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(Including Cover Sheet)

CORONA "J" FLIGHT DATA BOOK

SYSTEM NO. J-14

VEHICLE NO. 1611

MISSION NO. 1017-2

CAMERA NOS. 140 / 165

Prepared by \_\_\_\_\_

Checked by: \_\_\_\_\_

Approved by: \_\_\_\_\_

Approved by \_\_\_\_\_  
Manager

Declassified and Released by the N R O

In Accordance with E. O. 12958

on NOV 26 1997

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SYSTEM NO. 4-14  
VEHICLE NO. 1611  
MISSION NO. 1017-2  
CAMERA NOS. 140/165

**SECRET**



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SYSTEM NO. 214  
VEHICLE NO. 1621  
MISSION NO. 1017-2  
CAMERA NOS. 140/165

COPY NO. \_\_\_\_\_

GENERAL FLIGHT DATA:

Master Camera Serial No. 140

Slave Camera Serial No. 165

Stellar Index "A" Serial No. D21/21/21

Stellar Index "B" Serial No. D60/68/1

-2 START  
Launch Date MARCH 2, 1965

Reactivation Date NA

Reactivation Orbit No. NA

Orbital Parameters: (Rev. 109)

Period 89.86 Min.

Eccentricity 0.0199

Perigee 98.45 NM

Perigee Latitude 37.78 Deg. N DESC.

Apogee 198.32 NM

Inclination Angle 75.07 Deg. N

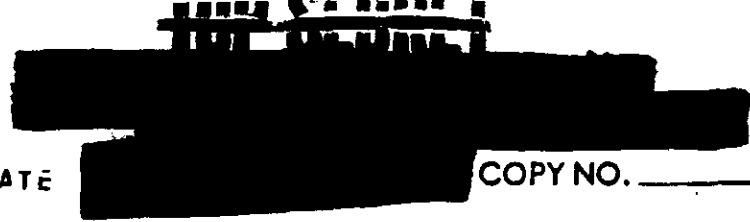
Recovery Orbit No. 145

Recovery Date MARCH 6, 1965

REMARKS:

COPY NO. \_\_\_\_\_

A. 1017-2  
B. DRY  
C. PERFORMANCE ESTIMATE



COPY NO. \_\_\_\_\_

CAM PAN SI LAT. TIME ON TUR DUR SOLAR EXPOS.  
SUB PROG NO. FR.FR GN OFF ZC ST NO SEC. SEC UN OFF ON OFF

081	140	4	CUT AND WRAP OPERATION											
081	165	4	CUT AND WRAP OPERATION											
82	4 1 140	39 06	269 264	3 2258	4 6 1232	99 11 17	4.3 4.1							
82	4 1 165	38	270 264	3 2258	4 6 1232	99 10 16	3.1 2.9							
83	4 1 140	38 05	269 263	3 7672	4 6 1242	98 12 18	4.3 4.1							
83	4 1 165	38	269 263	3 7672	4 6 1242	98 11 17	3.1 2.9							
83	4 2 140	24 04	248 244	3 8031	4 6 1601	56 35 38	3.7 3.7							
83	4 2 165	24	248 244	3 8031	4 6 1601	56 34 37	2.6 2.6							
84	4 1 140	45 06	266 259	313124	4 6 1292	112 15 23	4.2 4.0							
84	4 1 165	44	266 259	313124	4 6 1292	112 15 22	3.0 2.8							
84	4 2 140	31 04	246 241	313456	4 6 1625	71 37 41	3.7 3.7							
84	4 2 165	31	246 241	313456	4 6 1625	71 36 40	2.6 2.6							
85	4 1 140	59 09	268 259	318480	4 6 1244	149 13 23	4.3 4.0							
85	4 1 165	58	268 259	318480	4 6 1244	149 12 22	3.1 2.8							
85	4 2 140	25 03	232 228	319059	4 6 1823	55 50 53	3.6 3.6							
85	4 2 165	24	233 229	319059	4 6 1823	55 49 52	2.5 2.5							
86	7 1 140	53 08	270 262	323834	4 6 1216	137 10 19	4.4 4.1							
86	7 1 165	53	270 262	323834	4 6 1216	137 9 18	3.1 2.9							
86	7 2 140	73 10	257 246	324069	4 6 1452	168 25 36	3.9 3.7							
86	7 2 165	72	257 246	324069	4 6 1452	168 25 35	2.8 2.6							
86	7 3 140	81 12	232 220	324460	4 6 1843	177 50 60	3.6 3.6							
86	7 3 165	80	232 220	324460	4 6 1843	177 49 59	2.5 2.5							
87	8 1 140	24 03	271 267	329200	4 6 1193	63 9 13	4.4 4.3							
87	8 1 165	23	271 268	329206	4 6 1183	63 8 12	3.2 3.1							
87	8 2 140	23 04	266 262	329307	4 6 1283	58 15 19	4.2 4.1							
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87	8 3 140	37 05	260 254	329413	4 6 1389	90 22 28	4.0 3.9							
87	8 3 165	37	260 254	329413	4 6 1389	90 21 27	2.9 2.8							
87	8 4 140	24 03	250 246	329576	4 6 1552	56 33 36	3.8 3.7							
87	8 4 165	24	250 246	329576	4 6 1552	56 32 35	2.7 2.6							
98	8 0 140	13 02	139 141	333673	4 6 260	48-48-46	6.2 6.1							
98	8 0 165	12	137 139	333673	4 6 260	48-50-47	4.7 4.6							
93	4 1 140	24 04	219 215	362411	4 6 2036	55 62 64	3.7 3.7							
93	4 1 165	23	220 216	362411	4 6 2036	55 61 64	2.7 2.7							
95	4 1 140	25 03	238 234	372917	4 6 1709	56 45 48	3.7 3.7							
95	4 1 165	24	238 234	372917	4 6 1709	56 44 47	2.7 2.7							
97	6 1 140	31 05	266 261	383251	4 6 1359	76 16 21	4.1 4.0							
97	6 1 165	31	266 261	383251	4 6 1359	76 15 20	2.9 2.8							
98	8 1 140	38 05	262 256	4 2316	4 6 1428	91 20 26	4.0 3.8							
98	8 1 165	38	262 256	4 2316	4 6 1428	91 19 25	2.8 2.7							
99	8 1 140	42 06	266 260	4 7627	4 6 1327	103 15 22	4.1 4.0							
99	8 1 165	41	266 260	4 7627	4 6 1327	103 14 21	2.9 2.8							
100	8 1 140	68 10	270 260	412951	4 6 1245	169 10 21	4.3 4.0							
100	8 1 165	66	270 260	412951	4 6 1245	169 9 20	3.1 2.8							
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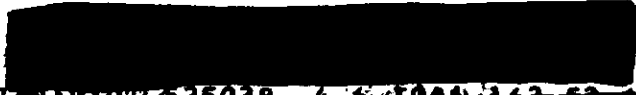


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100	8	3	140	32	05	242	237	413423	4	6	1717	71	41	46	3.6	3.6
100	8	3	165	32		242	237	413423	4	6	1717	71	40	45	2.6	2.6
101	8	1	140	21	03	274	272	418228	4	6	1145	57	3	6	4.5	4.4
101	8	1	165	21		274	272	418228	4	6	1145	57	2	5	3.2	3.1
101	8	2	140	70	10	270	260	418342	4	6	1260	173	10	22	4.3	4.3
101	8	2	165	69		270	260	418342	4	6	1260	173	9	21	3.0	2.9
101	8	3	140	31	04	258	253	418562	4	6	1479	73	25	29	3.4	3.8
101	8	3	165	31		258	253	418562	4	6	1479	73	24	28	2.8	2.7
101	8	4	140	45	07	223	216	419106	4	6	2024	100	59	65	3.6	3.6
101	8	4	165	45		223	216	419106	4	6	2024	100	58	64	2.6	2.6
102	9	1	140	38	05	269	263	423756	4	6	1260	98	12	18	4.3	4.1
102	9	1	165	38		269	263	423756	4	6	1260	98	11	17	3.0	2.9
102	9	2	140	79	11	257	245	423970	4	6	1474	186	26	38	4.0	3.8
102	9	2	165	80		257	245	423970	4	6	1474	186	25	37	2.8	2.6
102	9	3	140	52	08	235	227	424317	4	6	1821	117	48	55	3.7	3.6
102	9	3	165	52		235	227	424317	4	6	1821	117	47	55	2.6	2.5
103	5	1	140	120	17	271	254	429105	4	6	1214	296	9	28	4.4	3.8
103	5	1	165	119		271	254	429105	4	6	1214	296	8	27	3.1	2.7
104	6	0	140	13	02	139	141	433572	4	6	284	48-50-47			6.4	6.3
104	6	0	165	12		137	139	433572	4	6	284	48-51-48			4.6	4.6
104	6	1	140	31	04	261	256	434688	4	6	1400	74	21	26	4.0	3.9
104	6	1	165	30		261	256	434688	4	6	1400	74	20	25	2.9	2.8
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111	7	0	140	17	02	238	235	472803	4	6	1736	38	45	48	3.6	3.6
111	7	0	165	16		238	235	472803	4	6	1736	38	45	47	2.7	2.7
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117	2	3	140	42	06	202	304	519294	4	6	2356	100	77	78	3.8	4.0
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117	2	4	140	22	03	307	310	519431	4	6	2493	54	77	75	4.1	4.1
117	2	4	165	21		306	309	519431	4	6	2493	54	77	76	2.9	3.0
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118	6	2	140	46	06	235	228	524183	4	6	1878	101	49	55	3.6	3.6
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118	6	3	140	23	03	206	202	524614	4	6	2309	55	74	76	3.9	3.9
118	6	3	165	23		207	203	524614	4	6	2309	55	74	76	2.7	2.8
120	9	0	140	12	02	139	141	533435	4	6	341	48-51-48			6.7	6.6
120	9	0	165	12		137	139	533435	4	6	341	48-52-49			4.7	4.6
120	9	1	140	60	09	251	242	534712	4	6	1618	135	32	41	3.7	3.6
120	9	1	165	59		251	242	534712	4	6	1618	135	31	40	2.7	2.6
120	9	2	140	74	10	230	219	535038	4	6	1944	162	53	64	3.6	3.6

[REDACTED]

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131	8	1	140	40	C6	274	271	6 7135	4	6	1200	104	1	8	4.4	4.2
131	8	1	165	39		274	271	6 7135	4	6	1200	104	0	7	3.1	3.0
131	8	2	140	47	06	268	261	6 7309	4	6	1374	114	12	20	4.1	3.9
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132	8	1	140	62	C9	267	258	612717	4	6	1391	147	14	23	4.0	3.9
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132	8	2	140	67	10	253	243	612957	4	6	1631	150	30	40	3.7	3.6
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133	8	1	140	23	03	273	271	617948	4	6	1216	60	3	7	4.4	4.3
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133	8	2	140	33	C5	270	265	618044	4	6	1312	83	9	15	4.2	4.0
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133	8	4	140	52	C8	230	222	618702	4	6	1971	116	54	61	3.6	3.6
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135	8	1	140	83	12	261	249	628991	4	6	1475	189	21	34	3.9	3.7
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135	8	2	140	33	C5	241	236	629312	4	6	1795	73	42	47	3.6	3.6
135	8	2	165	32		241	236	629312	4	6	1795	73	41	46	2.6	2.6
136	1	1	140	132	18	261	242	634379	4	6	1493	298	21	41	3.9	3.6
136	1	1	165	130		261	242	634379	4	6	1493	298	20	40	2.8	2.6
137	1	1	140	113	17	206	3/2	640620	4	6	2377	282	77	78	3.9	4.4
137	1	1	165	110		207	3/0	640620	4	6	2377	282	76	78	2.8	3.2

AAA BB C DDD EEE FF GHH GII JJKKKKK LLMM NNNN OOG PP QQ RRR SSS

- A REVOLUTION NUMBER
- B PROGRAM NUMBER
- C OPERATION NUMBER
- D PAN. CAMERA SERIAL NUMBER (MASTER IS EVEN, SLAVE IS ODD)
- E EST. NO OF PAN FRAMES, BASED ON COUNTER READINGS INFLITE
- F EST. NUMBER OF STELLAR/INDEX FRAMES
- G QUADRANT
- H EST. LATITUDE CF FIRST FORMAT CENTER IN PASS
- I EST. LATITUDE OF LAST FORMAT CENTER IN PASS
- J ZULU DATE
- K SYSTEM TIME IN SECONDS (GMT)
- L FMC PROGRAMMER REFERENCE LEVEL
- M FMC PROGRAMMER AMPLITUDE LEVEL
- N EST. TIME UP RAMP IN SECONDS TO OPERATE COMMAND



COPY NO. \_\_\_\_\_

O EST. SECONDS DURATION OF OPERATION, BETWEEN ON AND OFF  
P SOLAR ELEVATION AT ITEM H  
Q SOLAR ELEVATION AT ITEM I  
R EST. MILLISECOND EXPOSURE TIME AT ITEM H  
S EST. MILLISECOND EXPOSURE TIME AT ITEM I

FRAMES TO FEET, PAN X 2.645 STELLAR X 0.099, INDEX X 0.198

RAMP PROFILE

R- 4 A- 6

R= 0.3547 A= 0.1059

TUR	PER	CPS	ANG V
100	4.002	0.2499	C.02260
200	3.951	0.2531	C.02289
300	3.870	0.2584	C.02337
400	3.764	0.2657	C.02403
500	3.639	0.2748	C.02485
600	3.502	0.2855	C.02582
700	3.359	0.2977	C.02692
800	3.215	0.3110	C.02813
900	3.075	0.3252	C.02941
1000	2.941	0.3400	C.03075
1100	2.815	0.3553	C.03213
1200	2.664	0.3754	C.03395
1300	2.534	0.3947	C.03570
1400	2.424	0.4126	C.03731
1500	2.335	0.4283	C.03874
1600	2.265	0.4414	C.03993
1700	2.215	0.4514	C.04083
1800	2.184	0.4578	C.04141
1900	2.171	0.4605	C.04165
2000	2.177	0.4594	C.04155
2100	2.201	0.4544	C.04110
2200	2.243	0.4458	C.04032
2300	2.304	0.4339	C.03925
2400	2.386	0.4192	C.03791
2500	2.487	0.4021	C.03636
2600	2.609	0.3832	C.03466
2700	2.752	0.3634	C.03286
2800	2.890	0.3460	C.03130
2900	3.020	0.3311	C.02994
3000	3.159	0.3166	C.02863
3100	3.302	0.3029	C.02739
3200	3.446	0.2902	C.02625
3300	3.585	0.2789	C.02523
3400	3.716	0.2691	C.02434
3500	3.830	0.2611	C.02362
3600	3.922	0.2550	C.02306
3700	3.985	0.2509	C.02269
3800	4.016	0.2490	C.02252

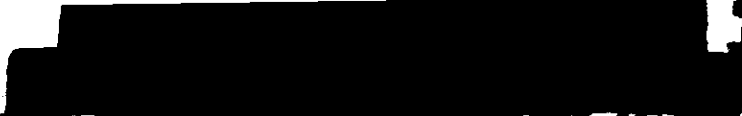
C L O C K S U M M A R Y

ORDER FIT 1

SYS TIME I/P CL TIME I/P COMP SYS TM DELTA ST REV STA



COPY NO. \_\_\_\_\_



33736.955	137780.79790	33736.95920	-0.00412	88	1
73068.512	177112.35590	73068.50910	0.00292	95	1
33636.685	224080.54290	33636.68640	-0.00068	104	1
72861.037	263304.89790	72861.03330	0.00393	111	1
33498.216	310342.08990	33498.21560	0.00066	120	1
72705.011	349548.89390	72705.01160	-0.00026	127	1
33331.626	396575.52190	33331.62990	-0.00317	136	1
72617.219	435861.11890	72617.21880	0.00071	143	1

A0=-0.1040438103D 06 A1= 0.999999793754D 00  
 SIGMA=0.00242 NO. POINTS= 8  
 RATIO OF CLOCK TIME TO SYS TIME= 0.100000020625D 01

ORDER FIT 2						
SYS TIME I/P	CL TIME I/P	CCMP SYS TM	DELTA ST	REV	STA	
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73068.512	177112.35590	73068.50880	0.00326	95	1	
33636.685	224080.54290	33636.68730	-0.00150	104	1	
72861.037	263304.89790	72861.03470	0.00263	111	1	
33498.216	310342.08990	33498.21700	-0.00065	120	1	
72705.011	349548.89390	72705.01240	-0.00108	127	1	
33331.626	396575.52190	33331.62950	-0.00284	136	1	
72617.219	435861.11890	72617.21700	0.00250	143	1	

A0=-0.1040438207D 06 A1= 0.999999875892D 00  
 A2=-0.1431833318654D-12  
 SIGMA=0.00214 NO. POINTS= 8

NOTE - T/M DATA INDICATES THE STELLAR INDEX CAMERA HAS BEEN INOPERATIVE DURING ALL PASSES MONITORED SINCE REV 081.



  
 COPY NO. \_\_\_\_\_



- A. 1017-2
- B. DRY
- C. PROPOSED PERFORMANCE ESTIMATE

COPY NO. \_\_\_\_\_

PERFORMANCE ESTIMATE - MISSION 1017-2, LAUNCH 2144Z 2-25-65  
OPERATIONS SUMMARY

FWD PAN CAMERA NUMBER 140										
OPN NO	FRA		LAT	LONG	HEIGHT	RANGE	DA	S-TIM	L-TIM	
CUT/WRAP										
82	4	1	39 ON	69.5	145.6	708244	734124	03	02258	10 20
			OFF	64.5	156.8	681914	706799	03	02357	11 06
83	4	1	38 ON	68.6	125.4	702292	727947	03	07672	10 29
			OFF	63.5	135.6	676865	701560	03	07770	11 11
83	4	2	24 ON	47.8	149.8	621702	644323	03	08031	12 12
			OFF	44.3	151.6	613016	635311	03	08087	12 21
84	4	1	45 ON	65.8	109.1	686641	711705	03	13124	10 55
			OFF	59.5	118.1	659327	683362	03	13236	11 32
84	4	2	31 ON	45.9	128.1	616527	638953	03	13456	12 16
			OFF	41.3	130.2	606663	628720	03	13527	12 26
85	4	1	59 ON	67.7	82.3	695887	721300	03	18480	10 37
			OFF	59.5	95.4	658928	682948	03	18629	11 31
85	4	2	25 ON	32.4	110.7	593990	615572	03	19059	12 40
			OFF	28.9	111.8	591531	613021	03	19114	12 45
86	7	1	53 ON	69.7	54.3	706195	731997	03	23834	10 14
			OFF	62.6	68.9	670929	695401	03	23971	11 14
86	7	2	73 ON	56.9	75.3	648500	672127	03	24069	11 42
			OFF	46.4	82.5	617258	639712	03	24237	12 13
86	7	3	81 ON	32.0	88.2	593617	615185	03	24460	12 40
			OFF	20.4	91.3	592067	613577	03	24637	12 56
87	8	1	24 ON	70.7	28.3	711410	737409	03	29206	10 00
			OFF	67.8	36.8	694618	719983	03	29269	10 35
87	8	2	23 ON	65.8	41.0	684754	709747	03	29307	10 52
			OFF	62.6	46.2	670417	694869	03	29365	11 14
87	8	3	37 ON	59.9	49.6	659179	683208	03	29413	11 28
			OFF	54.5	54.6	639912	663216	03	29503	11 50
87	8	4	24 ON	50.0	57.8	626239	649030	03	29576	12 04
			OFF	46.4	59.8	617066	639513	03	29632	12 12
88	8	0	13 ON	38.7	-108.6	987997	1024591	03	33673	02 06
			OFF	41.6	-107.4	974270	1010333	03	33721	02 12
93	4	1	24 ON	19.5	-67.2	594430	616029	03	62411	12 51
			OFF	15.8	-66.3	598209	619948	03	62466	12 55
95	4	1	25 ON	38.0	-117.9	599756	621555	03	72917	12 23
			OFF	34.4	-116.7	595683	617328	03	72973	12 29
97	6	1	31 ON	65.6	174.6	677102	701807	03	83251	10 45
			OFF	61.4	-179.0	659407	683444	03	83327	11 12
98	8	1	38 ON	61.7	158.0	660090	684154	04	02316	11 10
			OFF	56.3	163.7	641121	664470	04	02407	11 34
99	8	1	42 ON	66.2	128.1	678712	703476	04	07627	10 39
			OFF	60.5	136.8	655142	679019	04	07730	11 16
100	8	1	68 ON	69.6	97.1	695267	720657	04	12951	10 04
			OFF	60.7	113.9	655383	679270	04	13120	11 14
100	8	2	51 ON	58.6	116.2	648031	671641	04	13155	11 24

[REDACTED]

[REDACTED]

COPY NO. \_\_\_\_\_

		OFF	51.4	122.1	625968	648749	04	13274	11	49	
100	8	32	ON	41.9	127.1	605442	627453	04	13423	12	12
		OFF	37.3	129.0	598928	620695	04	13494	12	20	
101	8	21	ON	73.9	53.5	725295	751821	04	18228	08	37
		OFF	72.1	65.0	710019	735967	04	18285	09	24	
101	8	70	ON	69.7	74.2	695053	720435	04	18342	10	02
		OFF	60.5	91.4	654473	678325	04	18515	11	14	
101	8	31	ON	57.8	94.3	644959	668454	04	18562	11	26
		OFF	53.4	98.0	631270	654250	04	18635	11	42	
101	8	45	ON	22.9	110.6	594322	615916	04	19106	12	40
		OFF	16.3	112.2	600374	622195	04	19206	12	48	
102	9	38	ON	68.7	54.3	689281	714445	04	23756	10	13
		OFF	63.6	64.6	665898	690180	04	23854	10	56	
102	9	79	ON	56.9	72.5	641617	664985	04	23970	11	29
		OFF	45.3	80.2	611593	633835	04	24156	12	03	
102	9	52	ON	34.9	84.5	596657	618339	04	24317	12	23
		OFF	27.3	86.8	593412	614973	04	24434	12	34	
103	5	120	ON	70.7	25.5	699679	725235	04	29105	09	46
		OFF	54.5	51.8	634086	657171	04	29401	11	37	
104	6	13	ON	38.7	-111.4	965317	1001033	04	33572	01	53
		OFF	41.7	-110.2	951639	986826	04	33620	01	59	
104	6	31	ON	60.9	23.0	654611	678468	04	34688	11	10
		OFF	56.5	27.5	639783	663082	04	34762	11	29	
104	6	32	ON	47.0	34.0	614742	637102	04	34915	11	58
		OFF	42.3	36.3	606060	628094	04	34987	12	08	
111	7	17	ON	37.7	-120.6	600093	621904	04	72803	12	11
		OFF	35.3	-119.7	597906	619635	04	72841	12	15	
116	2	31	ON	58.7	113.4	642203	665593	05	13024	11	10
		OFF	54.4	117.3	629714	652636	05	13095	11	27	
116	2	24	ON	52.1	118.9	624008	646715	05	13132	11	34
		OFF	48.7	121.1	616281	638699	05	13187	11	44	
116	2	25	ON	40.3	125.1	602362	624258	05	13318	12	02
		OFF	36.7	126.5	598700	620459	05	13374	12	08	
116	2	22	ON	-4.7	136.6	662794	686957	05	14001	12	59
		OFF	-8.2	137.3	677494	702211	05	14055	13	03	
117	2	39	ON	58.6	90.8	641475	664839	05	18415	11	10
		OFF	53.2	95.5	626174	648963	05	18505	11	30	
117	2	32	ON	42.7	101.4	605326	627333	05	18671	11	56
		OFF	38.1	103.3	599779	621578	05	18742	12	05	
117	2	42	ON	1.8	112.6	640119	663430	05	19294	12	51
		OFF	-4.8	113.9	663860	688063	05	19394	12	59	
117	2	22	ON	-7.2	114.4	673635	698206	05	19431	13	01
		OFF	-10.8	115.2	689169	714326	05	19485	13	05	
118	6	95	ON	56.8	69.9	635375	658509	05	23837	11	17
		OFF	43.3	78.5	605802	627827	05	24054	11	55	
118	6	46	ON	34.9	81.8	597094	618793	05	24183	12	10
		OFF	28.3	83.9	595658	617303	05	24284	12	20	
118	6	23	ON	6.5	89.0	626744	649552	05	24614	12	46
		OFF	2.8	89.7	637420	660629	05	24669	12	50	
120	9	12	ON	38.6	-114.1	943397	978264	05	33435	01	41
		OFF	41.6	-112.9	929981	964331	05	33483	01	46	
120	9	60	ON	51.0	29.0	619524	642063	05	34712	11	34
		OFF	42.5	33.6	604075	626035	05	34847	11	55	
120	9	74	ON	30.1	38.0	595443	617080	05	35038	12	16

		OFF	19.4	40.8	601853	623729	05	35200	12	29		
127	9	0	19	ON	38.1	-123.2	597790	619515	05	72645	11	57
		OFF	35.6	-122.3	596208	617873	05	72683	12	01		
130	8	1	62	ON	67.7	142.3	665463	689729	06	01921	10	01
		OFF	59.5	155.4	636479	659654	06	02070	10	55		
131	8	1	40	ON	74.3	89.0	705035	730793	06	07135	07	54
		OFF	71.0	109.7	680538	705372	06	07239	09	19		
131	8	2	47	ON	67.8	119.5	665019	689268	06	07309	09	59
		OFF	61.6	130.2	642421	665820	06	07423	10	44		
132	8	1	62	ON	66.9	98.9	660523	684603	06	12717	10	07
		OFF	58.6	111.0	632913	655955	06	12864	10	58		
132	8	2	67	ON	53.0	115.8	618728	641238	06	12957	11	19
		OFF	43.5	121.2	602230	624121	06	13107	11	43		
133	8	1	23	ON	73.5	51.4	695100	720484	06	17948	08	24
		OFF	71.4	62.8	681158	706015	06	18008	09	11		
133	8	2	33	ON	69.9	68.4	673166	697722	06	18044	09	34
		OFF	65.8	78.4	655728	679627	06	18127	10	15		
133	8	3	39	ON	59.0	87.9	633577	656644	06	18246	10	55
		OFF	53.6	92.7	619683	642228	06	18336	11	16		
133	8	4	52	ON	30.1	103.5	594968	616587	06	18702	12	05
		OFF	22.5	105.5	599776	621575	06	18818	12	15		
134	8	1	29	ON	64.8	57.5	651562	675304	06	23533	10	22
		OFF	61.0	63.0	638845	662110	06	23601	10	45		
134	8	2	62	ON	58.9	65.4	632659	655692	06	23637	10	55
		OFF	50.4	72.2	612593	634872	06	23776	11	25		
134	8	3	25	UN	48.0	73.7	608216	630331	06	23815	11	31
		OFF	44.4	75.5	602914	624831	06	23871	11	39		
134	8	4	40	ON	41.0	77.0	599022	620793	06	23924	11	46
		OFF	35.4	79.1	595334	616967	06	24010	11	56		
135	8	1	83	ON	60.9	40.4	638094	661330	06	28991	10	44
		OFF	49.4	50.1	610475	632675	06	29180	11	26		
135	8	2	33	ON	41.1	54.3	598910	620676	06	29312	11	45
		OFF	36.4	56.1	595619	617263	06	29385	11	54		
136	1	1	132	ON	61.0	17.7	637719	660942	06	34379	10	43
		OFF	42.6	31.0	600245	622062	06	34677	11	42		
137	1	1	113	ON	6.2	18.6	633707	656777	06	40620	12	31
		OFF	-12.4	22.4	707219	733058	06	40902	12	51		

OPERATIONS SUMMARY

AFT PAN CAMERA NUMBER 165

OPN NO	FRA	LAT	LONG	HEIGHT	RANGE	DA	S-TIM	L-TIM				
CUT/WRAP	4											
82	4	1	38	ON	70.2	143.4	708244	734124	03	02258	10	11
				OFF	65.3	155.3	681914	706799	03	02357	11	00
83	4	1	38	ON	69.3	123.4	702292	727947	03	07672	10	21
				OFF	64.3	134.3	676865	701560	03	07770	11	06
83	4	2	24	ON	48.6	149.2	621702	644323	03	08031	12	10
				OFF	45.1	151.1	613016	635311	03	08087	12	19
84	4	1	44	ON	66.5	107.5	686641	711705	03	13124	10	48
				OFF	60.3	117.1	659327	683362	03	13236	11	28
84	4	2	31	ON	46.7	127.6	616527	638953	03	13456	12	14
				OFF	42.2	129.8	606663	628720	03	13527	12	24
85	4	1	58	ON	68.5	80.4	695887	721300	03	18480	10	29
				OFF	60.3	94.4	658928	682948	03	18629	11	27



85	4	2	24	ON	33.3	110.4	593990	615572	03	19059	12	39
				OFF	29.7	111.5	591531	613021	03	19114	12	44
86	7	1	53	ON	70.4	52.0	706195	731997	03	23834	10	05
				OFF	63.4	67.6	670929	695401	03	23971	11	10
86	7	2	72	ON	57.7	74.5	648500	672127	03	24069	11	39
				OFF	47.2	82.0	617258	639712	03	24237	12	11
86	7	3	80	ON	32.8	87.9	593617	615185	03	24460	12	39
				OFF	21.2	91.1	592067	613577	03	24637	12	54
87	8	1	23	ON	71.3	25.8	711410	737409	03	29206	09	49
				OFF	68.5	34.9	694618	719983	03	29269	10	27
87	8	2	22	ON	66.6	39.4	684754	709747	03	29307	10	46
				OFF	63.4	44.9	670417	694869	03	29365	11	09
87	8	3	37	ON	60.7	48.6	659179	683208	03	29413	11	24
				OFF	55.3	53.9	639912	663216	03	29503	11	47
87	8	4	24	ON	50.8	57.2	626239	649030	03	29576	12	01
				OFF	47.3	59.3	617066	639513	03	29632	12	10
88	8	0	12	ON	37.3	-109.2	987997	1024591	03	33673	02	04
				OFF	40.3	-108.1	974270	1010333	03	33721	02	09
93	4	1	23	ON	20.3	-67.4	594430	616029	03	62411	12	50
				OFF	16.7	-66.6	598209	619948	03	62466	12	54
95	4	1	24	ON	38.8	-118.3	599756	621555	03	72917	12	22
				OFF	35.2	-117.0	595683	617328	03	72973	12	28
97	6	1	31	ON	66.4	173.0	677102	701807	03	83251	10	39
				OFF	62.2	-180.1	659407	683444	03	83327	11	08
98	8	1	38	ON	62.5	156.9	660090	684154	04	02316	11	06
				OFF	57.2	162.9	641121	664470	04	02407	11	31
99	8	1	41	ON	67.0	126.5	678712	703476	04	07627	10	33
				OFF	61.3	135.8	655142	679019	04	07730	11	11
100	8	1	66	ON	70.3	94.9	695267	720657	04	12951	09	55
				OFF	61.5	112.9	655383	679270	04	13120	11	10
100	8	2	50	ON	59.4	115.3	648031	671641	04	13155	11	20
				OFF	52.2	121.5	625968	648749	04	13274	11	47
100	8	3	32	ON	42.7	126.7	605442	627453	04	13423	12	10
				OFF	38.1	128.6	598928	620695	04	13494	12	19
101	8	1	21	ON	74.2	49.8	725295	751821	04	18228	08	23
				OFF	72.6	62.0	710019	735967	04	18285	09	12
101	8	2	69	ON	70.4	72.0	695053	720435	04	18342	09	53
				OFF	61.3	90.4	654473	678325	04	18515	11	10
101	8	3	31	ON	58.6	93.4	644959	668454	04	18562	11	23
				OFF	54.2	97.4	631270	654250	04	18635	11	40
101	8	4	45	ON	23.8	110.3	594322	615916	04	19106	12	39
				OFF	17.2	111.9	600374	622195	04	19206	12	47
102	9	1	38	ON	69.4	52.3	689281	714445	04	23756	10	05
				OFF	64.4	63.3	665898	690180	04	23854	10	50
102	9	2	80	ON	57.7	71.7	641617	664985	04	23970	11	26
				OFF	46.2	79.7	611593	633835	04	24156	12	01
102	9	3	52	ON	35.8	84.1	596657	618339	04	24317	12	21
				OFF	28.1	86.5	593412	614973	04	24434	12	33
103	5	1	119	UN	71.3	23.0	699679	725235	04	29105	09	36
				OFF	55.4	51.1	634086	657171	04	29401	11	34
104	6	0	12	ON	37.3	-112.0	965317	1001033	04	33572	01	51
				OFF	40.3	-110.8	951639	986826	04	33620	01	56
104	6	1	30	ON	61.7	21.9	654611	678468	04	34688	11	05
				OFF	57.3	26.7	639783	663082	04	34762	11	26

104	6	2	31	ON	47.8	33.5	614742	637102	04	34915	11	56
				OFF	43.2	35.8	606060	628094	04	34987	12	06
111	7	0	16	ON	38.6	-120.9	600093	621904	04	72803	12	09
				OFF	36.1	-120.0	597906	619635	04	72841	12	13
116	2	1	30	ON	59.5	112.5	642203	665593	05	13024	11	07
				OFF	55.2	116.6	629714	652636	05	13095	11	24
116	2	2	23	ON	53.0	118.3	624008	646715	05	13132	11	31
				OFF	49.6	120.5	616281	638699	05	13187	11	41
116	2	3	24	ON	41.1	124.7	602362	624258	05	13318	12	00
				OFF	37.5	126.2	598700	620459	05	13374	12	07
116	2	4	21	ON	-3.7	136.3	662794	686957	05	14001	12	58
				OFF	-7.3	137.1	677494	702211	05	14055	13	02
117	2	1	37	ON	59.5	89.9	641475	664839	05	18415	11	06
				OFF	54.0	94.8	626174	648963	05	18505	11	27
117	2	2	31	ON	43.6	101.0	605326	627333	05	18671	11	55
				OFF	39.0	102.9	599779	621578	05	18742	12	04
117	2	3	41	ON	2.7	112.3	640119	663430	05	19294	12	50
				OFF	-3.9	113.7	663860	688063	05	19394	12	58
117	2	4	21	ON	-6.3	114.2	673635	698206	05	19431	13	00
				OFF	-9.8	114.9	689169	714326	05	19485	13	04
118	6	1	95	ON	57.6	69.1	635375	658509	05	23837	11	13
				OFF	44.1	78.1	605802	627827	05	24054	11	53
118	6	2	45	ON	35.7	81.5	597094	618793	05	24183	12	08
				OFF	29.1	83.6	595658	617303	05	24284	12	19
118	6	3	23	ON	7.4	88.7	626744	649552	05	24614	12	45
				OFF	3.7	89.5	637420	660629	05	24669	12	49
120	9	0	12	ON	37.3	-114.6	943397	978264	05	33435	01	38
				OFF	40.3	-113.5	929981	964331	05	33483	01	44
120	9	1	59	ON	51.8	28.4	619524	642063	05	34712	11	32
				OFF	43.3	33.1	604075	626035	05	34847	11	53
120	9	2	72	ON	30.9	37.7	595443	617080	05	35038	12	14
				OFF	20.2	40.6	601853	623729	05	35200	12	28
127	9	0	16	ON	38.9	-123.6	597790	619515	05	72645	11	56
				OFF	36.4	-122.7	596208	617873	05	72683	12	00
130	8	1	62	ON	68.4	140.5	665463	689729	06	01921	09	53
				OFF	60.3	154.4	636479	659654	06	02070	10	52
131	8	1	39	ON	74.6	85.2	705035	730793	06	07135	07	39
				OFF	71.6	107.1	680538	705372	06	07239	09	09
131	8	2	47	ON	68.5	117.7	665019	689268	06	07309	09	52
				OFF	62.4	129.1	642421	665820	06	07423	10	40
132	8	1	61	ON	67.6	97.2	660523	684603	06	12717	10	00
				OFF	59.4	110.1	632913	655955	06	12864	10	54
132	8	2	67	ON	53.8	115.1	618728	641238	06	12957	11	16
				OFF	44.3	120.8	602230	624121	06	13107	11	41
133	8	1	23	ON	73.9	48.0	695100	720484	06	17948	08	11
				OFF	72.0	60.2	681158	706015	06	18008	09	00
133	8	2	33	ON	70.5	66.1	673166	697722	06	18044	09	25
				OFF	66.5	76.9	655728	679627	06	18127	10	09
133	8	3	38	ON	59.8	86.9	633577	656644	06	18246	10	51
				OFF	54.4	92.0	619683	642228	06	18336	11	13
133	8	4	52	ON	31.0	103.2	594968	616587	06	18702	12	04
				OFF	23.4	105.3	599776	621575	06	18818	12	14
134	8	1	27	ON	65.6	56.0	651562	675304	06	23533	10	16
				OFF	61.8	61.9	638865	662110	06	23601	10	41

134	8	2	58	ON	59.7	84.4	632659	655692	06	23637	10	51
				OFF	51.2	71.6	612593	634872	06	23776	11	22
134	8	3	24	ON	48.8	73.1	608216	630331	06	23815	11	29
				OFF	45.2	75.0	602914	624831	06	23871	11	37
134	8	4	37	ON	41.8	76.6	599022	620793	06	23924	11	45
				OFF	36.2	78.8	595334	616967	06	24010	11	55
135	8	1	81	ON	61.7	39.4	638094	661330	06	28991	10	40
				OFF	50.3	49.6	610475	632675	06	29180	11	24
135	8	2	32	ON	41.9	53.9	598910	620676	06	29312	11	44
				OFF	37.2	55.8	595619	617263	06	29385	11	52
136	1	1	130	ON	61.8	16.6	637719	660942	06	34379	10	39
				OFF	43.4	30.6	600245	622062	06	34677	11	40
137	1	1	110	ON	7.1	18.3	633707	656777	06	40620	12	30
				OFF	-11.4	22.1	707219	733058	06	40902	12	50

PHOTOGRAPHIC SUMMARY

FWD PAN CAMERA			NO	140	0.2500	SLIT	W/25	FILTER	4404		FILM	
OPN NO	FRA	FEET	ET	S-EL	S-DIR	EV	FULL	INT	PRI			
CUT/WRAP	4	10.6										
82	4	1	39	103.2	ON	231	11.1	20.2	11.70	11.20	10.60	10.00
					OFF	242	17.5	20.3	11.77	11.63	11.03	10.43
83	4	1	38	100.5	ON	232	12.4	19.9	11.71	11.30	10.70	10.10
					OFF	243	18.6	20.2	11.78	11.68	11.08	10.48
83	4	2	24	63.5	ON	267	35.3	23.1	11.91	12.03	11.43	10.83
					OFF	270	38.8	24.2	11.93	12.06	11.46	10.86
84	4	1	45	119.0	ON	238	16.0	19.8	11.75	11.55	10.95	10.35
					OFF	249	23.1	20.4	11.81	11.84	11.24	10.64
84	4	2	31	82.0	ON	268	37.2	23.4	11.92	12.05	11.45	10.85
					OFF	272	41.6	25.0	11.94	12.08	11.48	10.88
85	4	1	59	156.1	ON	232	13.5	19.5	11.71	11.39	10.79	10.19
					OFF	248	23.1	20.2	11.81	11.84	11.24	10.64
85	4	2	25	66.1	ON	277	50.1	29.0	11.97	12.10	11.50	10.90
					OFF	278	53.3	31.4	11.97	12.09	11.49	10.89
86	7	1	53	140.2	ON	229	10.8	19.4	11.69	11.17	10.57	9.97
					OFF	244	19.7	19.6	11.78	11.73	11.13	10.53
86	7	2	73	193.1	ON	254	26.0	20.4	11.84	11.91	11.31	10.71
					OFF	268	36.7	22.7	11.92	12.04	11.44	10.84
86	7	3	81	214.2	ON	278	50.5	29.0	11.97	12.10	11.50	10.90
					OFF	277	60.6	38.8	11.97	12.03	11.43	10.83
87	8	1	24	63.5	ON	224	9.4	19.2	11.66	11.02	10.42	9.82
					OFF	231	13.4	19.1	11.71	11.38	10.78	10.18
87	8	2	23	60.8	ON	236	15.9	19.2	11.74	11.55	10.95	10.35
					OFF	242	19.6	19.4	11.77	11.73	11.13	10.53
87	8	3	37	97.9	ON	248	22.7	19.7	11.81	11.83	11.23	10.63
					OFF	256	28.5	20.6	11.85	11.95	11.35	10.75
87	8	4	24	63.5	ON	263	33.2	21.5	11.89	12.01	11.41	10.81
					OFF	267	36.7	22.5	11.91	12.04	11.44	10.84
88	8	0	13	34.4	ON	154	-48.9	27.6	11.12	0.	0.	0.
					OFF	156	-46.1	26.1	11.14	0.	0.	0.
93	4	1	24	63.5	ON	276	62.0	37.3	11.96	12.01	11.41	10.81
					OFF	275	65.0	42.2	11.95	11.98	11.38	10.78
95	4	1	25	66.1	ON	273	45.3	23.4	11.94	12.09	11.49	10.89
					OFF	275	48.8	25.0	11.96	12.10	11.50	10.90

97	6	1	31	82.0	ON 244	16.0	17.1	11.79	11.55	10.95	10.35
					OFF 252	21.0	17.4	11.83	11.78	11.18	10.58
98	8	1	38	100.5	ON 252	20.7	17.2	11.83	11.77	11.17	10.57
					OFF 260	26.6	17.8	11.87	11.92	11.32	10.72
99	8	1	42	111.1	ON 241	15.3	16.7	11.77	11.51	10.91	10.31
					OFF 251	22.1	17.1	11.83	11.81	11.21	10.61
100	8	1	68	179.9	ON 232	10.8	16.5	11.71	11.16	10.56	9.96
					OFF 250	21.9	16.9	11.82	11.81	11.21	10.61
100	8	2	51	134.9	ON 254	24.2	17.1	11.84	11.87	11.27	10.67
					OFF 264	31.9	18.2	11.90	12.00	11.40	10.80
100	8	3	32	84.6	ON 273	41.6	20.6	11.95	12.08	11.48	10.88
					OFF 276	46.1	22.3	11.96	12.10	11.50	10.90
101	8	1	21	55.5	ON 220	3.2	16.8	11.63	10.16	9.56	8.96
					OFF 226	6.9	16.5	11.67	10.73	10.13	9.53
101	8	2	70	185.1	ON 233	10.7	16.3	11.72	11.15	10.55	9.95
					OFF 252	22.0	16.7	11.83	11.81	11.21	10.61
101	8	3	31	82.0	ON 256	25.0	17.0	11.86	11.89	11.29	10.69
					OFF 262	29.8	17.6	11.89	11.97	11.37	10.77
101	8	4	45	119.0	ON 277	59.7	30.8	11.96	12.04	11.44	10.84
					OFF 273	65.4	38.2	11.95	11.97	11.37	10.77
102	9	1	38	100.5	ON 235	12.0	16.1	11.73	11.27	10.67	10.07
					OFF 246	18.5	16.2	11.79	11.68	11.08	10.48
102	9	2	79	209.0	ON 258	26.0	16.9	11.86	11.91	11.31	10.71
					OFF 272	38.1	19.1	11.94	12.05	11.45	10.85
102	9	3	52	137.5	ON 279	48.5	22.7	11.97	12.10	11.50	10.90
					OFF 280	55.8	27.0	11.98	12.08	11.48	10.88
103	5	1	120	317.4	ON 230	9.1	16.0	11.70	10.99	10.39	9.79
					OFF 261	28.6	17.0	11.88	11.95	11.35	10.75
104	6	0	13	34.4	ON 156	-50.3	23.2	11.14	0.	0.	0.
					OFF 158	-47.4	21.9	11.16	0.	0.	0.
104	6	1	31	82.0	ON 251	21.6	16.0	11.82	11.80	11.20	10.60
					OFF 258	26.5	16.5	11.86	11.92	11.32	10.72
104	6	2	32	84.6	ON 270	36.5	18.2	11.93	12.04	11.44	10.84
					OFF 274	41.2	19.4	11.95	12.07	11.47	10.87
111	7	0	17	45.0	ON 276	46.0	19.0	11.96	12.10	11.50	10.90
					OFF 277	48.4	19.9	11.97	12.10	11.50	10.90
116	2	1	31	82.0	ON 259	24.0	13.6	11.87	11.87	11.27	10.67
					OFF 265	28.8	14.1	11.90	11.96	11.36	10.76
116	2	2	24	63.5	ON 268	31.2	14.4	11.92	11.99	11.39	10.79
					OFF 271	34.8	14.9	11.94	12.03	11.43	10.83
116	2	3	25	66.1	ON 278	43.5	16.8	11.97	12.09	11.49	10.89
					OFF 279	47.1	17.9	11.98	12.10	11.50	10.90
116	2	4	22	58.2	ON 248	77.9	97.3	11.81	12.09	11.49	10.89
					OFF 242	76.9	113.4	11.77	12.04	11.44	10.84
117	2	1	39	103.2	ON 258	24.1	13.4	11.87	11.87	11.27	10.67
					OFF 266	30.0	14.0	11.91	11.98	11.38	10.78
117	2	2	32	84.6	ON 276	41.0	15.9	11.96	12.07	11.47	10.87
					OFF 278	45.7	17.2	11.97	12.10	11.50	10.90
117	2	3	42	111.1	ON 259	77.1	66.6	11.87	12.05	11.45	10.85
					OFF 249	78.1	98.1	11.81	12.10	11.50	10.90
117	2	4	22	58.2	ON 245	77.5	109.3	11.79	12.06	11.46	10.86
					OFF 239	75.8	123.3	11.75	12.00	11.40	10.80
118	6	1	95	251.3	ON 262	26.1	13.4	11.88	11.91	11.31	10.71
					OFF 275	40.5	15.5	11.96	12.07	11.47	10.87

118	6	2	46	121.7	ON 278	49.0	18.0	11.97	12.10	11.50	10.90
					OFF 278	55.6	20.9	11.97	12.08	11.48	10.88
118	6	3	23	60.8	ON 262	74.7	49.8	11.88	11.97	11.37	10.77
					OFF 257	76.9	62.2	11.86	12.03	11.43	10.83
120	9	0	12	31.7	ON 158	-51.6	18.6	11.16	0.	0.	0.
					OFF 160	-48.6	17.5	11.17	0.	0.	0.
120	9	1	60	158.7	ON 268	32.4	13.6	11.92	12.00	11.40	10.80
					CFF 275	41.3	15.2	11.96	12.08	11.48	10.88
120	9	2	74	195.7	ON 278	53.9	19.4	11.97	12.09	11.49	10.89
					OFF 275	64.1	26.5	11.95	11.99	11.39	10.79
127	9	0	19	50.3	ON 276	45.9	14.4	11.96	12.10	11.50	10.90
					OFF 277	48.5	15.1	11.97	12.10	11.50	10.90
130	8	1	62	164.0	ON 250	13.0	10.4	11.82	11.35	10.75	10.15
					OFF 264	23.0	10.5	11.90	11.84	11.24	10.64
131	8	1	40	105.8	ON 229	1.2	10.9	11.69	9.79	9.19	8.59
					OFF 241	8.1	10.4	11.76	10.88	10.28	9.68
131	8	2	47	124.3	ON 249	12.9	10.2	11.81	11.34	10.74	10.14
					OFF 260	20.5	10.2	11.87	11.76	11.16	10.56
132	8	1	62	164.0	ON 251	14.1	10.0	11.82	11.43	10.83	10.23
					CFF 264	24.0	10.2	11.90	11.86	11.26	10.66
132	8	2	67	177.2	ON 271	30.2	10.6	11.94	11.98	11.38	10.78
					OFF 278	40.3	11.9	11.97	12.07	11.47	10.87
133	8	1	23	60.8	ON 231	3.4	10.4	11.70	10.20	9.60	9.00
					CFF 237	7.4	10.1	11.74	10.80	10.20	9.60
133	8	2	33	87.3	ON 242	9.8	9.9	11.77	11.07	10.47	9.87
					OFF 251	15.4	9.8	11.82	11.52	10.92	10.32
133	8	3	39	103.2	ON 262	23.5	9.9	11.89	11.85	11.25	10.65
					OFF 269	29.5	10.3	11.93	11.97	11.37	10.77
133	8	4	52	137.5	ON 280	54.1	15.0	11.98	12.09	11.49	10.89
					OFF 278	61.7	18.6	11.97	12.02	11.42	10.82
134	8	1	29	76.7	ON 252	16.6	9.6	11.83	11.59	10.99	10.39
					OFF 259	21.2	9.6	11.87	11.78	11.18	10.58
134	8	2	62	164.0	ON 262	23.6	9.7	11.89	11.86	11.26	10.66
					CFF 272	33.0	10.4	11.94	12.01	11.41	10.81
134	8	3	25	66.1	ON 275	35.6	10.7	11.95	12.03	11.43	10.83
					CFF 277	39.4	11.2	11.97	12.06	11.46	10.86
134	8	4	40	105.8	ON 279	43.0	11.8	11.98	12.08	11.48	10.88
					OFF 281	48.7	13.1	11.98	12.10	11.50	10.90
135	8	1	83	219.5	ON 259	21.3	9.4	11.87	11.79	11.19	10.59
					OFF 273	34.0	10.3	11.95	12.02	11.42	10.82
135	8	2	33	87.3	ON 279	42.9	11.5	11.98	12.08	11.48	10.88
					OFF 280	47.7	12.5	11.98	12.10	11.50	10.90
136	1	1	132	349.1	ON 260	21.2	9.2	11.88	11.78	11.18	10.58
					OFF 279	41.3	11.0	11.98	12.08	11.48	10.88
137	1	1	113	298.9	ON 258	77.1	38.0	11.86	12.05	11.45	10.85
					CFF 227	78.0	138.6	11.68	12.09	11.49	10.89

PHOTOGRAPHIC SUMMARY

AFT PAN CAMERA NO	165	0.1750	SLIT	W/21	FILTER	4404	FILM				
OPN NO	FRA	FEET	ET	S-EL	S-DIR	EV	FULL	INT	PRI		
CUT/WRAP	4	10.6									
82	4	1	38	100.5	ON 325	10.2	17.9	12.19	11.75	11.15	10.55
					OFF 341	16.6	18.9	12.26	12.23	11.63	11.03
83	4	1	38	100.5	ON 326	11.4	17.9	12.20	11.86	11.26	10.66



			OFF 342	17.7	18.8	12.27	12.29	11.69	11.09		
83	4	2	24	63.5	ON 377	34.4	22.4	12.41	12.67	12.07	11.47
					OFF 382	37.9	23.5	12.43	12.70	12.10	11.50
84	4	1	44	116.4	ON 335	15.0	18.2	12.24	12.14	11.54	10.94
					OFF 352	22.2	19.4	12.31	12.47	11.87	11.27
84	4	2	31	82.0	ON 380	36.4	22.7	12.42	12.69	12.09	11.49
					OFF 385	40.8	24.3	12.44	12.72	12.12	11.52
85	4	1	58	153.4	ON 327	12.5	17.6	12.20	11.96	11.36	10.76
					OFF 350	22.2	19.1	12.30	12.47	11.87	11.27
85	4	2	24	63.5	ON 392	49.3	28.3	12.47	12.75	12.15	11.55
					OFF 394	52.6	30.6	12.47	12.75	12.15	11.55
86	7	1	53	140.2	ON 322	9.8	17.1	12.18	11.72	11.12	10.52
					OFF 344	18.7	18.4	12.28	12.34	11.74	11.14
86	7	2	72	190.4	ON 359	25.1	19.5	12.34	12.54	11.94	11.34
					OFF 379	35.9	22.1	12.42	12.69	12.09	11.49
86	7	3	80	211.6	ON 393	49.8	28.2	12.47	12.75	12.15	11.55
					OFF 392	60.0	37.7	12.47	12.69	12.09	11.49
87	8	1	23	60.8	ON 314	8.4	16.7	12.15	11.56	10.96	10.36
					OFF 324	12.4	17.2	12.19	11.96	11.36	10.76
87	8	2	22	58.2	ON 331	14.9	17.6	12.22	12.14	11.54	10.94
					OFF 340	18.7	18.1	12.26	12.34	11.74	11.14
87	8	3	37	97.9	ON 348	21.8	18.7	12.29	12.45	11.85	11.25
					OFF 360	27.6	19.7	12.34	12.59	11.99	11.39
87	8	4	24	63.5	ON 369	32.3	20.8	12.38	12.65	12.05	11.45
					OFF 375	35.9	21.8	12.40	12.69	12.09	11.49
88	8	0	12	31.7	ON 213	-50.3	27.9	11.59	0.	0.	0.
					OFF 215	-47.5	26.2	11.60	0.	0.	0.
93	4	1	23	60.8	ON 389	61.3	36.2	12.45	12.67	12.07	11.47
					OFF 386	64.3	40.8	12.45	12.63	12.03	11.43
95	4	1	24	63.5	ON 384	44.5	22.7	12.44	12.74	12.14	11.54
					OFF 387	48.0	24.4	12.45	12.75	12.15	11.55
97	6	1	31	82.0	ON 343	15.1	15.6	12.27	12.15	11.55	10.95
					OFF 354	20.1	16.3	12.32	12.39	11.79	11.19
98	8	1	38	100.5	ON 353	19.8	16.0	12.32	12.38	11.78	11.18
					OFF 365	25.7	16.9	12.36	12.55	11.95	11.35
99	8	1	41	108.4	ON 338	14.3	15.1	12.25	12.10	11.50	10.90
					OFF 353	21.1	16.0	12.32	12.43	11.83	11.23
100	8	1	66	174.6	ON 325	9.8	14.3	12.19	11.71	11.11	10.51
					OFF 351	20.9	15.8	12.31	12.43	11.83	11.23
100	8	2	50	132.2	ON 356	23.2	16.1	12.33	12.50	11.90	11.30
					OFF 371	31.0	17.5	12.39	12.64	12.04	11.44
100	8	3	32	84.6	ON 384	40.7	20.0	12.44	12.72	12.12	11.52
					OFF 388	45.3	21.6	12.45	12.74	12.14	11.54
101	8	1	21	55.5	ON 307	2.1	13.2	12.12	10.63	10.03	9.43
					OFF 317	5.9	13.6	12.16	11.24	10.64	10.04
101	8	2	69	182.5	ON 327	9.7	14.1	12.21	11.70	11.10	10.50
					OFF 354	21.1	15.6	12.32	12.43	11.83	11.23
101	8	3	31	82.0	ON 360	24.1	16.0	12.35	12.52	11.92	11.32
					OFF 369	28.9	16.8	12.38	12.61	12.01	11.41
101	8	4	45	119.0	ON 389	58.9	29.8	12.46	12.70	12.10	11.50
					OFF 384	64.7	36.9	12.44	12.63	12.03	11.43
102	9	1	38	100.5	ON 326	11.0	14.1	12.20	11.83	11.23	10.63
					OFF 341	17.5	14.9	12.27	12.28	11.68	11.08
102	9	2	80	211.6	ON 358	25.1	16.0	12.34	12.54	11.94	11.34

			OFF 378	37.3	18.5	12.42	12.70	12.10	11.50		
102	9	3	52	137.5	ON 388	47.7	22.1	12.45	12.75	12.15	11.55
					OFF 390	55.0	26.2	12.46	12.73	12.13	11.53
103	5	1	119	314.8	ON 318	8.1	13.5	12.17	11.53	10.93	10.33
					OFF 363	27.7	16.2	12.35	12.59	11.99	11.39
104	6	0	12	31.7	ON 213	-51.7	23.4	11.59	0.	0.	0.
					OFF 216	-48.8	21.9	11.61	0.	0.	0.
104	6	1	30	79.3	ON 348	20.7	14.9	12.30	12.42	11.82	11.22
					OFF 358	25.6	15.6	12.34	12.55	11.95	11.35
104	6	2	31	82.0	ON 376	35.7	17.6	12.41	12.69	12.09	11.49
					OFF 382	40.4	18.8	12.43	12.72	12.12	11.52
111	7	0	16	42.3	ON 384	45.2	18.4	12.44	12.74	12.14	11.54
					OFF 386	47.6	19.3	12.44	12.75	12.15	11.55
116	2	1	30	79.3	ON 360	23.1	12.7	12.35	12.49	11.89	11.29
					OFF 369	27.9	13.3	12.38	12.59	11.99	11.39
116	2	2	23	60.8	ON 373	30.3	13.7	12.39	12.63	12.03	11.43
					OFF 378	33.9	14.3	12.41	12.67	12.07	11.47
116	2	3	24	63.5	ON 387	42.6	16.3	12.45	12.73	12.13	11.53
					OFF 389	46.3	17.4	12.45	12.75	12.15	11.55
116	2	4	21	55.5	ON 344	78.0	92.7	12.28	12.74	12.14	11.54
					OFF 336	77.3	109.4	12.24	12.71	12.11	11.51
117	2	1	37	97.9	ON 359	23.1	12.5	12.34	12.49	11.89	11.29
					OFF 369	29.1	13.3	12.38	12.61	12.01	11.41
117	2	2	31	82.0	ON 384	40.2	15.4	12.44	12.72	12.12	11.52
					OFF 387	44.9	16.6	12.45	12.74	12.14	11.54
117	2	3	41	108.4	ON 360	76.8	62.8	12.34	12.68	12.08	11.48
					OFF 346	78.2	93.4	12.29	12.75	12.15	11.55
117	2	4	21	55.5	ON 340	77.8	105.0	12.26	12.73	12.13	11.53
					OFF 332	76.4	119.9	12.23	12.67	12.07	11.47
118	6	1	95	251.3	ON 367	25.2	12.5	12.37	12.54	11.94	11.34
					OFF 386	39.6	15.0	12.44	12.72	12.12	11.52
118	6	2	45	119.0	ON 391	48.2	17.4	12.46	12.75	12.15	11.55
					OFF 390	54.7	20.3	12.46	12.73	12.13	11.53
118	6	3	23	60.8	ON 366	74.1	47.1	12.37	12.60	12.00	11.40
					OFF 360	76.4	58.6	12.34	12.67	12.07	11.47
120	9	0	12	31.7	ON 217	-53.0	18.7	11.61	0.	0.	0.
					OFF 220	-50.0	17.4	11.63	0.	0.	0.
120	9	1	59	156.1	ON 376	31.5	12.9	12.41	12.64	12.04	11.44
					OFF 386	40.5	14.7	12.44	12.72	12.12	11.52
120	9	2	72	190.4	ON 391	53.0	18.8	12.46	12.74	12.14	11.54
					OFF 385	63.4	25.6	12.44	12.65	12.05	11.45
127	9	0	16	42.3	ON 388	45.1	13.9	12.45	12.74	12.14	11.54
					OFF 389	47.6	14.6	12.46	12.75	12.15	11.55
130	8	1	62	164.0	ON 342	12.0	8.6	12.27	11.92	11.32	10.72
					OFF 362	22.1	9.6	12.35	12.46	11.86	11.26
131	8	1	39	103.2	ON 312	0.1	7.3	12.14	10.23	9.63	9.03
					OFF 329	7.1	7.9	12.21	11.40	10.80	10.20
131	8	2	47	124.3	ON 340	11.9	8.4	12.26	11.91	11.31	10.71
					OFF 356	19.6	9.1	12.33	12.38	11.78	11.18
132	8	1	61	161.3	ON 343	13.1	8.3	12.27	12.01	11.41	10.81
					OFF 362	23.0	9.3	12.35	12.49	11.89	11.29
132	8	2	67	177.2	ON 372	29.3	9.9	12.39	12.62	12.02	11.42
					OFF 382	39.5	11.4	12.43	12.71	12.11	11.51
133	8	1	23	60.8	ON 315	2.4	7.1	12.15	10.67	10.07	9.47

				OFF 325	6.4	7.5	12.19	11.31	10.71	10.11	
133	8	2	33	87.3	ON 331	8.8	7.7	12.22	11.61	11.01	10.41
					OFF 343	14.5	8.3	12.27	12.11	11.51	10.91
133	8	3	38	100.5	ON 360	22.5	9.0	12.34	12.48	11.88	11.28
					OFF 369	28.6	9.6	12.38	12.61	12.01	11.41
133	8	4	52	137.5	ON 385	53.3	14.5	12.44	12.74	12.14	11.54
					OFF 381	60.9	17.9	12.43	12.68	12.08	11.48
134	8	1	27	71.4	ON 346	15.6	8.2	12.28	12.18	11.58	10.98
					OFF 355	20.3	8.6	12.32	12.40	11.80	11.20
134	8	2	58	153.4	ON 359	22.7	8.8	12.34	12.48	11.88	11.28
					OFF 374	32.1	9.8	12.40	12.65	12.05	11.45
134	8	3	24	63.5	ON 377	34.7	10.1	12.41	12.68	12.08	11.48
					OFF 380	38.5	10.7	12.42	12.71	12.11	11.51
134	8	4	37	97.9	ON 383	42.1	11.3	12.43	12.73	12.13	11.53
					OFF 385	47.9	12.6	12.44	12.75	12.15	11.55
135	8	1	81	214.2	ON 355	20.3	8.4	12.32	12.40	11.80	11.20
					OFF 375	33.1	9.7	12.40	12.66	12.06	11.46
135	8	2	32	84.6	ON 383	42.0	11.0	12.43	12.73	12.13	11.53
					OFF 385	46.9	12.0	12.44	12.75	12.15	11.55
136	1	1	130	343.8	ON 357	20.2	8.2	12.33	12.40	11.80	11.20
					OFF 383	40.4	10.5	12.43	12.72	12.12	11.52
137	1	1	110	291.0	ON 353	76.4	35.4	12.32	12.67	12.07	11.47
					OFF 309	78.8	135.4	12.13	12.79	12.19	11.59

STELLAR-INDEX SUMMARY

CAMERA DATA	ET	FILM	FILTER	GRID	ASSEMBLY NO	D60
STELLAR	2.0	4401	NCNE	68		
INDEX	1/500	4400	w/21	1		

PERFORMANCE SUMMARY

OPN NO	FR	STEL FEET	INDX FEET	SYS TIME	LAT ON	LONG ON	LAT OFF	LONG OFF	SEC DUR		
82	4	1	6	0.59	1.19	0037	69	145	64	156	99
83	4	1	5	0.50	C.99	0207	68	125	63	135	98
83	4	2	4	0.40	C.79	0213	47	149	44	151	56
84	4	1	6	0.59	1.19	0338	65	109	59	118	112
84	4	2	4	0.40	C.79	0344	45	128	41	130	71
85	4	1	9	0.89	1.78	0508	67	82	59	95	149
85	4	2	3	0.30	C.59	0517	32	110	28	111	55
86	7	1	8	0.79	1.58	0637	69	54	62	68	137
86	7	2	10	0.99	1.98	0641	56	75	46	82	168
86	7	3	12	1.19	2.38	0647	32	88	20	91	177
87	8	1	3	0.30	C.59	0806	70	28	67	36	63
87	8	2	4	0.40	C.79	0808	65	40	62	46	58
87	8	3	5	0.50	C.99	0810	59	49	54	54	90
87	8	4	3	0.30	C.59	0812	49	57	46	59	56
88	8	0	2	0.20	C.40	0921	38	-108	41	-107	48
93	4	1	4	0.40	C.79	1720	19	-67	15	-66	55
95	4	1	3	0.30	C.59	2015	37	-117	34	-116	56
97	6	1	5	0.50	C.99	2307	65	174	61	-178	76
98	8	1	5	0.50	C.99	0038	61	158	56	163	91
99	8	1	6	0.59	1.19	0207	66	128	60	136	103
100	8	1	10	0.99	1.98	0335	69	97	60	113	169
100	8	2	7	0.69	1.39	0339	58	116	51	122	119



COPY NO.

100	8	3	5	0.50	0.99	0343	41	127	37	128	71
101	8	1	3	0.30	0.59	0503	73	53	72	64	57
101	8	2	10	0.99	1.98	0505	69	74	60	91	173
101	8	3	4	0.40	0.79	0509	57	94	53	98	73
101	8	4	7	0.69	1.39	0518	22	110	16	112	100
102	9	1	5	0.50	0.99	0635	68	54	63	64	98
102	9	2	11	1.09	2.18	0639	56	72	45	80	186
102	9	3	8	0.79	1.58	0645	34	84	27	86	117
103	5	1	17	1.68	3.37	0805	70	25	54	51	296
104	6	0	2	0.20	0.40	0919	38	-111	41	-110	48
104	6	1	4	0.40	0.79	0938	60	22	56	27	74
104	6	2	5	0.50	0.99	0941	46	34	42	36	72
111	7	0	2	0.20	0.40	2013	37	-120	35	-119	38
116	2	1	5	0.50	0.99	0337	58	113	54	117	71
116	2	2	3	0.30	0.59	0338	52	118	48	121	55
116	2	3	4	0.40	0.79	0341	40	125	36	126	56
116	2	4	3	0.30	0.59	0353	-4	136	-8	137	54
117	2	1	5	0.50	0.99	0506	58	90	53	95	90
117	2	2	5	0.50	0.99	0511	42	101	38	103	71
117	2	3	6	0.59	1.19	0521	1	112	-4	113	100
117	2	4	3	0.30	0.59	0523	-7	114	-10	115	54
118	6	1	14	1.39	2.77	0637	56	69	43	78	217
118	6	2	6	0.59	1.19	0643	34	81	28	83	101
118	6	3	3	0.30	0.59	0650	6	88	2	89	55
120	9	0	2	0.20	0.40	0917	38	-114	41	-112	48
120	9	1	9	0.89	1.78	0938	51	29	42	33	135
120	9	2	10	0.99	1.98	0943	30	38	19	40	162
127	9	0	3	0.30	0.59	2010	38	-123	35	-122	38
130	8	1	9	0.89	1.78	0032	67	142	59	155	149
131	8	1	6	0.59	1.19	0158	74	88	71	109	104
131	8	2	6	0.59	1.19	0201	67	119	61	130	114
132	8	1	9	0.89	1.78	0331	66	98	58	110	147
132	8	2	10	0.99	1.98	0335	52	115	43	121	150
133	8	1	3	0.30	0.59	0459	73	51	71	62	60
133	8	2	5	0.50	0.99	0500	69	68	65	78	83
133	8	3	5	0.50	0.99	0504	59	87	53	92	90
133	8	4	8	0.79	1.58	0511	30	103	22	105	116
134	8	1	4	0.40	0.79	0632	64	57	61	62	68
134	8	2	9	0.89	1.78	0633	58	65	50	72	139
134	8	3	3	0.30	0.59	0636	47	73	44	75	56
134	8	4	6	0.59	1.19	0638	40	77	35	79	86
135	8	1	12	1.19	2.38	0803	60	40	49	50	189
135	8	2	5	0.50	0.99	0808	41	54	36	56	73
136	1	1	18	1.78	3.56	0932	60	17	42	31	298
137	1	1	17	1.68	3.37	1117	6	18	-12	22	282

NOTE - T/M DATA INDICATES THE STELLAR INDEX CAMERA HAS BEEN INOPERATIVE DURING ALL PASSES MONITORED SINCE REV 081.

RAMP PROFILE

R- 4 A- 6  
R= 0.3547 A= 0.1059



TUR	PER	CPS	ANG V
100	4.002	0.2499	0.02260
200	3.951	0.2531	0.02289
300	3.870	0.2584	0.02337
400	3.764	0.2657	0.02403
500	3.639	0.2748	0.02485
600	3.502	0.2855	0.02582
700	3.359	0.2977	0.02692
800	3.215	0.3110	0.02813
900	3.075	0.3252	0.02941
1000	2.941	0.3400	0.03075
1100	2.815	0.3553	0.03213
1200	2.664	0.3754	0.03395
1300	2.534	0.3947	0.03570
1400	2.424	0.4126	0.03731
1500	2.335	0.4283	0.03874
1600	2.265	0.4414	0.03993
1700	2.215	0.4514	0.04083
1800	2.184	0.4578	0.04141
1900	2.171	0.4605	0.04165
2000	2.177	0.4594	0.04155
2100	2.201	0.4544	0.04110
2200	2.243	0.4458	0.04032
2300	2.304	0.4339	0.03925
2400	2.386	0.4192	0.03791
2500	2.487	0.4021	0.03636
2600	2.609	0.3832	0.03466
2700	2.752	0.3634	0.03286
2800	2.890	0.3460	0.03130
2900	3.020	0.3311	0.02994
3000	3.159	0.3166	0.02863
3100	3.302	0.3029	0.02739
3200	3.446	0.2902	0.02625
3300	3.585	0.2789	0.02523
3400	3.716	0.2691	0.02434
3500	3.830	0.2611	0.02362
3600	3.922	0.2550	0.02306
3700	3.985	0.2509	0.02269
3800	4.016	0.2490	0.02252

RATE ESTIMATE\*\*

FWD PAN CAMERA NUMBER 140

OPN NO	FR	R	A	TUR/ DUR
82	4	1	39	4 6 ON 1232
				OFF 99
83	4	1	38	4 6 ON 1242
				CFF 98
83	4	2	24	4 6 ON 1601
				OFF 56
84	4	1	45	4 6 ON 1292
				OFF 112
84	4	2	31	4 6 ON 1625



				OFF	71
85	4	1	59	4	6 ON 1244
				OFF	149
85	4	2	25	4	6 ON 1823
				OFF	55
86	7	1	53	4	6 ON 1216
				OFF	137
86	7	2	73	4	6 ON 1452
				OFF	168
86	7	3	81	4	6 ON 1843
				OFF	177
87	8	1	24	4	6 ON 1183
				OFF	63
87	8	2	23	4	6 ON 1283
				OFF	58
87	8	3	37	4	6 ON 1389
				OFF	90
87	8	4	24	4	6 ON 1552
				OFF	56
88	8	0	13	4	6 ON 260
				OFF	48
93	4	1	24	4	6 ON 2036
				OFF	55
95	4	1	25	4	6 ON 1709
				OFF	56
97	6	1	31	4	6 ON 1359
				OFF	76
98	8	1	38	4	6 ON 1428
				OFF	91
99	8	1	42	4	6 ON 1327
				OFF	103
100	8	1	68	4	6 ON 1245
				OFF	169
100	8	2	51	4	6 ON 1449
				OFF	119
100	8	3	32	4	6 ON 1717
				OFF	71
101	8	1	21	4	6 ON 1145
				OFF	57
101	8	2	70	4	6 ON 1260
				OFF	173
101	8	3	31	4	6 ON 1479
				OFF	73
101	8	4	45	4	6 ON 2024
				OFF	100
102	9	1	38	4	6 ON 1260
				OFF	98
102	9	2	79	4	6 ON 1474
				OFF	186
102	9	3	52	4	6 ON 1821
				OFF	117
103	5	1	120	4	6 ON 1214
				OFF	296
104	6	0	13	4	6 ON 284



[REDACTED] 48  
104 6 1 31 4 6 ON 1400  
OFF 74  
104 6 2 32 4 6 ON 1628  
OFF 72  
111 7 0 17 4 6 ON 1736  
OFF 38  
116 2 1 31 4 6 ON 1489  
OFF 71  
116 2 2 24 4 6 ON 1597  
OFF 55  
116 2 3 25 4 6 ON 1783  
OFF 56  
116 2 4 22 4 6 ON 2466  
OFF 54  
117 2 1 39 4 6 ON 1478  
OFF 90  
117 2 2 32 4 6 ON 1733  
OFF 71  
117 2 3 42 4 6 ON 2356  
OFF 100  
117 2 4 22 4 6 ON 2493  
OFF 54  
118 6 1 95 4 6 ON 1532  
OFF 217  
118 6 2 46 4 6 ON 1878  
OFF 101  
118 6 3 23 4 6 ON 2309  
OFF 55  
120 9 0 12 4 6 ON 341  
OFF 48  
120 9 1 60 4 6 ON 1618  
OFF 135  
120 9 2 74 4 6 ON 1944  
OFF 162  
127 9 0 19 4 6 ON 1779  
OFF 38  
130 8 1 62 4 6 ON 1386  
OFF 149  
131 8 1 40 4 6 ON 1200  
OFF 104  
131 8 2 47 4 6 ON 1374  
OFF 114  
132 8 1 62 4 6 ON 1391  
OFF 147  
132 8 2 67 4 6 ON 1631  
OFF 150  
133 8 1 23 4 6 ON 1216  
OFF 60  
133 8 2 33 4 6 ON 1312  
OFF 83  
133 8 3 39 4 6 ON 1515  
OFF 90  
133 8 4 52 4 6 ON 1971

[REDACTED]

[REDACTED]

[REDACTED]

COPY NO.

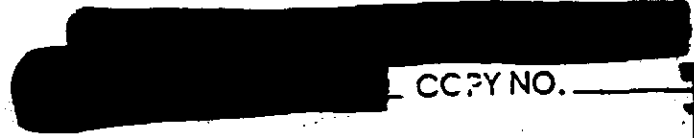


OFF 116  
 134 8 1 29 4 6 ON 1409  
 OFF 68  
 134 8 2 62 4 6 ON 1513  
 OFF 139  
 134 8 3 25 4 6 ON 1691  
 OFF 56  
 134 8 4 40 4 6 ON 1800  
 OFF 86  
 135 8 1 83 4 6 ON 1475  
 OFF 189  
 135 8 2 33 4 6 ON 1795  
 OFF 73  
 136 1 1 132 4 6 ON 1493  
 OFF 298  
 137 1 1 113 4 6 ON 2377  
 OFF 282

RATE ESTIMATE\*\*

AFT PAN CAMERA NUMBER 165

OPN NO	FR	R	A	TUR/ DUR
82	4	1	38	4 6 ON 1232 OFF 99
83	4	1	38	4 6 ON 1242 OFF 98
83	4	2	24	4 6 ON 1601 OFF 56
84	4	1	44	4 6 ON 1292 OFF 112
84	4	2	31	4 6 ON 1625 OFF 71
85	4	1	58	4 6 ON 1244 OFF 149
85	4	2	24	4 6 ON 1823 OFF 55
86	7	1	53	4 6 ON 1216 OFF 137
86	7	2	72	4 6 ON 1452 OFF 168
86	7	3	80	4 6 ON 1843 OFF 177
87	8	1	23	4 6 ON 1183 OFF 63
87	8	2	22	4 6 ON 1283 OFF 58
87	8	3	37	4 6 ON 1389 OFF 90
87	8	4	24	4 6 ON 1552 OFF 56
88	8	0	12	4 6 ON 260 OFF 48
93	4	1	23	4 6 ON 2036 OFF 55



CCPY NO.



A/P NO

COPY NO

~~TOP SECRET~~

95	4	1	24	4	6 ON 1109
					CFF 56
97	6	1	31	4	6 ON 1359
					OFF 76
98	8	1	38	4	6 ON 1428
					OFF 91
99	8	1	41	4	6 ON 1327
					CFF 103
100	8	1	66	4	6 ON 1245
					CFF 169
100	8	2	50	4	6 ON 1449
					OFF 119
100	8	3	32	4	6 ON 1717
					OFF 71
101	8	1	21	4	6 ON 1145
					OFF 57
101	8	2	69	4	6 ON 1260
					CFF 173
101	8	3	31	4	6 ON 1479
					OFF 73
101	8	4	45	4	6 ON 2024
					OFF 100
102	9	1	38	4	6 ON 1260
					OFF 98
102	9	2	80	4	6 ON 1474
					OFF 186
102	9	3	52	4	6 ON 1821
					OFF 117
103	5	1	119	4	6 ON 1214
					OFF 296
104	6	0	12	4	6 ON 284
					OFF 48
104	6	1	30	4	6 ON 1400
					OFF 74
104	6	2	31	4	6 ON 1628
					OFF 72
111	7	0	16	4	6 ON 1736
					OFF 38
116	2	1	30	4	6 ON 1489
					OFF 71
116	2	2	23	4	6 ON 1597
					OFF 55
116	2	3	24	4	6 ON 1783
					CFF 56
116	2	4	21	4	6 ON 2466
					OFF 54
117	2	1	37	4	6 ON 1478
					CFF 90
117	2	2	31	4	6 ON 1733
					CFF 71
117	2	3	41	4	6 ON 2356
					CFF 100
117	2	4	21	4	6 ON 2493
					OFF 54

[REDACTED]

[REDACTED]

COPY NO.

~~TOP SECRET~~

118	6	1	95	4	6 ON 1532
					GFF 217
118	6	2	45	4	6 ON 1878
					GFF 101
118	6	3	23	4	6 ON 2309
					GFF 55
120	9	0	12	4	6 ON 341
					GFF 48
120	9	1	59	4	6 ON 1618
					GFF 135
120	9	2	72	4	6 ON 1944
					GFF 162
127	9	0	16	4	6 ON 1779
					GFF 38
130	8	1	62	4	6 ON 1386
					GFF 149
131	8	1	39	4	6 ON 1200
					GFF 104
131	8	2	47	4	6 ON 1374
					GFF 114
132	8	1	61	4	6 ON 1391
					GFF 147
132	8	2	67	4	6 ON 1631
					GFF 150
133	8	1	23	4	6 ON 1216
					GFF 60
133	8	2	33	4	6 ON 1312
					GFF 83
133	8	3	38	4	6 ON 1515
					GFF 90
133	8	4	52	4	6 ON 1971
					GFF 116
134	8	1	27	4	6 ON 1409
					GFF 68
134	8	2	58	4	6 ON 1513
					GFF 139
134	8	3	24	4	6 ON 1691
					GFF 56
134	8	4	37	4	6 ON 1800
					GFF 86
135	8	1	81	4	6 ON 1475
					GFF 189
135	8	2	32	4	6 ON 1795
					GFF 73
136	1	1	130	4	6 ON 1493
					GFF 298
137	1	1	110	4	6 ON 2377
					GFF 282

\*\* - INST. RATES - FWC AND AFT CAMERAS  
 THIS SECTION OF REVISED PERFORMANCE ESTIMATE PER AWA J2616-68  
 HAS NOT BEEN COMPLETED TO DATE AND IS OMITTED FROM MESSAGE

[REDACTED]

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COPY NO. \_\_\_\_\_

CLOCK SUMMARY

ORDER FIT 1					
SYS TIME I/P	CL TIME I/P	COMP SYS TM	DELTA ST	REV	STA
33736.955	137780.79790	33736.95920	-0.00412	88	1
73068.512	177112.35590	73068.50910	0.00292	95	1
33636.685	224080.54290	33636.68640	-0.00068	104	1
72861.037	263304.89790	72861.03330	0.00393	111	1
33498.216	310342.08990	33498.21560	0.00066	120	1
72705.011	349548.89390	72705.01160	-0.00026	127	1
33331.626	396575.52190	33331.62990	-0.00317	136	1
72617.219	435861.11890	72617.21880	0.00071	143	1

A0=-0.10404381030 C6 A1= 0.9999997937540 00  
 SIGMA=0.00242 NO. POINTS= 8  
 RATIO OF CLCK TIME TO SYS TIME= 0.100000206250 01

ORDER FIT 2					
SYS TIME I/P	CL TIME I/P	COMP SYS TM	DELTA ST	REV	STA
33736.955	137780.79790	33736.95740	-0.00232	88	1
73068.512	177112.35590	73068.50880	0.00326	95	1
33636.685	224080.54290	33636.68730	-0.00150	104	1
72861.037	263304.89790	72861.03470	0.00263	111	1
33498.216	310342.08990	33498.21700	-0.00065	120	1
72705.011	349548.89390	72705.01240	-0.00108	127	1
33331.626	396575.52190	33331.62950	-0.00284	136	1
72617.219	435861.11890	72617.21700	0.00250	143	1

A0=-0.10404382070 C6 A1= 0.9999998758920 00  
 A2=-0.14318333186540-12  
 SIGMA=0.00214 NO. POINTS= 8

CLOCK OPERATIONS

OPN NO	FR	S-TIM	DEC	BINARY
82	4 1	39 ON	2258 106302	00110010101100000101000110000
		OFF	2357 106401	00110010101111000110011101000
83	4 1	38 ON	7672 111716	0011010101000101001101010100000
		OFF	7770 111814	0011010101010001001010111100000
83	4 2	24 ON	8031 112075	00110101011100010000011111000
		OFF	8087 112131	00110101011101111101110111000
84	4 1	45 ON	13124 117167	00110111110111101001110011000
		OFF	13236 117279	00110111111011000100100011000
84	4 2	31 ON	13456 117500	00111000000001110100001100000
		OFF	13527 117571	00111000000011111110110111000
85	4 1	59 ON	18480 122524	00111010011011001000101100000
		OFF	18629 122673	00111010011111101011101101000
85	4 2	25 ON	19059 123103	00111010101100110011000110000
		OFF	19114 123158	00111010101110011110111100000
86	7 1	53 ON	23834 127878	00111100111110100001101110000
		OFF	23971 128015	00111101000010101101010011000
86	7 2	73 ON	24069 128113	00111101000101101100101101000
		OFF	24237 128281	00111101001010110100110101000
86	7 3	91 ON	24460 128504	00111101010001101000011000000
		OFF	24637 128681	00111101010111000010000101000
87	8 1	24 ON	29206 133250	00111111000100111011110100000
		OFF	29269 133313	00111111001000110001111010000

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87	8	2	23	ON	29307	133351	0011111100101100011001011000
				OFF	29365	133409	0011111100111010100011101000
87	8	3	37	ON	29413	133457	0011111101000110010001101000
				OFF	29503	133547	0011111101010110000111111000
87	8	4	24	ON	29576	133620	0011111101101110000100100000
				OFF	29632	133676	0011111101111011101111100000
88	8	0	13	ON	33673	137716	010000011010101100001001000000
				OFF	33721	137764	010000011011000011100101000000
93	4	1	24	ON	62411	166455	010011110101111100110110110000
				OFF	62466	166510	010011110110010111101101100000
95	4	1	25	ON	72917	176961	010101000110000110101111010000
				OFF	72973	177017	010101000110100010000101010000
97	6	1	31	ON	83251	187295	010110010100111100101000110000
				OFF	83327	187371	010110010101100001101111110000
98	8	1	38	ON	2316	192760	010110111110101001000110000000
				OFF	2407	192851	010110111110101011000011100000
99	8	1	42	ON	7627	198071	010111100111001010010110110000
				OFF	7730	198174	010111100111111100101001100000
100	8	1	68	ON	12951	203395	011000001111100011111011100000
				OFF	13120	203564	011000001000100010001111100000
100	8	2	51	ON	13155	203599	011000010001010101001001100000
				OFF	13274	203718	011000010010001111101011100000
100	8	3	32	ON	13423	203867	011000010011011000011011110000
				OFF	13494	203938	011000010011111011000110100000
101	8	1	21	ON	18228	208672	011000111000000010101000000000
				OFF	18285	208729	011000111000011110011101010000
101	8	2	70	ON	18342	208786	011000111000111010010010100000
				OFF	18515	208959	011000111010001110110000110000
101	8	3	31	ON	18562	209005	011000111010100101001110010000
				OFF	18635	209078	011000111011001000110111100000
101	8	4	45	ON	19106	209550	011000111110101111010101100000
				OFF	19206	209650	011000111111000000010101000000
102	9	1	38	ON	23756	214200	011001100010001101110110000000
				OFF	23854	214298	011001100010111101101100100000
102	9	2	79	ON	23970	214414	011001100011110110010101100000
				OFF	24156	214600	011001100101010001001010000000
102	9	3	52	ON	24317	214761	011001100110011111110001010000
				OFF	24434	214878	011001100111011000111001100000
103	5	1	120	ON	29105	219549	011010001011000000110101001000
				OFF	29401	219845	011010001101010010001100010000
104	6	0	13	ON	33572	224015	011010101101000110010100110000
				OFF	33620	224063	011010101101011101110000110000
104	6	1	31	ON	34608	225131	011010110101100111001111110000
				OFF	34762	225205	011010110110001011011000010000
104	6	2	32	ON	34915	225359	0110101101110101101010011000
				OFF	34987	225431	011010110111111001101110110000
111	7	0	17	ON	72803	263247	011111011000011010100100110000
				OFF	72841	263285	011111011000101101001000010000
116	2	1	31	ON	13024	289868	100010100011100001000111000000
				OFF	13055	289939	100010100100000011110001110000
116	2	2	24	ON	13132	289975	100010100100010101010110110000
				OFF	13197	290030	100010100100110000001101100000
116	2	3	25	ON	13318	290162	100010100101110000101010100000
				OFF	13374	290218	100010100110001100000000100000

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116	2	4	22	ON	14001	290845	1000101010101111000101001000
				OFF	14055	290899	10001010101101100010000111000
117	2	1	39	ON	18415	295259	10001100110010100101101111000
				OFF	18505	295349	10001100110101010101100001000
117	2	2	32	ON	18671	295515	10001100111010011001101111000
				OFF	18742	295586	10001100111100100100011010000
117	2	3	42	ON	19294	296138	10001101001101011010100010000
				OFF	19394	296238	10001101010000011101110110000
117	2	4	22	ON	19431	296275	10001101010001100110000111000
				OFF	19485	296329	10001101010011001111100101000
118	6	1	95	ON	23837	300681	10001111011000000011100101000
				OFF	24054	300898	10001111011110101011011010000
118	6	2	46	ON	24183	301027	1000111100010100111010111000
				OFF	24284	301128	1000111100101101100101000000
118	6	3	23	ON	24614	301458	10001111101111110001001010000
				OFF	24669	301513	1000111110001011100100101000
120	9	0	12	ON	33435	310278	10010011111100111011101110000
				OFF	33483	310320	10010011111110011001011110000
120	9	1	60	ON	34712	311556	10010100100011111011110100000
				OFF	34847	311691	10010100101000000011011111000
120	9	2	74	ON	35038	311882	10010100101101111000100010000
				OFF	35200	312044	10010100110010110100111100000
127	9	0	19	ON	72645	349489	10100110101001100011101101000
				OFF	72683	349527	10100110101010101101111011000
130	8	1	62	ON	1921	365165	10101110000111111100111001000
				OFF	2070	365314	1010111000110001111111010000
131	8	1	40	ON	7135	370379	10110000100111000100011111000
				OFF	7239	370483	10110000101010001111100111000
131	8	2	47	ON	7309	370553	10110000101100011000010101000
				OFF	7423	370667	10110000101111110110111111000
132	8	1	62	ON	12717	375961	10110011010001011010110101000
				OFF	12864	376108	10110011010101111001111100000
132	8	2	67	ON	12957	376200	10110011011000101101101000000
				OFF	13107	376350	10110011011101010010100110000
133	8	1	23	ON	17948	381192	10110101110001000011101000000
				OFF	18008	381252	10110101110010111000110100000
133	8	2	33	ON	18044	381287	10110101110011111101001011000
				OFF	18127	381370	10110101110110011111010010000
133	8	3	39	ON	18246	381490	10110101111010001001101010000
				OFF	18336	381580	10110101111100111001011100000
133	8	4	52	ON	18702	381940	10110110001000000100010010000
				OFF	18819	382062	10110110001011100110110110000
134	8	1	29	ON	23523	386777	1011100001101101111110101000
				OFF	23611	386845	10111000011101100100101001000
134	8	2	62	ON	23687	386881	10111000011110101010111101000
				OFF	23776	387020	10111000100010111010011100000
134	8	3	25	ON	23815	387059	10111000100100000110100111000
				OFF	23871	387115	10111000100101110011111111000
134	8	4	40	ON	23924	387168	1011100010011101101110000000
				OFF	24010	387254	10111000101010000011011110000
135	8	1	25	ON	28901	392235	10111011000010000011111111000
				OFF	29100	392424	10111011000111110101001000000
135	8	2	33	ON	29312	392556	10111011001011110110111100000
				OFF	29385	392629	10111011001110000101100001000

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136	1	1	132	ON	34379	397623	1011110110011001111011011000
				OFF	34677	397921	10111101101111100101011101000
137	1	1	113	ON	40620	403864	1100000100100111100111000000
				OFF	40902	404146	1100000101101100011101010000

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