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CORONA J" FLIGHT DAT

BOOK

1035-2

(DAN GEOM #1)

(AFT TAKES CONTROL OF  
STELLAR FIRING AT END OF  
PASSES

Declassified and Released by the NRO

In Accordance with E. O. 12958

on NOV 26 1997

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4 PAGES  
(NOT INCLUDING PEST)

CORONA J-FLIGHT DATA BOOK

SYSTEM NO. J-36

VEHICLE NO. 1628

MISSION NO. 1035-2

CAMERA NOS. 188/189

DATE 9-30-66

PAGE 1

~~SECRET~~

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SYSTEM NO. J-36  
VEHICLE NO. 1628  
MISSION NO. 1835-2  
CAMERA NOS. 188/189

TABLE OF CONTENTS

PAGE NO.

GENERAL FLIGHT DATA	3
CYCLE PERIOD DATA	4
PERFORMANCE ESTIMATE	5- UP

PAGE 2

~~SECRET~~

SYSTEM NO. J-36  
VEHICLE NO. 1628  
MISSION NO. 1835-2  
CAMERA NOS. 188/189

GENERAL FLIGHT DATA

MASTER CAMERA SERIAL NO. 188

SLAVE CAMERA SERIAL NO. 189

S/I -1 SERIAL NO. D95/112/113

S/I -2 SERIAL NO. D96/184/116

LAUNCH DATE 9-28-66

REACTIVATION DATE N/A

REACTIVATION ORBIT N/A

ORBITAL PARAMETERS (REV. 120)

PERIOD	98.681 MIN	ECCENTRICITY	0.01915
PERIGEE	188.718 NM	PERIGEE LAT.	48.788
APOGEE	238.826 NM	INCL. ANGLE	85.054

RECOVERY ORBIT NO. 162

RECOVERY DATE 9-32-66

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SYSTEM NO. J-36  
VEHICLE NO. 1628  
MISSION NO. 1835-2  
CAMERA NOS. 188/189

CYCLE PERIOD DATA

V/H RAMP SETTING LEVEL AMPLITUDE	TIME UP RAMP-SEC	---CALIBRATED---		---IN-FLIGHT---	
		MASTER	SLAVE	MASTER	SLAVE
8 2	1925	2.238	2.222	2.387	2.388
7 3	2875	2.229	2.221	2.278	2.282
7 3	2868	2.231	2.223	2.245	2.255
7 3	2128	2.231	2.223	2.278	2.265

NOTE

AN \* OR -8 INDICATES NO DATA AVAILABLE.

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A. 1835-2

B. DRY

C. PERFORMANCE ESTIMATE - PART ONE

OPERATIONS SUMMARY

FWD PAN CAMERA NUMBER 188

OPN NO	FRA	Q	LAT	LONG	HEIGHT	RANGE	DA	H	M	S	LTIM	S-TIM
72	2	8	42 ON	2 35 18	83 29E	685856	627253	25	7	18	49	1244 25840
			OFF	2 29 6	83 52E	682875	623968	25	7	12	28	1247 25940
72	8	8	3 ON	1 28 58	128 35W	1199918	1244816	25	9	43	27	1 9 35880
			OFF	1 38 21	128 31W	1191413	1235976	25	9	43	58	1 9 35830
76	1	5	72 ON	3 15 37	51 24W	753436	781826	25	16	27	22	13 1 59240
			OFF	3 32 18	52 48W	857287	888839	25	16	38	59	13 7 59450
77	3	1	56 ON	3 1 7	74 34W	674894	699512	25	17	54	31	1256 64470
			OFF	3 12 49	74 19W	725439	751967	25	17	56	53	1259 64610
79	3	2	15 ON	2 33 18	121 23W	683853	624975	25	28	47	32	1241 74850
			OFF	2 32 49	121 14W	682613	624518	25	28	48	6	1243 74880
81	8	8	3 ON	2 59 14	178 27W	654371	678219	25	23	42	24	1228 85340
			OFF	2 57 42	172 3W	649113	672763	25	23	42	48	1222 85360
83	3	2	41 ON	2 65 27	141 49E	676417	781896	26	2	42	18	12 9 9730
			OFF	2 58 31	144 10E	658576	674282	26	2	44	1	1228 9840
84	5	5	48 ON	2 52 48	122 37E	632664	655696	26	4	16	6	1226 15360
			OFF	2 45 9	123 43E	615479	637867	26	4	17	59	1232 15470
85	2	3	3 ON	2 66 49	72 49E	679418	784218	26	7	13	58	12 5 26830
			OFF	2 61 42	74 56E	659456	683495	26	7	15	15	1215 26110
86	2	8	33 ON	2 42 38	72 37E	688663	638795	26	7	28	26	1234 26420
			OFF	2 35 26	79 1E	684623	626683	26	7	21	42	1237 26580
87	2	8	26 ON	2 42 31	55 51E	688581	638627	26	8	51	7	1234 31860
			OFF	2 36 22	56 11E	685176	627177	26	8	52	8	1236 31920
88	8	5	57 ON	2 3 56	34 45E	663949	688155	26	18	38	41	1249 37840
			OFF	3 5 46	34 59E	718456	736417	26	18	33	3	1253 37980
92	8	4	27 ON	3 15 23	55 49W	773886	881339	26	16	38	4	1254 59880
			OFF	3 22 58	55 38W	811345	841139	26	16	39	27	1256 59960
94	1	1	52 ON	2 77 26	119 52W	715684	744959	26	19	16	32	1117 69390
			OFF	2 62 52	119 29W	679567	784364	26	19	18	44	1156 69520
95	2	8	13 ON	2 35 18	125 54W	684412	626384	26	28	57	39	1234 75450
			OFF	2 33 6	125 45W	684459	626433	26	28	58	11	1235 75490
99	4	7	25 ON	3 21 49	144 57E	619832	849949	27	3	13	56	1253 11630
			OFF	3 26 21	145 11E	668936	892621	27	3	15	18	1256 11710
100	6	2	52 ON	2 55 51	117 41E	631888	654828	27	4	25	51	1216 15950
			OFF	2 47 37	119 4E	614823	637186	27	4	27	52	1224 16870
100	6	5	93 ON	2 37 37	121 4E	685429	627448	27	4	38	18	1238 16210
			OFF	2 23 9	122 53E	615689	638881	27	4	33	49	1237 16420
101	4	7	38 ON	2 19 37	98 15E	623232	645986	27	6	5 22	1238 21920	
			OFF	2 14 45	98 25E	635882	659834	27	6	6 31	1248 21990	
102	5	3	61 ON	2 67 15	66 16E	666132	692423	27	7	24 18	1157 26650	
			OFF	2 57 24	71 47E	634885	658881	27	7	26 45	1213 26880	
103	2	5	57 ON	2 53 2	49 57E	623975	646681	27	8	58 27	1218 32380	
			OFF	2 43 57	51 12E	699782	631872	27	9	8 48	1225 32440	
104	4	6	92 ON	3 7 25	32 43E	738176	765187	27	18	43 49	1246 38620	



			OFF 3 26 8	31 28E	865548	897417	27 18 48	24 1253	38984
185	4 2	33 ON	2 28 15	7 18E	624255	646971	27 12 7	42 1236	43662
		OFF	2 15 8	7 21E	638182	661337	27 12 8	59 1238	43739
187	1 2	23 ON	2 73 51	58 36W	687523	712628	27 14 55	46 1133	53746
		OFF	2 69 57	47 18W	671842	696348	27 14 56	46 1148	53886
188	1 6	83 ON	2 12 35	68 51W	648116	671727	27 16 41	27 1238	68887
		OFF	3 1 3	68 29W	787294	733136	27 16 44	47 1242	68287
189	5 8	19 ON	2 41 27	85 7W	687372	629455	27 18 5	2 1224	65182
		OFF	2 38 24	84 52W	686395	628441	27 18 5	47 1226	65147
118	5 8	17 ON	2 35 32	107 25W	686774	628835	27 19 37	6 1227	78626
		OFF	2 32 48	107 14W	688873	638182	27 19 37	46 1228	78666
115	6 1	68 ON	2 68 24	135 4E	635468	658598	28 3 4	4 12 4	11844
		OFF	2 58 55	137 8E	616888	638498	28 3 6	24 1214	11184
115	4 4	22 ON	3 29 41	141 7E	918843	943622	28 3 26	8 1258	12368
		OFF	3 34 48	141 25E	951483	986582	28 3 27	25 1253	12445
116	5 3	54 ON	2 65 37	119 24E	649523	673189	28 4 33	23 1155	16483
		OFF	2 57 6	113 11E	627892	649915	28 4 35	29 12 8	16529
116	5 7	24 ON	2 23 47	116 39E	622612	645266	28 4 43	37 1238	17817
		OFF	2 19 58	116 48E	631841	654841	28 4 44	35 1231	17875
117	8 3	47 ON	2 63 14	88 37E	641826	665282	28 6 4	35 1159	21875
		OFF	2 55 39	92 45E	623616	646398	28 6 6	27 12 9	21987
117	8 5	94 ON	2 44 34	92 27E	688777	638913	28 6 9	18 1219	22158
		OFF	2 34 3	93 35E	612676	634953	28 6 12	42 1227	22362
118	8 1	28 ON	2 72 21	67 31E	678774	695248	28 7 32	54 1135	27174
		OFF	2 67 45	63 48E	654782	678646	28 7 34	3 1149	27243
118	8 3	62 ON	2 62 57	65 57E	648488	663723	28 7 35	15 1159	27315
		OFF	2 53 19	68 27E	618927	641444	28 7 37	38 1211	27458
119	8 3	76 ON	2 51 34	46 8E	615864	638266	28 9 8	39 1212	32919
		OFF	2 47 1	47 23E	667147	629222	28 9 11	28 1221	33888
119	8 6	69 ON	2 16 25	48 39E	643698	667143	28 9 17	13 1231	33433
		OFF	2 4 51	48 59E	689188	714337	28 9 28	2 1236	33682
120	6 3	52 ON	2 49 39	23 32E	613898	635388	28 18 39	43 1213	38383
		OFF	2 41 27	24 38E	687379	629463	28 18 41	43 1219	38583
121	7 4	41 ON	2 29 53	2 34E	614376	636721	28 12 15	8 1225	44188
		OFF	2 23 27	2 53E	625999	648758	28 12 16	42 1228	44282
122	7 1	27 ON	2 83 39	64 59E	718588	744859	28 13 32	7 912	48727
		OFF	2 79 58	43 5W	697781	723183	28 13 33	19 1848	48799
123	1 1	38 ON	2 82 24	77 16W	789635	735537	28 15 3	9 954	54189
		OFF	2 76 29	58 19W	682112	787825	28 15 4	49 1111	54289
124	8 2	25 ON	2 1 2	64 41W	713573	739652	28 16 53	57 1235	68837
		OFF	3 3 32	64 35W	738718	765748	28 16 55	4 1236	68984
124	8 3	16 ON	3 9 14	64 26W	773826	882198	28 16 56	28 1238	68988
		OFF	3 12 38	64 28W	795294	824476	28 16 57	16 1239	61836
126	6 8	16 ON	2 35 34	111 33W	618836	632219	28 19 46	42 1228	71282
		OFF	2 32 59	111 22W	612433	634735	28 19 47	28 1221	71248
131	2 6	42 ON	2 47 44	133 38E	689892	632871	29 3 16	38 1218	11798
		OFF	2 41 24	134 12E	688343	638462	29 3 18	11 1215	11891
132	2 6	42 ON	2 35 26	111 52E	618987	633122	29 4 49	58 1217	17398
		OFF	2 29 46	112 17E	619268	641796	29 4 51	36 1228	17496
133	2 4	42 ON	2 59 21	85 47E	624182	646897	29 6 14	56 1158	22496
		OFF	2 53 3	87 11E	614415	636763	29 6 16	29 12 5	22589

133	2	6	122	ON	2	46	41	88	8E	619187	631338	29	6	18	2	1218	22682	
				OFF	2	27	45	89	38E	623431	646116	29	6	22	39	1221	22959	
134	7	1	15	ON	2	74	3	54	43E	662583	686748	29	7	41	58	1128	27718	
				OFF	2	71	37	57	6E	654591	678448	29	7	42	27	1138	27747	
134	7	4	47	ON	2	57	18	63	33E	628167	642738	29	7	46	8	12	8	27968
				OFF	2	58	4	64	55E	611227	633455	29	7	47	47	12	7	28867
134	7	8	48	ON	2	29	57	66	46E	619833	642383	29	7	52	41	1219	28361	
				OFF	2	23	34	67	4E	633538	656681	29	7	54	14	1222	28454	
135	9	3	62	ON	2	52	11	41	58E	613816	635311	29	9	17	49	12	5	33469
				OFF	2	43	2	43	3E	688532	638659	29	9	28	3	1212	33683	
135	9	6	82	ON	2	16	28	44	36E	656446	688378	29	9	26	34	1224	33994	
				OFF	2	2	11	44	59E	719649	745958	29	9	38	2	1238	34282	
136	7	2	58	ON	2	55	33	18	27E	616988	639349	29	18	47	34	12	1	38854
				OFF	2	47	45	19	45E	689586	631753	29	18	49	29	12	8	38969
136	7	3	12	ON	2	44	3	28	12E	688635	638766	29	18	58	23	1211	39223	
				OFF	2	42	5	28	24E	688814	638951	29	18	58	52	1212	39252	
137	4	2	38	ON	2	14	33	8	52E	664815	689854	29	12	28	8	1224	44888	
				OFF	2	9	31	8	41W	685754	718783	29	12	29	22	1226	44962	
142	8	1	18	ON	2	18	17	68	57W	685351	718364	29	17	8	51	1225	61251	
				OFF	2	7	4	68	52W	788258	725825	29	17	1	38	1226	61298	
142	8	2	15	ON	2	2	9	68	44W	725517	752848	29	17	2	51	1227	61371	
				OFF	3	8	44	68	48W	741769	768915	29	17	3	34	1229	61414	
144	8	5	28	ON	3	6	37	68	31W	777479	885983	29	17	5	8	1238	61588	
				OFF	3	12	24	68	22W	815988	845959	29	17	6	26	1232	61586	
141	5	1	11	ON	2	42	5	93	9E	618782	632918	29	18	24	9	1211	66249	
				OFF	2	38	13	93	8E	612858	634316	29	18	24	36	1212	66276	
142	5	2	17	ON	2	35	38	115	32W	615222	637688	29	19	55	49	1213	71748	
				OFF	2	32	47	115	22W	619826	641546	29	19	56	29	1215	71789	
147	2	6	48	ON	2	45	26	129	52E	689531	631695	38	3	26	8	12	5	12368
				OFF	2	37	49	137	33E	614851	636385	38	3	28	8	1218	12488	
148	3	3	25	ON	2	55	13	184	53E	617891	639539	38	4	53	33	1153	17613	
				OFF	2	54	7	185	47E	612642	634923	38	4	54	33	1157	17673	
148	3	5	74	ON	2	44	36	187	11E	689727	631878	38	4	56	53	12	5	17813
				OFF	2	33	8	188	8E	628794	643388	38	4	59	41	1212	17981	
148	3	8	39	ON	2	26	31	188	29E	634799	657918	38	5	1	17	1215	18677	
				OFF	2	28	2	188	46E	654837	677871	38	5	2	52	1217	18172	
149	1	6	61	ON	2	35	2	85	16E	618185	648591	38	6	29	45	1218	23385	
				OFF	2	25	21	85	48E	638438	661686	38	6	32	7	1215	23527	
152	1	5	72	ON	2	47	18	61	23E	689371	631529	38	7	57	28	12	2	28648
				OFF	2	36	9	62	27E	616835	639273	38	8	8	1	12	9	28881
151	1	4	121	ON	2	58	7	35	41E	615888	638283	38	9	25	11	1151	33911	
				OFF	2	39	56	38	24E	612767	635852	38	9	29	38	12	7	34178
151	1	7	82	ON	3	8	35	41	8E	753646	781243	38	9	39	32	1224	34772	
				OFF	3	17	42	41	35E	869113	981118	38	9	43	45	1238	35825	
152	1	2	65	ON	2	51	58	15	14E	618423	632621	38	18	57	16	1158	39436	
				OFF	2	41	58	16	37E	611528	633759	38	18	59	42	12	5	39582
152	1	6	58	ON	2	17	12	18	6E	697295	722759	38	11	7	25	1219	48845	
				OFF	2	8	57	18	21E	745868	773171	38	11	9	41	1223	48181	
158	8	2	14	ON	2	35	48	119	26E	621148	643747	38	28	4	23	12	6	72263
				OFF	2	33	24	119	17E	625197	647949	38	28	4	56	12	7	72296

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OPERATIONS SUMMARY  
AFT PAN CAMERA NUMBER 189

CPN NO	FRA	Q	LAT	LONG	HEIGHT	RANGE	DA	H	M	S	LTIM	S-TIM
70	2 8	40 ON	2 35 21	83 26E	604334	626304	25	7	11	1	1244	25861
		OFF	2 29 8	83 48E	602095	623988	25	7	12	32	1247	25952
72	0 0	3 ON	1 28 0	128 45W	1195068	1239775	25	9	43	39	1 8	35019
		OFF	1 29 25	128 41W	1186524	1230893	25	9	44	2	1 9	35042
76	1 5	69 ON	3 15 20	51 28W	758772	786564	25	16	27	34	13 1	59254
		OFF	3 29 52	50 54W	863675	895472	25	16	31	11	13 7	59471
77	3 1	55 ON	3 8 57	74 30W	678774	703539	25	17	54	43	1255	64483
		OFF	3 10 35	74 23W	730344	757057	25	17	57	5	1259	64625
79	3 0	15 ON	2 33 20	121 26W	602007	624719	25	20	47	42	1241	74862
		OFF	2 30 51	121 17W	602664	624571	25	20	48	18	1242	74898
81	0 6	3 ON	2 59 21	170 32W	651493	675233	25	23	42	36	1220	65356
		OFF	2 57 48	170 8W	646370	669917	25	23	43	0	1222	65380
83	3 2	41 ON	2 55 35	141 41E	673089	697642	26	2	42	30	12 9	9750
		OFF	2 50 38	144 5E	647814	671415	26	2	44	13	1220	9853
84	5 5	40 ON	2 52 53	122 33E	630450	653399	26	4	16	18	1226	15378
		OFF	2 45 12	123 39E	614037	636370	26	4	16	11	1232	15491
86	2 3	30 ON	2 66 50	72 41E	676062	702727	26	7	14	10	12 4	26050
		OFF	2 61 47	74 50E	656506	680434	26	7	15	27	1214	26127
86	2 8	34 ON	2 40 40	70 33E	607765	629863	26	7	20	38	1234	26438
		OFF	2 35 20	70 58E	604314	626283	26	7	21	54	1237	26514
87	2 0	26 ON	2 40 34	55 48E	607642	629736	26	8	51	19	1234	31079
		OFF	2 36 25	56 0E	604706	626773	26	8	52	20	1236	31940
88	0 5	56 ON	2 4 5	34 41E	667469	691800	26	10	30	53	1249	37053
		OFF	3 5 33	34 55E	715031	741165	26	10	33	15	1252	37995
92	0 4	27 ON	3 15 5	55 54W	778531	807075	26	16	38	16	1254	59096
		OFF	3 22 36	55 43W	817296	847318	26	16	39	39	1256	59979
94	1 1	50 ON	2 77 30	120 19W	714790	740910	26	19	16	44	1115	69404
		OFF	2 69 1	110 39W	676254	700926	26	19	18	56	1156	69536
95	2 0	13 ON	2 35 20	125 57W	604351	626321	26	20	57	51	1233	75471
		OFF	2 33 0	125 49W	604654	626635	26	20	58	23	1234	75503
99	4 7	25 ON	3 20 27	144 52E	825034	856182	27	3	14	8	1253	11648
		OFF	3 25 55	145 5E	867268	899203	27	3	15	30	1255	11730
100	6 2	51 ON	2 55 56	117 36E	629722	652644	27	4	26	3	1216	15963
		OFF	2 47 40	119 0E	613549	635864	27	4	20	4	1223	16004
100	6 5	03 ON	2 37 40	120 1E	605233	627236	27	4	30	30	1230	16230
		OFF	2 23 13	120 50E	617106	639554	27	4	34	1	1237	16441
101	4 7	30 ON	2 19 41	90 12E	625173	647923	27	6	5	32	1230	21932
		OFF	2 14 50	90 22E	638406	661652	27	6	6	43	1239	22003
102	5 3	61 ON	2 67 23	60 0E	663143	687321	27	7	24	30	1156	26670
		OFF	2 57 29	71 43E	632710	655753	27	7	26	57	1213	26817
103	2 5	57 ON	2 53 4	49 53E	622245	644886	27	8	58	39	1217	32319
		OFF	2 44 0	51 0E	603009	631029	27	9	0	52	1225	32452
104	4 6	01 ON	3 7 10	30 39E	743150	770349	27	10	44	1	1246	38641
		OFF	3 20 33	31 14E	871893	904005	27	10	48	36	1253	38916
105	4 2	33 ON	2 20 19	7 7E	626212	649001	27	12	7	54	1236	43674
		OFF	2 15 6	7 18E	640679	664011	27	12	9	11	1238	43751
107	1 2	24 ON	2 70 1	50 52W	684176	709147	27	14	55	58	1132	53750

			OFF 2 78 5 47 19W	668774	693165	27 14 56 58	1147 53818
188	1 6	82 ON 2 12 42	68 55W	651835	674756	27 16 41 39	1237 68899
		OFF 3 8 51	68 33W	711786	737715	27 16 44 59	1242 68299
189	5 8	19 ON 2 41 38	85 11W	686982	629851	27 18 5 14	1224 65114
		OFF 2 38 26	84 55W	686342	628386	27 18 5 59	1226 65159
116	5 8	17 ON 2 35 34	187 28W	687867	629139	27 19 37 18	1227 78638
		OFF 2 32 51	187 17W	688676	638888	27 19 37 58	1228 78678
115	6 1	61 ON 2 68 29	135 8E	633363	656421	28 3 4 16	12 4 11856
		OFF 2 58 59	137 4E	614871	637236	28 3 6 36	1214 11196
115	4 4	22 ON 3 29 9	141 1E	916681	958434	28 3 26 28	1258 12388
		OFF 3 34 13	141 18E	958118	993555	28 3 27 37	1252 12457
116	5 3	54 ON 2 65 43	118 17E	647814	678586	28 4 33 35	1154 16415
		OFF 2 57 11	113 7E	625314	648871	28 4 35 41	12 7 16541
116	5 7	24 ON 2 23 51	116 35E	624482	647123	28 4 43 49	1238 17829
		OFF 2 19 56	116 45E	634887	657172	28 4 44 47	1231 17887
117	8 3	47 ON 2 63 28	88 31E	639537	662827	28 6 4 47	1158 21887
		OFF 2 55 43	92 41E	621998	644638	28 6 6 39	12 9 21999
117	8 5	94 ON 2 44 37	92 24E	688268	638376	28 6 9 22	1218 22162
		OFF 2 38 7	93 32E	613763	636885	28 6 12 54	1226 22374
118	8 1	28 ON 2 72 29	68 28E	667797	692151	28 7 33 6	1134 27186
		OFF 2 67 52	65 48E	652153	675917	28 7 34 15	1148 27255
116	8 3	62 ON 2 63 3	65 52E	638159	661398	28 7 35 27	1158 27327
		OFF 2 53 22	68 23E	617555	648822	28 7 37 58	1211 27472
119	8 3	75 ON 2 51 37	45 56E	614686	637844	28 9 8 51	1212 32931
		OFF 2 42 3	47 28E	687166	629242	28 9 11 48	1228 33182
119	8 6	69 ON 2 16 31	48 35E	646481	669948	28 9 17 25	1231 33445
		OFF 2 5 2	48 55E	693158	718465	28 9 28 14	1235 33614
127	6 3	52 ON 2 49 42	23 29E	612129	634398	28 18 39 55	1213 38395
		OFF 2 41 38	24 27E	687268	629347	28 18 41 55	1219 38515
121	7 4	42 ON 2 29 56	2 31E	615576	637967	28 12 15 28	1225 44128
		OFF 2 23 32	2 49E	627937	658791	28 12 16 54	1228 44214
122	7 1	27 ON 2 83 47	66 35W	714984	741836	28 13 32 19	9 5 48739
		OFF 2 52 8	43 39W	694296	719658	28 13 33 31	1238 48811
123	1 1	39 ON 2 82 33	78 28W	786842	731839	28 15 3 21	949 54281
		OFF 2 76 38	58 37W	678961	783735	28 15 5 1	1118 54321
124	8 2	25 ON 2 1 14	64 46W	718821	744269	28 16 54 9	1234 68849
		OFF 3 3 14	64 39W	743592	778827	28 16 55 16	1236 68916
124	8 3	16 ON 3 8 56	64 38W	779286	887775	28 16 56 48	1238 61888
		OFF 3 12 9	64 25W	888938	832327	28 16 57 28	1239 61848
126	6 2	16 ON 2 35 37	111 36W	618717	632925	28 19 46 54	1228 71214
		OFF 2 33 2	111 26W	613481	635712	28 19 47 32	1221 71252
131	2 6	42 ON 2 47 47	133 27E	689484	631564	29 3 16 58	1218 11818
		OFF 2 41 27	134 9E	628513	632639	29 3 18 23	1214 11983
132	2 6	42 ON 2 36 38	111 48E	611638	633881	29 4 58 18	1217 17418
		OFF 2 29 52	112 13E	628739	643323	29 4 51 48	1228 17588
133	2 4	42 ON 2 59 25	85 42E	622648	645296	29 6 15 8	1157 22588
		OFF 2 53 6	87 7E	613456	635768	29 6 16 41	12 5 22681
133	2 6	121 ON 2 46 44	88 5E	888858	638997	29 6 18 14	1218 22694
		OFF 2 27 58	89 34E	625158	647899	29 6 22 51	1228 22971
134	7 1	15 ON 2 74 18	54 31E	659874	683929	29 7 42 2	1119 27722
		OFF 2 71 44	56 56E	652863	675825	29 7 42 39	1132 27759

134	7 4	47 ON	2 57 22	63 29E	618835	641348 29	7 46 12	1159 27972
		OFF	2 58 7	64 52E	618584	632788 29	7 47 59	12 7 28879
134	7 8	48 ON	2 38 1	66 43E	621328	643934 29	7 52 53	1219 28373
		OFF	2 23 48	67 1E	635748	658895 29	7 54 26	1222 28466
135	9 3	68 ON	2 52 14	41 47E	612192	634457 29	9 18 1	12 4 33481
		OFF	2 43 5	42 59E	688631	638761 29	9 28 15	1212 33615
135	9 6	81 ON	2 16 28	44 32E	659479	683518 29	9 26 46	1224 34886
		OFF	2 2 24	44 55E	724158	758629 29	9 38 14	1229 34214
136	7 2	58 ON	2 55 37	18 23E	615788	638188 29	18 47 46	12 1 38866
		OFF	2 47 48	19 42E	689225	631378 29	18 49 41	12 8 38981
136	7 3	12 ON	2 44 6	28 8E	688652	638784 29	18 58 35	1218 39835
		OFF	2 42 8	28 28E	689838	631183 29	18 51 4	1212 39864
137	4 2	38 ON	2 14 41	8 54W	668888	692442 29	12 28 28	1224 44988
		OFF	2 9 41	8 45W	689552	714724 29	12 29 34	1226 44974
142	6 1	18 ON	2 18 27	69 1W	689119	714274 29	17 1 3	1224 61263
		OFF	2 7 16	68 56W	784345	738875 29	17 1 58	1225 61318
142	8 2	15 ON	2 2 23	68 49W	738891	756795 29	17 3 3	1227 61383
		OFF	3 8 28	68 44W	746618	773941 29	17 3 46	1228 61426
142	8 5	28 ON	3 6 18	68 36W	782822	811529 29	17 5 12	1232 61512
		OFF	3 12 1	68 27W	821761	851953 29	17 6 38	1232 61598
141	5 4	11 ON	2 42 9	93 12W	611258	633487 29	18 24 21	1211 66261
		OFF	2 38 17	93 3W	612813	635188 29	18 24 48	1212 66288
142	5 8	17 ON	2 35 34	115 36W	616294	638711 29	19 56 1	1213 71761
		OFF	2 32 51	115 25W	628394	642965 29	19 56 41	1214 71821
147	2 6	46 ON	2 45 29	129 46E	689679	631849 38	3 26 28	12 5 12388
		OFF	2 37 52	138 38E	614993	637362 38	3 28 12	1218 12492
148	3 3	26 ON	2 58 16	124 49E	616833	638442 38	4 53 45	1152 17625
		OFF	2 54 11	125 43E	611962	634218 38	4 54 45	1157 17685
148	3 5	74 ON	2 44 39	127 7E	689965	632146 38	4 57 5	12 5 17825
		OFF	2 33 12	128 4E	622261	644982 38	4 59 53	1212 17993
148	3 6	39 ON	2 26 36	128 26E	636984	662177 38	5 1 29	1215 18689
		OFF	2 22 9	128 42E	656924	688867 38	5 3 4	1217 18184
149	1 6	61 ON	2 35 6	85 12E	619391	641924 38	6 29 57	1212 23397
		OFF	2 25 26	85 44E	648771	664187 38	6 32 19	1215 23539
150	1 5	72 ON	2 47 13	61 28E	689417	631578 38	7 57 32	12 2 28652
		OFF	2 36 13	62 23E	618826	648528 38	8 8 13	12 9 28813
151	1 4	119 ON	2 58 18	36 37E	614987	637273 38	9 25 23	1151 33923
		OFF	2 39 59	39 21E	613582	635898 38	9 29 58	12 7 34198
151	1 7	82 ON	3 2 18	41 3E	758622	786427 38	9 39 44	1223 34784
		OFF	3 17 14	41 38E	875269	927531 38	9 43 57	1229 35837
152	1 2	65 ON	2 51 53	13 18E	618263	632247 38	18 57 28	1157 39448
		OFF	2 41 53	16 26E	612161	634424 38	18 59 54	12 5 39594
152	1 6	52 ON	2 12 24	12 2E	721276	726898 38	11 7 37	1219 48857
		OFF	2 1 13	16 16E	758722	778227 38	11 9 53	1222 48193
152	6 2	14 ON	2 35 44	119 29W	622581	645234 38	28 4 35	12 6 72275
		OFF	2 33 29	119 22W	626869	649683 38	28 5 8	12 7 72328

PHOTOGRAPHIC SUMMARY  
 F.C. PAN. CAMERA NO 188 F.2258 SLIT W/23A FILTER 3484 FILM  
 OP. NO FRA FEET ET S-EL S-DIR EV FULL INT PRI

~~SECRET~~

70	2	8	48	185.8	ON	382	51.9	28.8	12.24	12.42	11.82	11.22
					OFF	383	57.3	32.4	12.24	12.42	11.82	11.22
72	8	8	3	7.9	ON	96	-56.2	31.2	18.59	8.88	8.88	8.88
					OFF	96	-55.8	38.1	18.68	8.88	8.88	8.88
76	1	5	78	185.1	ON	238	67.2	133.9	11.85	12.42	11.82	11.22
					OFF	196	55.4	158.5	11.62	12.42	11.82	11.22
77	3	1	56	148.1	ON	269	73.8	95.6	12.87	12.42	11.82	11.22
					OFF	248	78.4	124.4	11.96	12.42	11.82	11.22
79	3	8	15	39.7	ON	353	53.8	27.6	12.24	12.42	11.82	11.22
					OFF	383	56.8	29.3	12.24	12.42	11.82	11.22
81	8	8	3	7.9	ON	98	29.5	18.4	18.62	12.29	11.69	11.89
					OFF	98	31.8	18.6	18.62	12.31	11.71	11.11
83	3	2	41	186.4	ON	264	23.4	17.2	12.85	12.17	11.57	18.97
					OFF	278	38.2	18.1	12.12	12.38	11.78	11.18
84	5	5	48	127.8	ON	288	35.6	19.2	12.17	12.35	11.75	11.15
					OFF	297	42.9	21.3	12.21	12.48	11.88	11.28
86	2	3	38	79.3	ON	263	22.8	16.7	12.84	12.13	11.53	18.93
					OFF	273	27.1	17.3	12.18	12.25	11.65	11.85
88	2	8	33	87.3	ON	381	47.1	22.7	12.23	12.42	11.82	11.22
					OFF	382	51.9	25.2	12.24	12.42	11.82	11.22
87	2	8	26	68.8	ON	381	47.2	22.6	12.23	12.42	11.82	11.22
					OFF	382	51.8	24.5	12.24	12.42	11.82	11.22
88	8	5	57	158.8	ON	274	74.5	76.8	12.18	12.42	11.82	11.22
					OFF	254	73.9	111.1	11.99	12.42	11.82	11.22
92	8	4	27	71.4	ON	227	66.9	135.6	11.83	12.42	11.82	11.22
					OFF	213	64.6	144.8	11.74	12.42	11.82	11.22
94	1	1	56	132.3	ON	248	11.1	15.7	11.91	11.51	18.91	18.31
					OFF	268	19.8	15.7	12.83	12.85	11.45	18.85
95	2	8	13	34.4	ON	388	52.8	23.7	12.23	12.42	11.82	11.22
					OFF	388	54.8	24.9	12.23	12.42	11.82	11.22
99	4	7	25	66.1	ON	288	65.3	145.8	11.78	12.42	11.82	11.22
					OFF	197	68.6	158.7	11.63	12.42	11.82	11.22
120	6	2	52	137.5	ON	286	32.5	16.5	12.16	12.32	11.72	11.12
					OFF	295	48.4	16.3	12.21	12.39	11.79	11.19
188	6	5	93	246.2	ON	378	49.9	21.8	12.23	12.42	11.82	11.22
					OFF	295	62.9	31.6	12.21	12.42	11.82	11.22
121	4	7	38	79.3	ON	291	65.9	35.5	12.19	12.42	11.82	11.22
					OFF	285	69.7	43.1	12.16	12.42	11.82	11.22
122	5	3	61	161.3	ON	268	21.2	14.9	12.87	12.11	11.51	18.91
					OFF	225	38.9	16.8	12.15	12.31	11.71	11.11
123	2	5	57	156.8	ON	281	35.2	16.7	12.19	12.35	11.75	11.15
					OFF	295	43.9	19.8	12.22	12.41	11.81	11.21
124	4	6	92	243.3	ON	238	74.9	117.2	11.98	12.42	11.82	11.22
					OFF	195	61.2	151.2	11.61	12.42	11.82	11.22
125	4	2	33	87.3	ON	288	65.5	33.7	12.18	12.42	11.82	11.22
					OFF	284	69.7	41.5	12.15	12.42	11.82	11.22
127	1	2	23	68.5	ON	262	14.5	14.1	12.84	11.78	11.18	18.58
					OFF	259	18.4	14.2	12.88	12.88	11.48	18.88
128	1	6	63	219.5	ON	288	71.6	45.3	12.13	12.42	11.82	11.22
					OFF	256	77.8	92.2	12.88	12.42	11.82	11.22
129	5	8	19	58.3	ON	299	46.2	18.9	12.23	12.42	11.82	11.22

~~SECRET~~

				OFF	388	49.1	28.8	12.23	12.42	11.82	11.22
118	5	8	17	45.8 ON	388	51.8	21.8	12.23	12.42	11.82	11.22
				OFF	299	54.4	22.4	12.23	12.42	11.82	11.22
115	6	1	68	158.7 ON	286	27.7	14.1	12.16	12.26	11.66	11.86
				OFF	296	37.8	15.5	12.21	12.37	11.77	11.17
115	4	4	22	58.2 ON	194	58.7	155.8	11.68	12.42	11.82	11.22
				OFF	185	53.9	158.7	11.54	12.42	11.82	11.22
116	5	3	54	142.8 ON	279	22.5	13.5	12.13	12.15	11.55	18.95
				OFF	298	38.9	14.4	12.18	12.31	11.71	11.11
116	5	7	24	63.5 ON	291	62.6	27.4	12.19	12.42	11.82	11.22
				OFF	287	66.1	31.4	12.17	12.42	11.82	11.22
117	8	3	47	124.3 ON	283	24.9	13.6	12.15	12.21	11.61	11.81
				OFF	292	32.4	14.5	12.19	12.32	11.72	11.12
117	5	5	94	248.6 ON	299	43.1	16.7	12.23	12.41	11.81	11.21
				OFF	297	56.9	22.6	12.21	12.42	11.82	11.22
118	8	1	28	74.1 ON	269	15.7	12.9	12.87	11.86	11.26	18.66
				OFF	276	28.4	13.1	12.11	12.87	11.47	18.87
118	8	3	62	164.8 ON	284	25.1	13.5	12.15	12.21	11.61	11.81
				OFF	294	34.6	14.7	12.28	12.35	11.75	11.15
119	5	3	76	221.8 ON	295	36.3	14.9	12.21	12.36	11.76	11.16
				OFF	299	47.5	17.8	12.23	12.42	11.82	11.22
119	5	6	69	182.5 ON	281	69.8	35.2	12.13	12.42	11.82	11.22
				OFF	261	76.8	64.4	12.83	12.42	11.82	11.22
120	6	3	52	137.5 ON	297	38.2	15.2	12.21	12.38	11.78	11.18
				OFF	299	46.1	17.2	12.23	12.42	11.82	11.22
121	7	4	41	188.4 ON	295	57.1	21.9	12.21	12.42	11.82	11.22
				OFF	289	63.8	26.5	12.18	12.42	11.82	11.22
122	7	1	27	71.4 ON	243	2.9	15.6	11.93	18.44	9.84	9.24
				OFF	253	7.7	13.2	11.99	11.15	18.55	9.95
123	1	1	38	188.5 ON	248	4.6	14.3	11.96	18.72	18.12	9.52
				OFF	261	11.3	12.6	12.83	11.53	18.93	18.33
124	5	2	25	66.1 ON	258	78.4	79.6	11.97	12.42	11.82	11.22
				OFF	241	78.4	181.9	11.92	12.42	11.82	11.22
124	3	3	16	42.3 ON	227	76.8	125.3	11.83	12.42	11.82	11.22
				OFF	229	73.9	134.6	11.79	12.42	11.82	11.22
126	6	8	16	42.3 ON	297	51.7	18.3	12.22	12.42	11.82	11.22
				OFF	296	54.2	19.4	12.21	12.42	11.82	11.22
131	2	6	48	185.8 ON	298	39.9	14.1	12.22	12.39	11.79	11.19
				OFF	299	46.8	15.5	12.23	12.42	11.82	11.22
132	2	6	42	111.1 ON	297	58.6	16.9	12.22	12.42	11.82	11.22
				OFF	293	57.2	19.8	12.28	12.42	11.82	11.22
133	2	4	48	185.8 ON	291	28.4	12.1	12.19	12.27	11.67	11.87
				OFF	296	34.6	12.9	12.21	12.35	11.75	11.15
133	2	6	122	322.7 ON	299	48.9	14.8	12.23	12.39	11.79	11.19
				OFF	251	59.1	28.8	12.19	12.42	11.82	11.22
134	7	1	15	39.7 ON	272	13.5	11.3	12.89	11.71	11.11	18.51
				OFF	275	16.8	11.2	12.11	11.87	11.27	18.67
134	7	4	47	124.3 ON	294	38.4	12.2	12.28	12.38	11.78	11.18
				OFF	298	37.5	13.2	12.22	12.37	11.77	11.17
134	7	6	48	185.8 ON	293	57.6	19.4	12.29	12.42	11.82	11.22
				OFF	286	63.8	23.4	12.16	12.42	11.82	11.22

135 9 3	60	158.7	ON	298	35.4	12.8	12.22	12.35	11.75	11.15
			OFF	299	44.4	14.5	12.23	12.41	11.81	11.21
135 9 6	82	216.9	ON	275	69.5	30.6	12.11	12.42	11.82	11.22
			OFF	248	79.1	70.7	11.96	12.42	11.82	11.22
136 7 2	50	132.3	ON	296	32.1	12.2	12.21	12.32	11.72	11.12
			OFF	299	39.8	13.4	12.23	12.39	11.79	11.19
136 7 3	12	31.7	ON	299	43.4	14.2	12.23	12.41	11.81	11.21
			OFF	299	45.3	14.6	12.23	12.41	11.81	11.21
137 4 2	30	79.3	ON	271	71.1	32.7	12.59	12.42	11.82	11.22
			OFF	262	75.1	42.8	12.84	12.42	11.82	11.22
140 8 1	18	47.6	ON	262	74.6	39.8	12.84	12.42	11.82	11.22
			OFF	256	76.9	48.7	12.88	12.42	11.82	11.22
140 8 2	15	39.7	ON	245	79.5	69.0	11.94	12.42	11.82	11.22
			OFF	239	80.2	85.0	11.91	12.42	11.82	11.22
140 8 5	28	74.1	ON	225	79.0	116.9	11.82	12.42	11.82	11.22
			OFF	213	75.4	137.4	11.74	12.42	11.82	11.22
141 5 0	11	29.1	ON	298	47.2	14.4	12.22	12.42	11.82	11.22
			OFF	298	49.0	14.9	12.22	12.42	11.82	11.22
142 5 0	17	45.0	ON	296	51.6	15.6	12.21	12.42	11.82	11.22
			OFF	294	54.3	16.6	12.28	12.42	11.82	11.22
147 2 6	48	127.0	ON	299	41.6	12.3	12.23	12.40	11.80	11.20
			OFF	296	49.3	14.1	12.21	12.42	11.82	11.22
148 3 3	26	68.8	ON	297	29.2	10.4	12.22	12.28	11.68	11.08
			OFF	299	33.2	10.9	12.23	12.33	11.73	11.13
148 3 5	74	195.7	ON	300	42.6	12.3	12.23	12.40	11.80	11.20
			OFF	294	53.9	15.4	12.20	12.42	11.82	11.22
148 3 8	39	103.2	ON	286	60.2	18.3	12.16	12.42	11.82	11.22
			OFF	277	66.3	22.9	12.12	12.42	11.82	11.22
149 1 6	61	161.3	ON	295	52.0	14.6	12.21	12.42	11.82	11.22
			OFF	284	61.3	18.8	12.15	12.42	11.82	11.22
150 1 5	70	185.1	ON	300	40.1	11.6	12.23	12.39	11.79	11.19
			OFF	296	50.9	14.0	12.21	12.42	11.82	11.22
151 1 4	120	317.4	ON	297	29.2	10.1	12.22	12.28	11.68	11.08
			OFF	298	47.2	12.9	12.22	12.42	11.82	11.22
151 1 7	82	216.9	ON	234	81.2	81.0	11.87	12.42	11.82	11.22
			OFF	200	72.0	150.7	11.65	12.42	11.82	11.22
152 1 2	65	171.9	ON	300	35.4	10.6	12.23	12.35	11.75	11.15
			OFF	299	45.3	12.3	12.23	12.41	11.81	11.21
152 1 6	50	132.3	ON	257	75.1	35.4	12.01	12.42	11.82	11.22
			OFF	237	80.9	71.0	11.89	12.42	11.82	11.22
158 6 0	14	37.0	ON	294	51.3	12.9	12.20	12.42	11.82	11.22
			OFF	292	53.5	13.5	12.19	12.42	11.82	11.22

PHOTOGRAPHIC SUMMARY

AFT PAN	CAMERA NO	189	0.1750	SLIT W/21	FILTER	3404	FILM			
OPN NO	FRA	FEET	ET	S-EL	S-DIR	EV	FULL	INT	PRI	
70 2 8	40	105.8	ON	389	51.9	27.8	12.60	12.75	12.15	11.55
			OFF	389	57.3	32.2	12.61	12.75	12.15	11.55
72 0 0	3	7.9	ON	122	-57.1	31.6	10.94	0.00	0.00	0.00
			OFF	123	-55.9	30.5	10.95	0.00	0.00	0.00

76	1	5	69	182.5	ON	295	67.5	133.5	12.21	12.75	12.15	11.55
					OFF	252	55.8	152.4	11.98	12.75	12.15	11.55
77	3	1	55	145.5	ON	346	73.9	95.1	12.44	12.75	12.15	11.55
					OFF	319	70.6	123.9	12.32	12.75	12.15	11.55
79	3	0	15	39.7	ON	389	53.7	27.5	12.61	12.75	12.15	11.55
					OFF	389	55.9	29.2	12.61	12.75	12.15	11.55
81	0	0	3	7.9	ON	125	29.4	17.9	17.97	12.62	12.02	11.42
					OFF	125	30.9	18.2	17.97	12.64	12.04	11.44
83	3	2	41	108.4	ON	348	23.3	16.7	12.41	12.50	11.90	11.32
					OFF	357	30.1	17.8	12.48	12.63	12.03	11.43
84	5	5	48	127.0	ON	370	35.6	18.9	12.53	12.68	12.08	11.48
					OFF	381	42.8	21.1	12.58	12.73	12.13	11.53
86	2	3	38	79.3	ON	338	21.9	16.1	12.40	12.46	11.86	11.26
					OFF	351	27.0	16.9	12.46	12.58	11.98	11.38
86	2	8	34	89.9	ON	386	47.1	22.5	12.60	12.75	12.15	11.55
					OFF	389	51.9	25.0	12.61	12.75	12.15	11.55
87	2	8	26	68.8	ON	387	47.2	22.4	12.60	12.75	12.15	11.55
					OFF	389	51.0	24.3	12.60	12.75	12.15	11.55
83	8	5	56	148.1	ON	352	74.6	75.4	12.46	12.75	12.15	11.55
					OFF	327	74.0	110.4	12.35	12.75	12.15	11.55
92	8	4	27	71.4	ON	292	69.1	135.2	12.19	12.75	12.15	11.55
					OFF	274	64.9	143.7	12.10	12.75	12.15	11.55
94	1	1	50	132.3	ON	309	10.9	13.7	12.27	11.82	11.22	10.62
					OFF	335	19.7	15.0	12.39	12.38	11.78	11.18
95	2	0	13	34.4	ON	387	52.0	23.5	12.60	12.75	12.15	11.55
					OFF	386	54.0	24.7	12.60	12.75	12.15	11.55
99	4	7	25	66.1	ON	267	65.6	144.6	12.06	12.75	12.15	11.55
					OFF	254	61.0	150.5	11.99	12.75	12.15	11.55
100	6	2	51	134.9	ON	368	32.4	16.3	12.53	12.65	12.05	11.45
					OFF	389	40.4	18.1	12.57	12.72	12.12	11.52
100	6	5	93	246.0	ON	386	49.8	21.6	12.60	12.75	12.15	11.55
					OFF	379	62.9	31.4	12.57	12.75	12.15	11.55
101	4	7	38	79.3	ON	374	65.9	35.2	12.55	12.75	12.15	11.55
					OFF	366	69.7	42.7	12.52	12.75	12.15	11.55
102	5	3	61	161.3	ON	345	21.1	14.3	12.43	12.43	11.83	11.23
					OFF	366	30.8	15.7	12.52	12.64	12.04	11.44
103	2	5	57	150.8	ON	374	35.1	16.4	12.55	12.60	12.00	11.40
					OFF	384	43.8	18.8	12.59	12.74	12.14	11.54
104	4	6	91	240.7	ON	306	75.1	116.5	12.26	12.75	12.15	11.55
					OFF	251	61.7	151.0	11.97	12.75	12.15	11.55
105	4	2	33	87.3	ON	374	65.5	33.4	12.55	12.75	12.15	11.55
					OFF	365	69.6	41.2	12.51	12.75	12.15	11.55
107	1	2	24	63.5	ON	337	14.3	13.0	12.40	12.10	11.50	10.90
					OFF	347	18.3	13.4	12.44	12.32	11.72	11.12
108	1	6	82	216.9	ON	360	71.5	44.9	12.49	12.75	12.15	11.55
					OFF	329	77.1	91.3	12.36	12.75	12.15	11.55
109	5	0	19	50.3	ON	385	46.2	18.7	12.59	12.75	12.15	11.55
					OFF	386	49.1	19.8	12.59	12.75	12.15	11.55
110	5	0	17	45.0	ON	386	51.8	20.9	12.59	12.75	12.15	11.55
					OFF	385	54.3	22.2	12.59	12.75	12.15	11.55
115	6	1	61	161.3	ON	368	27.6	13.7	12.53	12.59	11.99	11.39

				OFF	381	37.2	15.3	12.57	12.70	12.10	11.50
115	4	4	22	58.2 ON	249	59.2	155.6	11.96	12.75	12.15	11.55
				OFF	238	54.5	158.7	11.90	12.75	12.15	11.55
116	5	3	54	142.8 ON	359	22.4	13.0	12.49	12.47	11.87	11.27
				OFF	374	32.9	14.1	12.55	12.64	12.04	11.44
116	5	7	24	63.5 ON	375	62.6	27.2	12.55	12.75	12.15	11.55
				OFF	370	66.0	31.1	12.53	12.75	12.15	11.55
117	8	3	47	124.3 ON	364	24.8	13.1	12.51	12.53	11.93	11.33
				OFF	376	32.3	14.2	12.56	12.65	12.05	11.45
117	8	5	94	248.6 ON	385	43.1	16.6	12.59	12.73	12.13	11.53
				OFF	382	56.9	22.4	12.58	12.75	12.15	11.55
118	8	1	28	74.1 ON	346	15.6	12.0	12.43	12.18	11.58	10.98
				OFF	356	20.2	12.5	12.48	12.40	11.80	11.20
118	8	3	62	164.0 ON	365	25.0	13.0	12.52	12.54	11.94	11.34
				OFF	379	34.6	14.5	12.57	12.68	12.08	11.48
119	8	3	75	198.4 ON	380	36.3	14.7	12.57	12.69	12.09	11.49
				OFF	384	47.5	17.6	12.59	12.75	12.15	11.55
119	8	6	69	182.5 ON	361	69.0	34.9	12.50	12.75	12.15	11.55
				OFF	336	76.8	63.5	12.39	12.75	12.15	11.55
120	6	3	52	137.5 ON	381	38.1	14.9	12.58	12.70	12.10	11.50
				OFF	384	46.1	17.0	12.59	12.75	12.15	11.55
121	7	4	40	185.8 ON	379	57.0	21.8	12.57	12.75	12.15	11.55
				OFF	372	62.9	26.3	12.54	12.75	12.15	11.55
122	7	1	27	71.4 ON	313	2.7	7.9	12.29	10.73	10.13	9.53
				OFF	326	7.5	10.3	12.35	11.46	10.86	10.26
123	1	1	39	123.2 ON	318	4.4	9.0	12.32	11.02	10.42	9.82
				OFF	336	11.1	12.9	12.39	11.84	11.24	10.64
124	8	2	25	66.1 ON	322	78.4	78.5	12.33	12.75	12.15	11.55
				OFF	310	78.5	100.7	12.28	12.75	12.15	11.55
124	8	3	16	42.3 ON	292	76.2	124.4	12.19	12.75	12.15	11.55
				OFF	283	74.2	133.9	12.15	12.75	12.15	11.55
126	6	0	16	42.3 ON	382	51.6	18.1	12.58	12.75	12.15	11.55
				OFF	381	54.1	19.2	12.58	12.75	12.15	11.55
131	2	6	40	185.8 ON	384	39.8	13.9	12.59	12.72	12.12	11.52
				OFF	384	46.0	15.4	12.59	12.75	12.15	11.55
132	2	6	42	111.1 ON	382	50.8	16.8	12.58	12.75	12.15	11.55
				OFF	376	57.1	19.7	12.56	12.75	12.15	11.55
133	2	4	40	185.8 ON	375	28.3	11.8	12.55	12.68	12.08	11.48
				OFF	381	34.6	12.6	12.58	12.68	12.08	11.48
133	2	6	121	320.0 ON	384	40.8	13.8	12.59	12.72	12.12	11.52
				OFF	374	59.0	20.6	12.55	12.75	12.15	11.55
134	7	1	15	39.7 ON	348	13.4	10.1	12.44	12.03	11.43	10.83
				OFF	353	15.9	10.4	12.46	12.20	11.60	11.00
134	7	4	47	124.3 ON	376	30.3	11.9	12.56	12.63	12.03	11.43
				OFF	382	37.5	13.0	12.58	12.70	12.10	11.50
134	7	8	40	185.8 ON	375	56.9	19.2	12.55	12.75	12.15	11.55
				OFF	367	62.9	23.2	12.52	12.75	12.15	11.55
135	9	3	60	158.7 ON	381	35.4	12.5	12.58	12.68	12.08	11.48
				OFF	383	44.3	14.4	12.58	12.74	12.14	11.54
135	9	6	81	214.2 ON	352	69.4	30.3	12.46	12.75	12.15	11.55
				OFF	318	79.1	69.5	12.31	12.75	12.15	11.55



136	7	2	53	132.3	ON	379	32.8	11.9	12.57	12.65	12.25	11.45
					OFF	393	39.7	13.2	12.58	12.72	12.12	11.52
136	7	3	12	31.7	ON	384	43.3	14.8	12.59	12.74	12.14	11.54
					OFF	383	45.3	14.4	12.58	12.74	12.14	11.54
137	4	2	38	79.3	ON	347	71.8	32.3	12.44	12.75	12.15	11.55
					OFF	336	75.2	42.2	12.39	12.75	12.15	11.55
140	8	1	18	47.6	ON	335	74.5	39.2	12.39	12.75	12.15	11.55
					OFF	328	76.8	47.9	12.36	12.75	12.15	11.55
142	8	2	15	39.7	ON	314	79.5	67.7	12.38	12.75	12.15	11.55
					OFF	386	88.2	83.4	12.26	12.75	12.15	11.55
140	8	5	28	74.1	ON	268	79.2	115.6	12.17	12.75	12.15	11.55
					OFF	273	75.8	136.6	12.89	12.75	12.15	11.55
141	5	8	11	29.1	ON	382	47.1	14.2	12.58	12.75	12.15	11.55
					OFF	381	48.9	14.7	12.58	12.75	12.15	11.55
142	5	8	17	45.8	ON	379	51.6	15.4	12.57	12.75	12.15	11.55
					OFF	376	54.2	16.4	12.56	12.75	12.15	11.55
147	2	6	48	127.8	ON	383	41.8	12.1	12.58	12.73	12.13	11.53
					OFF	388	49.3	13.9	12.57	12.75	12.15	11.55
148	3	3	26	68.8	ON	381	29.1	18.1	12.58	12.61	12.81	11.41
					OFF	384	33.2	18.6	12.59	12.66	12.86	11.46
148	3	5	74	195.7	ON	386	42.6	12.1	12.59	12.73	12.13	11.53
					OFF	377	53.8	15.2	12.56	12.75	12.15	11.55
148	3	8	39	183.2	ON	368	68.1	18.2	12.52	12.75	12.15	11.55
					OFF	356	66.2	22.6	12.48	12.75	12.15	11.55
149	1	6	61	161.3	ON	379	51.9	14.4	12.57	12.75	12.15	11.55
					OFF	365	61.3	18.6	12.52	12.75	12.15	11.55
150	1	5	78	185.1	ON	386	42.8	11.4	12.59	12.72	12.12	11.52
					OFF	388	58.8	13.9	12.57	12.75	12.15	11.55
151	1	4	119	314.8	ON	382	29.1	9.8	12.58	12.61	12.81	11.41
					OFF	383	47.1	12.7	12.58	12.75	12.15	11.55
151	1	7	82	216.9	ON	388	81.2	79.1	12.23	12.75	12.15	11.55
					OFF	257	72.5	158.2	12.81	12.75	12.15	11.55
152	1	2	65	171.9	ON	385	35.4	18.4	12.59	12.68	12.88	11.48
					OFF	384	45.3	12.1	12.59	12.74	12.14	11.54
152	1	6	58	132.3	ON	338	74.9	34.8	12.37	12.75	12.15	11.55
					OFF	384	88.9	69.3	12.25	12.75	12.15	11.55
158	6	8	14	37.8	ON	377	51.2	12.7	12.56	12.75	12.15	11.55
					OFF	375	53.4	13.4	12.55	12.75	12.15	11.55

STELLAR-INDEX SUMMARY

CAMERA DATA	ET	FILM	FILTER	GRID	ASSEMBLY NO	D96
STELLAR	1.8	4481	NONE	184		
INDEX	1/500	4488	W/21	8		

PERFORMANCE SUMMARY

OPN NO	FR	STEL FEET	INDX FEET	H	M	S	Q	ON LAT	ON LONG	Q	OFF LAT	OFF LONG	SEC DUR		
78	2	8	6	8.59	1.19	7	18	49	2	35	83E	2	29	83E	91
72	8	8	1	8.18	8.28	9	43	27	1	28	128W	1	38	128W	23
76	1	5	18	8.99	1.98	16	27	22	3	15	51W	3	38	58W	217
77	3	1	8	8.79	1.58	17	54	31	3	1	74W	3	18	74W	142

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79	3	0	3	0.38	0.59	28	47	38	2	33	121W	2	38	121W	36
83	3	2	6	0.59	1.19	2	42	18	2	65	141E	2	58	144E	183
84	5	5	7	0.69	1.39	4	16	6	2	52	122E	2	45	123E	113
86	2	3	4	0.48	0.79	7	13	58	2	66	72E	2	61	74E	77
86	2	8	5	0.58	0.99	7	28	26	2	48	78E	2	35	79E	76
87	2	8	4	0.48	0.79	8	51	7	2	48	55E	2	36	56E	61
88	8	5	9	0.89	1.78	18	38	41	2	3	34E	3	5	34E	142
92	8	4	4	0.48	0.79	16	38	4	3	15	55W	3	29	55W	83
94	1	1	7	0.69	1.39	19	16	32	2	77	119W	2	68	118W	132
95	2	8	3	0.38	0.59	28	57	39	2	35	125W	2	33	125W	32
99	4	7	3	0.38	0.59	3	13	56	3	28	144E	3	26	145E	82
100	6	2	8	0.79	1.58	4	25	51	2	55	117E	2	47	119E	121
100	6	5	14	1.39	2.77	4	38	18	2	37	128E	2	23	128E	211
101	4	7	4	0.48	0.79	6	5	28	2	19	98E	2	14	98E	71
102	5	3	9	0.89	1.78	7	24	18	2	67	68E	2	57	71E	147
103	2	5	9	0.89	1.78	8	58	27	2	53	49E	2	43	51E	133
104	4	6	13	1.29	2.57	18	43	49	3	7	38E	3	26	31E	275
105	4	2	5	0.58	0.99	12	7	42	2	28	7E	2	15	7E	77
107	1	2	4	0.48	0.79	14	55	46	2	73	58W	2	69	47W	68
108	1	6	12	1.19	2.38	16	41	27	2	12	68W	3	1	68W	288
109	5	8	3	0.38	0.59	18	5	2	2	41	85W	2	38	84W	45
110	5	8	3	0.38	0.59	19	37	6	2	35	107W	2	32	107W	48
115	6	1	8	0.79	1.58	3	4	4	2	68	135E	2	52	137E	148
115	4	4	4	0.48	0.79	3	26	8	3	29	141E	3	34	141E	77
116	5	3	8	0.79	1.58	4	33	23	2	65	118E	2	57	113E	126
116	5	7	4	0.48	0.79	4	43	37	2	23	116E	2	19	116E	58
117	8	3	7	0.69	1.39	6	4	35	2	63	88E	2	55	98E	112
117	8	5	13	1.29	2.57	6	9	18	2	44	92E	2	38	93E	212
118	8	1	5	0.58	0.99	7	32	54	2	72	68E	2	67	63E	69
118	8	3	9	0.89	1.78	7	35	15	2	62	65E	2	53	68E	143
119	8	3	11	1.09	2.18	9	8	39	2	51	46E	2	48	47E	169
119	8	6	18	0.99	1.98	9	17	13	2	16	48E	2	4	48E	169
120	6	3	8	0.79	1.58	18	39	43	2	49	23E	2	41	24E	128
121	7	4	6	0.59	1.19	12	15	8	2	29	2E	2	23	2E	94
122	7	1	4	0.48	0.79	13	32	7	2	83	64W	2	79	43W	72
123	1	1	6	0.59	1.19	15	3	9	2	82	77W	2	76	58W	188
124	8	2	4	0.48	0.79	16	53	57	2	1	64W	3	3	64W	67
124	8	3	2	0.28	0.48	16	56	28	3	9	64W	3	12	64W	48
126	6	8	3	0.38	0.59	19	46	42	2	35	111W	2	32	111W	38
131	2	6	6	0.59	1.19	3	16	38	2	47	133E	2	41	134E	93
132	2	6	6	0.59	1.19	4	49	58	2	36	111E	2	29	112E	98
133	2	4	6	0.59	1.19	6	14	56	2	59	85E	2	53	87E	93
133	2	6	18	1.78	3.56	6	18	2	2	46	88E	2	27	89E	277
134	7	1	2	0.28	0.48	7	41	58	2	74	54E	2	71	57E	37
134	7	4	7	0.69	1.39	7	46	8	2	57	63E	2	58	64E	107
134	7	8	6	0.59	1.19	7	52	41	2	29	66E	2	23	67E	93
135	9	3	9	0.89	1.78	9	17	49	2	52	41E	2	43	43E	134
135	9	6	12	1.19	2.38	9	26	34	2	16	44E	2	2	44E	288
136	7	2	7	0.69	1.39	18	47	34	2	55	18E	2	47	19E	115
136	7	3	2	0.28	0.48	18	58	23	2	44	28E	2	42	28E	29
137	4	2	5	0.58	0.99	12	28	8	2	14	8W	2	9	8W	74

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140	8	1	3	0.30	0.59	17	0	51	2	10	68W	2	7	68W	47
140	8	2	2	0.20	0.40	17	2	51	2	2	68W	3	3	68W	43
140	8	5	5	0.50	0.99	17	5	0	3	6	68W	3	12	68W	86
141	5	0	1	0.10	0.20	18	24	9	2	40	93W	2	38	93W	27
142	5	0	3	0.30	0.59	19	55	49	2	35	115W	2	32	115W	40
147	2	6	7	0.69	1.39	3	26	8	2	45	129E	2	37	130E	112
148	3	3	4	0.40	0.79	4	53	33	2	58	104E	2	54	105E	60
148	3	5	11	1.09	2.18	4	56	53	2	44	107E	2	33	108E	168
148	3	8	6	0.59	1.19	5	1	17	2	26	108E	2	20	108E	95
149	1	6	9	0.89	1.70	6	29	45	2	35	85E	2	25	85E	142
150	1	5	10	0.99	1.98	7	57	20	2	47	61E	2	36	62E	161
151	1	4	10	1.78	3.56	9	25	11	2	58	36E	2	39	39E	267
151	1	7	12	1.19	2.30	9	39	32	3	0	41E	3	17	41E	253
152	1	2	9	0.89	1.78	10	57	16	2	51	15E	2	41	16E	146
152	1	6	0	0.79	1.58	11	7	25	2	10	18E	2	0	18E	136
158	6	0	2	0.20	0.40	20	4	23	2	35	119W	2	33	119W	33

NOTE - TLM DATA INDICATE NORMAL SYSTEM PERFORMANCE.

NOTE - THE LAST SIX FRAMES OF THE FORWARD PAN CAMERA AND THE LAST SIX FRAMES OF THE AFT PAN CAMERA FOR OPERATION 70-2-8 ARE CONTAINED IN THE B MISSION RECOVERY CAPSULE. THE REMAINING FRAMES OF OPERATION WERE IN THE A MISSION RECOVERY CAPSULE.

NOTE - OPERATION 72-0-0 CONSISTS OF THE FRAMES OBTAINED DURING THE AND WRAP OPERATION COMMANDED AT [REDACTED] ON REV 72.

NOTE - OPERATION 81-0-0 CONSISTS OF THE FRAMES OBTAINED DURING THE STOWING OPERATION PRIOR TO THE A MISSION RECOVERY.

NOTE - TLM DATA OBSERVED ON OPERATION 158-6-0 SHOWED THAT THE FILM DEPLETED PRIOR TO REV 158.

A. 1835-2

B. DRY

C. PERFORMANCE ESTIMATE - PART TWO

RATE ESTIMATE  
FWD PAN CAMERA NUMBER 188

OPN NO	FR	R	A	TUR/ DUR	INST CPS	INST ANG-VEL	SCAN RATE R/SEC	I/SEC	PCT CALIB	RATE REQD	
70	2	8	48	8	2 ON 1864	0.4518	0.03812	2.839	68.13	-2.6	-9.7
					OFF 91	0.4523	0.03817	2.842	68.21	-2.6	-1.1
72	0	8	3	10	2 ON 145	0.1436	0.01212	0.982	21.65	-6.5	-58.7
					OFF 23	0.1444	0.01218	0.987	21.78	-6.5	-51.8
76	1	5	72	8	2 ON 2638	0.3435	0.02898	2.158	51.88	-2.6	-4.8
					OFF 217	2.2939	0.02488	1.846	44.31	-2.6	-6.6
77	3	1	56	8	2 ON 2382	0.4828	0.03392	2.526	66.62	-2.6	-8.7
					OFF 142	0.3728	0.03129	2.338	55.91	-2.6	-1.1
79	3	8	15	8	2 ON 1885	0.4523	0.03816	2.842	68.28	-2.6	-8.9
					OFF 36	0.4526	0.03819	2.844	68.25	-2.6	-8.9
81	0	8	3	10	2 ON 8	0.1466	0.01237	0.921	22.18	-2.6	-185.7
					OFF 24	0.1466	0.01237	0.921	22.18	-2.6	-188.2
83	3	2	41	8	2 ON 1425	2.3953	0.03336	2.424	59.61	-2.6	-2.3
					OFF 123	0.4151	0.03583	2.688	62.68	-2.6	-1.5
84	5	5	48	8	2 ON 1617	0.4381	0.03629	2.732	64.85	-2.6	-8.9
					OFF 113	0.4433	0.03748	2.785	66.84	-2.6	-8.8
86	2	3	32	8	2 ON 1415	0.3931	0.03317	2.478	59.27	-2.6	-2.4
					OFF 77	0.4883	0.03445	2.566	61.57	-2.6	-1.7
86	2	8	33	8	2 ON 1882	0.4491	0.03798	2.822	67.73	-2.6	-8.7
					OFF 76	0.4521	0.03815	2.841	68.17	-2.6	-8.7
87	2	8	26	8	2 ON 1826	0.4494	0.03792	2.823	67.76	-2.6	-8.6
					OFF 61	0.4518	0.03812	2.839	68.13	-2.6	-8.7
88	8	5	57	8	2 ON 2344	0.4896	0.03456	2.574	61.76	-2.6	-8.6
					OFF 142	0.3799	0.03285	2.387	57.28	-2.6	-8.9
92	8	4	27	8	2 ON 2643	0.3421	0.02878	2.137	51.29	-2.6	-2.9
					OFF 83	0.3193	0.02694	2.026	48.14	-2.6	-4.1
94	1	1	52	8	2 ON 1288	0.3585	0.03825	2.253	54.27	-3.4	-5.7
					OFF 132	0.3887	0.03288	2.442	58.61	-3.4	-3.5
95	2	8	13	8	2 ON 1912	0.4488	0.03787	2.828	67.68	-3.4	-1.5
					OFF 32	0.4487	0.03786	2.819	67.66	-3.4	-1.5
99	4	7	25	8	2 ON 2747	0.3185	0.02628	1.951	46.82	-3.4	-5.8
					OFF 82	0.2949	0.02489	1.853	44.47	-3.4	-5.7
102	6	2	52	8	2 ON 1626	0.4278	0.03618	2.688	64.51	-3.4	-1.6
					OFF 121	0.4412	0.03723	2.772	66.53	-3.4	-1.4
102	6	5	93	8	2 ON 1894	0.4487	0.03786	2.819	67.66	-3.4	-1.3
					OFF 211	0.4486	0.03717	2.768	66.44	-3.4	-1.3
101	4	7	31	8	2 ON 2152	0.4344	0.03665	2.729	65.51	-3.4	-1.4
					OFF 71	0.4254	0.03598	2.673	64.15	-3.4	-1.4
102	5	3	61	8	2 ON 1465	0.4882	0.03377	2.514	68.35	-3.4	-2.7
					OFF 147	0.4253	0.03588	2.672	64.13	-3.4	-1.7
103	2	5	57	8	2 ON 1682	0.4346	0.03667	2.731	65.54	-3.4	-1.3
					OFF 133	0.4458	0.03761	2.821	67.22	-3.4	-1.2

104	4	6	92	8	2	ON	2569	3.3568	0.03204	2.237	53.68	-3.4	-3.3
						OFF	275	0.2927	0.02464	1.835	44.84	-3.4	-6.1
105	4	2	33	8	2	ON	2167	0.4338	0.03668	2.725	65.41	-3.4	-1.4
						OFF	77	0.4238	0.03576	2.663	63.91	-3.4	-1.4
107	1	2	23	7	3	ON	1384	2.3916	0.03394	2.469	59.85	-3.4	-1.5
						OFF	60	0.4027	0.03398	2.530	60.72	-3.4	-1.1
108	1	6	83	7	3	ON	2291	2.4182	0.03529	2.628	63.37	-4.1	-1.8
						OFF	280	0.3821	0.03224	2.431	57.62	-4.1	-2.7
109	5	0	19	7	3	ON	1873	0.4476	0.03777	2.812	67.49	-4.1	-1.2
						OFF	45	0.4481	0.03781	2.815	67.57	-4.1	-1.3
110	5	0	17	7	3	ON	1963	0.4476	0.03777	2.813	67.50	-4.1	-1.3
						OFF	42	0.4466	0.03769	2.806	67.35	-4.1	-1.3
115	6	1	60	7	3	ON	1617	0.4279	0.03611	2.689	64.53	-4.1	-0.9
						OFF	140	0.4419	0.03729	2.776	66.63	-4.1	-1.0
115	4	4	22	7	3	ON	2941	0.2895	0.02443	1.819	43.66	-4.1	-1.3
						OFF	77	0.2772	0.02339	1.742	41.80	-4.1	-0.8
116	5	3	54	7	3	ON	1543	0.4175	0.03523	2.623	62.95	-4.1	-1.1
						OFF	126	0.4339	0.03661	2.726	65.43	-4.1	-1.9
116	5	7	24	7	3	ON	2158	0.4355	0.03674	2.736	65.57	-4.1	-1.3
						OFF	58	0.4292	0.03622	2.697	64.73	-4.1	-1.1
117	8	3	47	7	3	ON	1582	0.4232	0.03571	2.659	63.32	-4.1	-1.6
						OFF	112	0.4365	0.03683	2.742	65.32	-4.1	-1.2
117	8	5	94	7	3	ON	1957	0.4472	0.03773	2.812	67.43	-4.1	-1.1
						OFF	212	0.4432	0.03748	2.785	66.84	-4.1	-1.2
118	8	1	28	7	3	ON	1449	0.4014	0.03387	2.522	60.54	-4.1	-1.6
						OFF	69	0.4130	0.03485	2.595	62.29	-4.1	-1.3
118	8	3	62	7	3	ON	1590	0.4244	0.03581	2.667	64.00	-4.1	-1.8
						OFF	143	0.4400	0.03713	2.765	66.36	-4.1	-3.9
119	8	3	76	7	3	ON	1762	0.4413	0.03724	2.773	66.55	-4.4	-1.2
						OFF	169	0.4469	0.03778	2.808	67.38	-4.4	-1.4
119	8	6	69	7	3	ON	2276	0.4193	0.03538	2.635	63.24	-4.4	-1.5
						OFF	169	0.3903	0.03294	2.453	58.06	-4.4	-1.4
120	6	3	52	7	3	ON	1793	0.4433	0.03740	2.735	66.94	-4.4	-1.2
						OFF	120	0.4469	0.03778	2.808	67.38	-4.4	-1.4
121	7	4	41	7	3	ON	2085	0.4408	0.03719	2.769	66.46	-4.4	-1.5
						OFF	94	0.4324	0.03648	2.717	65.28	-4.4	-1.4
122	7	1	27	7	3	ON	1272	0.3638	0.03070	2.286	54.96	-4.4	-4.2
						OFF	72	0.3788	0.03196	2.388	57.12	-4.4	-3.3
123	1	1	38	7	3	ON	1302	0.3704	0.03126	2.327	55.96	-4.4	-3.7
						OFF	100	0.3906	0.03296	2.454	58.90	-4.4	-2.6
124	8	2	25	7	3	ON	2519	0.3743	0.03159	2.352	56.45	-4.4	-1.6
						OFF	67	0.3603	0.03048	2.264	54.34	-4.4	-2.0
124	8	3	16	7	3	ON	2671	0.3402	0.02870	2.137	51.30	-4.4	-2.7
						OFF	48	0.3296	0.02781	2.071	49.70	-4.4	-3.0
126	6	0	16	7	3	ON	2021	0.4446	0.03751	2.793	67.24	-4.4	-1.4
						OFF	38	0.4427	0.03736	2.782	66.76	-4.4	-1.4
131	2	6	40	7	3	ON	1861	0.4461	0.03764	2.803	67.27	-4.4	-1.1
						OFF	93	0.4467	0.03769	2.806	67.35	-4.4	-1.2
132	2	6	42	7	3	ON	2029	0.4442	0.03748	2.791	66.98	-4.4	-1.3
						OFF	98	0.4376	0.03693	2.758	65.99	-4.4	-1.4
133	2	4	42	7	3	ON	1694	0.4356	0.03676	2.737	65.69	-4.4	-1.1

						OFF	93	3.4428	3.83736	2.732	66.77	-4.4	-1.1
133	2	6	122	7	3	ON	1888	3.4465	3.83768	2.806	67.33	-4.4	-1.1
						OFF	277	3.4347	3.23668	2.731	65.55	-4.4	-1.3
134	7	1	15	7	3	ON	1477	3.4059	3.83425	2.551	61.21	-4.2	-1.3
						OFF	37	3.4118	3.83474	2.587	62.09	-4.2	-1.7
134	7	4	47	7	3	ON	1728	3.4393	3.83796	2.763	66.24	-4.2	-3.9
						OFF	187	3.4457	3.83761	2.803	67.21	-4.2	-1.3
134	7	8	48	7	3	ON	2129	3.4377	3.83693	2.757	66.01	-4.2	-1.2
						OFF	93	3.4273	3.23613	2.683	64.51	-4.2	-1.2
135	9	3	68	7	3	ON	1888	3.4446	3.83752	2.794	67.75	-4.2	-2.9
						OFF	134	3.4474	3.83775	2.811	67.86	-4.2	-1.3
135	9	6	82	7	3	ON	2332	3.4119	3.83463	2.533	61.38	-4.2	-1.4
						OFF	288	3.3711	3.83132	2.332	55.27	-4.2	-1.8
136	7	2	58	7	3	ON	1761	3.4419	3.83728	2.776	66.53	-4.2	-2.9
						OFF	115	3.4479	3.83771	2.833	67.48	-4.2	-1.2
136	7	3	12	7	3	ON	1938	3.4474	3.83775	2.811	67.47	-4.2	-1.3
						OFF	29	3.4472	3.83773	2.813	67.43	-4.2	-1.2
137	4	2	38	7	3	ON	2365	3.4053	3.83428	2.547	61.12	-4.2	-1.4
						OFF	74	3.3921	3.83338	2.463	59.22	-4.2	-1.5
140	8	1	18	7	3	ON	2438	3.3917	3.83335	2.461	59.26	-4.2	-1.6
						OFF	47	3.3828	3.23232	2.435	57.72	-4.2	-1.6
140	8	2	15	7	3	ON	2557	3.3666	3.83293	2.323	55.28	-4.2	-2.2
						OFF	43	3.3577	3.83218	2.247	53.34	-4.2	-2.2
140	8	5	28	7	3	ON	2686	3.3369	3.82843	2.117	58.81	-4.2	-3.2
						OFF	86	3.3198	3.82692	2.525	48.11	-4.2	-3.4
141	5	8	11	7	3	ON	2286	3.4458	3.83761	2.821	67.22	-4.2	-1.2
						OFF	27	3.4447	3.83752	2.794	67.26	-4.2	-1.2
142	5	8	17	7	3	ON	2277	3.4419	3.83729	2.777	66.54	-4.2	-1.1
						OFF	46	3.4391	3.83705	2.759	66.21	-4.2	-1.1
147	2	6	48	7	3	ON	1958	3.4472	3.83774	2.813	67.44	-4.2	-2.9
						OFF	112	3.4431	3.83739	2.784	66.32	-4.2	-1.2
148	3	3	26	7	3	ON	1766	3.4436	3.83743	2.787	66.29	-3.9	-2.4
						OFF	68	3.4458	3.83778	2.827	67.37	-3.9	-2.5
148	3	5	74	7	3	ON	1966	3.4484	3.83783	2.817	67.61	-3.9	-2.6
						OFF	168	3.4389	3.83724	2.758	66.19	-3.9	-2.8
148	3	8	39	7	3	ON	2238	3.4277	3.83628	2.687	64.49	-3.9	-1.3
						OFF	95	3.4142	3.83493	2.691	62.23	-3.9	-1.1
149	1	6	61	7	3	ON	2118	3.4488	3.83719	2.776	66.47	-3.9	-2.8
						OFF	142	3.4252	3.83588	2.672	64.12	-3.9	-1.3
150	1	5	78	7	3	ON	1935	3.4488	3.83787	2.822	67.68	-3.9	-2.6
						OFF	161	3.4421	3.83731	2.778	66.67	-3.9	-2.7
151	1	4	128	7	3	ON	1777	3.4443	3.83749	2.791	67.28	-3.9	-2.5
						OFF	267	3.4456	3.83768	2.832	67.19	-3.9	-2.7
151	1	7	82	7	3	ON	2637	3.3496	3.82958	2.196	52.71	-3.9	-2.8
						OFF	253	3.2992	3.82525	1.882	45.12	-3.9	-3.3
152	1	2	65	7	3	ON	1873	3.4484	3.83783	2.817	67.61	-3.9	-2.5
						OFF	146	3.4468	3.83778	2.827	67.37	-3.9	-2.6
152	1	6	58	7	3	ON	2482	3.3839	3.83248	2.412	57.98	-3.9	-1.8
						OFF	136	3.3547	3.82993	2.229	53.48	-3.9	-2.5
158	6	8	14	7	3	ON	2133	3.4387	3.83782	2.757	66.16	-3.9	-2.8
						OFF	33	3.4357	3.83677	2.738	65.71	-3.9	-2.8

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RATE ESTIMATE

AFT PAN CAMERA NUMBER 189

OPN NO	FR	R	A	TUR/ DUR	INST CPS	INST ANG-VEL	SCAN R/SEC	RATE I/SEC	PCT CALIB	RATE REQD
70	2	8	48	8	2 ON 1876	0.4518	0.03812	2.839	68.13	-3.3 -8.8
					OFF 91	0.4523	0.03817	2.842	68.21	-3.3 -1.1
72	0	0	3	10	2 ON 157	0.1427	0.01204	0.897	21.52	-7.2 -52.3
					OFF 23	0.1435	0.01211	0.902	21.65	-7.2 -52.7
76	1	5	69	8	2 ON 2642	0.3432	0.02896	2.156	51.75	-3.3 -4.1
					OFF 217	0.2935	0.02476	1.844	44.25	-3.3 -5.9
77	3	1	55	8	2 ON 2394	0.4019	0.03391	2.525	60.60	-3.3 -8.1
					OFF 142	0.3706	0.03127	2.328	55.88	-3.3 -2.4
79	3	0	15	8	2 ON 1897	0.4523	0.03816	2.842	68.20	-3.3 -1.0
					OFF 36	0.4526	0.03819	2.844	68.25	-3.3 -8.9
81	0	0	3	10	2 ON 12	0.1457	0.01229	0.915	21.97	-3.3 -188.0
					OFF 24	0.1457	0.01229	0.915	21.97	-3.3 -191.2
83	3	2	41	8	2 ON 1437	0.3951	0.03334	2.483	59.59	-3.3 -2.9
					OFF 103	0.4156	0.03502	2.608	62.58	-3.3 -2.0
84	5	5	48	8	2 ON 1629	0.4300	0.03628	2.702	64.84	-3.3 -1.3
					OFF 113	0.4432	0.03740	2.785	66.24	-3.3 -1.1
86	2	3	32	8	2 ON 1427	0.3929	0.03315	2.469	59.25	-3.3 -3.0
					OFF 77	0.4082	0.03444	2.565	61.55	-3.3 -2.3
88	2	0	34	8	2 ON 1914	0.4491	0.03789	2.822	67.72	-3.3 -2.8
					OFF 76	0.4521	0.03615	2.840	68.17	-3.3 -2.7
87	2	0	26	8	2 ON 1810	0.4493	0.03791	2.823	67.76	-3.3 -2.8
					OFF 61	0.4518	0.03812	2.839	68.13	-3.3 -2.7
88	0	5	56	8	2 ON 2356	0.4095	0.03455	2.573	61.75	-3.3 -2.0
					OFF 142	0.3797	0.03203	2.385	57.25	-3.3 -2.2
92	0	4	27	8	2 ON 2655	0.3398	0.02867	2.135	51.24	-3.3 -2.2
					OFF 83	0.3189	0.02691	2.004	48.09	-3.3 -3.4
94	1	1	52	8	2 ON 1292	0.3586	0.03026	2.253	54.28	-4.0 -6.3
					OFF 132	0.3809	0.03201	2.443	58.64	-4.0 -4.0
95	2	2	10	8	2 ON 1924	0.4492	0.03790	2.822	67.74	-4.0 -1.4
					OFF 32	0.4491	0.03789	2.822	67.72	-4.0 -1.3
99	4	7	25	8	2 ON 2759	0.3104	0.02619	1.950	46.00	-4.0 -5.0
					OFF 02	0.2940	0.02487	1.852	44.46	-4.0 -4.9
100	6	2	51	8	2 ON 1630	0.4281	0.03613	2.690	64.56	-4.0 -1.9
					OFF 121	0.4416	0.03726	2.774	66.58	-4.0 -1.5
100	6	5	93	8	2 ON 1906	0.4490	0.03789	2.821	67.71	-4.0 -1.3
					OFF 211	0.4409	0.03721	2.770	66.49	-4.0 -1.0
101	4	7	30	8	2 ON 2174	0.4347	0.03668	2.732	65.56	-4.0 -1.0
					OFF 71	0.4257	0.03592	2.675	64.20	-4.0 -2.9
102	5	3	61	8	2 ON 1477	0.4004	0.03379	2.516	60.38	-4.0 -3.1
					OFF 147	0.4256	0.03591	2.674	64.17	-4.0 -2.0
103	2	5	57	8	2 ON 1692	0.4350	0.03670	2.733	65.59	-4.0 -1.5
					OFF 133	0.4462	0.03765	2.803	67.28	-4.0 -1.3
104	4	6	91	8	2 ON 2581	0.3561	0.03004	2.237	53.69	-4.0 -2.5
					OFF 275	0.2919	0.02463	1.834	44.72	-4.0 -5.3
105	4	2	33	8	2 ON 2179	0.4341	0.03663	2.728	65.46	-4.0 -1.0

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					OFF	77	8.4241	8.83579	2.665	63.95	-4.8	-8.9
107	1	2	24	7	3 ON	1396	8.3928	8.83387	2.463	59.11	-4.8	-1.9
					OFF	68	8.4831	8.83482	2.533	68.79	-4.8	-1.5
108	1	6	82	7	3 ON	2383	8.4184	8.83531	2.629	63.18	-4.8	-8.5
					OFF	288	8.3821	8.83224	2.481	57.62	-4.8	-8.1
109	5	8	19	7	3 ON	1885	8.4479	8.83779	2.814	67.54	-4.8	-1.2
					OFF	45	8.4484	8.83783	2.817	67.61	-4.8	-1.2
110	5	8	17	7	3 ON	1975	8.4488	8.83788	2.815	67.55	-4.8	-1.2
					OFF	48	8.4469	8.83771	2.808	67.48	-4.8	-1.1
115	5	1	61	7	3 ON	1629	8.4282	8.83613	2.698	64.57	-4.8	-1.2
					OFF	148	8.4422	8.83731	2.778	66.68	-4.8	-1.1
115	4	4	22	7	3 ON	2953	8.2898	8.82439	1.816	43.59	-4.8	-8.7
					OFF	77	8.2767	8.82334	1.738	41.72	-4.8	-8.3
116	5	3	54	7	3 ON	1555	8.4177	8.83524	2.624	62.98	-4.8	-1.5
					OFF	126	8.4341	8.83663	2.728	65.47	-4.8	-1.2
116	5	7	24	7	3 ON	2178	8.4357	8.83677	2.738	65.71	-4.8	-8.9
					OFF	58	8.4295	8.83624	2.698	64.76	-4.8	-8.7
117	5	3	47	7	3 ON	1594	8.4234	8.83573	2.661	63.85	-4.8	-1.3
					OFF	112	8.4367	8.83685	2.744	65.86	-4.8	-1.2
117	8	5	94	7	3 ON	1869	8.4475	8.83776	2.812	67.46	-4.8	-1.1
					OFF	212	8.4435	8.83743	2.787	66.89	-4.8	-1.8
118	3	1	28	7	3 ON	1461	8.4215	8.83388	2.523	62.55	-4.8	-2.1
					OFF	69	8.4132	8.83486	2.596	62.31	-4.8	-1.7
118	8	3	62	7	3 ON	1682	8.4246	8.83583	2.668	64.83	-4.8	-1.3
					OFF	143	8.4423	8.83715	2.767	66.48	-4.8	-1.1
119	5	3	75	7	3 ON	1774	8.4412	8.83723	2.772	66.53	-5.2	-1.4
					OFF	169	8.4468	8.83778	2.827	67.37	-5.2	-1.4
119	3	6	69	7	3 ON	2288	8.4191	8.83537	2.534	63.28	-5.2	-1.1
					OFF	169	8.3988	8.83291	2.458	58.81	-5.2	-8.8
120	5	3	52	7	3 ON	1895	8.4432	8.83739	2.784	66.83	-5.2	-1.4
					OFF	122	8.4468	8.83778	2.827	67.37	-5.2	-1.4
121	7	4	48	7	3 ON	2897	8.4486	8.83718	2.769	66.44	-5.2	-1.3
					OFF	94	8.4322	8.83647	2.716	65.18	-5.2	-1.1
122	7	1	27	7	3 ON	1254	8.3634	8.83866	2.283	54.98	-5.2	-4.9
					OFF	72	8.3784	8.83193	2.378	57.86	-5.2	-3.9
123	1	1	39	7	3 ON	1314	8.3788	8.83122	2.325	55.88	-5.2	-4.4
					OFF	188	8.3983	8.83293	2.452	58.86	-5.2	-3.2
124	3	2	25	7	3 ON	2531	8.3739	8.83155	2.358	56.39	-5.2	-1.3
					OFF	67	8.3599	8.83037	2.261	54.27	-5.2	-1.4
124	8	3	16	7	3 ON	2683	8.3397	8.82866	2.134	51.22	-5.2	-2.1
					OFF	48	8.3298	8.82776	2.267	49.62	-5.2	-2.4
125	6	2	16	7	3 ON	2032	8.4445	8.83758	2.793	67.82	-5.2	-1.3
					OFF	38	8.4426	8.83735	2.781	66.74	-5.2	-1.2
131	2	6	48	7	3 ON	1873	8.4462	8.83763	2.802	67.26	-5.2	-1.2
					OFF	93	8.4466	8.83768	2.806	67.34	-5.2	-1.2
132	2	6	42	7	3 ON	2241	8.4441	8.83747	2.792	66.97	-5.2	-1.2
					OFF	98	8.4375	8.83592	2.749	65.97	-5.2	-1.1
133	2	4	48	7	3 ON	1786	8.4355	8.83674	2.736	65.67	-5.2	-1.4
					OFF	93	8.4426	8.83735	2.781	66.75	-5.2	-1.3
133	2	6	121	7	3 ON	1892	8.4464	8.83767	2.825	67.32	-5.2	-1.2
					OFF	277	8.4346	8.83667	2.738	65.53	-5.2	-1.8

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134	7	1	15	7	3	ON	1489	8.4842	8.83418	2.548	68.95	-5.4	-2.7
						OFF	37	8.4188	8.83468	2.576	61.83	-5.4	-2.5
134	7	4	47	7	3	ON	1748	8.4375	8.83692	2.749	65.97	-5.4	-1.5
						OFF	187	8.4439	8.83746	2.789	66.95	-5.4	-1.5
134	7	8	48	7	3	ON	2141	8.4368	8.83679	2.739	65.74	-5.4	-1.4
						OFF	93	8.4268	8.83595	2.677	64.25	-5.4	-1.2
135	9	3	68	7	3	ON	1822	8.4429	8.83737	2.783	66.78	-5.4	-1.4
						OFF	134	8.4456	8.83768	2.888	67.28	-5.4	-1.4
135	9	6	81	7	3	ON	2344	8.4893	8.83453	2.572	61.72	-5.4	-1.3
						OFF	228	8.3694	8.83117	2.321	55.76	-5.4	-1.6
136	7	2	58	7	3	ON	1773	8.4481	8.83713	2.765	66.37	-5.4	-1.5
						OFF	115	8.4452	8.83757	2.797	67.14	-5.4	-1.4
136	7	3	12	7	3	ON	1942	8.4457	8.83768	2.888	67.21	-5.4	-1.4
						OFF	29	8.4454	8.83758	2.799	67.16	-5.4	-1.4
137	4	2	32	7	3	ON	2377	8.4835	8.83485	2.535	68.85	-5.4	-1.4
						OFF	74	8.3983	8.83293	2.452	58.85	-5.4	-1.3
140	8	1	18	7	3	ON	2458	8.3899	8.83298	2.458	58.79	-5.4	-1.5
						OFF	47	8.3818	8.83215	2.394	57.45	-5.4	-1.5
142	8	2	15	7	3	ON	2569	8.3648	8.83878	2.292	55.81	-5.4	-2.6
						OFF	43	8.3559	8.83883	2.236	53.67	-5.4	-2.8
142	8	5	28	7	3	ON	2698	8.3351	8.82828	2.186	58.54	-5.4	-3.8
						OFF	86	8.3173	8.82677	1.993	47.84	-5.4	-3.2
141	5	8	11	7	3	ON	2318	8.4442	8.83747	2.798	66.96	-5.4	-1.3
						OFF	27	8.4438	8.83738	2.783	66.88	-5.4	-1.3
142	5	8	17	7	3	ON	2689	8.4421	8.83714	2.766	66.37	-5.4	-1.3
						OFF	48	8.4373	8.83698	2.748	65.94	-5.4	-1.2
147	2	6	48	7	3	ON	1962	8.4455	8.83759	2.799	67.18	-5.4	-1.3
						OFF	112	8.4414	8.83724	2.773	66.56	-5.4	-1.2
145	3	3	26	7	3	ON	1778	8.4431	8.83739	2.784	66.82	-4.8	-8.7
						OFF	58	8.4463	8.83766	2.824	67.31	-4.8	-8.7
148	3	5	74	7	3	ON	1978	8.4488	8.83788	2.815	67.55	-4.8	-8.6
						OFF	168	8.4385	8.83788	2.755	66.12	-4.8	-8.6
148	3	8	39	7	3	ON	2242	8.4272	8.83684	2.684	64.42	-4.8	-8.8
						OFF	95	8.4135	8.83489	2.598	62.35	-4.8	-8.7
149	1	6	61	7	3	ON	2122	8.4423	8.83716	2.767	66.48	-4.8	-8.7
						OFF	142	8.4247	8.83584	2.669	64.25	-4.8	-8.7
150	1	5	78	7	3	ON	1947	8.4484	8.83783	2.817	67.62	-4.8	-8.7
						OFF	161	8.4417	8.83727	2.775	66.61	-4.8	-8.6
151	1	4	119	7	3	ON	1729	8.4438	8.83745	2.789	66.93	-4.8	-8.8
						OFF	267	8.4452	8.83756	2.797	67.13	-4.8	-8.6
151	1	7	82	7	3	ON	2649	8.3488	8.82943	2.192	52.68	-4.8	-2.3
						OFF	253	8.2983	8.82517	1.874	44.98	-4.8	-2.6
152	1	2	65	7	3	ON	1285	8.4488	8.83788	2.815	67.55	-4.8	-8.7
						OFF	146	8.4463	8.83766	2.824	67.31	-4.8	-8.6
152	1	6	52	7	3	ON	2494	8.3833	8.83234	2.488	57.88	-4.8	-1.3
						OFF	136	8.3548	8.82987	2.224	53.37	-4.8	-2.8
158	6	7	14	7	3	ON	2145	8.4363	8.83698	2.754	66.89	-4.8	-8.6
						OFF	33	8.4353	8.83673	2.735	65.64	-4.8	-8.6

CAMP PROFILE

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R= 8 A= 2 PERIOD= 3840  
R= 8.3223 A= 8.1424

TUR	PER	CPS	ANG-V
0	5.559	8.1799	8.81627
100	5.514	8.1814	8.81648
200	5.385	8.1857	8.81680
300	5.186	8.1928	8.81744
400	4.935	8.2026	8.81833
500	4.654	8.2149	8.81943
600	4.361	8.2293	8.82074
700	4.071	8.2456	8.82222
800	3.795	8.2635	8.82384
900	3.538	8.2826	8.82556
1000	3.305	8.3026	8.82736
1100	3.095	8.3231	8.82922
1200	2.856	8.3501	8.83166
1300	2.659	8.3761	8.83401
1400	2.499	8.4061	8.83619
1500	2.373	8.4213	8.83811
1600	2.278	8.4389	8.83978
1700	2.211	8.4523	8.84091
1800	2.160	8.4618	8.84169
1900	2.152	8.4646	8.84232
2000	2.162	8.4638	8.84188
2100	2.191	8.4564	8.84128
2200	2.248	8.4448	8.84023
2300	2.332	8.4288	8.83879
2400	2.445	8.4098	8.83699
2500	2.591	8.3868	8.83491
2600	2.775	8.3607	8.83262
2700	2.995	8.3339	8.83020
2800	3.219	8.3107	8.82818
2900	3.442	8.2905	8.82626
3000	3.689	8.2711	8.82452
3100	3.959	8.2526	8.82285
3200	4.244	8.2356	8.82131
3300	4.538	8.2204	8.81993
3400	4.825	8.2072	8.81874
3500	5.291	8.1964	8.81777
3600	5.313	8.1882	8.81702
3700	5.472	8.1829	8.81653
3800	5.551	8.1801	8.81629

RAMP PROFILE

R= 7 A= 3 PERIOD= 3540  
R= 2.3301 A= 8.1292

TUR	PER	CPS	ANG-V
0	4.757	8.2089	8.81680
100	4.757	8.2102	8.81901
200	4.669	8.2142	8.81937
300	4.532	8.2205	8.81936

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488	4.357	8.2295	8.82876
588	4.156	8.2486	8.82176
688	3.942	8.2537	8.82295
788	3.724	8.2685	8.82429
888	3.512	8.2848	8.82576
988	3.316	8.3021	8.82732
1088	3.123	8.3202	8.82896
1188	2.952	8.3388	8.83064
1288	2.753	8.3633	8.83286
1388	2.585	8.3869	8.83499
1488	2.447	8.4087	8.83697
1588	2.337	8.4288	8.83871
1688	2.253	8.4439	8.84015
1788	2.193	8.4561	8.84125
1888	2.156	8.4639	8.84196
1988	2.142	8.4672	8.84226
2088	2.147	8.4658	8.84213
2188	2.175	8.4597	8.84158
2288	2.226	8.4493	8.84064
2388	2.300	8.4348	8.83932
2488	2.400	8.4168	8.83769
2588	2.526	8.3959	8.83588
2688	2.682	8.3729	8.83373
2788	2.868	8.3487	8.83153
2888	3.053	8.3275	8.82962
2988	3.233	8.3093	8.82797
3088	3.429	8.2916	8.82637
3188	3.638	8.2749	8.82486
3288	3.854	8.2594	8.82347
3388	4.071	8.2456	8.82222
3488	4.279	8.2337	8.82114
3588	4.466	8.2239	8.82025
3688	4.628	8.2165	8.81958
3788	4.728	8.2115	8.81913
3888	4.782	8.2091	8.81891

CLOCK CORRELATION SUMMARY  
ORDER FIT ONE

SYS TIME I/P	CL TIME I/P	COMP SYS TM	DELTA ST	REV
0.374788980 25	0.2123414290 26	0.3747888710 25	0.0029	9
0.772858120 25	0.2521563550 26	0.7728581040 25	0.0016	16
0.327885660 25	0.2940591260 26	0.3278857250 25	-0.0045	24
0.726562420 25	0.3339267910 26	0.7265624080 25	-0.0008	31
0.335269380 25	0.3811974880 26	0.3352693460 25	0.0034	40
0.733087300 25	0.4229792950 26	0.7330873890 25	-0.0009	47
0.290478430 25	0.4631184240 26	0.2904784520 25	-0.0020	55
0.742732970 25	0.5091438620 26	0.7407329790 25	-0.0009	63
0.295495430 25	0.1314919280 25	0.2954953910 25	0.0039	71
0.747396320 25	0.5833929120 25	0.7473963520 25	-0.0050	79
0.301376050 25	0.1001372580 26	0.3013759910 25	0.0059	87

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0.75560370D 05	0.145560041D 06	0.755603790D 05	-0.0090	95
0.31013891D 05	0.187413554D 06	0.310138892D 05	0.0018	103
0.70546311D 05	0.226945977D 06	0.705463095D 05	0.0015	110
0.31353354D 05	0.274153023D 06	0.313533523D 05	0.0017	119
0.76660453D 05	0.319460126D 06	0.766604522D 05	0.0008	127
0.31916381D 05	0.361116058D 06	0.319163813D 05	-0.0003	135
0.71598990D 05	0.400798670D 06	0.715989906D 05	-0.0006	142
0.32447850D 05	0.448047540D 06	0.324478574D 05	0.0006	151

A0=-0.1748705274D 06 A1= 0.99999931744D 00  
 SIGMA=0.00329 NO. POINTS= 19  
 RATIO OF CLOCK TIME TO SYS TIME= 0.100000006826D 01

ORDER	FIT TWO	CL TIME I/P	COMP SYS TM	DELTA ST	REV
0.37470892D 05	0.212341429D 06	0.374708879D 05	0.0021	9	
0.77205812D 05	0.252156355D 06	0.772058109D 05	0.0011	16	
0.32788568D 05	0.294059120D 06	0.327885728D 05	-0.0048	24	
0.72656240D 05	0.333926791D 06	0.726562409D 05	-0.0029	31	
0.33526930D 05	0.381197480D 06	0.335269345D 05	0.0035	40	
0.73308738D 05	0.420979295D 06	0.733087387D 05	-0.0007	47	
0.29047843D 05	0.463118404D 06	0.290478447D 05	-0.0017	55	
0.74073297D 05	0.508143860D 06	0.740732975D 05	-0.0025	63	
0.29549543D 05	0.131491920D 05	0.295495386D 05	0.0044	71	
0.74739630D 05	0.583392910D 05	0.747396345D 05	-0.0045	79	
0.30137605D 05	0.100137258D 06	0.301375987D 05	0.0063	87	
0.75560370D 05	0.145560041D 06	0.755603706D 05	-0.0006	95	
0.31013891D 05	0.187413554D 06	0.310138892D 05	0.0021	103	
0.70546311D 05	0.226945977D 06	0.705463093D 05	0.0017	110	
0.31353354D 05	0.274153023D 06	0.313533522D 05	0.0018	119	
0.76660453D 05	0.319460126D 06	0.766604523D 05	0.0007	127	
0.31916381D 05	0.361116058D 06	0.319163816D 05	-0.0006	135	
0.71598990D 05	0.400798670D 06	0.715989911D 05	-0.0011	142	
0.32447850D 05	0.448047540D 06	0.324478582D 05	-0.0002	151	

A0=-0.1748705249D 06 A1= 0.999999921948D 00  
 A2= 0.8209301557234D-14  
 SIGMA=0.00326 NO. POINTS= 19

CLOCK OPERATIONS

FWD PAN CAMERA NUMBER	183	OPN NO	FR	ON	OFF	H	M	S	DEC	BINARY EQUIVALENT
70	2	0	40	ON	OFF	7	10	49	9449	000010010000010111000101000
72	2	0	3	ON	OFF	9	43	27	10606	000010001101111001111010000
76	1	5	70	ON	OFF	16	27	22	42042	00010100011011011011110010000
77	3	1	56	ON	OFF	17	54	31	40070	000101011101011110101110000
79	3	0	15	ON	OFF	20	47	30	50449	00010111101111010100000100000
				OFF		20	48	6	50485	00011011111000110100100001000



GEORGE

81	8	8	3	ON	23	42	24	68944	00100000111000000000000000000000
				OFF	23	42	48	68968	001000001110001011110010000000
83	3	2	41	ON	2	42	18	79738	001001100000001010100100100000
				OFF	2	44	1	79841	001001100001001000110111010000
84	5	5	48	ON	4	16	6	85366	001010001010100010100111100000
				OFF	4	17	59	85479	001010001100001000111001011000
86	2	3	38	ON	7	13	58	96038	001010111100101010100011100000
				OFF	7	15	15	96115	0010101011101010011000100111000
86	2	8	33	ON	7	20	26	96425	001010101111101010101000101000
				OFF	7	21	42	96501	0010111000000000111110100001000
87	2	8	26	ON	8	51	7	101866	001100001001001010101000010000
				OFF	8	52	8	101927	001100001001101001000010110000
88	8	5	57	ON	10	30	41	107841	001100110101100010101111010000
				OFF	10	33	3	107983	001100110101110110000100110000
92	8	4	27	ON	16	38	4	129883	001110111101110110110111110000
				OFF	16	39	27	129966	001111011111100011111101100000
94	1	1	50	ON	19	16	32	139392	010000100111011111000000000000
				OFF	19	18	44	139524	010000101000011101111010000000
95	2	8	13	ON	20	57	39	145459	010001010101110000111001110000
				OFF	20	58	11	145491	010001010110000000100001110000
99	4	7	25	ON	3	13	56	168036	010100000010000000110101000000
				OFF	3	15	18	168118	010100000010101000110111100000
100	6	2	52	ON	4	25	51	172350	010100100010110110100011000000
				OFF	4	27	52	172471	010100100011110110010110110000
100	5	5	93	ON	4	30	18	172610	010100100100111110001000100000
				OFF	4	33	49	172829	010100100110100101001010010000
101	4	7	30	ON	6	5	20	178319	010101010000001101110100110000
				OFF	6	6	31	178398	010101010001000000001111110000
102	5	3	61	ON	7	24	18	183057	010101101001001110100110100000
				OFF	7	26	45	183204	010101101010101111000101000000
103	2	5	57	ON	8	58	27	180706	010110011111101101100110100000
				OFF	9	0	40	180839	010110100000101110100010110000
104	4	6	92	ON	10	43	49	195029	010111001111111010000000100000
				OFF	10	40	24	195304	010111010010000011010010000000
105	4	2	33	ON	12	7	42	200061	010111101100101010000010010000
				OFF	12	8	59	200138	010111101101110111010001000000
107	1	2	23	ON	14	55	46	210146	0110010000101001001001011010000
				OFF	14	56	46	210206	011001000011011111010011000000
108	1	6	83	ON	16	41	27	216486	011001110011101010000011100000
				OFF	16	44	47	216686	0110011101010010111011011010000
109	5	0	19	ON	16	5	2	221501	011010011001111010110010010000
				OFF	16	5	47	221546	011010011010010001100000100000
110	5	0	17	ON	19	37	6	227025	011011001000001000000011010000
				OFF	19	37	46	227265	011011000100010111100101010000
115	6	1	60	ON	3	4	4	253843	011100100001010101100011100000
				OFF	3	6	24	253983	011100100011011110010001100000
115	4	4	22	ON	3	26	0	255167	011100110101100010100000110000
				OFF	3	27	25	255244	011100110101010110110111000000
116	5	3	54	ON	4	33	23	259202	011110111001100010101110100000
				OFF	4	35	29	259328	011110111010100001000000000000
116	5	7	24	ON	4	43	37	259817	011110111110001111110001010000



			OFF	4	44	35	259875	81111011111010110000010111000
117	8	3	47 ON	6	4	35	264674	81111110001101001101010101000
			OFF	6	6	27	264786	8111111001000010100001010000
117	8	5	94 ON	6	9	10	264949	811111100101010100110100001000
			OFF	6	12	42	265161	81111110011100000100100101000
118	8	1	28 ON	7	32	54	269973	1000000010110111011000001000
			OFF	7	34	3	270042	10000000110001000001110010000
118	8	3	62 ON	7	35	15	270114	10000000110011001110011010000
			OFF	7	37	38	270257	1000000011011110010110101000
119	8	3	76 ON	9	8	39	275718	1000001101111000111101110000
			OFF	9	11	28	275887	10000011100011011001110011000
119	8	6	69 ON	9	17	13	276233	1000001101101111101100101000
			OFF	9	20	2	276482	10000011110011000111101010000
120	6	3	52 ON	10	39	43	281183	10000110000101000001100011000
			OFF	10	41	43	281303	10000110001000101011111011000
121	7	4	41 ON	12	15	8	286900	10001000110021110111100110000
			OFF	12	16	42	287002	10001000110110100110110010000
122	7	1	27 ON	13	32	7	291526	10001011000000101010101110000
			OFF	13	33	19	291598	1000101100001010110110110000
123	1	1	30 ON	15	3	9	296988	1000101100111010110101100000
			OFF	15	4	49	297088	10001011010101001101000000000
124	8	2	25 ON	16	53	57	303636	10010000110010001111000100000
			OFF	16	55	4	303763	10010000110100010001111011000
124	8	3	16 ON	16	56	28	303788	10010000110110100111111100000
			OFF	16	57	16	303836	1001000011100001010101100000
126	6	2	16 ON	19	46	42	314202	10010101101110100010100101000
			OFF	19	47	20	314940	1001010110111101111011000000
131	2	6	40 ON	3	16	30	346997	10100010100110011001110001000
			OFF	3	18	11	341000	10100010101001001111011010000
132	2	6	42 ON	4	49	50	346597	10100101010001010011010001000
			OFF	4	51	36	346695	1010010101010001010101011000
133	2	4	40 ON	6	14	56	351695	1010011110110011100010011000
			OFF	6	16	20	351780	10100111101111101101111100000
133	2	6	122 ON	6	18	2	351881	10100111110010100011100101000
			OFF	6	22	39	352150	10100111111011100000010011000
134	7	1	15 ON	7	41	50	356909	10101010001011111111111001000
			OFF	7	42	27	356946	10101010001101001000001010000
134	7	4	47 ON	7	46	2	357160	10101010001001110101000100000
			OFF	7	47	47	357267	10101010001011011011000111000
134	7	6	40 ON	7	52	41	357560	10101010001111111011101100000
			OFF	7	54	14	357653	101010100010101101000001000
135	9	3	00 ON	9	17	40	362669	10101100111011110001111001000
			OFF	9	20	3	362803	1010110011111110111100111000
135	9	6	00 ON	9	26	34	363193	10101101001011110001010101000
			OFF	9	30	2	363401	10101101010010000111100101000
136	7	2	50 ON	10	47	34	365053	10101111100000000101100001000
			OFF	10	49	29	365160	10101111100011100110001000000
136	7	3	12 ON	10	50	23	365222	1010111110010100111100110000
			OFF	10	50	52	365251	1010111110011000100001111000
137	4	2	30 ON	12	20	0	374207	10110010011000001110101011000
			OFF	12	20	22	374161	10110010011010011111001101000



**SECRET**

148	8	1	18	ON	17	8	51	398451	10111010001011001110011100111000
				OFF	17	1	38	398498	101110100010100011011010000
148	8	2	15	ON	17	2	51	398578	10111010001110100000000010000
				OFF	17	3	34	398613	101110100010000100100000001000
148	8	5	28	ON	17	5	8	398699	10111010010011001011111111000
				OFF	17	6	26	398785	10111010010101110011111101000
141	5	8	11	ON	18	24	9	395448	10111100100100000111011000000
				OFF	18	24	36	395475	10111100100100111100000111000
142	5	8	17	ON	19	55	49	428948	1011111001011111101100100000
				OFF	19	56	29	428988	1011111100110100111101100000
147	2	6	48	ON	3	26	8	427967	11001100000100100001000011000
				OFF	3	28	8	428079	1100110000011111011110011000
148	3	3	26	ON	4	53	33	433212	1100110100100100101001100000
				OFF	4	54	33	433272	1100110100110011011001100000
148	3	5	74	ON	4	56	53	433412	11001101010101011110100000
				OFF	4	59	41	433588	1100110101111111011111100000
148	3	8	39	ON	5	1	17	433677	1100110110010110001011001000
				OFF	5	2	52	433772	1100110110101010101011100000
149	1	6	61	ON	6	29	45	438984	1101000101010010111010100000
				OFF	6	32	7	439126	11010001011001000011111110000
152	1	5	70	ON	7	57	28	444239	1101001111010100110010011000
				OFF	8	2	1	444400	11010011111010000002110000000
151	1	4	120	ON	9	25	11	449511	1101010010101111111001011000
				OFF	9	29	38	449778	1101011001111000100010101000
151	1	7	82	ON	9	39	32	450371	1101010110000000111011011000
				OFF	9	43	45	450624	1101010110111111101000000000
152	1	2	65	ON	10	57	16	455835	1101100011110100100001111000
				OFF	10	59	42	455181	11011001000011000001011001000
152	1	6	50	ON	11	7	25	455644	11011001010001001001101100000
				OFF	11	9	41	455780	1101100101010101001010100000
155	6	2	14	ON	20	4	23	487862	1110100010100001011101111000
				OFF	20	4	56	487895	11101000101001010111111011000

**CLOCK OPERATIONS**

AFT PAN	CAMERA	NUMBER	189	DEC	BINARY EQUIVALENT	
CPM NO	FR	H	M	S		
75	2	8	45	ON	7 11 1 9461	000010010000010110100001000
				OFF	7 12 32 9552	000010010001110000001000000
72	1	3	9	ON	9 43 39 18618	000010001110000010101001000
				OFF	9 44 2 18641	00001000111000111000001101000
76	1	5	89	ON	16 27 34 42854	000101000110111001100111000
				OFF	16 31 11 43071	00010100010010011011000011000
77	3	1	55	ON	17 54 43 48083	000101011101101100000011100
				OFF	17 57 5 48225	000101011111110110101110100
79	3	2	15	ON	20 47 42 58462	000110111110000011110011000
				OFF	20 48 10 58498	000110111110010011011101000
81	3	8	3	ON	23 42 36 68956	001000001110000101111011000
				OFF	23 43 2 68980	001000001110010001101001000
83	3	2	41	ON	2 42 30 79750	001001100000011100011011100
				OFF	2 44 13 79953	001001100001001117011100100

84	5	5	48	ON	4	16	18	85378	00101000101101100001111010000
				OFF	4	18	11	85491	0010100011000011110100111000
86	2	3	32	ON	7	14	18	96858	001011011100110011011010000
				OFF	7	15	27	96127	00101101110101100100000011000
86	2	8	34	ON	7	20	38	96437	00101101111111000001100001000
				OFF	7	21	54	96513	0010111000000101010111101000
87	2	8	26	ON	8	51	19	101879	00110000100101000110011011000
				OFF	8	52	20	101940	00110000100110111101100100000
88	6	5	56	ON	16	32	53	127853	00110011011011011110011001000
				OFF	16	33	15	127995	001100110111111101111101111000
92	6	4	27	ON	16	38	16	129896	00111101111100000111001000000
				OFF	16	39	39	129979	00111101111110101001001111000
94	1	1	52	ON	19	16	44	139484	01000010011110010001011100000
				OFF	19	18	56	139536	01000010100010010111010000000
95	2	0	13	ON	22	57	51	145471	01000101010110011111000011000
				OFF	22	58	23	145503	01000101011000011001100011000
99	4	7	25	ON	3	14	6	168248	01010000001000011101100000000
				OFF	3	15	32	168130	01010000001010111101110100000
102	6	2	51	ON	4	26	3	172362	01010010001100000100100010000
				OFF	4	28	4	172483	01010010001111110100110111000
102	6	5	93	ON	4	32	36	172632	01010010001010000111111110000
				OFF	4	34	1	172841	01010010001010101100000101000
101	4	7	30	ON	6	5	32	178331	01010101000010001110101111000
				OFF	6	6	43	178402	01010101000010001100101010000
102	5	3	61	ON	7	24	30	183269	010101110100101101001001000
				OFF	7	26	57	183216	01010111010111010011110000000
103	2	5	57	ON	8	58	39	188719	01011001111111001111100110000
				OFF	9	2	52	138852	01011010000010010011100100000
104	4	6	91	ON	12	44	1	195241	01011010000000001011011101000
				OFF	12	48	36	195316	01011010010001001001001000000
105	4	2	33	ON	12	7	54	230074	01011111010011100011000100000
				OFF	12	9	11	230151	01011111011100000111110110000
107	1	2	24	ON	14	55	58	210158	01100100001101100000110110000
				OFF	14	56	58	210218	01100100001111010110000010000
108	1	6	82	ON	16	41	39	216498	01100111001110111111010100000
				OFF	16	44	59	216692	01100111010101000110010010000
109	5	0	19	ON	18	5	14	221514	01101001101000000100100010000
				OFF	18	5	59	221559	01101001101001011100011011000
110	5	0	17	ON	19	37	10	227038	01101100010000101001100110000
				OFF	19	37	52	227078	01101100010001110111101110000
115	6	1	51	ON	3	4	16	253256	01111001000011000100100000000
				OFF	3	6	36	253996	01111001000111010101111100000
115	4	4	22	ON	3	26	27	255179	01111001101011011100011111000
				OFF	3	27	37	255256	01111001101101110101111000000
115	5	3	54	ON	4	33	35	239215	01111011100110100111010011000
				OFF	4	35	41	239341	01111011101010011101011001000
116	5	7	24	ON	4	43	49	239829	01111011111001010101000010000
				OFF	4	44	47	239857	01111011111010001111100110000
117	6	3	47	ON	6	4	47	264686	01111100010100100101011000000
				OFF	6	6	39	264798	01111100100001111110011000000
117	5	5	54	ON	5	9	22	264962	01111110010101111111111010000



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118	8	1	28	OFF	6	12	54	265174	0111110011100011101111110000
				ON	7	33	6	269986	1000000010111010100011010000
				OFF	7	34	15	278055	10000000110001011011001011000
118	8	3	62	ON	7	35	27	270127	10000000110011100111110011000
				OFF	7	37	50	270270	10000000110111111111000110000
119	8	3	75	ON	9	8	51	275731	10000011011110101001000111000
				OFF	9	11	40	275900	10000011100011110011001100000
119	8	6	69	ON	9	17	25	276245	10000011101110010101000001000
				OFF	9	20	14	276414	10000011110011011111000110000
120	6	3	52	ON	12	39	55	281195	10000110000101011000111111000
				OFF	12	41	55	281315	1000011000100100011010111000
121	7	4	42	ON	12	15	20	286920	10001000110100000110101000000
				OFF	12	16	54	287014	10001000110110111111000111000
122	7	1	27	ON	13	32	19	291538	10001010000010001000101010000
				OFF	13	33	31	291610	10001011000011001110110010000
123	1	1	39	ON	15	3	21	297000	10001101100111101110001000000
				OFF	15	5	1	297100	10001101101010110001011100000
124	3	2	25	ON	16	54	9	303649	100100001100101011000011101000
				OFF	16	55	16	303716	10010000110100101011010100000
124	3	3	15	ON	16	56	42	303800	10010000110111001111011000000
				OFF	16	57	20	303840	10010000111000101101010000000
126	6	2	15	ON	19	46	54	314014	10010101101110111100100110000
				OFF	19	47	32	314052	100101011100000000110110100000
131	2	6	40	ON	3	16	50	341009	10100010100110110001001101000
				OFF	3	18	23	341100	10100010101001100110110110000
132	2	6	42	ON	4	50	10	346609	10100101010001101010101101000
				OFF	4	51	40	346707	10100101010100101010000111000
133	2	4	40	ON	6	15	8	351707	10100111101101001111101111000
				OFF	6	16	41	351800	101001111100000000101011000000
133	2	6	121	ON	6	10	14	351894	101001111100101111001111110000
				OFF	6	22	51	352171	10100111111011011001111111000
134	7	1	15	ON	7	42	2	356921	10101010001100010111010101000
				OFF	7	42	39	356956	10101010001101011111100110000
134	7	4	47	ON	7	46	12	357172	10101010010100000001100010000
				OFF	7	47	59	357279	10101010010111010010100011000
134	7	6	40	ON	7	52	53	357573	10101010100000010000110001000
				OFF	7	54	26	357666	10101010100011000110011010000
135	9	3	60	ON	9	10	1	352681	10101100111100000101010101000
				OFF	9	20	15	352815	101011010000000001110000011000
135	9	6	51	ON	9	26	46	363205	10101101001100000100110001000
				OFF	9	37	14	363413	10101101010010011111000001000
136	7	2	50	ON	10	47	46	360065	10101111100000011100111101000
				OFF	10	49	41	360100	10101111100011111101100100000
136	7	3	12	ON	10	50	35	360234	10101111100101100111000010000
				OFF	10	51	4	360263	10101111100110011111101011000
137	4	2	30	ON	12	20	20	374100	10110010011000101000001000000
				OFF	12	20	34	374174	10110010011010111000100110000
140	3	1	10	ON	17	1	3	390463	1011101000101111111000011000
				OFF	17	1	50	390510	10111010001101011010110110000
140	3	2	10	ON	17	3	3	390502	10111010001111100111011110000
				OFF	17	3	46	390525	10111010001000111011011101000



148	8	5	28	ON	17	5	12	398712	1811181881881118818181188888
				OFF	17	6	38	398798	1811181881811888181818118888
141	5	8	11	ON	18	24	21	395468	1811118818818881111811818888
				OFF	18	24	48	395487	18111188188181818811188811888
142	5	8	17	ON	19	56	1	488961	1811111188118881818111181888
				OFF	19	56	41	481881	18111111881181188181888181888
147	2	6	48	ON	3	26	28	427988	11881188888188111818811188888
				OFF	3	28	12	428892	11881188881888818181881188888
148	3	3	26	ON	4	53	45	433225	11881118188188111118188181888
				OFF	4	54	45	433285	11881118188118118811118881888
148	3	5	74	ON	4	57	5	433425	11881118181811888181881181888
				OFF	4	59	53	433593	118811181188888881181818181888
148	3	8	39	ON	5	1	29	433689	1188111811881188188811818181888
				OFF	5	3	4	433784	11881118118118888818811888888
149	1	6	61	ON	6	29	57	438997	118188818181818881888888881888
				OFF	6	32	19	439139	11818881811888181118181811888
153	1	5	78	ON	7	57	32	444252	11818811118181811111181188888
				OFF	8	8	13	444413	11818811111818811818881881888
151	1	4	119	ON	9	25	23	449523	11818118818118818118188111888
				OFF	9	29	58	449798	11818118811118188888888118888
151	1	7	82	ON	9	39	44	458383	11818118118888188118818811888
				OFF	9	43	57	458636	1181811811188888181888111888888
152	1	2	65	ON	17	57	28	455847	11811888111118111811181811888
				OFF	17	59	54	455193	11811881888811811888118181888
152	1	6	58	ON	11	7	37	455657	11811881818881188811888181888
				OFF	11	9	53	455793	118118818181818181188818118888
158	6	8	14	ON	28	4	35	487875	11181888181888118888118111888
				OFF	28	5	8	487988	111818881818881118881818188888

- NOTE - TLM DATA INDICATE NORMAL SYSTEM PERFORMANCE.
- NOTE - THE LAST SIX FRAMES OF THE FORWARD PAN CAMERA AND THE LAST SIX FRAMES OF THE AFT PAN CAMERA FOR OPERATION 78-2-8 ARE CONTAINED IN THE B MISSION RECOVERY CAPSULE. THE REMAINING FRAMES OF OPERATION WERE IN THE A MISSION RECOVERY CAPSULE.
- NOTE - OPERATION 72-2-3 CONSISTS OF THE FRAMES OBTAINED DURING THE ( AND WRAP OPERATION COMMANDED AT [REDACTED] ON REV 72.
- NOTE - OPERATION 81-2-2 CONSISTS OF THE FRAMES OBTAINED DURING THE L STORING OPERATION PRIOR TO THE A MISSION RECOVERY.
- NOTE - TLM DATA OBSERVED ON OPERATION 158-6-8 SHOWED THAT THE FILM DEPLETED PRIOR TO REV 158.