

~~SECRET~~
~~SECRET~~



FLIGHT DATA

1037-

10372

Declassified and Released by the NRO

In Accordance with E. O. 12958

on NOV 26 1997

~~SECRET~~
~~SECRET~~

~~SECRET~~

4 PAGES
(NOT INCLUDING PEST)

CORONA J-FLIGHT DATA BOOK

SYSTEM NO. J-38

VEHICLE NO. 1632

MISSION NO. 1837-2

CAMERA NOS. 198/199

DATE 11-21-66

PAGE 1

~~SECRET~~

~~SECRET~~
~~SECRET~~

SYSTEM NO. J-38
VEHICLE NO. 1632
MISSION NO. 1837-2
CAMERA NOS. 198/199

TABLE OF CONTENTS

PAGE NO.

GENERAL FLIGHT DATA

3

CYCLE PERIOD DATA

4

PERFORMANCE ESTIMATE

5- UP

PAGE 2

~~SECRET~~

~~SECRET~~

SYSTEM NO. J-38
VEHICLE NO. 1632
MISSION NO. 1837-2
CAMERA NOS. 198/199

GENERAL FLIGHT DATA

MASTER CAMERA SERIAL NO. 198

SLAVE CAMERA SERIAL NO. 199

S/I -1 SERIAL NO. D181/128/124

S/I -2 SERIAL NO. D186/136/134

LAUNCH DATE 11-88-66

REACTIVATION DATE N/A

REACTIVATION ORBIT N/A

ORBITAL PARAMETERS (REV. 138)

PERIOD 89.239 MIN

ECCENTRICITY 8.88952

PERIGEE 98.846 NM

PERIGEE LAT. 45.835

APOGEE 166.838 NM

INCL. ANGLE 188.874

RECOVERY ORBIT NO. 195

RECOVERY DATE 11-28-66

~~SECRET~~

SYSTEM NO. J-38
VEHICLE NO. 1632
MISSION NO. 1837-2
CAMERA NOS. 198/199

CYCLE PERIOD DATA

V/H RAMP LEVEL	SETTING AMPLITUDE	TIME UP RAMP-SEC	---CALIBRATED---		---IN-FLIGHT---		ORE NO.
			CYCLE PERIOD-SEC MASTER	CYCLE PERIOD-SEC SLAVE	CYCLE PERIOD-SEC MASTER	CYCLE PERIOD-SEC SLAVE	
3	4	158	3.513	3.479	3.588	3.588	72
3	4	1787	2.199	2.199	2.222	2.235	81
4	5	1877	2.218	2.214	2.242	2.232	112
4	5	2888	2.218	2.214	2.228	2.248	145
4	5	1942	2.211	2.211	2.245	2.245	161

NOTE

AN * OR -# INDICATES NO DATA AVAILABLE.

A. 1837-2

B. DRY

C. PERFORMANCE ESTIMATE - PART ONE



OPERATIONS SUMMARY

FWD PAN CAMERA NUMBER 198

OPN	NO	FRA		Q	LAT	LONG	HEIGHT	RANGE	DA	H	M	S	LTIM	S-TIM
64	5	8	11	ON	2 32 21	189 9W	572992	593888	12	19	18	11	12 1	69491
				OFF	2 38 34	189 42W	578848	598752	12	19	18	38	1159	69518
66	8	8	3	ON	2 57 13	142 35W	637376	668592	12	22	18	23	1248	79823
				OFF	2 55 44	143 35W	632488	655448	12	22	18	46	1236	79846
68	7	3	22	ON	3 9 9	151 2E	586864	687368	13	1	25	26	1129	5126
				OFF	3 12 24	158 14E	594416	616832	13	1	26	14	1127	5174
68	7	4	43	ON	3 28 39	148 8E	619872	642432	13	1	28	17	1128	5297
				OFF	3 27 19	146 18E	644464	667952	13	1	29	56	1115	5396
69	1	3	58	ON	2 1 6	131 14E	566464	587824	13	2	52	9	1137	18329
				OFF	3 6 31	129 24E	588288	681288	13	2	54	2	1131	18442
71	6	3	34	ON	2 31 59	94 46E	569952	598656	13	5	43	8	12 2	28588
				OFF	2 26 47	93 13E	562976	583488	13	5	44	17	1157	28657
72	1	8	13	ON	1 38 51	115 27W	982832	935312	13	6	45	37	23 3	24337
				OFF	1 41 58	116 34W	893936	926912	13	6	46	23	23 8	24383
72	1	2	17	ON	2 58 55	79 57E	613872	635392	13	7	7	29	1227	25649
				OFF	2 48 14	78 36E	685392	627424	13	7	8	18	1222	25698
72	1	4	58	ON	2 43 59	76 45E	594176	615776	13	7	9	14	1216	25754
				OFF	2 35 19	73 34E	575312	596288	13	7	11	24	12 5	25884
73	6	2	88	ON	2 51 31	57 59E	614832	636384	13	8	36	34	1228	38994
				OFF	2 39 35	52 46E	583296	684496	13	8	39	34	1218	31174
74	4	1	36	ON	2 59 23	48 47E	638192	661456	13	18	3	46	1246	36226
				OFF	2 53 43	36 57E	619888	642448	13	18	5	14	1233	36314
74	4	2	42	ON	2 28 42	24 43E	557312	577536	13	18	13	29	1152	36889
				OFF	2 14 32	23 8E	556288	576488	13	18	15	8	1147	36988
75	4	1	38	ON	2 14 51	8 57E	556864	576248	13	11	44	9	1147	42249
				OFF	2 9 12	8 26W	558272	578528	13	11	45	32	1143	42332
77	9	1	22	ON	2 1 8	46 57W	567296	587888	13	14	46	8	1138	53168
				OFF	3 2 18	47 45W	572896	593712	13	14	46	49	1135	53289
79	5	8	16	ON	2 41 37	88 4W	584288	685528	13	17	34	21	1214	63261
				OFF	2 39 8	81 8W	579848	688888	13	17	34	58	1218	63298
88	5	8	8	ON	2 33 6	185 18W	567888	588512	13	19	5	41	12 4	68741
				OFF	2 31 47	185 42W	566888	586568	13	19	6	1	12 3	68761
81	5	8	17	ON	2 36 3	126 36W	572224	593888	13	28	34	8	12 7	74848
				OFF	2 33 26	127 27W	567984	588688	13	28	34	47	12 4	74887
84	7	5	41	ON	3 38 28	149 5E	661728	685872	14	1	18	6	1114	4686
				OFF	3 37 11	146 53E	691664	716928	14	1	19	49	11 7	4789
85	2	6	16	ON	3 23 58	128 48E	636352	659536	14	2	45	42	1128	9942
				OFF	3 26 39	127 55E	646816	678488	14	2	46	22	1118	9982
85	2	7	18	ON	3 29 9	127 11E	656968	688912	14	2	47	8	1115	18828
				OFF	3 32 9	126 17E	669568	694888	14	2	47	45	1112	18865
86	3	2	57	ON	2 46 26	126 3E	598336	611792	14	3	57	27	1221	14247
				OFF	2 37 46	122 48E	572896	592888	14	3	59	37	1218	14377
87	3	2	25	ON	2 43 4	182 28E	687536	629648	14	5	27	38	1217	19658



SECRET

		OFF	2	39	18	188	52E	681768	623648	14	5	28	36	1212	19716			
88	8	2	111	ON	2	44	51	88	46E	611712	633984	14	6	56	33	1219	24993	
		OFF	2	28	17	75	2E	593368	614928	14	7	8	41	12	8	25241		
89	5	4	98	ON	2	63	5	69	56E	652896	676784	14	8	21	14	13	8	38874
		OFF	2	48	22	68	2E	617968	648464	14	8	25	1	1225	38381			
89	5	8	42	ON	2	42	12	57	23E	687376	629472	14	8	26	35	1216	38395	
		OFF	2	35	57	55	7E	599424	621232	14	8	28	9	12	8	38489		
98	2	4	19	ON	3	23	38	17	16E	696368	721888	14	18	12	17	1121	36737	
		OFF	3	26	59	16	28E	718384	736352	14	18	13	7	1118	36787			
94	2	1	84	ON	2	9	4	63	58W	685456	627472	14	16	1	34	1146	57694	
		OFF	3	3	41	66	54W	631344	654336	14	16	4	44	1137	57884			
95	8	2	31	ON	2	39	31	77	26W	683696	625664	14	17	23	22	1213	62682	
		OFF	2	34	44	79	5W	598816	628592	14	17	24	34	12	8	62674		
95	8	6	16	ON	2	13	18	85	5W	688656	622496	14	17	29	52	1149	62992	
		OFF	2	18	43	85	44W	683688	625632	14	17	38	38	1147	63838			
100	2	1	28	ON	3	6	36	158	35E	641984	665296	15	1	1	28	1135	3688	
		OFF	3	9	49	157	48E	651616	675376	15	1	2	16	1133	3736			
100	2	3	48	ON	3	23	33	154	16E	781552	727184	15	1	5	41	1122	3941	
		OFF	3	38	39	152	13E	731856	758648	15	1	7	27	1116	4847			
101	4	3	15	ON	3	2	51	137	11E	631928	654928	15	2	29	52	1138	8992	
		OFF	3	5	15	136	36E	638288	661536	15	2	38	28	1136	9828			
101	4	9	18	ON	3	29	49	138	11E	728592	755248	15	2	36	35	1117	9395	
		OFF	3	33	7	129	9E	743312	778528	15	2	37	25	1114	9445			
102	3	3	45	ON	2	43	13	127	52E	687888	629184	15	3	47	45	1219	13665	
		OFF	2	36	24	125	21E	599472	621288	15	3	49	27	1218	13767			
103	3	2	44	ON	2	48	34	184	32E	683488	625368	15	5	17	45	1215	19865	
		OFF	2	33	54	182	14E	597344	619872	15	5	19	25	12	8	19165		
104	3	5	89	ON	2	43	27	83	21E	686672	628736	15	6	46	28	1219	24388	
		OFF	2	38	8	78	43E	595264	616912	15	6	49	41	12	4	24581		
105	2	2	19	ON	2	47	16	62	42E	611952	634224	15	8	14	41	1225	29681	
		OFF	2	44	17	61	25E	687488	629584	15	8	15	26	1221	29726			
106	4	4	23	ON	2	23	22	32	15E	594864	616496	15	9	49	58	1158	35398	
		OFF	2	19	46	31	17E	596384	618864	15	9	58	51	1156	35451			
107	7	3	17	ON	2	28	14	11	28E	594464	616888	15	11	18	4	12	3	48684
		OFF	2	25	36	18	34E	594488	616816	15	11	18	43	12	1	48723		
111	1	1	24	ON	2	43	18	72	44W	684368	626352	15	17	11	31	1228	61891	
		OFF	2	39	36	74	8W	688288	622128	15	17	12	26	1215	61946			
113	2	8	17	ON	2	35	5	128	17W	596368	618864	15	28	12	9	1211	72729	
		OFF	2	32	29	121	7W	595824	616656	15	28	12	48	12	8	72768		
117	2	4	46	ON	3	16	7	137	16E	677968	782728	16	2	21	58	1131	8518	
		OFF	3	23	55	135	12E	788624	734528	16	2	23	55	1124	8635			
117	2	7	21	ON	3	27	55	134	4E	725616	752168	16	2	24	55	1121	8695	
		OFF	3	31	42	132	57E	742352	769536	16	2	25	52	1117	8752			
118	4	6	17	ON	3	7	59	117	8E	658592	674384	16	3	49	14	1137	13754	
		OFF	3	18	53	116	17E	659936	684888	16	3	49	57	1135	13797			
121	3	4	35	ON	2	48	47	66	48E	688864	631824	16	8	2	55	1238	28975	
		OFF	2	43	25	64	27E	681936	623824	16	8	4	16	1222	29856			
126	8	5	43	ON	3	37	59	69	39W	774288	882688	16	15	58	48	1112	57848	
		OFF	3	46	38	73	8W	814416	844336	16	15	52	58	11	8	57178		
127	2	1	15	ON	2	9	31	79	17W	618352	632568	16	17	8	13	1151	61693	
		OFF	2	7	13	79	51W	614576	636944	16	17	8	47	1149	61727			

SECRET

UNIT

9	3	18	ON	2	33	38	95	8W	593728	615312	16	18	31	38	1211	66698		
			OFF	2	38	44	95	54W	593288	614768	16	18	32	12	12	8	66732	
133	3	1	18	ON	2	55	14	163	1E	614224	636576	17	1	52	12	1244	6732	
			OFF	2	52	27	161	23E	689888	632888	17	1	52	55	1238		6775	
134	5	6	26	ON	2	52	42	139	14E	689928	632112	17	3	22	4	1239	12124	
			OFF	2	48	41	137	18E	684488	626464	17	3	23	5	1231		12185	
135	7	1	21	ON	2	51	53	116	31E	688432	638576	17	4	51	38	1237	17498	
			OFF	2	48	41	114	54E	684288	626192	17	4	52	19	1231		17539	
135	7	3	49	ON	2	23	8	185	58E	595472	617128	17	4	58	43	12	2	17923
			OFF	2	15	35	184	1E	682568	624488	17	5	8	33	1156		18833	
136	7	1	17	ON	2	41	37	89	36E	596896	618592	17	6	23	18	1221	22998	
			OFF	2	38	59	88	37E	595128	616752	17	6	23	58	1218		23838	
137	8	1	86	ON	2	53	56	73	9E	618888	633824	17	7	49	24	1242	28164	
			OFF	2	41	6	67	8E	596328	618888	17	7	52	38	1221		28388	
137	8	8	28	ON	2	28	28	62	56E	593152	614784	17	7	55	49	12	7	28549
			OFF	2	25	14	62	2E	594248	615848	17	7	56	35	12	4	28595	
138	8	6	88	ON	2	2	3	33	54E	628256	651136	17	9	31	32	1147	34292	
			OFF	3	18	37	38	58E	665264	689536	17	9	34	41	1138		34481	
148	7	1	42	ON	2	28	46	3	44W	593152	614728	17	12	23	19	12	8	44599
			OFF	2	22	24	5	32W	596256	617936	17	12	24	54	12	2	44694	
145	4	2	19	ON	2	35	27	112	58W	593888	614656	17	19	47	38	1215	71258	
			OFF	2	32	38	113	55W	592784	614336	17	19	48	22	1212		71382	
149	7	6	54	ON	3	26	58	141	38E	732112	758896	18	1	59	58	1126	7198	
			OFF	3	37	8	138	28E	777136	885648	18	2	2	23	1116		7343	
158	2	4	47	ON	3	22	13	128	42E	712464	738528	18	3	27	49	1138	12469	
			OFF	3	38	51	118	14E	749168	776688	18	3	29	59	1122		12599	
151	6	3	56	ON	2	48	8	115	3E	593928	615528	18	4	41	31	1221	16891	
			OFF	2	31	33	112	13E	592592	614128	18	4	43	37	1212		17817	
152	6	2	76	ON	2	45	46	95	5E	597376	619184	18	6	9	15	1229	22155	
			OFF	2	34	19	98	58E	592368	613984	18	6	12	7	1215		22327	
153	8	2	79	ON	2	51	2	75	21E	682192	624896	18	7	37	4	1238	27424	
			OFF	2	39	13	78	15E	593296	614864	18	7	48	2	1221		27682	
154	8	6	65	ON	3	3	42	36	21E	647776	671392	18	9	19	58	1145	33598	
			OFF	3	14	25	33	43E	683288	788224	18	9	22	38	1137		33758	
161	6	8	12	ON	2	32	21	118	2W	592896	613632	18	19	34	53	1214	78493	
			OFF	2	38	24	118	38W	592656	614288	18	19	35	22	1212		78522	
165	2	3	26	ON	3	17	11	148	16E	696656	722112	19	1	43	39	1136	6219	
			OFF	3	21	44	147	5E	714448	748576	19	1	44	47	1133		6287	
165	2	5	24	ON	3	26	15	145	58E	733184	759936	19	1	45	55	1129	6355	
			OFF	3	38	48	144	32E	751968	779528	19	1	47	2	1125		6422	
165	2	7	23	ON	3	35	9	143	7E	771632	799928	19	1	48	9	1128	6489	
			OFF	3	39	39	141	33E	791688	828736	19	1	49	17	1115		6557	
166	2	4	54	ON	3	28	31	125	9E	789848	735792	19	3	13	35	1134	11615	
			OFF	3	38	17	122	24E	758448	777936	19	3	16	2	1125		11762	
167	6	3	51	ON	2	48	28	119	11E	592464	614888	19	4	27	35	1224	16855	
			OFF	2	32	33	116	32E	592352	613888	19	4	29	31	1215		16171	
168	6	2	58	ON	2	43	57	98	21E	593984	615584	19	5	55	47	1229	21347	
			OFF	2	35	15	95	18E	592816	613536	19	5	57	57	1218		21477	
169	3	2	35	ON	2	47	38	77	39E	595936	617688	19	7	23	58	1234	26638	
			OFF	2	42	12	75	24E	593888	614656	19	7	25	18	1226		26718	
178	6	3	34	ON	2	49	32	56	23E	597888	618888	19	8	52	33	1238	31953	

UNIT

CONFIDENTIAL

181	7	3	33	ON	3	23	44	188	45E	726144	615368	19	8	53	51	1238	32831	
				OFF	3	29	41	149	3E	758896	778488	28	1	32	5	1128	5525	
182	1	4	26	ON	3	4	51	133	19E	657888	681888	28	2	54	58	1148	18495	
				OFF	3	9	15	132	15E	672224	696752	28	2	56	1	1145	18561	
182	1	6	25	ON	3	13	48	131	9E	687616	712728	28	2	57	7	1141	18627	
				OFF	3	18	4	138	2E	783968	729712	28	2	58	13	1138	18693	
182	1	8	23	ON	3	22	32	128	51E	721568	747952	28	2	59	28	1134	18768	
				OFF	3	26	53	127	39E	739328	766488	28	3	8	25	1131	18825	
184	6	2	51	ON	2	42	45	182	8E	598784	612176	28	5	41	11	1229	28471	
				OFF	2	35	5	99	22E	598896	612384	28	5	43	6	1228	28586	
185	8	5	74	ON	2	38	14	75	38E	593128	614688	28	7	13	28	1215	26888	
				OFF	2	19	2	72	38E	684368	626352	28	7	16	7	12	6	26167
186	6	4	31	ON	2	45	57	59	1E	591296	612888	28	8	38	27	1234	31187	
				OFF	2	41	14	57	6E	598144	611688	28	8	39	38	1228	31178	
187	2	2	16	ON	2	4	59	24	34E	631536	654544	28	18	17	48	1155	37868	
				OFF	2	2	25	23	57E	638864	661312	28	18	18	18	1154	37898	
188	2	2	46	ON	2	24	58	7	24E	597128	618832	28	11	41	47	1211	42187	
				OFF	2	17	52	5	32E	685984	627936	28	11	43	38	12	5	42218
194	9	1	12	ON	2	38	9	121	46W	588168	689536	28	28	32	34	1225	73954	
				OFF	2	36	11	122	27W	588624	618816	28	28	33	3	1223	73983	

OPERATIONS SUMMARY

AFT PAN CAMERA NUMBER 199																		
OPN	NO	FRA		Q	LAT	LONG	HEIGHT	RANGE	DA	H	M	S	LTIM	S-TIM				
64	5	8	11	ON	2	32 21	189 12W	571688	592368	12	19	18 23	12 1	69583				
				OFF	2	38 34	189 45W	568816	589472	12	19	18 58	1159	69538				
66	8	8	3	ON	2	57 19	142 35W	634728	657848	12	22	18 35	1239	79835				
				OFF	2	55 49	143 36W	629768	652784	12	22	18 58	1236	79858				
68	7	3	22	ON	3	9 8	151 8E	588112	689488	13	1	25 38	1129	5138				
				OFF	3	12 22	158 12E	596784	618488	13	1	26 26	1127	5186				
68	7	4	43	ON	3	28 34	148 6E	622752	645424	13	1	28 29	1128	5389				
				OFF	3	27 13	146 16E	647712	671328	13	1	38 8	1115	5488				
69	1	3	58	ON	2	1 6	131 11E	567664	588288	13	2	52 21	1136	18341				
				OFF	3	6 38	129 22E	582864	683216	13	2	54 14	1131	18454				
71	6	3	34	ON	2	31 58	94 42E	568784	589368	13	5	43 12	12 1	28592				
				OFF	2	26 46	93 18E	562864	582464	13	5	44 29	1156	28669				
72	1	8	13	ON	1	38 21	115 22W	899984	933184	13	6	45 49	23 4	24349				
				OFF	1	41 21	116 28W	891768	924656	13	6	46 35	23 8	24395				
72	1	2	17	ON	2	58 59	79 55E	618728	632944	13	7	7 41	1227	25661				
				OFF	2	48 17	78 35E	683136	625872	13	7	8 22	1222	25782				
72	1	4	58	ON	2	44 1	76 42E	592168	613696	13	7	9 26	1216	25766				
				OFF	2	35 19	73 38E	573848	594688	13	7	11 36	12 5	25896				
73	6	2	88	ON	2	51 35	57 58E	611648	633984	13	8	36 46	1228	31886				
				OFF	2	39 36	52 43E	581568	682784	13	8	39 46	1218	31186				
74	4	1	35	ON	2	59 29	48 47E	635536	658688	13	18	3 58	1246	36238				
				OFF	2	53 48	36 56E	617488	639872	13	18	5 26	1232	36326				
74	4	2	42	ON	2	28 48	24 41E	556944	577152	13	18	13 41	1152	36821				
				OFF	2	14 38	23 5E	556352	576544	13	18	15 12	1147	36912				
75	4	1	38	ON	2	14 49	8 54E	556176	576352	13	11	44 21	1147	42261				

CONFIDENTIAL

LUILL

77	5	1	22	OFF	2	9	11	0	29W	558848	579136	13	11	45	44	1143	42344	
				ON	2	1	8	47	8W	568568	589288	13	14	46	12	1137	53172	
				OFF	3	2	18	47	48W	574464	595328	13	14	47	1	1135	53221	
79	5	8	16	ON	2	41	38	88	7W	582496	603664	13	17	34	33	1213	63273	
				OFF	2	39	9	81	3W	577488	598384	13	17	35	18	1218	63318	
88	5	8	8	ON	2	33	5	185	21W	566672	587248	13	19	5	53	12	4	68753
				OFF	2	31	46	185	46W	564864	585376	13	19	6	13	12	2	68773
81	5	8	17	ON	2	36	3	126	39W	578888	591528	13	28	34	28	12	7	74868
				OFF	2	33	26	127	31W	566768	587344	13	28	34	59	12	4	74899
84	7	5	41	ON	3	38	12	149	4E	665288	689472	14	1	18	18	1114	4698	
				OFF	3	37	8	146	53E	695392	728888	14	1	28	1	11	7	4881
85	2	6	16	ON	3	23	51	128	38E	639536	662832	14	2	45	54	1128	9954	
				OFF	3	26	31	127	53E	658896	673792	14	2	46	34	1117	9994	
85	2	7	18	ON	3	29	1	127	18E	668352	684432	14	2	47	12	1115	18832	
				OFF	3	31	59	126	16E	673184	697664	14	2	47	57	1112	18877	
86	3	2	57	ON	2	46	27	126	1E	588416	689888	14	3	57	39	1221	14259	
				OFF	2	37	46	122	36E	578648	591368	14	3	59	49	1218	14389	
87	3	2	25	ON	2	43	7	182	18E	686288	628256	14	5	27	58	1216	19678	
				OFF	2	39	13	188	49E	688688	622528	14	5	28	48	1211	19728	
88	8	2	118	ON	2	44	54	88	44E	618272	632488	14	6	56	45	1219	25885	
				OFF	2	28	19	74	59E	593872	614648	14	7	8	53	12	8	25253
89	5	4	98	ON	2	63	12	69	59E	658768	674496	14	8	21	26	13	1	38886
				OFF	2	48	27	68	1E	616464	638912	14	8	25	13	1225	38313	
89	5	8	42	ON	2	42	16	57	21E	686144	628192	14	8	26	47	1216	38487	
				OFF	2	36	8	55	5E	598688	628368	14	8	28	21	12	8	38581
98	2	4	19	ON	3	23	27	17	15E	699728	725296	14	18	12	29	1121	36749	
				OFF	3	26	47	16	19E	713888	739984	14	18	13	19	1118	36799	
94	2	1	83	ON	2	9	7	63	52W	686784	628784	14	16	1	46	1146	57786	
				OFF	3	3	36	66	56W	633488	656568	14	16	4	56	1137	57896	
95	8	2	31	ON	2	39	34	77	28W	682736	624656	14	17	23	34	1213	62614	
				OFF	2	34	47	79	8W	598176	619936	14	17	24	46	12	8	62686
95	8	6	16	ON	2	13	28	85	7W	681568	623448	14	17	38	4	1149	63884	
				OFF	2	18	46	85	46W	684768	626768	14	17	38	42	1147	63842	
188	2	1	28	ON	3	6	29	158	33E	644328	667888	15	1	1	48	1135	3788	
				OFF	3	9	41	157	46E	654256	678112	15	1	2	28	1133	3748	
188	2	3	48	ON	3	23	21	154	15E	784944	738728	15	1	5	53	1122	3953	
				OFF	3	38	24	152	14E	735584	762432	15	1	7	39	1116	4859	
181	4	3	15	ON	3	2	45	137	9E	634832	657128	15	2	38	4	1138	9884	
				OFF	3	5	9	136	35E	648624	663968	15	2	38	48	1136	9848	
181	4	9	18	ON	3	29	35	138	18E	732168	758968	15	2	36	47	1117	9487	
				OFF	3	32	51	129	18E	747848	774488	15	2	37	37	1114	9457	
182	3	3	44	ON	2	43	16	127	58E	685984	628832	15	3	47	57	1219	13677	
				OFF	2	36	27	125	19E	598816	628592	15	3	49	39	1218	13779	
183	3	2	44	ON	2	48	37	184	38E	682464	624368	15	5	17	57	1215	19877	
				OFF	2	33	57	182	11E	596816	618512	15	5	19	37	12	8	19177
184	3	5	89	ON	2	43	38	83	28E	685568	627688	15	6	46	32	1219	24392	
				OFF	2	38	2	78	48E	595888	616648	15	6	49	53	12	4	24593
185	2	2	19	ON	2	47	19	62	41E	618656	632888	15	8	14	53	1225	29693	
				OFF	2	44	28	61	23E	686352	628416	15	8	15	38	1221	29738	
186	4	4	23	ON	2	23	24	32	12E	595128	616768	15	9	58	18	1158	35418	
				OFF	2	19	48	31	14E	596912	618624	15	9	51	3	1155	35463	

CFARF

SECRET

107	7	3	17	ON	2	28	16	11	17E	594384	616888	15	11	18	16	12	3	48696
				OFF	2	25	39	18	32E	594496	616112	15	11	18	55	12	8	48735
111	1	1	24	ON	2	43	21	72	46W	683376	625312	15	17	11	43	1228	61983	
				OFF	2	39	39	74	11W	599584	621296	15	17	12	38	1215	61958	
113	2	8	17	ON	2	35	8	128	28W	595872	617536	15	28	12	21	1218	72741	
				OFF	2	32	31	121	18W	594728	616352	15	28	13	8	12	8	72788
117	2	4	45	ON	3	15	57	137	15E	681848	785984	16	2	22	18	1131	8538	
				OFF	3	23	42	135	12E	712832	738864	16	2	24	7	1124	8647	
117	2	7	21	ON	3	27	41	134	4E	729184	755872	16	2	25	7	1121	8787	
				OFF	3	31	26	132	57E	746816	773344	16	2	26	4	1117	8764	
118	4	6	17	ON	3	7	51	116	59E	653184	677888	16	3	49	26	1137	13766	
				OFF	3	18	45	116	16E	662728	686896	16	3	58	9	1135	13889	
121	3	4	35	ON	2	48	51	66	47E	687688	629792	16	8	3	7	1238	28987	
				OFF	2	43	28	64	25E	681856	622912	16	8	4	28	1221	29868	
126	8	5	44	ON	3	37	48	69	36W	777984	886512	16	15	51	8	1112	57868	
				OFF	3	46	8	72	55W	818224	848288	16	15	53	18	11	1	57198
127	2	1	14	ON	2	9	35	79	19W	611824	634888	16	17	8	25	1158	61785	
				OFF	2	7	17	79	53W	616288	638648	16	17	8	59	1149	61739	
128	9	3	18	ON	2	33	37	95	3W	593536	615128	16	18	31	42	1211	66782	
				OFF	2	38	46	95	56W	593216	614784	16	18	32	24	12	8	66744
133	3	1	18	ON	2	55	17	163	8E	612928	635232	17	1	52	24	1244	6744	
				OFF	2	52	38	161	21E	688728	638864	17	1	53	7	1238	6787	
134	5	6	26	ON	2	52	45	139	13E	688752	638896	17	3	22	16	1238	12136	
				OFF	2	48	44	137	8E	683472	625424	17	3	23	17	1231	12197	
135	7	1	21	ON	2	51	56	116	38E	687312	629488	17	4	51	42	1237	17582	
				OFF	2	48	44	114	52E	683216	625152	17	4	52	31	1231	17551	
135	7	3	49	ON	2	23	3	185	55E	596832	617696	17	4	58	55	12	2	17935
				OFF	2	15	38	183	58E	683632	625584	17	5	8	45	1156	18845	
136	7	1	17	ON	2	41	48	89	34E	596384	617984	17	6	23	38	1221	23818	
				OFF	2	39	1	88	35E	594672	616288	17	6	24	18	1218	23858	
137	8	1	86	ON	2	54	8	73	8E	689688	631776	17	7	49	36	1241	28176	
				OFF	2	41	8	67	6E	595776	617448	17	7	52	58	1221	28378	
137	8	8	28	ON	2	28	22	62	53E	593368	614928	17	7	56	1	12	7	28561
				OFF	2	25	16	62	8E	594688	616328	17	7	56	47	12	4	28687
138	8	6	88	ON	2	2	8	33	52E	638384	653264	17	9	31	44	1147	34384	
				OFF	3	18	28	38	49E	668896	692464	17	9	34	53	1138	34493	
148	7	1	42	ON	2	28	49	3	47W	593376	614944	17	12	23	31	12	8	44611
				OFF	2	22	26	5	34W	596896	618592	17	12	25	6	12	2	44786
145	4	2	19	ON	2	35	29	113	1W	592944	614496	17	19	47	58	1215	71278	
				OFF	2	32	32	113	58W	592832	614384	17	19	48	34	1212	71314	
149	7	6	54	ON	3	26	43	141	39E	735616	762544	18	2	8	2	1126	7282	
				OFF	3	36	49	138	38E	788832	889472	18	2	2	35	1116	7355	
158	2	4	47	ON	3	22	8	128	42E	715824	742888	18	3	28	1	1138	12481	
				OFF	3	38	35	118	15E	752768	788352	18	3	38	11	1123	12611	
151	6	3	56	ON	2	48	2	115	8E	593584	615168	18	4	41	43	1221	16983	
				OFF	2	31	35	112	18E	592752	614384	18	4	43	49	1212	17829	
152	6	2	76	ON	2	45	48	95	3E	596784	618488	18	6	9	27	1229	22167	
				OFF	2	34	21	98	47E	592368	613984	18	6	12	19	1215	22339	
153	8	2	79	ON	2	51	4	75	19E	681328	623288	18	7	37	16	1238	27436	
				OFF	2	39	15	78	13E	593848	614592	18	7	48	14	1228	27614	
154	8	6	64	ON	3	3	35	36	19E	658288	673928	18	9	28	2	1145	33682	

SECRET

SECRET

	OFF	3	14	15	33	42E	686384	711368	18	9	22	42	1137	33762			
161	6	8	12	ON	2	32	23	118	5W	592288	613824	18	19	35	5	1214	78585
	OFF	2	38	26	118	41W	592944	614496	18	19	35	34	1212	78534			
165	2	3	26	ON	3	16	59	148	16E	699824	725392	19	1	43	51	1136	6231
	OFF	3	21	38	147	4E	717776	744832	19	1	44	59	1133	6299			
165	2	5	24	ON	3	26	8	145	58E	736544	763584	19	1	46	7	1129	6367
	OFF	3	38	24	144	33E	755488	783168	19	1	47	14	1125	6434			
165	2	7	23	ON	3	34	51	143	8E	775232	883664	19	1	48	21	1128	6581
	OFF	3	39	19	141	36E	795312	824512	19	1	49	29	1115	6569			
166	2	4	54	ON	3	28	19	125	9E	713136	739216	19	3	13	47	1134	11627
	OFF	3	38	1	122	25E	753968	781584	19	3	16	14	1125	11774			
167	6	3	51	ON	2	48	22	119	8E	592384	613848	19	4	27	47	1224	16867
	OFF	2	32	35	116	29E	592592	614144	19	4	29	43	1215	16183			
168	6	2	57	ON	2	43	59	98	19E	593828	615184	19	5	55	59	1229	21359
	OFF	2	35	16	95	6E	592896	613632	19	5	58	9	1218	21489			
169	3	2	35	ON	2	47	33	77	37E	595392	617848	19	7	24	18	1234	26658
	OFF	2	42	14	75	23E	592832	614384	19	7	25	38	1226	26738			
178	6	3	34	ON	2	49	34	56	21E	596464	618168	19	8	52	45	1237	31965
	OFF	2	44	23	54	8E	593376	614968	19	8	54	3	1229	32843			
181	7	3	32	ON	3	23	38	158	45E	729584	756288	28	1	38	47	1133	5447
	OFF	3	29	24	149	4E	754368	782888	28	1	32	17	1128	5537			
182	1	4	26	ON	3	4	42	133	18E	668464	684568	28	2	55	7	1148	18587
	OFF	3	9	6	132	14E	674992	699632	28	2	56	13	1144	18573			
182	1	6	25	ON	3	13	38	131	9E	698592	715888	28	2	57	19	1141	18639
	OFF	3	17	51	138	2E	787888	732928	28	2	58	25	1138	18785			
182	1	8	23	ON	3	22	18	128	51E	724832	751344	28	2	59	32	1134	18772
	OFF	3	26	37	127	39E	742752	769952	28	3	8	37	1131	18837			
184	6	2	58	ON	2	42	47	182	6E	598576	612848	28	5	41	23	1229	28483
	OFF	2	35	7	99	28E	591152	612648	28	5	43	18	1228	28598			
185	8	5	74	ON	2	38	16	75	38E	593688	615264	28	7	13	32	1215	26812
	OFF	2	19	5	72	28E	685584	627616	28	7	16	19	12	6	26179		
186	6	4	31	ON	2	45	59	58	58E	598976	612464	28	8	38	39	1234	31119
	OFF	2	41	16	57	4E	598128	611584	28	8	39	58	1227	31198			
187	2	2	16	ON	2	5	4	24	32E	633688	656672	28	18	17	52	1155	37872
	OFF	2	2	32	23	55E	648288	663536	28	18	18	38	1154	37118			
188	2	2	46	ON	2	24	52	7	21E	597936	619688	28	11	41	59	1211	42119
	OFF	2	17	56	5	38E	687168	629264	28	11	43	42	12	5	42222		
194	9	1	13	ON	2	38	18	121	49W	588352	689728	28	28	32	46	1225	73966
	OFF	2	36	13	122	29W	588896	618384	28	28	33	15	1223	73995			

PHOTOGRAPHIC SUMMARY

FWD PAN CAMERA NO 198 8.2258 SLIT W/23A FILTER 3484 FILM												
OPN NO	FRA	FEET	ET	S-EL	S-DIR	EV	FULL	INT	PRI			
64	5	8	11	29.1	ON	388	39.7	-6.6	12.23	12.39	11.79	11.19
					OFF	381	41.5	-6.8	12.24	12.48	11.88	11.28
66	8	8	3	7.9	ON	169	14.1	-5.4	11.41	11.75	11.15	18.55
					OFF	169	15.7	-5.4	11.41	11.85	11.25	18.65
68	7	3	22	58.2	ON	288	88.7	-31.8	12.17	12.42	11.82	11.22
					OFF	284	83.3	-46.7	12.15	12.42	11.82	11.22
68	7	4	43	113.7	ON	278	83.8-127.3		12.88	12.42	11.82	11.22

SECRET

WLUK

69	1	3	58	132.2	OFF	259	78.4-154.9	12.82	12.42	11.82	11.22
					ON	299	71.8 -15.1	12.23	12.42	11.82	11.22
					OFF	291	78.3 -24.8	12.19	12.42	11.82	11.22
71	6	3	34	89.9	ON	381	48.8 -6.8	12.24	12.39	11.79	11.19
					OFF	384	45.2 -6.9	12.25	12.41	11.81	11.21
72	1	8	13	34.4	ON	178	-67.3 -12.6	11.42	8.8	8.8	8.8
					OFF	171	-64.3 -11.2	11.42	8.8	8.8	8.8
72	1	2	17	45.8	ON	279	28.5 -5.3	12.12	12.88	11.48	10.88
					OFF	282	23.3 -5.4	12.14	12.17	11.57	10.97
72	1	4	58	153.4	ON	289	27.7 -5.5	12.18	12.26	11.66	11.86
					OFF	298	36.6 -6.1	12.22	12.36	11.76	11.16
73	6	2	88	211.6	ON	278	19.9 -5.3	12.12	12.86	11.46	10.86
					OFF	294	32.2 -5.7	12.28	12.32	11.72	11.12
74	4	1	36	95.2	ON	264	11.6 -5.1	12.85	11.56	10.96	10.36
					OFF	274	17.6 -5.2	12.18	11.96	11.36	10.76
74	4	2	42	111.1	ON	386	51.3 -7.6	12.26	12.42	11.82	11.22
					OFF	386	57.5 -8.9	12.26	12.42	11.82	11.22
75	4	1	38	188.5	ON	386	57.2 -8.8	12.26	12.42	11.82	11.22
					OFF	384	62.9 -18.4	12.25	12.42	11.82	11.22
77	9	1	22	58.2	ON	298	71.8 -14.4	12.22	12.42	11.82	11.22
					OFF	295	74.2 -17.4	12.28	12.42	11.82	11.22
79	5	8	16	42.3	ON	293	38.8 -5.4	12.28	12.29	11.69	11.89
					OFF	296	32.5 -5.6	12.21	12.33	11.73	11.13
80	5	8	8	21.2	ON	381	38.7 -5.9	12.24	12.38	11.78	11.18
					OFF	382	48.8 -6.8	12.24	12.39	11.79	11.19
81	5	8	17	45.8	ON	324	35.7 -5.7	12.34	12.36	11.76	11.16
					OFF	326	38.3 -5.9	12.35	12.38	11.78	11.18
84	7	5	41	188.4	ON	268	76.8-161.2	12.87	12.42	11.82	11.22
					OFF	255	69.2-167.2	12.88	12.42	11.82	11.22
85	2	6	16	42.3	ON	281	81.9-146.6	12.14	12.42	11.82	11.22
					OFF	276	79.5-154.8	12.11	12.42	11.82	11.22
85	2	7	18	47.6	ON	278	77.2-159.6	12.88	12.42	11.82	11.22
					OFF	264	74.3-163.4	12.85	12.42	11.82	11.22
86	3	2	57	158.8	ON	388	24.9 -5.8	12.23	12.21	11.61	11.81
					OFF	387	33.8 -5.4	12.26	12.34	11.74	11.14
87	3	2	25	66.1	ON	383	28.4 -5.1	12.25	12.27	11.67	11.87
					OFF	386	32.3 -5.3	12.26	12.32	11.72	11.12
88	8	2	111	293.6	ON	382	26.5 -5.8	12.24	12.24	11.64	11.84
					OFF	311	43.4 -6.1	12.28	12.41	11.81	11.21
89	5	4	98	259.2	ON	278	7.4 -4.8	12.12	11.11	10.51	9.91
					OFF	298	22.8 -4.9	12.22	12.15	11.55	10.95
89	5	8	42	111.1	ON	384	29.2 -5.1	12.25	12.28	11.68	11.88
					OFF	388	35.6 -5.4	12.27	12.35	11.75	11.15
90	2	4	19	58.3	ON	256	82.4-145.7	12.88	12.42	11.82	11.22
					OFF	258	79.4-156.8	11.97	12.42	11.82	11.22
94	2	1	84	222.2	ON	299	62.7 -9.2	12.23	12.42	11.82	11.22
					OFF	285	75.4 -16.8	12.15	12.42	11.82	11.22
95	8	2	31	82.8	ON	383	31.8 -5.8	12.25	12.32	11.72	11.12
					OFF	386	36.7 -5.3	12.26	12.36	11.76	11.16
95	8	6	16	42.3	ON	382	58.4 -8.8	12.24	12.42	11.82	11.22
					OFF	388	61.8 -8.7	12.23	12.42	11.82	11.22

GRADE

180	2	3	48	185.8	ON	258	82.8	-146.1	11.97	12.42	11.82	11.22
					OFF	239	76.2	-162.9	11.91	12.42	11.82	11.22
181	4	3	15	39.7	ON	284	74.5	-15.1	12.15	12.42	11.82	11.22
					OFF	281	76.8	-17.8	12.14	12.42	11.82	11.22
181	4	9	18	47.6	ON	248	77.8	-161.9	11.91	12.42	11.82	11.22
					OFF	236	73.7	-165.5	11.88	12.42	11.82	11.22
182	3	3	45	119.8	ON	382	27.9	-4.6	12.24	12.26	11.66	11.86
					OFF	385	34.9	-5.8	12.26	12.35	11.75	11.15
183	3	2	44	116.4	ON	383	38.6	-4.7	12.25	12.38	11.78	11.18
					OFF	386	37.4	-5.1	12.26	12.37	11.77	11.17
184	3	5	89	235.4	ON	382	27.6	-4.6	12.24	12.26	11.66	11.86
					OFF	387	41.4	-5.3	12.26	12.48	11.88	11.28
185	2	2	19	58.3	ON	299	23.7	-4.4	12.22	12.18	11.58	18.98
					OFF	381	26.7	-4.5	12.24	12.24	11.64	11.84
186	4	4	23	68.8	ON	386	48.1	-5.9	12.26	12.42	11.82	11.22
					OFF	385	51.7	-6.3	12.25	12.42	11.82	11.22
187	7	3	17	45.8	ON	387	43.1	-5.3	12.26	12.48	11.88	11.28
					OFF	387	45.8	-5.6	12.26	12.42	11.82	11.22
111	1	1	24	63.5	ON	383	27.6	-4.3	12.24	12.26	11.66	11.86
					OFF	385	31.4	-4.5	12.25	12.31	11.71	11.11
113	2	8	17	45.8	ON	386	36.8	-4.6	12.26	12.36	11.76	11.16
					OFF	387	38.7	-4.8	12.26	12.38	11.78	11.18
117	2	4	46	121.7	ON	259	86.8	-62.2	12.82	12.42	11.82	11.22
					OFF	245	83.8	-149.3	11.94	12.42	11.82	11.22
117	2	7	21	55.5	ON	239	79.3	-168.4	11.98	12.42	11.82	11.22
					OFF	234	75.6	-165.5	11.88	12.42	11.82	11.22
118	4	6	17	45.8	ON	278	79.2	-19.3	12.88	12.42	11.82	11.22
					OFF	266	82.8	-26.3	12.86	12.42	11.82	11.22
121	3	4	35	92.6	ON	298	21.8	-3.9	12.22	12.12	11.52	18.92
					OFF	382	27.3	-4.8	12.24	12.25	11.65	11.85
126	8	5	43	113.7	ON	223	69.5	-178.4	11.88	12.42	11.82	11.22
					OFF	212	68.8	-173.8	11.73	12.42	11.82	11.22
127	2	1	15	39.7	ON	292	61.7	-7.8	12.19	12.42	11.82	11.22
					OFF	298	64.8	-7.6	12.18	12.42	11.82	11.22
128	9	3	18	47.6	ON	385	37.3	-4.2	12.26	12.37	11.77	11.17
					OFF	385	48.2	-4.4	12.26	12.39	11.79	11.19
133	3	1	18	47.6	ON	294	14.8	-3.5	12.28	11.88	11.28	18.68
					OFF	296	17.7	-3.5	12.21	11.96	11.36	18.76
134	5	6	26	68.8	ON	296	17.5	-3.5	12.21	11.95	11.35	18.75
					OFF	388	21.6	-3.5	12.23	12.12	11.52	18.92
135	7	1	21	55.5	ON	297	18.3	-3.5	12.22	11.99	11.39	18.79
					OFF	388	21.6	-3.5	12.23	12.12	11.52	18.92
135	7	3	49	129.6	ON	382	47.9	-4.7	12.24	12.42	11.82	11.22
					OFF	297	55.4	-5.5	12.22	12.42	11.82	11.22
136	7	1	17	45.8	ON	384	28.9	-3.6	12.25	12.28	11.68	11.88
					OFF	385	31.6	-3.7	12.25	12.31	11.71	11.11
137	8	1	86	227.5	ON	296	16.1	-3.4	12.21	11.88	11.28	18.68
					OFF	384	29.4	-3.6	12.25	12.29	11.69	11.89
137	8	8	28	52.9	ON	385	42.4	-4.2	12.25	12.48	11.88	11.28

			OFF	384	45.6	-4.4	12.25	12.41	11.81	11.21		
138	6	88	211.6	ON	281	69.8	-8.5	12.14	12.42	11.82	11.22	
			OFF	261	81.6	-21.8	12.83	12.42	11.82	11.22		
148	7	1	42	111.1	ON	385	41.9	-4.1	12.25	12.48	11.88	11.28
			OFF	382	48.4	-4.5	12.24	12.42	11.82	11.22		
145	4	2	19	58.3	ON	385	35.8	-3.6	12.26	12.35	11.75	11.15
			OFF	385	38.8	-3.7	12.26	12.37	11.77	11.17		
149	7	6	54	142.8	ON	234	81.1	-162.1	11.87	12.42	11.82	11.22
			OFF	221	78.9	-171.5	11.79	12.42	11.82	11.22		
158	2	4	47	124.3	ON	248	85.5	-143.4	11.91	12.42	11.82	11.22
			OFF	229	77.2	-167.6	11.84	12.42	11.82	11.22		
151	6	3	56	148.1	ON	388	38.2	-3.2	12.27	12.38	11.78	11.18
			OFF	387	38.9	-3.5	12.27	12.38	11.78	11.18		
152	6	2	76	281.8	ON	386	24.3	-3.1	12.26	12.19	11.59	18.99
			OFF	388	36.1	-3.4	12.27	12.36	11.76	11.16		
153	8	2	79	289.8	ON	383	18.8	-3.8	12.24	12.81	11.41	18.81
			OFF	388	31.8	-3.2	12.27	12.31	11.71	11.11		
154	8	6	65	171.9	ON	278	74.5	-9.8	12.88	12.42	11.82	11.22
			OFF	252	84.9	-38.9	11.98	12.42	11.82	11.22		
161	6	8	12	31.7	ON	388	37.9	-3.1	12.27	12.37	11.77	11.17
			OFF	388	39.9	-3.2	12.27	12.39	11.79	11.19		
165	2	3	26	68.8	ON	254	87.1	-52.9	11.99	12.42	11.82	11.22
			OFF	246	86.3	-141.1	11.94	12.42	11.82	11.22		
165	2	5	24	63.5	ON	239	82.2	-162.7	11.98	12.42	11.82	11.22
			OFF	233	77.8	-168.9	11.87	12.42	11.82	11.22		
165	2	7	23	68.8	ON	227	73.3	-171.9	11.83	12.42	11.82	11.22
			OFF	222	68.7	-173.5	11.79	12.42	11.82	11.22		
166	2	4	54	142.8	ON	247	87.2	-125.3	11.95	12.42	11.82	11.22
			OFF	234	78.2	-168.7	11.87	12.42	11.82	11.22		
167	6	3	51	134.9	ON	385	29.6	-2.7	12.26	12.29	11.69	11.89
			OFF	386	37.6	-2.9	12.26	12.37	11.77	11.17		
168	6	2	58	153.4	ON	384	25.9	-2.6	12.25	12.23	11.63	11.83
			OFF	386	34.8	-2.8	12.26	12.35	11.75	11.15		
169	3	2	35	92.6	ON	382	22.2	-2.5	12.24	12.14	11.54	18.94
			OFF	384	27.7	-2.6	12.25	12.26	11.66	11.86		
178	6	3	34	89.9	ON	388	28.1	-2.5	12.23	12.86	11.46	18.86
			OFF	383	25.4	-2.5	12.25	12.22	11.62	11.82		
181	7	3	33	87.3	ON	238	85.8	-157.6	11.98	12.42	11.82	11.22
			OFF	238	79.2	-169.8	11.85	12.42	11.82	11.22		
182	1	4	26	68.8	ON	269	75.3	-7.4	12.87	12.42	11.82	11.22
			OFF	262	79.7	-18.5	12.83	12.42	11.82	11.22		
182	1	6	25	66.1	ON	254	84.1	-18.4	11.99	12.42	11.82	11.22
			OFF	246	87.8	-57.6	11.95	12.42	11.82	11.22		
182	1	8	23	68.8	ON	239	86.1	-158.9	11.91	12.42	11.82	11.22
			OFF	234	82.8	-166.4	11.87	12.42	11.82	11.22		
184	6	2	51	134.9	ON	385	26.8	-2.2	12.26	12.24	11.64	11.84
			OFF	386	34.7	-2.3	12.26	12.35	11.75	11.15		
185	8	5	74	195.7	ON	385	39.6	-2.4	12.26	12.39	11.79	11.19
			OFF	299	51.8	-2.9	12.23	12.42	11.82	11.22		
186	6	4	31	82.8	ON	384	23.5	-2.1	12.25	12.17	11.57	18.97
			OFF	386	28.3	-2.1	12.26	12.27	11.67	11.87		

187	2	2	16	42.3	ON	283	65.2	-4.2	12.15	12.42	11.82	11.22
					OFF	279	67.8	-4.6	12.13	12.42	11.82	11.22
188	2	2	46	121.7	ON	303	45.1	-2.5	12.24	12.41	11.81	11.21
					OFF	298	52.1	-2.8	12.22	12.42	11.82	11.22
194	9	1	12	31.7	ON	306	31.4	-1.9	12.26	12.31	11.71	11.11
					OFF	306	33.4	-2.8	12.26	12.33	11.73	11.13

PHOTOGRAPHIC SUMMARY

AFT PAN	CAMERA	NO	199	8.1750	SLIT	W/21	FILTER	3484	FILM			
OPN NO	FRA	FEET	ET	S-EL	S-DIR	EV	FULL	INT	PRI			
64	5	8	11	29.1	ON	385	39.7	-6.5	12.59	12.72	12.12	11.52
					OFF	387	41.5	-6.7	12.60	12.73	12.13	11.53
66	8	8	3	7.9	ON	218	14.8	-5.8	11.77	12.87	11.47	10.87
					OFF	218	15.6	-5.8	11.77	12.18	11.58	10.98
68	7	3	22	58.2	ON	378	88.6	-32.8	12.53	12.75	12.15	11.55
					OFF	364	83.2	-46.8	12.51	12.75	12.15	11.55
68	7	4	43	113.7	ON	347	83.8	-126.6	12.44	12.75	12.15	11.55
					OFF	332	78.5	-154.5	12.38	12.75	12.15	11.55
69	1	3	58	132.2	ON	384	71.8	-15.3	12.59	12.75	12.15	11.55
					OFF	374	78.3	-25.8	12.55	12.75	12.15	11.55
71	6	3	34	89.9	ON	387	48.8	-6.3	12.68	12.72	12.12	11.52
					OFF	391	45.3	-6.9	12.61	12.74	12.14	11.54
72	1	8	13	34.4	ON	219	-67.7	-12.8	11.78	8.8	8.8	8.8
					OFF	228	-64.7	-11.3	11.79	8.8	8.8	8.8
72	1	2	17	45.8	ON	358	28.5	-5.8	12.49	12.41	11.81	11.21
					OFF	363	23.3	-5.2	12.51	12.58	11.98	11.38
72	1	4	58	153.4	ON	371	27.7	-5.4	12.54	12.59	11.99	11.39
					OFF	383	36.6	-6.8	12.58	12.69	12.89	11.49
73	6	2	88	211.6	ON	357	19.9	-5.8	12.48	12.39	11.79	11.19
					OFF	378	32.2	-5.6	12.56	12.65	12.85	11.45
74	4	1	35	92.6	ON	348	11.6	-4.6	12.41	11.88	11.28	10.68
					OFF	352	17.5	-4.9	12.46	12.28	11.68	11.08
74	4	2	42	111.1	ON	393	51.4	-7.6	12.62	12.75	12.15	11.55
					OFF	393	57.6	-8.9	12.62	12.75	12.15	11.55
75	4	1	38	188.5	ON	393	57.2	-8.8	12.62	12.75	12.15	11.55
					OFF	391	62.9	-10.5	12.61	12.75	12.15	11.55
77	9	1	22	58.2	ON	382	71.8	-14.5	12.58	12.75	12.15	11.55
					OFF	378	74.2	-17.5	12.57	12.75	12.15	11.55
79	5	8	16	42.3	ON	376	38.8	-5.3	12.56	12.62	12.82	11.42
					OFF	388	32.5	-5.5	12.57	12.66	12.86	11.46
80	5	8	8	21.2	ON	387	38.7	-5.9	12.68	12.71	12.11	11.51
					OFF	388	48.8	-6.8	12.68	12.72	12.12	11.52
81	5	8	17	45.8	ON	415	35.7	-5.6	12.78	12.69	12.89	11.49
					OFF	418	38.3	-5.8	12.71	12.71	12.11	11.51
84	7	5	41	188.4	ON	344	76.1	-168.9	12.43	12.75	12.15	11.55
					OFF	327	69.4	-167.1	12.36	12.75	12.15	11.55
85	2	6	16	42.3	ON	368	82.8	-146.8	12.49	12.75	12.15	11.55
					OFF	354	79.6	-154.4	12.47	12.75	12.15	11.55
85	2	7	18	47.6	ON	347	77.3	-159.3	12.44	12.75	12.15	11.55
					OFF	339	74.4	-163.2	12.41	12.75	12.15	11.55



57	158.8	ON	385	24.9	-4.8	12.59	12.54	11.94	11.34	
		OFF	394	33.8	-5.3	12.62	12.67	12.87	11.47	
87 3 2	25	66.1	ON	398	28.3	-5.8	12.61	12.68	12.88	11.48
			OFF	393	32.3	-5.2	12.62	12.65	12.85	11.45
88 8 2	118	298.9	ON	387	26.4	-4.8	12.68	12.57	11.97	11.37
			OFF	399	43.4	-6.8	12.64	12.74	12.14	11.54
89 5 4	98	259.2	ON	357	7.3	-4.1	12.48	11.42	18.82	18.22
			OFF	383	22.8	-4.6	12.58	12.48	11.88	11.28
89 5 8	42	111.1	ON	391	29.1	-4.9	12.61	12.61	12.81	11.41
			OFF	396	35.5	-5.3	12.63	12.68	12.88	11.48
98 2 4	19	58.3	ON	329	82.5	-144.6	12.36	12.75	12.15	11.55
			OFF	322	79.5	-155.4	12.33	12.75	12.15	11.55
94 2 1	83	219.5	ON	383	62.6	-9.2	12.58	12.75	12.15	11.55
			OFF	365	75.3	-16.9	12.51	12.75	12.15	11.55
95 8 2	31	82.8	ON	389	31.8	-4.9	12.61	12.65	12.85	11.45
			OFF	392	36.7	-5.2	12.62	12.69	12.89	11.49
95 8 6	16	42.3	ON	387	58.4	-8.8	12.68	12.75	12.15	11.55
			OFF	385	61.8	-8.7	12.59	12.75	12.15	11.55
188 2 1	28	52.9	ON	357	78.8	-28.8	12.48	12.75	12.15	11.55
			OFF	351	81.8	-27.8	12.46	12.75	12.15	11.55
188 2 3	48	185.8	ON	321	82.9	-145.8	12.33	12.75	12.15	11.55
			OFF	387	76.4	-162.5	12.26	12.75	12.15	11.55
181 4 3	15	39.7	ON	364	74.4	-15.2	12.51	12.75	12.15	11.55
			OFF	368	76.7	-17.9	12.49	12.75	12.15	11.55
181 4 9	18	47.6	ON	388	77.2	-161.4	12.27	12.75	12.15	11.55
			OFF	382	74.8	-165.2	12.24	12.75	12.15	11.55
182 3 3	44	116.4	ON	387	27.8	-4.5	12.68	12.59	11.99	11.39
			OFF	392	34.8	-4.9	12.61	12.68	12.88	11.48
183 3 2	44	116.4	ON	389	38.6	-4.6	12.61	12.63	12.83	11.43
			OFF	393	37.4	-5.8	12.62	12.78	12.18	11.58
184 3 5	89	235.4	ON	387	27.6	-4.4	12.68	12.59	11.99	11.39
			OFF	394	41.3	-5.3	12.62	12.73	12.13	11.53
185 2 2	19	58.3	ON	383	23.6	-4.2	12.58	12.51	11.91	11.31
			OFF	386	26.7	-4.3	12.59	12.57	11.97	11.37
186 4 4	23	68.8	ON	393	48.8	-5.8	12.62	12.75	12.15	11.55
			OFF	391	51.7	-6.3	12.61	12.75	12.15	11.55
187 7 3	17	45.8	ON	394	43.1	-5.3	12.62	12.73	12.13	11.53
			OFF	393	45.7	-5.6	12.62	12.75	12.15	11.55
111 1 1	24	63.5	ON	388	27.6	-4.2	12.68	12.59	11.99	11.39
			OFF	391	31.4	-4.4	12.61	12.64	12.84	11.44
113 2 8	17	45.8	ON	393	36.8	-4.6	12.62	12.69	12.89	11.49
			OFF	394	38.6	-4.7	12.62	12.71	12.11	11.51
117 2 4	45	119.8	ON	332	85.8	-68.6	12.38	12.75	12.15	11.55
			OFF	314	83.1	-148.2	12.38	12.75	12.15	11.55
117 2 7	21	55.5	ON	387	79.5	-159.8	12.26	12.75	12.15	11.55
			OFF	381	75.8	-165.1	12.23	12.75	12.15	11.55
118 4 6	17	45.8	ON	347	79.1	-19.4	12.44	12.75	12.15	11.55
			OFF	341	81.8	-26.2	12.42	12.75	12.15	11.55
121 3 4	35	92.6	ON	382	21.7	-3.7	12.58	12.45	11.85	11.25
			OFF	387	27.3	-3.9	12.68	12.58	11.98	11.38
126 8 5	44	116.4	ON	286	69.8	-178.2	12.16	12.75	12.15	11.55

SECRET

127	2	1	14	37.8	OFF	272	61.2-173.1	12.89	12.75	12.15	11.55
					ON	375	61.6 -7.1	12.55	12.75	12.15	11.55
					OFF	372	63.9 -7.6	12.54	12.75	12.15	11.55
128	9	3	18	47.6	ON	392	37.2 -4.1	12.62	12.78	12.18	11.58
					OFF	392	48.1 -4.3	12.62	12.72	12.12	11.52
133	3	1	18	47.6	ON	376	14.8 -3.1	12.56	12.13	11.53	18.93
					OFF	388	17.7 -3.2	12.57	12.29	11.69	11.89
134	5	6	26	68.8	ON	388	17.4 -3.2	12.57	12.28	11.68	11.88
					OFF	384	21.6 -3.3	12.59	12.45	11.85	11.25
135	7	1	21	55.5	ON	381	18.2 -3.2	12.58	12.32	11.72	11.12
					OFF	384	21.6 -3.3	12.59	12.45	11.85	11.25
135	7	3	49	129.6	ON	388	47.9 -4.7	12.68	12.75	12.15	11.55
					OFF	381	55.4 -5.5	12.58	12.75	12.15	11.55
136	7	1	17	45.8	ON	398	28.8 -3.5	12.61	12.61	12.81	11.41
					OFF	391	31.6 -3.6	12.61	12.64	12.84	11.44
137	8	1	86	227.5	ON	379	16.1 -3.1	12.57	12.21	11.61	11.81
					OFF	398	29.4 -3.5	12.61	12.62	12.82	11.42
137	8	8	28	52.9	ON	391	42.4 -4.2	12.61	12.73	12.13	11.53
					OFF	389	45.6 -4.4	12.61	12.74	12.14	11.54
138	8	6	88	211.6	ON	368	68.9 -8.6	12.58	12.75	12.15	11.55
					OFF	335	81.4 -21.8	12.39	12.75	12.15	11.55
148	7	1	42	111.1	ON	391	41.9 -4.8	12.61	12.73	12.13	11.53
					OFF	387	48.4 -4.5	12.68	12.75	12.15	11.55
145	4	2	19	58.3	ON	392	35.8 -3.5	12.62	12.68	12.88	11.48
					OFF	391	38.8 -3.6	12.61	12.78	12.18	11.58
149	7	6	54	142.8	ON	381	81.3-161.4	12.23	12.75	12.15	11.55
					OFF	284	71.2-171.4	12.15	12.75	12.15	11.55
158	2	4	47	124.3	ON	388	85.6-141.3	12.27	12.75	12.15	11.55
					OFF	294	77.5-167.2	12.28	12.75	12.15	11.55
151	6	3	56	148.1	ON	395	38.2 -3.1	12.63	12.63	12.83	11.43
					OFF	394	38.9 -3.5	12.63	12.71	12.11	11.81
152	6	2	76	281.8	ON	392	24.3 -2.9	12.62	12.52	11.92	11.32
					OFF	395	36.8 -3.3	12.63	12.69	12.89	11.49
153	8	2	79	289.8	ON	388	18.8 -2.7	12.68	12.34	11.74	11.14
					OFF	395	31.8 -3.1	12.63	12.64	12.84	11.44
154	8	6	64	169.3	ON	346	74.4 -9.9	12.44	12.75	12.15	11.55
					OFF	323	84.8 -38.4	12.34	12.75	12.15	11.55
161	6	8	12	31.7	ON	395	37.9 -3.1	12.63	12.78	12.18	11.58
					OFF	395	39.8 -3.2	12.63	12.72	12.12	11.52
165	2	3	26	68.8	ON	325	86.9 -58.6	12.35	12.75	12.15	11.55
					OFF	315	86.4-138.3	12.38	12.75	12.15	11.55
165	2	5	24	63.5	ON	387	82.4-161.9	12.26	12.75	12.15	11.55
					OFF	299	78.1-168.6	12.23	12.75	12.15	11.55
165	2	7	23	68.8	ON	292	73.6-171.7	12.19	12.75	12.15	11.55
					OFF	284	69.8-173.5	12.15	12.75	12.15	11.55
166	2	4	54	142.8	ON	317	87.3-121.2	12.31	12.75	12.15	11.55
					OFF	388	78.5-168.3	12.23	12.75	12.15	11.55
167	6	3	51	134.9	ON	393	29.6 -2.6	12.62	12.62	12.82	11.42
					OFF	395	37.5 -2.9	12.63	12.78	12.18	11.58
168	6	2	57	158.8	ON	391	25.8 -2.5	12.61	12.56	11.96	11.36
					OFF	395	34.8 -2.7	12.63	12.68	12.88	11.48

SECRET

JUL

169	3	2	35	92.6	ON	389	22.2	-2.3	12.68	12.46	11.86	11.26
					OFF	392	27.6	-2.5	12.62	12.59	11.99	11.39
178	6	3	34	89.9	ON	387	28.8	-2.3	12.68	12.39	11.79	11.19
					OFF	391	25.4	-2.4	12.61	12.55	11.95	11.35
181	7	3	32	84.6	ON	387	85.2	-156.8	12.26	12.75	12.15	11.55
					OFF	297	79.4	-169.4	12.22	12.75	12.15	11.55
182	1	4	26	68.8	ON	347	75.1	-7.5	12.44	12.75	12.15	11.55
					OFF	358	79.5	-18.6	12.48	12.75	12.15	11.55
182	1	6	25	66.1	ON	327	83.9	-18.3	12.36	12.75	12.15	11.55
					OFF	318	87.6	-54.2	12.31	12.75	12.15	11.55
182	1	8	23	68.8	ON	389	86.3	-148.6	12.27	12.75	12.15	11.55
					OFF	381	82.2	-165.7	12.24	12.75	12.15	11.55
184	6	2	58	132.2	ON	393	26.8	-2.8	12.62	12.57	11.97	11.37
					OFF	395	34.6	-2.2	12.63	12.68	12.88	11.48
185	8	5	74	195.7	ON	394	39.6	-2.4	12.62	12.71	12.11	11.51
					OFF	386	51.8	-2.9	12.59	12.75	12.15	11.55
186	6	4	31	82.8	ON	392	23.5	-1.9	12.62	12.58	11.98	11.38
					OFF	394	28.3	-2.8	12.62	12.68	12.88	11.48
187	2	2	16	42.3	ON	365	65.1	-4.2	12.51	12.75	12.15	11.55
					OFF	368	67.7	-4.7	12.49	12.75	12.15	11.55
188	2	2	46	121.7	ON	398	45.8	-2.5	12.61	12.74	12.14	11.54
					OFF	384	52.1	-2.8	12.59	12.75	12.15	11.55
194	9	1	13	34.4	ON	395	31.3	-1.8	12.63	12.64	12.84	11.44
					OFF	395	33.3	-1.9	12.63	12.66	12.86	11.46

STELLAR-INDEX SUMMARY

CAMERA DATA ET FILM FILTER GRID ASSEMBLY NO D186

STELLAR INDEX	2.8	3481	NONE	136
	1/500	3488	W/21	134

PERFORMANCE SUMMARY

OPN NO	FR	STEL FEET	INDX FEET	H	M	S	Q	LAT	LONG	Q	LAT	LONG	SEC DUR		
64	5	8	2	8.28	8.48	19	18	11	2	32	189W	2	38	189W	48
68	7	3	4	8.48	8.79	1	25	26	3	9	151E	3	12	158E	61
68	7	4	7	8.69	1.39	1	28	17	3	28	148E	3	27	146E	112
69	1	3	8	8.79	1.58	2	52	9	2	1	131E	3	6	129E	126
71	6	3	6	8.59	1.19	5	43	8	2	31	94E	2	26	93E	98
72	1	8	2	8.28	8.48	6	45	37	1	38	115W	1	41	116W	59
72	1	2	3	8.38	8.59	7	7	29	2	58	79E	2	48	78E	54
72	1	4	9	8.89	1.78	7	9	14	2	43	76E	2	35	73E	143
73	6	2	12	1.19	2.38	8	36	34	2	51	57E	2	39	52E	193
74	4	1	6	8.59	1.19	18	3	46	2	59	48E	2	53	36E	181
74	4	2	7	8.69	1.39	18	13	29	2	28	24E	2	14	23E	184
75	4	1	6	8.59	1.19	11	44	9	2	14	8E	2	9	8W	96
77	9	1	4	8.48	8.79	14	46	8	2	1	46W	3	2	47W	62
79	5	8	3	8.38	8.59	17	34	21	2	41	88W	2	39	81W	58
88	5	8	2	8.28	8.48	19	5	41	2	33	185W	2	31	185W	33
81	5	8	3	8.38	8.59	28	34	8	2	36	126W	2	33	127W	52
84	7	5	7	8.69	1.39	1	18	6	3	38	149E	3	37	146E	116
85	2	6	3	8.38	8.59	2	45	42	3	23	128E	3	26	127E	53

SECRET

SECRET

81	2	7	3	8.38	8.59	2	47	8	3	29	127E	3	32	126E	58
86	3	2	9	8.89	1.78	3	57	27	2	46	126E	2	37	122E	143
87	3	2	4	8.48	8.79	5	27	38	2	43	182E	2	39	188E	71
88	8	2	17	1.68	3.37	6	56	33	2	44	88E	2	28	75E	261
89	5	4	15	1.48	2.97	8	21	14	2	63	69E	2	48	68E	248
89	5	8	7	8.69	1.39	8	26	35	2	42	57E	2	35	55E	187
98	2	4	3	8.38	8.59	18	12	17	3	23	17E	3	26	16E	63
94	2	1	13	1.29	2.57	16	1	34	2	9	63W	3	3	66W	283
95	8	2	5	8.49	8.99	17	23	22	2	39	77W	2	34	79W	85
95	8	6	3	8.38	8.59	17	29	52	2	13	85W	2	18	85W	51
100	2	1	4	8.48	8.79	1	1	28	3	6	158E	3	9	157E	61
100	2	3	6	8.59	1.19	1	5	41	3	23	154E	3	38	152E	119
101	4	3	3	8.38	8.59	2	29	52	3	2	137E	3	5	136E	49
101	4	9	3	8.38	8.59	2	36	38	3	29	138E	3	33	129E	63
102	3	3	7	8.69	1.39	3	47	45	2	43	127E	2	36	125E	115
103	3	2	7	8.69	1.39	5	17	45	2	48	184E	2	33	182E	113
104	3	5	14	1.39	2.77	6	46	28	2	43	83E	2	38	78E	214
105	2	2	3	8.38	8.59	8	14	41	2	47	62E	2	44	61E	58
106	4	4	4	8.48	8.79	9	49	58	2	23	32E	2	19	31E	66
107	7	3	3	8.38	8.59	11	18	4	2	28	11E	2	25	18E	52
111	1	1	4	8.48	8.79	17	11	31	2	43	72W	2	39	74W	68
113	2	8	3	8.38	8.59	28	12	9	2	35	128W	2	32	121W	52
117	2	4	7	8.69	1.39	2	21	58	3	16	137E	3	23	135E	138
117	2	7	4	8.48	8.79	2	24	55	3	27	134E	3	31	132E	78
118	4	6	3	8.38	8.59	3	49	14	3	7	117E	3	18	116E	56
121	3	4	6	8.59	1.19	8	2	55	2	48	66E	2	43	64E	94
126	8	5	7	8.69	1.39	15	58	48	3	37	69W	3	46	73W	143
127	2	1	3	8.38	8.59	17	8	13	2	9	79W	2	7	79W	47
128	9	3	3	8.38	8.59	18	31	38	2	33	95W	2	38	95W	55
133	3	1	3	8.38	8.59	1	52	12	2	55	163E	2	52	161E	56
134	5	6	5	8.49	8.99	3	22	4	2	52	139E	2	48	137E	74
135	7	1	4	8.48	8.79	4	51	38	2	51	116E	2	48	114E	62
135	7	3	8	8.79	1.58	4	58	43	2	23	185E	2	15	184E	123
136	7	1	3	8.38	8.59	6	23	18	2	41	89E	2	38	88E	53
137	8	1	13	1.29	2.57	7	49	24	2	53	73E	2	41	67E	287
137	8	8	4	8.48	8.79	7	55	49	2	28	62E	2	25	62E	59
138	8	6	12	1.19	2.38	9	31	32	2	2	33E	3	18	38E	282
140	7	1	7	8.69	1.39	12	23	19	2	28	3W	2	22	5W	188
145	4	2	4	8.48	8.79	19	47	38	2	35	112W	2	32	113W	57
149	7	6	8	8.79	1.58	1	59	58	3	26	141E	3	37	138E	166
150	2	4	7	8.69	1.39	3	27	49	3	22	128E	3	38	118E	143
151	6	3	9	8.89	1.78	4	41	31	2	48	115E	2	31	112E	139
152	6	2	12	1.19	2.38	6	9	15	2	45	95E	2	34	98E	185
153	8	2	12	1.19	2.38	7	37	4	2	51	75E	2	39	78E	191
154	8	6	18	8.99	1.98	9	19	58	3	3	36E	3	14	33E	173
161	6	8	2	8.28	8.48	19	34	53	2	32	118W	2	38	118W	42
165	2	3	4	8.48	8.79	1	43	39	3	17	148E	3	21	147E	81
165	2	5	4	8.48	8.79	1	45	55	3	26	145E	3	38	144E	88
165	2	7	4	8.48	8.79	1	48	9	3	35	143E	3	39	141E	81
166	2	4	8	8.79	1.58	3	13	35	3	28	125E	3	38	122E	168
167	6	3	8	8.79	1.58	4	27	35	2	48	119E	2	32	116E	129

SECRET

~~SECRET~~

168	6	2	9	0.89	1.78	5	55	47	2	43	98E	2	35	95E	143
169	3	2	6	0.59	1.19	7	23	58	2	47	77E	2	42	75E	93
170	6	3	6	0.59	1.19	8	52	33	2	49	56E	2	44	54E	91
181	7	3	5	0.49	0.99	1	38	35	3	23	158E	3	29	149E	103
182	1	4	4	0.48	0.79	2	54	55	3	4	133E	3	9	132E	79
182	1	6	4	0.48	0.79	2	57	7	3	13	131E	3	18	130E	79
182	1	8	4	0.48	0.79	2	59	28	3	22	128E	3	26	127E	78
184	6	2	8	0.79	1.58	5	41	11	2	42	102E	2	35	99E	128
185	8	5	11	1.09	2.18	7	13	20	2	38	75E	2	19	72E	100
186	6	4	5	0.49	0.99	8	38	27	2	45	59E	2	41	57E	84
187	2	2	3	0.38	0.59	18	17	48	2	4	24E	2	2	23E	51
188	2	2	7	0.69	1.39	11	41	47	2	24	7E	2	17	5E	116
194	9	1	2	0.28	0.48	28	32	34	2	38	121W	2	36	122W	42

NOTE - T/M DATA INDICATE NORMAL SYSTEM PERFORMANCE

NOTE - THE ORBIT WAS ADJUSTED ON REV 86

NOTE - T/M DATA INDICATE THAT BOTH THE MASTER AND SLAVE PAN CAMERAS WERE DEPLETED OF ALL FILM PRIOR TO OPERATION 194-9-1

NOTE - ONLY THE LAST FIVE FRAMES OF OPERATION 64-5-8 ARE IN THE B MISSION RECOVERY BUCKET

NOTE - OPERATION 66-8-8 WAS THE CUT AND WRAP OPERATION OCCURRING AT THE TIME OF A MISSION RECOVERY

~~SECRET~~

C. PERFORMANCE ESTIMATE - PART TWO

RATE ESTIMATE

FWD PAN CAMERA NUMBER 198

OPN NO	FR	R	A	TUR/ BUR	INST CPS	INST ANG-VEL	SCAN RATE R/SEC	RATE I/SEC	PCT CALIB	RATE REQD		
64	8	8	11	3	4 ON	1687	8.4485	8.83784	2.818	67.63	-11.5	-8.6
					OFF	27	8.4583	8.83888	2.829	67.91	-11.5	-8.7
66	8	8	3	3	4 ON	8	8.2536	8.82148	1.593	38.24	-11.5	-71.7
					OFF	23	8.2536	8.82148	1.593	38.24	-11.5	-73.1
68	7	3	22	3	4 ON	2318	8.4383	8.83638	2.783	64.88	-11.5	-18.5
					OFF	48	8.4239	8.83577	2.664	63.93	-11.5	-18.4
68	7	4	43	3	4 ON	2488	8.4839	8.83488	2.538	68.98	-11.5	-18.9
					OFF	99	8.3866	8.83262	2.429	58.29	-11.5	-11.2
69	1	3	58	3	4 ON	2168	8.4478	8.83772	2.888	67.48	-11.5	-18.2
					OFF	113	8.4353	8.83673	2.735	65.65	-11.5	-18.3
71	6	3	34	3	4 ON	1788	8.4581	8.83798	2.828	67.88	-11.5	-8.8
					OFF	77	8.4548	8.83837	2.857	68.58	-11.5	-9.1
72	1	8	13	3	4 ON	114	8.2558	8.82151	1.682	38.45	-11.5	-17.5
					OFF	46	8.2562	8.82162	1.618	38.63	-11.5	-18.1
72	1	2	17	3	4 ON	1426	8.4165	8.83514	2.617	62.88	-11.5	-8.9
					OFF	41	8.4222	8.83563	2.653	63.67	-11.5	-8.9
72	1	4	58	3	4 ON	1531	8.4317	8.83642	2.712	65.89	-11.5	-8.6
					OFF	138	8.4459	8.83763	2.882	67.25	-11.5	-8.7
73	6	2	88	3	4 ON	1418	8.4152	8.83584	2.689	62.61	-11.5	-9.1
					OFF	188	8.4395	8.83789	2.762	66.28	-11.5	-8.7
74	4	1	36	3	4 ON	1388	8.3952	8.83334	2.483	59.59	-11.5	-18.8
					OFF	88	8.4898	8.83458	2.575	61.88	-11.5	-9.4
74	4	2	42	3	4 ON	1884	8.4579	8.83863	2.877	69.84	-11.5	-9.5
					OFF	91	8.4575	8.83868	2.874	68.98	-11.5	-9.8
75	4	1	38	3	4 ON	1973	8.4574	8.83868	2.874	68.98	-11.5	-9.8
					OFF	83	8.4545	8.83835	2.856	68.54	-11.5	-18.1
77	9	1	22	3	4 ON	2182	8.4458	8.83755	2.796	67.11	-11.5	-18.5
					OFF	49	8.4483	8.83715	2.766	66.39	-11.5	-18.6
79	5	8	16	3	4 ON	1583	8.4381	8.83696	2.752	66.86	-11.5	-8.9
					OFF	37	8.4418	8.83728	2.776	66.63	-11.5	-9.8
88	5	8	8	3	4 ON	1713	8.4585	8.83881	2.838	67.93	-11.5	-9.1
					OFF	28	8.4516	8.83811	2.838	68.11	-11.5	-9.2
81	5	8	17	3	4 ON	1678	8.4838	8.84882	3.848	72.96	-4.2	-8.8
					OFF	39	8.4878	8.84189	3.868	73.44	-4.2	-8.9
84	7	5	41	3	4 ON	2663	8.4885	8.83388	2.517	68.48	-4.2	-4.3
					OFF	183	8.3889	8.83214	2.393	57.44	-4.2	-4.7
85	2	6	16	3	4 ON	2571	8.4195	8.83548	2.636	63.26	-4.2	-3.8
					OFF	48	8.4128	8.83477	2.589	62.13	-4.2	-3.9
85	2	7	18	3	4 ON	2648	8.4836	8.83486	2.536	68.86	-4.2	-4.3
					OFF	45	8.3949	8.83332	2.481	59.55	-4.2	-4.5
86	3	2	57	4	5 ON	1618	8.4487	8.83786	2.819	67.66	-4.2	-5.2
					OFF	138	8.4589	8.83872	2.884	69.21	-4.2	-6.3

UNLP

					5 ON	1662	8.4535	8.83827	2.849	68.39	-4.2	-1.8
					OFF	58	8.4577	8.83862	2.876	69.82	-4.2	-1.1
88	8	2	111	4	5 ON	1635	8.4511	8.83886	2.834	68.82	-4.2	-8.8
					OFF	248	8.4642	8.83917	2.917	78.88	-4.2	-1.1
89	5	4	98	4	5 ON	1358	8.4153	8.83585	2.618	62.63	-4.2	-2.2
					OFF	227	8.4458	8.83761	2.881	67.22	-4.2	-8.9
89	5	8	42	4	5 ON	1678	8.4548	8.83838	2.858	68.59	-4.2	-8.7
					OFF	94	8.4687	8.83887	2.895	69.47	-4.2	-8.8
98	2	4	19	4	5 ON	2661	8.3829	8.83231	2.486	57.74	-4.2	-3.4
					OFF	58	8.3744	8.83189	2.352	56.45	-4.2	-3.6
94	2	1	84	4	5 ON	2185	8.4466	8.83768	2.886	67.35	-5.4	-2.9
					OFF	198	8.4253	8.83588	2.672	64.13	-5.4	-3.3
95	8	2	31	4	5 ON	1734	8.4532	8.83824	2.848	68.35	-5.4	-1.7
					OFF	72	8.4567	8.83853	2.869	68.86	-5.4	-1.8
95	8	6	16	4	5 ON	2124	8.4514	8.83889	2.836	68.87	-5.4	-2.6
					OFF	38	8.4487	8.83786	2.828	67.67	-5.4	-2.7
188	2	1	28	4	5 ON	2433	8.4163	8.83513	2.616	62.78	-5.4	-3.7
					OFF	48	8.4894	8.83485	2.872	61.74	-5.4	-3.8
188	2	3	48	4	5 ON	2686	8.3739	8.83155	2.349	56.38	-5.4	-5.1
					OFF	186	8.3577	8.83819	2.248	53.95	-5.4	-5.8
181	4	3	15	4	5 ON	2388	8.4241	8.83578	2.665	63.95	-5.4	-3.5
					OFF	36	8.4195	8.83539	2.635	63.25	-5.4	-3.5
181	4	9	18	4	5 ON	2782	8.3587	8.83827	2.254	54.89	-5.4	-5.2
					OFF	58	8.3525	8.82974	2.215	53.15	-5.4	-4.8
182	3	3	45	4	5 ON	1696	8.4587	8.83883	2.832	67.97	-5.4	-1.7
					OFF	182	8.4564	8.83851	2.867	68.82	-5.4	-1.8
183	3	2	44	4	5 ON	1739	8.4536	8.83827	2.858	68.48	-5.4	-1.7
					OFF	188	8.4578	8.83863	2.876	69.83	-5.4	-1.8
184	3	5	89	4	5 ON	1697	8.4588	8.83884	2.833	67.98	-5.4	-1.8
					OFF	281	8.4588	8.83871	2.883	69.18	-5.4	-2.8
185	2	2	19	4	5 ON	1641	8.4463	8.83765	2.884	67.29	-5.4	-1.9
					OFF	45	8.4497	8.83795	2.826	67.82	-5.4	-1.8
186	4	4	23	4	5 ON	2881	8.4576	8.83861	2.875	69.88	-5.4	-2.3
					OFF	53	8.4557	8.83845	2.863	68.71	-5.4	-2.4
187	7	3	17	4	5 ON	1932	8.4588	8.83871	2.883	69.18	-5.4	-2.1
					OFF	39	8.4584	8.83868	2.888	69.12	-5.4	-2.2
111	1	1	24	4	5 ON	1716	8.4521	8.83815	2.841	68.18	-5.4	-1.9
					OFF	55	8.4552	8.83841	2.868	68.64	-5.4	-1.9
113	2	8	17	4	5 ON	1844	8.4588	8.83864	2.878	69.86	-5.4	-2.8
					OFF	39	8.4586	8.83878	2.882	69.16	-5.4	-2.1
117	2	4	46	4	5 ON	2615	8.3865	8.83261	2.429	58.29	-5.4	-5.4
					OFF	117	8.3663	8.83891	2.382	55.24	-5.4	-6.1
117	2	7	21	4	5 ON	2791	8.3575	8.83817	2.246	53.91	-5.4	-6.8
					OFF	57	8.3583	8.82956	2.281	52.82	-5.4	-5.6
118	4	6	17	4	5 ON	2497	8.4844	8.83412	2.541	68.97	-5.8	-5.2
					OFF	43	8.3978	8.83356	2.499	59.99	-5.8	-5.4
121	3	4	35	4	5 ON	1655	8.4452	8.83756	2.797	67.13	-5.8	-2.6
					OFF	81	8.4589	8.83885	2.833	67.99	-5.8	-2.6
126	8	5	43	4	5 ON	2965	8.3338	8.82889	2.892	58.21	-5.8	-6.2
					OFF	138	8.3175	8.82679	1.995	47.87	-5.8	-5.5
127	2	1	15	4	5 ON	2258	8.4371	8.83688	2.746	65.91	-5.8	-4.2

SECRET

OLUJLI

128	9	3	18	4	5	OFF	34	0.4336	0.83658	2.724	65.38	-5.8	-4.2
						ON	1982	0.4565	0.83852	2.868	68.83	-5.8	-2.8
133	3	1	18	4	5	OFF	42	0.4564	0.83851	2.868	68.82	-5.8	-2.9
						ON	1587	0.4387	0.83782	2.757	66.16	-5.8	-3.2
134	5	6	26	4	5	OFF	43	0.4426	0.83735	2.781	66.75	-5.8	-3.8
						ON	1629	0.4429	0.83737	2.783	66.79	-5.8	-3.8
135	7	1	21	4	5	OFF	61	0.4478	0.83778	2.813	67.52	-5.8	-2.8
						ON	1643	0.4442	0.83748	2.791	66.98	-5.8	-2.9
135	7	3	49	4	5	OFF	49	0.4479	0.83779	2.814	67.54	-5.8	-2.8
						ON	2876	0.4521	0.83815	2.848	68.17	-5.8	-3.4
136	7	1	17	4	5	OFF	118	0.4444	0.83758	2.792	67.82	-5.8	-3.8
						ON	1881	0.4543	0.83833	2.854	68.51	-5.8	-2.7
137	8	1	86	4	5	OFF	48	0.4555	0.83843	2.862	68.68	-5.8	-2.7
						ON	1617	0.4417	0.83727	2.775	66.61	-5.8	-3.1
137	8	8	28	4	5	OFF	194	0.4546	0.83835	2.856	68.54	-5.8	-2.7
						ON	2882	0.4552	0.83841	2.868	68.64	-5.8	-3.1
138	8	6	88	4	5	OFF	46	0.4536	0.83828	2.858	68.48	-5.8	-3.3
						ON	2394	0.4199	0.83543	2.638	63.32	-5.8	-5.1
148	7	1	42	4	5	OFF	189	0.3986	0.83296	2.454	58.91	-5.8	-6.4
						ON	2884	0.4551	0.83848	2.868	68.63	-5.8	-3.1
145	4	2	19	4	5	OFF	95	0.4518	0.83885	2.834	68.88	-5.8	-3.5
						ON	1917	0.4565	0.83852	2.868	68.84	-5.8	-2.8
149	7	6	54	4	5	OFF	44	0.4562	0.83849	2.866	68.79	-5.8	-3.8
						ON	2854	0.3582	0.82955	2.281	52.81	-5.8	-7.1
158	2	4	47	4	5	OFF	153	0.3387	0.82791	2.878	49.87	-5.8	-6.4
						ON	2786	0.3594	0.83833	2.258	54.28	-5.8	-7.4
151	6	3	56	4	5	OFF	138	0.3425	0.82898	2.152	51.65	-5.8	-6.9
						ON	1861	0.4899	0.83888	2.889	69.34	-5.8	-1.9
152	6	2	76	4	5	OFF	126	0.4595	0.83877	2.887	69.38	-5.8	-2.2
						ON	1779	0.4572	0.83858	2.873	68.94	-5.8	-1.9
153	8	2	79	4	5	OFF	172	0.4682	0.83883	2.891	69.39	-5.8	-2.1
						ON	1781	0.4526	0.83819	2.844	68.25	-5.8	-2.1
154	8	6	65	4	5	OFF	178	0.4681	0.83882	2.891	69.38	-5.8	-2.8
						ON	2522	0.4837	0.83486	2.536	68.87	-5.8	-5.8
161	6	8	12	4	5	OFF	168	0.3765	0.83177	2.366	56.77	-5.8	-7.2
						ON	1919	0.4684	0.83884	2.893	69.42	-5.8	-2.1
165	2	3	26	4	5	OFF	29	0.4682	0.83883	2.892	69.48	-5.8	-2.1
						ON	2665	0.3798	0.83198	2.381	57.15	-5.8	-4.3
165	2	5	24	4	5	OFF	68	0.3673	0.83899	2.388	55.39	-5.8	-4.8
						ON	2888	0.3574	0.83816	2.246	53.98	-5.8	-4.8
165	2	7	23	4	5	OFF	67	0.3498	0.82945	2.193	52.62	-5.8	-4.4
						ON	2935	0.3397	0.82866	2.134	51.22	-5.8	-4.4
166	2	4	54	4	5	OFF	68	0.3313	0.82796	2.882	49.97	-5.8	-4.1
						ON	2718	0.3695	0.83117	2.321	55.71	-5.8	-4.9
167	6	3	51	4	5	OFF	147	0.3493	0.82947	2.195	52.67	-5.8	-4.6
						ON	1812	0.4568	0.83848	2.865	68.77	-5.6	-3.8
168	6	2	58	4	5	OFF	116	0.4578	0.83863	2.877	69.84	-5.6	-2.6
						ON	1761	0.4538	0.83829	2.851	68.43	-5.6	-3.3
169	3	2	35	4	5	OFF	138	0.4577	0.83862	2.876	69.82	-5.6	-2.7
						ON	1789	0.4587	0.83883	2.832	67.96	-5.6	-3.7
						OFF	88	0.4558	0.83839	2.859	68.61	-5.6	-3.2

CRONET

178	6	3	34	4	5	ON	1681	8.4486	8.83785	2.819	67.65	-5.6	-3.9
						OFF	78	8.4536	8.83827	2.858	68.39	-5.6	-3.4
181	7	3	33	4	5	ON	2881	8.3553	8.82999	2.234	53.68	-5.6	-6.4
						OFF	98	8.3448	8.82983	2.161	51.88	-5.6	-6.1
182	1	4	26	4	5	ON	2519	8.4819	8.83391	2.525	68.68	-5.6	-4.5
						OFF	66	8.3913	8.83382	2.459	59.81	-5.6	-4.9
182	1	6	25	4	5	ON	2651	8.3793	8.83288	2.383	57.28	-5.6	-5.7
						OFF	66	8.3681	8.83186	2.313	55.52	-5.6	-6.2
182	1	8	23	4	5	ON	2784	8.3577	8.83818	2.248	53.94	-5.6	-6.4
						OFF	65	8.3494	8.82948	2.195	52.69	-5.6	-6.2
184	6	2	51	4	5	ON	1815	8.4561	8.83849	2.866	68.79	-5.6	-3.3
						OFF	115	8.4578	8.83863	2.877	69.84	-5.6	-2.9
185	8	5	74	4	5	ON	2883	8.4565	8.83852	2.868	68.84	-5.6	-2.8
						OFF	167	8.4472	8.83773	2.818	67.44	-5.6	-2.8
186	6	4	31	4	5	ON	1771	8.4543	8.83833	2.855	68.51	-5.6	-3.6
						OFF	71	8.4569	8.83855	2.878	68.89	-5.6	-3.3
187	2	2	16	4	5	ON	2384	8.4226	8.83566	2.656	63.73	-5.6	-3.8
						OFF	38	8.4176	8.83524	2.624	62.98	-5.6	-3.9
188	2	2	46	4	5	ON	2892	8.4525	8.83818	2.843	68.24	-5.6	-2.9
						OFF	183	8.4449	8.83754	2.796	67.18	-5.6	-3.1
194	9	1	12	4	5	ON	1989	8.4579	8.83863	2.877	69.84	-5.6	-3.4
						OFF	29	8.4578	8.83863	2.876	69.83	-5.6	-3.3

RATE ESTIMATE

AFT PAN CAMERA NUMBER 199

OPN NO	FR	R	A	TUR/DUR	INST GPS	INST ANG-VEL	SCAN R/SEC	RATE I/SEC	PCT CALIB	RATE REQD		
64	5	8	11	3	4 ON	1699	8.4478	8.83778	2.814	67.53	-12.2	-9.8
					OFF	27	8.4496	8.83794	2.825	67.88	-12.2	-9.1
66	8	8	3	3	4 ON	12	8.2537	8.82141	1.594	38.26	-12.2	-72.4
					OFF	23	8.2537	8.82141	1.594	38.26	-12.2	-73.8
68	7	3	22	3	4 ON	2322	8.4296	8.83625	2.788	64.79	-12.2	-18.2
					OFF	48	8.4234	8.83572	2.668	63.84	-12.2	-18.2
68	7	4	43	3	4 ON	2492	8.4834	8.83484	2.534	68.83	-12.2	-18.5
					OFF	99	8.3861	8.83258	2.426	58.23	-12.2	-18.7
69	1	3	58	3	4 ON	2172	8.4463	8.83766	2.884	67.38	-12.2	-18.1
					OFF	113	8.4347	8.83668	2.731	65.55	-12.2	-18.1
71	6	3	34	3	4 ON	1728	8.4494	8.83792	2.824	67.77	-12.2	-9.2
					OFF	77	8.4548	8.83831	2.853	68.47	-12.2	-9.4
72	1	8	13	3	4 ON	126	8.2551	8.82152	1.683	38.47	-12.2	-17.8
					OFF	46	8.2563	8.82163	1.611	38.65	-12.2	-18.4
72	1	2	17	3	4 ON	1438	8.4159	8.83589	2.613	62.72	-12.2	-9.5
					OFF	41	8.4217	8.83558	2.649	63.89	-12.2	-9.4
72	1	4	58	3	4 ON	1543	8.4311	8.83637	2.788	65.88	-12.2	-9.1
					OFF	138	8.4453	8.83757	2.798	67.14	-12.2	-9.2
73	6	2	88	3	4 ON	1438	8.4147	8.83499	2.686	62.53	-12.2	-9.6
					OFF	188	8.4389	8.83783	2.757	66.18	-12.2	-9.2
74	4	1	35	3	4 ON	1312	8.3947	8.83338	2.488	59.52	-12.2	-18.6
					OFF	88	8.4893	8.83454	2.572	61.72	-12.2	-18.8
74	4	2	42	3	4 ON	1896	8.4571	8.83857	2.872	68.94	-12.2	-9.7

SECRET

				OFF	91	8.4567	8.83854	2.878	68.87	-12.2	-9.9	
78	1	38	3	4 ON	1985	8.4567	8.83854	2.878	68.87	-12.2	-18.8	
				OFF	83	8.4538	8.83829	2.851	68.43	-12.2	-18.1	
77	9	1	22	3	4 ON	2194	8.4443	8.83749	2.792	67.81	-12.2	-18.4
				OFF	49	8.4396	8.83789	2.762	66.29	-12.2	-18.4	
79	5	8	16	3	4 ON	1598	8.4374	8.83691	2.748	65.96	-12.2	-9.4
				OFF	37	8.4412	8.83723	2.772	66.53	-12.2	-9.5	
88	5	8	8	3	4 ON	1725	8.4498	8.83795	2.826	67.83	-12.2	-9.5
				OFF	28	8.4589	8.83885	2.833	68.88	-12.2	-9.6	
81	5	8	17	3	4 ON	1682	8.4826	8.84872	3.833	72.78	-5.1	-1.3
				OFF	39	8.4858	8.84899	3.852	73.26	-5.1	-1.4	
84	7	5	41	3	4 ON	2675	8.3998	8.83373	2.512	68.29	-5.1	-4.8
				OFF	183	8.3883	8.83289	2.389	57.35	-5.1	-4.3	
85	2	6	16	3	4 ON	2583	8.4187	8.83533	2.631	63.13	-5.1	-3.5
				OFF	48	8.4112	8.83478	2.584	62.81	-5.1	-3.6	
85	2	7	18	3	4 ON	2668	8.4829	8.83399	2.531	68.75	-5.1	-4.8
				OFF	45	8.3942	8.83326	2.477	59.44	-5.1	-4.1	
86	3	2	57	4	5 ON	1622	8.4478	8.83778	2.814	67.53	-5.1	-5.7
				OFF	138	8.4588	8.83865	2.878	69.87	-5.1	-6.8	
87	3	2	25	4	5 ON	1674	8.4526	8.83819	2.844	68.25	-5.1	-1.4
				OFF	58	8.4568	8.83854	2.878	68.88	-5.1	-1.5	
88	8	2	118	4	5 ON	1647	8.4582	8.83799	2.829	67.89	-5.1	-1.3
				OFF	248	8.4633	8.83989	2.911	69.86	-5.1	-1.4	
89	5	4	98	4	5 ON	1378	8.4146	8.83498	2.685	62.52	-5.1	-2.8
				OFF	227	8.4449	8.83754	2.795	67.89	-5.1	-1.4	
89	5	8	42	4	5 ON	1698	8.4539	8.83838	2.852	68.45	-5.1	-1.2
				OFF	94	8.4598	8.83888	2.889	69.34	-5.1	-1.2	
98	2	4	19	4	5 ON	2673	8.3822	8.83225	2.482	57.64	-5.1	-3.1
				OFF	58	8.3737	8.83153	2.348	56.36	-5.1	-3.2	
94	2	1	83	4	5 ON	2197	8.4453	8.83757	2.798	67.15	-6.3	-2.9
				OFF	198	8.4248	8.83578	2.664	63.94	-6.3	-3.3	
95	8	2	31	4	5 ON	1746	8.4519	8.83813	2.839	68.14	-6.3	-2.2
				OFF	72	8.4553	8.83842	2.861	68.66	-6.3	-2.2	
95	8	6	16	4	5 ON	2136	8.4581	8.83797	2.828	67.87	-6.3	-2.8
				OFF	38	8.4474	8.83775	2.811	67.47	-6.3	-2.8	
188	2	1	28	4	5 ON	2445	8.4151	8.83583	2.688	62.68	-6.3	-3.6
				OFF	48	8.4883	8.83445	2.565	61.56	-6.3	-3.6	
188	2	3	48	4	5 ON	2698	8.3729	8.83146	2.343	56.23	-6.3	-4.8
				OFF	186	8.3568	8.83811	2.242	53.81	-6.3	-4.7	
181	4	3	15	4	5 ON	2392	8.4229	8.83568	2.657	63.77	-6.3	-3.4
				OFF	36	8.4182	8.83529	2.628	63.87	-6.3	-3.4	
181	4	9	18	4	5 ON	2794	8.3578	8.83819	2.248	53.95	-6.3	-4.9
				OFF	58	8.3516	8.82967	2.289	53.82	-6.3	-4.5	
182	3	3	44	4	5 ON	1788	8.4494	8.83792	2.823	67.76	-6.3	-2.2
				OFF	182	8.4558	8.83839	2.859	68.61	-6.3	-2.2	
183	3	2	44	4	5 ON	1751	8.4522	8.83816	2.841	68.28	-6.3	-2.2
				OFF	188	8.4564	8.83851	2.868	68.82	-6.3	-2.2	
184	3	5	89	4	5 ON	1789	8.4495	8.83793	2.824	67.78	-6.3	-2.2
				OFF	281	8.4574	8.83859	2.874	68.97	-6.3	-2.3	
185	2	2	19	4	5 ON	1653	8.4449	8.83754	2.796	67.89	-6.3	-2.4
				OFF	45	8.4484	8.83784	2.817	67.62	-6.3	-2.3	

SECRET

LUHM

4	4	23	4	5 ON	2813	8.4562	8.83849	2.866	68.79	-6.3	-2.6	
				OFF	53	8.4543	8.83833	2.854	68.51	-6.3	-2.7	
187	7	3	17	4	5 ON	1944	8.4574	8.83868	2.874	68.98	-6.3	-2.4
				OFF	39	8.4578	8.83856	2.871	68.91	-6.3	-2.5	
111	1	1	24	4	5 ON	1728	8.4588	8.83883	2.832	67.97	-6.3	-2.3
				OFF	55	8.4538	8.83829	2.851	68.43	-6.3	-2.3	
113	2	8	17	4	5 ON	1856	8.4566	8.83853	2.869	68.85	-6.3	-2.4
				OFF	39	8.4572	8.83858	2.873	68.95	-6.3	-2.4	
117	2	4	45	4	5 ON	2627	8.3855	8.83252	2.422	58.13	-6.3	-5.2
				OFF	117	8.3653	8.83883	2.296	55.89	-6.3	-5.8	
117	2	7	21	4	5 ON	2883	8.3566	8.83889	2.248	53.77	-6.3	-5.7
				OFF	57	8.3494	8.82948	2.195	52.69	-6.3	-5.3	
118	4	6	17	4	5 ON	2589	8.4832	8.83482	2.534	68.81	-6.8	-5.1
				OFF	43	8.3967	8.83347	2.493	59.82	-6.8	-5.2	
121	3	4	35	4	5 ON	1667	8.4439	8.83745	2.789	66.94	-6.8	-3.1
				OFF	81	8.4496	8.83793	2.825	67.79	-6.8	-3.8	
126	8	5	44	4	5 ON	2977	8.3321	8.82883	2.887	58.89	-6.8	-5.9
				OFF	138	8.3167	8.82672	1.998	47.76	-6.8	-5.2	
127	2	1	14	4	5 ON	2278	8.4358	8.83678	2.739	65.72	-6.8	-4.2
				OFF	34	8.4323	8.83648	2.716	65.28	-6.8	-4.2	
128	9	3	18	4	5 ON	1914	8.4551	8.83848	2.868	68.63	-6.8	-3.1
				OFF	42	8.4558	8.83848	2.859	68.62	-6.8	-3.2	
133	3	1	18	4	5 ON	1599	8.4375	8.83691	2.749	65.97	-6.8	-3.7
				OFF	43	8.4414	8.83724	2.773	66.55	-6.8	-3.5	
134	5	6	26	4	5 ON	1641	8.4416	8.83726	2.775	66.59	-6.8	-3.5
				OFF	61	8.4465	8.83767	2.885	67.32	-6.8	-3.3	
135	7	1	21	4	5 ON	1655	8.4429	8.83737	2.783	66.78	-6.8	-3.4
				OFF	49	8.4466	8.83768	2.886	67.34	-6.8	-3.3	
135	7	3	49	4	5 ON	2888	8.4588	8.83883	2.832	67.97	-6.8	-3.6
				OFF	118	8.4431	8.83739	2.784	66.82	-6.8	-4.8	
136	7	1	17	4	5 ON	1813	8.4538	8.83822	2.846	68.38	-6.8	-3.1
				OFF	48	8.4541	8.83832	2.853	68.48	-6.8	-3.1	
137	8	1	86	4	5 ON	1629	8.4484	8.83716	2.767	66.42	-6.8	-3.6
				OFF	194	8.4532	8.83824	2.848	68.34	-6.8	-3.1	
137	8	8	28	4	5 ON	2814	8.4539	8.83838	2.852	68.44	-6.8	-3.4
				OFF	46	8.4523	8.83816	2.842	68.28	-6.8	-3.5	
138	8	6	88	4	5 ON	2486	8.4187	8.83533	2.631	63.14	-6.8	-5.1
				OFF	189	8.3896	8.83287	2.448	58.75	-6.8	-6.2	
148	7	1	42	4	5 ON	2816	8.4538	8.83829	2.851	68.43	-6.8	-3.4
				OFF	95	8.4496	8.83794	2.825	67.81	-6.8	-3.7	
145	4	2	19	4	5 ON	1929	8.4552	8.83848	2.868	68.64	-6.8	-3.2
				OFF	44	8.4548	8.83838	2.858	68.59	-6.8	-3.3	
149	7	6	54	4	5 ON	2866	8.3494	8.82948	2.195	52.68	-6.8	-6.8
				OFF	153	8.3388	8.82784	2.873	49.76	-6.8	-6.1	
158	2	4	47	4	5 ON	2798	8.3585	8.83825	2.253	54.87	-6.8	-7.2
				OFF	138	8.3417	8.82883	2.147	51.53	-6.8	-6.6	
151	6	3	56	4	5 ON	1873	8.4585	8.83869	2.881	69.15	-6.8	-2.3
				OFF	126	8.4582	8.83866	2.879	69.18	-6.8	-2.5	
152	6	2	76	4	5 ON	1791	8.4559	8.83847	2.864	68.74	-6.8	-2.3
				OFF	172	8.4589	8.83872	2.883	69.28	-6.8	-2.4	
153	8	2	79	4	5 ON	1713	8.4513	8.83888	2.836	68.86	-6.8	-2.6

SECRET

~~SECRET~~

154	8	6	64	4	5	OFF	178	0.4588	0.83871	2.883	69.18	-6.8	-2.3
						ON	2534	0.4826	0.83397	2.538	68.71	-6.8	-5.7
161	6	8	12	4	5	OFF	168	0.3755	0.83169	2.368	56.63	-6.8	-7.8
						ON	1931	0.4598	0.83873	2.884	69.22	-6.8	-2.4
165	2	3	26	4	5	OFF	29	0.4589	0.83872	2.883	69.28	-6.8	-2.3
						ON	2677	0.3788	0.83198	2.375	57.88	-6.8	-4.1
165	2	5	24	4	5	OFF	68	0.3664	0.83892	2.382	55.25	-6.8	-4.5
						ON	2812	0.3566	0.83889	2.248	53.77	-6.8	-4.5
165	2	7	23	4	5	OFF	67	0.3481	0.82937	2.187	52.58	-6.8	-4.2
						ON	2947	0.3389	0.82859	2.129	51.18	-6.8	-4.1
166	2	4	54	4	5	OFF	68	0.3386	0.82789	2.877	49.85	-6.8	-3.8
						ON	2738	0.3685	0.83118	2.316	55.57	-6.8	-4.7
167	6	3	51	4	5	OFF	147	0.3485	0.82948	2.189	52.55	-6.8	-4.3
						ON	1824	0.4871	0.83857	2.872	68.93	-6.8	-2.8
168	6	2	57	4	5	OFF	116	0.4589	0.83872	2.883	69.28	-6.8	-2.4
						ON	1773	0.4549	0.83838	2.858	68.59	-6.8	-3.1
169	3	2	35	4	5	OFF	138	0.4588	0.83871	2.883	69.19	-6.8	-2.5
						ON	1721	0.4517	0.83812	2.838	68.12	-6.8	-3.5
178	6	3	34	4	5	OFF	88	0.4561	0.83848	2.866	68.77	-6.8	-3.8
						ON	1693	0.4497	0.83794	2.825	67.81	-6.8	-3.8
181	7	3	32	4	5	OFF	78	0.4546	0.83836	2.856	68.56	-6.8	-3.2
						ON	2813	0.3565	0.83888	2.248	53.75	-6.8	-5.6
182	1	4	26	4	5	OFF	98	0.3458	0.82911	2.168	52.82	-6.8	-5.3
						ON	2531	0.4829	0.83399	2.531	68.75	-6.8	-3.9
182	1	6	25	4	5	OFF	66	0.3923	0.83311	2.465	59.16	-6.8	-4.2
						ON	2663	0.3883	0.83289	2.389	57.35	-6.8	-4.9
182	1	8	23	4	5	OFF	66	0.3691	0.83115	2.319	55.66	-6.8	-5.4
						ON	2796	0.3587	0.83827	2.254	54.89	-6.8	-5.6
184	6	2	58	4	5	OFF	65	0.3584	0.82957	2.282	52.84	-6.8	-5.4
						ON	1827	0.4572	0.83858	2.873	68.95	-6.8	-3.1
185	8	5	74	4	5	OFF	115	0.4589	0.83872	2.883	69.28	-6.8	-2.6
						ON	2815	0.4576	0.83861	2.875	69.88	-6.8	-2.4
186	6	4	31	4	5	OFF	167	0.4483	0.83782	2.817	67.68	-6.8	-2.4
						ON	1783	0.4554	0.83842	2.861	68.67	-6.8	-3.5
187	2	2	16	4	5	OFF	71	0.4579	0.83864	2.877	69.85	-6.8	-3.8
						ON	2396	0.4237	0.83575	2.662	63.89	-6.8	-3.2
188	2	2	46	4	5	OFF	38	0.4187	0.83533	2.631	63.13	-6.8	-3.3
						ON	2184	0.4536	0.83827	2.858	68.48	-6.8	-2.5
194	9	1	13	4	5	OFF	183	0.4468	0.83763	2.882	67.26	-6.8	-2.6
						ON	1921	0.4589	0.83872	2.884	69.28	-6.8	-3.1
						OFF	29	0.4589	0.83872	2.883	69.19	-6.8	-3.8

RAMP PROFILE

R= 3 A= 4 PERIOD= 3831
R= 0.4828 A= 0.1155

TUR	PER	CPS	ANG-V
0	3.498	0.2865	0.82591
180	3.476	0.2877	0.82682
288	3.434	0.2912	0.82634
388	3.367	0.2978	0.82687

~~SECRET~~

~~SECRET~~
~~SECRET~~

400	3.279	0.3858	0.02759
500	3.175	0.3150	0.02849
600	3.861	0.3267	0.02955
700	2.941	0.3488	0.03075
800	2.828	0.3546	0.03207
900	2.781	0.3782	0.03348
1000	2.588	0.3864	0.03495
1100	2.488	0.4032	0.03647
1200	2.352	0.4251	0.03845
1300	2.241	0.4462	0.04036
1400	2.147	0.4657	0.04212
1500	2.071	0.4829	0.04367
1600	2.012	0.4971	0.04496
1700	1.969	0.5078	0.04593
1800	1.943	0.5147	0.04655
1900	1.933	0.5174	0.04688
2000	1.938	0.5168	0.04667
2100	1.959	0.5184	0.04616
2200	1.997	0.5088	0.04538
2300	2.051	0.4876	0.04418
2400	2.122	0.4713	0.04263
2500	2.210	0.4525	0.04093
2600	2.316	0.4318	0.03906
2700	2.439	0.4108	0.03709
2800	2.554	0.3915	0.03541
2900	2.666	0.3751	0.03393
3000	2.783	0.3593	0.03258
3100	2.903	0.3444	0.03115
3200	3.024	0.3307	0.02991
3300	3.148	0.3184	0.02888
3400	3.248	0.3079	0.02785
3500	3.341	0.2993	0.02707
3600	3.415	0.2928	0.02648
3700	3.466	0.2885	0.02618
3800	3.489	0.2866	0.02592

RAMP PROFILE

R= 4 A= 5 PERIOD= 3831

R= 0.3856 A= 0.0992

TUR	PER	CPS	ANG=V
0	3.492	0.2864	0.02598
100	3.479	0.2874	0.02608
200	3.443	0.2985	0.02627
300	3.385	0.2955	0.02672
400	3.388	0.3023	0.02734
500	3.217	0.3189	0.02812
600	3.116	0.3218	0.02983
700	3.089	0.3324	0.03086
800	2.899	0.3449	0.03119
900	2.791	0.3583	0.03248
1000	2.687	0.3722	0.03366

~~SECRET~~

~~SECRET~~

1100	2.586	0.3866	0.03497
1200	2.466	0.4055	0.03667
1300	2.361	0.4236	0.03831
1400	2.271	0.4403	0.03983
1500	2.197	0.4551	0.04116
1600	2.140	0.4673	0.04226
1700	2.099	0.4765	0.04310
1800	2.073	0.4824	0.04363
1900	2.063	0.4848	0.04384
2000	2.068	0.4835	0.04373
2100	2.089	0.4787	0.04329
2200	2.126	0.4705	0.04255
2300	2.178	0.4591	0.04153
2400	2.246	0.4451	0.04026
2500	2.331	0.4290	0.03888
2600	2.432	0.4112	0.03719
2700	2.548	0.3925	0.03558
2800	2.656	0.3766	0.03406
2900	2.758	0.3625	0.03279
3000	2.866	0.3490	0.03156
3100	2.975	0.3362	0.03040
3200	3.083	0.3244	0.02934
3300	3.186	0.3138	0.02838
3400	3.281	0.3040	0.02757
3500	3.363	0.2974	0.02690
3600	3.427	0.2918	0.02639
3700	3.478	0.2881	0.02606
3800	3.490	0.2865	0.02591

CLOCK CORRELATION SUMMARY

ORDER FIT ONE
SYS TIME I/P

CL TIME I/P

COMP SYS TM

DELTA ST

REV

STA

0.21329180D 05	0.477799999D 06	0.213291802D 05	-0.0002	7	
0.71273023D 05	0.527743848D 06	0.712730231D 05	-0.0001	16	
0.20858770D 05	0.268586840D 05	0.208587668D 05	0.0032	23	
0.70625531D 05	0.766254570D 05	0.706255338D 05	-0.0020	32	
0.25504598D 05	0.117904527D 06	0.255045988D 05	-0.0000	40	
0.70000200D 05	0.162400134D 06	0.700002004D 05	-0.0004	48	
0.24867804D 05	0.203667743D 06	0.248678044D 05	-0.0004	56	
0.69399673D 05	0.248199619D 06	0.693996758D 05	-0.0020	64	
0.24228246D 05	0.289428199D 06	0.242282500D 05	-0.0040	72	
0.73899840D 05	0.339099792D 06	0.738998370D 05	0.0030	81	
0.23429276D 05	0.375029230D 06	0.234292707D 05	0.0053	88	
0.73296888D 05	0.424896852D 06	0.732968866D 05	0.0014	97	
0.22795169D 05	0.468795139D 06	0.227951693D 05	-0.0003	104	
0.72621009D 05	0.510620986D 06	0.726210103D 05	-0.0013	113	
0.27429576D 05	0.149586430D 05	0.274295743D 05	0.0017	121	
0.71090501D 05	0.594195720D 05	0.710904979D 05	0.0031	129	
0.26701490D 05	0.100710586D 06	0.267015069D 05	-0.0009	137	
0.71131550D 05	0.145060633D 06	0.711315486D 05	0.0014	145	

~~SECRET~~

SECRET

0.25927531D 05	0.186256619D 06	0.259275296D 05	0.0014	153
0.70375465D 05	0.230704558D 06	0.703754632D 05	0.0018	161
0.25107531D 05	0.271036631D 06	0.251075312D 05	-0.0002	169
0.74766485D 05	0.321495590D 06	0.747664842D 05	0.0000	170
0.24228936D 05	0.357358045D 06	0.242289349D 05	0.0011	185
0.73868900D 05	0.406998019D 06	0.738689029D 05	-0.0029	194

A0=-0.4564707611D 06 A1= 0.999999879005D 00

SIGMA=0.00275 NO. POINTS= 24

RATIO OF CLOCK TIME TO SYS TIME= 0.100000012091D 01

ORDER FIT TWO

SYS TIME I/P	CL TIME I/P	COMP SYS TM	DELTA ST	REV	STA
0.21329180D 05	0.477799999D 06	0.213291798D 05	0.0002	7	
0.71273023D 05	0.527743048D 06	0.712730228D 05	0.0002	16	
0.20058778D 05	0.268586848D 05	0.200587666D 05	0.0034	23	
0.70625531D 05	0.766254570D 05	0.706255336D 05	-0.0026	32	
0.25504598D 05	0.117904527D 06	0.255045987D 05	-0.0007	40	
0.70000200D 05	0.162400134D 06	0.700002004D 05	-0.0004	40	
0.24867804D 05	0.203667743D 06	0.248678045D 05	-0.0005	56	
0.69399673D 05	0.240199619D 06	0.693996751D 05	-0.0021	64	
0.24228246D 05	0.289428199D 06	0.242282502D 05	-0.0042	72	
0.73899840D 05	0.339099792D 06	0.738998372D 05	0.0028	81	
0.23429276D 05	0.375029230D 06	0.234292709D 05	0.0051	88	
0.73296800D 05	0.424096852D 06	0.732968069D 05	0.0011	97	
0.22795169D 05	0.460795139D 06	0.227951695D 05	-0.0005	104	
0.72621009D 05	0.510620986D 06	0.726210105D 05	-0.0015	113	
0.27429576D 05	0.149586430D 05	0.274295745D 05	0.0015	121	
0.71890501D 05	0.594195728D 05	0.718904981D 05	0.0029	129	
0.26781498D 05	0.100710586D 06	0.267815071D 05	-0.0009	137	
0.71131550D 05	0.145060633D 06	0.711315486D 05	0.0014	145	
0.25927531D 05	0.186256619D 06	0.259275296D 05	0.0014	153	
0.70375465D 05	0.230704558D 06	0.703754632D 05	0.0018	161	
0.25107531D 05	0.271036631D 06	0.251075311D 05	-0.0001	169	
0.74766485D 05	0.321495590D 06	0.747664840D 05	0.0010	170	
0.24228936D 05	0.357358045D 06	0.242289346D 05	0.0014	185	
0.73868900D 05	0.406998019D 06	0.738689025D 05	-0.0025	194	

A0=-0.4564707632D 06 A1= 0.999999883961D 00

A2=-0.2489124709564D-14

SIGMA=0.00275 NO. POINTS= 24

CLOCK OPERATIONS

FWD PAN CAMERA NUMBER 198

OPN NO	FR		H	M	S	DEC	BINARY EQUIVALENT
64	5	0	11	ON	19	18	11 248291 01110110011001001111010111000
				OFF	19	18	38 248318 01110110011010000100000110000
66	0	0	3	ON	22	10	23 258623 01111011010100100011000011000
				OFF	22	10	46 258646 01111011010101001111111110000
68	7	3	22	ON	1	25	26 270326 10000000111001101100011110000
				OFF	1	26	14 270374 1000000011011001010001110000
68	7	4	43	ON	1	28	17 270497 10000000111110111010011101000

SECRET

UNIT

69	1	3	58	OFF	1	29	56	278596	10000001000001111011110100000
				ON	2	52	9	275529	10000011011000011110100101000
				OFF	2	54	2	275642	10000011011011111011010010000
71	6	3	34	ON	5	43	8	285788	10001000010001010100000100000
				OFF	5	44	17	285857	10001000010011101010011101000
72	1	8	13	ON	6	45	37	289537	10001010000011111101111101000
				OFF	6	46	23	289583	10001010000101010111110011000
72	1	2	17	ON	7	7	29	298849	100010101011000000000011101000
				OFF	7	8	18	298898	10001010101101010000100010000
72	1	4	58	ON	7	9	14	298954	10001010101111001101100010000
				OFF	7	11	24	291884	10001010110011001011011100000
73	6	2	88	ON	8	36	34	296194	10001010001111000111111010000
				OFF	8	39	34	296374	10001101010100100111011110000
74	4	1	36	ON	18	3	46	381426	10001111101110110010101010000
				OFF	18	5	14	381514	10001111110001011110100010000
74	4	2	42	ON	18	13	29	382889	100100000000000100101010101000
				OFF	18	15	8	382188	10010000000011010111000100000
75	4	1	38	ON	11	44	9	387449	10010010100110100110010101000
				OFF	11	45	32	387532	10010010101001001000011100000
77	9	1	22	ON	14	46	8	318359	10010111110011100010111011000
				OFF	14	46	49	318488	10010111110101000010101000000
79	5	8	16	ON	17	34	21	328461	1001100100111110101011001000
				OFF	17	34	58	328498	10011001010000111101101010000
88	5	8	8	ON	19	5	41	333948	10011111001111000010100100000
				OFF	19	6	1	333968	10011111001111101001101000000
81	5	8	17	ON	28	34	8	339248	10100001110001000001110000000
				OFF	28	34	47	339287	10100001110010001101111011000
84	7	5	41	ON	1	18	6	356286	10101001111000111111000110000
				OFF	1	19	49	356389	10101001111100001000010001000
85	2	6	16	ON	2	45	42	361542	10101100011001011000101110000
				OFF	2	46	22	361582	10101100011010100110110110000
85	2	7	18	ON	2	47	8	361619	10101100011011101111000111000
				OFF	2	47	45	361664	10101100011101000111000000000
86	3	2	57	ON	3	57	27	365847	10101110011100110000111011000
				OFF	3	59	37	365977	10101110100000101110110101000
87	3	2	25	ON	5	27	38	371258	10110001000001111001010010000
				OFF	5	28	36	371316	10110001000011101010100100000
88	8	2	111	ON	6	56	33	376593	1011001100100101101001101000
				OFF	7	8	41	376841	10110011101100010001100101000
89	5	4	98	ON	8	21	14	381674	10110101111111110001000010000
				OFF	8	25	1	381981	10110110000110101100011001000
89	5	8	42	ON	8	26	35	381994	10110110001001100010000010000
				OFF	8	28	9	382888	10110110001100011001101000000
98	2	4	19	ON	18	12	17	388336	10110010010110001001100000000
				OFF	18	13	7	388386	10110010011001001100110100000
94	2	1	84	ON	16	1	34	489294	1100001100101010101010110000
				OFF	16	4	44	489484	11000011010000011101011100000
95	8	2	31	ON	17	23	22	414281	11000101100000011010010101000
				OFF	17	24	34	414273	11000101100010100110111101000
95	8	6	16	ON	17	29	52	414592	11000101101100010110000000000
				OFF	17	38	38	414638	11000101101101100000001110000



180	2	1	28	ON	1	1	28	441688	1101001010011100111111000000
				OFF	1	2	16	441736	1101001010100010101010100000
180	2	3	48	ON	1	5	41	441941	11010010101110111110000001000
				OFF	1	7	27	442047	11010010110010001101000011000
181	4	3	15	ON	2	29	52	446992	11010101001001000111010000000
				OFF	2	38	28	447828	110101010001010001101100100000
181	4	9	18	ON	2	36	35	447394	1101010101010101011000001010000
				OFF	2	37	25	447444	1101010101010110111010000100000
182	3	3	45	ON	3	47	45	451665	11010111010111101110001101000
				OFF	3	49	27	451767	110101110110101010101010101000
183	3	2	44	ON	5	17	45	457864	11011001111100011111001000000
				OFF	5	19	25	457164	11011001111111000100111000000
184	3	5	89	ON	6	46	28	462388	11011100011110101101111100000
				OFF	6	49	41	462581	11011100100100110110100001000
185	2	2	19	ON	8	14	41	467681	11011111000000011111011101000
				OFF	8	15	26	467726	1101111100000110111010110000
186	4	4	23	ON	9	49	58	473397	11100001101110111011100001000
				OFF	9	58	51	473458	11100001110000100011000010000
187	7	3	17	ON	11	18	4	478683	11100100010000001111101111000
				OFF	11	18	43	478722	11100100010001011011111010000
111	1	1	24	ON	17	11	31	499898	11101110010111011011101010000
				OFF	17	12	26	499945	11101110011001000111000101000
113	2	8	17	ON	28	12	9	518729	11110011100010001101100101000
				OFF	28	12	48	518768	11110011100011011001110000000
117	2	4	46	ON	2	21	58	532918	1111110000111010111011110000
				OFF	2	23	55	533035	1111110001010111011111111000
117	2	7	21	ON	2	24	55	533894	1111110001100101111001110000
				OFF	2	25	52	533151	1111110001110011110100011000
118	4	6	17	ON	3	49	14	1282	00000000100111000111111010000
				OFF	3	49	57	1325	00000000101000011011111001000
121	3	4	35	ON	8	2	55	16584	00000111110111101010011000000
				OFF	8	4	16	16585	00000111111010001000100101000
126	8	5	43	ON	15	58	48	44577	00010101010000011000011101000
				OFF	15	52	58	44787	0001010101010001011001011000
127	2	1	15	ON	17	8	13	49222	00010111011110001000101110000
				OFF	17	8	47	49256	00010111011110001011001000000
128	9	3	18	ON	18	31	38	54219	00011001110110101000011111000
				OFF	18	32	12	54261	00011001110111111010100001000
133	3	1	18	ON	1	52	12	88661	00100110011101100101000001000
				OFF	1	52	55	88784	00100110011101110010000000000
134	5	6	26	ON	3	22	4	86853	00101001000010001000010001000
				OFF	3	23	5	86114	0010100100001111111011010000
135	7	1	21	ON	4	51	38	91419	00101011100101111000101111000
				OFF	4	52	19	91468	00101011100111011000011100000
135	7	3	49	ON	4	58	43	91852	00101011110011000110011100000
				OFF	5	8	33	91962	00101011110110011101010010000
136	7	1	17	ON	6	23	18	96927	00101110001101111110100011000
				OFF	6	23	58	96967	0010111000111001100101011000
137	8	1	86	ON	7	49	24	182892	00110000101011100110011100000
				OFF	7	52	38	182286	00110000110001100001010110000
137	8	8	28	ON	7	55	49	182478	00110000110111011000010110000

	OFF	7	56	35	182524	0011000011100011001000110000110000			
138	8	6	88	ON	9	31	32	188221	001100111001101010010010010000
	OFF	9	34	41	188418	001100111011000011010010010000			
140	7	1	42	ON	12	23	19	118528	001100010000100110000000000000
	OFF	12	24	54	118623	001110001001000000101100011000			
145	4	2	19	ON	19	47	38	145186	01000101001110101110011010000
	OFF	19	48	22	145238	010001010100000000100010110000			
149	7	6	54	ON	1	59	58	167519	01001111111000010001100011000
	OFF	2	2	23	167672	010011111111001111000110000000			
150	2	4	47	ON	3	27	49	172797	01010010011001010110001001000
	OFF	3	29	59	172927	010100100111010101000000110000			
151	6	3	56	ON	4	41	31	177228	01010100100000010100110100000
	OFF	4	43	37	177346	010101001001000001010111010000			
152	6	2	76	ON	6	9	15	182483	010101110000000111100000110000
	OFF	6	12	7	182655	01010111000110000110000000110000			
153	8	2	79	ON	7	37	4	187752	010110011000011011110010000000
	OFF	7	40	2	187938	010110011001110010101100100000			
154	8	6	65	ON	9	19	58	193919	010111000111011111000000110000
	OFF	9	22	38	194879	010111001000101101001000110000			
161	6	8	12	ON	19	34	53	238822	011011100001000010000011100000
	OFF	19	35	22	238851	011011100001010000001101110000			
165	2	3	26	ON	1	43	39	252947	011110001001110101010001110000
	OFF	1	44	47	253815	011110001010010110011110110000			
165	2	5	24	ON	1	45	55	253883	011110001010110111101011110000
	OFF	1	47	2	253158	011110001011011000001100110000			
165	2	7	23	ON	1	48	9	253217	011110001011111001000111010000
	OFF	1	49	17	253285	011110001100011010010100010000			
166	2	4	54	ON	3	13	35	258344	011110110011000000100010000000
	OFF	3	16	2	258491	011110110100000100001001111000			
167	6	3	51	ON	4	27	35	262783	011111010100111000000000110000
	OFF	4	29	31	262899	011111010101110000010100111000			
168	6	2	58	ON	5	55	47	268875	011111111101001111111111110000
	OFF	5	57	57	268285	011111111111000111101111001000			
169	3	2	35	ON	7	23	58	273367	100000100101100111111110110000
	OFF	7	25	18	273447	100000100110001111000010110000			
178	6	3	34	ON	8	52	33	278682	100001001110001011001100100000
	OFF	8	53	51	278768	100001001110110001010010000000			
181	7	3	33	ON	1	38	35	338563	101000010111000000111110111000
	OFF	1	32	5	338653	101000010111011011111010010000			
182	1	4	26	ON	2	54	55	343624	101000111101101001001010000000
	OFF	2	56	1	343698	101000111110001001011000100000			
182	1	6	25	ON	2	57	7	343756	101000111110101001100111000000
	OFF	2	58	13	343822	101000111111001001110101100000			
182	1	8	23	ON	2	59	28	343888	101000111111101010000100000000
	OFF	3	8	25	343953	101001000000001001110011010000			
184	6	2	51	ON	5	41	11	353688	101010001001110000001000000000
	OFF	5	43	6	353715	101010001010101000001100111000			
185	8	5	74	ON	7	13	28	359129	1010101100111101111110101000
	OFF	7	16	7	359296	101010110101000110110000000000			
186	6	4	31	ON	8	38	27	364236	101011011010111001100111000000
	OFF	8	39	38	364387	101011011011011100010001110000			



187	2	2	16	ON	10	17	40	370189	10110000100001010001011001000
				OFF	10	18	10	370227	10110000100010011011100111000
188	2	2	46	ON	11	41	47	375235	10110010111011010000110111000
				OFF	11	43	30	375330	10110010111110011010000010000
194	9	1	12	ON	20	32	34	407002	11000010000111001010000010000
				OFF	20	33	3	407111	110000100010000000010101011000

CLOCK OPERATIONS

AFT PAN CAMERA NUMBER 199

OPN NO	FR		H	M	S	DEC	BINARY EQUIVALENT		
64	5	8	11	ON	19	10	23	248303	01110110011001100110110011000
				OFF	19	10	50	248338	01110110011010011011100010000
66	8	8	3	ON	22	10	35	250635	011110110101001110100111111000
				OFF	22	10	58	250658	01111011010101100111011010000
68	7	3	22	ON	1	25	30	270339	10000000111010000101110111000
				OFF	1	26	26	270387	10000000111011100011100111000
68	7	4	43	ON	1	28	29	270509	10000000111111010001111001000
				OFF	1	30	8	270600	10000000100001001001101000000
69	1	3	50	ON	2	52	21	275541	10000011011000110110000001000
				OFF	2	54	14	275654	10000011011100010010101110000
71	6	3	34	ON	5	43	12	205792	10001000010001101011100000000
				OFF	5	44	29	205869	10001000010100000001111001000
72	1	0	13	ON	6	45	49	209549	10001010000100010101011001000
				OFF	6	46	35	209595	100010100001011011111001111000
72	1	2	17	ON	7	7	41	290861	100010101011000101111111001000
				OFF	7	8	22	290902	10001010101101100111111110000
72	1	4	50	ON	7	9	26	290966	10001010101111100100111110000
				OFF	7	11	36	291096	10001010110011100010111000000
73	6	2	00	ON	8	36	46	296206	10001010011110111110101010000
				OFF	8	39	46	296306	100010101010100111110111010000
74	4	1	35	ON	10	3	50	301438	10001111101111001010000110000
				OFF	10	5	26	301526	10001111110001110101111110000
74	4	2	42	ON	10	13	41	302021	10010000000000111100110001000
				OFF	10	15	12	302112	10010000000011101110100000000
75	4	1	30	ON	11	44	21	307461	10010010100110111101110001000
				OFF	11	45	44	307544	10010010101001011111111000000
77	9	1	22	ON	14	46	12	318372	10010111110011111100010100000
				OFF	14	47	1	318421	10010111110101011100000001000
79	5	0	16	ON	17	34	33	320473	10011100101000001100110101000
				OFF	17	35	10	320510	10011100101001010101000110000
80	5	0	8	ON	19	5	53	333953	10011111001111010111111010000
				OFF	19	6	13	333973	10011111010000000011000001000
81	5	0	17	ON	20	34	20	339261	10100001110001011011001001000
				OFF	20	34	59	339300	10100001110010100111010100000
84	7	5	41	ON	1	10	10	356298	10101001111001010110100010000
				OFF	1	20	1	356401	10101001111100011111011010000
85	2	6	16	ON	2	45	54	361554	10101000110011110000001010000
				OFF	2	46	34	361594	10101000110101111100100100000
85	2	7	10	ON	2	47	12	361632	10101000111000010001000000000
				OFF	2	47	57	361677	10101000111011000000110010000

86	3	2	57	ON	3	57	39	365859	101011100111010010000101110000
				OFF	3	59	49	365989	10101110100001000110010001000
87	3	2	25	ON	5	27	50	371270	101100010000100100000101110000
				OFF	5	28	48	371320	10110001000100000010000000000
88	8	2	110	ON	6	56	45	376605	10110011100101000100101001000
				OFF	7	8	53	376853	10110011101100101001000001000
89	5	4	98	ON	8	21	26	381686	10110100000000001000011110000
				OFF	8	25	13	381913	1011010000011000011110101000
89	5	8	42	ON	8	26	47	382007	10110110001001111011011011000
				OFF	8	28	21	382101	10110110001100110011000001000
90	2	4	19	ON	10	12	29	388349	101110010001011011110001001000
				OFF	10	13	19	388399	10111001001100111111110011000
94	2	1	83	ON	16	1	46	409306	11000011001011000001110010000
				OFF	16	4	56	409496	11000011010000110100111000000
95	8	2	31	ON	17	23	34	414214	11000101100000110011101110000
				OFF	17	24	46	414206	11000101100011000000010110000
95	8	6	16	ON	17	30	4	414604	11000101101100101101011100000
				OFF	17	30	42	414642	11000101101010110111101010000
100	2	1	20	ON	1	1	40	441700	11010010100111100111010100000
				OFF	1	2	20	441740	11010010101001000101000100000
100	2	3	40	ON	1	5	53	441953	11010010101111010101011101000
				OFF	1	7	39	442059	11010010110010100100011111000
101	4	3	15	ON	2	30	4	447004	11010101001001011110101100000
				OFF	2	30	40	447040	11010101001010100101000000000
101	4	9	18	ON	2	36	47	447407	11010101010101110001110011000
				OFF	2	37	37	447457	11010101010110100110110101000
102	3	3	44	ON	3	47	57	451677	11010110110000000101101001000
				OFF	3	49	39	451779	1101011011011001100110111000
103	3	2	44	ON	5	17	57	457077	11011001111100111000100001000
				OFF	5	19	37	457177	11011001111111111011110101000
104	3	5	89	ON	6	46	32	462392	11011100011111000101011000000
				OFF	6	49	53	462593	1101110010010100110111101000
105	2	2	19	ON	8	14	53	467693	1101111000000110110111001000
				OFF	8	15	30	467730	110111100001000110110010000
106	4	4	23	ON	9	50	10	473410	1110000101111010100111010000
				OFF	9	51	3	473463	1110000111000011110001011000
107	7	3	17	ON	11	18	16	478696	11100100010000101001001000000
				OFF	11	10	55	478735	11100100010001110101010011000
111	1	1	24	ON	17	11	43	499903	1110111001011110101000011000
				OFF	17	12	38	499950	11101110011001100000011110000
113	2	0	17	ON	20	12	21	510741	11110011100010100101000001000
				OFF	20	13	0	510700	11110011100011110001001100000
117	2	4	45	ON	2	22	10	532930	11111110000111101110111010000
				OFF	2	24	7	533047	11111110001011010011011011000
117	2	7	21	ON	2	25	7	533107	11111110001101001000100111000
				OFF	2	26	4	533164	11111110001101101111111100000
118	4	6	17	ON	3	49	26	1295	0000000100111100001010011000
				OFF	3	50	9	1330	0000000101000110101010010000
121	3	4	35	ON	8	3	7	16516	00000111111000000001110100000
				OFF	8	4	28	16597	0000011111101010000000001000
126	8	5	44	ON	15	51	0	44589	00010101010000101111111001000

127	2	1	14	OFF	15	53	18	44719	000101010100101101110011000
				ON	17	8	25	49234	0001011011110100000001010000
				OFF	17	8	59	49268	0001011011111100010100100000
128	9	3	18	ON	18	31	42	54231	00010001101101111111011000
				OFF	18	32	24	54273	00010001111000010001111101000
133	3	1	18	ON	1	52	24	88673	00100110011101111100011101000
				OFF	1	53	7	88716	00100110011111010000011100000
134	5	6	26	ON	3	22	16	86865	0010100100001001111101101000
				OFF	3	23	17	86126	00101001000100010110110110000
135	7	1	21	ON	4	51	42	91431	001010111001100100000001011000
				OFF	4	52	31	91488	001010111001111101111111000000
135	7	3	49	ON	4	58	55	91864	00101011110011011101111000000
				OFF	5	0	45	91974	00101011110110110100101110000
136	7	1	17	ON	6	23	38	96939	00101110001110010101111111000
				OFF	6	24	18	96979	00101110001111100100000111000
137	8	1	86	ON	7	49	36	102185	00110000101011111111110101000
				OFF	7	52	58	102299	00110000110001111010101111000
137	8	8	28	ON	7	56	1	102498	00110000110111101111110010000
				OFF	7	56	47	102536	00110000111001001001101000000
138	8	6	88	ON	9	31	44	108233	00110011100111000000100101000
				OFF	9	34	53	108422	00110011101100110001101110000
140	7	1	42	ON	12	23	31	118548	00111000100001100011011100000
				OFF	12	25	6	118635	00111000100100011100111111000
145	4	2	19	ON	19	47	58	145199	01000101001111000111110011000
				OFF	19	48	34	145243	01000101010000011101101111000
149	7	6	54	ON	2	8	2	167531	01001111111000101000111111000
				OFF	2	2	35	167684	01001111111101010011110100000
150	2	4	47	ON	3	28	1	172818	01010010011001101111100010000
				OFF	3	38	11	172948	01010010011101101101011100000
151	6	3	56	ON	4	41	43	177233	01010100100000101110001101000
				OFF	4	43	49	177359	01010100100100100100010011000
152	6	2	76	ON	6	9	27	182496	01010111000001010101100000000
				OFF	6	12	19	182668	01010111000110100101011100000
153	8	2	79	ON	7	37	16	187765	01011001100010001000100001000
				OFF	7	48	14	187943	01011001100111100100001011000
154	8	6	64	ON	9	28	2	193931	01011100011110010011011111000
				OFF	9	22	42	194891	01011100100011001011111111000
161	6	8	12	ON	19	35	5	238834	01101110000100011111101010000
				OFF	19	35	34	238863	01101110000101011000010011000
165	2	3	26	ON	1	43	51	252968	01111000100111101110100000000
				OFF	1	44	59	253028	01111000101001110011010100000
165	2	5	24	ON	1	46	7	253896	01111000101011111000001000000
				OFF	1	47	14	253163	0111100010110111101011111000
165	2	7	23	ON	1	48	21	253238	0111100010111111101110110000
				OFF	1	49	29	253298	01111000110010000010101010000
166	2	4	54	ON	3	13	47	258356	01111011001100011001100100000
				OFF	3	16	14	258583	01111011010000111000101011000
167	6	3	51	ON	4	27	47	262796	0111101010011111001011100000
				OFF	4	29	43	262912	0111101010110111000000000000
168	6	2	57	ON	5	55	59	268888	01111111110101011001011000000
				OFF	5	58	9	268218	01111111111001010111010010000

~~SECRET~~

169	3	2	35	ON	7	24	18	273379	100000100010110110111010111000
				OFF	7	25	38	273459	100000100010001010011100111000
178	6	3	34	ON	8	52	45	278694	10000100111001000100001110000
				OFF	8	54	3	278772	10000100111011011100100100000
181	7	3	32	ON	1	38	47	338576	10100001011100100001010000000
				OFF	1	32	17	338666	10100001011110100010000100000
182	1	4	26	ON	2	55	7	343636	10100011110110111100000100000
				OFF	2	56	13	343782	10100011111000111100111110000
182	1	6	25	ON	2	57	19	343768	10100011111010111101111000000
				OFF	2	58	25	343834	10100011111100111110110010000
182	1	8	23	ON	2	59	32	343981	10100011111111000001101001000
				OFF	3	8	37	343966	10100100000001000000100110000
184	6	2	58	ON	5	41	23	353612	10101000100111011000011100000
				OFF	5	43	18	353727	10101000101010110010000110000
185	8	5	74	ON	7	13	32	359141	10101011010000000111010001000
				OFF	7	16	19	359388	10101011010101001101011100000
186	6	4	31	ON	8	38	39	364248	10101101101011111101111000000
				OFF	8	39	58	364319	10101101101110001000100011000
187	2	2	16	ON	18	17	52	378281	10110000100001101000110101000
				OFF	18	18	38	378239	10110000100010100110000110000
188	2	2	46	ON	11	41	59	375248	10110010111011101010010000000
				OFF	11	43	42	375351	10110010111110110011011011000
194	9	1	13	ON	28	32	46	487895	11000010000111100011011011000
				OFF	28	33	15	487124	11000010001000011100000100000

- NOTE - T/M DATA INDICATE NORMAL SYSTEM PERFORMANCE
- NOTE - THE ORBIT WAS ADJUSTED ON REV 86
- NOTE - T/M DATA INDICATE THAT BOTH THE MASTER AND SLAVE PAN CAMERAS WERE DEPLETED OF ALL FILM PRIOR TO OPERATION 194-9-1
- NOTE - ONLY THE LAST FIVE FRAMES OF OPERATION 64-5-8 ARE IN THE B MISSION RECOVERY BUCKET
- NOTE - OPERATION 66-8-8 WAS THE CUT AND WRAP OPERATION OCCURRING AT THE TIME OF A MISSION RECOVERY

~~SECRET~~