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CORONA "J"  
FLIGHT DATA  
BOOK  
1041-2

Declassified and Released by the N R O

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-48

VEHICLE NO. 1634

MISSION NO. 1841-2

CAMERA NOS. 288/289

DATE 85-24-67

PAGE 1

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SYSTEM NO. J-48  
VEHICLE NO. 1634  
MISSION NO. 1841-2  
CAMERA NOS. 288/289

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SYSTEM NO. J-48  
VEHICLE NO. 1634  
MISSION NO. 1041-2  
CAMERA NOS. 208/209

GENERAL FLIGHT DATA

MASTER CAMERA SERIAL NO. 208

SLAVE CAMERA SERIAL NO. 209

S/I -1 SERIAL NO. D105/134/133

S/I -2 SERIAL NO. D102/127/127

LAUNCH DATE 05-09-67

REACTIVATION DATE N/A

REACTIVATION ORBIT N/A

ORBITAL PARAMETERS (REV. 150)

PERIOD 94.205 MIN ECCENTRICITY 0.84414

PERIGEE 103.171 NM PERIGEE LAT. 57.978

APOGEE 430.810 NM INCL. ANGLE 85.849

RECOVERY ORBIT NO. 215

RECOVERY DATE 05-23-67

SYSTEM NO. J-48  
VEHICLE NO. 1634  
MISSION NO. 1041-2  
CAMERA NOS. 208/209

CYCLE PERIOD DATA

V/H LEVEL	RAMP SETTING AMPLITUDE	TIME UP RAMP-SEC	---CALIBRATED---		---IN-FLIGHT---	
			MASTER	SLAVE	MASTER	SLAVE
4	1	452	3.850	3.845	3.750	3.740
11	1	2084	2.339	2.341	2.375	2.360
4	1	742	3.239	3.235	3.250	3.245
11	1	2300	2.533	2.536	2.578	2.598

NOTE

AN \* OR -# INDICATES NO DATA AVAILABLE.

A. 1041-2

B. DRY

C. PERFORMANCE ESTIMATE - PART ONE

OPERATIONS SUMMARY

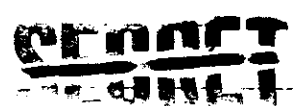
FWD PAN CAMERA		NUMBER	208											
OPN	NO FRA	Q	LAT	LONG	HEIGHT	RANGE	DA	H	M	S	LTIM	S-TIM		
84	5 8	5 ON	2 10 24	50 9E	725344	751872	15	10	5	38	1326	36338		
		OFF	2 9 27	50 10E	733088	759920	15	10	5	52	1326	36352		
91	0 0	4 ON	2 32 27	116 31W	621920	644560	15	21	0	14	1314	75614		
		OFF	2 30 57	116 26W	625440	648200	15	21	0	37	1314	75637		
93	0 0	3 ON	2 63 58	169 1W	693216	718544	16	0	1	6	1244	66		
		OFF	2 62 32	168 29W	684048	709024	16	0	1	29	1247	89		
96	5 3 111	ON	2 70 30	116 24E	736032	762976	16	4	42	24	1228	16944		
		OFF	2 51 17	123 10E	630000	652944	16	4	47	8	1259	17228		
96	5 6	54 ON	2 47 55	123 40E	621824	644464	16	4	47	57	13	2 17277		
		OFF	2 39 7	124 36E	615360	637760	16	4	50	4	13	8 17404		
97	8 5	33 ON	2 43 29	100 31E	615776	638192	16	6	23	18	13	5 22998		
		OFF	2 38 5	101 0E	616432	638864	16	6	24	36	13	8 23076		
97	8 7	52 ON	2 25 33	101 46E	650272	673968	16	6	27	36	1314	23256		
		OFF	2 16 39	102 8E	701904	727552	16	6	29	45	1318	23385		
98	5 7 107	ON	2 51 22	75 48E	629184	652096	16	7	55	39	1258	20539		
		OFF	2 34 6	77 37E	622848	645536	16	7	59	49	1310	20789		
99	2 0	13 ON	1 40 25	111 52W	1647400	1710384	16	9	7	54	140	32874		
		OFF	1 43 23	111 36W	1597648	1658576	16	9	8	42	142	32922		
99	2 4	24 ON	2 56 6	51 14E	644688	668176	16	9	28	46	1253	34126		
		OFF	2 52 2	52 1E	630496	653456	16	9	29	46	1257	34186		
100	5 2	38 ON	2 54 55	27 48E	639392	662688	16	11	3	20	1254	39800		
		OFF	2 48 37	28 53E	621904	644544	16	11	4	52	13	0 39892		
105	9 4	20 ON	2 15 53	87 14W	722464	748896	16	19	4	4	1315	68644		
		OFF	2 12 6	87 6W	753632	781248	16	19	4	59	1316	68699		
106	9 2	19 ON	2 35 19	111 51W	625888	648672	16	20	33	39	13	6 74019		
		OFF	2 32 2	111 38W	634992	658128	16	20	34	27	13	7 74067		
111	4 4	16 ON	2 53 3	127 45E	627696	650560	17	4	20	39	1251	15639		
		OFF	2 50 17	128 13E	622192	644848	17	4	21	19	1254	15679		
112	3 3	50 ON	2 57 38	103 7E	640688	664032	17	5	53	48	1246	21228		
		OFF	2 47 56	104 54E	619120	641664	17	5	56	9	1255	21369		
112	3 8	51 ON	2 23 23	106 46E	682688	707616	17	6	2	3	13	9 21723		
		OFF	2 14 0	107 6E	750736	778240	17	6	4	17	1312	21857		
113	3 1	8 ON	1 27 7	84 6W	1807360	1876976	17	7	4	4	127	25444		
		OFF	1 29 4	84 2W	1774928	1843184	17	7	4	36	128	25476		
113	0 6	87 ON	2 52 40	00 29E	626032	648832	17	7	29	15	1251	26955		
		OFF	2 38 41	02 11E	623504	646200	17	7	32	37	13	1 27157		
114	6 4	26 ON	2 60 40	54 57E	650944	674688	17	9	1	33	1241	32493		
		OFF	2 56 17	56 6E	634944	658000	17	9	2	37	1247	32557		
115	5 4	17 ON	2 58 33	31 53E	641800	665200	17	10	36	19	1243	38179		
		OFF	2 55 39	32 34E	632528	655568	17	10	37	1	1247	38221		
115	5 7	20 ON	2 33 32	35 13E	638320	661584	17	10	42	22	13	3 38542		
		OFF	2 30 11	35 25E	651296	675040	17	10	43	11	13	4 38591		
126	4 3	32 ON	2 64 40	129 30E	657120	681000	18	3	51	27	1229	13087		

		OFF	2	59	8	131	22E	636384	659488	18	3	52	48	1238	13968			
127	4	5	22	ON	2	58	53	189	26E	628768	643376	18	5	29	3	1246	19743	
		OFF	2	47	13	189	58E	628848	642624	18	5	29	56	1249	19796			
128	5	5	98	ON	2	55	47	84	51E	627152	649984	18	7	2	5	1241	25325	
		OFF	2	48	2	87	3E	638256	653216	18	7	5	53	1254	25553			
129	3	5	92	ON	2	57	24	68	49E	638272	653232	18	8	35	55	1239	38955	
		OFF	2	42	36	63	9E	625688	648464	18	8	39	38	1252	31178			
130	5	1	22	ON	2	78	48	31	28E	683792	788768	18	18	6	53	1212	36413	
		OFF	2	66	57	33	47E	663928	688144	18	18	7	48	1222	36468			
130	5	4	124	ON	2	68	18	36	23E	637648	668888	18	18	9	26	1235	36566	
		OFF	2	48	28	39	42E	631872	654864	18	18	14	16	1253	36856			
130	5	7	24	ON	2	28	25	48	38E	679984	784816	18	18	17	8	1259	37828	
		OFF	2	24	11	48	43E	786832	732672	18	18	18	9	13	1	37889		
131	3	1	15	ON	2	54	57	14	2E	624896	647648	18	11	44	58	1241	42298	
		OFF	2	52	24	14	31E	621872	644512	18	11	45	35	1243	42335			
141	3	1	25	ON	2	75	11	126	38E	696248	721688	19	3	22	9	1148	12129	
		OFF	2	71	3	138	53E	672128	696656	19	3	23	12	12	6	12192		
141	3	4	15	ON	2	52	37	137	51E	621824	644464	19	3	27	42	1239	12462	
		OFF	2	58	3	138	16E	622888	644736	19	3	28	19	1241	12499			
142	6	3	48	ON	2	56	14	113	28E	624336	647872	19	5	1	2	1234	18862	
		OFF	2	48	27	114	51E	623584	646288	19	5	2	55	1242	18175			
143	3	2	39	ON	2	66	27	86	25E	649328	673888	19	6	32	45	1218	23565	
		OFF	2	61	32	88	23E	633768	656848	19	6	33	57	1227	23637			
144	5	6	98	ON	2	51	14	67	6E	622488	645856	19	8	18	48	1239	29448	
		OFF	2	36	15	68	45E	658328	682336	19	8	14	17	1249	29657			
145	7	8	14	ON	1	38	27	128	48W	1476688	1532688	19	9	22	35	119	33755	
		OFF	1	41	24	128	33W	1428488	1482544	19	9	23	22	121	33882			
145	7	2	129	ON	2	66	56	38	51E	649648	673328	19	9	41	2	1216	34862	
		OFF	2	46	15	44	9E	628896	658976	19	9	46	3	1242	35163			
157	7	3	11	ON	2	64	58	115	54E	635744	658912	28	4	31	52	1215	16312	
		OFF	2	63	8	116	38E	631648	654656	28	4	32	19	1218	16339			
157	7	4	59	ON	2	68	36	117	29E	627448	658288	28	4	32	56	1222	16376	
		OFF	2	58	51	119	37E	627368	658288	28	4	35	18	1233	16518			
159	3	3	96	ON	2	68	52	66	34E	645952	669584	28	7	39	17	12	5	27557
		OFF	2	53	33	71	51E	625344	648112	28	7	43	1	1238	27781			
159	3	7	17	ON	2	47	43	72	46E	634888	657184	28	7	44	26	1235	27866	
		OFF	2	44	48	73	8E	641856	665248	28	7	45	8	1237	27988			
168	8	2	58	ON	2	59	27	46	51E	625744	648528	28	9	15	47	1223	33347	
		OFF	2	51	14	48	36E	628176	651856	28	9	17	46	1232	33466			
168	8	7	27	ON	2	16	5	51	14E	842352	873344	28	9	26	15	1251	33975	
		OFF	2	18	18	51	25E	989376	942944	28	9	27	42	1253	34862			
161	4	3	23	ON	2	53	38	24	32E	625984	648784	28	18	51	22	1229	39882	
		OFF	2	49	49	25	18E	631848	654832	28	18	52	17	1232	39137			
162	2	3	34	ON	2	32	3	3	13E	788816	733984	28	12	38	45	1243	45845	
		OFF	2	25	41	3	33E	755936	783632	28	12	32	18	1246	45138			
166	7	3	25	ON	2	28	1	98	48W	816944	846968	28	18	58	23	1247	67823	
		OFF	2	14	25	98	37W	876648	988944	28	18	51	45	1249	67985			
167	7	1	19	ON	2	39	38	115	34W	672368	696912	28	28	19	58	1237	73198	
		OFF	2	36	8	115	18W	698672	715984	28	28	28	39	1239	73239			
172	5	6	62	ON	2	47	45	125	18E	644328	667888	21	4	8	42	1229	14922	
		OFF	2	37	2	126	22E	692832	718144	21	4	11	17	1236	15877			

173	4	3	62	ON	2	60	11	99	18E	626240	649056	21	5	39	52	1216	20392	
			OFF	2	50	7	101	18E	638368	661632	21	5	42	18	1227	20538		
173	4	6	93	ON	2	31	57	103	3E	728304	754960	21	5	46	41	1238	20801	
			OFF	2	13	1	103	51E	912016	945696	21	5	51	17	1246	21077		
174	4	1	47	ON	2	81	39	49	24E	692192	717472	21	7	8	34	1026	25714	
			OFF	2	74	30	66	53E	654704	678576	21	7	10	29	1130	25829		
174	4	4	38	ON	2	55	38	76	39E	628704	651600	21	7	15	8	1221	26108	
			OFF	2	49	13	77	47E	641456	664832	21	7	16	41	1227	26201		
175	5	3	40	ON	2	61	10	51	34E	626400	649216	21	8	47	57	1214	31677	
			OFF	2	54	32	53	14E	630480	653440	21	8	49	33	1222	31773		
175	5	5	48	ON	2	45	35	54	37E	654512	678384	21	8	51	43	1230	31903	
			OFF	2	37	6	55	25E	696848	722320	21	8	53	46	1235	32026		
176	6	3	39	ON	2	33	3	32	3E	725600	752240	21	10	28	54	1237	37734	
			OFF	2	26	10	32	25E	781376	810032	21	10	30	34	1240	37834		
187	4	4	19	ON	2	53	9	129	44E	641536	664912	22	3	39	44	1210	13104	
			OFF	2	49	54	130	17E	651584	675344	22	3	40	31	1221	13231		
187	4	5	32	ON	2	46	21	130	46E	665632	689920	22	3	41	23	1224	13283	
			OFF	2	40	56	131	20E	693392	718720	22	3	42	41	1228	13361		
188	5	5	167	ON	2	48	30	106	51E	657792	681792	22	5	15	0	1222	18900	
			OFF	2	16	7	109	3E	917800	951712	22	5	22	51	1239	19371		
189	5	1	6	ON	1	22	58	82	21W	1541312	1599936	22	6	22	20	052	22940	
			OFF	1	24	51	82	17W	1510096	1567456	22	6	22	51	053	22971		
189	6	6	33	ON	2	54	4	82	17E	640736	664000	22	6	47	48	1216	24468	
			OFF	2	48	7	83	15E	660416	684512	22	6	49	14	1222	24554		
190	5	5	78	ON	2	58	31	57	38E	632496	655536	22	8	20	52	1211	30052	
			OFF	2	45	28	59	56E	673472	698048	22	8	24	1	1223	30241		
191	3	2	42	ON	2	59	35	33	42E	631536	654544	22	9	54	45	12	9	35685
			OFF	2	52	35	35	16E	646512	670000	22	9	56	27	1217	35787		
203	5	2	36	ON	2	55	22	111	2E	648384	672032	23	4	45	21	12	9	17121
			OFF	2	49	11	112	7E	672384	696928	23	4	46	51	1215	17211		
203	5	6	25	ON	2	33	49	113	36E	774000	802464	23	4	50	34	1225	17434	
			OFF	2	28	50	113	54E	819536	849648	23	4	51	47	1227	17507		
204	3	6	34	ON	2	44	11	89	6E	700464	726064	23	6	22	11	1218	22931	
			OFF	2	37	50	89	41E	743664	770896	23	6	23	43	1222	23023		
205	5	5	88	ON	2	58	33	63	1E	641296	664672	23	7	52	50	12	4	28370
			OFF	2	43	23	65	32E	707056	732912	23	7	56	30	1218	28590		
206	5	3	150	ON	2	65	6	37	10E	631376	654368	23	9	25	21	1154	33921	
			OFF	2	39	25	42	17E	735728	762656	23	9	31	34	1220	34294		
213	2	0	9	ON	2	32	37	122	41W	800128	837800	23	20	32	2	1221	73922	
			OFF	2	31	21	122	37W	820272	850416	23	20	32	21	1221	73941		

OPERATIONS SUMMARY

AFT	PAN	CAMERA	NUMBER	209													
CPN	NO	FRA	Q	LAT	LONG	HEIGHT	RANGE	DA	H	M	S	LTIM	S-TIM				
84	5	8	6	ON	2	10	33	50	4E	732832	759648	15	10	5	51	1325	36351
			OFF	2	9	37	50	5E	740784	767904	15	10	6	5	1326	36365	
91	0	0	4	ON	2	32	27	116	34W	624000	646720	15	21	0	27	1313	75627
			OFF	2	30	57	116	28W	627920	650784	15	21	0	50	1314	75650	
93	0	0	4	ON	2	64	4	169	7W	687456	712576	16	0	1	19	1244	79
			OFF	2	62	37	168	34W	678600	703376	16	0	1	42	1247	102	





JULIAN

96	5	3	189	ON	2	78	48	116	12E	729888	755696	16	4	42	37	1227	16957	
				OFF	2	51	17	123	7E	627456	658384	16	4	47	21	1259	17241	
96	5	6	54	ON	2	47	55	123	36E	628896	642672	16	4	48	18	13	2	17298
				OFF	2	39	6	124	33E	616888	638416	16	4	58	17	13	8	17417
97	8	5	33	ON	2	43	28	188	28E	615328	637728	16	6	23	31	13	5	23811
				OFF	2	38	4	188	57E	617368	639848	16	6	24	49	13	8	23889
97	8	7	51	ON	2	25	36	181	43E	654544	678416	16	6	27	49	1314	23269	
				OFF	2	16	46	182	3E	788496	734488	16	6	29	58	1318	23398	
98	5	7	186	ON	2	51	23	75	45E	626736	649568	16	7	55	52	1258	28552	
				OFF	2	34	6	77	34E	624944	647696	16	8	8	2	1318	28882	
99	2	8	13	ON	1	38	52	112	9W	1633488	1695984	16	9	8	7	139	32887	
				OFF	1	41	54	111	54W	1583712	1644888	16	9	8	55	141	32935	
99	2	4	24	ON	2	56	8	51	11E	641184	664464	16	9	28	59	1253	34139	
				OFF	2	52	2	51	58E	627952	658816	16	9	29	59	1257	34199	
100	5	2	37	ON	2	54	57	27	45E	636192	659368	16	11	3	33	1254	39813	
				OFF	2	48	37	28	49E	628272	642848	16	11	5	5	13	8	39985
105	9	4	28	ON	2	16	2	87	18W	729712	756416	16	19	4	17	1314	68657	
				OFF	2	12	19	87	12W	761768	789688	16	19	5	12	1316	68712	
106	9	2	19	ON	2	35	19	111	53W	628112	658992	16	28	33	52	13	6	74832
				OFF	2	32	3	111	48W	638112	661368	16	28	34	48	13	7	74888
111	4	4	16	ON	2	53	3	127	43E	625632	648416	17	4	28	52	1251	15652	
				OFF	2	58	17	128	18E	628848	643448	17	4	21	32	1254	15692	
112	3	3	58	ON	2	57	39	183	4E	637584	668816	17	5	54	1	1246	21241	
				OFF	2	47	55	184	49E	618416	648928	17	5	56	22	1255	21382	
112	3	8	58	ON	2	23	28	186	42E	688384	713528	17	6	2	16	13	8	21736
				OFF	2	14	28	187	1E	758728	786528	17	6	4	38	1312	21878	
113	3	1	8	ON	1	25	19	84	22W	1793728	1862768	17	7	4	17	126	25457	
				OFF	1	27	18	84	17W	1761232	1828928	17	7	4	49	127	25489	
113	8	6	85	ON	2	52	48	88	26E	624192	646928	17	7	29	28	1251	26968	
				OFF	2	38	41	82	8E	625288	648848	17	7	32	58	13	1	27178
114	6	4	26	ON	2	68	42	54	54E	647288	678888	17	9	1	46	1241	32586	
				OFF	2	56	18	56	3E	632288	655312	17	9	2	58	1246	32578	
115	5	4	17	ON	2	58	34	31	58E	638656	661936	17	18	36	32	1243	38192	
				OFF	2	55	39	32	31E	638848	652992	17	18	37	14	1247	38234	
115	5	7	19	ON	2	33	34	35	18E	641536	664912	17	18	42	35	13	3	38555
				OFF	2	38	13	35	22E	655488	679312	17	18	43	24	13	4	38684
126	4	3	33	ON	2	64	42	129	26E	653152	676976	18	3	51	48	1229	13988	
				OFF	2	59	9	131	19E	633688	656768	18	3	53	1	1238	13981	
127	4	5	22	ON	2	58	52	189	23E	628224	642888	18	5	29	16	1246	19756	
				OFF	2	47	12	189	54E	628464	643856	18	5	38	9	1249	19889	
128	5	5	96	ON	2	55	47	84	49E	625472	648256	18	7	2	18	1241	25338	
				OFF	2	48	3	87	8E	632688	655648	18	7	6	6	1253	25566	
129	3	5	91	ON	2	57	24	68	47E	628256	651136	18	8	36	8	1239	38968	
				OFF	2	42	36	63	5E	627376	658224	18	8	39	43	1251	31183	
132	5	1	22	ON	2	78	45	31	21E	678672	723456	18	18	7	6	1212	36426	
				OFF	2	67	8	33	42E	659664	683728	18	18	8	1	1222	36481	
138	5	4	123	ON	2	68	19	36	28E	634976	658112	18	18	9	39	1234	36579	
				OFF	2	48	21	39	38E	633456	656528	18	18	14	29	1252	36869	
138	5	7	24	ON	2	28	38	48	27E	685328	718352	18	18	17	21	1258	37841	
				OFF	2	24	18	48	38E	713296	739376	18	18	18	22	13	8	37182
131	3	1	15	ON	2	54	57	13	59E	623616	646328	18	11	45	11	1248	42311	

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			OFF	2	52	24	14	28E	621184	643792	18	11	45	48	1243	42348	
141	3	1	25 ON	2	75	17	126	25E	698784	716816	19	3	22	22	1147	12142	
			OFF	2	71	7	138	46E	667568	691936	19	3	23	25	12	6	12285
141	3	4	15 ON	2	52	37	137	48E	621712	644352	19	3	27	55	1238	12475	
			OFF	2	58	3	138	13E	622656	645328	19	3	28	32	1241	12512	
142	6	3	47 ON	2	56	14	113	26E	623376	646888	19	5	1	15	1234	18875	
			OFF	2	48	27	114	47E	624576	647312	19	5	3	8	1242	18188	
143	3	2	29 ON	2	66	29	86	21E	646888	669536	19	6	32	58	1218	23578	
			OFF	2	61	33	88	28E	631568	654576	19	6	34	18	1227	23658	
144	5	6	88 ON	2	51	14	67	3E	622848	645528	19	8	18	53	1238	29453	
			OFF	2	36	18	68	42E	662544	686784	19	8	14	38	1249	29678	
145	7	8	14 ON	1	37	9	121	2W	1462888	1518328	19	9	22	48	118	33768	
			OFF	1	48	18	128	48W	1414888	1468384	19	9	23	35	128	33815	
145	7	2	128 ON	2	66	58	38	47E	646328	669872	19	9	41	15	1216	34875	
			OFF	2	46	15	44	6E	629848	652784	19	9	46	16	1242	35176	
157	7	3	11 ON	2	64	59	115	51E	633688	656688	20	4	32	5	1215	16325	
			OFF	2	63	9	116	35E	629936	652888	20	4	32	32	1218	16352	
157	7	4	59 ON	2	68	36	117	26E	626328	649136	20	4	33	9	1222	16389	
			OFF	2	58	51	119	34E	628656	651552	20	4	35	31	1233	16531	
159	3	3	93 ON	2	68	54	66	29E	643848	666464	20	7	39	38	12	5	27578
			OFF	2	53	33	71	48E	626112	648912	20	7	43	14	1238	27794	
159	3	7	17 ON	2	47	44	72	42E	636288	659472	20	7	44	39	1235	27879	
			OFF	2	44	58	73	4E	644888	668384	20	7	45	21	1237	27921	
168	8	2	58 ON	2	59	26	46	49E	625128	647888	20	9	16	8	1223	33368	
			OFF	2	51	14	48	33E	629552	652488	20	9	17	59	1232	33479	
168	8	7	27 ON	2	16	26	51	8E	852112	883472	20	9	26	28	1258	33988	
			OFF	2	18	37	51	18E	928328	954384	20	9	27	55	1252	34875	
161	4	3	22 ON	2	53	38	24	29E	626816	649648	20	18	51	35	1229	39895	
			OFF	2	49	49	25	6E	632848	655984	20	18	52	38	1232	39158	
162	2	3	33 ON	2	32	11	3	9E	714248	748352	20	12	38	58	1243	45858	
			OFF	2	25	53	3	28E	763648	791648	20	12	32	31	1246	45151	
166	7	3	24 ON	2	28	19	98	54W	826112	856488	20	18	58	36	1246	67836	
			OFF	2	14	49	98	43W	887888	919712	20	18	51	58	1248	67918	
167	7	1	18 ON	2	39	35	115	38W	677856	781776	20	28	28	3	1237	73283	
			OFF	2	36	15	115	22W	696176	721688	20	28	28	52	1239	73252	
172	5	6	68 ON	2	47	47	125	14E	647312	678912	21	4	8	55	1229	14935	
			OFF	2	37	9	126	18E	698384	723984	21	4	11	38	1236	15898	
173	4	3	61 ON	2	68	11	99	7E	626224	649848	21	5	48	5	1216	28485	
			OFF	2	58	8	181	14E	648832	664176	21	5	42	31	1227	28551	
173	4	6	92 ON	2	32	7	182	59E	735184	762816	21	5	46	54	1238	28814	
			OFF	2	13	28	183	45E	922912	957888	21	5	51	38	1246	21898	
174	4	1	47 ON	2	81	43	48	55E	687128	712288	21	7	8	47	1824	25727	
			OFF	2	74	33	66	46E	651328	675872	21	7	18	42	1137	25842	
174	4	4	38 ON	2	55	38	76	37E	629856	652888	21	7	15	21	1221	26121	
			OFF	2	49	14	77	43E	644224	667712	21	7	16	54	1227	26214	
175	5	3	48 ON	2	61	18	51	32E	626288	649184	21	8	48	18	1214	31698	
			OFF	2	54	33	53	11E	631968	654992	21	8	49	46	1222	31786	
175	5	5	48 ON	2	45	38	54	33E	658192	682192	21	8	51	56	1229	31916	
			OFF	2	37	13	55	21E	782568	728248	21	8	53	59	1235	32839	
176	6	3	38 ON	2	33	13	31	58E	732488	759288	21	18	29	7	1236	37747	
			OFF	2	26	25	32	28E	789664	818648	21	18	38	47	1239	37847	

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187	4	4	19	ON	2	53	11	129	41E	644888	667552	22	3	39	57	1218	13197	
				OFF	2	49	56	130	13E	654896	678784	22	3	48	44	1221	13244	
187	4	5	31	ON	2	46	25	130	42E	669888	694256	22	3	41	36	1224	13296	
				OFF	2	41	2	131	15E	698864	724488	22	3	42	54	1227	13374	
188	5	5	165	ON	2	48	33	186	46E	661472	685688	22	5	15	13	1222	18913	
				OFF	2	16	35	128	57E	928688	962992	22	5	23	4	1238	19384	
189	5	1	6	ON	1	21	34	82	33W	1527328	1585392	22	6	22	33	852	22953	
				OFF	1	23	29	82	28W	1496128	1552928	22	6	23	4	852	22984	
189	6	6	33	ON	2	54	5	82	14E	643288	666648	22	6	48	1	1216	24481	
				OFF	2	48	11	83	12E	664256	688496	22	6	49	27	1221	24567	
196	5	5	77	ON	2	58	31	57	35E	633928	657888	22	8	21	5	1211	38965	
				OFF	2	45	32	59	52E	678816	782768	22	8	24	14	1223	38254	
191	3	2	41	ON	2	59	36	33	48E	632752	655888	22	9	54	58	12	9	35698
				OFF	2	52	37	35	13E	649424	673184	22	9	56	48	1217	35888	
223	5	2	36	ON	2	55	24	118	59E	651312	675856	23	4	45	34	12	9	17134
				OFF	2	49	16	112	2E	676768	721472	23	4	47	4	1215	17224	
223	5	6	25	ON	2	34	3	113	32E	781952	818648	23	4	58	47	1224	17447	
				OFF	2	29	8	113	49E	828464	858928	23	4	52	8	1227	17528	
224	3	6	33	ON	2	44	19	89	1E	786888	731888	23	6	22	24	1218	22944	
				OFF	2	38	2	89	36E	758728	778224	23	6	23	56	1222	23836	
225	5	5	86	ON	2	58	34	62	58E	643584	667848	23	7	53	3	12	4	28383
				OFF	2	43	31	65	28E	712864	738928	23	7	56	43	1218	26683	
226	5	3	147	ON	2	65	6	37	7E	632192	655216	23	9	25	34	1153	33934	
				OFF	2	39	36	42	12E	742496	769688	23	9	31	47	1222	34387	
213	2	2	9	ON	2	32	54	122	46W	816752	846768	23	28	32	15	1227	73935	
				OFF	2	31	39	122	41W	829128	859616	23	28	32	34	1221	73954	

PHOTOGRAPHIC SUMMARY

FWD PAN CAMERA NO 288 R.2250 SLIT W/23A FILTER 3484 FILM												
OPN NO	FRA	FEET	ET	S-EL	S-DIR	EV	FULL	INT	PRI			
84	5	9	5	13.2	ON	256	66.7	118.6	11.85	12.42	11.82	11.22
					OFF	254	66.2	127.5	11.84	12.42	11.82	11.22
91	5	6	4	18.6	ON	72	67.8	62.9	18.83	12.42	11.82	11.22
					OFF	72	68.4	66.3	18.83	12.42	11.82	11.22
93	2	6	3	7.9	ON	72	44.1	27.9	18.83	12.41	11.81	11.21
					OFF	72	45.4	28.6	18.83	12.41	11.81	11.21
96	5	3	111	293.6	ON	237	38.2	25.1	11.74	12.38	11.78	11.18
					OFF	276	55.3	35.2	11.96	12.42	11.82	11.22
96	5	6	54	142.8	ON	288	58.8	38.3	11.98	12.42	11.82	11.22
					OFF	287	64.5	49.4	12.82	12.42	11.82	11.22
97	8	5	33	87.3	ON	288	61.5	43.8	12.82	12.42	11.82	11.22
					OFF	257	65.2	57.9	12.82	12.42	11.82	11.22
97	8	7	52	137.5	ON	278	78.7	79.5	11.97	12.42	11.82	11.22
					OFF	264	78.3	185.8	11.98	12.42	11.82	11.22
98	5	7	127	283.8	ON	284	55.3	34.8	12.88	12.42	11.82	11.22
					OFF	286	67.6	58.2	12.81	12.42	11.82	11.22
99	2	2	13	34.4	ON	172	-25.8	21.2	11.28	8.8	8.8	8.8
					OFF	176	-23.8	28.7	11.32	8.8	8.8	8.8
99	4	24	63.5	ON	279	51.3	31.2	11.98	12.42	11.82	11.22	
					OFF	283	54.8	34.1	12.88	12.42	11.82	11.22



105	5 2	38	100.5	ON	278	52.4	31.8	11.97	12.42	11.82	11.22
				OFF	284	57.6	36.9	12.00	12.42	11.82	11.22
105	9 4	20	52.9	ON	259	70.9	107.7	11.87	12.42	11.82	11.22
				OFF	251	69.4	117.4	11.82	12.42	11.82	11.22
106	9 2	19	50.3	ON	285	67.6	54.4	12.01	12.42	11.82	11.22
				OFF	283	69.3	61.4	11.99	12.42	11.82	11.22
111	4 4	16	42.3	ON	285	54.4	31.3	12.01	12.42	11.82	11.22
				OFF	286	56.8	33.5	12.01	12.42	11.82	11.22
112	3 3	60	158.7	ON	282	50.4	28.2	11.99	12.42	11.82	11.22
				OFF	288	58.8	35.5	12.02	12.42	11.82	11.22
112	3 8	51	134.9	ON	267	72.5	85.0	11.92	12.42	11.82	11.22
				OFF	249	71.0	113.1	11.81	12.42	11.82	11.22
113	3 1	8	21.2	ON	159	-38.6	22.6	11.17	0.0	0.0	0.0
				OFF	161	-36.8	22.0	11.19	0.0	0.0	0.0
113	8 6	87	230.1	ON	285	54.8	31.3	12.01	12.42	11.82	11.22
				OFF	286	65.9	47.0	12.01	12.42	11.82	11.22
114	6 4	26	68.8	ON	278	47.8	26.3	11.97	12.42	11.82	11.22
				OFF	283	51.7	28.7	12.00	12.42	11.82	11.22
115	5 4	17	45.0	ON	279	49.7	27.3	11.97	12.42	11.82	11.22
				OFF	282	52.3	29.0	11.99	12.42	11.82	11.22
115	5 7	20	52.9	ON	284	69.3	56.4	12.00	12.42	11.82	11.22
				OFF	280	71.0	64.6	11.98	12.42	11.82	11.22
126	4 3	32	84.6	ON	265	44.4	22.9	11.90	12.41	11.81	11.21
				OFF	274	49.5	25.3	11.95	12.42	11.82	11.22
127	4 5	22	58.2	ON	288	57.0	30.3	12.02	12.42	11.82	11.22
				OFF	288	60.1	33.4	12.02	12.42	11.82	11.22
128	5 5	90	259.2	ON	286	52.6	26.8	12.01	12.42	11.82	11.22
				OFF	284	65.9	41.9	12.00	12.42	11.82	11.22
129	3 5	92	243.3	ON	286	51.2	25.7	12.01	12.42	11.82	11.22
				OFF	285	64.0	38.1	12.01	12.42	11.82	11.22
130	5 1	22	58.2	ON	268	38.7	28.6	11.92	12.30	11.70	11.10
				OFF	274	42.3	21.6	11.95	12.40	11.80	11.20
130	5 4	124	328.0	ON	281	48.6	24.1	11.99	12.42	11.82	11.22
				OFF	283	65.8	41.0	12.00	12.42	11.82	11.22
130	5 7	24	63.5	ON	269	73.0	67.2	11.92	12.42	11.82	11.22
				OFF	261	74.2	81.1	11.88	12.42	11.82	11.22
131	3 1	15	39.7	ON	285	53.5	26.8	12.01	12.42	11.82	11.22
				OFF	286	55.8	28.4	12.01	12.42	11.82	11.22
141	3 1	25	66.1	ON	271	34.4	18.3	11.93	12.34	11.74	11.14
				OFF	277	38.5	19.0	11.97	12.30	11.70	11.10
141	3 4	15	39.7	ON	286	55.9	26.6	12.01	12.42	11.82	11.22
				OFF	285	58.2	28.4	12.01	12.42	11.82	11.22
142	6 3	48	127.0	ON	286	52.7	24.2	12.01	12.42	11.82	11.22
				OFF	284	59.7	29.5	12.00	12.42	11.82	11.22
143	3 2	30	79.3	ON	278	43.0	19.9	11.97	12.40	11.80	11.20
				OFF	282	47.7	21.6	11.99	12.42	11.82	11.22
144	5 6	90	238.0	ON	285	57.3	27.0	12.01	12.42	11.82	11.22
				OFF	269	69.7	44.8	11.92	12.42	11.82	11.22
145	7 0	14	37.0	ON	197	-28.7	16.2	11.47	0.0	0.0	0.0
				OFF	203	-25.8	15.8	11.52	0.0	0.0	0.0
145	7 2	129	341.2	ON	283	42.6	19.5	12.00	12.40	11.80	11.20

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157	7	3	11	29.1	OFF	280	61.7	38.9	11.98	12.42	11.82	11.22
					ON	288	44.7	18.4	11.98	12.41	11.81	11.21
157	7	4	59	156.1	OFF	281	46.5	19.8	11.99	12.42	11.82	11.22
					ON	283	48.9	19.9	12.88	12.42	11.82	11.22
159	3	3	96	253.9	OFF	286	58.1	24.9	12.81	12.42	11.82	11.22
					ON	284	41.8	17.1	12.88	12.39	11.79	11.19
159	3	7	17	45.8	OFF	284	55.7	22.8	12.88	12.42	11.82	11.22
					ON	279	61.8	26.8	11.98	12.42	11.82	11.22
168	8	2	58	132.2	OFF	276	63.6	29.4	11.96	12.42	11.82	11.22
					ON	286	58.1	19.9	12.81	12.42	11.82	11.22
168	8	7	27	71.4	OFF	284	57.8	24.1	12.88	12.42	11.82	11.22
					ON	222	76.4	113.3	11.65	12.42	11.82	11.22
161	4	3	23	68.8	OFF	285	73.1	131.8	11.53	12.42	11.82	11.22
					ON	286	55.6	22.4	12.81	12.42	11.82	11.22
162	2	3	34	89.9	OFF	286	59.2	24.8	12.81	12.42	11.82	11.22
					ON	254	73.8	49.9	11.84	12.42	11.82	11.22
166	7	3	25	66.1	OFF	239	77.8	71.6	11.75	12.42	11.82	11.22
					ON	228	78.8	97.1	11.64	12.42	11.82	11.22
167	7	1	19	58.3	OFF	284	76.2	129.6	11.53	12.42	11.82	11.22
					ON	265	68.5	33.9	11.98	12.42	11.82	11.22
172	5	6	62	164.9	OFF	258	71.3	39.4	11.87	12.42	11.82	11.22
					ON	276	61.5	24.2	11.96	12.42	11.82	11.22
173	4	3	62	164.3	OFF	258	78.8	36.5	11.86	12.42	11.82	11.22
					ON	286	49.7	17.5	12.81	12.42	11.82	11.22
173	4	6	93	246.8	OFF	279	59.3	22.3	11.98	12.42	11.82	11.22
					ON	249	74.7	47.2	11.81	12.42	11.82	11.22
174	4	1	47	124.3	OFF	199	76.8	126.9	11.49	12.42	11.82	11.22
					ON	273	27.7	14.7	11.94	12.26	11.66	11.86
174	4	4	38	188.5	OFF	282	35.5	14.2	11.99	12.35	11.75	11.15
					ON	283	54.1	19.2	12.88	12.42	11.82	11.22
175	5	3	48	185.8	OFF	277	68.2	22.7	11.97	12.42	11.82	11.22
					ON	286	48.8	16.9	12.81	12.42	11.82	11.22
175	5	5	48	127.8	OFF	283	55.2	19.5	12.88	12.42	11.82	11.22
					ON	273	63.5	25.3	11.94	12.42	11.82	11.22
176	6	3	39	183.2	OFF	258	78.9	35.6	11.86	12.42	11.82	11.22
					ON	268	74.2	43.6	11.92	12.42	11.82	11.22
187	4	4	19	58.3	OFF	254	78.2	66.8	11.84	12.42	11.82	11.22
					ON	284	56.8	18.9	12.88	12.42	11.82	11.22
187	4	5	32	84.6	OFF	281	59.9	19.7	11.99	12.42	11.82	11.22
					ON	277	63.2	22.1	11.97	12.42	11.82	11.22
188	5	5	167	441.7	OFF	269	68.2	27.1	11.93	12.42	11.82	11.22
					ON	271	61.3	28.4	11.94	12.42	11.82	11.22
189	5	1	6	15.9	OFF	193	79.8	118.8	11.45	12.42	11.82	11.22
					ON	118	-44.6	13.6	18.74	8.8	8.8	8.8
189	6	6	33	87.3	OFF	122	-42.6	13.1	18.79	8.8	8.8	8.8
					ON	272	56.8	17.2	11.94	12.42	11.82	11.22
192	5	5	73	236.3	OFF	262	61.6	28.4	11.89	12.42	11.82	11.22
					ON	283	51.7	15.4	12.88	12.42	11.82	11.22
191	3	2	42	111.1	OFF	267	64.2	22.1	11.92	12.42	11.82	11.22
					ON	282	58.6	14.9	11.99	12.42	11.82	11.22
					OFF	274	57.4	17.5	11.95	12.42	11.82	11.22



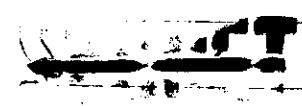
203	5 2	36	95.2	ON	281	55.8	14.2	11.99	12.42	11.82	11.22
				OFF	274	61.8	16.9	11.95	12.42	11.82	11.22
203	5 6	25	66.1	ON	244	75.2	33.2	11.79	12.42	11.82	11.22
				OFF	232	79.8	47.4	11.71	12.42	11.82	11.22
204	3 6	34	89.9	ON	256	65.8	19.8	11.85	12.42	11.82	11.22
				OFF	242	71.7	26.2	11.77	12.42	11.82	11.22
205	5 5	88	232.8	ON	279	51.9	12.9	11.98	12.42	11.82	11.22
				OFF	254	66.6	20.2	11.84	12.42	11.82	11.22
206	5 3	150	396.7	ON	284	45.4	11.3	12.80	12.41	11.81	11.21
				OFF	244	70.3	23.7	11.78	12.42	11.82	11.22
213	2 0	9	23.8	ON	222	76.7	32.2	11.65	12.42	11.82	11.22
				OFF	219	77.8	35.3	11.63	12.42	11.82	11.22

PHOTOGRAPHIC SUMMARY

AFT PAN CAMERA NO 209 0.1750 SLIT W/21				FILTER		3404 FILM					
OPN NO	FRA	FEET	ET	S-EL	S-DIR	EV	FULL	INT	PRI		
84	5 8	6	15.9	ON	326	66.8	118.3	12.20	12.75	12.15	11.55
				OFF	324	66.3	120.2	12.19	12.75	12.15	11.55
91	0 0	4	10.6	ON	95	67.9	62.7	10.43	12.75	12.15	11.55
				OFF	95	68.5	66.1	10.43	12.75	12.15	11.55
93	0 0	4	10.6	ON	95	44.1	27.3	10.43	12.74	12.14	11.54
				OFF	95	45.4	28.0	10.43	12.74	12.14	11.54
96	5 3	129	288.3	ON	302	38.1	24.1	12.09	12.70	12.10	11.50
				OFF	351	55.3	34.9	12.31	12.75	12.15	11.55
96	5 6	54	142.8	ON	357	58.0	38.0	12.33	12.75	12.15	11.55
				OFF	365	64.5	49.3	12.36	12.75	12.15	11.55
97	8 5	33	87.3	ON	366	61.5	42.9	12.37	12.75	12.15	11.55
				OFF	366	65.2	50.8	12.37	12.75	12.15	11.55
97	8 7	51	134.9	ON	354	70.7	79.3	12.32	12.75	12.15	11.55
				OFF	336	70.4	104.6	12.25	12.75	12.15	11.55
98	5 7	126	280.4	ON	361	55.3	34.5	12.35	12.75	12.15	11.55
				OFF	363	67.6	58.1	12.36	12.75	12.15	11.55
99	2 0	13	34.4	ON	228	-27.3	21.1	11.63	0.0	0.0	0.0
				OFF	226	-24.5	20.6	11.67	0.0	0.0	0.0
99	2 4	24	63.5	ON	356	51.3	30.9	12.33	12.75	12.15	11.55
				OFF	361	54.8	33.8	12.35	12.75	12.15	11.55
100	5 2	37	97.9	ON	354	52.4	31.5	12.32	12.75	12.15	11.55
				OFF	362	57.7	36.7	12.35	12.75	12.15	11.55
105	9 4	20	52.9	ON	330	71.0	107.2	12.22	12.75	12.15	11.55
				OFF	319	69.6	116.9	12.17	12.75	12.15	11.55
106	9 2	19	50.3	ON	363	67.6	54.2	12.36	12.75	12.15	11.55
				OFF	360	69.3	61.3	12.34	12.75	12.15	11.55
111	4 4	16	42.3	ON	363	54.4	31.1	12.35	12.75	12.15	11.55
				OFF	365	56.8	33.3	12.36	12.75	12.15	11.55
112	3 3	58	153.4	ON	359	50.4	27.9	12.34	12.75	12.15	11.55
				OFF	366	58.8	35.2	12.37	12.75	12.15	11.55
112	3 8	50	132.2	ON	341	72.5	84.6	12.26	12.75	12.15	11.55
				OFF	317	71.1	112.6	12.16	12.75	12.15	11.55
113	3 1	8	21.2	ON	204	-40.4	22.9	11.53	0.0	0.0	0.0
				OFF	207	-38.5	22.3	11.55	0.0	0.0	0.0

**LUNLI**

113	8	6	85	224.8	ON	363	54.9	31.0	12.36	12.75	12.15	11.55
					OFF	364	65.9	46.8	12.36	12.75	12.15	11.55
114	6	4	26	68.8	ON	354	47.7	26.0	12.32	12.75	12.15	11.55
					OFF	368	51.7	28.4	12.34	12.75	12.15	11.55
115	5	4	17	45.0	ON	355	49.7	26.9	12.32	12.75	12.15	11.55
					OFF	359	52.3	28.7	12.34	12.75	12.15	11.55
115	5	7	19	50.3	ON	361	69.3	56.2	12.35	12.75	12.15	11.55
					OFF	357	71.0	64.3	12.33	12.75	12.15	11.55
126	4	3	33	87.3	ON	338	44.3	22.4	12.25	12.74	12.14	11.54
					OFF	349	49.5	24.9	12.30	12.75	12.15	11.55
127	4	5	22	58.2	ON	366	57.0	37.0	12.37	12.75	12.15	11.55
					OFF	366	60.1	33.2	12.37	12.75	12.15	11.55
128	5	5	96	253.9	ON	364	52.6	26.5	12.36	12.75	12.15	11.55
					OFF	362	65.9	41.7	12.35	12.75	12.15	11.55
129	3	5	91	240.7	ON	364	51.2	25.4	12.36	12.75	12.15	11.55
					OFF	363	64.0	37.9	12.36	12.75	12.15	11.55
130	5	1	22	58.2	ON	340	38.6	19.7	12.26	12.71	12.11	11.51
					OFF	348	42.2	21.0	12.29	12.73	12.13	11.53
130	5	4	123	325.3	ON	357	48.5	23.8	12.33	12.75	12.15	11.55
					OFF	359	65.8	40.8	12.34	12.75	12.15	11.55
130	5	7	24	63.5	ON	341	73.0	66.7	12.27	12.75	12.15	11.55
					OFF	332	74.2	80.6	12.23	12.75	12.15	11.55
131	3	1	15	39.7	ON	362	53.5	26.5	12.35	12.75	12.15	11.55
					OFF	363	55.8	28.2	12.36	12.75	12.15	11.55
141	3	1	25	66.1	ON	344	34.3	16.9	12.28	12.67	12.07	11.47
					OFF	352	38.5	18.2	12.31	12.71	12.11	11.51
141	3	4	15	39.7	ON	363	56.0	26.3	12.35	12.75	12.15	11.55
					OFF	361	58.3	28.1	12.35	12.75	12.15	11.55
142	6	3	47	124.3	ON	363	52.7	24.0	12.36	12.75	12.15	11.55
					OFF	360	59.7	29.3	12.34	12.75	12.15	11.55
143	3	2	29	76.7	ON	353	43.0	19.4	12.31	12.73	12.13	11.53
					OFF	359	47.7	21.2	12.34	12.75	12.15	11.55
144	5	6	88	232.8	ON	362	57.3	26.7	12.35	12.75	12.15	11.55
					OFF	342	69.7	44.5	12.27	12.75	12.15	11.55
145	7	0	14	37.0	ON	251	-30.0	16.2	11.82	0.0	0.0	0.0
					OFF	258	-27.1	15.7	11.87	0.0	0.0	0.0
145	7	2	128	338.6	ON	360	42.6	18.9	12.34	12.73	12.13	11.53
					OFF	355	61.7	30.7	12.32	12.75	12.15	11.55
157	7	3	11	29.1	ON	355	44.7	17.9	12.32	12.74	12.14	11.54
					OFF	357	46.5	18.6	12.33	12.75	12.15	11.55
157	7	4	59	156.1	ON	360	49.0	19.5	12.34	12.75	12.15	11.55
					OFF	363	58.1	24.6	12.36	12.75	12.15	11.55
159	3	3	93	246.0	ON	358	40.9	16.4	12.34	12.72	12.12	11.52
					OFF	359	55.7	22.6	12.34	12.75	12.15	11.55
159	3	7	17	45.0	ON	353	61.0	26.6	12.31	12.75	12.15	11.55
					OFF	348	63.6	29.2	12.30	12.75	12.15	11.55
160	8	2	52	132.2	ON	362	50.1	19.5	12.35	12.75	12.15	11.55
					OFF	359	57.8	23.8	12.34	12.75	12.15	11.55
160	8	7	27	71.4	ON	281	76.6	112.0	11.99	12.75	12.15	11.55
					OFF	260	73.5	130.8	11.87	12.75	12.15	11.55
161	4	3	22	58.2	ON	362	55.7	22.2	12.35	12.75	12.15	11.55



				OFF	361	59.2	24.6	12.35	12.75	12.15	11.55
162	2	3	33	87.3 ON	321	73.8	49.4	12.18	12.75	12.15	11.55
				OFF	382	77.8	78.6	12.89	12.75	12.15	11.55
166	7	3	24	63.5 ON	279	78.1	95.6	11.98	12.75	12.15	11.55
				OFF	259	76.4	119.2	11.87	12.75	12.15	11.55
167	7	1	18	47.6 ON	335	68.5	33.6	12.24	12.75	12.15	11.55
				OFF	326	71.2	39.8	12.28	12.75	12.15	11.55
172	5	6	68	158.7 ON	348	61.4	23.9	12.38	12.75	12.15	11.55
				OFF	326	78.8	36.1	12.28	12.75	12.15	11.55
173	4	3	61	161.3 ON	361	49.7	17.2	12.35	12.75	12.15	11.55
				OFF	353	59.3	22.1	12.32	12.75	12.15	11.55
173	4	6	92	243.3 ON	315	74.6	46.6	12.15	12.75	12.15	11.55
				OFF	252	76.3	125.6	11.83	12.75	12.15	11.55
174	4	1	47	124.3 ON	345	27.6	18.4	12.28	12.59	11.99	11.39
				OFF	356	35.4	13.8	12.33	12.68	12.88	11.48
174	4	4	38	188.5 ON	358	54.1	18.9	12.33	12.75	12.15	11.55
				OFF	358	68.1	22.4	12.38	12.75	12.15	11.55
175	5	3	48	185.8 ON	363	48.8	16.5	12.36	12.75	12.15	11.55
				OFF	358	55.2	19.2	12.34	12.75	12.15	11.55
175	5	5	48	127.8 ON	346	63.5	25.8	12.29	12.75	12.15	11.55
				OFF	327	78.9	35.2	12.28	12.75	12.15	11.55
176	6	3	38	188.5 ON	339	74.1	43.8	12.26	12.75	12.15	11.55
				OFF	323	78.1	65.5	12.19	12.75	12.15	11.55
187	4	4	19	58.3 ON	368	56.8	17.7	12.34	12.75	12.15	11.55
				OFF	356	59.9	19.5	12.33	12.75	12.15	11.55
187	4	5	31	82.8 ON	351	63.2	21.8	12.31	12.75	12.15	11.55
				OFF	342	68.1	26.7	12.27	12.75	12.15	11.55
188	5	5	165	436.4 ON	344	61.2	28.1	12.28	12.75	12.15	11.55
				OFF	246	79.3	116.7	11.79	12.75	12.15	11.55
189	5	1	6	15.9 ON	152	-46.8	13.6	11.18	8.8	8.8	8.8
				OFF	157	-44.1	13.2	11.15	8.8	8.8	8.8
189	6	6	33	87.3 ON	345	55.9	17.8	12.28	12.75	12.15	11.55
				OFF	332	61.6	28.1	12.23	12.75	12.15	11.55
198	5	5	77	283.7 ON	359	51.6	15.1	12.34	12.75	12.15	11.55
				OFF	339	64.1	21.8	12.26	12.75	12.15	11.55
191	3	2	41	188.4 ON	358	58.6	14.6	12.33	12.75	12.15	11.55
				OFF	347	57.4	17.3	12.29	12.75	12.15	11.55
223	5	2	36	95.2 ON	356	54.9	13.9	12.33	12.75	12.15	11.55
				OFF	347	68.9	16.6	12.29	12.75	12.15	11.55
223	5	6	25	66.1 ON	318	75.8	32.5	12.13	12.75	12.15	11.55
				OFF	294	78.9	46.8	12.85	12.75	12.15	11.55
224	3	6	33	87.3 ON	325	65.7	19.4	12.28	12.75	12.15	11.55
				OFF	387	71.6	25.7	12.11	12.75	12.15	11.55
225	5	5	86	227.5 ON	353	51.9	12.6	12.32	12.75	12.15	11.55
				OFF	322	66.5	19.8	12.18	12.75	12.15	11.55
226	5	3	147	388.8 ON	368	45.4	18.8	12.34	12.74	12.14	11.54
				OFF	389	78.2	23.2	12.12	12.75	12.15	11.55
213	2	8	9	23.8 ON	282	76.5	31.3	11.99	12.75	12.15	11.55
				OFF	278	77.6	34.2	11.97	12.75	12.15	11.55



STELLAR-INDEX SUMMARY

CAMERA DATA ET FILM FILTER GRID ASSEMBLY NO D182

STELLAR 1.8 4481 NONE 127

INDEX 1/500 4400 W/21 127

PERFORMANCE SUMMARY

OPN NO	FR	STEL FEET	INDX FEET	H	M	S	Q	LAT	ON LONG	Q	OFF LAT	OFF LONG	SEC DUR	
84	5 8	1	0.18	0.20	18	5	38	2	18	58E	2	9	58E	27
96	5 3	17	1.68	3.37	4	42	24	2	78	116E	2	51	123E	297
96	5 6	9	2.89	1.78	4	47	57	2	47	123E	2	39	124E	148
97	8 5	6	2.59	1.19	6	23	18	2	43	188E	2	38	181E	91
97	8 7	8	2.79	1.58	6	27	36	2	25	181E	2	16	182E	142
98	5 7	16	1.58	3.17	7	55	39	2	51	75E	2	34	77E	263
99	2 8	2	0.28	0.48	9	7	54	1	48	111W	1	43	111W	61
99	2 4	4	0.48	0.79	9	28	46	2	56	51E	2	52	52E	73
100	5 2	6	2.59	1.19	11	3	20	2	54	27E	2	48	28E	105
125	9 4	4	0.48	0.79	19	4	4	2	15	87W	2	12	87W	68
126	9 2	3	0.38	0.59	28	33	39	2	35	111W	2	32	111W	61
111	4 4	3	0.38	0.59	4	28	39	2	53	127E	2	58	128E	53
112	3 3	9	2.89	1.78	5	53	48	2	57	183E	2	47	184E	154
112	3 8	8	2.79	1.58	6	2	3	2	23	186E	2	14	187E	147
113	3 1	2	0.28	0.48	7	4	4	1	27	84W	1	29	84W	45
113	8 6	13	1.29	2.57	7	29	15	2	52	88E	2	38	82E	215
114	6 4	4	2.48	2.79	9	1	33	2	68	54E	2	56	56E	77
115	5 4	3	0.38	0.59	18	36	19	2	58	31E	2	55	32E	55
115	5 7	4	0.48	0.79	18	42	22	2	33	35E	2	38	35E	62
126	4 3	5	2.49	2.99	3	51	27	2	64	129E	2	59	131E	94
127	4 5	4	2.48	2.79	5	29	3	2	58	189E	2	47	189E	66
128	5 5	15	1.48	2.97	7	2	5	2	55	84E	2	48	87E	241
129	3 5	14	1.39	2.77	8	35	55	2	57	68E	2	42	63E	228
130	5 1	4	0.48	0.79	18	6	53	2	78	31E	2	66	33E	68
132	5 4	19	1.88	3.76	18	9	26	2	68	36E	2	48	39E	383
132	5 7	4	0.48	0.79	18	17	8	2	28	48E	2	24	48E	74
131	3 1	3	0.38	0.59	11	44	58	2	54	14E	2	52	14E	58
141	3 1	4	0.48	0.79	3	22	9	2	75	126E	2	71	138E	76
141	3 4	3	0.38	0.59	3	27	42	2	52	137E	2	58	138E	58
142	6 3	8	2.79	1.58	5	1	2	2	56	113E	2	48	114E	126
143	3 2	5	0.49	0.99	6	32	45	2	66	86E	2	61	88E	85
144	5 6	14	1.39	2.77	8	18	48	2	51	67E	2	36	68E	238
145	7 8	3	2.38	2.59	9	22	35	1	38	128W	1	41	128W	68
145	7 2	19	1.88	3.76	9	41	2	2	66	38E	2	46	44E	314
157	7 3	2	0.28	0.48	4	31	52	2	64	115E	2	63	116E	48
157	7 4	9	2.89	1.78	4	32	56	2	68	117E	2	58	119E	155
159	3 3	15	1.48	2.97	7	39	17	2	68	66E	2	53	71E	237
159	3 7	3	0.38	2.59	7	44	26	2	47	72E	2	44	73E	55
163	8 2	8	2.79	1.58	9	15	47	2	59	46E	2	51	48E	132
168	8 7	4	0.48	2.79	9	26	15	2	16	51E	2	18	51E	188
161	4 3	4	0.48	2.79	18	51	22	2	53	24E	2	49	25E	68
162	2 3	6	2.59	1.19	12	38	45	2	32	3E	2	25	3E	186
166	7 3	4	2.48	2.79	18	58	23	2	28	98W	2	14	98W	95
167	7 1	3	2.38	2.59	28	19	58	2	39	115W	2	36	115W	62

SECRET

172	5	6	10	0.99	1.98	4	8	42	2	47	125E	2	37	126E	168
173	4	3	10	0.99	1.98	5	39	52	2	60	99E	2	58	101E	159
173	4	6	14	1.39	2.77	5	46	41	2	31	103E	2	13	103E	289
174	4	1	7	0.69	1.39	7	8	34	2	81	49E	2	74	66E	120
174	4	4	6	0.59	1.19	7	15	8	2	55	76E	2	49	77E	106
175	5	3	6	0.59	1.19	8	47	57	2	61	51E	2	54	53E	109
175	5	5	8	0.79	1.58	8	51	43	2	45	54E	2	37	55E	136
176	6	3	6	0.59	1.19	10	28	54	2	33	32E	2	26	32E	113
187	4	4	3	0.30	0.59	3	39	44	2	53	129E	2	49	130E	60
187	4	5	5	0.49	0.99	3	41	23	2	46	130E	2	40	131E	91
188	5	5	25	2.47	4.95	5	15	0	2	48	106E	2	16	109E	484
169	5	1	1	0.10	0.20	6	22	20	1	22	82W	1	24	82W	44
189	6	6	5	0.49	0.99	6	47	48	2	54	82E	2	48	83E	99
190	5	5	12	1.19	2.38	8	20	52	2	58	57E	2	45	59E	282
191	3	2	7	0.69	1.39	9	54	45	2	59	33E	2	52	35E	115
203	5	2	6	0.59	1.19	4	45	21	2	55	111E	2	49	112E	103
203	5	6	4	0.40	0.79	4	50	34	2	33	113E	2	28	113E	86
204	3	6	6	0.59	1.19	6	22	11	2	44	89E	2	37	89E	105
205	5	5	13	1.29	2.57	7	52	50	2	58	63E	2	43	65E	233
206	5	3	22	2.18	4.36	9	25	21	2	65	37E	2	39	42E	386
213	2	0	2	0.20	0.40	20	32	2	2	32	122W	2	31	122W	32

NOTE - OPERATION 84-5-8 CONSISTED OF FIVE MORE FRAMES ON THE FWD PAN CAMERA AND THREE MORE FRAMES ON THE AFT PAN CAMERA THAN REPORTED HERE. THESE FRAMES WERE INCLUDED IN THE A MISSION RECOVERY BUCKET.

NOTE - OPERATION 91-0-0 WAS THE CUT AND WRAP OPERATION OCCURRING AT THE A TO B TRANSFER.

NOTE - OPERATION 93-0-0 WAS THE LENS STOWING OPERATION OCCURRING AT THE TIME OF THE A MISSION RECOVERY.

NOTE - TLM DATA OBSERVED ON OPERATION 213-2-0 INDICATE THAT THE MASTER PAN CAMERA WAS OUT OF FILM PRIOR TO THE OPERATION, AND THE SLAV PAN CAMERA RAN OUT OF FILM AFTER 3 CYCLES OF THIS OPERATION.

NOTE - TLM DATA INDICATE NORMAL CAMERA SYSTEM PERFORMANCE FOR THE ENTIRE B MISSION.

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**SECRET**

## RATE ESTIMATE

FWD PAN CAMERA NUMBER 288

OPN NO	FR	R	A	TUR/ DUR	INST CPS	INST ANG-VEL	SCAN RATE R/SEC	I/SEC	PCT RATE CALIB	REQD	
84	5	8	5	11	1 ON 2332	0.3829	0.03231	2.406	57.74	-1.3	0.9
					OFF 14	0.3799	0.03204	2.386	57.27	-1.3	1.2
91	0	0	4	11	1 ON 2	0.1717	0.01449	1.079	25.89	-1.3	-168.4
					OFF 23	0.1717	0.01449	1.079	25.89	-1.3	-158.9
93	0	0	3	11	1 ON 0	0.1288	0.01087	0.809	19.42	-1.3	-209.7
					OFF 23	0.1288	0.01087	0.809	19.42	-1.3	-214.1
96	5	3	111	11	1 ON 1388	0.3545	0.02992	2.228	53.46	-1.3	-5.5
					OFF 284	0.4126	0.03482	2.593	62.22	-1.3	-7.8
96	5	6	54	11	1 ON 1721	0.4187	0.03533	2.631	63.14	-1.3	-6.9
					OFF 127	0.4287	0.03617	2.693	64.64	-1.3	-5.5
97	8	5	33	11	1 ON 1806	0.4298	0.03627	2.701	64.82	-1.3	-5.2
					OFF 78	0.4295	0.03624	2.699	64.77	-1.3	-5.1
97	8	7	52	11	1 ON 2145	0.4155	0.03506	2.611	62.65	-1.3	-2.6
					OFF 129	0.3947	0.03331	2.480	59.52	-1.3	0.4
98	5	7	107	11	1 ON 1777	0.4242	0.03580	2.666	63.97	-1.3	-4.2
					OFF 250	0.4268	0.03601	2.681	64.35	-1.3	-4.6
99	2	0	13	4	1 ON 458	0.2572	0.02169	1.615	38.76	-1.3	40.5
					OFF 48	0.2642	0.02228	1.659	39.82	-1.3	40.0
99	2	4	24	11	1 ON 1710	0.4175	0.03522	2.623	62.95	-1.3	-3.2
					OFF 60	0.4236	0.03575	2.662	63.88	-1.3	-4.1
100	5	2	38	11	1 ON 1696	0.4159	0.03509	2.613	62.70	-1.3	-4.5
					OFF 92	0.4252	0.03587	2.671	64.11	-1.3	-5.2
105	9	4	22	11	1 ON 2314	0.3869	0.03264	2.431	58.34	-1.3	1.5
					OFF 55	0.3747	0.03162	2.354	56.50	-1.3	2.0
106	9	2	19	11	1 ON 2036	0.4262	0.03596	2.670	64.27	-1.3	-4.2
					OFF 48	0.4223	0.03563	2.653	63.68	-1.3	-3.6
111	4	4	16	11	1 ON 1796	0.4257	0.03592	2.675	64.20	-1.3	-4.1
					OFF 40	0.4282	0.03613	2.690	64.56	-1.3	-4.4
112	3	3	60	11	1 ON 1751	0.4218	0.03559	2.651	63.61	-1.3	-2.8
					OFF 141	0.4290	0.03627	2.701	64.82	-1.3	-4.6
112	3	8	51	11	1 ON 2247	0.3990	0.03373	2.512	60.28	-1.3	-1.3
					OFF 134	0.3717	0.03137	2.336	56.05	-1.3	1.6
113	3	1	8	4	1 ON 299	0.2383	0.02011	1.497	35.94	-1.3	42.4
					OFF 32	0.2416	0.02030	1.510	36.43	-1.3	42.0
113	8	6	87	11	1 ON 1811	0.4266	0.03600	2.680	64.33	-1.3	-4.2
					OFF 202	0.4275	0.03607	2.686	64.46	-1.3	-4.3
114	6	4	26	11	1 ON 1696	0.4157	0.03507	2.612	62.68	-1.3	-2.6
					OFF 64	0.4227	0.03567	2.656	63.75	-1.3	-3.5
115	5	4	17	11	1 ON 1702	0.4164	0.03513	2.616	62.79	-1.3	-3.9
					OFF 42	0.4212	0.03554	2.647	63.52	-1.3	-4.3
115	5	7	20	11	1 ON 2064	0.4240	0.03577	2.664	63.93	-1.3	-2.6
					OFF 49	0.4192	0.03537	2.634	63.22	-1.3	-1.6

126	4	3	32	11	1 ON	1574	0.3965	0.03346	2.491	59.79	-1.3	-6.5
					OFF	81	0.4102	0.03461	2.578	61.86	-1.3	-6.5
127	4	5	22	11	1 ON	1891	0.4298	0.03627	2.701	64.81	-1.3	-4.3
					OFF	53	0.4299	0.03627	2.701	64.82	-1.3	-4.4
128	5	5	98	11	1 ON	1823	0.4273	0.03606	2.685	64.44	-1.3	-3.8
					OFF	228	0.4250	0.03586	2.670	64.09	-1.3	-3.8
129	3	5	92	11	1 ON	1820	0.4272	0.03604	2.684	64.41	-1.3	-3.3
					OFF	215	0.4262	0.03596	2.678	64.27	-1.3	-4.3
130	5	1	22	11	1 ON	1609	0.4005	0.03380	2.517	60.40	-1.8	-1.0
					OFF	55	0.4092	0.03453	2.571	61.71	-1.8	-2.0
130	5	4	124	11	1 ON	1762	0.4206	0.03549	2.643	63.42	-1.8	-3.6
					OFF	290	0.4226	0.03565	2.655	63.72	-1.8	-4.2
130	5	7	24	11	1 ON	2224	0.4014	0.03387	2.522	60.54	-1.8	-1.3
					OFF	61	0.3902	0.03292	2.452	58.84	-1.8	0.0
131	3	1	15	11	1 ON	1842	0.4260	0.03594	2.676	64.23	-1.8	-4.5
					OFF	37	0.4272	0.03605	2.684	64.42	-1.8	-4.7
141	3	1	25	11	1 ON	1638	0.4051	0.03419	2.546	61.09	-1.8	2.0
					OFF	63	0.4140	0.03493	2.601	62.43	-1.8	0.5
141	3	4	15	11	1 ON	1971	0.4269	0.03602	2.682	64.30	-1.8	-4.8
					OFF	37	0.4254	0.03589	2.673	64.14	-1.8	-5.1
142	6	3	48	11	1 ON	1921	0.4277	0.03609	2.687	64.49	-1.8	-4.2
					OFF	113	0.4239	0.03576	2.663	63.92	-1.8	-5.2
143	3	2	30	11	1 ON	1709	0.4150	0.03502	2.600	62.50	-1.8	-3.0
					OFF	72	0.4222	0.03563	2.653	63.67	-1.8	-3.9
144	5	6	90	11	1 ON	2002	0.4257	0.03592	2.675	64.19	-1.8	-5.0
					OFF	217	0.4022	0.03394	2.527	60.66	-1.8	-4.6
145	7	0	14	4	1 ON	695	0.2945	0.02485	1.050	44.41	-1.8	41.1
					OFF	47	0.3036	0.02562	1.000	45.70	-1.8	40.7
145	7	2	129	11	1 ON	1802	0.4237	0.03575	2.662	63.89	-1.8	-0.8
					OFF	301	0.4179	0.03526	2.626	63.02	-1.8	-5.9
157	7	3	11	11	1 ON	1735	0.4179	0.03526	2.626	63.02	-1.8	-4.6
					OFF	27	0.4206	0.03549	2.643	63.42	-1.8	-4.7
157	7	4	59	11	1 ON	1799	0.4235	0.03573	2.661	63.86	-1.8	-4.7
					OFF	142	0.4275	0.03607	2.686	64.47	-1.8	-3.7
159	3	3	96	11	1 ON	1803	0.4239	0.03577	2.664	63.93	-1.8	-1.4
					OFF	224	0.4245	0.03582	2.667	64.01	-1.8	-4.8
159	3	7	17	11	1 ON	2112	0.4173	0.03521	2.622	62.92	-1.8	-5.0
					OFF	42	0.4121	0.03478	2.590	62.15	-1.8	-4.9
160	0	2	50	11	1 ON	1900	0.4270	0.03609	2.680	64.51	-1.8	-3.9
					OFF	119	0.4250	0.03586	2.670	64.00	-1.8	-4.1
160	0	7	27	11	1 ON	2529	0.3317	0.02799	2.004	50.02	-1.8	2.7
					OFF	87	0.3067	0.02580	1.927	46.24	-1.8	3.1
161	4	3	23	11	1 ON	1905	0.4270	0.03610	2.680	64.51	-1.8	-3.0
					OFF	55	0.4274	0.03606	2.685	64.45	-1.8	-3.0
162	2	3	34	11	1 ON	2340	0.3793	0.03200	2.303	57.19	-1.8	-2.7
					OFF	93	0.3573	0.03015	2.245	53.00	-1.8	-1.6
166	7	3	25	11	1 ON	2537	0.3296	0.02701	2.071	49.70	-1.8	-1.3
					OFF	82	0.3050	0.02500	1.921	46.11	-1.8	-1.1
167	7	1	19	11	1 ON	2250	0.3957	0.03339	2.400	59.67	-1.8	-4.0
					OFF	49	0.3061	0.03250	2.426	50.22	-1.8	-3.6
172	5	6	62	11	1 ON	2155	0.4120	0.03476	2.500	62.13	-1.8	-4.5

**SECRET**

173	4	3	62	11	OFF	155	0.3855	0.03252	2.422	58.13	-1.8	-3.4
					1 ON	1961	0.4274	0.03686	2.685	64.45	-1.8	-3.9
					OFF	146	0.4177	0.03524	2.624	62.99	-1.8	-4.2
173	4	6	93	11	1 ON	2370	0.3725	0.03143	2.348	56.16	-1.8	-1.4
					OFF	276	0.2976	0.02511	1.878	44.87	-1.8	8.5
174	4	1	47	11	1 ON	1654	0.4078	0.03441	2.562	61.49	-1.8	2.1
					OFF	115	0.4214	0.03555	2.648	63.54	-1.8	-8.6
174	4	4	38	11	1 ON	2047	0.4232	0.03571	2.659	63.81	-1.8	-4.5
					OFF	93	0.4139	0.03492	2.688	62.41	-1.8	-4.6
175	5	3	48	11	1 ON	1965	0.4279	0.03611	2.689	64.53	-1.6	-3.8
					OFF	96	0.4227	0.03566	2.656	63.74	-1.6	-4.3
175	5	5	48	11	1 ON	2191	0.4075	0.03439	2.561	61.45	-1.6	-3.9
					OFF	123	0.3852	0.03251	2.421	58.89	-1.6	-2.8
176	6	3	39	11	1 ON	2238	0.3999	0.03375	2.513	60.31	-1.6	5.2
					OFF	180	0.3802	0.03208	2.389	57.33	-1.6	7.9
187	4	4	19	11	1 ON	2044	0.4241	0.03578	2.664	63.95	-1.6	-2.1
					OFF	47	0.4200	0.03544	2.639	63.33	-1.6	-1.3
187	4	5	32	11	1 ON	2143	0.4143	0.03496	2.603	62.47	-1.6	-0.4
					OFF	78	0.4027	0.03398	2.530	60.73	-1.6	1.1
188	5	5	167	11	1 ON	2205	0.4054	0.03421	2.547	61.14	-1.6	-3.9
					OFF	471	0.2892	0.02448	1.817	43.61	-1.6	-1.7
189	5	1	6	11	1 ON	670	0.1771	0.01495	1.113	26.71	-1.6	6.9
					OFF	31	0.1831	0.01545	1.150	27.61	-1.6	7.8
189	6	6	33	11	1 ON	2197	0.4066	0.03431	2.555	61.31	-1.6	-6.6
					OFF	86	0.3914	0.03383	2.459	59.03	-1.6	-7.2
190	5	5	78	11	1 ON	2049	0.4237	0.03575	2.662	63.90	-1.6	-3.7
					OFF	189	0.3999	0.03374	2.512	60.30	-1.6	-2.7
191	3	2	42	11	1 ON	2074	0.4217	0.03558	2.649	63.59	-1.6	-4.4
					OFF	102	0.4098	0.03458	2.575	61.79	-1.6	-4.7
203	5	2	36	11	1 ON	2089	0.4203	0.03546	2.641	63.37	-1.6	-1.8
					OFF	90	0.4093	0.03454	2.572	61.72	-1.6	-8.6
203	5	6	25	11	1 ON	2402	0.3655	0.03084	2.297	55.12	-1.6	3.2
					OFF	73	0.3469	0.02927	2.180	52.31	-1.6	4.1
204	3	6	34	11	1 ON	2325	0.3830	0.03232	2.407	57.76	-1.6	-2.8
					OFF	92	0.3616	0.03051	2.272	54.53	-1.6	-2.1
205	5	5	88	11	1 ON	2121	0.4169	0.03517	2.619	62.86	-1.6	-3.9
					OFF	220	0.3794	0.03202	2.384	57.22	-1.6	-2.8
206	5	3	150	11	1 ON	2034	0.4248	0.03584	2.669	64.06	-1.6	-3.6
					OFF	373	0.3643	0.03074	2.289	54.93	-1.6	-2.6
213	2	0	9	11	1 ON	2528	0.3326	0.02007	2.090	50.16	-1.6	-1.5
					OFF	19	0.3272	0.02761	2.056	49.34	-1.6	-1.6

RATE ESTIMATE

AFT FAN CAMERA NUMBER 209

OPN NO	FR	R	A	TUR/DUR	INST	INST	SCAN RATE	PCT RATE				
					CPS	ANG-VEL	R/SEC I/SEC	CALIB REQD				
84	5	8	6	11	1 ON	2345	0.3792	0.03199	2.382	57.18	-2.1	1.0
					OFF	14	0.3761	0.03173	2.363	56.71	-2.1	1.4
91	0	0	4	11	1 ON	13	0.1702	0.01436	1.069	25.66	-2.1	-161.8
					OFF	23	0.1702	0.01436	1.069	25.66	-2.1	-160.1

**SECRET**

				1 ON	13	0.1702	0.01436	1.069	25.66	-2.1	-136.4	
				OFF	23	0.1702	0.01436	1.069	25.66	-2.1	-139.7	
96	5	3	109	11	1 ON	1461	0.3513	0.02964	2.207	52.97	-2.1	-7.6
					OFF	284	0.4084	0.03446	2.566	61.59	-2.1	-8.5
96	5	6	54	11	1 ON	1734	0.4144	0.03497	2.604	62.50	-2.1	-8.3
					OFF	127	0.4243	0.03580	2.666	63.98	-2.1	-6.5
97	8	5	33	11	1 ON	1899	0.4254	0.03589	2.673	64.15	-2.1	-6.4
					OFF	78	0.4251	0.03587	2.671	64.11	-2.1	-6.8
97	8	7	51	11	1 ON	2158	0.4113	0.03470	2.584	62.02	-2.1	-3.0
					OFF	129	0.3908	0.03298	2.455	58.93	-2.1	0.4
98	5	7	106	11	1 ON	1790	0.4199	0.03543	2.638	63.32	-2.1	-5.7
					OFF	250	0.4224	0.03564	2.654	63.69	-2.1	-5.3
99	2	0	13	4	1 ON	471	0.2557	0.02157	1.606	38.55	-2.1	39.6
					OFF	48	0.2625	0.02215	1.650	39.59	-2.1	39.0
99	2	4	24	11	1 ON	1723	0.4132	0.03486	2.596	62.31	-2.1	-4.9
					OFF	60	0.4193	0.03538	2.634	63.23	-2.1	-5.6
100	5	2	37	11	1 ON	1709	0.4116	0.03473	2.586	62.06	-2.1	-6.1
					OFF	92	0.4200	0.03551	2.644	63.45	-2.1	-6.6
105	9	4	20	11	1 ON	2327	0.3831	0.03232	2.487	57.77	-2.1	1.6
					OFF	55	0.3711	0.03131	2.332	55.96	-2.1	3.0
106	9	2	19	11	1 ON	2049	0.4210	0.03559	2.650	63.61	-2.1	-4.9
					OFF	40	0.4180	0.03527	2.626	63.03	-2.1	-4.1
111	4	4	16	11	1 ON	1809	0.4214	0.03555	2.647	63.54	-2.1	-5.5
					OFF	40	0.4237	0.03575	2.662	63.90	-2.1	-5.8
112	3	3	58	11	1 ON	1764	0.4175	0.03523	2.623	62.96	-2.2	-4.4
					OFF	141	0.4254	0.03590	2.673	64.15	-2.2	-5.8
112	3	8	52	11	1 ON	2260	0.3958	0.03339	2.487	59.60	-2.2	-1.4
					OFF	134	0.3682	0.03107	2.313	55.52	-2.2	1.0
113	3	1	0	4	1 ON	312	0.2374	0.02003	1.491	35.79	-2.2	41.7
					OFF	32	0.2405	0.02030	1.511	36.27	-2.2	41.2
113	8	6	85	11	1 ON	1824	0.4222	0.03563	2.653	63.67	-2.2	-5.6
					OFF	202	0.4231	0.03570	2.658	63.80	-2.2	-5.1
114	6	4	26	11	1 ON	1709	0.4114	0.03472	2.585	62.04	-2.2	-4.3
					OFF	64	0.4184	0.03530	2.629	63.09	-2.2	-5.1
115	5	4	17	11	1 ON	1715	0.4122	0.03478	2.590	62.15	-2.2	-5.6
					OFF	42	0.4160	0.03518	2.619	62.87	-2.2	-5.9
115	5	7	19	11	1 ON	2077	0.4196	0.03541	2.637	63.20	-2.2	-3.1
					OFF	49	0.4149	0.03501	2.607	62.57	-2.2	-1.9
126	4	3	33	11	1 ON	1587	0.3926	0.03312	2.467	59.20	-2.2	-8.2
					OFF	81	0.4061	0.03426	2.551	61.24	-2.2	-8.0
127	4	5	22	11	1 ON	1904	0.4254	0.03589	2.673	64.15	-2.2	-5.5
					OFF	53	0.4254	0.03590	2.673	64.15	-2.2	-5.4
128	5	5	96	11	1 ON	1836	0.4229	0.03569	2.657	63.78	-2.2	-5.2
					OFF	228	0.4206	0.03549	2.643	63.43	-2.2	-4.4
129	3	5	91	11	1 ON	1833	0.4228	0.03567	2.656	63.75	-2.2	-4.7
					OFF	215	0.4218	0.03559	2.650	63.61	-2.2	-5.1
130	5	1	22	11	1 ON	1622	0.3954	0.03337	2.485	59.63	-3.0	-3.1
					OFF	55	0.4040	0.03400	2.538	60.92	-3.0	-4.1
130	5	4	123	11	1 ON	1775	0.4151	0.03503	2.600	62.60	-3.0	-5.4
					OFF	290	0.4171	0.03519	2.621	62.90	-3.0	-5.1
130	5	7	24	11	1 ON	2237	0.3963	0.03344	2.490	59.77	-3.0	-1.7

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					OFF	61	0.3853	0.03251	2.421	58.10	-3.0	-0.2
131	3	1	15	11	1 ON	1855	0.4204	0.03548	2.642	63.40	-3.0	-6.1
					OFF	37	0.4217	0.03558	2.650	63.59	-3.0	-6.2
141	3	1	25	11	1 ON	1651	0.4000	0.03375	2.513	60.32	-3.0	-0.1
					OFF	63	0.4087	0.03448	2.560	61.63	-3.0	-1.6
141	3	4	15	11	1 ON	1984	0.4214	0.03555	2.640	63.54	-3.0	-6.2
					OFF	37	0.4199	0.03543	2.638	63.31	-3.0	-6.4
142	6	3	47	11	1 ON	1934	0.4221	0.03562	2.652	63.66	-3.0	-5.7
					OFF	113	0.4184	0.03530	2.629	63.09	-3.0	-6.4
143	3	2	29	11	1 ON	1722	0.4097	0.03457	2.574	61.78	-3.0	-4.9
					OFF	72	0.4168	0.03517	2.619	62.85	-3.0	-5.6
144	5	6	88	11	1 ON	2015	0.4202	0.03545	2.640	63.36	-3.0	-6.3
					OFF	217	0.3971	0.03351	2.495	59.80	-3.0	-5.3
145	7	0	14	4	1 ON	708	0.2915	0.02460	1.832	43.96	-3.0	39.9
					OFF	47	0.3004	0.02535	1.808	45.31	-3.0	39.4
145	7	2	128	11	1 ON	1815	0.4102	0.03529	2.628	63.06	-3.0	-2.7
					OFF	301	0.4125	0.03481	2.592	62.21	-3.0	-7.0
157	7	3	11	11	1 ON	1748	0.4126	0.03481	2.592	62.21	-3.0	-6.3
					OFF	27	0.4152	0.03593	2.609	62.61	-3.0	-6.3
157	7	4	59	11	1 ON	1812	0.4100	0.03527	2.627	63.04	-3.0	-6.2
					OFF	142	0.4220	0.03561	2.651	63.64	-3.0	-4.8
159	3	3	93	11	1 ON	1816	0.4165	0.03514	2.617	62.80	-3.4	-3.7
					OFF	224	0.4170	0.03519	2.620	62.89	-3.4	-6.5
159	3	7	17	11	1 ON	2125	0.4100	0.03459	2.576	61.82	-3.4	-6.5
					OFF	42	0.4049	0.03417	2.544	61.06	-3.4	-6.3
160	8	2	57	11	1 ON	1913	0.4202	0.03546	2.640	63.37	-3.4	-5.9
					OFF	119	0.4175	0.03523	2.623	62.95	-3.4	-5.8
160	8	7	27	11	1 ON	2542	0.3264	0.02754	2.051	49.22	-3.4	2.3
					OFF	87	0.3020	0.02548	1.898	45.54	-3.4	2.9
161	4	3	22	11	1 ON	1918	0.4203	0.03546	2.641	63.38	-3.4	-5.6
					OFF	55	0.4199	0.03543	2.638	63.31	-3.4	-4.6
162	2	3	33	11	1 ON	2353	0.3720	0.03146	2.342	56.22	-3.4	-3.5
					OFF	93	0.3513	0.02965	2.208	52.98	-3.4	-2.2
166	7	3	24	11	1 ON	2550	0.3243	0.02737	2.038	48.91	-3.4	-1.7
					OFF	82	0.3012	0.02541	1.892	45.42	-3.4	-1.4
167	7	1	18	11	1 ON	2271	0.3800	0.03201	2.443	58.63	-3.4	-5.1
					OFF	49	0.3795	0.03202	2.384	57.22	-3.4	-4.5
172	5	6	60	11	1 ON	2160	0.4048	0.03416	2.543	61.04	-3.4	-5.9
					OFF	155	0.3700	0.03197	2.380	57.13	-3.4	-4.3
173	4	3	61	11	1 ON	1974	0.4190	0.03543	2.630	63.31	-3.4	-5.0
					OFF	146	0.4104	0.03463	2.578	61.00	-3.4	-5.6
173	4	6	92	11	1 ON	2303	0.3661	0.03009	2.301	55.21	-3.4	-2.1
					OFF	276	0.2932	0.02474	1.842	44.21	-3.4	0.3
174	4	1	47	11	1 ON	1667	0.4007	0.03301	2.517	60.42	-3.4	-0.5
					OFF	115	0.4140	0.03493	2.601	62.42	-3.4	-2.9
174	4	4	38	11	1 ON	2060	0.4157	0.03500	2.612	62.69	-3.4	-6.2
					OFF	93	0.4066	0.03431	2.555	61.32	-3.4	-5.9
175	5	3	40	11	1 ON	1978	0.4217	0.03558	2.650	63.59	-2.9	-5.3
					OFF	96	0.4165	0.03514	2.617	62.01	-2.9	-5.6
175	5	5	48	11	1 ON	2204	0.4016	0.03309	2.524	60.57	-2.9	-4.8
					OFF	123	0.3790	0.03205	2.386	57.27	-2.9	-3.4



**TUNING**

176	6	3	38	11	1	ON	2251	0.3942	0.03326	2.477	59.45	-2.9	4.8
						OFF	100	0.3748	0.03163	2.355	56.52	-2.9	7.6
187	4	4	19	11	1	ON	2057	0.4179	0.03526	2.626	63.01	-2.9	-3.1
						OFF	47	0.4139	0.03492	2.600	62.41	-2.9	-2.3
187	4	5	31	11	1	ON	2156	0.4083	0.03445	2.565	61.56	-2.9	-1.2
						OFF	78	0.3969	0.03349	2.494	59.85	-2.9	0.5
188	5	5	165	11	1	ON	2218	0.3996	0.03372	2.511	60.26	-2.9	-4.8
						OFF	471	0.2859	0.02413	1.796	43.12	-2.9	-1.6
189	5	1	6	11	1	ON	683	0.1769	0.01492	1.111	26.67	-2.9	5.8
						OFF	31	0.1826	0.01541	1.147	27.54	-2.9	6.5
189	6	6	33	11	1	ON	2210	0.4007	0.03381	2.518	60.43	-2.9	-7.7
						OFF	86	0.3859	0.03256	2.425	58.19	-2.9	-8.1
190	5	5	77	11	1	ON	2062	0.4175	0.03523	2.624	62.96	-2.9	-5.0
						OFF	189	0.3941	0.03326	2.476	59.43	-2.9	-3.5
191	3	2	41	11	1	ON	2087	0.4155	0.03506	2.611	62.66	-2.9	-5.7
						OFF	102	0.4039	0.03408	2.537	60.90	-2.9	-5.8
203	5	2	36	11	1	ON	2102	0.4141	0.03494	2.602	62.45	-2.9	-2.8
						OFF	90	0.4034	0.03404	2.535	60.83	-2.9	-1.3
203	5	6	25	11	1	ON	2415	0.3605	0.03042	2.265	54.36	-2.9	2.9
						OFF	73	0.3423	0.02888	2.151	51.61	-2.9	4.0
204	3	6	33	11	1	ON	2338	0.3775	0.03186	2.373	56.95	-2.9	-3.4
						OFF	92	0.3567	0.03009	2.241	53.78	-2.9	-2.5
205	5	5	86	11	1	ON	2134	0.4108	0.03466	2.581	61.95	-2.9	-5.0
						OFF	220	0.3741	0.03157	2.351	56.42	-2.9	-3.3
206	5	3	147	11	1	ON	2047	0.4106	0.03532	2.630	63.12	-2.9	-5.0
						OFF	373	0.3593	0.03031	2.257	54.17	-2.9	-3.0
213	2	0	0	11	1	ON	2541	0.3283	0.02770	2.063	49.51	-2.9	-1.7
						OFF	19	0.3230	0.02726	2.030	48.71	-2.9	-1.7

RAMP PROFILE

R= 4 A= 1 PERIOD= 3860  
R= 0.3715 A= 0.1302

TUR	PER	CPS	ANG-V
0	4.420	0.2262	0.02046
100	4.383	0.2282	0.02064
200	4.287	0.2333	0.02110
300	4.141	0.2415	0.02184
400	3.959	0.2526	0.02284
500	3.754	0.2664	0.02409
600	3.539	0.2826	0.02556
700	3.323	0.3009	0.02722
800	3.116	0.3210	0.02903
900	2.921	0.3424	0.03097
1000	2.742	0.3647	0.03298
1100	2.578	0.3878	0.03508
1200	2.395	0.4176	0.03777
1300	2.241	0.4462	0.04036
1400	2.210	0.4525	0.04092
1500	2.197	0.4552	0.04117
1600	2.180	0.4571	0.04134





1700	2.182	0.4583	0.04145
1800	2.179	0.4589	0.04151
1900	2.178	0.4592	0.04153
2000	2.178	0.4591	0.04152
2100	2.181	0.4586	0.04148
2200	2.185	0.4576	0.04139
2300	2.193	0.4568	0.04125
2400	2.204	0.4537	0.04103
2500	2.220	0.4504	0.04074
2600	2.330	0.4292	0.03882
2700	2.501	0.3998	0.03616
2800	2.676	0.3738	0.03388
2900	2.847	0.3512	0.03176
3000	3.036	0.3294	0.02979
3100	3.239	0.3087	0.02792
3200	3.452	0.2897	0.02620
3300	3.669	0.2726	0.02465
3400	3.879	0.2578	0.02331
3500	4.072	0.2456	0.02221
3600	4.234	0.2362	0.02136
3700	4.351	0.2298	0.02079
3800	4.412	0.2266	0.02058

RAMP PROFILE

R= 11 A= 1 PERIOD= 3860  
R= 0.2724 A= 0.1302

TUR	PER	CPS	ANG-V
0	9.115	0.1097	0.00992
100	8.953	0.1117	0.01010
200	8.554	0.1169	0.01057
300	7.984	0.1253	0.01133
400	7.322	0.1366	0.01235
500	6.638	0.1506	0.01363
600	5.981	0.1672	0.01512
700	5.380	0.1859	0.01681
800	4.846	0.2064	0.01866
900	4.382	0.2282	0.02064
1000	3.985	0.2510	0.02270
1100	3.641	0.2746	0.02484
1200	3.276	0.3053	0.02761
1300	2.987	0.3348	0.03028
1400	2.762	0.3621	0.03275
1500	2.589	0.3863	0.03493
1600	2.461	0.4063	0.03675
1700	2.372	0.4216	0.03813
1800	2.318	0.4314	0.03902
1900	2.296	0.4356	0.03939
2000	2.305	0.4338	0.03923
2100	2.346	0.4262	0.03855
2200	2.421	0.4130	0.03736
2300	2.533	0.3948	0.03571