	4	10	6	409796	1100001011001111110110100000
				OFF	4	10	55	409845	1100001011011011110100001000
35	4	1	54	ON	5	36	59	415000	1100010111100100001010000000
				OFF	5	39	1	415130	11000101111100110000110010000
35	4	2	23	ON	5	40	6	415196	11000101111110110001101100000
				OFF	5	40	58	415248	11000110000000001011101000000
36	4	1	118	ON	7	5	55	420345	1100100001101111010010101000
				OFF	7	10	19	420609	11001000100011111101111101000
38	4	1	12	ON	10	18	53	431922	11001101111101001101101010000
				OFF	10	19	23	431952	11001101111110001000010000000
38	4	2	11	ON	10	23	16	432106	11001110000101010001010010000
				OFF	10	23	45	432215	11001110000110001001111011000
39	4	1	47	ON	11	43	28	436998	11010000011000000111101110000
				OFF	11	45	19	437109	11010000011011100000100001000
39	4	2	17	ON	11	46	54	437204	11010000011110011010000100000
				OFF	11	47	35	437245	11010000011111010100010010000
39	4	3	12	ON	11	49	8	437338	11010000100010011111110010000
				OFF	11	49	38	437368	11010000100011011010011000000
39	4	4	11	ON	11	50	42	437432	11010000100101010111011000000
				OFF	11	51	11	437461	11010000100110010000000001000
40	3	1	119	ON	13	14	37	442466	11010010111110111111011010000

			OFF	13	19	38	442759	11010011000111111011101011000
47	4	1	ON	23	16	38	478588	11100100001101010110001100000
			OFF	23	18	2	478672	11100100001111111010010000000
48	2	1	ON	8	53	39	484489	11100110111110111111010101000
			OFF	8	54	24	484454	11100111000000010111001110000
48	4	8	ON	1	14	37	485666	11100111100101010110011010000
			OFF	1	15	19	485788	11100111100110101000011100000
50	5	1	ON	3	49	52	494982	11101100000001101001101110000
			OFF	3	53	38	495288	11101100001000010011100000000
51	4	1	ON	5	19	31	500368	11101110100101110001101000000
			OFF	5	21	32	500481	11101110101001011101111101000
51	4	2	ON	5	22	38	500547	11101110101011011110110111000
			OFF	5	23	38	500599	11101110101101000100011011000
53	4	1	ON	8	33	32	512002	11110100001001000011111010000
			OFF	8	34	28	512050	11110100001010100001101010000
54	6	1	ON	18	1	14	517264	11110110101001101001010000000
			OFF	18	2	45	517355	11110110101100011010111111000
54	6	2	ON	18	5	37	517527	11110110110001101010111011000
			OFF	18	6	6	517556	11110110110010100011100100000
54	6	3	ON	18	9	57	517787	11110110111001100110101111000
			OFF	18	12	29	517939	11110110111110001111100111000
55	6	1	ON	11	25	45	522335	11111001000100011001100011000
			OFF	11	29	55	522585	11111001001100000001110101000
55	6	2	ON	11	31	27	522677	11111001001110110101100001000
			OFF	11	31	57	522707	11111001001111110000000111000
55	6	3	ON	11	33	1	522771	11111001010001101101000111000
			OFF	11	33	38	522800	11111001010010100101110000000
56	5	1	ON	12	58	28	527897	11111011101110001000110101000
			OFF	13	1	45	528094	11111011110100001001100110000
63	3	1	ON	22	58	29	27028	00001100111000110101000100000
			OFF	22	59	52	27111	00001100111011010111001011000
63	3	2	ON	23	8	56	27175	00001100111101010100001011000
			OFF	23	1	38	27209	00001100111110010110100101000
64	2	1	ON	8	35	26	32845	0000111101010010110011001000
			OFF	8	36	12	32891	0000111101011110000001111000
65	7	8	ON	1	51	58	37437	00010001110110011111001001000
			OFF	1	52	22	37461	00010001110111001110000001000
65	7	1	ON	2	1	43	38022	00010010001000010101101110000
			OFF	2	4	25	38184	00010010001101010010001000000
66	5	1	ON	3	31	36	43415	00010100101100111010111011000
			OFF	3	35	13	43632	00010100110011100010110000000
67	2	1	ON	5	1	9	48787	00010111010000110111000111000
			OFF	5	5	18	49028	00010111011000001101110100000
69	2	1	ON	8	4	52	59811	0001100100001010010010111000
			OFF	8	5	52	59871	0001100100011000111100011000
69	2	2	ON	8	15	5	60423	0001100110011111101101011000
			OFF	8	15	54	60472	0001100110101011101011000000
70	4	1	ON	9	42	44	65683	00011111010100011111000111000
			OFF	9	43	14	65713	00011111010101011001101101000
70	4	2	ON	9	47	6	65945	00011111011100011110110101000
			OFF	9	47	36	65975	00011111011101011001011011000

71 4 1	46	ON	11 7 13	78751	00100001101111001001100011000
		OFF	11 9 4	78862	00100001110010100010010110000
71 4 2	16	ON	11 10 39	78958	00100001110101011101110110000
		OFF	11 11 21	71000	00100001110110101111111000000
71 4 3	11	ON	11 12 53	71092	00100001111001100011100100000
		OFF	11 13 23	71122	00100001111010011110001010000
71 4 4	11	ON	11 14 27	71186	00100001111100011011001010000
		OFF	11 14 56	71215	00100001111101010011110011000
72 3 1	122	ON	12 38 15	76214	00100100010101110111011110000
		OFF	12 43 9	76508	00100100011110110101101100000
74 4 8	21	ON	15 28 17	85936	00101000111110100011110000000
		OFF	15 21 7	85986	00101001000000000010101101000
79 5 1	35	ON	22 39 33	112292	00110101100010111000010100000
		OFF	22 40 55	112374	00110101100101011000011110000
79 5 2	14	ON	22 42 8	112439	00110101100111010111011011000
		OFF	22 42 34	112473	00110101101000011001110101000
79 5 3	53	ON	22 43 49	112547	00110101101010101010010111000
		OFF	22 45 58	112668	00110101101110010110101100000
80 2 1	28	ON	8 16 26	118105	00111000010100010001110101000
		OFF	8 17 13	118152	00111000010101101101101000000
82 6 1	78	ON	3 18 58	128577	00111101010011110110111101000
		OFF	3 13 53	128752	00111101011001001100110000000
82 6 2	16	ON	3 16 7	128886	00111101011101010010011110000
		OFF	3 16 44	128923	00111101011110011010101111000

NOTE - DUE TO THE UNCERTAINTY OF THE PERIOD, THE OPERATIONS ON REVS 1-4 ARE SLIGHTLY BIASED.

NOTE - TLM DATA INDICATE NORMAL SYSTEM PERFORMANCE.

NOTE - OPERATION 82-86-81 FOR PAN CAMERA 194 AND OPERATION 82-86-82 FOR PAN CAMERA 195 ACTUALLY CONSISTED OF FIVE MORE FRAMES EACH THAN WAS REPORTED. THESE FRAMES WILL BE INCLUDED IN THE B BUCKET.

NOTE - DUE TO THE NECESSITY TO BIAS THE H-TIMER FOR RECOVERY DURING THE REV 82-86-81 ACQUISITION, OPERATIONS 82-86-81 AND 82-86-82 DO NOT COVER THE PROGRAMED LATITUDES.

EOF