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4 PAGES  
(NOT INCLUDING PEST)

CORONA J-FLIGHT DATA BOOK

SYSTEM NO. J-26

VEHICLE NO. 1618

MISSION NO. 1828-2

CAMERA NOS. 176/177

DATE 1-83-66

PAGE 1

Declassified and Released by the N R O

In Accordance with E. O. 12958

on NOV 26 1997

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SYSTEM NO. J-26  
VEHICLE NO. 1610  
MISSION NO. 1028-2  
CAMERA NOS. 176/177

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SYSTEM NO. J-26  
VEHICLE NO. 1618  
MISSION NO. 1828-2  
CAMERA NOS. 176/177

GENERAL FLIGHT DATA

MASTER CAMERA SERIAL NO. 176

SLAVE CAMERA SERIAL NO. 177

S/I -1 SERIAL NO. D77/91/97

S/I -2 SERIAL NO. D74/76/95

LAUNCH DATE 12-24-65

REACTIVATION DATE N/A

REACTIVATION ORBIT N/A

ORBITAL PARAMETERS (REV. 118)

PERIOD	98.684 MIN	ECCENTRICITY	0.01986
PERIGEE	99.346 NM	PERIGEE LAT.	43.344
APOGEE	242.688 NM	INCL. ANGLE	88.814

RECOVERY ORBIT NO. 144

RECOVERY DATE 1-02-66

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SYSTEM NO. J-25  
VEHICLE NO. 1618  
MISSION NO. 1828-2  
CAMERA NOS. 176/177

CYCLE PERIOD DATA

V/H RAMP LEVEL	SETTING AMPLITUDE	TIME UP RAMP-SEC	---CALIBRATED---		---IN-FLIGHT---		ORBIT NO.
			CYCLE PERIOD-SEC MASTER	SLAVE	CYCLE PERIOD-SEC MASTER	SLAVE	
8	2	322	5.147	5.123	5.138	5.898	88
8	2	1928	2.225	2.228	2.258	2.245	94
8	2	1918	2.225	2.228	2.268	2.248	95
8	2	1984	2.225	2.228	2.258	2.238	118
7	3	2834	2.227	2.238	2.267	2.255	126
7	3	2888	2.229	2.233	2.222	2.285	142

NOTE

AN \* OR -8 INDICATES NO DATA AVAILABLE.

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A. 1028-2

B. DRY

C. FINAL PERFORMANCE ESTIMATE - PART I

OPERATIONS SUMMARY

F PAN CAMERA NUMBER 176

OPN NO	FRA	ON/OFF	θ	LAT	LONG	HEIGHT	RANGE	DA	H	M	S	LTIM	S-TIM
71	2 2	5 ON	2	46 51	53 52E	622534	645185	29	8	32	13	12 7	30733
		OFF	2	46 5	54 6E	620474	643048	29	8	32	25	12 8	30745
81	0 0	4 ON	2	57 42	179 8W	652637	676420	29	23	36	38	1140	04998
		OFF	2	56 13	178 19W	647016	670507	29	23	37	2	1143	05022
82	0 1	38 ON	2	63 24	153 58E	675954	700615	30	1	5	56	1121	3956
		OFF	2	57 14	158 17E	650174	673064	30	1	7	33	1140	4053
82	0 2	19 ON	2	54 17	159 40E	639632	662926	30	1	8	17	1147	4097
		OFF	2	51 14	161 7E	629862	652709	30	1	9	4	1153	4144
83	0 1	72 ON	2	54 24	136 54E	639492	662701	30	2	30	59	1146	9539
		OFF	2	43 16	140 54E	609999	632101	30	2	41	47	12 5	9707
84	1 1	45 ON	2	55 31	113 32E	642770	666190	30	4	9	24	1143	14964
		OFF	2	48 21	116 31E	621060	643657	30	4	11	13	1157	15073
84	1 2	87 ON	2	40 30	110 47E	605172	627173	30	4	13	11	12 0	15191
		OFF	2	27 22	121 23E	598003	619942	30	4	16	26	1222	15306
84	1 3	17 ON	2	2 14	124 40E	657505	601552	30	4	22	30	1241	15750
		OFF	3	0 39	125 0E	670572	695020	30	4	23	21	1243	15001
85	4 1	152 ON	2	43 37	95 0E	610270	632470	30	5	43	0	12 3	20500
		OFF	2	20 29	99 35E	605300	627300	30	5	40	52	1227	20932
86	7 2	64 ON	2	63 30	62 26E	673790	690369	30	7	0	44	1110	25724
		OFF	2	53 27	68 51E	634036	657949	30	7	11	22	1146	25002
86	7 3	27 ON	2	47 33	71 7E	610430	640920	30	7	12	52	1157	25972
		OFF	2	43 26	72 21E	609751	631924	30	7	13	54	12 3	26034
87	3 1	39 ON	2	52 41	46 21E	631905	654991	30	8	42	17	1147	31337
		OFF	2	46 35	48 36E	615911	630314	30	8	43	49	1150	31429
7	3 2	20 ON	2	27 14	52 55E	599192	620969	30	8	40	37	1220	31717
		OFF	2	24 4	53 24E	601697	623560	30	8	49	24	1223	31764
88	1 0	9 ON	1	30 55	129 31W	1122091	1163922	30	9	51	27	113	35407
		OFF	1	41 53	120 40W	1101994	1143037	30	9	52	14	116	35534
88	1 1	119 ON	2	50 45	20 24E	652104	675067	30	10	11	26	1133	36600
		OFF	2	40 31	27 27E	604040	626037	30	10	16	2	12 5	36962
94	1 1	23 ON	2	33 50	100 3W	599597	621309	30	19	21	56	12 9	69710
		OFF	2	30 10	107 23W	599763	621561	30	19	22	50	1213	69770
95	5 0	16 ON	2	33 30	130 49W	599591	621303	30	20	52	44	12 9	75164
		OFF	2	30 57	130 21W	599697	621493	30	20	53	22	1211	75202
97	2 1	32 ON	2	63 47	171 10E	665519	609707	30	23	46	20	1111	05500
		OFF	2	50 37	175 0E	645700	669229	30	23	47	49	1127	05669
97	2 2	17 ON	2	17 52	174 1W	616444	630000	30	23	57	59	1221	06279
		OFF	2	15 0	173 40W	623140	645014	30	23	50	39	1223	06319
99	2 1	73 ON	2	52 42	132 23E	626175	640964	31	2	50	43	1140	10243
		OFF	2	41 32	136 4E	604504	626563	31	2	53	31	1157	10411
100	1 1	59 ON	2	56 42	107 37E	637203	660409	31	4	20	24	1130	15624
		OFF	2	47 29	111 31E	613616	635934	31	4	22	44	1140	15764
100	1 2	04 ON	2	32 12	115 16E	599031	621632	31	4	26	32	12 7	15992
		OFF	2	19 31	117 16E	614127	636462	31	4	29	40	1210	16100
101	4 1	42 ON	2	57 36	04 10E	639491	662700	31	5	50	52	1120	21052



ULUL

			OFF	2	51	1	87	25E	628913	643585	31	5	52	32	1142	21152		
181	4	2	184	ON	2	42	7	98	15E	684854	626843	31	5	54	46	1155	21286	
			OFF	2	26	31	93	24E	683491	625429	31	5	58	38	1212	21518		
'82	8	1	28	ON	2	47	7	65	59E	612193	634457	31	7	24	13	1148	26653	
			OFF	2	43	57	66	56E	687887	629877	31	7	25	1	1152	26781		
182	8	2	26	ON	2	32	33	69	33E	599892	621695	31	7	27	58	12	6	26878
			OFF	2	28	27	78	16E	681981	623779	31	7	28	51	12	9	26931	
182	8	3	35	ON	2	24	35	78	53E	686893	628128	31	7	29	48	1213	26988	
			OFF	2	19	29	71	37E	615835	637485	31	7	31	3	1217	27863		
183	1	1	113	ON	2	63	43	34	15E	668179	684246	31	8	58	39	11	7	31839
			OFF	2	46	33	43	28E	618858	633872	31	8	55	3	1148	32183		
184	6	1	79	ON	2	29	41	24	24E	681337	623194	31	18	29	56	12	7	37796
			OFF	2	17	33	26	13E	628395	642965	31	18	32	56	1217	37976		
185	3	1	65	ON	2	15	54	3	36E	625189	647948	31	12	4	1	1218	43441	
			OFF	2	5	34	4	51E	661473	685586	31	12	6	34	1226	43594		
186	3	8	5	ON	1	21	25	176	28E	1283923	1248988	31	12	59	38	845	46778	
			OFF	1	22	59	176	41E	1193728	1238373	31	12	59	56	846	46796		
188	3	8	4	ON	1	21	28	138	49E	1288826	1244928	31	16	8	54	844	57654	
			OFF	1	23	3	131	3E	1189761	1234257	31	16	1	28	845	57688		
189	1	1	28	ON	2	39	42	91	44W	681554	623428	31	18	8	52	1153	64852	
			OFF	2	36	32	91	1W	688248	622865	31	18	1	39	1157	64899		
118	2	1	17	ON	2	37	18	113	58W	688427	622258	31	19	32	11	1156	78331	
			OFF	2	34	38	113	25W	688278	622888	31	19	32	51	1159	78371		
114	1	1	34	ON	2	63	41	143	13E	651783	675534	1	1	28	18	11	1	5298
			OFF	2	58	28	147	3E	634487	657584	1	1	29	32	1117	5372		
115	1	1	181	ON	2	52	37	127	13E	618746	641256	1	3	1	42	1138	18982	
			OFF	2	37	28	131	58E	688715	622549	1	3	5	29	1152	11129		
116	9	1	138	ON	2	37	32	188	59E	688782	622619	1	4	36	9	1152	16569	
			OFF	2	16	25	112	29E	638244	653184	1	4	41	22	1211	16882		
116	9	2	58	ON	2	4	12	113	57E	676938	781634	1	4	44	23	1228	17863	
			OFF	3	4	38	114	58E	723598	758857	1	4	46	34	1226	17194		
117	5	2	34	ON	2	53	39	81	7E	628294	642862	1	6	2	47	1127	21767	
			OFF	2	48	32	83	8E	618351	632546	1	6	4	4	1136	21844		
117	5	3	128	ON	2	45	48	84	4E	686278	628321	1	6	4	48	1141	21888	
			OFF	2	27	33	88	3E	686931	628997	1	6	9	18	12	1	22158	
118	6	1	94	ON	2	52	35	58	46E	617567	648833	1	7	33	44	1128	27224	
			OFF	2	38	26	63	8E	681841	622887	1	7	37	16	1149	27436		
119	2	1	54	ON	2	61	41	38	45E	641541	664987	1	9	2	4	11	5	32524
			OFF	2	53	32	35	31E	619269	641798	1	9	4	18	1126	32658		
119	2	2	41	ON	2	36	42	48	42E	681888	622845	1	9	8	22	1151	32982	
			OFF	2	38	38	41	54E	684181	626144	1	9	9	54	1157	32994		
121	8	1	46	ON	2	25	48	2	55W	611389	633539	1	12	12	26	12	8	43946
			OFF	2	18	38	1	53W	627338	658169	1	12	14	12	12	6	44852	
121	8	2	37	ON	2	18	45	8	55W	653188	676898	1	12	16	7	1212	44167	
			OFF	2	4	28	8	18W	688212	785831	1	12	17	48	1216	44268		
126	8	1	17	ON	2	35	28	118	46W	682472	624372	1	19	43	19	1148	78999	
			OFF	2	32	51	118	15W	684115	626876	1	19	43	58	1158	71838		
138	3	1	55	ON	2	63	43	138	3E	641581	664865	2	1	38	48	1851	5928	
			OFF	2	55	34	143	32E	619748	642295	2	1	48	55	1115	6855		
131	8	1	121	ON	2	54	39	121	18E	617472	639935	2	3	11	48	1116	11588	
			OFF	2	39	28	126	15E	682317	624212	2	3	15	37	1148	11737		

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131	8	2	28	ON	3	18	59	133	24E	761451	852479	2	3	28	5	1221	12485
				OFF	3	16	44	134	7E	822268	852479	2	3	29	31	1226	12571
132	1	1	158	ON	2	42	39	182	38E	682942	624868	2	4	45	28	1136	17128
				OFF	2	18	28	187	5E	634637	657741	2	4	51	27	1159	17487
1	1	1	15	ON	1	26	53	78	85W	1118262	1159941	2	5	49	4	833	28944
				OFF	1	31	6	78	13W	1889679	1138237	2	5	58	11	837	21811
133	1	2	167	ON	2	53	43	75	58E	615834	637485	2	6	13	28	1117	22488
				OFF	2	28	26	82	47E	611928	634173	2	6	19	38	1158	22778
134	8	1	93	ON	2	49	38	54	49E	688589	638635	2	7	45	1	1124	27981
				OFF	2	35	32	58	48E	684123	626884	2	7	48	32	1143	28112
135	7	1	75	ON	2	58	36	31	38E	689587	631754	2	9	15	25	1121	33325
				OFF	2	39	29	34	58E	682733	624643	2	9	18	12	1138	33492
136	1	1	55	ON	2	55	44	6	33E	617885	648363	2	18	44	46	1118	38686
				OFF	2	47	35	9	54E	685985	628817	2	18	46	49	1126	38889
142	1	1	18	ON	2	35	39	123	52W	686148	628185	2	19	53	39	1138	71619
				OFF	2	32	58	123	19W	689118	631266	2	19	54	21	1141	71661

OPERATIONS SUMMARY

AFT	PAN	CAMERA	NUMBER	177														
OPN	NO	FRA	Q	LAT	LONG	HEIGHT	RANGE	DA	H	M	S	LTIM	5-TIM					
71	2	2	5	ON	2	47	44	53	31E	622534	645185	29	8	32	13	12	6	38733
				OFF	2	46	58	53	46E	628474	643848	29	8	32	25	12	7	38745
81	8	8	4	ON	2	58	37	179	44W	652637	676428	29	23	36	38	1137	84998	
				OFF	2	57	7	178	52W	647816	678587	29	23	37	2	1141	85822	
82	8	1	38	ON	2	64	19	153	5E	675954	788615	38	1	5	56	1118	3956	
				OFF	2	58	8	157	42E	658174	673864	38	1	7	33	1138	4853	
82	8	2	19	ON	2	55	11	159	18E	639632	662926	38	1	8	17	1145	4897	
				OFF	2	52	8	168	42E	629862	652789	38	1	9	4	1151	4144	
83	8	1	72	ON	2	55	18	136	25E	639492	662781	38	2	38	59	1144	9539	
				OFF	2	44	9	148	36E	689999	632181	38	2	41	47	12	4	9787
84	1	1	45	ON	2	56	25	113	8E	642778	666198	38	4	9	24	1141	14964	
				OFF	2	49	14	116	9E	621868	643657	38	4	11	13	1155	15873	
84	1	2	87	ON	2	41	22	118	31E	685172	627173	38	4	13	11	12	7	15191
				OFF	2	28	14	121	12E	598283	619942	38	4	16	26	1221	15386	
84	1	3	17	ON	2	3	11	124	38E	657585	681552	38	4	22	38	1248	15758	
				OFF	3	8	18	124	58E	678572	695828	38	4	23	21	1242	15881	
85	4	1	153	ON	2	44	38	94	58E	618278	632478	38	5	43	8	12	2	28588
				OFF	2	21	21	99	25E	685388	627388	38	5	48	52	1226	28932	
86	7	2	65	ON	2	64	33	61	32E	673798	698369	38	7	8	44	1114	25724	
				OFF	2	54	21	68	23E	634836	657949	38	7	11	22	1144	25882	
86	7	3	27	ON	2	48	26	78	46E	618438	648928	38	7	12	52	1155	25972	
				OFF	2	44	18	72	3E	689751	631924	38	7	13	54	12	2	26834
87	3	1	39	ON	2	53	35	45	54E	631985	654991	38	8	42	17	1145	31337	
				OFF	2	47	27	48	15E	615911	638314	38	8	43	49	1156	31429	
87	3	2	21	ON	2	28	6	52	43E	599192	628969	38	8	48	37	1219	31717	
				OFF	2	24	56	53	13E	681697	623568	38	8	49	24	1222	31764	
88	1	8	9	ON	1	37	18	129	59W	1122891	1163922	38	9	51	27	111	35487	
				OFF	1	48	18	129	18W	1181994	1143837	38	9	52	14	115	35534	
88	1	1	128	ON	2	59	39	19	46E	652184	675867	38	18	11	26	1138	38686	
				OFF	2	41	23	27	11E	684848	626837	38	18	16	2	12	4	36962
94	1	1	24	ON	2	34	42	188	17W	599597	621389	38	19	21	56	12	8	69716
				OFF	2	31	2	187	35W	599763	621561	38	19	22	58	1212	69778	

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95	5	8	16	ON	2	34	21	131	2W	599591	621493	38	28	52	44	12	8	75164	
				OFF	2	31	49	138	33W	599697	621493	38	28	53	22	1211		75282	
97	2	1	33	ON	2	64	41	178	16E	665519	689787	38	23	46	28	11	7	85588	
				OFF	2	59	31	174	22E	645786	669229	38	23	47	49	1125		85669	
	2	2	17	ON	2	18	45	174	11W	616444	638866	38	23	57	59	1221		86279	
				OFF	2	16	2	173	58W	623148	645814	38	23	58	39	1223		86319	
99	2	1	74	ON	2	53	35	131	56E	626175	648964	31	2	58	43	1138		18243	
				OFF	2	42	24	135	47E	684584	626563	31	2	53	31	1156		18411	
188	1	1	68	ON	2	57	35	187	4E	637283	668489	31	4	28	24	1128		15624	
				OFF	2	48	21	111	18E	613616	635934	31	4	22	44	1147		15764	
188	1	2	84	ON	2	33	3	115	3E	599831	621632	31	4	26	32	12	6	15992	
				OFF	2	28	24	117	5E	614127	636462	31	4	29	48	1218		16188	
181	4	1	42	ON	2	58	29	83	43E	639491	662788	31	5	58	52	1125		21852	
				OFF	2	51	54	87	8E	628913	643585	31	5	52	32	1148		21152	
181	4	2	184	ON	2	42	59	89	58E	684854	626843	31	5	54	46	1154		21286	
				OFF	2	27	23	93	13E	683491	625429	31	5	58	38	1211		21518	
182	8	1	28	ON	2	47	59	65	38E	612193	634457	31	7	24	13	1146		26653	
				OFF	2	44	49	66	38E	687887	629877	31	7	25	1	1151		26781	
182	8	2	26	ON	2	33	24	69	28E	599892	621695	31	7	27	58	12	5	26878	
				OFF	2	29	28	78	4E	681981	623779	31	7	28	51	12	9	26931	
182	8	3	33	ON	2	25	27	78	41E	686893	628128	31	7	29	48	1212		26988	
				OFF	2	28	22	71	26E	615835	637485	31	7	31	3	1216		27863	
183	1	1	113	ON	2	64	36	33	22E	668179	684246	31	8	58	39	11	4	31839	
				OFF	2	47	26	43	8E	618858	633872	31	8	55	3	1147		32183	
184	6	1	79	ON	2	38	33	24	12E	681337	623194	31	18	29	56	12	6	37796	
				OFF	2	18	27	26	3E	628395	642965	31	18	32	56	1217		37976	
185	3	1	65	ON	2	16	48	3	26E	625189	647948	31	12	4	1	1217		43441	
				OFF	2	6	31	4	41E	661473	685586	31	12	6	34	1225		43594	
186	3	8	5	ON	1	19	48	176	7E	1283923	1248988	31	12	59	38	844		46778	
				OFF	1	21	16	176	28E	1193728	1238373	31	12	59	56	845		46796	
	3	3	8	4	ON	1	19	44	138	28E	1288826	1244928	31	16	8	54	842		57654
				OFF	1	21	28	138	41E	1189761	1234257	31	16	1	28	844		57688	
189	1	1	28	ON	2	48	34	91	59W	681554	623428	31	18	8	52	1152		64852	
				OFF	2	37	24	91	15W	688248	622865	31	18	1	39	1156		64899	
118	2	1	17	ON	2	38	2	114	13W	688427	622258	31	19	32	11	1155		78331	
				OFF	2	35	22	113	39W	688278	622888	31	19	32	51	1158		78371	
114	1	1	34	ON	2	64	34	142	28E	651783	675534	1	1	28	18	1857		5298	
				OFF	2	59	21	146	27E	634487	657584	1	1	29	32	1115		5372	
115	1	1	182	ON	2	53	29	126	46E	618746	641256	1	3	1	42	1128		18982	
				OFF	2	38	28	131	35E	688715	622549	1	3	5	29	1151		11129	
116	9	1	138	ON	2	38	23	188	45E	688782	622619	1	4	36	9	1151		16569	
				OFF	2	17	28	112	18E	638244	653184	1	4	41	22	1218		16882	
116	9	2	58	ON	2	5	11	113	47E	676938	781634	1	4	44	23	1219		17863	
				OFF	3	3	35	114	46E	723598	758857	1	4	46	34	1225		17194	
117	5	2	34	ON	2	54	31	88	39E	628294	642862	1	6	2	47	1125		21767	
				OFF	2	49	24	82	46E	618351	632546	1	6	4	4	1135		21844	
117	5	3	128	ON	2	46	32	83	45E	686278	628321	1	6	4	48	1139		21888	
				OFF	2	28	26	87	51E	686931	628997	1	6	9	18	12	8	22158	
118	6	1	94	ON	2	53	27	58	19E	617567	648833	1	7	33	44	1127		27224	
				OFF	2	39	18	62	53E	681841	622887	1	7	37	16	1148		27436	
119	2	1	54	ON	2	62	34	38	8E	641541	664987	1	9	2	4	11	2	32524	

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			OFF	2	54	25	35	4E	619269	642798	1	9	4	18	1124	32658	
119	2	2	41 ON	2	37	33	48	28E	681888	622845	1	9	8	22	1158	32982	
			OFF	2	31	22	41	42E	684181	626144	1	9	9	34	1156	32994	
121	8	1	46 ON	2	26	33	3	7W	611389	633539	1	12	12	26	1159	43946	
			OFF	2	19	25	2	4W	627338	658169	1	12	14	12	12	5	44852
121	8	2	38 ON	2	11	41	1	5W	653188	676898	1	12	16	7	1211	44167	
			OFF	2	5	27	8	21W	688212	785831	1	12	17	48	1216	44268	
126	8	1	17 ON	2	36	28	119	8W	682472	624372	1	19	43	19	1147	78999	
			OFF	2	33	43	118	28W	684115	626876	1	19	43	58	1158	71838	
138	3	1	55 ON	2	64	35	137	12E	641581	664865	2	1	38	48	1847	5928	
			OFF	2	56	26	143	1E	619748	642295	2	1	48	55	1113	6855	
131	8	1	181 ON	2	55	31	128	41E	617472	639935	2	3	11	48	1114	11588	
			OFF	2	48	19	125	59E	682317	624212	2	3	15	37	1139	11737	
131	8	2	28 ON	3	9	51	133	12E	781451	818185	2	3	28	5	1228	12485	
			OFF	3	15	33	133	53E	822268	852479	2	3	29	31	1225	12571	
132	1	1	158 ON	2	43	38	182	21E	682942	624868	2	4	45	28	1134	17128	
			OFF	2	19	23	186	54E	634637	657741	2	4	51	27	1159	17487	
133	1	1	15 ON	1	25	16	79	16W	1118262	1159941	2	5	49	4	831	28944	
			OFF	1	29	32	78	35W	1889679	1138237	2	5	58	11	835	21811	
133	1	2	167 ON	2	54	35	75	38E	615834	637485	2	6	13	28	1115	22488	
			OFF	2	29	19	82	35E	611928	634173	2	6	19	38	1158	22778	
134	8	1	94 ON	2	58	29	54	26E	688589	638635	2	7	45	1	1122	27981	
			OFF	2	36	24	58	26E	684123	626884	2	7	48	32	1142	28112	
135	7	1	75 ON	2	51	28	31	14E	689587	631754	2	9	15	25	1128	33325	
			OFF	2	48	21	34	43E	682733	624643	2	9	18	12	1137	33492	
136	1	1	56 ON	2	56	36	6	2E	617885	648363	2	18	44	46	11	8	38686
			OFF	2	48	27	9	33E	685985	628817	2	18	46	49	1125	38889	
142	1	1	18 ON	2	36	31	124	6W	686148	628185	2	19	53	39	1137	71619	
			OFF	2	33	43	123	32W	689118	631266	2	19	54	21	1148	71661	

PHOTOGRAPHIC SUMMARY

PAN CAMERA NO		176		8.2588		SLIT W/25		FILTER		3484 FILM		
OPN NO	FRA	FEET	ET	S-EL	S-DIR	EV	FULL	INT	PRI			
71	2	2	5	13.2	ON 258	19.9	16.3	11.86	11.74	11.14	18.54	
					OFF 259	28.6	16.4	11.87	11.77	11.17	18.57	
81	8	8	4	18.6	ON 186	9.8	14.2	18.58	18.97	18.37	9.77	
					OFF 186	18.5	14.2	18.58	11.13	18.53	9.93	
82	8	1	38	188.5	ON 232	3.8	14.8	11.71	18.14	9.54	8.94	
					OFF 244	9.4	14.8	11.78	11.83	18.43	9.83	
82	8	2	19	58.3	ON 258	12.4	14.1	11.82	11.31	18.71	18.11	
					OFF 254	15.5	14.2	11.84	11.52	18.92	18.32	
83	8	1	72	198.4	ON 258	12.3	13.9	11.82	11.38	18.78	18.18	
					OFF 265	23.5	14.7	11.98	11.85	11.25	18.65	
84	1	1	45	119.8	ON 248	11.2	13.7	11.81	11.28	18.68	18.88	
					OFF 259	18.4	14.1	11.87	11.68	11.88	18.48	
84	1	2	37	238.1	ON 268	26.3	14.9	11.92	11.92	11.32	18.72	
					OFF 273	39.2	17.2	11.94	12.86	11.46	18.86	
84	1	3	17	45.8	ON 251	62.8	38.8	11.82	12.18	11.58	18.98	
					OFF 247	65.4	33.2	11.88	12.18	11.58	18.98	
85	4	1	152	482.8	ON 265	23.2	14.4	11.98	11.84	11.24	18.64	
					OFF 271	45.9	19.8	11.93	12.18	11.58	18.98	
86	7	2	64	169.3	ON 231	2.7	13.4	11.71	18.89	9.49	8.89	

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				OFF 258	13.3	13.9	11.82	11.37	10.77	10.17	
86	7	3	27	71.4	ON 258	19.3	13.9	11.86	11.71	11.11	10.51
					OFF 262	23.4	14.2	11.89	11.85	11.25	10.65
87	3	1	39	183.2	ON 251	14.1	15.4	11.83	11.43	10.83	10.23
					OFF 259	28.2	13.8	11.87	11.75	11.15	10.55
87	3	2	28	52.9	ON 278	39.4	16.7	11.93	12.86	11.46	10.86
					OFF 269	42.5	17.5	11.92	12.88	11.48	10.88
88	1	8	9	23.8	ON 111	-68.1	36.4	10.65	8.88	8.88	8.88
					OFF 113	-65.6	32.4	10.68	8.88	8.88	8.88
88	1	1	119	314.8	ON 242	7.9	13.8	11.77	10.85	10.25	9.65
					OFF 265	26.3	14.2	11.98	11.92	11.32	10.72
94	1	1	23	68.8	ON 269	33.8	14.1	11.93	12.81	11.41	10.81
					OFF 278	36.6	14.7	11.93	12.84	11.44	10.84
95	5	8	16	42.3	ON 269	33.3	14.8	11.93	12.81	11.41	10.81
					OFF 278	35.9	14.4	11.93	12.84	11.44	10.84
97	2	1	32	84.6	ON 235	2.5	11.7	11.73	10.84	9.44	8.84
					OFF 245	7.9	11.7	11.79	10.86	10.26	9.66
97	2	2	17	45.8	ON 264	48.7	17.3	11.98	12.18	11.58	10.98
					OFF 262	51.4	18.3	11.88	12.18	11.58	10.98
99	2	1	73	193.1	ON 255	14.8	11.5	11.85	11.43	10.83	10.23
					OFF 266	25.3	12.3	11.91	11.98	11.38	10.78
100	1	1	59	156.1	ON 249	9.9	11.3	11.81	11.87	10.47	9.87
					OFF 261	19.3	11.6	11.88	11.71	11.11	10.51
100	1	2	84	222.2	ON 278	34.7	13.3	11.93	12.83	11.43	10.83
					OFF 265	47.2	16.1	11.98	12.18	11.58	10.98
101	4	1	42	111.1	ON 244	9.8	11.1	11.78	10.97	10.37	9.77
					OFF 253	15.7	11.3	11.84	11.54	10.94	10.34
101	4	2	184	275.1	ON 262	24.7	11.9	11.89	11.88	11.28	10.68
					OFF 265	48.3	14.1	11.98	12.87	11.47	10.87
102	8	1	28	52.9	ON 258	19.7	11.4	11.87	11.73	11.13	10.53
					OFF 261	22.9	11.6	11.88	11.84	11.24	10.64
102	8	2	26	68.8	ON 266	34.3	12.9	11.91	12.82	11.42	10.82
					OFF 265	38.4	13.5	11.98	12.86	11.46	10.86
102	8	3	33	87.3	ON 264	42.2	14.3	11.98	12.88	11.48	10.88
					OFF 261	47.2	15.7	11.88	12.18	11.58	10.98
103	1	1	113	298.9	ON 234	2.5	10.8	11.72	10.85	9.45	8.85
					OFF 259	28.3	11.2	11.87	11.75	11.15	10.55
104	6	1	79	289.8	ON 265	37.2	13.8	11.98	12.85	11.45	10.85
					OFF 259	49.2	15.8	11.87	12.18	11.58	10.98
105	3	1	65	171.9	ON 257	58.8	16.1	11.86	12.18	11.58	10.98
					OFF 243	68.8	21.8	11.78	12.18	11.58	10.98
106	3	8	5	13.2	ON 183	-88.8	98.9	10.55	8.88	8.88	8.88
					OFF 184	-79.9	81.9	10.55	8.88	8.88	8.88
108	3	8	4	10.6	ON 184	-88.2	98.8	10.55	8.88	8.88	8.88
					OFF 184	-88.1	81.5	10.56	8.88	8.88	8.88
109	1	1	28	52.9	ON 264	27.2	10.8	11.98	11.93	11.33	10.73
					OFF 265	38.4	11.1	11.98	11.98	11.38	10.78
110	2	1	17	45.8	ON 265	29.7	10.9	11.98	11.97	11.37	10.77
					OFF 266	32.4	11.2	11.91	12.88	11.48	10.88
114	1	1	34	89.9	ON 252	4.1	12.4	11.83	10.31	9.71	9.11
					OFF 259	9.5	12.4	11.87	11.84	10.44	9.84



115	1	1	181	267.1	ON 265	15.5	12.3	11.98	11.52	10.92	10.32
					OFF 271	30.8	13.8	11.94	11.98	11.38	10.78
116	9	1	138	365.8	ON 271	30.7	13.6	11.94	11.98	11.38	10.78
					OFF 257	51.4	18.9	11.86	12.18	11.58	10.98
1	9	2	58	132.3	ON 238	62.9	26.2	11.75	12.18	11.58	10.98
					OFF 222	78.6	37.3	11.65	12.18	11.58	10.98
117	5	2	34	89.9	ON 265	14.4	12.1	11.98	11.45	10.85	10.25
					OFF 268	19.6	12.4	11.92	11.73	11.13	10.53
117	5	3	128	317.4	ON 278	22.5	12.6	11.93	11.83	11.23	10.63
					OFF 268	48.6	15.2	11.92	12.87	11.47	10.87
118	6	1	94	248.6	ON 266	15.5	12.8	11.91	11.52	10.92	10.32
					OFF 271	29.8	13.2	11.94	11.97	11.37	10.77
119	2	1	54	142.8	ON 256	6.8	11.6	11.85	10.61	10.01	9.41
					OFF 265	14.5	11.8	11.98	11.46	10.86	10.26
119	2	2	41	188.4	ON 271	31.5	13.2	11.94	11.99	11.39	10.79
					OFF 269	37.7	14.2	11.92	12.85	11.45	10.85
121	8	1	46	121.7	ON 265	42.4	14.9	11.98	12.88	11.48	10.88
					OFF 258	49.4	16.9	11.87	12.18	11.58	10.98
121	8	2	37	97.9	ON 247	56.9	28.3	11.88	12.18	11.58	10.98
					OFF 237	62.8	24.4	11.74	12.18	11.58	10.98
126	8	1	17	45.8	ON 278	32.7	12.2	11.93	12.81	11.41	10.81
					OFF 278	35.3	12.5	11.93	12.83	11.43	10.83
138	3	1	55	145.5	ON 256	3.6	18.8	11.86	10.24	9.64	9.04
					OFF 265	12.2	18.8	11.98	11.28	10.68	10.08
131	8	1	181	267.1	ON 266	13.1	9.9	11.91	11.36	10.76	10.16
					OFF 271	28.6	18.8	11.94	11.95	11.35	10.75
131	8	2	28	74.1	ON 282	76.6	44.7	11.51	12.18	11.58	10.98
					OFF 192	79.9	68.3	11.44	12.18	11.58	10.98
132	1	1	158	417.9	ON 271	25.4	18.4	11.94	11.98	11.38	10.78
					OFF 256	49.5	14.4	11.85	12.18	11.58	10.98
133	1	1	15	39.7	ON 128	-78.7	55.2	10.86	8.88	8.88	8.88
					OFF 131	-75.8	41.8	10.89	8.88	8.88	8.88
133	1	2	167	441.7	ON 267	14.8	9.6	11.91	11.43	10.83	10.23
					OFF 266	39.6	11.9	11.91	12.87	11.47	10.87
134	8	1	93	246.8	ON 278	18.2	9.6	11.93	11.67	11.07	10.47
					OFF 278	32.5	18.8	11.93	12.88	11.48	10.88
135	7	1	75	198.4	ON 269	17.2	9.4	11.93	11.62	11.02	10.42
					OFF 271	28.5	18.2	11.94	11.95	11.35	10.75
136	1	1	55	145.5	ON 266	11.9	9.1	11.91	11.26	10.66	10.06
					OFF 271	28.3	9.4	11.93	11.75	11.15	10.55
142	1	1	18	47.6	ON 269	32.3	9.3	11.93	12.88	11.48	10.88
					OFF 268	35.1	9.6	11.92	12.83	11.43	10.83

PHOTOGRAPHIC SUMMARY

AFT PAN CAMERA NO		177 8.1758		SLIT W/21		FILTER		3484 FILM			
OPN NO	FRA	FEET	ET	S-EL	S-DIR	EV	FULL	INT	PRI		
71	2	2	5	13.2	ON 371	19.8	15.9	12.39	12.35	11.75	11.15
					OFF 372	19.8	16.8	12.39	12.38	11.78	11.18
81	8	8	4	18.6	ON 153	8.8	13.5	11.11	11.52	10.92	10.32
					OFF 153	9.6	13.6	11.11	11.69	11.09	10.49
82	8	1	38	188.5	ON 333	2.1	13.1	12.23	10.62	10.02	9.42
					OFF 351	8.5	13.4	12.31	11.57	10.97	10.37

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82	8	2	19	58.3	ON 359	11.5	13.6	12.34	11.88	11.28	18.68
					OFF 365	14.6	13.8	12.36	12.12	11.52	18.92
83	8	1	72	198.4	ON 359	11.4	13.4	12.34	11.87	11.27	18.67
					OFF 388	22.7	14.4	12.42	12.48	11.88	11.28
	1	1	45	119.8	ON 357	18.3	13.2	12.33	11.76	11.16	18.56
					OFF 372	17.6	13.7	12.39	12.29	11.69	11.89
84	1	2	87	238.1	ON 384	25.4	14.5	12.44	12.55	11.95	11.35
					OFF 391	38.4	16.9	12.46	12.71	12.11	11.51
84	1	3	17	45.8	ON 361	62.8	29.8	12.35	12.75	12.15	11.55
					OFF 354	64.5	32.8	12.32	12.75	12.15	11.55
85	4	1	153	484.7	ON 381	22.3	14.8	12.42	12.47	11.87	11.27
					OFF 388	45.1	18.6	12.45	12.74	12.14	11.54
86	7	2	65	171.9	ON 335	1.8	12.5	12.24	18.56	9.96	9.36
					OFF 361	12.4	13.8	12.35	11.95	11.35	18.75
86	7	3	27	71.4	ON 373	18.4	13.5	12.48	12.32	11.72	11.12
					OFF 388	22.5	13.9	12.42	12.48	11.88	11.28
87	3	1	39	183.2	ON 364	13.2	12.9	12.36	12.81	11.41	18.81
					OFF 375	19.3	13.4	12.48	12.37	11.77	11.17
87	3	2	21	55.5	ON 398	38.6	16.3	12.46	12.71	12.11	11.51
					OFF 389	41.6	17.1	12.46	12.73	12.13	11.53
88	1	8	9	23.8	ON 161	-69.5	38.4	11.19	8.88	8.88	8.88
					OFF 164	-67.8	33.9	11.22	8.88	8.88	8.88
88	1	1	128	317.4	ON 358	6.9	12.4	12.38	11.38	18.78	18.18
					OFF 384	25.4	13.9	12.44	12.55	11.95	11.35
94	1	1	24	63.5	ON 398	32.1	13.8	12.46	12.65	12.85	11.45
					OFF 398	35.8	14.4	12.46	12.69	12.89	11.49
95	5	8	16	42.3	ON 398	32.5	13.7	12.46	12.65	12.85	11.45
					OFF 398	35.8	14.1	12.46	12.68	12.88	11.48
97	2	1	33	87.3	ON 341	1.5	18.9	12.26	18.51	9.91	9.31
					OFF 354	7.8	11.1	12.32	11.39	18.79	18.19
	2	2	17	45.8	ON 382	47.9	16.9	12.43	12.75	12.15	11.55
					OFF 379	58.5	17.8	12.42	12.75	12.15	11.55
99	2	1	74	195.7	ON 369	13.1	11.1	12.38	12.81	11.41	18.81
					OFF 385	24.5	12.8	12.44	12.53	11.93	11.33
188	1	1	68	158.7	ON 368	9.8	18.7	12.35	11.63	11.83	18.43
					OFF 378	18.4	11.3	12.41	12.33	11.73	11.13
188	1	2	84	222.2	ON 398	33.8	13.8	12.46	12.67	12.87	11.47
					OFF 384	46.3	15.7	12.43	12.75	12.15	11.55
181	4	1	42	111.1	ON 349	8.8	18.5	12.38	11.52	18.92	18.32
					OFF 363	14.8	18.9	12.35	12.13	11.53	18.93
181	4	2	184	275.1	ON 375	23.9	11.6	12.48	12.51	11.91	11.31
					OFF 379	39.4	13.8	12.42	12.71	12.11	11.51
182	8	1	28	52.9	ON 378	18.8	11.8	12.38	12.34	11.74	11.14
					OFF 373	22.8	11.2	12.48	12.46	11.86	11.26
182	8	2	26	68.8	ON 388	33.5	12.6	12.42	12.66	12.86	11.46
					OFF 388	37.5	13.2	12.42	12.78	12.18	11.58
182	8	3	33	87.3	ON 378	41.4	14.8	12.41	12.73	12.13	11.53
					OFF 373	46.4	15.3	12.48	12.75	12.15	11.55
183	1	1	113	296.9	ON 335	1.5	18.8	12.24	18.52	9.92	9.32
					OFF 378	19.4	18.9	12.38	12.37	11.77	11.17
184	6	1	79	289.8	ON 388	36.3	12.7	12.42	12.69	12.89	11.49

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**OFFICIAL**

			OFF 378	48.3	15.4	12.38	12.75	12.15	11.55		
185	3	1	65	171.9	ON 367	49.9	15.7	12.37	12.75	12.15	11.55
					OFF 348	59.9	28.3	12.38	12.75	12.15	11.55
186	3	8	5	13.2	ON 149	-79.9	188.9	11.87	8.88	8.88	8.88
					OFF 149	-88.1	91.7	11.87	8.88	8.88	8.88
188	3	8	4	18.6	ON 149	-88.2	181.8	11.87	8.88	8.88	8.88
					OFF 149	-88.4	91.6	11.88	8.88	8.88	8.88
189	1	1	28	52.9	ON 378	26.3	18.5	12.42	12.57	11.97	11.37
					OFF 388	29.5	18.8	12.42	12.62	12.82	11.42
118	2	1	17	45.8	ON 388	28.9	18.6	12.42	12.61	12.81	11.41
					OFF 388	31.5	18.9	12.42	12.64	12.84	11.44
114	1	1	34	89.9	ON 361	3.1	11.5	12.35	18.88	18.28	9.68
					OFF 378	8.6	11.8	12.38	11.58	18.98	18.38
115	1	1	182	269.8	ON 379	14.6	12.8	12.42	12.12	11.52	18.92
					OFF 388	29.9	13.5	12.45	12.62	12.82	11.42
116	9	1	138	365.8	ON 388	29.8	13.3	12.45	12.62	12.82	11.42
					OFF 367	58.5	18.4	12.37	12.75	12.15	11.55
116	9	2	58	132.3	ON 341	62.8	25.3	12.26	12.75	12.15	11.55
					OFF 318	69.7	35.4	12.16	12.75	12.15	11.55
117	5	2	34	89.9	ON 378	13.5	11.6	12.42	12.84	11.44	18.84
					OFF 384	18.7	12.8	12.44	12.34	11.74	11.14
117	5	3	128	317.4	ON 386	21.7	12.2	12.44	12.45	11.85	11.25
					OFF 382	39.7	14.9	12.43	12.72	12.12	11.52
118	6	1	94	248.6	ON 388	14.6	11.5	12.42	12.12	11.52	18.92
					OFF 388	28.9	12.9	12.45	12.61	12.81	11.41
119	2	1	54	142.8	ON 367	5.1	18.9	12.37	11.13	18.53	9.93
					OFF 388	13.6	11.3	12.42	12.85	11.45	18.85
119	2	2	41	188.4	ON 389	38.6	12.9	12.45	12.63	12.83	11.43
					OFF 386	36.8	13.9	12.44	12.69	12.89	11.49
121	8	1	46	121.7	ON 388	41.5	14.5	12.42	12.73	12.13	11.53
					OFF 378	48.6	16.5	12.38	12.75	12.15	11.55
121	8	2	38	188.5	ON 355	56.8	19.6	12.32	12.75	12.15	11.55
					OFF 348	61.9	23.5	12.26	12.75	12.15	11.55
126	8	1	17	45.8	ON 388	31.8	11.9	12.45	12.65	12.85	11.45
					OFF 386	34.4	12.2	12.45	12.67	12.87	11.47
130	3	1	55	145.5	ON 368	2.7	9.2	12.37	18.73	18.13	9.53
					OFF 388	11.3	9.5	12.42	11.86	11.26	18.66
131	8	1	181	267.1	ON 382	12.2	9.4	12.43	11.94	11.34	18.74
					OFF 389	27.7	18.5	12.45	12.59	11.99	11.39
131	8	2	28	74.1	ON 298	75.8	41.4	12.83	12.75	12.15	11.55
					OFF 275	79.4	62.1	11.96	12.75	12.15	11.55
132	1	1	158	417.9	ON 389	24.5	18.1	12.45	12.53	11.93	11.33
					OFF 366	48.6	14.8	12.37	12.75	12.15	11.55
133	1	1	15	39.7	ON 184	-79.7	62.2	11.38	8.88	8.88	8.88
					OFF 189	-77.1	45.1	11.41	8.88	8.88	8.88
133	1	2	167	441.7	ON 383	13.1	9.2	12.43	12.81	11.41	18.81
					OFF 381	38.7	11.6	12.43	12.71	12.11	11.51
134	8	1	94	248.6	ON 387	17.3	9.2	12.45	12.27	11.67	11.87
					OFF 387	31.6	18.5	12.45	12.65	12.85	11.45
135	7	1	75	198.4	ON 386	16.3	9.8	12.44	12.22	11.62	11.82
					OFF 388	27.6	9.9	12.45	12.59	11.99	11.39

**OFFICIAL**



136	1	1	56	148.1	ON 382	11.8	8.6	12.43	11.83	11.23	18.63
					OFF 388	19.4	9.1	12.45	12.37	11.77	11.17
142	1	1	18	47.6	ON 386	31.4	9.1	12.44	12.64	12.84	11.44
					OFF 384	34.2	9.4	12.44	12.67	12.87	11.47

**ELLAR-INDEX SUMMARY**

CAMERA DATA	ET	FILM	FILTER	GRID	ASSEMBLY NO	D74
STELLAR	2.8	3481	NONE	76		
INDEX	1/500	3488	W/21	95		

**PERFORMANCE SUMMARY**

OPN	NO	FR	STEL FEET	INDX FEET	H	M	S	Q	LAT	LONG	Q	LAT	LONG	SEC DUR
82	8	1	8.58	8.99	1	5	56	2	63	153E	2	57	158E	97
82	8	2	8.38	8.59	1	8	17	2	54	159E	2	51	161E	47
83	8	1	8.99	1.98	2	38	59	2	54	136E	2	43	148E	168
84	1	1	8.69	1.39	4	9	24	2	55	113E	2	48	116E	189
84	1	2	1.19	2.38	4	13	11	2	48	118E	2	27	121E	195
84	1	3	8.38	8.59	4	22	38	2	2	124E	3	8	125E	43
85	4	1	2.88	4.16	5	43	8	2	43	95E	2	28	99E	344
86	7	2	8.89	1.78	7	8	44	2	63	62E	2	53	68E	158
86	7	3	8.48	8.79	7	12	52	2	47	71E	2	43	72E	62
87	3	1	8.59	1.19	8	42	17	2	52	46E	2	46	48E	92
87	3	2	8.38	8.59	8	48	37	2	27	52E	2	24	53E	47
88	1	8	8.18	8.28	9	51	27	1	38	129W	1	41	128W	47
88	1	1	1.68	3.37	18	11	26	2	58	28E	2	48	27E	276
94	1	1	8.38	8.59	19	21	56	2	33	188W	2	38	187W	54
95	5	8	8.38	8.59	28	52	44	2	33	138W	2	38	138W	38
97	2	1	8.48	8.79	23	46	28	2	63	171E	2	58	175E	81
97	2	2	8.38	8.59	23	57	59	2	17	174W	2	15	173W	48
99	2	1	8.99	1.98	2	58	43	2	52	132E	2	41	136E	168
100	1	1	8.79	1.58	4	28	24	2	56	187E	2	47	111E	148
101	4	1	1.19	2.38	4	26	32	2	32	115E	2	19	117E	188
101	4	2	8.59	1.19	5	58	52	2	57	84E	2	51	87E	188
101	4	2	1.48	2.97	5	54	46	2	42	98E	2	26	93E	232
102	8	1	8.38	8.59	7	24	13	2	47	65E	2	43	66E	48
102	8	2	8.48	8.79	7	27	58	2	32	69E	2	28	78E	61
102	8	3	8.58	8.99	7	29	48	2	24	78E	2	19	71E	75
103	1	1	1.58	3.17	8	58	39	2	63	34E	2	46	43E	264
104	6	1	1.89	2.18	18	29	56	2	29	24E	2	17	26E	188
105	3	1	8.89	1.78	12	4	1	2	15	3E	2	5	4E	153
106	3	8	8.18	8.28	12	59	38	1	21	176E	1	22	176E	26
108	3	8	8.18	8.28	16	8	54	1	21	138E	1	23	131E	26
109	1	1	8.28	8.48	18	8	52	2	39	91W	2	36	91W	47
110	2	1	8.38	8.59	19	32	11	2	37	113W	2	34	113W	48
114	1	1	8.58	8.99	1	28	18	2	63	143E	2	58	147E	82
115	1	1	1.39	2.77	3	1	42	2	52	127E	2	37	131E	227
116	9	1	1.98	3.96	4	36	9	2	37	188E	2	16	112E	313
116	9	2	8.69	1.39	4	44	23	2	4	113E	3	4	114E	131
117	5	2	8.58	8.99	6	2	47	2	53	81E	2	48	83E	77
117	5	3	1.68	3.37	6	4	48	2	45	84E	2	27	88E	278
118	6	1	1.29	2.57	7	33	44	2	52	58E	2	38	63E	212
119	2	1	8.79	1.58	9	2	4	2	61	38E	2	53	35E	126



~~SECRET~~

119	2	2	6	0.59	1.19	9	8	22	2	36	48E	2	38	41E	92
121	8	1	7	0.69	1.39	12	12	26	2	28	2W	2	18	1W	186
121	8	2	5	0.58	0.99	12	16	7	2	18	8W	2	4	8W	93
126	8	1	2	0.28	0.48	19	43	19	2	35	118W	2	32	118W	39
J	3	1	8	0.79	1.58	1	38	48	2	63	138E	2	55	143E	127
131	8	1	15	1.48	2.97	3	11	48	2	54	121E	2	39	126E	229
131	8	2	4	0.48	0.79	3	28	5	3	18	133E	3	16	134E	86
132	1	1	22	2.18	4.36	4	45	28	2	42	182E	2	18	187E	359
133	1	1	2	0.28	0.48	5	49	4	1	26	78W	1	31	78W	67
133	1	2	24	2.38	4.75	6	13	28	2	53	75E	2	28	82E	378
134	8	1	13	1.29	2.57	7	45	1	2	49	54E	2	35	58E	211
135	7	1	11	1.89	2.18	9	15	25	2	58	31E	2	39	34E	167
136	1	1	8	0.79	1.58	18	44	46	2	55	6E	2	47	9E	123
142	1	1	3	0.38	0.59	19	53	39	2	35	123W	2	32	123W	42

NOTES--

1. T/M DATA INDICATES NORMAL SYSTEM PERFORMANCE
2. THE LAST FEW FRAMES OF THE FIRST MISSION ARE CONTAINED IN THE SECOND CAPSULE.
3. PAN CAMERAS WERE FILMLESS DURING OPERATION ON REV 142. BEST ESTIMATE INDICATES MASTER DEPLETION OCCURED 5 FRAMES INTO OPERATION 135-7-1 AND SLAVE DEPLETION 61 FRAMES INTO OPERATION 134-8-1 .
4. THE S/I CAMERA WAS OPERATING -WITH FILM- DURING OPERATION 142-1-1 .

~~SECRET~~

# JULI

A. 1028-2

B. DRY

C. FINAL PERFORMANCE ESTIMATE - PART II

RATE ESTIMATE

WD PAN CAMERA NUMBER 176

OPN NO	FR	R	A	TUR/ DUR	INST CPS	INST ANG VEL	SCAN R/SEC	RATE I/SEC	PCT CALIB	RATE REQD	
71	2	2	5	8	2 ON 1687	0.4288	0.83618	2.694	64.66	-2.4	-2.4
					OFF 12	0.4388	0.83629	2.782	64.85	-2.4	-2.5
81	0	0	4	8	2 ON 0	0.1763	0.81488	1.188	26.59	-2.4	-136.9
					OFF 24	0.1763	0.81488	1.188	26.59	-2.4	-139.1
82	8	1	38	8	2 ON 1388	0.3856	0.83253	2.423	58.14	-2.4	-4.4
					OFF 97	0.4855	0.83421	2.548	61.15	-2.4	-3.5
82	8	2	19	8	2 ON 1521	0.4147	0.83499	2.685	62.53	-2.4	-2.9
					OFF 47	0.4222	0.83562	2.653	63.67	-2.4	-2.8
83	8	1	72	8	2 ON 1523	0.4158	0.83581	2.687	62.57	-2.4	-2.9
					OFF 168	0.4394	0.83788	2.761	66.26	-2.4	-2.1
84	1	1	45	8	2 ON 1518	0.4126	0.83482	2.593	62.22	-2.4	-2.9
					OFF 189	0.4382	0.83638	2.783	64.87	-2.4	-2.4
84	1	2	87	8	2 ON 1737	0.4444	0.83758	2.792	67.81	-2.4	-1.8
					OFF 195	0.4526	0.83819	2.844	68.26	-2.4	-1.2
84	1	3	17	8	2 ON 2384	0.4171	0.83519	2.621	62.98	-2.4	0.8
					OFF 43	0.4898	0.83457	2.575	61.79	-2.4	1.1
85	4	1	152	8	2 ON 1695	0.4482	0.83714	2.766	66.37	-2.4	-1.9
					OFF 344	0.4493	0.83791	2.823	67.75	-2.4	-8.6
86	7	2	64	8	2 ON 1392	0.3841	0.83241	2.413	57.92	-3.4	-5.2
					OFF 158	0.4146	0.83499	2.685	62.53	-3.4	-3.8
86	7	3	27	8	2 ON 1639	0.4287	0.83618	2.694	64.65	-3.4	-3.2
					OFF 62	0.4358	0.83677	2.738	65.71	-3.4	-3.8
87	3	1	39	8	2 ON 1565	0.4177	0.83524	2.624	62.99	-3.4	-3.5
					OFF 92	0.4387	0.83634	2.786	64.94	-3.4	-3.1
87	3	2	28	8	2 ON 1946	0.4476	0.83777	2.813	67.58	-3.4	-2.1
					OFF 47	0.4466	0.83768	2.886	67.34	-3.4	-1.9
88	1	0	9	8	2 ON 277	0.1851	0.81562	1.163	27.91	-3.4	-25.3
					OFF 47	0.1887	0.81592	1.186	28.45	-3.4	-25.4
88	1	1	119	8	2 ON 1476	0.4816	0.83389	2.523	68.56	-3.4	-4.1
					OFF 276	0.4486	0.83718	2.768	66.44	-3.4	-2.7
94	1	1	23	8	2 ON 1871	0.4472	0.83774	2.818	67.44	-3.4	-2.1
					OFF 54	0.4478	0.83778	2.814	67.53	-3.4	-2.8
95	5	0	16	8	2 ON 1879	0.4474	0.83775	2.811	67.46	-3.4	-2.1
					OFF 38	0.4478	0.83778	2.814	67.53	-3.4	-2.8
97	2	1	32	8	2 ON 1423	0.3989	0.83299	2.456	58.95	-3.4	-4.7
					OFF 81	0.4865	0.83438	2.554	61.38	-3.4	-4.8
97	2	2	17	8	2 ON 2115	0.4384	0.83699	2.755	66.11	-3.4	-1.1
					OFF 48	0.4346	0.83667	2.731	65.53	-3.4	-8.9
99	2	1	73	8	2 ON 1688	0.4232	0.83571	2.659	63.81	-3.4	-3.2
					OFF 168	0.4419	0.83729	2.777	66.64	-3.4	-2.5
188	1	1	59	8	2 ON 1541	0.4137	0.83498	2.599	62.38	-3.4	-3.6
					OFF 148	0.4336	0.83658	2.724	65.38	-3.4	-2.9
188	1	2	84	8	2 ON 1918	0.4478	0.83778	2.813	67.52	-3.4	-2.8
					OFF 188	0.4483	0.83715	2.766	66.39	-3.4	-1.1



181	4	1	42	8	2	ON	1529	8.4856	8.83422	2.548	61.16	-4.8	-5.3
						OFF	188	8.4288	8.83558	2.644	63.45	-4.8	-4.7
181	4	2	184	8	2	ON	1764	8.4353	8.83673	2.735	65.65	-4.8	-4.8
						OFF	232	8.4488	8.83712	2.764	66.34	-4.8	-3.1
2	8	1	28	8	2	ON	1693	8.4289	8.83619	2.695	64.67	-4.8	-4.2
						OFF	48	8.4332	8.83655	2.722	65.33	-4.8	-4.1
182	8	2	26	8	2	ON	1911	8.4412	8.83723	2.772	66.54	-4.8	-3.5
						OFF	61	8.4487	8.83718	2.769	66.45	-4.8	-3.2
182	8	3	33	8	2	ON	2829	8.4384	8.83699	2.754	66.18	-4.8	-3.8
						OFF	75	8.4333	8.83656	2.722	65.33	-4.8	-2.6
183	1	1	113	8	2	ON	1441	8.3888	8.83281	2.443	58.63	-4.8	-6.2
						OFF	264	8.4297	8.83626	2.788	64.88	-4.8	-4.3
184	6	1	79	8	2	ON	1961	8.4488	8.83728	2.778	66.48	-4.8	-3.3
						OFF	188	8.4298	8.83626	2.788	64.81	-4.8	-2.5
185	3	1	65	8	2	ON	2168	8.4264	8.83598	2.679	64.38	-4.8	-2.4
						OFF	153	8.4842	8.83418	2.539	68.95	-4.8	-1.8
186	3	8	5	8	2	ON	61	8.1724	8.81455	1.883	26.88	-4.8	-24.3
						OFF	26	8.1729	8.81459	1.886	26.87	-4.8	-25.2
188	3	8	4	8	2	ON	67	8.1725	8.81456	1.884	26.82	-4.8	-24.7
						OFF	26	8.1738	8.81468	1.887	26.89	-4.8	-25.5
189	1	1	28	8	2	ON	1826	8.4391	8.83785	2.759	66.22	-4.8	-3.7
						OFF	47	8.4487	8.83718	2.769	66.45	-4.8	-3.5
118	2	1	17	8	2	ON	1867	8.4486	8.83718	2.768	66.44	-4.8	-3.5
						OFF	48	8.4412	8.83723	2.772	66.55	-4.8	-3.4
114	1	1	34	7	3	ON	1537	8.4198	8.83535	2.632	63.18	-3.4	8.1
						OFF	82	8.4383	8.83638	2.783	64.88	-3.4	-8.1
115	1	1	181	7	3	ON	1718	8.4488	8.83719	2.778	66.47	-3.4	-8.3
						OFF	227	8.4585	8.83881	2.831	67.94	-3.4	-1.2
116	9	1	138	7	3	ON	1939	8.4585	8.83881	2.831	67.93	-3.4	-1.2
						OFF	313	8.4278	8.83683	2.683	64.39	-3.4	-1.4
6	9	2	58	7	3	ON	2432	8.3959	8.83341	2.488	59.78	-3.4	-1.4
						OFF	131	8.3698	8.83113	2.318	55.64	-3.4	-1.3
117	5	2	34	7	3	ON	1699	8.4397	8.83718	2.763	66.31	-3.4	-8.3
						OFF	77	8.4458	8.83761	2.881	67.22	-3.4	-8.6
117	5	3	128	7	3	ON	1819	8.4483	8.83783	2.817	67.68	-3.4	-8.7
						OFF	278	8.4444	8.83758	2.792	67.82	-3.4	-1.4
118	6	1	94	7	3	ON	1718	8.4415	8.83726	2.774	66.58	-3.4	-8.3
						OFF	212	8.4586	8.83882	2.831	67.94	-3.4	-1.1
119	2	1	54	7	3	ON	1581	8.4257	8.83592	2.675	64.28	-3.4	8.1
						OFF	126	8.4483	8.83715	2.767	66.48	-3.4	-8.3
119	2	2	41	7	3	ON	1968	8.4583	8.83799	2.829	67.98	-3.4	-1.2
						OFF	92	8.4469	8.83771	2.888	67.39	-3.4	-1.4
121	8	1	46	7	3	ON	2138	8.4488	8.83719	2.778	66.47	-3.4	-1.5
						OFF	186	8.4292	8.83621	2.697	64.72	-3.4	-1.4
121	8	2	37	7	3	ON	2351	8.4111	8.83468	2.583	61.99	-3.4	-1.4
						OFF	93	8.3943	8.83327	2.478	59.47	-3.4	-1.2
126	8	1	17	7	3	ON	1998	8.4492	8.83791	2.823	67.74	-3.4	-1.2
						OFF	39	8.4477	8.83778	2.813	67.51	-3.4	-1.2
138	3	1	55	7	3	ON	1583	8.4268	8.83594	2.677	64.24	-3.4	8.1
						OFF	127	8.4485	8.83717	2.768	66.43	-3.4	-8.2
131	8	1	181	7	3	ON	1726	8.4423	8.83732	2.779	66.78	-3.4	-8.2

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**OFFICE**  
**FLUKE**

					OFF	229	0.4584	0.83888	2.838	67.98	-3.4	-8.9
131	0	2	28	7	3 ON	2783	0.3361	0.82836	2.112	58.68	-3.4	-2.4
					OFF	86	0.3191	0.82693	2.885	48.12	-3.4	-2.1
132	1	1	158	7	3 ON	1989	0.4586	0.83882	2.831	67.98	-3.4	-8.8
					OFF	359	0.4247	0.83583	2.668	64.84	-3.4	-1.2
133	1	1	15	7	3 ON	298	0.2138	0.81884	1.343	32.23	-3.4	-8.9
					OFF	67	0.2187	0.81846	1.374	32.99	-3.4	-9.5
133	1	2	167	7	3 ON	1745	0.4439	0.83745	2.789	66.93	-3.4	-8.2
					OFF	378	0.4417	0.83727	2.775	66.68	-3.4	-1.2
134	8	1	93	7	3 ON	1811	0.4488	0.83788	2.815	67.55	-3.4	-8.4
					OFF	211	0.4484	0.83784	2.818	67.62	-3.4	-1.8
135	7	1	75	7	3 ON	1799	0.4474	0.83775	2.811	67.46	-3.4	-8.4
					OFF	167	0.4582	0.83799	2.829	67.89	-3.4	-8.9
136	1	1	55	7	3 ON	1724	0.4421	0.83731	2.778	66.67	-3.4	-8.1
					OFF	123	0.4494	0.83792	2.823	67.76	-3.4	-8.5
142	1	1	18	7	3 ON	2841	0.4473	0.83775	2.811	67.46	-3.4	-8.9
					OFF	42	0.4449	0.83754	2.796	67.89	-3.4	-8.9

**RATE ESTIMATE**  
**AFT PAN CAMERA NUMBER 177**

OPN NO	FR	R	A	TUR/ DUR	INST CPS	INST ANG VEL	SCAN R/SEC	RATE I/SEC	PCT CALIB	RATE REQD		
71	2	2	5	8	2 ON	1687	0.4388	0.83635	2.787	64.97	-2.2	-1.9
					OFF	12	0.4321	0.83646	2.715	65.15	-2.2	-2.8
81	8	8	4	8	2 ON	8	0.1776	0.81499	1.116	26.78	-2.2	-135.3
					OFF	24	0.1776	0.81499	1.116	26.78	-2.2	-137.4
82	8	1	38	8	2 ON	1388	0.3875	0.83269	2.435	58.43	-2.2	-3.9
					OFF	97	0.4874	0.83438	2.568	61.44	-2.2	-3.8
82	8	2	19	8	2 ON	1521	0.4167	0.83516	2.618	62.83	-2.2	-2.4
					OFF	47	0.4242	0.83579	2.665	63.97	-2.2	-2.3
83	8	1	72	8	2 ON	1523	0.4169	0.83518	2.628	62.87	-2.2	-2.4
					OFF	168	0.4415	0.83725	2.774	66.57	-2.2	-1.6
84	1	1	45	8	2 ON	1518	0.4146	0.83498	2.685	62.52	-2.2	-2.4
					OFF	189	0.4322	0.83647	2.715	65.17	-2.2	-1.9
84	1	2	87	8	2 ON	1737	0.4465	0.83767	2.885	67.32	-2.2	-1.3
					OFF	195	0.4547	0.83837	2.857	68.57	-2.2	-8.7
84	1	3	17	8	2 ON	2384	0.4191	0.83536	2.633	63.28	-2.2	1.2
					OFF	43	0.4117	0.83474	2.587	62.89	-2.2	1.5
85	4	1	153	8	2 ON	1695	0.4422	0.83731	2.779	66.68	-2.2	-1.4
					OFF	344	0.4514	0.83889	2.836	68.87	-2.2	-8.2
86	7	2	65	8	2 ON	1392	0.3888	0.83281	2.443	58.64	-2.5	-3.9
					OFF	158	0.4197	0.83541	2.637	63.29	-2.5	-2.5
86	7	3	27	8	2 ON	1639	0.4348	0.83662	2.727	65.44	-2.5	-1.9
					OFF	62	0.4411	0.83722	2.771	66.51	-2.5	-1.8
87	3	1	39	8	2 ON	1565	0.4228	0.83567	2.657	63.76	-2.5	-2.2
					OFF	92	0.4359	0.83678	2.739	65.73	-2.5	-1.9
87	3	2	21	8	2 ON	1946	0.4531	0.83823	2.847	68.32	-2.5	-8.9
					OFF	47	0.4528	0.83814	2.848	68.16	-2.5	-8.7
88	1	8	9	8	2 ON	277	0.1878	0.81584	1.188	28.31	-2.5	-23.5
					OFF	47	0.1914	0.81615	1.283	28.86	-2.5	-23.6
88	1	1	128	8	2 ON	1476	0.4866	0.83438	2.554	61.31	-2.5	-2.9
					OFF	276	0.4468	0.83763	2.882	67.25	-2.5	-1.5

**OFFICE**  
**FLUKE**

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94	1	1	24	8	2	ON	1871	8.4526	8.83819	2.844	68.26	-2.5	-8.9
						OFF	54	8.4532	8.83824	2.848	68.35	-2.5	-8.8
95	5	8	16	8	2	ON	1879	8.4528	8.83821	2.845	68.28	-2.5	-8.9
						OFF	38	8.4532	8.83824	2.848	68.34	-2.5	-8.8
7	2	1	33	8	2	ON	1423	8.3958	8.83339	2.487	59.68	-2.5	-3.4
						OFF	81	8.4115	8.83472	2.585	62.85	-2.5	-2.7
97	2	2	17	8	2	ON	2115	8.4438	8.83744	2.788	66.92	-2.5	8.1
						OFF	48	8.4399	8.83712	2.764	66.33	-2.5	8.3
99	2	1	74	8	2	ON	1688	8.4283	8.83614	2.691	64.59	-2.5	-1.9
						OFF	168	8.4473	8.83774	2.818	67.45	-2.5	-1.3
100	1	1	68	8	2	ON	1541	8.4187	8.83533	2.631	63.14	-2.5	-2.3
						OFF	148	8.4388	8.83783	2.757	66.17	-2.5	-1.6
100	1	2	84	8	2	ON	1918	8.4532	8.83824	2.848	68.34	-2.5	-8.7
						OFF	188	8.4456	8.83768	2.888	67.28	-2.5	8.1
101	4	1	42	8	2	ON	1529	8.4861	8.83427	2.552	61.24	-5.8	-5.1
						OFF	188	8.4213	8.83555	2.647	63.53	-5.8	-4.5
101	4	2	104	8	2	ON	1764	8.4359	8.83678	2.739	65.73	-5.8	-3.9
						OFF	232	8.4485	8.83717	2.768	66.42	-5.8	-3.8
102	8	1	28	8	2	ON	1693	8.4294	8.83623	2.698	64.75	-5.8	-4.1
						OFF	48	8.4337	8.83668	2.725	65.41	-5.8	-4.8
102	8	2	26	8	2	ON	1911	8.4418	8.83727	2.776	66.62	-5.8	-3.3
						OFF	61	8.4412	8.83723	2.772	66.53	-5.8	-3.1
102	8	3	33	8	2	ON	2829	8.4389	8.83783	2.757	66.18	-5.8	-2.9
						OFF	75	8.4338	8.83668	2.726	65.41	-5.8	-2.5
103	1	1	113	8	2	ON	1441	8.3894	8.83285	2.446	58.71	-5.8	-6.8
						OFF	264	8.4382	8.83638	2.783	64.88	-5.8	-4.1
104	6	1	79	8	2	ON	1961	8.4414	8.83724	2.773	66.55	-5.8	-3.2
						OFF	188	8.4383	8.83631	2.784	64.89	-5.8	-2.4
105	3	1	65	8	2	ON	2168	8.4269	8.83682	2.682	64.38	-5.8	-2.3
						OFF	153	8.4847	8.83415	2.543	61.83	-5.8	-1.6
6	3	8	5	8	2	ON	61	8.1738	8.81468	1.887	26.89	-5.8	-23.9
						OFF	26	8.1735	8.81464	1.898	26.16	-5.8	-24.7
108	3	8	4	8	2	ON	67	8.1732	8.81461	1.888	26.11	-5.8	-24.2
						OFF	26	8.1736	8.81465	1.891	26.18	-5.8	-25.1
109	1	1	28	8	2	ON	1826	8.4396	8.83789	2.762	66.29	-5.8	-3.6
						OFF	47	8.4412	8.83723	2.772	66.53	-5.8	-3.4
110	2	1	17	8	2	ON	1867	8.4411	8.83722	2.772	66.52	-5.8	-3.4
						OFF	48	8.4417	8.83727	2.775	66.61	-5.8	-3.3
114	1	1	34	7	3	ON	1537	8.4198	8.83536	2.633	63.19	-3.7	8.1
						OFF	82	8.4383	8.83631	2.784	64.89	-3.7	-8.1
115	1	1	102	7	3	ON	1718	8.4488	8.83719	2.778	66.47	-3.7	-8.3
						OFF	227	8.4585	8.83881	2.831	67.94	-3.7	-1.2
116	9	1	138	7	3	ON	1939	8.4585	8.83881	2.831	67.93	-3.7	-1.2
						OFF	313	8.4278	8.83683	2.683	64.39	-3.7	-1.4
116	9	2	52	7	3	ON	2432	8.3968	8.83341	2.488	59.71	-3.7	-1.3
						OFF	131	8.3691	8.83114	2.319	55.66	-3.7	-1.2
117	5	2	34	7	3	ON	1699	8.4397	8.83711	2.763	66.31	-3.7	-8.3
						OFF	77	8.4458	8.83761	2.881	67.22	-3.7	-8.6
117	5	3	128	7	3	ON	1819	8.4483	8.83783	2.817	67.68	-3.7	-8.7
						OFF	278	8.4444	8.83758	2.792	67.82	-3.7	-1.4
118	6	1	94	7	3	ON	1718	8.4416	8.83726	2.774	66.58	-3.7	-8.3

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**STOP**  
**SECRET**

119	2	1	54	7	3	ON	1581	0.4269	0.03682	2.682	64.38	-3.4	0.3
						OFF	126	0.4415	0.03725	2.774	66.57	-3.4	-0.8
119	2	2	41	7	3	ON	1968	0.4515	0.03889	2.837	68.88	-3.4	-0.9
						OFF	92	0.4481	0.03781	2.815	67.57	-3.4	-1.1
121	8	1	46	7	3	ON	2138	0.4428	0.03729	2.777	66.65	-3.4	-1.2
						OFF	186	0.4383	0.03631	2.784	64.89	-3.4	-1.1
121	8	2	38	7	3	ON	2351	0.4122	0.03478	2.598	62.16	-3.4	-1.1
						OFF	93	0.3955	0.03337	2.485	59.63	-3.4	-0.9
126	8	1	17	7	3	ON	1998	0.4584	0.03881	2.838	67.92	-3.4	-0.9
						OFF	39	0.4489	0.03788	2.828	67.69	-3.4	-0.9
138	3	1	55	7	3	ON	1583	0.4272	0.03684	2.684	64.41	-3.4	0.4
						OFF	127	0.4417	0.03727	2.775	66.61	-3.4	0.1
131	8	1	181	7	3	ON	1726	0.4435	0.03742	2.787	66.88	-3.4	0.1
						OFF	229	0.4516	0.03818	2.837	68.18	-3.4	-0.7
131	8	2	28	7	3	ON	2783	0.3372	0.02845	2.118	58.84	-3.4	-2.8
						OFF	86	0.3282	0.02781	2.812	48.28	-3.4	-1.7
132	1	1	158	7	3	ON	1989	0.4518	0.03812	2.839	68.13	-3.4	-0.5
						OFF	359	0.4259	0.03593	2.676	64.22	-3.4	-0.9
133	1	1	15	7	3	ON	298	0.2147	0.01811	1.349	32.37	-3.4	-8.4
						OFF	67	0.2197	0.01853	1.388	33.12	-3.4	-9.8
133	1	2	167	7	3	ON	1745	0.4458	0.03755	2.796	67.11	-3.4	0.8
						OFF	378	0.4428	0.03737	2.782	66.78	-3.4	-0.9
134	8	1	94	7	3	ON	1811	0.4492	0.03798	2.822	67.73	-3.4	-0.2
						OFF	211	0.4496	0.03794	2.825	67.88	-3.4	-0.8
135	7	1	75	7	3	ON	1799	0.4486	0.03785	2.818	67.64	-3.4	-0.1
						OFF	167	0.4514	0.03889	2.836	68.87	-3.4	-0.6
136	1	1	56	7	3	ON	1724	0.4433	0.03741	2.785	66.85	-3.4	0.1
						OFF	123	0.4586	0.03882	2.831	67.94	-3.4	-0.3
142	1	1	18	7	3	ON	2841	0.4485	0.03785	2.818	67.64	-3.4	-0.7
						OFF	42	0.4461	0.03764	2.883	67.27	-3.4	-0.7

R= 0.3221 A= 0.1415 PERIOD= 3848

TUR	PER	CPS	ANG V
-0	5.537	0.1886	0.01633
100	5.493	0.1828	0.01647
200	5.366	0.1864	0.01686
300	5.169	0.1935	0.01758
400	4.922	0.2032	0.01838
500	4.644	0.2153	0.01948
600	4.354	0.2297	0.02077
700	4.067	0.2459	0.02224
800	3.792	0.2637	0.02385
900	3.537	0.2827	0.02557
1000	3.306	0.3025	0.02736
1100	3.097	0.3229	0.02928
1200	2.868	0.3497	0.03163
1300	2.663	0.3755	0.03397
1400	2.504	0.3994	0.03613
1500	2.378	0.4285	0.03883
1600	2.283	0.4388	0.03962

**STOP**  
**SECRET**

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1700	2.216	0.4513	0.04082
1800	2.174	0.4599	0.04160
1900	2.150	0.4635	0.04192
2000	2.165	0.4620	0.04170
2100	2.196	0.4553	0.04110
2200	2.253	0.4439	0.04015
2300	2.337	0.4280	0.03871
2400	2.450	0.4082	0.03692
2500	2.595	0.3854	0.03486
2600	2.776	0.3602	0.03250
2700	2.997	0.3337	0.03018
2800	3.220	0.3105	0.02809
2900	3.442	0.2905	0.02628
3000	3.688	0.2712	0.02453
3100	3.955	0.2529	0.02287
3200	4.238	0.2360	0.02134
3300	4.520	0.2208	0.01997
3400	4.813	0.2070	0.01879
3500	5.075	0.1970	0.01782
3600	5.295	0.1889	0.01708
3700	5.452	0.1834	0.01659
3800	5.530	0.1800	0.01636
R=	7	A=	3
		PERIOD=	3040
R=	0.3383	A=	0.1280
TUR	PER	CPS	ANG V
-0	4.755	0.2103	0.01902
100	4.726	0.2116	0.01914
200	4.640	0.2155	0.01949
300	4.506	0.2219	0.02007
400	4.334	0.2307	0.02087
500	4.137	0.2417	0.02186
600	3.926	0.2547	0.02304
700	3.712	0.2694	0.02436
800	3.503	0.2855	0.02582
900	3.304	0.3026	0.02737
1000	3.120	0.3206	0.02899
1100	2.950	0.3390	0.03066
1200	2.753	0.3633	0.03286
1300	2.586	0.3866	0.03497
1400	2.449	0.4082	0.03692
1500	2.340	0.4273	0.03865
1600	2.257	0.4432	0.04000
1700	2.197	0.4552	0.04117
1800	2.160	0.4630	0.04187
1900	2.145	0.4662	0.04217
2000	2.151	0.4648	0.04204
2100	2.180	0.4580	0.04150
2200	2.230	0.4484	0.04056
2300	2.304	0.4341	0.03926
2400	2.403	0.4162	0.03765
2500	2.520	0.3955	0.03577

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2600 2.683 0.3728 0.03372  
 2700 2.867 0.3488 0.03154  
 2800 3.050 0.3278 0.02965  
 2900 3.228 0.3097 0.02801  
 00 3.422 0.2922 0.02643  
 3100 3.628 0.2757 0.02493  
 3200 3.841 0.2604 0.02355  
 3300 4.054 0.2467 0.02231  
 3400 4.258 0.2349 0.02124  
 3500 4.441 0.2252 0.02037  
 3600 4.592 0.2178 0.01978  
 3700 4.698 0.2129 0.01925  
 3800 4.758 0.2105 0.01904

CLOCK SUMMARY

ORDER FIT 1

SYS TIME I/P	CL TIME I/P	COMP SYS TM	DELTA ST	REV	STA
0.37240383D 05	0.228831136D 06	0.372403897D 05	-0.0067	9	
0.77053477D 05	0.267844225D 06	0.770534790D 05	-0.0020	16	
0.32594290D 05	0.309785034D 06	0.325942883D 05	0.0017	24	
0.72299778D 05	0.349490531D 06	0.722997856D 05	-0.0076	31	
0.33309788D 05	0.396900538D 06	0.333097938D 05	-0.0050	40	
0.73100383D 05	0.436691121D 06	0.731003763D 05	0.0067	47	
0.34100658D 05	0.484891391D 06	0.341006467D 05	0.0113	56	
0.73702350D 05	0.523693097D 06	0.737023530D 05	-0.0030	63	
0.29340467D 05	0.288602850D 05	0.293404533D 05	0.0137	71	
0.74546183D 05	0.740660170D 05	0.745461857D 05	-0.0027	79	
0.30051578D 05	0.115971406D 06	0.300515750D 05	0.0030	87	
0.69751498D 05	0.155671329D 06	0.697514983D 05	-0.0003	94	
0.30727510D 05	0.203047342D 06	0.307275117D 05	-0.0017	103	
0.70414893D 05	0.242734721D 06	0.704148910D 05	0.0020	110	
0.31398553D 05	0.290118300D 06	0.313985504D 05	0.0026	119	
0.71074800D 05	0.329793839D 06	0.710748097D 05	-0.0017	126	
0.32031826D 05	0.377151663D 06	0.320318340D 05	-0.0000	135	
0.71671088D 05	0.416790919D 06	0.716710903D 05	-0.0023	142	

A0=-0.1907907481D 06 A1= 0.100000000777D 01

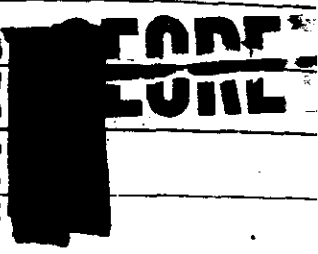
SIGMA=0.00565 NO. POINTS= 18

RATIO OF CLOCK TIME TO SYS TIME= 0.99999992226D 00

ORDER FIT 2

SYS TIME I/P	CL TIME I/P	COMP SYS TM	DELTA ST	REV	STA
0.37240383D 05	0.228831136D 06	0.372403841D 05	-0.0011	9	
0.77053477D 05	0.267844225D 06	0.770534753D 05	0.0017	16	
0.32594290D 05	0.309785034D 06	0.325942863D 05	0.0037	24	
0.72299778D 05	0.349490531D 06	0.722997851D 05	-0.0071	31	
0.33309788D 05	0.396900538D 06	0.333097938D 05	-0.0050	40	
0.73100383D 05	0.436691121D 06	0.731003781D 05	0.0049	47	
0.34100658D 05	0.484891391D 06	0.341006493D 05	0.0087	56	
0.73702350D 05	0.523693097D 06	0.737023561D 05	-0.0061	63	
0.29340467D 05	0.288602850D 05	0.293404567D 05	0.0103	71	
0.74546183D 05	0.740660170D 05	0.745461890D 05	-0.0060	79	
0.30051578D 05	0.115971406D 06	0.300515781D 05	-0.0001	87	
0.69751498D 05	0.155671329D 06	0.697515010D 05	-0.0030	94	

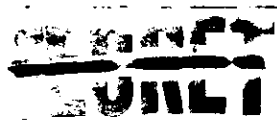
0.30727510D 05	0.203047342D 06	0.307275135D 05	-0.0035	103
0.70414893D 05	0.242734721D 06	0.704148919D 05	0.0011	110
0.31398553D 05	0.290118300D 06	0.313985499D 05	0.0031	119
4.71074008D 05	0.329793839D 06	0.710740078D 05	0.0002	126
.32031826D 05	0.377151663D 06	0.320318302D 05	-0.0042	135
0.71671088D 05	0.416790919D 06	0.716710847D 05	0.0033	142



A0=-0.1907907686D 06 A1= 0.100000000078D 01  
A2=-0.6864429946085D-13  
SIGMA=0.00483 NO. POINTS= 18

CLOCK OPERATIONS

OPN NO	FR		H	M	S	DEC	BINARY		
71	2	2	5	ON	8	32	13	30252	0000110011011001101111100000
				OFF	8	32	25	30264	0000110011011001101100000000
81	0	0	4	ON	23	36	38	84518	0010100001001101001000110000
				OFF	23	37	2	84542	00101000010100000001000110000
82	8	1	38	ON	1	5	56	89875	00101010110110110001000111000
				OFF	1	7	33	89972	00101010111001101110100100000
82	8	2	19	ON	1	8	17	90017	00101010111011000110011101000
				OFF	1	9	4	90064	00101010111100100010010000000
83	8	1	72	ON	2	38	59	95458	00101101100001001001011010000
				OFF	2	41	47	95626	00101101100110010001100010000
84	1	1	45	ON	4	9	24	100884	00110000000110101111000100000
				OFF	4	11	13	100993	00110000000101000001111101000
84	1	2	87	ON	4	13	11	101111	00110000000110110101001101000
				OFF	4	16	26	101306	00110000001001110011101001000
84	1	3	17	ON	4	22	38	101678	00110000001111011110111011000
				OFF	4	23	21	101721	00110000100000001000111010100
85	4	1	152	ON	5	43	8	106507	00110010110010010101011111000
				OFF	5	48	52	106851	00110010111100110101010111000
86	7	2	64	ON	7	8	44	111643	00110101001111000100101111000
				OFF	7	11	22	111801	00110101010011111001010101000
86	7	3	27	ON	7	12	52	111891	001101010101010101001000111000
				OFF	7	13	54	111953	00110101011000100010001010100
87	3	1	39	ON	8	42	17	117256	00110111111010010111101000000
				OFF	8	43	49	117348	00110111111101001010101010000
87	3	2	20	ON	8	48	37	117637	00111000000101111111110001000
				OFF	8	49	24	117684	00111000000110110111001000000
88	1	0	9	ON	9	51	27	121407	00111001111001000011000011000
				OFF	9	52	14	121454	00111001111010011110110110000
88	I	1	119	ON	10	11	26	122606	00111010011101101000110110000
				OFF	10	16	2	122802	00111010100110000011111010000
94	1	1	23	ON	19	21	56	155636	01001010001101101000100100000
				OFF	19	22	50	155690	01001010001111010010000010000
95	5	0	16	ON	20	52	44	161083	01001100110011110111001111000
				OFF	20	53	22	161121	01001100110101000001011010000
97	2	1	32	ON	23	46	28	171507	01010001110001111110100111000
				OFF	23	47	49	171508	01010001101000111001101000000
97	2	2	17	ON	23	57	59	172199	01010010000111000110001011000
				OFF	23	58	39	172239	01010010001000010100010011000
99	2	1	73	ON	2	50	43	182563	01010111000011011000010111000
				OFF	2	53	31	182731	01010111001000100000011111000



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180	1	1	59	ON	4	28	24	187943	01011001100111100100001011000
				OFF	4	22	44	188083	0101100110101111010100111000
180	1	2	84	ON	4	26	32	188312	0101100111001011010011000000
				OFF	4	29	40	188500	010110011110001001000000100000
1	4	1	42	ON	5	50	52	193371	010111000011010011010101111000
				OFF	5	52	32	193471	010111000100000100001000011000
181	4	2	104	ON	5	54	46	193606	01011100010100011000101110000
				OFF	5	58	38	193838	01011100010110110110110110000
182	8	1	28	ON	7	24	13	198972	010111011011000001001001100000
				OFF	7	25	1	199020	010111011011001100110111100000
182	8	2	26	ON	7	27	50	199190	010111011011110110010111110000
				OFF	7	28	51	199251	01011111000000101010000111000
182	8	3	33	ON	7	29	48	199308	0101111100001001100101110000
				OFF	7	31	3	199383	010111110001001010101111011000
183	1	1	113	ON	8	50	39	204159	01100001010110011100000011000
				OFF	8	55	3	204423	01100001011110011111101011000
184	6	1	79	ON	10	29	56	210115	01100100001100001100110111000
				OFF	10	32	56	210295	01100100010001010110001011000
185	3	1	65	ON	12	4	1	215761	01100110111000100000001101000
				OFF	12	6	34	215914	01100110111101001011000010000
186	3	8	5	ON	12	59	30	219090	01101000011110000110001010000
				OFF	12	59	56	219116	01101000011110111000111100000
188	3	0	4	ON	16	8	54	229973	01101101101010001110000001000
				OFF	16	1	20	229999	01101101101011000000110011000
189	1	1	20	ON	18	8	52	237172	01110001000101111010100100000
				OFF	18	1	39	237219	01110001000111010110010111000
118	2	1	17	ON	19	32	11	242650	01110011101101000101110010000
				OFF	19	32	51	242690	01110011101110010011111010000
114	1	1	34	ON	1	28	10	264010	01111101111000111100100010000
				OFF	1	29	32	264092	01111101111011011100101100000
5	1	1	101	ON	3	1	42	269622	1000000010010000110101110000
				OFF	3	5	29	269849	10000000101011001000110101000
116	9	1	138	ON	4	36	9	275289	10000011010001001001110101000
				OFF	4	41	22	275602	100000110110101010110100101000
116	9	2	58	ON	4	44	23	275782	10000011100000001100101110000
				OFF	4	46	34	275913	10000011100100001100100101000
117	5	2	34	ON	6	2	47	280487	10000101101111110010001011000
				OFF	6	4	4	280564	10000101110010001000100100000
117	5	3	120	ON	6	4	48	280600	1000010111001101110100000000
				OFF	6	9	18	280878	10000101111011101101110110000
118	6	1	94	ON	7	33	44	285943	10001000010110010010011011000
				OFF	7	37	16	286155	10001000011100110000011111000
119	2	1	54	ON	9	2	4	291243	10001010111000000001111111000
				OFF	9	4	10	291369	10001010111011111000000101000
119	2	2	41	ON	9	8	22	291622	10001011000011100110001110000
				OFF	9	9	54	291714	10001011000110011001111010000
121	8	1	46	ON	12	12	26	302666	10010000010100101000100010000
				OFF	12	14	12	302772	10010000010111110111100100000
121	8	2	37	ON	12	16	7	302886	1001000001011010110001110000
				OFF	12	17	40	302979	10010000011110001011110111000
126	8	1	17	ON	19	43	19	329719	10011101001110001110011011000

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	OFF	19	43	58	329758	1001110101110101010110000
30 3 1 55	ON	1	38	48	351047	1010011101100100011010101000
	OFF	1	48	55	351174	1010011101110011110101110000
41 8 1 101	ON	3	11	48	356627	10101010000011011001000111000
	OFF	3	15	37	356856	101010100001010011000011000000
31 8 2 28	ON	3	28	5	357684	10101010100001001101010100000
	OFF	3	29	31	357690	10101010100011110101010010000
32 1 1 158	ON	4	45	28	362247	10101100101110111001101011000
	OFF	4	51	27	362606	10101100111001110110110110000
33 1 1 15	ON	5	49	4	366064	10101110100011011000110000000
	OFF	5	50	11	366131	101011101000101011011100111000
33 1 2 167	ON	6	13	20	367520	10101111001111110100100000000
	OFF	6	19	38	367898	10101111011011010110110010000
34 8 1 93	ON	7	45	1	373021	10110001110111101100101001000
	OFF	7	48	32	373232	10110001111100010001100000000
35 7 1 75	ON	9	15	25	378445	1011010001110100111011001001000
	OFF	9	18	12	378612	10110100100010010100100100000
36 1 1 55	ON	10	44	46	383886	10110111000000110101000110000
	OFF	10	46	49	383929	10110111000100100101010101000
42 1 1 18	ON	19	53	39	416739	11000110101101110111010111000
	OFF	19	54	21	416781	11000110101111001001011001000

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