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SUPPLEMENT A

Copy No. 9 Pages
(Including Cover Sheet)

CORONA "J" FLIGHT DATA BOOK

SYSTEM NO. J-10

VEHICLE NO. 1177

MISSION NO. 1008

CAMERA NOS. 150/151

Prepared by: [REDACTED]

Checked by: _____

Approved by: _____

Approved by: _____, Manager

Declassified and Released by the NRO
In Accordance with E. O. 12958
on NOV 26 1997

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SYSTEM NO. _____
VEHICLE NO. _____
MISSION NO. _____
CAMERA NOS. _____

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GENERAL FLIGHT DATA:

Master Camera Serial No. 150

Slave Camera Serial No. 151

Stellar Index "A" Serial No. D48/45/48

Stellar Index "B" Serial No. D33/28/33

Launch Date JULY 10, 1964

Reactivation Date NONE

Reactivation Orbit No. -

Orbital Parameters: (Rev. 76)

Period 90.93 Min.

Eccentricity 0.02176

Perigee 101.21 NM

Perigee Latitude 57.79 Deg. N

Apogee 258.56 NM

Inclination Angle 84.99 Deg. N

Recovery Orbit No. 112

Recovery Date JULY 17

REMARKS:



SYSTEM NO. J-10
 VEHICLE NO. 1177
 MISSION NO. 1008
 CAMERA NOS. 150/151

CYCLE PERIOD DATA:

PRE-FLIGHT CYCLE PERIODS:

V/H Ramp Level	V/H Ramp Amplitude	Cycle Period Seconds		Time Up Ramp Sec
		Master	Slave	
11	1	13.087	14.644	0
11	1	5.237	5.337	1030
11	1	4.898	4.983	1095
11	1	4.647	4.711	1148
11	1	4.379	4.432	1210
11	1	2.191	2.253	2400
11	1	2.322	2.334	2800

BOTTOM

TOP

IN-FLIGHT CYCLE PERIODS

V/H Ramp Level	V/H Ramp Amplitude	Cycle Period Seconds		Orbit No.	Time Up Ramp Sec
		Master	Slave		
11	1	5.195	5.328	56	1030
11	1	4.905	5.057	71	1095
11	1	4.650	4.810	87	1148
11	1	4.410	4.530	103	1210
11	1	2.380	2.400	110	2800

SYSTEM NO. J-10
VEHICLE NO. 1117
MISSION NO. 1008
CAMERA NOS. 150/131

PRELIMINARY CLOCK CORRELATION:

ORBIT	SYSTEM TIME	CLOCK TIME	DIFFERENCE
<u>56</u>	<u>42349.995</u>	<u>282474.846</u>	<u>+0.008</u>
<u>63</u>	<u>82097.355</u>	<u>322222.245</u>	<u>+0.039</u>
<u>71</u>	<u>37800.835</u>	<u>364325.730</u>	<u>+0.005</u>
<u>79</u>	<u>82995.570</u>	<u>409520.473</u>	<u>+0.008</u>
<u>87</u>	<u>38694.250</u>	<u>451619.169</u>	<u>+0.216</u>
<u>94</u>	<u>78517.867</u>	<u>491442.797</u>	<u>-0.089</u>
<u>103</u>	<u>39565.490</u>	<u>2019.534</u>	<u>+0.025</u>
<u>110</u>	<u>79277.130</u>	<u>41731.192</u>	<u>+0.018</u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>

0.016
+0.011



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SYSTEM NUMBER J-10
VEHICLE NUMBER 1177
MISSION NUMBER 1008
PANORAMIC CAMERA NUMBERS 150 AND 151
STELLAR/INDEX CAMERA NUMBER D33/28/33

B MISSION
PERFORMANCE ESTIMATE

SUB	PROG	CAM NO.	PAN FR.	SI FR.	LAT.		TIME ON		TUR NO	DUR SEC.	SOLAR		EXPOS.			
					ON	OFF	ZD	ST			ON	OFF	ON	OFF		
*47	4	1	150	70	10	238	228	1381191	11	1	2477	153	48	48	2.9	3.0
*47	4	1	151	70		239	229	1381191	11	1	2477	153	48	48	2.9	3.0
CUT/WRAP		150	4	00		258	257	14 5393	11	1	2137	23	44	44	8.4	8.4
CUT/WRAP		151	4			261	259	14 5393	11	1	2137	23	42	43	8.4	8.4
49	9	0	150	18	03	223	220	14 5927	11	1	2671	42	50	50	3.3	3.3
49	9	0	151	18		224	221	14 5927	11	1	2671	42	50	50	3.3	3.3
52	9	1	150	60	08	278	268	1421488	11	1	1909	146	32	38	3.4	3.2
52	9	1	151	60		279	269	1421488	11	1	1909	146	31	38	3.4	3.2
52	9	2	150	36	05	266	260	1421671	11	1	2092	83	40	43	3.2	3.1
52	9	2	151	36		267	261	1421671	11	1	2092	83	39	43	3.2	3.1
52	9	3	150	102	15	254	238	1421849	11	1	2270	229	46	51	3.0	3.0
52	9	3	151	101		255	239	1421849	11	1	2270	229	46	51	3.1	3.0
53	2	1	150	37	05	255	249	1427292	11	1	2560	84	46	48	3.1	3.1
53	2	1	151	37		256	250	1427292	11	1	2560	84	45	48	3.1	3.1
54	5	1	150	133	19	259	238	1432690	11	1	2204	303	44	51	3.1	3.0
54	5	1	151	134		260	239	1432690	11	1	2204	303	43	51	3.1	3.0
55	8	1	150	144	21	276	253	1437892	11	1	1952	338	33	46	3.3	3.0
55	8	1	151	144		277	254	1437892	11	1	1952	338	33	46	3.3	3.0
55	8	2	150	51	07	250	242	1438280	11	1	2340	112	48	50	3.0	3.0
55	8	2	151	51		251	243	1438280	11	1	2340	112	47	50	3.0	3.0
56	9	0	150	9	01	139	142	1442393	11	1	997	44	13	11	7.4	7.1
56	9	0	151	8		137	140	1442393	11	1	997	44	14	12	8.4	8.0
56	9	1	150	42	06	272	265	1443410	11	1	2014	99	36	40	3.2	3.1
56	9	1	151	42		273	266	1443410	11	1	2014	99	36	40	3.3	3.2
56	9	2	150	115	17	260	242	1443588	11	1	2193	260	43	50	3.1	3.0
56	9	2	151	114		261	243	1443588	11	1	2193	260	43	50	3.1	3.0
57	10	1	150	76	11	256	244	1449104	11	1	2256	172	45	49	3.1	3.0
57	10	1	151	76		257	245	1449104	11	1	2256	172	45	49	3.1	3.0
68	3	1	150	36	05	254	248	1522761	11	1	2335	82	47	49	3.1	3.1
68	3	1	151	36		255	249	1522761	11	1	2335	82	47	49	3.1	3.1
68	3	2	150	48	07	246	238	1522880	11	1	2455	111	50	52	3.1	3.2
68	3	2	151	48		246	239	1522880	11	1	2455	111	50	52	3.1	3.2
69	3	1	150	81	11	244	231	1528363	11	1	2478	185	51	52	3.0	3.1
69	3	1	151	80		245	232	1528363	11	1	2478	185	50	52	3.1	3.2
70	3	1	150	95	14	257	242	1533625	11	1	2289	216	45	51	3.1	3.1
70	3	1	151	95		258	243	1533625	11	1	2289	216	45	51	3.1	3.1
71	9	0	150	9	01	139	142	1537841	11	1	1053	45	14	12	7.6	7.2
71	9	0	151	9		137	140	1537841	11	1	1053	45	16	13	7.6	7.2
71	9	1	150	49	07	271	263	1538873	11	1	2085	115	37	42	3.2	3.1
71	9	1	151	49		272	264	1538873	11	1	2085	115	36	41	3.2	3.1
71	9	2	150	42	06	261	254	1539024	11	1	2236	95	43	47	3.1	3.1

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71	9	2	151	42		262	255	1539024	11	1	2236	95	43	46	3.1	3.1
71	9	3	150	43	06	252	245	1539156	11	1	2368	96	48	50	3.1	3.1
71	9	3	151	43		253	246	1539156	11	1	2368	96	47	50	3.1	3.1
71	9	4	150	43	06	242	235	1539302	11	1	2514	97	51	52	3.1	3.1
71	9	4	151	43		243	236	1539302	11	1	2514	97	51	52	3.1	3.1
72	10	1	150	139	20	264	242	1544433	11	1	2194	320	41	51	3.1	3.1
72	10	1	151	139		265	243	1544433	11	1	2194	320	41	51	3.1	3.1
72	10	2	150	36	05	233	227	1544887	11	1	2649	83	52	52	3.1	3.2
72	10	2	151	36		234	228	1544887	11	1	2649	83	52	52	3.1	3.2
83	4	1	150	43	07	264	257	1618051	11	1	2235	98	42	46	3.1	3.1
83	4	1	151	42		264	258	1618051	11	1	2235	98	42	46	3.1	3.1
83	4	2	150	43	06	253	246	1618214	11	1	2398	98	48	51	3.1	3.1
83	4	2	151	43		253	247	1618214	11	1	2398	98	48	51	3.1	3.1
84	2	1	150	50	07	255	247	1623638	11	1	2368	114	47	51	3.1	3.1
84	2	1	151	49		256	248	1623638	11	1	2368	114	47	50	3.1	3.2
85	3	1	150	44	06	259	252	1629033	11	1	2314	99	45	48	3.1	3.1
85	3	1	151	44		260	253	1629033	11	1	2314	99	44	48	3.1	3.1
85	3	2	150	48	07	244	236	1629254	11	1	2534	112	52	54	3.1	3.2
85	3	2	151	48		245	237	1629254	11	1	2534	112	52	54	3.1	3.2
86	9	1	150	239	34	278	241	1634202	11	1	2033	545	32	53	3.2	3.0
86	9	1	151	238		278	242	1634202	11	1	2033	545	31	52	3.2	3.0
87	9	0	150	10	02	139	142	1638736	11	1	1116	44-15-13			6.6	6.3
87	9	0	151	9		138	141	1638736	11	1	1116	44-16-14			7.4	7.0
87	9	1	150	43	06	267	260	1639824	11	1	2205	98	40	44	3.1	3.1
87	9	1	151	43		268	261	1639824	11	1	2205	98	39	44	3.1	3.1
87	9	2	150	94	13	256	241	1639988	11	1	2368	215	47	53	3.1	3.1
87	9	2	151	93		257	242	1639988	11	1	2368	215	46	52	3.1	3.1
88	1	1	150	159	23	264	239	1645322	11	1	2201	364	42	53	3.1	3.1
88	1	1	151	159		265	240	1645322	11	1	2201	364	41	53	3.1	3.1
88	1	2	150	36	05	233	227	1645777	11	1	2657	83	54	54	3.1	3.2
88	1	2	151	36		234	228	1645777	11	1	2657	83	54	54	3.1	3.2
99	10	1	150	37	05	275	269	1718756	11	1	2127	85	34	39	3.2	3.1
99	10	1	151	37		276	270	1718756	11	1	2127	85	34	38	3.2	3.1
99	10	2	150	166	24	266	240	1718892	11	1	2263	380	41	55	3.1	3.1
99	10	2	151	165		267	241	1718892	11	1	2263	380	41	55	3.1	3.1
100	5	1	150	50	07	278	271	1724165	11	1	2085	116	32	38	3.2	3.1
100	5	1	151	49		279	271	1724165	11	1	2085	116	31	37	3.2	3.1
100	5	2	150	43	06	255	248	1724511	11	1	2430	96	49	52	3.0	3.1
100	5	2	151	43		256	249	1724511	11	1	2430	96	48	52	3.1	3.1
100	5	3	150	78	11	246	233	1724643	11	1	2562	183	53	57	3.1	3.2
100	5	3	151	78		247	234	1724643	11	1	2562	183	53	57	3.1	3.3
100	5	4	150	62	09	231	220	1724863	11	1	2783	154	57	57	3.3	3.5
100	5	4	151	61		232	221	1724863	11	1	2783	154	57	57	3.3	3.6
102	8	1	150	38	06	283	278	1734988	11	1	2009	90	27	32	3.3	3.2
102	8	1	151	38		283	278	1734988	11	1	2009	90	26	32	3.3	3.2
102	8	2	150	146	21	266	244	1735255	11	1	2276	333	41	54	3.1	3.1
102	8	2	151	146		267	244	1735255	11	1	2276	333	41	54	3.1	3.1
103	2	0	150	10	01	139	142	1739606	11	1	1176	45-17-15			6.7	6.4
103	2	0	151	10		137	140	1739606	11	1	1176	45-19-16			6.7	6.4
103	2	1	150	55	08	255	246	1740870	11	1	2440	129	48	53	3.1	3.2
103	2	1	151	55		256	247	1740870	11	1	2440	129	48	53	3.1	3.2
104	6	1	150	81	11	256	244	1746307	11	1	2426	185	48	54	3.1	3.1
104	6	1	151	81		257	245	1746307	11	1	2426	185	47	54	3.1	3.1



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110 3 1 150 42 06 239 232 1779288 11 1 2713 101 56 57 3.2 3.3
110 3 1 151 41 240 233 1779288 11 1 2713 101 56 57 3.3 3.4

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

AAA BB C DDD EEE FF GHH GII JJKKKKK LL M NNNN OOO PP QQ RRR SSS

- A ORBITAL TIMER SUBCYCLE NUMBER
- B PROGRAM NUMBER
- C OPERATION NUMBER
- D PAN. CAMERA SERIAL NUMBER (MASTER IS EVEN, SLAVE IS ODD)
- E EST. NO OF PAN FRAMES, BASED ON COUNTER READINGS INFLITE
- F EST. NUMBER OF STELLAR/INDEX FRAMES
- G QUADRANT
- H EST. LATITUDE OF FIRST FORMAT CENTER IN PASS
- I EST. LATITUDE OF LAST FORMAT CENTER IN PASS
- J ZULU DATE
- K SYSTEM TIME IN SECONDS (GMT)
- L FMC PROGRAMMER REFERENCE LEVEL
- M FMC PROGRAMMER AMPLITUDE LEVEL
- N EST. TIME UP RAMP IN SECONDS TO OPERATE COMMAND
- O EST. SECONDS DURATION OF OPERATION, BETWEEN ON AND OFF
- P SOLAR ELEVATION AT ITEM H
- Q SOLAR ELEVATION AT ITEM I
- R EST. MILLISECONDS EXPOSURE TIME AT ITEM H
- S EST. MILLISECONDS EXPOSURE TIME AT ITEM I

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

- NOTES (1) LAST 5 FRAMES OF OPN 47-4-1 CONTAINED IN THIS CAPSULE
- (2) DATA INDICATE FILM DEPLETION DURING OPN 104-6-1 FOR CAMERA 150, AND DURING OPN 110-3-1 FOR CAMERA 151.
- (3) OPN 110-3-1 SHORTENED DUE TO RESET FOR RECOVERY.

RAMP PROFILES

J-10 RAMP		R-11 A-1	
R=	0.2669	A=	0.1946
TIME PERIOD		CPS	RAMP PERIOD= 4800
			GAV
0	13.831	0.0723	0.00654
100	13.592	0.0736	0.00665
200	12.923	0.0774	0.00700
300	11.951	0.0837	0.00757
400	10.826	0.0924	0.00835
500	9.676	0.1033	0.00935
600	8.586	0.1165	0.01053
700	7.601	0.1316	0.01190
800	6.737	0.1484	0.01343
900	5.993	0.1669	0.01509
1000	5.359	0.1866	0.01688
1100	4.822	0.2074	0.01876
1200	4.368	0.2289	0.02071
1300	3.984	0.2510	0.02270

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1400 3.631 0.2754 0.02491
1500 3.280 0.3049 0.02757
1600 2.999 0.3335 0.03016
1700 2.774 0.3605 0.03261
1800 2.595 0.3854 0.03485
1900 2.454 0.4075 0.03685
2000 2.346 0.4263 0.03856
2100 2.265 0.4414 0.03993
2200 2.210 0.4525 0.04093
2300 2.179 0.4589 0.04151
2400 2.179 0.4589 0.04151
2500 2.179 0.4589 0.04151
2600 2.210 0.4525 0.04093
2700 2.265 0.4414 0.03993
2800 2.346 0.4263 0.03856
2900 2.454 0.4075 0.03685
3000 2.595 0.3854 0.03485
3100 2.774 0.3605 0.03261
3200 2.999 0.3335 0.03016
3300 3.280 0.3049 0.02757
3400 3.631 0.2754 0.02491
3500 3.984 0.2510 0.02270
3600 4.368 0.2289 0.02071
3700 4.822 0.2074 0.01876
3800 5.359 0.1866 0.01688
3900 5.993 0.1669 0.01509
4000 6.737 0.1484 0.01343
4100 7.601 0.1316 0.01190
4200 8.586 0.1165 0.01053
4300 9.676 0.1033 0.00935
4400 10.826 0.0924 0.00835
4500 11.951 0.0837 0.00757
4600 12.923 0.0774 0.00700
4700 13.592 0.0736 0.00665
4800 13.831 0.0723 0.00654

15	15
46	46
96	96
127	127
59	59
58	58
12	12
64	64
138	138
74	74
137	137
102	102
91	91
08	08
145	145
78	78
36	36
274	274
43	43
210	210
159	159
08	08
224	224
88	88
58	58
<u>2837</u>	<u>2818</u>
FWD	AFT

TOTAL
 FWD 2837
 AFT 2818
5655

M-7860 ft steel
 S-7795 ft steel

2837
 19
2818

D-38 984
 D-22-164
 35
 86
121

64 ft
 108 ft

Fwd-Last frame as 1/2 in frame on 58
 At last frame as 54