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FOR PERM. FILE

CORONA J  
FLIGHT DATA  
BOOK  
1033-1

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12 PAGES  
(NOT INCLUDING PEST)

CORONA J FLIGHT DATA BOOK

SYSTEM NO. J-34

VEHICLE NO. 1629

MISSION NO. 1038-1

CAMERA NOS. 192/193

DATE 01-19-67

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SYSTEM NO. J-34  
VEHICLE NO. 1629  
MISSION NO. 1838-1  
CAMERA NOS. 192/193

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SYSTEM NO. J-34  
VEHICLE NO. 1529  
MISSION NO. 1038-1  
CAMERA NOS. 192/193

GENERAL FLIGHT DATA

MASTER CAMERA SERIAL NO. 192

SLAVE CAMERA SERIAL NO. 193

S/I -1 SERIAL NO. D93/A6/112

S/I -2 SERIAL NO. D92/111/108

LAUNCH DATE 01-14-67

LAUNCH TIME 21-25-18 GMT

REACTIVATION DATE N/A

REACTIVATION ORBIT NO. N/A

ORBITAL PARAMETERS (REV. 42)

PERIOD 98.836 MIN. ECCENTRICITY 0.81546

PERIGEE 96.944 NM PERIGEE LAT. 29.232 DEG. N

APOGEE 268.852 NM INCL. ANGLE 88.875 DEG.

RECOVERY ORBIT NO. 81

RECOVERY DATE 01-19-67

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SYSTEM NO. J-34  
VEHICLE NO. 1629  
MISSION NO. 1838-1  
CAMERA NOS. 192/193

FLIGHT LENS SETTINGS AND FILM TYPES

LENS SETTINGS

PANORAMIC CAMERA SETTINGS		CAMERA NO. 192	CAMERA NO. 193
PANORAMIC OPTICS SLIT WIDTH	.225	IN .175	
PANORAMIC OPTICS FILTER TYPE	WRATTEN 23A	WRATTEN 21	
HORIZON OPTICS EXP. TIME	1/100	SEC. 1/100	
HORIZON OPTICS APERTURE	F6.3	SUPPLY F8.0	SUPPLY
HORIZON OPTICS APERTURE	F8.0	TAKE-UP F6.3	TAKE-UP
HORIZON OPTICS FILTER TYPE	WRATTEN 25	WRATTEN 25	

STELLAR INDEX CAMERA SETTINGS

	D93/86/112		D98/111/108	
	STELLAR	INDEX	STELLAR	INDEX
EXPOSURE TIME	2.0 SEC	1/500 SEC	2.0 SEC	1/500 SEC
APERTURE SETTING	F1.8	F4.5	F1.8	F4.5
FILTER TYPE	NONE	WRATTEN 21	NONE	WRATTEN 21

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

FILM

PANORAMIC CAMERAS	CAMERA NO. 192	CAMERA NO. 193
TYPE	7J-48	7J-48
LENGTH	16000 FT.	16000 FT.
SPLICES	5	4
EMUL. DATA	268-6-18-6	268-6-18-6
LG. BETWEEN	2200-2700-4229-	4879-4196-4200-
SPLICE TO CORE	4224-2637-2212-	1379-2146-
	-	-
	-	-

STELLAR/INDEX CAMERAS

	D93/86/112		D98/111/108	
	STELLAR	INDEX	STELLAR	INDEX
TYPE	3J-34	7J-33	3J-34	7J-33
EMUL. DATA	151-48-4-6	116-8-5-6	151-48-4-6	116-8-5-6

SYSTEM NO. J-34  
VEHICLE NO. 1629  
MISSION NO. 1238-1  
CAMERA NOS. 192/193

LENS DATA SUMMARY MASTER CAMERA NO. 192

LENS SERIAL NO. 1792435  
EQUIVALENT OPERATIONAL FOCAL LENGTH 689.682 MM

RESOLUTION

STATIC

BENCH TEST

LINES/MM

FILM TYPE

TARGET CONTRA

262  
157

3484  
3484

HIGH  
LOW


DYNAMIC

BOSTON

181  
118  
169  
188

3484  
3484  
3484  
3484

HIGH  
LOW  
HIGH  
LOW

NOTE BOSTON RESOLUTION OF 181 LINES/MM REPORTED IN 

DISTORTION - POSITIVE (PINCUSHION)

ANGLE OFF  
AXIS-DEG.

3

2

1

0

359

358

357

MILLIMETERS

0.002

0.001

0.0

0.0

0.0

0.001

0.001

SYSTEM NO. J-34  
VEHICLE NO. 1529  
MISSION NO. 1738-1  
CAMERA NOS. 192/193

LENS DATA SUMMARY (HORIZON CAMERAS FOR MASTER CAMERA NO. 192)

	TAKE-UP	SUPPLY
LENS SERIAL NO.	12881	12858
OPERATIONAL FOCAL LENGTH	54.93 MM	55.00 MM
RADIAL DISTORTION		
10 DEG. OFF AXIS	0.010 MM	0.020 MM
20 DEG. OFF AXIS	0.040 MM	0.070 MM
TANGENTIAL DISTORTION (MAXIMUM VECTOR)	0.025 MM	0.030 MM

RESOLUTION

ANGLE OFF AXIS-DEG.	0	5	10	15	20	25	27.5	30
TAKE-UP (RADIAL)	209	208	184	160	156	153	0	64
(TANGENTIAL)	187	164	144	155	116	109	0	70
SUPPLY (RADIAL)	187	208	203	182	134	150	0	64
(TANGENTIAL)	187	185	181	123	73	86	0	70

DYNAMIC (ZERO DEG)

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

NOTE

1. DISTORTION AND RESOLUTION ARE READ AT EQUIVALENT OPERATIONAL FOCAL LENGTH.
2. RESOLUTION IN LINES PER MM ON 3494 FILM AND HIGH CONTRAST TARGET.

SYSTEM NO. J-34  
VEHICLE NO. 1629  
MISSION NO. 1038-1  
CAMERA NOS. 192/193

LENS DATA SUMMARY SLAVE CAMERA NO. 193

LENS SERIAL NO. 1982435  
EQUIVALENT OPERATIONAL FOCAL LENGTH 689.682 MM

RESOLUTION

STATIC	BENCH TEST	LINES/MM	FILM TYPE	TARGET CONTRA
		265	3484	HIGH
		152	3484	LOW
DYNAMIC		281	3484	HIGH
		123	3484	LOW
	AP	165	3484	HIGH
		118	3484	LOW

NOTE [REDACTED] RESOLUTION OF 281 LINES/MM REPORTED IN [REDACTED]

DISTORTION - POSITIVE (PINCUSHION)

ANGLE OFF AXIS-DEG.	3	2	1	0	359	358	357
MILLIMETERS	0.882	0.8	0.8	0.8	0.8	0.881	0.882



SYSTEM NO. J-34  
VEHICLE NO. 1629  
MISSION NO. 1638-1  
CAMERA NOS. 192/193

LENS DATA SUMMARY (HORIZON CAMERAS FOR SLAVE CAMERA NO. 193)

	TAKE-UP	SUPPLY
LENS SERIAL NO.	12852	12857
OPERATIONAL FOCAL LENGTH	55.88 MM	55.88 MM
RADIAL DISTORTION		
12 DEG. OFF AXIS	0.022 MM	0.018 MM
22 DEG. OFF AXIS	0.050 MM	0.050 MM
TANGENTIAL DISTORTION (MAXIMUM VECTOR)	0.030 MM	0.060 MM

RESOLUTION

ANGLE OFF AXIS-DEG.	0	5	10	15	20	25	27.5	30
TAKE-UP (RADIAL)	187	186	206	160	88	150	0	91
(TANGENTIAL)	166	164	181	78	52	68	0	62
SUPPLY (RADIAL)	209	208	206	202	175	134	0	41
(TANGENTIAL)	166	185	161	155	116	109	0	62

DYNAMIC (ZERO DEG)

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

NOTE

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

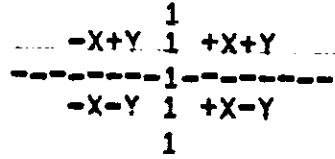
SYSTEM NO. J-34  
VEHICLE NO. 1629  
MISSION NO. 1738-1  
CAMERA NOS. 192/193

FORMAT DIMENSIONS AND CALIBRATIONS

CAMERA NO. 192                      CAMERA NO. 193

A	76.218	76.828
B	354.818	354.688
C	722.782	729.382
D	56.552	56.419
E	56.422	56.427
DT	-0.267	0.084
DT	-0.247	-0.183
DS	-0.961	-0.223
YS	-0.117	-0.149
XVO	0.267	-0.228
YVO	1.672	-1.339
TX	-0.262	0.073
TY	1.452	-1.897
TSX	-0.952	-0.217
TSY	-0.117	-2.149
TSZ	0.216	-0.191
TSY	21.374	21.339
HEIGHT	55.395	55.083
WIDTH	755.188	754.228
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, 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-34  
VEHICLE NO. 1629  
MISSION NO. 1438-1  
CAMERA NOS. 192/193

LENS DATA SUMMARY STELLAR INDEX D93/86/112 -1 MISSION

	STELLAR	INDEX
LENS SERIAL NO.	11918	819192
RESEAU SERIAL NO.	112	86
FILTER TYPE	NONE	WRATTEN 21
APERTURE	F1.8	F4.5
EXPOSURE TIME	2.8 SEC.	1/500 SEC.
EQUIVALENT FOCAL LENGTH	84 NOM	MM. 38.54 MM

RESOLUTION (INDEX)

ANGLE OFF AXIS	5	10	20	30	35
HIGH CONTRAST-R/T (3422 FILM)	063/71	078/78	101/78	095/45	085/34

APAR 72 LINES/MM  
READ FROM 4400 FILM.

DISTORTION

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

ALIGNMENT	STELLAR	INDEX
C.F.	INCHES/.937 INCHES	-0.0012 INCHES/2.25 INCH

SYSTEM NO. J-34  
VEHICLE NO. 1629  
MISSION NO. 1738-1  
CAMERA NOS. 192/193

LENS DATA SUMMARY STELLAR INDEX D90/111/108 -2 MISSION

	STELLAR	INDEX
LENS SERIAL NO.	18742	819958
RESEAU SERIAL NO.	108	111
FILTER TYPE	NONE	WRATTEN 21
APERTURE	F1.8	F4.5
EXPOSURE TIME	2.0 SEC.	1/500 SEC.
EQUIVALENT FOCAL LENGTH	84 NOM	MM 38.54 MM

RESOLUTION (INDEX)

ANGLE OFF AXIS	0	10	20	30	35
HIGH CONTRAST-R/T (3428 FILM)	067/80	279/71	102/77	094/41	085/2

ANAL. 70 LINES/MM  
READ FROM 4080 FILM.

DISTORTION

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

ALIGNMENT	STELLAR	INDEX
	-0.0005 INCHES/.937 INCHES	-0.0010 INCHES/2.25 INCH

SYSTEM NO. J-34  
VEHICLE NO. 1529  
MISSION NO. 1838-1  
CAMERA NOS. 192/193

CYCLE PERIOD DATA

W/F LEVEL	RAMP AMPLITUDE	SETTING RAMP-SEC	TIME UP CYCLE PERIOD-SEC	---CALIBRATED---		---IN-FLIGHT---		ORBI CYCLE PERIOD-SEC NO.
				MASTER	SLAVE	MASTER	SLAVE	
7	3	97	4.734	4.693	4.645	4.525	9	
7	3	1699	2.217	2.216	2.235	2.245	16	
7	3	1745	2.215	2.214	2.234	2.245	32	
7	3	1771	2.214	2.213	2.243	2.258	47	

NOTE

OR \* INDICATE NO DATA AVAILABLE.

- A. 1836-1
- B. DRY
- C. PERFORMANCE ESTIMATE - PART ONE

OPERATIONS SUMMARY

FAD	FAN	CAMERA	NUMBER	192													
OPN	NO	FRA			LAT	LONG	HEIGHT	RANGE	DA	H	M	S	LTIM	S-TIM			
PRE-FLT	126																
1	4	2	17	ON	2	57 33	158 52W	725120	730896	14	22	56	15	1252	82575		
				OFF	2	54 48	149 22W	691456	716720	14	22	57	8	1259	82620		
4	8	1	38	ON	2	62 5	138 1E	723824	750304	15	3	25	35	1237	12335		
				OFF	2	56 37	141 33E	696724	722160	15	3	27	1	1253	12421		
4	8	3	13	ON	2	54 26	142 30E	686608	711680	15	3	27	34	1258	12454		
				OFF	2	52 12	143 30E	576592	701280	15	3	28	9	13 2	12489		
6	8	3	38	ON	2	44 17	123 30E	644304	667792	15	5	8	18	1314	18018		
				OFF	2	38 13	125 0E	624864	647616	15	5	1	49	1322	18109		
6	8	5	91	ON	3	14 23	132 23E	649456	673136	15	5	14	50	14 4	18890		
				OFF	3	29 32	134 33E	721168	747552	15	5	18	35	1416	19115		
6	8	3	18	ON	2	42 9	101 31E	635984	659152	15	6	31	8	1317	23460		
				OFF	2	39 34	102 9E	627924	650784	15	6	31	39	1320	23499		
6	8	4	31	ON	2	35 47	102 47E	619898	642464	15	6	32	21	1323	23541		
				OFF	2	32 3	103 42E	600432	630560	15	6	33	32	1328	23612		
6	8	6	54	ON	2	27 24	104 30E	599792	621600	15	6	34	41	1332	23681		
				OFF	2	19 5	105 44E	591136	612624	15	6	36	44	1339	23804		
7	9	2	14	ON	2	57 47	76 6E	666864	691200	15	7	58	59	13 3	28739		
				OFF	2	47 51	77 10E	655184	679072	15	7	59	44	13 8	28784		
7	9	6	78	ON	2	55 2	82 15E	617024	639488	15	8	2	41	1323	28961		
				OFF	2	24 7	82 10E	590736	616368	15	8	5	38	1334	29138		
8	9	1	75	ON	2	61 52	47 24E	716544	742752	15	9	26	16	1235	33976		
				OFF	2	49 43	53 40E	661296	685424	15	9	29	24	13 4	34164		
9	9	9	10	ON	1	39 10	123 8W	1110192	1151568	15	10	37	13	224	38233		
				OFF	1	42 6	122 25W	1096832	1137680	15	10	38	8	228	38280		
9	9	1	17	ON	2	67 45	25 33E	709456	735392	15	10	56	42	1238	39402		
				OFF	2	57 40	27 31E	694406	719872	15	10	57	31	1247	39451		
9	9	5	45	ON	2	35 3	34 52E	615360	637760	15	11	2	59	1322	39779		
				OFF	2	28 59	36 11E	600368	622208	15	11	4	44	1329	39884		
9	9	6	33	ON	2	5 24	39 13E	595472	617120	15	11	10	18	1347	40218		
				OFF	2	1 18	39 40E	603904	625872	15	11	11	33	1350	40293		
10	2	1	15	ON	2	29 9	13 29E	599888	621712	15	12	34	53	1328	45293		
				OFF	2	26 33	13 53E	596176	617856	15	12	35	29	1331	45329		
11	4	1	31	ON	2	12 45	6 54W	599712	611152	15	14	9	2	1341	50942		
				OFF	2	2 1	6 20W	593536	615120	15	14	10	12	1344	51012		
14	7	2	55	ON	2	2 32	73 33W	606720	628784	15	18	42	29	1348	67349		
				OFF	3	7 58	72 35W	630160	653104	15	18	44	35	1354	67475		
15	7	2	16	ON	2	32 38	123 21W	604944	626944	15	21	34	45	1321	77685		
				OFF	2	33 22	122 54W	602336	622176	15	21	35	22	1323	77722		
21	3	3	100	ON	2	52 11	117 54E	659720	683792	16	5	0	35	1252	18035		
				OFF	2	35 41	122 40E	600528	630672	16	5	4	44	1315	18284		
22	4	2	17	ON	2	41 53	98 35E	623776	646496	16	6	33	18	13 7	23598		
				OFF	2	39 13	99 13E	616560	639008	16	6	33	58	1310	23638		

22	4	3	129	ON	2	31	37	188	46E	622128	621952	16	6	35	52	1318	23752	
				OFF	2	13	37	183	26E	598016	611472	16	6	48	21	1334	24821	
23	6	2	25	ON	2	58	25	69	25E	684896	789872	16	7	59	13	1236	28753	
				OFF	2	54	17	71	37E	666488	698888	16	8	8	17	1246	28817	
23	6	5	111	ON	2	45	59	74	44E	635824	658992	16	8	2	24	13	1	28944
				OFF	2	29	18	78	37E	596832	617712	16	8	6	36	1328	29196	
24	5	2	56	ON	2	64	9	42	29E	718864	736816	16	9	27	58	1217	34878	
				OFF	2	54	56	48	37E	668168	692544	16	9	38	15	1244	34215	
25	6	1	36	ON	2	58	48	23	55E	683264	788288	16	18	59	24	1235	39564	
				OFF	2	52	39	26	52E	658248	682256	16	11	8	57	1248	39657	
25	6	6	47	ON	2	3	4	36	36E	684752	626752	16	11	13	16	1339	48396	
				OFF	3	4	6	37	25E	623152	645848	16	11	15	2	1344	48582	
26	2	2	38	ON	2	29	23	18	25E	595552	617288	16	12	36	54	1318	45414	
				OFF	2	24	14	11	15E	598336	611792	16	12	38	18	1323	45498	
28	2	5	28	ON	2	14	6	12	37E	592816	611456	16	12	48	48	1331	45648	
				OFF	2	11	7	13	8E	592648	614176	16	12	41	26	1333	45686	
27	2	4	48	ON	2	21	31	11	24E	582928	618336	16	14	8	57	1324	58937	
				OFF	2	13	52	18	27E	592272	611728	16	14	18	49	1338	51849	
31	2	1	58	ON	2	9	57	77	35E	594976	616688	16	18	42	9	1331	67329	
				OFF	2	1	43	76	30E	618832	632224	16	18	44	11	1337	67451	
32	3	2	18	ON	2	33	12	126	27E	682832	621856	16	21	36	37	1311	77797	
				OFF	2	38	45	125	53E	596336	618716	16	21	37	14	1313	77834	
36	4	2	9	ON	2	52	39	137	29E	652864	673768	17	3	32	8	1242	12728	
				OFF	2	51	17	138	5E	644768	668272	17	3	32	31	1244	12751	
36	6	6	38	ON	3	19	32	149	48E	682888	718192	17	3	58	2	1349	13882	
				OFF	3	26	39	158	49E	738672	757488	17	3	51	48	1355	13988	
37	6	2	48	ON	2	42	24	110	18E	617488	639968	17	5	4	49	1257	18289	
				OFF	2	34	45	119	57E	681888	622864	17	5	6	44	13	6	18484
37	6	3	18	ON	2	32	45	128	42E	595184	616752	17	5	7	43	1318	18463	
				OFF	2	28	21	121	5E	592432	613968	17	5	8	19	1312	18499	
38	6	2	184	ON	2	44	29	94	58E	622528	645184	17	6	34	23	1254	23663	
				OFF	2	15	16	188	18E	592928	612416	17	6	41	38	1322	24898	
39	6	1	48	ON	2	62	32	63	48E	687584	712784	17	7	59	51	1214	28791	
				OFF	2	58	58	68	23E	656336	688272	17	8	1	49	1235	28989	
39	6	3	18	ON	2	47	13	71	27E	629888	652832	17	8	3	47	1249	29827	
				OFF	2	44	18	72	23E	621584	644128	17	8	4	31	1253	29871	
39	6	6	37	ON	2	23	36	76	38E	589152	618568	17	8	9	48	1315	29388	
				OFF	2	18	9	77	16E	589424	618848	17	8	11	3	1328	29463	
41	6	3	38	ON	2	52	1	24	22E	644128	667688	17	11	2	45	1248	39765	
				OFF	2	46	27	26	21E	626384	649288	17	11	4	18	1249	39858	
42	2	5	48	ON	2	20	55	8	51E	588832	618248	17	12	48	35	1316	45635	
				OFF	2	14	44	9	42E	591952	613472	17	12	42	6	1328	45726	
45	7	7	26	ON	3	24	32	53	34E	726328	752896	17	17	22	3	1347	62523	
				OFF	3	29	33	52	46E	755376	783856	17	17	23	18	1352	62598	
47	5	8	8	ON	2	33	18	186	32E	596512	618288	17	28	7	56	13	1	72476
				OFF	2	31	47	186	13E	594688	616224	17	28	8	19	13	3	72499
51	9	1	28	ON	2	58	14	154	33E	659572	683936	18	2	1	55	1228	7315	
				OFF	2	54	19	156	37E	645664	669288	18	2	2	56	1229	7376	
52	9	4	17	ON	2	48	27	135	57E	629584	652432	18	3	34	14	1238	12854	
				OFF	2	46	43	136	52E	621888	644448	18	3	34	56	1242	12896	
53	6	4	27	ON	2	47	34	113	55E	623688	646384	18	5	4	46	1248	18286	

			OFF	2	44	2	115	0E	614512	636880	18	5	5	40	1245	18340	
53	6	6	93 ON	2	37	28	116	36E	601296	623168	18	5	7	18	1253	18438	
			OFF	2	23	24	119	6E	589616	611040	18	5	10	47	13	7	18647
54	8	4	169 ON	2	37	35	93	55E	601200	623072	18	6	37	20	1253	23840	
			OFF	2	12	10	97	55E	598240	620000	18	6	43	37	1315	24217	
54	8	8	53 ON	2	3	37	98	55E	615696	638096	18	6	45	44	1321	24344	
			OFF	3	4	51	99	52E	642000	665472	18	6	47	50	1327	24470	
55	8	5	84 ON	2	35	45	71	38E	598112	619856	18	8	7	51	1254	29271	
			OFF	2	22	59	73	49E	589712	611152	18	8	11	1	13	6	29461
55	8	7	43 ON	2	19	48	74	16E	590768	612240	18	8	11	48	13	8	29508
			OFF	2	13	12	75	7E	597024	610736	18	8	13	26	1313	29606	
56	6	2	27 ON	2	59	19	40	32E	660112	684192	18	9	31	57	1214	34317	
			OFF	2	56	4	42	24E	648320	671952	18	9	32	47	1222	34367	
56	6	4	21 ON	2	52	41	44	0E	636992	660200	18	9	33	39	1229	34419	
			OFF	2	49	20	45	18E	626944	649776	18	9	34	30	1235	34470	
57	8	4	52 ON	2	13	38	29	44E	597000	618720	18	11	13	26	1312	40406	
			OFF	2	5	38	30	41E	611968	634240	18	11	15	24	1318	40524	
58	8	6	31 ON	2	7	20	7	48E	608240	630368	18	12	45	0	1316	45900	
			OFF	2	2	38	2	21E	620192	642768	18	12	46	11	1319	45971	
61	2	4	56 ON	3	24	42	56	16W	741456	768600	18	17	23	7	1338	62587	
			OFF	3	35	48	54	20W	809488	839216	18	17	25	54	1348	62754	
68	9	3	52 ON	2	53	38	131	35E	633240	656320	19	3	33	58	1220	12838	
			OFF	2	45	40	134	31E	612560	634848	19	3	35	59	1234	12959	
69	6	5	31 ON	2	41	31	113	0E	604016	625984	19	5	7	4	1239	18424	
			OFF	2	36	47	114	5E	597000	618720	19	5	8	15	1244	18495	
69	6	7	62 ON	2	32	2	115	2E	592512	614048	19	5	9	25	1249	18565	
			OFF	2	22	35	116	33E	591488	612992	19	5	11	45	1258	18705	
72	3	5	10 ON	2	42	7	90	11E	604832	626832	19	6	36	56	1237	23816	
			OFF	2	39	12	90	54E	600000	621904	19	6	37	40	1241	23860	
73	3	7	55 ON	2	34	55	91	49E	594800	616416	19	6	38	44	1246	23924	
			OFF	2	26	29	93	18E	590672	612144	19	6	40	49	1254	24049	
71	6	2	70 ON	2	59	43	60	10E	651120	674864	19	8	2	30	12	3	28950
			OFF	2	40	23	65	40E	617616	640096	19	8	5	24	1228	29124	

OPERATIONS SUMMARY

AFT PAN CAMERA NUMBER 193

OPN	NO	FRA	Q	LAT	LONG	HEIGHT	RANGE	DA	H	M	S	LTIM	S-TIM					
PRE-FLT 125																		
1	4	0	17	ON	2	57	44	151	1W	701312	726944	14	22	56	27	1252	82587	
				OFF	2	54	50	149	30W	687776	712896	14	22	57	12	1258	82632	
4	8	1	33	ON	2	62	18	137	47E	719792	746128	15	3	25	47	1236	12347	
				OFF	2	56	48	141	24E	692976	718288	15	3	27	13	1252	12433	
4	8	3	14	ON	2	54	36	142	30E	683024	707968	15	3	27	46	1257	12466	
				OFF	2	52	19	143	31E	673136	697696	15	3	28	21	13	2	12501
5	8	3	38	ON	2	44	23	123	33E	641488	664864	15	5	0	30	1314	18030	
				OFF	2	38	18	125	5E	622512	645184	15	5	2	1	1322	18121	
5	8	5	91	ON	3	14	16	132	18E	652704	676496	15	5	15	2	14	4	18902
				OFF	3	29	18	134	27E	725664	752224	15	5	18	47	1416	19127	
6	3	3	16	ON	2	42	15	101	26E	633344	656416	15	6	31	12	1316	23472	
				OFF	2	39	39	102	5E	625456	648240	15	6	31	51	1320	23511	



6	3	4	38	ON	2	36	51	102	43E	617696	648176	15	6	32	33	1323	23553	
				OFF	2	32	6	103	39E	606720	628800	15	6	33	44	1328	23624	
6	3	6	55	ON	2	27	26	104	27E	598544	628384	15	6	34	53	1332	23693	
				OFF	2	19	7	105	40E	590768	612240	15	6	36	56	1339	23816	
7	9	3	18	ON	2	50	55	76	0E	663552	687760	15	7	59	11	13	2	28751
				OFF	2	47	58	77	3E	652096	675872	15	7	59	56	13	7	28796
7	9	6	78	ON	2	36	6	80	11E	614976	637360	15	8	2	53	1323	28973	
				OFF	2	24	9	82	16E	593840	615424	15	8	5	50	1334	29150	
8	8	1	74	ON	2	62	4	47	11E	712576	738624	15	9	26	28	1235	33988	
				OFF	2	49	51	53	42E	658096	682096	15	9	29	36	13	4	34176
9	8	0	10	ON	1	38	21	123	25W	1106672	1147920	15	10	37	25	223	38245	
				OFF	1	41	19	122	43W	1093216	1133936	15	10	38	12	227	38292	
9	9	1	17	ON	2	60	57	25	21E	705600	731392	15	10	56	54	1238	39414	
				OFF	2	57	50	27	21E	690832	716064	15	10	57	43	1246	39463	
9	9	5	45	ON	2	36	6	34	48E	613296	635616	15	11	3	11	1322	39791	
				OFF	2	29	2	36	7E	599040	620832	15	11	4	56	1329	39896	
9	9	6	33	ON	2	6	26	39	9E	596592	618288	15	11	10	30	1346	40230	
				OFF	2	1	21	39	44E	605584	627616	15	11	11	45	1350	40305	
10	2	1	15	ON	2	29	2	13	26E	598560	620320	15	12	35	5	1328	45305	
				OFF	2	26	35	13	50E	595104	616752	15	12	35	41	1330	45341	
11	4	1	31	ON	2	12	40	6	50W	590176	611632	15	14	9	14	1341	50954	
				OFF	2	8	3	6	24W	594528	616144	15	14	10	24	1344	51024	
14	7	2	55	ON	2	0	36	73	37W	608576	630720	15	18	42	41	1347	67361	
				OFF	3	7	52	72	39W	632944	656000	15	18	44	47	1353	67487	
16	7	0	16	ON	2	33	1	123	24W	603344	625296	15	21	34	57	1321	77697	
				OFF	2	30	31	122	57W	598928	620704	15	21	35	34	1323	77734	
21	3	3	100	ON	2	52	18	117	40E	656576	680528	16	5	0	47	1251	10047	
				OFF	2	35	44	122	37E	606752	628832	16	5	4	56	1315	18296	
22	4	2	17	ON	2	41	57	98	29E	621440	644064	16	6	33	30	13	7	23610
				OFF	2	39	17	99	9E	614448	636816	16	6	34	10	1310	23650	
22	4	3	120	ON	2	31	39	100	43E	598800	620576	16	6	36	4	1318	23764	
				OFF	2	13	31	103	21E	590576	612048	16	6	40	33	1333	24033	
23	6	2	25	ON	2	58	35	69	16E	600640	705488	16	7	59	25	1236	28765	
				OFF	2	54	25	71	29E	663216	687408	16	8	0	29	1246	28829	
23	6	5	111	ON	2	46	5	74	39E	633168	656240	16	8	2	36	13	1	28956
				OFF	2	29	12	78	27E	594928	616560	16	8	6	48	1320	29208	
24	5	2	56	ON	2	64	20	42	15E	706256	732000	16	9	28	2	1216	34082	
				OFF	2	55	4	40	30E	664928	689184	16	9	30	27	1244	34227	
25	8	1	36	ON	2	50	49	23	45E	679776	704592	16	10	59	36	1234	39576	
				OFF	2	52	47	26	52E	655120	679000	16	11	1	9	1248	39669	
25	8	6	47	ON	2	3	7	36	32E	606528	620592	16	11	13	20	1339	40400	
				OFF	3	4	1	37	20E	625712	648496	16	11	15	14	1344	40514	
26	2	2	33	ON	2	29	25	10	22E	594496	616112	16	12	37	6	1318	45426	
				OFF	2	24	15	11	11E	589000	611248	16	12	38	22	1322	45502	
26	2	5	20	ON	2	14	7	12	33E	590576	612048	16	12	40	52	1330	45652	
				OFF	2	11	2	12	56E	593552	615136	16	12	41	38	1333	45698	
27	2	4	40	ON	2	21	32	11	5W	508704	610096	16	14	9	9	1324	50949	
				OFF	2	14	0	10	6W	590096	612384	16	14	11	1	1330	51061	
30	2	1	54	ON	2	9	59	77	40W	596000	617760	16	18	42	21	1331	67341	
				OFF	2	1	46	76	43W	612016	634288	16	18	44	23	1337	67463	
32	3	0	15	ON	2	33	14	126	23W	598736	620512	16	21	36	49	1311	77809	

		OFF	2	30	47	125	56W	595280	616920	16	21	37	26	1313	77846			
36	4	2	9	ON	2	52	46	137	22E	647152	678752	17	3	32	20	1241	12740	
		OFF	2	51	16	137	59E	641960	665360	17	3	32	43	1244	12763			
36	8	6	39	ON	3	19	21	149	42E	697824	722496	17	3	50	14	1348	13814	
		OFF	3	26	24	150	43E	735360	762272	17	3	52	0	1354	13920			
37	8	2	49	ON	2	42	28	118	8E	615456	637856	17	5	5	1	1257	18301	
		OFF	2	34	48	119	54E	599640	621456	17	5	6	56	13	6	18416		
37	8	3	16	ON	2	30	47	120	39E	594112	615712	17	5	7	55	1310	18475	
		OFF	2	28	23	121	3E	591712	613216	17	5	8	31	1312	18511			
38	8	2	194	ON	2	44	34	94	53E	620304	642880	17	6	34	35	1253	23675	
		OFF	2	15	18	100	14E	591600	613104	17	6	41	50	1322	24110			
39	9	1	46	ON	2	62	42	63	28E	684144	709136	17	8	0	3	1213	20803	
		OFF	2	55	6	68	17E	653344	677168	17	8	2	1	1234	20921			
39	9	3	18	ON	2	47	18	71	22E	627456	650304	17	8	3	59	1249	29039	
		OFF	2	44	23	72	16E	619200	641824	17	8	4	43	1253	29003			
39	9	6	38	ON	2	23	37	76	26E	588944	610352	17	8	9	52	1315	29392	
		OFF	2	18	1	77	13E	589824	611264	17	8	11	15	1319	29475			
41	6	3	36	ON	2	52	8	24	16E	641376	664752	17	11	2	57	1239	39777	
		OFF	2	46	31	26	16E	624032	646752	17	11	4	22	1249	39862			
42	2	5	40	ON	2	20	56	8	48E	588976	610384	17	12	40	47	1315	45647	
		OFF	2	14	46	9	36E	592736	614200	17	12	42	18	1320	45730			
45	7	7	26	ON	3	24	16	53	40W	730944	757696	17	17	22	15	1347	62535	
		OFF	3	29	16	52	53W	760272	788128	17	17	23	30	1351	62610			
47	5	0	9	ON	2	33	20	106	33W	595456	617104	17	20	8	8	13	1	72488
		OFF	2	31	48	106	16W	593600	615264	17	20	8	31	13	3	72511		
51	9	1	24	ON	2	50	22	154	26E	656864	680816	18	2	2	7	1219	7327	
		OFF	2	54	25	156	31E	642928	666352	18	2	3	8	1229	7388			
52	9	4	18	ON	2	49	32	135	51E	627152	649984	18	3	34	26	1237	12866	
		OFF	2	46	47	136	47E	619632	642192	18	3	35	8	1242	12900			
53	6	4	23	ON	2	47	39	113	50E	621424	644048	18	5	4	58	1240	18298	
		OFF	2	44	4	114	55E	612600	634896	18	5	5	52	1245	18352			
53	6	6	93	ON	2	37	30	116	33E	599968	621792	18	5	7	30	1253	18450	
		OFF	2	23	26	119	2E	589600	611120	18	5	10	59	13	6	18659		
54	8	4	172	ON	2	37	30	93	51E	599856	621600	18	6	37	32	1252	23852	
		OFF	2	12	13	97	51E	599520	621312	18	6	43	49	1315	24229			
54	8	8	53	ON	2	3	41	98	51E	617904	640384	18	6	45	56	1321	24356	
		OFF	3	4	45	99	48E	645136	668640	18	6	48	2	1327	24402			
55	8	5	84	ON	2	35	48	71	34E	597000	618720	18	8	8	3	1254	29283	
		OFF	2	23	1	73	45E	589856	611296	18	8	11	13	13	6	29473		
55	8	7	43	ON	2	19	50	74	12E	591232	612720	18	8	12	0	13	8	29520
		OFF	2	13	15	75	3E	598200	619968	18	8	13	38	1313	29610			
56	6	2	20	ON	2	59	27	40	24E	657120	681000	18	9	32	9	1213	34329	
		OFF	2	56	11	42	16E	645520	669056	18	9	32	59	1222	34379			
56	6	4	21	ON	2	52	46	43	54E	634464	657584	18	9	33	51	1229	34431	
		OFF	2	49	25	45	13E	624640	647392	18	9	34	42	1235	34482			
57	8	4	52	ON	2	13	40	29	40E	598160	619904	18	11	13	38	1312	40418	
		OFF	2	5	42	30	36E	614000	636336	18	11	15	36	1317	40536			
58	8	6	30	ON	2	7	32	7	44E	610096	632288	18	12	45	12	1315	45912	
		OFF	2	2	43	8	17E	622560	645232	18	12	46	23	1319	45983			
61	2	4	55	ON	3	24	26	56	22W	746192	773520	18	17	23	19	1337	62599	
		OFF	3	35	26	54	28W	814760	844704	18	17	26	6	1347	62766			

68	9	3	52	ON	2	53	43	131	30E	638896	653872	19	3	34	18	1219	12858	
				OFF	2	45	43	134	27E	618784	633888	19	3	36	11	1233	12971	
69	6	5	31	ON	2	41	34	112	56E	682688	624528	19	5	7	16	1238	18436	
				OFF	2	36	58	114	2E	596848	617728	19	5	8	27	1244	18587	
69	6	7	62	ON	2	32	4	114	58E	592888	613528	19	5	9	37	1249	18577	
				OFF	2	22	36	116	30E	591952	613472	19	5	11	57	1257	18717	
70	3	5	18	ON	2	42	18	98	7E	683376	625328	19	6	37	8	1237	23828	
				OFF	2	39	15	98	50E	598928	628784	19	6	37	52	1241	23872	
70	3	7	55	ON	2	34	57	91	46E	594816	615616	19	6	38	56	1245	23936	
				OFF	2	26	31	93	15E	598784	612176	19	6	41	1	1253	24861	
71	6	2	78	ON	2	59	49	68	18E	648488	672832	19	8	2	42	12	3	28962
				OFF	2	48	26	65	35E	615688	638896	19	8	5	36	1227	29136	

PHOTOGRAPHIC SUMMARY

FWD PAN CAMERA NO 192 0.2250 SLIT W/23A FILTER										3484 FILM		
OPN NO	FRA	FEET	ET	S-EL	S-DIR	EV	FULL	INT	PRI			
PRE-FLT	126	333.3										
1	4	8	17	45.0	ON	293	18.6	29.4	12.84	11.46	18.86	18.26
					OFF	293	13.3	29.7	12.85	11.69	11.89	18.49
4	8	1	33	87.3	ON	247	6.4	28.8	11.88	18.99	18.39	9.79
					OFF	256	11.6	29.1	11.86	11.55	18.95	18.35
4	8	3	13	34.4	ON	268	13.6	29.3	11.88	11.71	11.11	18.51
					OFF	264	15.6	29.5	11.89	11.85	11.25	18.65
5	8	3	38	108.5	ON	275	22.7	38.7	11.96	12.15	11.55	18.95
					OFF	285	28.1	32.2	12.81	12.27	11.67	11.87
5	8	5	91	248.7	ON	279	61.7	82.8	11.98	12.42	11.82	11.22
					OFF	249	68.1	109.9	11.81	12.42	11.82	11.22
6	3	3	16	42.3	ON	279	24.7	31.8	11.98	12.28	11.68	11.88
					OFF	283	26.9	31.7	12.88	12.25	11.65	11.85
6	3	4	38	79.3	ON	288	29.4	32.5	12.82	12.29	11.69	11.89
					OFF	294	33.4	34.1	12.85	12.33	11.73	11.13
6	3	6	54	142.8	ON	299	37.3	36.8	12.87	12.37	11.77	11.17
					OFF	384	44.8	48.5	12.18	12.41	11.81	11.21
7	9	3	18	47.6	ON	262	17.8	29.3	11.89	11.93	11.33	18.73
					OFF	268	19.6	29.7	11.92	12.85	11.45	18.85
7	9	6	78	286.3	ON	289	38.1	32.6	12.83	12.38	11.78	11.18
					OFF	381	48.1	37.4	12.89	12.39	11.79	11.19
8	8	1	73	193.1	ON	237	6.7	28.2	11.74	11.82	18.42	9.82
					OFF	265	18.8	29.3	11.98	11.98	11.38	18.78
9	8	8	18	26.4	ON	136	-55.9	55.5	18.94	8.8	8.8	8.8
					OFF	137	-54.1	52.1	18.95	8.8	8.8	8.8
9	9	1	17	45.8	ON	242	7.8	28.1	11.77	11.16	18.56	9.96
					OFF	249	18.7	28.2	11.81	11.47	18.87	18.27
9	9	5	45	119.8	ON	292	38.2	32.2	12.84	12.38	11.78	11.18
					OFF	388	36.2	34.8	12.88	12.36	11.76	11.16
9	9	6	33	87.3	ON	385	53.4	58.4	12.18	12.42	11.82	11.22
					OFF	381	56.5	56.4	12.89	12.42	11.82	11.22
10	2	1	15	39.7	ON	388	36.2	34.6	12.88	12.36	11.76	11.16
					OFF	382	38.3	35.7	12.89	12.38	11.78	11.18
11	4	1	31	82.8	ON	387	49.2	44.2	12.11	12.42	11.82	11.22

				OFF	386	52.5	48.5	12.11	12.42	11.82	11.22
14	7	2	55	145.5 ON	388	57.5	56.6	12.88	12.42	11.82	11.22
				OFF	289	61.4	69.7	12.83	12.42	11.82	11.22
16	7	8	16	42.3 ON	297	33.2	32.1	12.87	12.33	11.73	11.13
				OFF	388	35.4	33.8	12.88	12.35	11.75	11.15
21	3	3	188	285.7 ON	267	16.1	26.9	11.92	11.88	11.28	10.68
				OFF	295	31.1	38.4	12.86	12.31	11.71	11.11
22	4	2	17	45.8 ON	287	25.6	28.6	12.82	12.22	11.62	11.02
				OFF	291	28.8	29.2	12.84	12.27	11.67	11.07
22	4	3	128	317.4 ON	388	34.7	31.6	12.88	12.35	11.75	11.15
				OFF	387	49.7	41.6	12.11	12.42	11.82	11.22
23	6	2	25	66.1 ON	254	18.3	26.1	11.84	11.44	10.84	10.24
				OFF	263	14.2	26.4	11.89	11.76	11.16	10.56
23	6	5	111	293.6 ON	288	21.9	27.6	11.98	12.13	11.53	10.93
				OFF	382	36.9	32.4	12.89	12.37	11.77	11.17
24	5	2	56	148.1 ON	239	4.8	25.7	11.75	10.75	10.15	9.55
				OFF	262	13.7	26.2	11.88	11.72	11.12	10.52
25	8	1	36	95.2 ON	252	18.1	25.8	11.83	11.42	10.82	10.22
				OFF	265	15.8	26.3	11.98	11.86	11.26	10.66
25	8	6	47	124.3 ON	297	57.3	51.5	12.87	12.42	11.82	11.22
				OFF	289	61.3	61.7	12.83	12.42	11.82	11.22
26	2	2	33	87.3 ON	388	36.9	31.8	12.88	12.37	11.77	11.17
				OFF	383	41.3	34.1	12.18	12.48	11.88	11.28
26	2	5	28	52.9 ON	384	49.6	48.4	12.18	12.42	11.82	11.22
				OFF	383	51.9	43.8	12.89	12.42	11.82	11.22
27	2	4	49	129.6 ON	384	43.7	35.3	12.18	12.41	11.81	11.21
				OFF	384	49.7	48.3	12.18	12.42	11.82	11.22
38	2	1	54	142.8 ON	382	53.1	43.1	12.89	12.42	11.82	11.22
				OFF	295	58.7	52.3	12.86	12.42	11.82	11.22
32	3	8	16	42.3 ON	298	33.9	29.4	12.87	12.34	11.74	11.14
				OFF	388	36.1	38.2	12.88	12.36	11.76	11.16
36	4	2	9	23.8 ON	271	16.1	24.6	11.93	11.88	11.28	10.68
				OFF	273	17.5	24.8	11.95	11.95	11.35	10.75
36	8	6	39	103.2 ON	257	66.6	92.9	11.86	12.42	11.82	11.22
				OFF	241	65.2	108.9	11.77	12.42	11.82	11.22
37	8	2	49	129.6 ON	288	25.7	26.1	12.82	12.22	11.62	11.02
				OFF	297	32.7	28.8	12.87	12.33	11.73	11.13
37	8	3	16	42.3 ON	381	36.3	29.4	12.88	12.36	11.76	11.16
				OFF	382	38.5	38.3	12.89	12.38	11.78	11.18
38	8	2	194	513.1 ON	284	23.8	25.5	12.88	12.18	11.58	10.98
				OFF	382	49.6	37.2	12.89	12.42	11.82	11.22
39	9	1	45	119.8 ON	249	6.6	23.5	11.81	11.81	10.41	9.81
				OFF	265	14.8	23.9	11.98	11.74	11.14	10.54
39	9	3	18	47.6 ON	288	21.3	24.9	11.98	12.11	11.51	10.91
				OFF	284	24.1	25.4	12.88	12.19	11.59	10.99
39	9	6	37	97.9 ON	382	42.7	32.8	12.89	12.48	11.88	11.28
				OFF	382	47.5	35.2	12.89	12.42	11.82	11.22
41	6	3	36	95.2 ON	272	16.8	23.9	11.94	11.92	11.32	10.72
				OFF	281	22.1	24.7	11.99	12.13	11.53	10.93
42	2	5	48	105.8 ON	382	45.2	32.9	12.89	12.41	11.81	11.21
				OFF	381	58.4	36.8	12.89	12.42	11.82	11.22

45	7	7	26	68.8	ON	248	67.1	105.3	11.76	12.42	11.82	11.22
					OFF	229	65.3	116.2	11.69	12.42	11.82	11.22
47	5	8	9	23.8	ON	298	34.5	26.8	12.87	12.35	11.75	11.15
					OFF	299	35.9	27.3	12.88	12.36	11.76	11.16
51	9	1	24	63.5	ON	263	11.8	21.8	11.89	11.58	10.98	10.38
					OFF	271	14.9	22.1	11.93	11.88	11.28	10.68
52	9	4	17	45.8	ON	288	19.6	22.5	11.98	12.84	11.44	10.84
					OFF	284	22.2	22.9	12.88	12.14	11.54	10.94
53	6	4	23	68.8	ON	283	21.4	22.6	12.88	12.11	11.51	10.91
					OFF	288	24.8	23.2	12.82	12.28	11.68	11.88
53	6	6	93	246.8	ON	296	38.9	24.6	12.86	12.31	11.71	11.11
					OFF	382	43.8	29.5	12.89	12.41	11.81	11.21
54	6	4	169	447.8	ON	297	38.9	24.4	12.87	12.31	11.71	11.11
					OFF	299	53.4	36.4	12.88	12.42	11.82	11.22
54	8	8	53	148.2	ON	298	68.1	45.8	12.83	12.42	11.82	11.22
					OFF	278	65.5	58.2	11.97	12.42	11.82	11.22
55	8	5	84	222.2	ON	298	32.6	24.7	12.87	12.33	11.73	11.13
					OFF	383	44.2	29.3	12.18	12.41	11.81	11.21
55	8	7	43	113.7	ON	383	47.8	31.8	12.89	12.42	11.82	11.22
					OFF	388	52.7	35.3	12.88	12.42	11.82	11.22
56	6	2	28	52.9	ON	263	18.8	21.8	11.89	11.41	10.81	10.21
					OFF	278	13.2	21.2	11.93	11.69	11.89	10.49
56	6	4	21	55.5	ON	276	16.5	21.5	11.96	11.98	11.38	10.78
					OFF	282	19.8	21.9	11.99	12.85	11.45	10.85
57	8	4	52	137.5	ON	299	52.5	34.6	12.88	12.42	11.82	11.22
					OFF	292	58.9	42.8	12.84	12.42	11.82	11.22
58	8	6	31	82.8	ON	294	57.5	39.8	12.85	12.42	11.82	11.22
					OFF	288	61.2	45.4	12.82	12.42	11.82	11.22
61	2	4	56	148.1	ON	233	69.3	188.8	11.72	12.42	11.82	11.22
					OFF	218	63.6	138.8	11.57	12.42	11.82	11.22
68	9	3	52	137.5	ON	279	15.8	19.6	11.98	11.86	11.26	10.66
					OFF	298	23.6	28.5	12.83	12.18	11.58	10.98
69	6	5	31	82.8	ON	296	27.6	21.8	12.86	12.26	11.66	11.86
					OFF	299	32.2	22.8	12.88	12.32	11.72	11.12
69	6	7	62	164.8	ON	382	36.6	23.3	12.89	12.36	11.76	11.16
					OFF	383	45.4	26.8	12.89	12.41	11.81	11.21
78	3	5	18	47.6	ON	295	27.1	28.8	12.86	12.25	11.65	11.85
					OFF	298	29.9	21.3	12.87	12.29	11.69	11.89
78	3	7	55	145.5	ON	381	34.8	22.3	12.89	12.34	11.74	11.14
					OFF	383	41.9	25.8	12.18	12.48	11.88	11.28
71	6	2	78	198.4	ON	269	9.8	18.7	11.92	11.39	10.79	10.19
					OFF	288	21.8	19.6	12.82	12.18	11.58	10.98

PHOTOGRAPHIC SUMMARY

AFT PAN	CAMERA NO	193	8.1758	SLIT	W/21	FILTER	3484	FILM				
OPN NO	FRA	FEET	FT	S-EL	S-DIR	EV	FULL	INT	PRI			
PRE-FLT	125	338.6										
1	4	8	17	45.8	ON	378	18.4	28.8	12.42	11.78	11.18	10.58
					OFF	379	13.1	29.2	12.42	12.81	11.41	10.81
4	8	1	33	87.3	ON	328	6.3	27.9	12.17	11.29	10.69	10.89

				OFF	332	11.4	28.5	12.23	11.87	11.27	10.67
4	8	3	14	37.8 ON	337	13.4	28.8	12.25	12.83	11.43	10.83
				OFF	341	15.5	29.1	12.27	12.17	11.57	10.97
5	8	3	38	108.5 ON	356	22.7	30.4	12.33	12.48	11.88	11.28
				OFF	369	28.8	32.8	12.38	12.68	12.88	11.48
5	8	5	91	248.7 ON	361	61.8	81.8	12.35	12.75	12.15	11.55
				OFF	322	68.2	109.7	12.18	12.75	12.15	11.55
6	3	3	16	42.3 ON	361	24.6	38.8	12.35	12.53	11.93	11.33
				OFF	366	26.9	31.5	12.37	12.58	11.98	11.38
6	3	4	30	79.3 ON	372	29.3	32.3	12.39	12.62	12.82	11.42
				OFF	388	33.4	33.9	12.42	12.66	12.86	11.46
6	3	6	55	145.5 ON	386	37.3	35.8	12.45	12.78	12.18	11.58
				OFF	393	44.8	48.3	12.47	12.74	12.14	11.54
7	9	3	18	47.6 ON	348	16.9	28.9	12.26	12.25	11.65	11.85
				OFF	347	19.5	29.4	12.29	12.37	11.77	11.17
7	9	6	78	286.3 ON	374	38.8	32.3	12.48	12.63	12.83	11.43
				OFF	398	48.1	37.3	12.46	12.72	12.12	11.52
8	8	1	74	195.7 ON	387	6.5	27.4	12.11	11.33	10.73	10.13
				OFF	342	17.9	28.9	12.27	12.38	11.78	11.18
9	8	8	18	26.4 ON	176	-56.4	56.2	11.32	8.8	8.8	8.8
				OFF	177	-54.7	52.5	11.32	8.8	8.8	8.8
9	9	1	17	45.9 ON	311	7.6	27.3	12.14	11.47	10.87	10.27
				OFF	321	18.6	27.6	12.18	11.79	11.19	10.59
9	9	5	45	119.8 ON	375	38.1	32.8	12.48	12.63	12.83	11.43
				OFF	386	36.2	34.7	12.44	12.69	12.89	11.49
9	9	6	33	87.3 ON	392	53.4	58.3	12.47	12.75	12.15	11.55
				OFF	388	56.5	56.2	12.45	12.75	12.15	11.55
10	2	1	15	39.7 ON	386	36.2	34.5	12.44	12.69	12.89	11.49
				OFF	389	38.3	35.6	12.45	12.71	12.11	11.51
11	4	1	31	82.8 ON	395	49.2	44.1	12.48	12.75	12.15	11.55
				OFF	393	52.5	48.3	12.47	12.75	12.15	11.55
14	7	2	55	145.5 ON	385	57.5	56.4	12.44	12.75	12.15	11.55
				OFF	372	61.5	69.5	12.39	12.75	12.15	11.55
16	7	8	16	42.3 ON	382	33.2	31.9	12.43	12.66	12.86	11.46
				OFF	386	35.4	32.9	12.44	12.68	12.88	11.48
21	3	3	188	285.7 ON	344	16.8	26.5	12.28	12.28	11.68	11.88
				OFF	379	31.1	38.2	12.42	12.64	12.84	11.44
22	4	2	17	45.8 ON	369	25.6	28.3	12.38	12.55	11.95	11.35
				OFF	374	28.8	29.8	12.48	12.68	12.88	11.48
22	4	3	128	317.4 ON	386	34.7	31.4	12.44	12.68	12.88	11.48
				OFF	394	49.7	41.5	12.48	12.75	12.15	11.55
23	6	2	25	66.1 ON	327	18.2	25.5	12.21	11.75	11.15	10.55
				OFF	339	14.1	25.9	12.26	12.88	11.48	10.88
23	6	5	111	293.6 ON	368	21.9	27.3	12.35	12.46	11.86	11.26
				OFF	389	36.9	32.2	12.45	12.78	12.18	11.58
24	5	2	56	148.1 ON	386	4.6	24.8	12.11	11.85	10.45	9.85
				OFF	333	13.5	25.7	12.23	12.84	11.44	10.84
25	8	1	36	95.2 ON	323	18.8	25.1	12.19	11.73	11.13	10.53
				OFF	339	15.7	25.9	12.26	12.18	11.58	10.98
25	8	6	47	124.3 ON	388	57.3	51.3	12.42	12.75	12.15	11.55
				OFF	378	61.3	61.6	12.38	12.75	12.15	11.55

26	2	2	33	87.3	ON	384	36.9	31.6	12.44	12.70	12.10	11.50
					OFF	388	41.3	33.9	12.45	12.73	12.13	11.53
26	2	5	28	52.9	ON	389	49.6	48.3	12.45	12.75	12.15	11.55
					OFF	387	51.9	42.8	12.45	12.75	12.15	11.55
27	2	4	49	129.6	ON	389	43.7	35.2	12.46	12.74	12.14	11.54
					OFF	389	49.8	48.2	12.45	12.75	12.15	11.55
38	2	1	54	142.8	ON	386	53.1	43.8	12.44	12.75	12.15	11.55
					OFF	378	58.7	52.1	12.41	12.75	12.15	11.55
32	3	8	15	39.7	ON	381	33.9	29.2	12.43	12.67	12.07	11.47
					OFF	384	36.1	30.1	12.44	12.69	12.09	11.49
36	4	2	9	23.8	ON	346	16.8	24.2	12.29	12.28	11.68	11.88
					OFF	349	17.4	24.4	12.38	12.28	11.68	11.88
36	6	6	39	103.2	ON	328	66.7	92.5	12.21	12.75	12.15	11.55
					OFF	308	65.4	108.5	12.12	12.75	12.15	11.55
37	8	2	49	129.6	ON	369	25.7	25.8	12.38	12.55	11.95	11.35
					OFF	380	32.7	27.8	12.42	12.66	12.06	11.46
37	8	3	16	42.3	ON	385	36.3	29.2	12.44	12.69	12.09	11.49
					OFF	387	38.5	30.1	12.45	12.71	12.11	11.51
38	8	2	194	513.1	ON	368	23.8	25.2	12.37	12.51	11.91	11.31
					OFF	391	49.6	37.1	12.46	12.75	12.15	11.55
39	9	1	46	121.7	ON	322	6.4	22.7	12.18	11.31	10.71	10.11
					OFF	343	13.9	23.4	12.28	12.06	11.46	10.86
39	9	3	16	47.6	ON	362	21.2	24.5	12.35	12.44	11.84	11.24
					OFF	368	24.8	25.1	12.38	12.51	11.91	11.31
39	9	6	38	186.5	ON	391	42.7	31.9	12.46	12.73	12.13	11.53
					OFF	391	47.5	35.1	12.46	12.75	12.15	11.55
41	6	3	36	95.2	ON	352	16.7	23.5	12.31	12.24	11.64	11.04
					OFF	364	22.8	24.4	12.36	12.46	11.86	11.26
42	2	5	46	135.8	ON	392	45.2	32.8	12.47	12.74	12.14	11.54
					OFF	398	50.4	36.7	12.46	12.75	12.15	11.55
45	7	7	26	68.8	ON	311	67.3	104.9	12.13	12.75	12.15	11.55
					OFF	297	65.5	115.8	12.06	12.75	12.15	11.55
47	5	8	9	23.8	ON	386	34.5	26.6	12.45	12.67	12.07	11.47
					OFF	387	35.9	27.1	12.45	12.69	12.09	11.49
51	9	1	24	63.5	ON	341	10.9	21.3	12.26	11.82	11.22	10.62
					OFF	351	14.8	21.7	12.31	12.13	11.53	10.93
52	9	4	18	47.6	ON	363	19.5	22.2	12.35	12.37	11.77	11.17
					OFF	368	22.1	22.6	12.37	12.46	11.86	11.26
53	6	4	23	68.8	ON	367	21.3	22.3	12.37	12.44	11.84	11.24
					OFF	373	24.7	22.9	12.48	12.53	11.93	11.33
53	6	6	93	246.8	ON	363	30.9	24.4	12.43	12.64	12.04	11.44
					OFF	392	43.8	29.4	12.47	12.74	12.14	11.54
54	8	4	178	449.6	ON	380	30.8	24.2	12.42	12.64	12.04	11.44
					OFF	383	53.4	36.2	12.43	12.75	12.15	11.55
54	8	8	53	148.2	ON	371	60.8	44.8	12.39	12.75	12.15	11.55
					OFF	356	65.4	57.9	12.33	12.75	12.15	11.55
55	8	5	84	222.2	ON	382	32.6	24.5	12.43	12.66	12.06	11.46
					OFF	388	44.2	29.2	12.45	12.74	12.14	11.54
55	8	7	43	113.7	ON	388	47.8	30.9	12.45	12.75	12.15	11.55
					OFF	384	52.7	35.2	12.44	12.75	12.15	11.55
56	6	2	28	52.9	ON	337	9.9	20.4	12.25	11.72	11.12	10.52

				OFF	345	13.1	28.7	12.28	12.81	11.41	18.81
56	6	4	21	55.5 ON	354	16.5	21.1	12.32	12.23	11.63	11.83
				OFF	361	19.7	21.5	12.35	12.38	11.78	11.18
57	8	4	52	137.5 ON	384	52.5	34.4	12.44	12.75	12.15	11.55
				OFF	374	58.8	41.8	12.48	12.75	12.15	11.55
58	8	6	38	79.3 ON	376	57.5	39.6	12.41	12.75	12.15	11.55
				OFF	369	61.1	45.2	12.38	12.75	12.15	11.55
61	2	4	55	145.5 ON	299	69.5	187.4	12.87	12.75	12.15	11.55
				OFF	269	63.9	138.5	11.92	12.75	12.15	11.55
68	9	3	52	137.5 ON	357	15.8	19.1	12.33	12.19	11.59	18.99
				OFF	372	23.6	28.2	12.39	12.58	11.98	11.38
69	6	5	31	82.8 ON	379	27.6	28.8	12.42	12.59	11.99	11.39
				OFF	384	32.1	21.8	12.44	12.65	12.85	11.45
69	6	7	62	164.8 ON	387	36.6	23.1	12.45	12.69	12.89	11.49
				OFF	388	45.4	26.7	12.45	12.74	12.14	11.54
70	3	5	18	47.6 ON	378	27.8	28.5	12.41	12.58	11.98	11.38
				OFF	381	29.9	21.1	12.43	12.62	12.82	11.42
70	3	7	55	145.5 ON	385	33.9	22.1	12.44	12.67	12.87	11.47
				OFF	388	41.8	24.8	12.45	12.73	12.13	11.53
71	6	2	70	198.4 ON	344	9.7	18.1	12.28	11.78	11.18	18.58
				OFF	369	21.8	19.3	12.38	12.43	11.83	11.23

STELLAR-INDEX SUMMARY

CAMERA DATA ET FILM FILTER GRID ASSEMBLY NO D893  
 STELLAR 2.8 3481 NONE 86  
 INDEX 1/500 3488 W/21 112

PERFORMANCE SUMMARY

OPN NO	FR	STEL FEET	INDX FEET	H	M	S	Q	ON LAT	ON LONG	Q	OFF LAT	OFF LONG	SEC DUR		
PRE-FLT	15	1.78	3.56												
1	4	0	3	0.38	0.59	22	56	15	2	57	158W	2	54	149W	58
4	8	1	5	0.49	0.99	3	25	35	2	62	138E	2	56	141E	99
4	8	3	3	0.38	0.59	3	27	34	2	54	142E	2	52	143E	48
5	8	3	6	0.59	1.19	5	8	18	2	44	123E	2	38	125E	184
5	8	5	14	1.39	2.77	5	14	58	3	14	132E	3	29	134E	238
6	3	3	3	0.38	0.59	6	31	8	2	42	181E	2	39	182E	52
6	3	4	5	0.49	0.99	6	32	21	2	36	182E	2	32	183E	84
6	3	6	9	0.89	1.78	6	34	41	2	27	184E	2	19	185E	136
7	9	3	3	0.38	0.59	7	58	59	2	58	76E	2	47	77E	58
7	9	6	12	1.19	2.38	8	2	41	2	36	88E	2	24	82E	198
8	8	1	11	1.89	2.18	9	26	16	2	61	47E	2	49	53E	281
9	8	8	2	0.28	0.48	18	37	13	1	39	123W	1	42	122W	68
9	9	1	3	0.38	0.59	18	56	42	2	68	25E	2	57	27E	62
9	9	5	7	0.69	1.39	11	2	59	2	36	34E	2	28	36E	118
9	9	6	6	0.59	1.19	11	18	18	2	6	39E	2	1	39E	88
10	2	1	3	0.38	0.59	12	34	53	2	29	13E	2	26	13E	49
11	4	1	5	0.49	0.99	14	9	2	2	12	6W	2	8	6W	83
14	7	2	9	0.89	1.78	18	42	29	2	8	73W	3	7	72W	139
16	7	8	3	0.38	0.59	21	34	45	2	32	123W	2	38	122W	58
21	3	3	16	1.58	3.17	5	8	35	2	52	117E	2	35	122E	262



22	4	2	3	0.38	0.59	6	33	18	2	41	98E	2	39	99E	53
22	4	3	18	1.78	3.56	6	35	52	2	31	108E	2	13	103E	282
23	6	2	4	0.48	0.79	7	59	13	2	58	69E	2	54	71E	77
23	6	5	17	1.68	3.37	8	2	24	2	45	74E	2	29	78E	265
24	5	2	9	0.89	1.78	9	27	58	2	64	42E	2	54	48E	158
25	8	1	6	0.59	1.19	10	59	24	2	58	23E	2	52	26E	106
25	8	6	8	0.79	1.58	11	13	16	2	3	36E	3	4	37E	119
26	2	2	6	0.59	1.19	12	36	54	2	29	10E	2	24	11E	89
26	2	5	4	0.48	0.79	12	48	48	2	14	12E	2	11	13E	59
27	2	4	8	0.79	1.58	14	8	57	2	21	11W	2	13	10W	125
30	2	1	9	0.89	1.78	18	42	9	2	9	77W	2	1	76W	135
32	3	0	3	0.38	0.59	21	36	37	2	33	126W	2	30	125W	50
36	4	2	2	0.28	0.48	3	32	8	2	52	137E	2	51	138E	36
36	8	6	6	0.59	1.19	3	50	2	3	19	149E	3	26	150E	119
37	8	2	8	0.79	1.58	5	4	49	2	42	118E	2	34	119E	128
37	8	3	3	0.38	0.59	5	7	43	2	30	120E	2	28	121E	49
38	8	2	29	2.87	5.74	6	34	23	2	44	94E	2	15	100E	448
39	9	1	7	0.69	1.39	7	59	51	2	62	63E	2	54	68E	131
39	9	3	3	0.38	0.59	8	3	47	2	47	71E	2	44	72E	57
39	9	6	6	0.59	1.19	8	9	48	2	23	76E	2	18	77E	96
41	6	3	6	0.59	1.19	11	2	45	2	52	24E	2	46	26E	98
42	2	5	7	0.69	1.39	12	48	35	2	20	8E	2	14	9E	104
45	7	7	4	0.48	0.79	17	22	3	3	24	53W	3	29	52W	88
47	5	8	2	0.28	0.48	20	7	56	2	33	106W	2	31	106W	36
51	9	1	4	0.48	0.79	2	1	55	2	58	154E	2	54	156E	74
52	9	4	3	0.38	0.59	3	34	14	2	49	135E	2	46	136E	55
53	6	4	4	0.48	0.79	5	4	46	2	47	113E	2	44	115E	67
53	6	6	14	1.39	2.77	5	7	18	2	37	116E	2	23	119E	222
54	8	4	25	2.47	4.95	6	37	28	2	37	93E	2	12	97E	398
54	8	8	8	0.79	1.58	6	45	44	2	3	98E	3	4	99E	139
55	8	5	13	1.29	2.57	8	7	51	2	35	71E	2	22	73E	283
55	8	7	7	0.69	1.39	8	11	48	2	19	74E	2	13	75E	111
56	6	2	4	0.48	0.79	9	31	57	2	59	40E	2	56	42E	63
56	6	4	4	0.48	0.79	9	33	39	2	52	44E	2	49	45E	64
57	8	4	8	0.79	1.58	11	13	26	2	13	29E	2	5	30E	131
58	8	6	5	0.49	0.99	12	45	8	2	7	7E	2	2	8E	84
61	2	4	9	0.89	1.78	17	23	7	3	24	56W	3	35	54W	180
68	9	3	8	0.79	1.58	3	33	58	2	53	131E	2	45	134E	134
69	6	5	5	0.49	0.99	5	7	4	2	41	113E	2	36	114E	84
69	6	7	18	0.99	1.98	5	9	25	2	32	115E	2	22	116E	153
70	3	5	3	0.38	0.59	6	36	56	2	42	90E	2	39	90E	57
70	3	7	9	0.89	1.78	6	38	44	2	34	91E	2	26	93E	138
71	6	2	12	1.19	2.38	8	2	38	2	59	60E	2	48	65E	187

NOTE - OPERATION 71-6-2 ACTUALLY CONSISTED OF FIVE MORE FRAMES THAN WAS REPORTED. THESE FRAMES WILL BE INCLUDED IN THE B BUCKET.

NOTE - T/M DATA INDICATE NORMAL SYSTEM PERFORMANCE.

A. 1838-1  
B. DRY  
C. PERFORMANCE ESTIMATE - PART TWO

RATE ESTIMATE  
FWD PAN CAMERA NUMBER 192

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	17	6	5	ON 1824	0.4372	0.03689	2.747	65.93	-3.8	12.2
				OFF 45	0.4383	0.03698	2.754	66.89	-3.8	18.5
4 8 1	33	6	5	ON 1231	0.3695	0.03118	2.322	55.72	-3.8	-1.1
				OFF 86	0.3833	0.03234	2.488	57.88	-3.8	-1.5
4 8 3	13	6	5	ON 1351	0.3892	0.03284	2.445	58.69	-3.8	-1.5
				OFF 35	0.3941	0.03325	2.476	59.42	-3.8	-1.8
5 8 3	38	7	3	ON 1467	0.4112	0.03478	2.584	62.81	-3.8	-2.8
				OFF 91	0.4268	0.03595	2.677	64.25	-3.8	-2.5
5 8 5	91	7	3	ON 2338	0.4172	0.03528	2.621	62.91	-3.8	-8.4
				OFF 225	0.3723	0.03141	2.339	56.14	-3.8	-8.6
6 3 3	16	7	3	ON 1499	0.4178	0.03518	2.628	62.88	-3.8	-2.8
				OFF 39	0.4229	0.03568	2.657	63.77	-3.8	-2.7
6 3 4	38	7	3	ON 1588	0.4298	0.03627	2.781	64.81	-3.8	-2.4
				OFF 71	0.4387	0.03782	2.757	66.16	-3.8	-2.3
6 3 6	54	7	3	ON 1728	0.4463	0.03766	2.884	67.38	-3.8	-2.1
				OFF 123	0.4539	0.03838	2.852	68.44	-3.8	-1.9
7 9 3	18	7	3	ON 1371	0.3923	0.03318	2.465	59.16	-3.8	-3.8
				OFF 45	0.4888	0.03382	2.518	68.44	-3.8	-3.6
7 9 6	78	7	3	ON 1593	0.4317	0.03643	2.712	65.18	-3.8	-2.5
				OFF 177	0.4581	0.03798	2.828	67.87	-3.8	-2.2
8 8 1	73	7	3	ON 1282	0.3546	0.02992	2.228	53.47	-3.8	-6.4
				OFF 188	0.3957	0.03339	2.486	59.67	-3.8	-3.9
9 8 8	18	7	3	ON 53	0.2839	0.01721	1.281	38.75	-3.8	-14.9
				OFF 47	0.2848	0.01728	1.286	38.88	-3.8	-15.9
9 9 1	17	7	3	ON 1222	0.3628	0.03855	2.275	54.59	-3.8	-5.4
				OFF 49	0.3726	0.03144	2.341	56.18	-3.8	-4.7
9 9 5	45	7	3	ON 1598	0.4358	0.03677	2.738	65.72	-3.8	-1.8
				OFF 185	0.4488	0.03788	2.815	67.55	-3.8	-1.6
9 9 6	33	7	3	ON 2838	0.4556	0.03845	2.863	68.71	-3.8	-8.7
				OFF 75	0.4585	0.03882	2.831	67.94	-3.8	-8.4
18 2 1	15	7	3	ON 1787	0.4486	0.03785	2.819	67.65	-3.8	-1.6
				OFF 36	0.4515	0.03818	2.837	68.89	-3.8	-1.6
11 4 1	31	7	3	ON 1951	0.4587	0.03878	2.882	69.16	-3.8	-1.1
				OFF 78	0.4567	0.03853	2.869	68.86	-3.8	-8.9
14 7 2	55	7	3	ON 2141	0.4477	0.03777	2.813	67.51	-3.8	-8.5
				OFF 126	0.4324	0.03648	2.717	65.28	-3.8	8.8
16 7 8	16	7	3	ON 1667	0.4445	0.03758	2.793	67.82	-3.8	-1.6
				OFF 37	0.4488	0.03788	2.815	67.56	-3.8	-1.6
21 3 3	188	7	3	ON 1392	0.3997	0.03373	2.511	68.28	-3.8	-3.1
				OFF 249	0.4489	0.03728	2.778	66.48	-3.8	-1.8
22 4 2	17	7	3	ON 1551	0.4288	0.03618	2.694	64.66	-3.8	-2.8
				OFF 48	0.4343	0.03665	2.729	65.49	-3.8	-1.9

22	4	3	128	7	3	ON	1765	0.4484	0.03783	2.817	67.61	-3.8	-1.6
						OFF	269	0.4583	0.03867	2.888	69.11	-3.8	-1.1
23	6	2	25	7	3	ON	1381	0.3883	0.03289	2.389	57.34	-3.8	-4.3
						OFF	64	0.3936	0.03321	2.473	59.35	-3.8	-3.6
23	6	5	111	7	3	ON	1491	0.4188	0.03534	2.632	63.16	-3.8	-2.3
						OFF	252	0.4515	0.03818	2.837	68.89	-3.8	-1.6
24	5	2	56	7	3	ON	1214	0.3571	0.03813	2.244	53.85	-3.9	-6.7
						OFF	145	0.3888	0.03288	2.443	58.63	-3.9	-4.6
25	8	1	36	7	3	ON	1323	0.3775	0.03185	2.372	56.92	-3.9	-5.2
						OFF	93	0.3965	0.03346	2.492	59.88	-3.9	-4.2
25	8	6	47	7	3	ON	2136	0.4443	0.03749	2.792	67.88	-3.9	-1.6
						OFF	106	0.4322	0.03647	2.716	65.18	-3.9	-1.2
26	2	2	33	7	3	ON	1749	0.4483	0.03783	2.817	67.68	-3.9	-2.4
						OFF	76	0.4527	0.03828	2.845	68.27	-3.9	-2.3
26	2	5	28	7	3	ON	1976	0.4541	0.03832	2.853	68.48	-3.9	-2.1
						OFF	46	0.4526	0.03819	2.844	68.25	-3.9	-1.9
27	2	4	49	7	3	ON	1869	0.4543	0.03833	2.854	68.58	-3.9	-2.2
						OFF	112	0.4541	0.03832	2.853	68.48	-3.9	-2.8
38	2	1	54	7	3	ON	2049	0.4511	0.03886	2.834	68.82	-3.9	-1.8
						OFF	122	0.4418	0.03721	2.771	66.51	-3.9	-1.4
32	3	8	16	7	3	ON	1713	0.4452	0.03756	2.797	67.13	-3.9	-2.3
						OFF	37	0.4488	0.03788	2.815	67.56	-3.9	-2.3
36	4	2	9	7	3	ON	1434	0.4845	0.03413	2.542	61.88	-3.9	-3.5
						OFF	23	0.4882	0.03445	2.565	61.56	-3.9	-3.4
36	8	6	39	7	3	ON	2588	0.3835	0.03236	2.418	57.83	-3.9	-1.9
						OFF	106	0.3683	0.03048	2.264	54.34	-3.9	-2.5
37	8	2	49	7	3	ON	1592	0.4311	0.03638	2.789	65.82	-3.9	-2.5
						OFF	115	0.4444	0.03749	2.792	67.81	-3.9	-2.3
37	8	3	16	7	3	ON	1767	0.4495	0.03793	2.825	67.79	-3.9	-2.2
						OFF	36	0.4516	0.03818	2.837	68.89	-3.9	-2.2
38	8	2	194	7	3	ON	1564	0.4243	0.03588	2.666	63.98	-4.5	-3.3
						OFF	435	0.4587	0.03883	2.832	67.97	-4.5	-2.7
39	9	1	45	7	3	ON	1298	0.3728	0.03139	2.338	56.18	-4.5	-6.8
						OFF	118	0.3963	0.03344	2.498	59.76	-4.5	-4.5
39	9	3	18	7	3	ON	1526	0.4183	0.03538	2.628	63.88	-4.5	-3.5
						OFF	44	0.4247	0.03584	2.669	64.84	-4.5	-3.4
39	9	6	37	7	3	ON	1879	0.4516	0.03811	2.838	68.11	-4.5	-2.8
						OFF	83	0.4517	0.03811	2.838	68.11	-4.5	-2.7
41	6	3	36	7	3	ON	1456	0.4862	0.03427	2.552	61.25	-4.5	-4.1
						OFF	85	0.4282	0.03546	2.648	63.37	-4.5	-3.6
42	2	5	48	7	3	ON	1925	0.4528	0.03814	2.848	68.16	-4.5	-2.8
						OFF	91	0.4588	0.03797	2.828	67.86	-4.5	-2.6
45	7	7	26	7	3	ON	2685	0.3594	0.03832	2.258	54.19	-4.5	-3.4
						OFF	75	0.3424	0.02889	2.152	51.64	-4.5	-4.8
47	5	8	9	7	3	ON	1753	0.4458	0.03761	2.881	67.22	-4.5	-2.8
						OFF	23	0.4472	0.03773	2.818	67.43	-4.5	-2.8
51	9	1	24	7	3	ON	1398	0.3934	0.03328	2.472	59.33	-4.5	-4.7
						OFF	61	0.4846	0.03414	2.542	61.82	-4.5	-4.2
52	9	4	17	7	3	ON	1527	0.4186	0.03532	2.638	63.12	-4.5	-3.5
						OFF	42	0.4246	0.03583	2.668	64.82	-4.5	-3.3
53	6	4	23	7	3	ON	1559	0.4236	0.03574	2.661	63.87	-4.5	-3.3

					OFF	54	0.4308	0.03635	2.787	64.96	-4.5	-3.1
53	6	6	93	7	3 ON	1711	0.4422	0.03732	2.779	66.69	-4.5	-2.8
					OFF	289	0.4520	0.03814	2.840	68.16	-4.5	-2.6
54	8	4	169	7	3 ON	1713	0.4435	0.03742	2.786	66.87	-4.2	-2.5
					OFF	377	0.4467	0.03769	2.887	67.36	-4.2	-2.2
54	8	8	53	7	3 ON	2217	0.4334	0.03657	2.723	65.36	-4.2	-2.2
					OFF	126	0.4150	0.03582	2.687	62.58	-4.2	-2.1
55	8	5	84	7	3 ON	1743	0.4460	0.03763	2.802	67.25	-4.2	-2.5
					OFF	198	0.4530	0.03823	2.847	68.32	-4.2	-2.4
55	8	7	43	7	3 ON	1980	0.4522	0.03816	2.842	68.20	-4.2	-2.3
					OFF	98	0.4477	0.03777	2.813	67.50	-4.2	-2.2
56	6	2	28	7	3 ON	1387	0.3938	0.03323	2.474	59.38	-4.2	-4.6
					OFF	50	0.4031	0.03481	2.533	60.79	-4.2	-4.1
56	6	4	21	7	3 ON	1490	0.4132	0.03486	2.596	62.31	-4.2	-3.5
					OFF	51	0.4212	0.03554	2.646	63.51	-4.2	-3.3
57	8	4	52	7	3 ON	2075	0.4476	0.03776	2.812	67.49	-4.2	-2.3
					OFF	118	0.4367	0.03685	2.744	65.85	-4.2	-2.1
58	8	6	31	7	3 ON	2169	0.4391	0.03705	2.759	66.22	-4.2	-2.2
					OFF	71	0.4307	0.03634	2.786	64.95	-4.2	-2.0
61	2	4	56	7	3 ON	2655	0.3485	0.02941	2.190	52.56	-4.2	-4.3
					OFF	167	0.3141	0.02650	1.974	47.37	-4.2	-5.3
62	9	3	52	7	3 ON	1510	0.4166	0.03516	2.618	62.83	-4.2	-3.3
					OFF	121	0.4341	0.03663	2.727	65.46	-4.2	-2.7
69	6	5	31	7	3 ON	1697	0.4419	0.03729	2.777	66.64	-4.2	-2.4
					OFF	71	0.4476	0.03777	2.812	67.50	-4.2	-2.3
69	6	7	62	7	3 ON	1838	0.4516	0.03810	2.837	68.09	-4.2	-2.2
					OFF	140	0.4523	0.03817	2.842	68.21	-4.2	-2.2
70	3	5	18	7	3 ON	1691	0.4414	0.03724	2.773	66.56	-4.2	-2.3
					OFF	44	0.4451	0.03756	2.797	67.12	-4.2	-2.3
70	3	7	55	7	3 ON	1799	0.4498	0.03795	2.826	67.82	-4.2	-2.2
					OFF	125	0.4531	0.03823	2.847	68.32	-4.2	-2.2
71	6	2	70	7	3 ON	1426	0.4015	0.03388	2.523	60.55	-4.2	-4.1
					OFF	174	0.4301	0.03629	2.782	64.85	-4.2	-2.7

RATE ESTIMATE  
AFT PAN CAMERA NUMBER 193

OPN NO	FR	R	A	TUR/DUR	INST CPS	INST ANG-VEL	SCAN RATE R/SEC	RATE I/SEC	PCT CALIB	RATE REQD		
1	4	8	17	6	5 ON	1836	0.4398	0.03711	2.763	66.32	-3.2	12.2
					OFF	45	0.4400	0.03720	2.770	66.48	-3.2	10.6
4	8	1	33	6	5 ON	1243	0.3717	0.03136	2.335	56.05	-3.2	-1.1
					OFF	86	0.3856	0.03253	2.423	58.14	-3.2	-1.5
4	8	3	14	6	5 ON	1363	0.3915	0.03303	2.460	59.03	-3.2	-1.5
					OFF	35	0.3964	0.03345	2.491	59.77	-3.2	-1.8
5	8	3	38	7	3 ON	1479	0.4136	0.03490	2.599	62.37	-3.2	-2.6
					OFF	91	0.4285	0.03616	2.693	64.62	-3.2	-2.3
5	8	5	91	7	3 ON	2350	0.4196	0.03541	2.637	63.28	-3.2	0.8
					OFF	225	0.3745	0.03160	2.353	56.47	-3.2	0.6
6	3	3	16	7	3 ON	1511	0.4194	0.03539	2.635	63.24	-3.2	-2.6
					OFF	39	0.4254	0.03589	2.673	64.15	-3.2	-2.5

6	3	4	38	7	3	ON	1592	0.4323	0.03648	2.716	65.19	-3.2	-2.2
						OFF	71	0.4413	0.03724	2.773	66.55	-3.2	-2.8
6	3	6	55	7	3	ON	1732	0.4489	0.03788	2.821	67.78	-3.2	-1.7
						OFF	123	0.4565	0.03852	2.869	68.84	-3.2	-1.4
7	9	3	18	7	3	ON	1383	0.3946	0.03338	2.488	59.51	-3.2	-3.8
						OFF	45	0.4032	0.03482	2.533	60.88	-3.2	-3.5
7	9	6	78	7	3	ON	1685	0.4342	0.03664	2.728	65.48	-3.2	-2.2
						OFF	177	0.4527	0.03828	2.844	68.27	-3.2	-1.7
8	8	1	74	7	3	ON	1214	0.3567	0.03889	2.241	53.78	-3.2	-6.5
						OFF	188	0.3988	0.03358	2.581	60.82	-3.2	-3.8
9	8	8	18	7	3	ON	65	0.2851	0.01731	1.289	38.93	-3.2	-14.6
						OFF	47	0.2868	0.01738	1.294	31.86	-3.2	-15.7
9	9	1	17	7	3	ON	1234	0.3628	0.03855	2.275	54.59	-3.8	-6.8
						OFF	49	0.3726	0.03144	2.341	56.18	-3.8	-5.3
9	9	5	45	7	3	ON	1618	0.4358	0.03677	2.738	65.72	-3.8	-2.2
						OFF	185	0.4488	0.03788	2.815	67.55	-3.8	-1.9
9	9	6	33	7	3	ON	2858	0.4556	0.03845	2.863	68.71	-3.8	-8.5
						OFF	75	0.4585	0.03882	2.831	67.94	-3.8	-8.1
18	2	1	15	7	3	ON	1719	0.4486	0.03785	2.819	67.65	-3.8	-1.8
						OFF	36	0.4515	0.03818	2.837	68.89	-3.8	-1.8
11	4	1	31	7	3	ON	1963	0.4587	0.03878	2.882	69.16	-3.8	-1.8
						OFF	78	0.4567	0.03853	2.869	68.86	-3.8	-8.7
14	7	2	55	7	3	ON	2153	0.4477	0.03777	2.813	67.51	-3.8	-8.2
						OFF	126	0.4324	0.03648	2.717	65.28	-3.8	8.5
16	7	8	16	7	3	ON	1679	0.4445	0.03758	2.793	67.82	-3.8	-1.9
						OFF	37	0.4488	0.03788	2.815	67.56	-3.8	-1.9
21	3	3	188	7	3	ON	1484	0.3997	0.03373	2.511	68.28	-3.8	-3.6
						OFF	249	0.4489	0.03728	2.778	66.48	-3.8	-2.1
22	4	2	17	7	3	ON	1563	0.4288	0.03618	2.694	64.66	-3.8	-2.4
						OFF	48	0.4343	0.03665	2.729	65.49	-3.8	-2.3
22	4	3	128	7	3	ON	1717	0.4484	0.03783	2.817	67.61	-3.8	-1.8
						OFF	269	0.4583	0.03867	2.888	69.11	-3.8	-1.8
23	6	2	25	7	3	ON	1313	0.3883	0.03289	2.389	57.34	-3.8	-4.8
						OFF	64	0.3936	0.03321	2.473	59.35	-3.8	-4.1
23	6	5	111	7	3	ON	1583	0.4188	0.03534	2.632	63.16	-3.8	-2.8
						OFF	252	0.4515	0.03818	2.837	68.89	-3.8	-1.8
24	5	2	56	7	3	ON	1226	0.3552	0.02997	2.232	53.56	-4.4	-7.9
						OFF	145	0.3867	0.03263	2.438	58.32	-4.4	-5.7
25	8	1	36	7	3	ON	1315	0.3755	0.03168	2.359	56.62	-4.4	-6.3
						OFF	93	0.3945	0.03328	2.478	59.48	-4.4	-5.3
25	8	6	47	7	3	ON	2148	0.4428	0.03729	2.777	66.64	-4.4	-1.8
						OFF	186	0.4299	0.03628	2.781	64.83	-4.4	-1.3
26	2	2	33	7	3	ON	1761	0.4459	0.03763	2.882	67.24	-4.4	-3.1
						OFF	76	0.4583	0.03888	2.838	67.91	-4.4	-3.8
26	2	5	28	7	3	ON	1988	0.4517	0.03812	2.838	68.12	-4.4	-2.5
						OFF	46	0.4582	0.03799	2.829	67.89	-4.4	-2.3
27	2	4	49	7	3	ON	1881	0.4519	0.03813	2.839	68.14	-4.4	-2.8
						OFF	112	0.4517	0.03811	2.838	68.11	-4.4	-2.5
38	2	1	54	7	3	ON	2861	0.4487	0.03786	2.819	67.66	-4.4	-2.2
						OFF	122	0.4387	0.03782	2.756	66.16	-4.4	-1.6
32	3	8	15	7	3	ON	1725	0.4428	0.03737	2.782	66.78	-4.4	-3.1

					OFF	37	0.4457	0.03760	2.888	67.28	-4.4	-3.1
36	4	2	9	7	3 ON	1446	0.4824	0.03395	2.528	68.68	-4.4	-4.5
					OFF	23	0.4861	0.03426	2.552	61.24	-4.4	-4.5
36	8	6	39	7	3 ON	2528	0.3815	0.03219	2.397	57.53	-4.4	-1.8
					OFF	186	0.3584	0.03824	2.252	54.85	-4.4	-2.3
37	8	2	49	7	3 ON	1684	0.4289	0.03619	2.695	64.67	-4.4	-3.4
					OFF	115	0.4428	0.03738	2.777	66.65	-4.4	-3.1
37	8	3	16	7	3 ON	1779	0.4472	0.03773	2.818	67.43	-4.4	-2.9
					OFF	36	0.4492	0.03798	2.822	67.73	-4.4	-2.9
38	8	2	194	7	3 ON	1576	0.4271	0.03684	2.684	64.41	-3.8	-3.8
					OFF	435	0.4538	0.03829	2.851	68.43	-3.8	-1.9
39	9	1	46	7	3 ON	1382	0.3746	0.03168	2.353	56.48	-3.8	-5.9
					OFF	118	0.3998	0.03367	2.587	68.17	-3.8	-4.3
39	9	3	18	7	3 ON	1538	0.4212	0.03554	2.646	63.51	-3.8	-3.2
					OFF	44	0.4276	0.03688	2.687	64.48	-3.8	-3.8
39	9	6	38	7	3 ON	1891	0.4547	0.03837	2.857	68.57	-3.8	-2.1
					OFF	83	0.4547	0.03837	2.857	68.57	-3.8	-2.8
41	6	3	36	7	3 ON	1468	0.4889	0.03458	2.569	61.66	-3.8	-3.8
					OFF	85	0.4238	0.03578	2.658	63.79	-3.8	-3.3
42	2	5	48	7	3 ON	1937	0.4551	0.03848	2.859	68.62	-3.8	-2.8
					OFF	91	0.4531	0.03823	2.847	68.32	-3.8	-1.8
45	7	7	26	7	3 ON	2617	0.3618	0.03853	2.273	54.56	-3.8	-2.8
					OFF	75	0.3448	0.02989	2.166	51.99	-3.8	-2.6
47	5	8	9	7	3 ON	1765	0.4488	0.03787	2.828	67.68	-3.8	-2.3
					OFF	23	0.4582	0.03799	2.829	67.89	-3.8	-2.3
51	9	1	24	7	3 ON	1482	0.3961	0.03342	2.489	59.73	-3.8	-4.5
					OFF	61	0.4874	0.03437	2.568	61.43	-3.8	-4.8
52	9	4	18	7	3 ON	1539	0.4214	0.03556	2.648	63.55	-3.8	-3.2
					OFF	42	0.4275	0.03687	2.686	64.46	-3.8	-3.8
53	6	4	23	7	3 ON	1571	0.4265	0.03598	2.679	64.31	-3.8	-2.9
					OFF	54	0.4337	0.03668	2.725	65.48	-3.8	-2.8
53	6	6	93	7	3 ON	1723	0.4452	0.03757	2.798	67.14	-3.8	-2.3
					OFF	289	0.4551	0.03848	2.859	68.62	-3.8	-1.9
54	8	4	178	7	3 ON	1725	0.4416	0.03726	2.774	66.59	-4.6	-3.2
					OFF	377	0.4448	0.03753	2.795	67.88	-4.6	-2.4
54	8	8	53	7	3 ON	2229	0.4316	0.03642	2.712	65.88	-4.6	-2.2
					OFF	126	0.4132	0.03487	2.596	62.31	-4.6	-2.8
55	8	5	84	7	3 ON	1755	0.4441	0.03747	2.798	66.97	-4.6	-3.1
					OFF	198	0.4511	0.03886	2.834	68.83	-4.6	-2.8
55	8	7	43	7	3 ON	1992	0.4583	0.03888	2.829	67.91	-4.6	-2.7
					OFF	98	0.4458	0.03761	2.881	67.22	-4.6	-2.5
56	6	2	28	7	3 ON	1399	0.3921	0.03389	2.464	59.13	-4.6	-5.5
					OFF	58	0.4814	0.03387	2.522	68.53	-4.6	-5.1
56	6	4	21	7	3 ON	1582	0.4114	0.03472	2.585	62.84	-4.6	-4.4
					OFF	51	0.4194	0.03539	2.635	63.24	-4.6	-4.1
57	8	4	52	7	3 ON	2887	0.4457	0.03768	2.888	67.28	-4.6	-2.5
					OFF	118	0.4348	0.03669	2.732	65.57	-4.6	-2.2
58	8	6	38	7	3 ON	2181	0.4373	0.03698	2.747	65.94	-4.6	-2.3
					OFF	71	0.4289	0.03619	2.695	64.68	-4.6	-2.1
61	2	4	55	7	3 ON	2667	0.3478	0.02928	2.181	52.33	-4.6	-4.8
					OFF	167	0.3128	0.02639	1.965	47.17	-4.6	-5.8

68	9	3	52	7	3	ON	1522	0.4149	0.83581	2.687	62.56	-4.6	-4.1
						OFF	121	0.4322	0.83647	2.716	65.18	-4.6	-3.4
69	6	5	31	7	3	ON	1789	0.4488	0.83713	2.765	66.36	-4.6	-3.8
						OFF	71	0.4457	0.83761	2.888	67.21	-4.6	-2.9
69	6	7	62	7	3	ON	1858	0.4496	0.83794	2.825	67.88	-4.6	-2.7
						OFF	148	0.4504	0.83881	2.838	67.92	-4.6	-2.5
70	3	5	18	7	3	ON	1783	0.4395	0.83788	2.761	66.27	-4.6	-3.8
						OFF	44	0.4432	0.83748	2.785	66.83	-4.6	-3.8
70	3	7	55	7	3	ON	1811	0.4479	0.83779	2.814	67.53	-4.6	-2.8
						OFF	125	0.4511	0.83887	2.835	68.83	-4.6	-2.6
71	6	2	70	7	3	ON	1438	0.3998	0.83374	2.512	68.29	-4.6	-5.8
						OFF	174	0.4282	0.83613	2.691	64.58	-4.6	-3.5

RAMP PROFILE

R= 6 A= 5 PERIOD= 3840  
R= 0.3594 A= 0.8965

TUR	PER	CPS	ANG-V
0	3.884	0.2629	0.82378
100	3.789	0.2639	0.82387
200	3.748	0.2668	0.82413
300	3.681	0.2717	0.82457
400	3.593	0.2783	0.82517
500	3.489	0.2866	0.82592
600	3.374	0.2964	0.82681
700	3.253	0.3074	0.82781
800	3.129	0.3196	0.82898
900	3.007	0.3325	0.83008
1000	2.898	0.3460	0.83138
1100	2.778	0.3599	0.83255
1200	2.644	0.3782	0.83421
1300	2.526	0.3958	0.83588
1400	2.426	0.4121	0.83728
1500	2.345	0.4265	0.83858
1600	2.281	0.4384	0.83966
1700	2.235	0.4475	0.84048
1800	2.206	0.4534	0.84101
1900	2.194	0.4558	0.84123
2000	2.199	0.4548	0.84113
2100	2.221	0.4503	0.84072
2200	2.260	0.4424	0.84002
2300	2.317	0.4316	0.83904
2400	2.392	0.4181	0.83782
2500	2.484	0.4026	0.83641
2600	2.595	0.3854	0.83486
2700	2.723	0.3673	0.83322
2800	2.845	0.3515	0.83179
2900	2.960	0.3379	0.83056
3000	3.088	0.3247	0.82936
3100	3.203	0.3122	0.82824
3200	3.326	0.3007	0.82719

3300	3.444	0.2903	0.02626
3400	3.553	0.2814	0.02545
3500	3.648	0.2741	0.02479
3600	3.724	0.2685	0.02429
3700	3.776	0.2648	0.02395
3800	3.801	0.2631	0.02379

RAMP PROFILE

R= 7 A= 3 PERIOD= 3840

R= 0.3423 A= 0.1308

TUR	PER	CPS	ANG=V
0	4.728	0.2115	0.01913
100	4.698	0.2128	0.01925
200	4.612	0.2168	0.01961
300	4.477	0.2234	0.02020
400	4.303	0.2324	0.02102
500	4.105	0.2436	0.02203
600	3.893	0.2569	0.02323
700	3.678	0.2719	0.02459
800	3.468	0.2883	0.02608
900	3.269	0.3059	0.02766
1000	3.085	0.3242	0.02932
1100	2.915	0.3430	0.03102
1200	2.719	0.3678	0.03327
1300	2.553	0.3917	0.03543
1400	2.417	0.4138	0.03742
1500	2.308	0.4333	0.03919
1600	2.225	0.4494	0.04065
1700	2.166	0.4617	0.04176
1800	2.129	0.4697	0.04248
1900	2.114	0.4730	0.04270
2000	2.121	0.4716	0.04265
2100	2.148	0.4655	0.04210
2200	2.198	0.4549	0.04114
2300	2.272	0.4402	0.03981
2400	2.370	0.4219	0.03816
2500	2.495	0.4008	0.03625
2600	2.649	0.3775	0.03415
2700	2.833	0.3530	0.03193
2800	3.016	0.3316	0.02999
2900	3.194	0.3131	0.02832
3000	3.387	0.2952	0.02670
3100	3.593	0.2783	0.02517
3200	3.807	0.2627	0.02376
3300	4.021	0.2487	0.02249
3400	4.226	0.2366	0.02140
3500	4.411	0.2267	0.02050
3600	4.563	0.2191	0.01982
3700	4.670	0.2141	0.01937
3800	4.723	0.2117	0.01915



CLOCK CORRELATION SUMMARY  
ORDER FIT ONE

SYS TIME I/P	CL TIME I/P	COMP SYS TM	DELTA ST	REV	STA
0.37988503D 05	0.111283892D 06	0.379885008D 05	0.0022	9	[REDACTED]
0.77532875D 05	0.150820281D 06	0.775328855D 05	-0.0105	16	[REDACTED]
0.32751214D 05	0.192446610D 06	0.327512099D 05	0.0041	24	[REDACTED]
0.77687447D 05	0.237382852D 06	0.776874470D 05	0.0000	32	[REDACTED]
0.38220978D 05	0.284316381D 06	0.382209780D 05	0.0072	41	[REDACTED]
0.72300793D 05	0.318396203D 06	0.723007891D 05	0.0039	47	[REDACTED]
0.32927218D 05	0.365422641D 06	0.329272219D 05	-0.0039	56	[REDACTED]
0.72371385D 05	0.404866809D 06	0.723713856D 05	-0.0006	63	[REDACTED]
0.32929803D 05	0.451825234D 06	0.329298054D 05	-0.0024	72	[REDACTED]
A0=-0.7329537992D 05 A1=0.999999890044D 00					
SIGMA=0.00469 NO. POINTS= 9					
RATIO OF CLOCK TIME TO SYS TIME= 0.100000010996D 01					

ORDER FIT TWO

SYS TIME I/P	CL TIME I/P	COMP SYS TM	DELTA ST	REV	STA
0.37988503D 05	0.111283892D 06	0.379884978D 05	0.0052	9	[REDACTED]
0.77532875D 05	0.150820281D 06	0.775328846D 05	-0.0096	16	[REDACTED]
0.32751214D 05	0.192446610D 06	0.327512107D 05	0.0033	24	[REDACTED]
0.77687447D 05	0.237382852D 06	0.776874460D 05	-0.0018	32	[REDACTED]
0.38220978D 05	0.284316381D 06	0.382209730D 05	0.0050	41	[REDACTED]
0.72300793D 05	0.318396203D 06	0.723007910D 05	0.0020	47	[REDACTED]
0.32927218D 05	0.365422641D 06	0.329272228D 05	-0.0048	56	[REDACTED]
0.72371385D 05	0.404866809D 06	0.723713849D 05	0.0001	63	[REDACTED]
0.32929803D 05	0.451825234D 06	0.329298022D 05	0.0008	72	[REDACTED]
A0=-0.7329539104D 05 A1=0.99999992318D 00					
A2=-0.1825346542431D-12					
SIGMA=0.00431 NO. POINTS= 9					

CLOCK OPERATIONS

FWD PAN CAMERA NUMBER 192

OPN NO	FR	H	M	S	DEC	BINARY EQUIVALENT
1 4 0	17	ON	22	56	15	69471 00100001001000000101100011000
		OFF	22	57	0	69516 0010000100100101101011100000
4 8 1	33	ON	3	25	35	85630 00101000110101001110000110000
		OFF	3	27	1	85716 0010100011011110110000100000
4 8 3	13	ON	3	27	34	85749 00101000111000110110100001000
		OFF	3	28	9	85784 00101000111001111010111000000
5 8 3	38	ON	5	2	18	91314 00101011100010101011101010000
		OFF	5	1	49	91405 00101011100101011101011001000
5 8 5	91	ON	5	14	52	92185 00101011111101010000110101000
		OFF	5	18	35	92410 00101100000100001000010010000
6 3 3	16	ON	6	31	2	96755 00101110001000101110100111000
		OFF	6	31	39	96794 00101110001001111010110010000
6 3 4	30	ON	6	32	21	96836 00101110001011001100110100000
		OFF	6	33	32	96907 00101110001101010111011111000
6 3 6	54	ON	6	34	41	96976 00101110001111011110010000000

	OFF	6	36	44	97899	00101110010011001110011111000
7 9 3	ON	7	58	59	102034	00110000101001110101001010000
	OFF	7	59	44	102079	00110000101011001101000011000
7 9 6	ON	8	2	41	102257	00110000110000101000101101000
	OFF	8	5	38	102434	00110000110110000010011010000
8 8 1	ON	9	26	16	107271	00110011001001101001101011000
	OFF	9	29	24	107459	00110011001111011000110111000
9 8 0	ON	10	37	13	111528	00110101001011100100001000000
	OFF	10	38	6	111575	001101010011001111111111011000
9 9 1	ON	10	56	42	112697	00110101101111001111010101000
	OFF	10	57	31	112746	00110101110000101111000010000
9 9 5	ON	11	2	59	113074	00110101111010101111101010000
	OFF	11	4	44	113179	00110101111101111100101111000
9 9 6	ON	11	10	18	113514	00110110001000001011000010000
	OFF	11	11	33	113589	00110110001010011101100001000
10 2 1	ON	12	34	53	118588	00111000100011000001001100000
	OFF	12	35	29	118624	00111000100100000111100000000
11 4 1	ON	14	9	2	124237	00111011001111011010011001000
	OFF	14	12	12	124307	00111011010001100011000111000
14 7 2	ON	18	42	29	140644	01000011000100000111010100000
	OFF	18	44	35	140770	01000011000111111101011010000
16 7 0	ON	21	34	45	150980	01000111111111100010110100000
	OFF	21	35	22	151017	0100100000000010101000101000
21 3 3	ON	5	0	35	177730	01010100101111111000111010000
	OFF	5	4	44	177979	01010100110111011111001111000
22 4 2	ON	6	33	16	183293	01010111011001101010001001000
	OFF	6	33	58	183333	01010111011010111000010001000
22 4 3	ON	6	35	52	183447	01010111011110010110111011000
	OFF	6	42	21	183716	01010111100110100100010100000
23 6 2	ON	7	59	13	188449	01011001110111000000011101000
	OFF	8	0	17	188513	01011001111000111101011101000
23 6 5	ON	8	2	24	188639	01011001111100110011100011000
	OFF	8	6	36	188891	01011010000100011111011111000
24 5 2	ON	9	27	50	193766	01011100011001010001001110000
	OFF	9	30	15	193911	0101110001110110110001011000
25 8 1	ON	10	59	24	199259	01011111000000111001101111000
	OFF	11	0	57	199352	01011111000011101111011000000
25 8 6	ON	11	13	16	200091	01011111011010010010101111000
	OFF	11	15	2	200197	01011111011101100001110001000
26 2 2	ON	12	36	54	205109	01100001110011011011100001000
	OFF	12	38	10	205105	01100001110101101111111101000
26 2 5	ON	12	40	40	205335	01100001111010010100111011000
	OFF	12	41	26	205381	01100001111011101110110001000
27 2 4	ON	14	8	57	210633	01100100011100000000100101000
	OFF	14	10	49	210745	01100100011111011011010101000
30 2 1	ON	16	42	9	227024	01101100010000001100100000000
	OFF	18	44	11	227146	01101100010011111100100010000
32 3 0	ON	21	36	37	237492	01110001001111101011100100000
	OFF	21	37	14	237529	01110001010000110011110101000
36 4 2	ON	3	32	8	258823	01111011011010101001101011000
	OFF	3	32	31	258846	01111011011011010110100110000

SECRET

36	8	6	39	ON	3	50	2	259897	01111011111011011011011011000
				OFF	3	51	48	260003	01111011111110101010010111000
37	8	2	49	ON	5	4	49	264384	01111100001000101110000000000
				OFF	5	6	44	264499	01111110000111110111100111000
37	8	3	16	ON	5	7	43	264558	01111110001001101010110110000
				OFF	5	8	19	264594	01111110001010110001001010000
38	8	2	194	ON	6	34	23	269758	1000000101000010111000110000
				OFF	6	41	38	270193	1000000110101101000101101000
39	9	1	45	ON	7	59	51	274886	1000011000100110110101110000
				OFF	8	1	49	275004	10000011001000011101001100000
39	9	3	18	ON	8	3	47	275122	1000011001100000011101010000
				OFF	8	4	31	275166	1000001100101011001100110000
39	9	6	37	ON	8	9	40	275475	10000011010110110101000111000
				OFF	8	11	3	275558	10000011011001010111001110000
41	6	3	36	ON	11	2	45	285860	10001000010011110000010100000
				OFF	11	4	10	285945	10001000010110010110010101000
42	2	5	42	ON	12	42	35	291731	10001011000110111011000111000
				OFF	12	42	6	291822	10001011001001101100110110000
45	7	7	26	ON	17	22	3	308619	10010011001010010011011111000
				OFF	17	23	18	308694	10010011001100100101111110000
47	5	8	9	ON	20	7	56	318571	10010111111010000000111111000
				OFF	20	8	19	318594	100101111110101010101111010000
51	9	1	24	ON	2	1	56	339810	10100010000010001011011010000
				OFF	2	2	56	339871	10100010000100000010100011000
52	9	4	17	ON	3	34	14	345349	10100100101011001101110001000
				OFF	3	34	56	345391	10100100101100011111110011000
53	6	4	23	ON	5	4	46	350782	1010011010001000001000110000
				OFF	5	5	40	350836	1010011010010101010100100000
53	6	6	93	ON	5	7	10	350934	101001101010101101001111110000
				OFF	5	10	47	351143	10100111011100000010001011000
54	8	4	169	ON	6	37	20	356335	10101001111010011110110011000
				OFF	6	43	37	356712	10101010000101111111001000000
54	8	8	53	ON	6	45	44	356839	10101010001001110111001011000
				OFF	6	47	50	356965	10101010001101101101010001000
55	8	5	84	ON	8	7	51	361766	10101100100000001110001110000
				OFF	8	11	1	361956	10101100100110000001010100000
55	8	7	43	ON	8	11	48	362063	10101100100111011101000111000
				OFF	8	13	26	362101	10101100101010011100100001000
56	6	2	20	ON	9	31	57	366012	10101110111010001101101100000
				OFF	9	32	47	366862	10101110111011101111010110000
56	6	4	21	ON	9	33	39	366915	10101110111101010101011011000
				OFF	9	34	32	366966	10101110111110111010011110000
57	8	4	52	ON	11	13	26	372901	1011000110100000010010001000
				OFF	11	15	24	373019	10110001110111101000101111000
58	8	6	31	ON	12	45	0	378396	10110100011011101111010110000
				OFF	12	46	11	378467	10110100011101111001010111000
61	2	4	56	ON	17	23	7	395083	10111100011000111110011111000
				OFF	17	25	54	395250	10111100011110000100101010000
68	9	3	52	ON	3	33	58	431733	11001101110111011100100001000
				OFF	3	35	59	431854	11001101111011001000110110000
69	6	5	31	ON	5	7	4	437319	11010000100001111010101011000

SECRET

			OFF	5	8	15	437390	116129000100100000101010110000	
69	6	7	62	ON	5	9	25	437460	11010000100110001110000100000
			OFF	5	11	45	437600	11010000101010011111100000000	
70	3	5	18	ON	6	36	56	442712	11010011000110011111111000000
			OFF	6	37	40	442756	1101001100011111010110100000	
70	3	7	55	ON	6	38	44	442819	1101001100100111000010111000
			OFF	6	43	49	442944	1101001100101100101000000000	
71	6	2	70	ON	8	2	30	447846	11010101100011001011001110000
			OFF	8	5	24	448020	1101010110100001111000100000	

CLOCK OPERATIONS

AFT PAN CAMERA NUMBER 193

OPN NO	FR		H	M	S	DEC	BINARY EQUIVALENT		
1	4	0	17	ON	22	56	27	69483	0010000100100001110011111000
				OFF	22	57	12	69528	00100001001001110100111000000
4	8	1	33	ON	3	25	47	85642	00101000110101100101100010000
				OFF	3	27	13	85728	00101000111000001101100000000
4	8	3	14	ON	3	27	46	85761	0010100011100100110111101000
				OFF	3	28	21	85796	00101000111010010010010100000
5	8	3	33	ON	5	0	30	91326	00101011100011000011000110000
				OFF	5	2	1	91417	00101011100101110100110101000
5	8	5	91	ON	5	15	2	92197	00101011111101101000010001000
				OFF	5	18	47	92422	00101100000100011111101110000
6	3	3	16	ON	6	31	12	96768	00101110001001001000000000000
				OFF	6	31	51	96807	00101110001010010100001011000
6	3	4	30	ON	6	32	33	96848	00101110201011100100010000000
				OFF	6	33	44	96919	00101110001101101110111011000
6	3	6	55	ON	6	34	53	96988	00101110001111110101101100000
				OFF	6	36	56	97111	00101110010011100101111011000
7	9	3	10	ON	7	59	11	102046	00110000101010001100100110000
				OFF	7	59	56	102091	00110000101011100100011111000
7	9	6	70	ON	8	2	53	102269	001100001100010000000001001000
				OFF	8	5	50	102446	00110000110110011001110110000
8	8	1	74	ON	9	26	20	107203	00110011001010000001000111000
				OFF	9	29	36	107471	00110011001111110000010011000
9	8	0	10	ON	10	37	25	111540	00110101001011111011100100000
				OFF	10	38	12	111587	00110101001101010111010111000
9	9	1	17	ON	10	56	54	112700	00110101101111100110110001000
				OFF	10	57	43	112758	00110101110001000110011110000
9	9	5	45	ON	11	3	11	113006	00110101111011000111000100000
				OFF	11	4	56	113191	00110101111110010100001011000
9	9	6	33	ON	11	10	30	113526	00110110001000100010011110000
				OFF	11	11	45	113601	00110110001010110100111101000
10	2	1	15	ON	12	35	5	118600	00111000100011011000101000000
				OFF	12	35	41	118636	00111000100100011110111100000
11	4	1	31	ON	14	9	14	124250	00111011001111110011110010000
				OFF	14	10	24	124320	00111011010001111100100000000
14	7	2	55	ON	18	42	41	140656	01000011000100011110110000000
				OFF	18	44	47	140782	01000011001000010100110110000
16	7	0	16	ON	21	34	57	150092	01000111111111111010010000000

				OFF	21	35	34	151029	210010000000000000001000001000
21	3	3	108	ON	5	0	47	177742	010101001100000010000010110000
				OFF	5	4	56	177991	010101001101111101101010110000
22	4	2	17	ON	6	33	30	183306	01010111011010000011100010000
				OFF	6	34	10	183346	01010111011011010001101010000
22	4	3	120	ON	6	36	4	183459	01010111011110101110010111000
				OFF	6	40	33	183728	010101111001101110111110000000
23	6	2	25	ON	7	59	25	188461	010110011101110101111111001000
				OFF	8	0	29	188525	01011001111001010100111001000
23	6	5	111	ON	8	2	36	188651	01011001111101001010111111000
				OFF	8	6	48	188903	01011010000100010011001011000
24	5	2	56	ON	9	28	2	193778	01011100011001101000101010000
				OFF	9	30	27	193923	01011100011110000011110111000
25	8	1	36	ON	10	59	36	199271	01011111000001010001001011000
				OFF	11	1	9	199364	01011111000100000110110100000
25	8	6	47	ON	11	13	28	200104	01011111011010101100001000000
				OFF	11	15	14	200210	01011111011101111011001010000
26	2	2	33	ON	12	37	6	205121	01100001110011110010111101000
				OFF	12	38	22	205197	01100001110110000111011001000
26	2	5	20	ON	12	40	52	205348	01100001111010101110010100000
				OFF	12	41	38	205394	01100001111100001000001010000
27	2	4	49	ON	14	9	9	210645	011001000111000110000000001000
				OFF	14	11	1	210757	01100100011111110010110001000
30	2	1	54	ON	18	42	21	227036	01101100010000100101101100000
				OFF	18	44	23	227150	01101100010100010011111110000
32	3	0	15	ON	21	36	49	237504	01110001010000000011000000000
				OFF	21	37	26	237541	01110001010001001011010001000
36	4	2	9	ON	3	32	20	258835	01111011011011000001000111000
				OFF	3	32	43	258858	011110110110111011110000010000
36	0	6	39	ON	3	50	14	259910	011110111111011110100101110000
				OFF	3	52	0	260016	01111011111111000011110000000
37	0	2	49	ON	5	5	1	264396	01111110000100101110011100000
				OFF	5	6	56	264511	01111110001000001111000011000
37	0	3	16	ON	5	7	55	264570	01111110001010000010010010000
				OFF	5	8	31	264606	01111110001011001000100110000
38	0	2	194	ON	6	34	35	269771	10000000101000110000011111000
				OFF	6	41	50	270206	10000000110110000010000110000
39	9	1	46	ON	8	0	3	274898	10000011000101001110001010000
				OFF	8	2	1	275016	10000011001000110100101000000
39	9	3	10	ON	8	3	59	275135	10000011001100011101000011000
				OFF	8	4	43	275179	10000011001101110010111111000
39	9	6	30	ON	8	9	52	275488	10000011010111001110100000000
				OFF	8	11	15	275571	10000011011001110000100111000
41	6	3	36	ON	11	2	57	285872	10001000010100000111110000000
				OFF	11	4	22	285957	10001000010110101101110001000
42	2	5	40	ON	12	40	47	291743	10001011000111010010100011000
				OFF	12	42	18	291834	10001011001010000100010010000
45	7	7	26	ON	17	22	15	308631	10010011001010101010111011000
				OFF	17	23	30	308706	10010011001100111101011010000
47	5	0	9	ON	20	8	8	318583	10010111111010011000011011000
				OFF	20	8	31	318606	10010111111011000101010110000

51	9	1	24	ON	2	2	7	339823	10100010000010100100110011000
				OFF	2	3	8	339884	10100010000100011011111100000
52	9	4	18	ON	3	34	26	345361	10100100101011100101001101000
				OFF	3	35	8	345403	10100100101100110111001111000
53	6	4	23	ON	5	4	58	350794	10100111010001011000100010000
				OFF	5	5	52	350848	10100111010011000010000000000
53	6	6	93	ON	5	7	30	350946	10100111010110000001011010000
				OFF	5	12	59	351155	10100111011100011001100111000
54	8	4	170	ON	6	37	32	356348	10101001111010111000001100000
				OFF	6	43	49	356725	10101010000110011000100001000
54	8	8	53	ON	6	45	56	356851	10101010001010001110100111000
				OFF	6	48	2	356977	10101010001110000100101101000
55	8	5	84	ON	8	8	3	361779	10101100100001001111001110000
				OFF	8	11	13	361969	10101100100110011010101101000
55	8	7	43	ON	8	12	6	362016	10101100100111110110100000000
				OFF	8	13	38	362114	10101100101010110101111010000
56	6	2	28	ON	9	32	9	366825	101011101110101001110000101000
				OFF	9	32	59	366875	10101110111100001000101111000
56	6	4	21	ON	9	33	51	366927	101011101111010101110010011000
				OFF	9	34	42	366978	10101110111111010001111010000
57	8	4	52	ON	11	13	38	372913	10110001110100011001101101000
				OFF	11	15	36	373031	10110001111000000000001011000
58	8	6	37	ON	12	45	12	378400	10110100011100000110001000000
				OFF	12	46	23	378479	10110100011110010000110011000
61	2	4	55	ON	17	23	19	395095	1011100011001010101111011000
				OFF	17	26	5	395262	10111100011110011100000110000
68	9	3	52	ON	3	34	10	431746	11001101110111110101111010000
				OFF	3	36	11	431867	11001101111011100010001111000
69	6	5	31	ON	5	7	16	437331	1101000100010010010000111000
				OFF	5	8	27	437402	11010000100100011100110010000
69	6	7	62	ON	5	9	37	437473	11010000100110100111011101000
				OFF	5	11	57	437613	1101000010101011000111001000
70	3	5	18	ON	6	37	8	442724	11010011000110110111010100000
				OFF	6	37	52	442768	11010011001000001101010000000
70	3	7	55	ON	6	38	56	442832	11010011001010001010010000000
				OFF	6	41	1	442957	11010011001101111110011001000
71	6	2	70	ON	8	2	42	447050	11010101100011100010101010000
				OFF	8	5	36	448032	11010101101000110110100000000

NOTE - OPERATION 71-6-2 ACTUALLY CONSISTED OF FIVE MORE FRAMES THAN WAS REPORTED. THESE FRAMES WILL BE INCLUDED IN THE B BUCKET.

NOTE - T/M DATA INDICATE NORMAL SYSTEM PERFORMANCE.