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PAGE
SERIAL No. 1
Copy No. 47 Pages
(Including Cover Sheet)

CORONA "J" FLIGHT DATA BOOK

SYSTEM NO. J-21

VEHICLE NO. 1615

MISSION NO. 1021

CAMERA NO. 166 & 167

Prepared by: [REDACTED]

Checked by: [REDACTED]

Approved by: [REDACTED]

Approved by: [REDACTED]

Declassified and Released by the N R O

In Accordance with E. O. 12958

on NOV 26 1997

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27 MAY 1998

NC
SYSTEM NO. J-21
VEHICLE NO. 1615
MISSION NO. 1021
CAMERA NOS. 166 & 167

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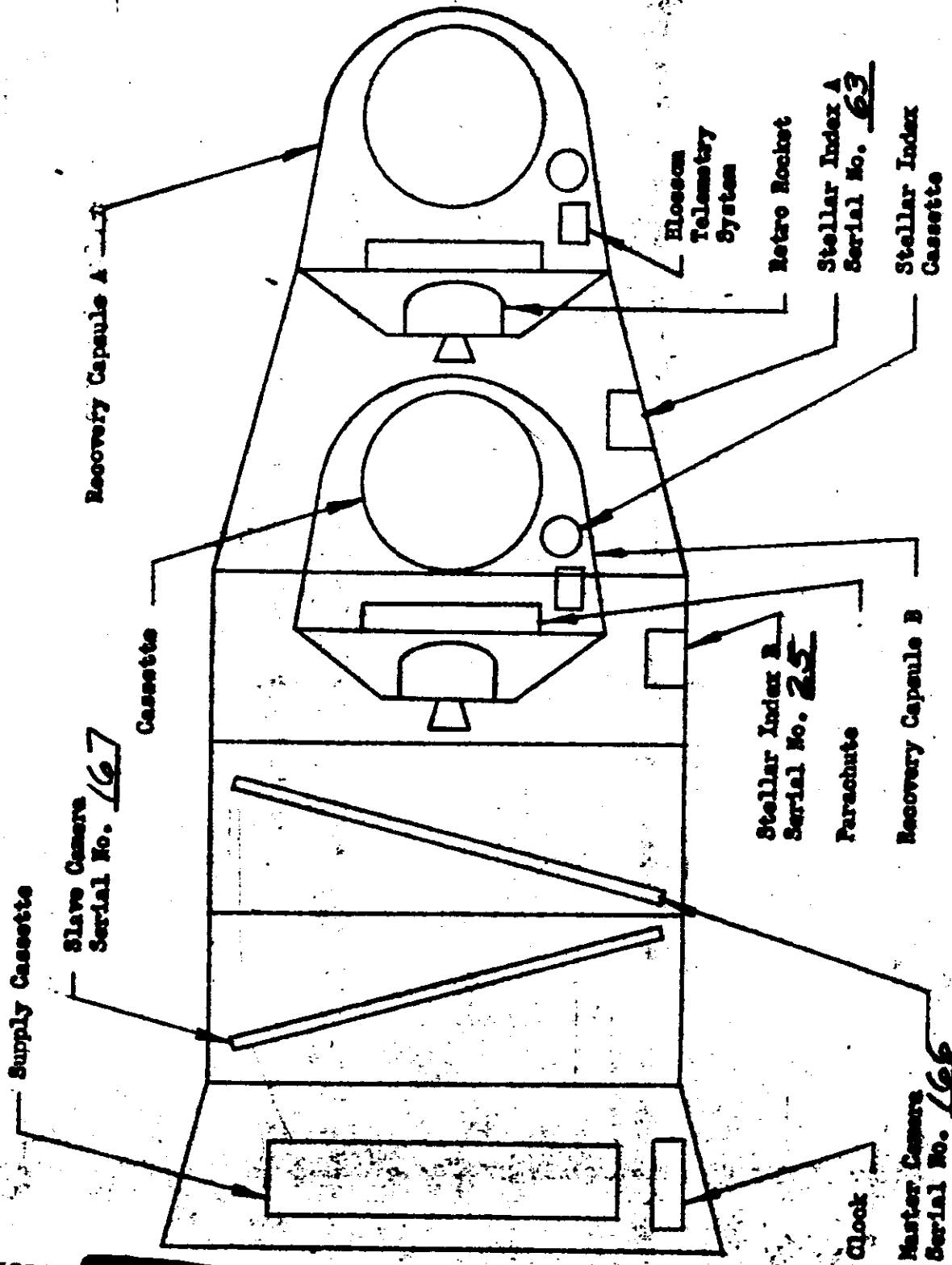
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VEHICLE LAYOUT:

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GENERAL FLIGHT DATA:

Master Camera Serial No. 166

Slave Camera Serial No. 167

Stellar Index "A" Serial No. D63/69/69

Stellar Index "B" Serial No. D25/27/25

Launch Date 18 MAY, 1965

Reactivation Date NONE

Reactivation Orbit No. NONE

Orbital Parameters: (Rev. 40)

Period 89.81 Min.

Eccentricity .00988

Perigee 109.17 NM

Perigee Latitude 24.288 Deg. N

Apogee 180.06 NM

Inclination Angle 75.02 Deg. N

Recovery Orbit No. 81

Recovery Date 23 MAY, 1965

REMARKS:

VEHICLE IS NOT YAWED AROUND ON THIS MISSION; THEREFORE, FLIGHT DIRECTION IS IN THE FORWARD DIRECTION, I.E. MASTER CAMERA LOOKING AFT DURING FLIGHT, AND SLAVE CAMERA LOOKING FORWARD DURING FLIGHT. REFER TO VEHICLE LAYOUT PAGE 3.

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LENS DATA SUMMARY: Master Camera No. 166 ✓

Lens Serial No. 1852435 ✓

Slit Width .175 Inch

Filter Type WRATTEN 21

Equivalent Operational Focal Length 609.60 MM {24.000} ✓

Resolution:

Static:

	Lines/MM	Film Type	Target Contrast
Wench Test	<u>266</u> ✓	<u>50-132</u>	<u>HIGH</u>
Other	<u>146</u>	<u>50-132</u>	<u>LOW</u>

Dynamic:

	Lines/MM	Film Type	Target Contrast
Post Itak Pre -Vibration	<u>208</u>	<u>50-132</u>	<u>HIGH</u>
Itak Post Vibration	<u>127</u>	<u>50-132</u>	<u>LOW</u>
AP	<u>107</u>	<u>50-132</u>	<u>LOW</u>
AP	<u>208</u>	<u>50-132</u>	<u>HIGH</u>
Other	_____	_____	_____

Note: Itak Post Vibration Resolution of 208 lines/MM Reported In
Message No. _____ dated _____

Distortion - Positive (Pincushion)

Angle Off Axis Deg.	<u>3</u>	<u>2</u>	<u>1</u>	<u>0</u>	<u>359</u>	<u>358</u>	<u>357</u>		
Distortion Millimeters	<u>.001</u>	<u>.000</u>	<u>.000</u>	<u>.000</u>	<u>.001</u>	<u>.001</u>	<u>.001</u>		

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LENS DATA SUMMARY: (Horizon Cameras for ~~MASTER~~ Camera No. 166)

	Take-Up	Supply
Lens Serial No.	<u>813528</u>	<u>812294</u>
Exposure Time	<u>1/100</u> Sec.	<u>1/100</u> Sec.
Filter Type	<u>WRATTEN 25</u>	<u>WRATTEN 25</u>
Aperture	<u>F8.0</u>	<u>F6.8</u>
Operational Focal Length	<u>54.77</u> MM	<u>55.53</u> MM
Radial Distortion:		
10° off Axis	<u>.000</u> MM	<u>-.001</u> MM
20° off Axis	<u>.003</u> MM	<u>-.002</u> MM
Tangential Distortion (Maximum Vector)	<u>.007</u> MM	<u>.003</u> MM

Resolution:

Angle off Axis Deg.	0	5	10	15	20	25	27.5	0	5	10	15	20	25	30
Radial Resolution	164	164	153	126	109	125	60	189	164	144	112	103	112	25
Tangential Resolution	164	129	126	96	91	60	51	164	145	134	108	91	60	28

Notes:

1. Distortion and resolution are read at equivalent operational focal length.
2. Resolution in lines per mm on 4404 film and HIGH contrast target.

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VEHICLE NO. 1615

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CAMERA NOS. 166 & 167

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LENS DATA SUMMARY: Slave Camera No. 167

Lens Serial No. 150 2435

Slit Width .250 Inch

Filter Type WRATTEN 25

Equivalent Operational Focal Length 609.60 MM

Resolution:

Static:

	<u>Lines/MM</u>	<u>Film Type</u>	<u>Target Contrast</u>
Bench Test	<u>239</u> ✓	<u>SO-132</u>	<u>HIGH</u>
Other	<u>144</u>	<u>SO-132</u>	<u>LOW</u>

Dynamic:

Itek ^{Post} Pre Vibration	<u>134</u> ✓	<u>SO-132</u>	<u>LOW</u>
Itek Post Vibration	<u>177</u>	<u>SO-132</u>	<u>HIGH</u>
AP	<u>116</u> ✓	<u>SO-132</u>	<u>Low</u>
AP	<u>187</u> ✓	<u>SO-132</u>	<u>HIGH</u>
Other	_____	_____	_____

NOTE: Itek Post Vibration Resolution of 177 lines/MM Reported In

Message No. _____ dated _____.

Distortion - Positive (Pincushion)

Angle Off Axis Deg.	<u>3</u>	<u>2</u>	<u>1</u>	<u>0</u>	<u>359</u>	<u>358</u>	<u>357</u>		
Distortion Millimeters	<u>.006</u>	<u>.004</u>	<u>.001</u>	<u>.000</u>	<u>.000</u>	<u>.002</u>	<u>.002</u>		

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SYSTEM NO. J-21
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LENS DATA SUMMARY: (Horizon Cameras for SLAVE Camera No. 167)

	<u>Take-Up</u>	<u>Supply</u>
Lens Serial No.	<u>813529</u>	<u>814021</u>
Exposure Time	<u>1/100</u> Sec.	<u>1/100</u> Sec.
Filter Type	<u>WRATTEN 25</u>	<u>WRATTEN 25</u>
Aperture	<u>F 8.0</u> 2.8	<u>F 6.8</u> 2.8
Operational Focal Length	<u>54.30</u> MM	<u>54.56</u> MM
Radial Distortion:		
10° off Axis	<u>.002</u> MM	<u>.002</u> MM
20° off Axis	<u>.009</u> MM	<u>.008</u> MM
Tangential Distortion (Maximum Vector)	<u>.003</u> MM	<u>.005</u> MM

Resolution:

Angle off Axis Deg.	0	10	15	20	25	27.5	
Radial Resolution	166	130	101	98	68	57	
Tangential Resolution	166	128	98	73	58	42	

Angle off Axis Deg.	0	10	15	20	25	27.5	
Radial Resolution	170	125	92	91	66	46	
Tangential Resolution	170	123	89	85	50	42	

NOTE:

- Distortion and resolution are read at equivalent operational focal length.
- Resolution in lines per MM on 4404 film and HIGH contrast target.

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LENS DATA SUMMARY STELLAR INDEX D63/69/69 "A" MISSION

	<u>Stellar</u>	<u>Index</u>
Lens Serial No.	<u>10605</u>	<u>817459</u>
Reseau Serial No.	<u>69</u>	<u>69</u>
Filter Type	<u>NONE</u>	<u>WRITTEN 21</u>
Aperture	<u>F 1.8</u>	<u>F 4.5</u>
Exposure Time	<u>2.0</u> Sec.	<u>1/500</u> Sec.
Equivalent Focal Length	<u>84 NOMINAL</u> MM	<u>38.54</u> MM

Resolution:

Angle Off Axis	0°	10°	20°	30°	35°
Resolution L/MM High Contrast	<u>76/74</u>	<u>76/74</u>	<u>99/88</u>	<u>101/46</u>	<u>88/25</u>

NOTE: Index Resolution of 73 Lines/MM AWAR
Read From 4400 Film.

Distortion:

All distortions less than maximum allowable. Full Data to be reported as part of Photogrameter Data Reduction.

Alignment:

.0008 "/.937 Inches .0005 "/2.25 Inches

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LENS DATA SUMMARY STELLAR INDEX D 25/27/25 B MISSION

	Stellar		Index
Lens Serial No.	<u>10453</u>		<u>811709</u>
Reseau Serial No.	<u>25</u>		<u>27</u>
Filter Type	<u>NONE</u>		<u>WRATTEN 21</u>
Aperture	<u>F/1.8</u>		<u>F/4.5</u>
Exposure Time	<u>2</u>	Sec.	<u>1/500</u> Sec.
Equivalent Focal Length	<u>84.18</u>	MM	<u>38.28</u> MM

Resolution:

Angle Off Axis	0	10	20	30	35
Resolution L/MM	90	96	113	91	82
High Contrast	81	86	83	59	32

NOTE: Index Resolution of 72 Lines/MM AMAR
 Read From 4400 Film

Distortion:

All distortions less than maximum allowable. Full Data to be reported as part of Photogrameter Data Reduction.

Alignment:

0.07 MM 0.01 Inches 0.000 1/2.25 Inches

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DEFINITION OF PANORAMIC CAMERA FORMAT CALIBRATIONS:

- 1.0 Measurements are made with respect to collimator targets fixed with respect to the mechanical interface between the total payload assembly and the orbital vehicle.
- 2.0 Two sets of three targets each, are aligned to be coplanar within $\pm 5''$ of arc so positioned to form an angle of $\pm 15.00^\circ \pm 5''$ to the mechanical interface for master camera calibrations and an angle of $\pm 15.00^\circ \pm 5''$ to the mechanical interface for slave camera calibrations.
 - 2.1 One target, Target 1 of each set is imaged on the Terrain format.
 - 2.2 The second and third targets of each set are at angles of $75.00^\circ \pm 5''$ from target one and are imaged on the horizon formats.
- 3.0 The indicated center of format for the panoramic cameras is given by the intersection of a line through the center of mass of the central shrinkage marker drawn normal to the edge of format containing the shrinkage marker and a line parallel to the same edge located at a position half-way between the format edges.
- 4.0 The indicated principal points of the horizon cameras are the points of intersection of lines joining opposite fiducials.
- 5.0 X_0 and Y_0 are the offsets of Target 1 from the indicated center of format of the panoramic cameras as defined in Paragraph 3.
- 6.0 X_s , Y_s and X_t , Y_t are the offsets of Targets 2 and 3 from the indicated principal points of the supply and take-up horizon cameras respectively.
- 7.0 The indicated flight direction is the direction of vehicle travel during orbit. The forward edge of format is the edge opposite the shrinkage markers for the master camera and is the edge containing the shrinkage markers for the slave camera.
- 8.0 Dimensions A, B and C are the spacings of the shrinkage markers and dimensions D and E are the spacings of the Y Axis fiducials. Techniques for exact measurement of these dimensions have not been developed. The figures quoted are measurements made on hand processed film without control of shrinkage.
- 9.0 The format dimensions are measured to the best estimate of format edge.
- 10.0 Measurement of the angle between the indicated axis of the panoramic cameras and the line of intersection of the plane defined in Paragraph 2 on the format is obtained from the offset dimensions D_{x1} and D_{y1} of Target 1 for each camera.
- 11.0 Measurement of the angle between the indicated axis of the horizon cameras and the line of intersection of the plane defined in Paragraph 2 on the format is made by measuring the scan direction offset of the targets defined in Paragraph 2.2 at a fixed distance from the target center in the Y direction. Dimensions D_{x1} , D_{y1} , D_{x2} and D_{y2} are the effects of these measurements.

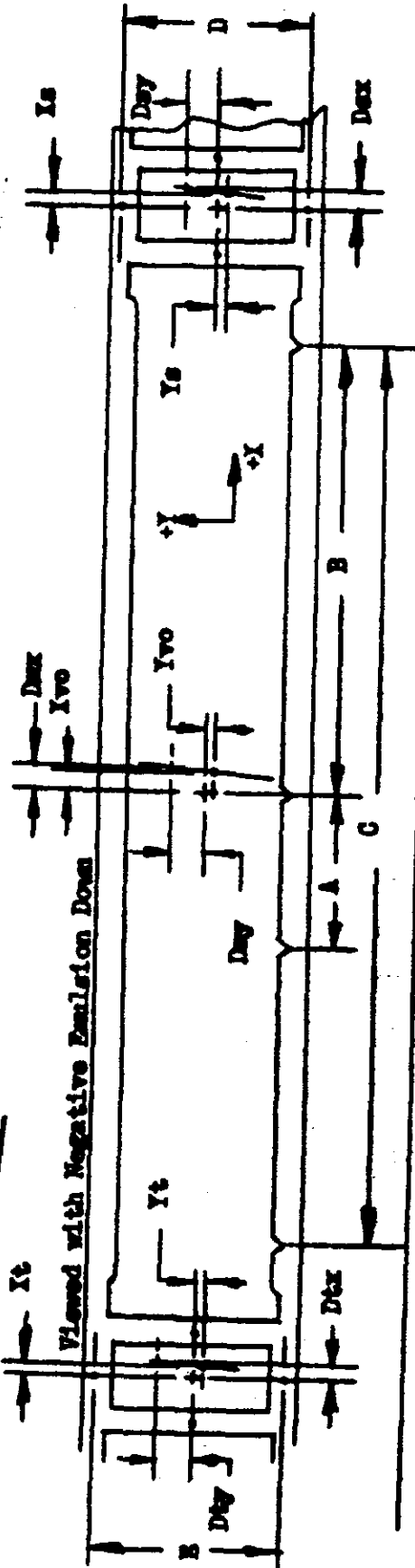
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FORMAT DIMENSIONS: (PANORAMIC CAMERAS)

NO. [REDACTED]



Camera No. <u>167</u>	Vehicle Motion	Seen Direction	Panoramic Take-Up	Supply
A <u>76.099</u>	$X_t + 0.516$	$D_{tz} + 0.514$	<u>N/A</u>	<u>N/A</u>
B <u>355.119</u>	$Y_t + 0.060$	$D_{ty} + 2.060$	<u>N/A</u>	<u>N/A</u>
C <u>710.111</u>	$X_s - 0.333$	$D_{sz} - 0.342$	<u>N/A</u>	<u>N/A</u>
D <u>56.463</u>	$Y_s - 0.179$	$D_{sy} - 3.179$	<u>N/A</u>	<u>N/A</u>
E <u>56.433</u>	$X_{vo} - 0.091$	$D_{vz} - 0.058$	<u>N/A</u>	<u>N/A</u>
	$X_{vo} + 1.787$	$D_{vy} + 11.787$		

Format Dimensions:

Height	Width	Panoramic Take-Up	Supply
<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

Camera No. <u>166</u>	Vehicle Motion	Seen Direction	Panoramic Take-Up	Supply
A <u>76.099</u>	$X_t + 0.168$	$D_{tz} + 0.169$	<u>N/A</u>	<u>N/A</u>
B <u>354.992</u>	$Y_t - 0.046$	$D_{ty} + 2.954$	<u>N/A</u>	<u>N/A</u>
C <u>709.984</u>	$X_s + 0.366$	$D_{sz} + 0.371$	<u>N/A</u>	<u>N/A</u>
D <u>56.464</u>	$Y_s - 0.176$	$D_{sy} - 2.176$	<u>N/A</u>	<u>N/A</u>
E <u>56.482</u>	$X_{vo} + 0.163$	$D_{vz} + 0.153$	<u>N/A</u>	<u>N/A</u>
	$X_{vo} + 1.437$	$D_{vy} + 11.437$		

Format Dimensions:

Height	Width	Panoramic Take-Up	Supply
<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

Notes:
 1. All dimensions are in millimeters and are average dimensions of three formats.
 2. Height of main format is taken at center of format.
 3. D_t , D_s , D_v , X and Y dimensions are taken IONM above point defining target center.
 4. Format Sign Convention

$-X+Y$	$+X+Y$
$-X-Y$	$+X-Y$

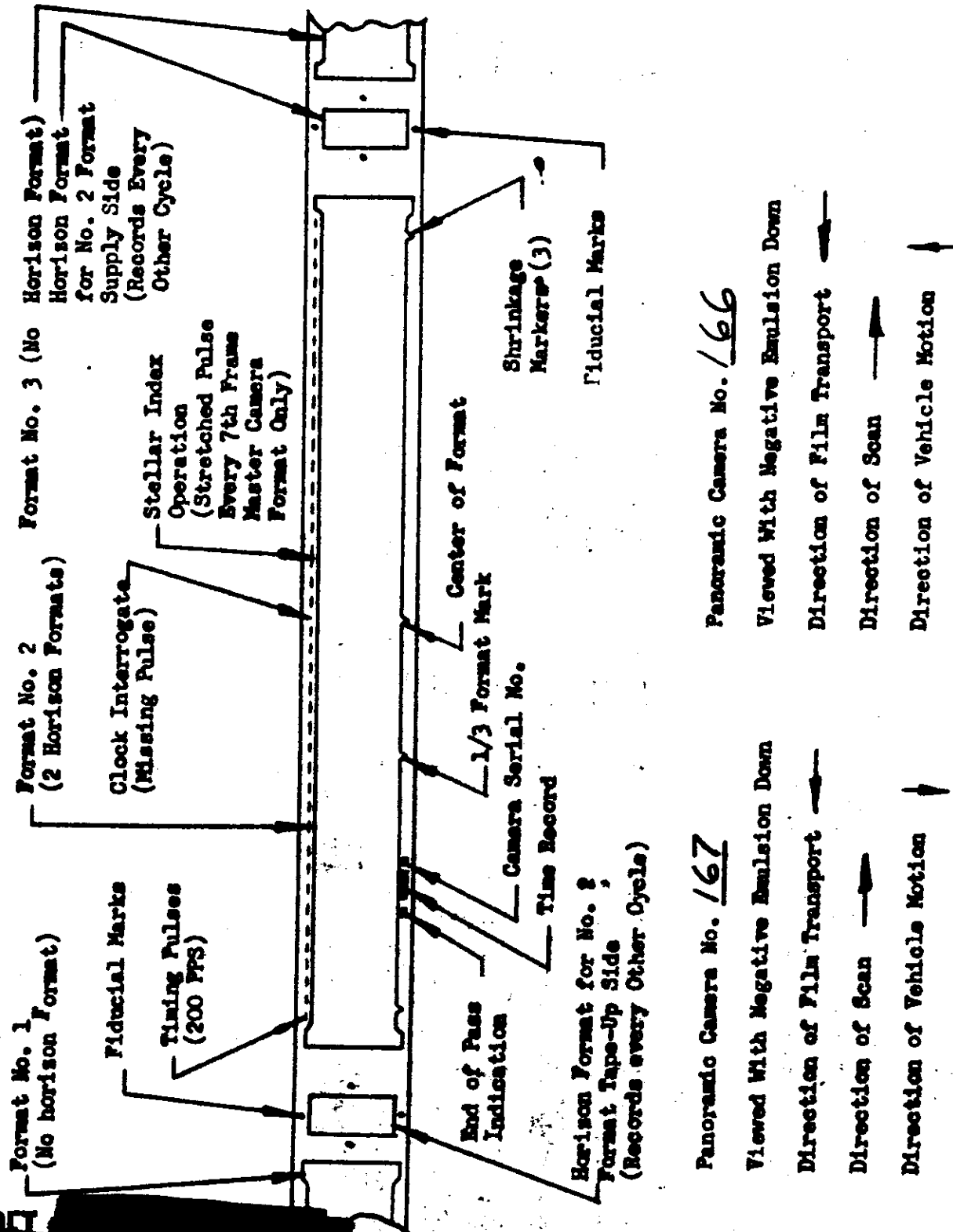
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FORMAT LAYOUT: (PANORAMIC CAMERAS)



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LENS SETTINGS AND FILM TYPES:

Panoramic Camera Settings:	Camera No. <u>166</u>	Camera No. <u>167</u>
Panoramic Optics Slit Width	<u>.175</u> in.	<u>.250</u> in.
Panoramic Optics Filter Type	<u>WRATTEN 21</u>	<u>WRATTEN 25</u>
Horison Optics Exp. Time	<u>1/100</u> sec.	<u>1/100</u> sec.
Horison Optics Aperture	<u>F6.8 SUPPLY</u> <u>F8.0 TAKE-UP</u>	<u>F8.0 SUPPLY</u> <u>F6.8 TAKE-UP</u>
Horison Optics Filter Type	<u>WRATTEN 25</u>	<u>WRATTEN 25</u>

Stellar Index Camera Settings:

	Stellar Index A		Stellar Index B	
	Stellar	Index	Stellar	Index
Exposure Time	<u>2.0 SEC</u>	<u>1/500 SEC</u>	<u>2.0 SEC</u>	<u>1/500 SEC</u>
Aperture Setting	<u>F1.8</u>	<u>F4.5</u>	<u>F1.8</u>	<u>F4.5</u>
Filter Type	<u>NONE</u>	<u>WRATTEN 21</u>	<u>NONE</u>	<u>WRATTEN 21</u>
Ratio: One Stellar Index Frame Per	<u>7</u>		Master Camera Frames.	

Film:

Panoramic Cameras:	Camera No. <u>166</u>	Camera No. <u>167</u>
Type	<u>7J-40</u>	<u>7J-40</u>
Length	<u>16000</u> ft.	<u>16000</u> ft.
Splices	<u>5</u>	<u>5</u>
Emul. Data	<u>81-2-1-5</u>	<u>81-2-7-1-5</u>

Stellar Index Cameras:

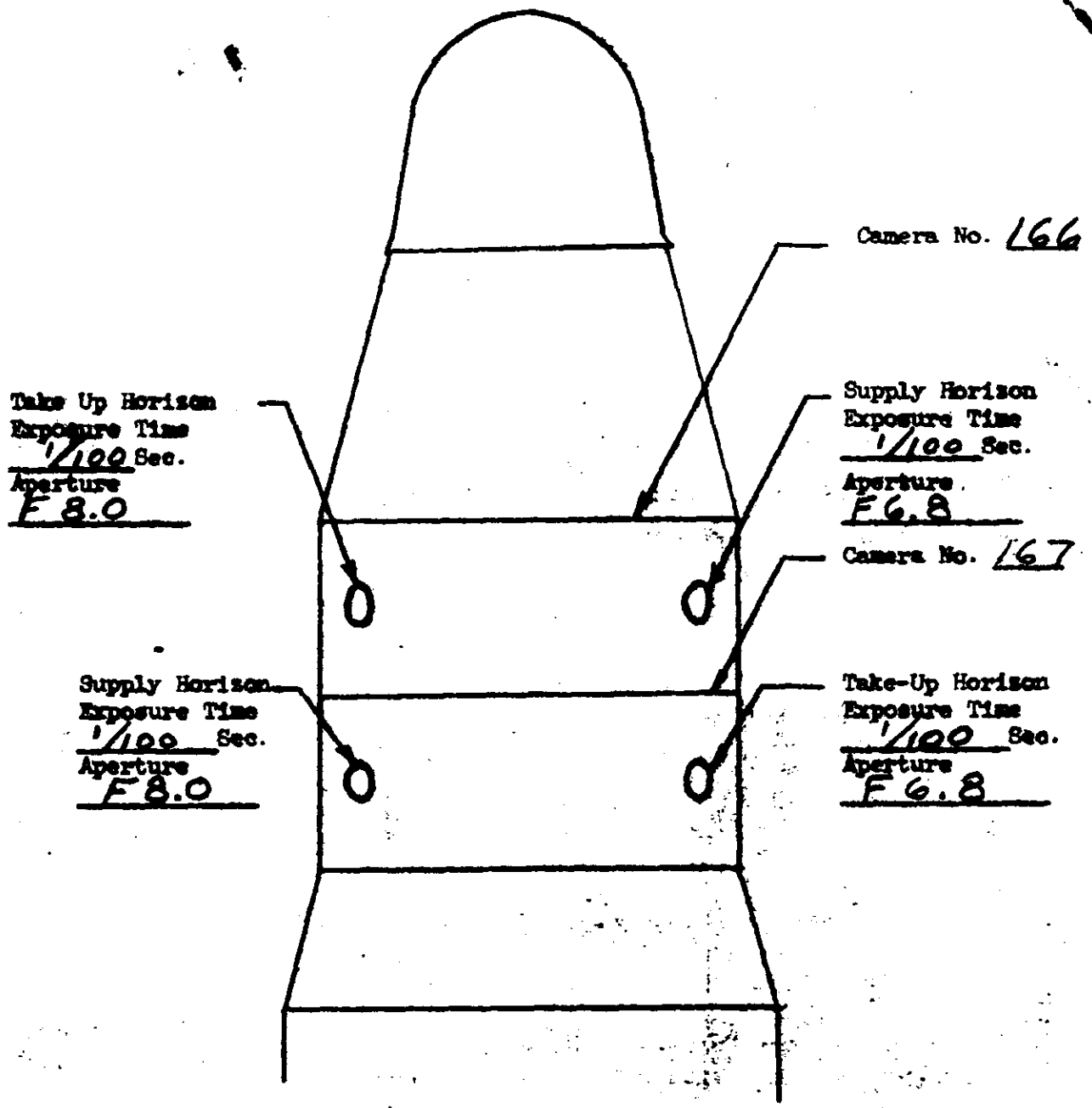
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	Stellar	Index	Stellar	Index
Type	<u>3J-34</u>	<u>7J-33</u>	<u>3J-34</u>	<u>7J-33</u>
Emul. Data	<u>51-10-12-4</u>	<u>37-1-12-4</u>	<u>51-10-12-4</u>	<u>37-1-12-4</u>

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HORIZON LEVEL SETTINGS (Viewed from top of vehicle in flight)



Flight Direction



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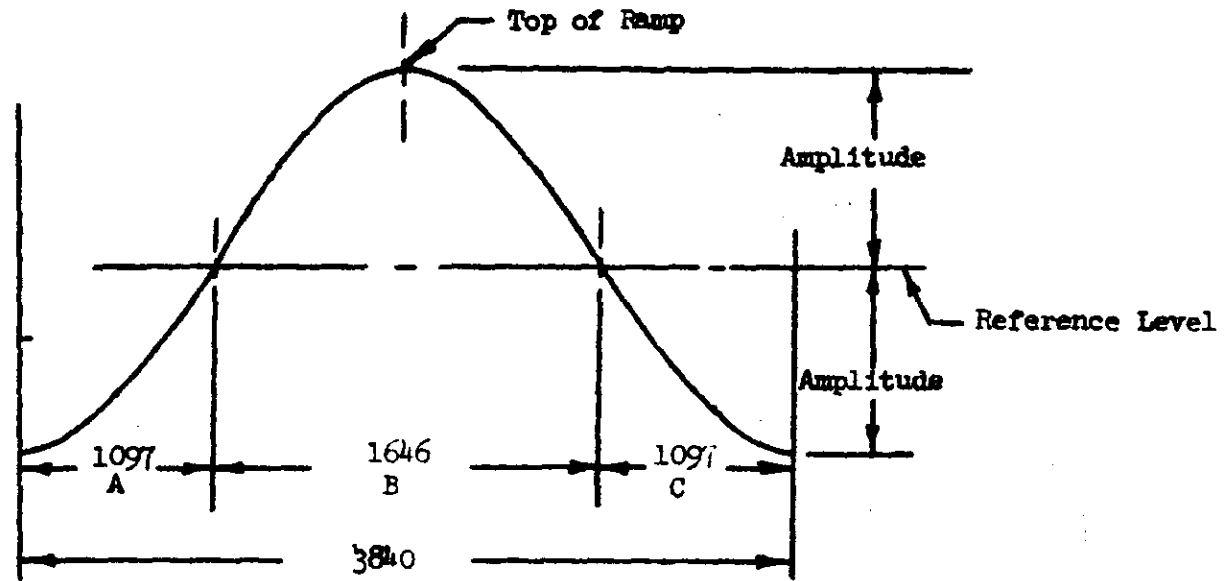
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V/H RAMP CONFIGURATION AND CONSTANTS:



Cycle Rate Computation:

- A. 0 to 1097 Sec Up Ramp: $CPS = R+A \sin (1.5 X -1.5707963)$
- B. 1097 to 2743 Sec Up Ramp: $CPS = R+A \sin (2 X -2.0943951) \leq .4625$
- C. 2743 to 3840 Sec Up Ramp: $CPS = R+A \sin (1.5 X -0.7853982)$

FMC Rate Computation:

$$FMC \text{ Rate (In/Sec)} = 2 \pi \left(\frac{0.3223}{CP} \right) = 2.02507 \times CPS$$

$$FMC \text{ Rate (Radians/Sec)} = 2 \pi \left(\frac{0.3224}{24 CP} \right) = 0.84378 \times CPS$$

Scan Velocity Computation:

$$\text{Scan Velocity (In/Sec)} = \frac{48 \pi}{CP} = 150.796 \times CPS$$

$$\text{Scan Velocity (Radians/Sec)} = \frac{48 \pi}{24 CP} = 6.28319 \times CPS$$

$$\text{Exposure Time (Milliseconds)} = 1000 \left(\frac{CP \times SLIT}{48 \pi} \right) = 6.63146 \left(\frac{SLIT}{CPS} \right)$$

WHERE: $X = \frac{\text{Time Up Ramp (Seconds)}}{1047.6942}$ $R = \frac{1}{2} (CPS(\text{top}) + CPS(\text{bottom}))$
 $A = \frac{1}{2} (CPS \text{ top} - CPS \text{ bottom})$ $CP = \text{Camera Cycle Period in Sec/Cycle}$

CPS = Camera Cycle Rate in Cycles/Sec
 SLIT = Slit Width in Inches

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CYCLE PERIOD DATA:

PRE-FLIGHT CYCLE PERIODS:

V/H Ramp Level	V/H Ramp Amplitude	Cycle Period Seconds		Time Up Ramp Sec
		Master	Slave	
7	6	3.902	3.909	140.
6	6	2.388	2.386	1582.
6	6	3.675	3.684	115.
6	6	2.371	2.368	1615.
6	6	2.361	2.357	1640.
6	6	2.350	2.345	1675.
6	6	2.316	2.311	1798.

IN-FLIGHT CYCLE PERIODS

V/H Ramp Level	V/H Ramp Amplitude	Cycle Period Seconds		Orbit No.	Time Up Ramp Sec
		Master	Slave		
7	6	4.000	4.020	9	140.
6	6	2.423	2.482	16	1582.
6	6	3.720	3.800	25	115.
6	6	2.412	2.485	32	1615.
6	6	2.390	2.450	48	1640.
6	6	2.375	2.430	64	1675.
6	6	2.345	2.400	79	1798.

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- A. 1021-1 LAUNCH 1802Z 05/18/65
- B. DRY
- C. PERFORMANCE ESTIMATE, PART 1

10004
10005
10006

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OPERATIONS SUMMARY

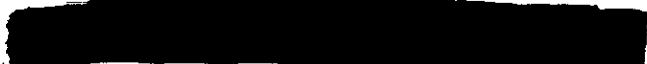
FWD	PAN	CAMERA	NUMBER	167											
OPN NO	FRA	Q	LAT	LONG	HEIGHT	RANGE	DA	H	M	S	LTIM	S-TIM			
PRE-FLT	113													10010	
1	8	0	14 ON	2 52 02	151 53w	739549	766614	18	19	31	00	0923	70260	11001	
			OFF	2 49 43	150 24w	731608	758371	18	19	31	38	0930	70298	11002	
2	1	1	20 ON	2 71 25	154 15E	823378	853635	18	20	54	52	0711	75292	11003	
			OFF	2 68 41	163 26E	807996	837666	18	20	55	55	0749	75355	11004	
2	1	2	20 ON	2 53 12	175 23W	743201	770404	18	21	00	32	0918	75632	11005	
			OFF	2 49 49	173 07W	731520	758281	18	21	01	27	0928	75687	11006	
6	7	1	17 ON	3 06 04	112 42E	679164	703943	19	03	15	11	1046	11711	11007	
			OFF	3 09 09	113 21E	685264	710274	19	03	15	58	1049	11758	11008	
9	7	0	11 ON	1 38 44	115 23W	1008475	1045865	19	07	08	34	2326	25714	11009	
			OFF	1 41 41	114 12W	1000978	1038078	19	07	09	22	2332	25762	11010	
9	7	1	33 ON	2 29 03	036 47E	676934	701630	19	07	35	47	1002	27347	11011	
			OFF	2 23 31	038 18E	669263	693670	19	07	37	12	1010	27432	11012	
9	7	2	63 ON	2 16 08	040 04E	663589	687782	19	07	39	04	1019	27544	11013	
			OFF	2 05 36	042 20E	664979	689225	19	07	41	44	1031	27704	11014	
10	5	1	49 ON	3 06 45	022 12E	681459	706326	19	09	14	42	1043	33282	11015	
			OFF	3 15 20	024 02E	701578	727203	19	09	16	53	1053	33413	11016	
11	6	1	21 ON	2 28 05	008 14W	675344	699980	19	10	35	42	1002	38142	11017	
			OFF	2 24 34	007 17W	670528	694983	19	10	36	36	1007	38196	11018	
13	7	1	57 ON	3 05 53	045 56W	680755	705594	19	13	43	59	1040	49439	11019	
			OFF	3 15 27	043 53W	703073	728755	19	13	46	25	1050	49585	11020	
16	7	1	32 ON	2 58 36	137 17W	756645	784359	19	17	56	46	0847	64606	11021	
			OFF	2 53 15	132 39W	737449	764434	19	17	58	15	0907	64695	11022	
16	7	0	15 ON	2 37 54	124 42W	693396	718713	19	18	02	20	0943	64940	11023	
			OFF	2 35 27	123 50W	687998	713112	19	18	02	58	0947	64978	11024	
17	1	1	25 ON	2 75 00	141 02E	850315	881603	19	19	19	54	0444	69594	11025	
			OFF	2 73 50	160 05E	831549	862119	19	19	21	13	0601	69673	11026	
18	1	1	27 ON	2 71 23	151 51E	813057	842920	19	20	52	17	0659	75137	11027	
			OFF	2 67 36	163 36E	793133	822236	19	20	53	41	0748	75221	11028	
20	3	1	39 ON	2 50 37	138 29E	726969	753556	19	23	58	17	0912	86297	11029	
			OFF	2 44 09	142 02E	707826	733689	19	24	00	01	0928	86401	11030	
21	3	1	20 ON	2 52 41	114 27E	733211	760035	20	01	27	33	0905	05253	11031	
			OFF	2 49 16	116 40E	722280	748690	20	01	28	29	0915	05309	11032	
21	3	2	34 ON	2 00 05	131 33E	672561	697092	20	01	41	07	1027	06067	11033	
			OFF	3 05 34	132 43E	681872	706753	20	01	42	33	1033	06153	11034	
21	3	3	50 ON	3 11 57	134 04E	696142	721563	20	01	44	10	1040	06250	11035	
			OFF	3 20 31	136 00E	721043	747405	20	01	46	21	1050	06381	11036	
22	3	1	20 ON	2 57 07	088 12E	748024	775410	20	02	56	09	0849	10569	11037	
			OFF	2 53 41	091 03E	736091	763025	20	02	57	06	0901	10626	11038	
22	3	2	22 ON	2 42 44	097 22E	703351	729045	20	03	00	02	0929	10802	11039	
			OFF	2 39 08	098 52E	694481	719840	20	03	00	58	0936	10858	11040	
22	3	3	28 ON	2 02 00	108 31E	670304	694750	20	03	10	27	1024	11427	11041	
			OFF	3 02 35	109 27E	676796	701486	20	03	11	37	1029	11497	11042	
22	3	4	22 ON	3 05 56	110 08E	682850	707768	20	03	12	28	1033	11548	11043	
			OFF	3 09 36	110 54E	690709	715924	20	03	13	24	1037	11604	11044	
23	6	1	20 ON	2 48 01	072 04E	717681	743917	20	04	28	28	0916	16108	11045	
			OFF	2 44 39	073 49E	708104	733978	20	04	29	22	0924	16162	11046	
23	6	2	91 ON	2 31 09	078 57E	678280	703027	20	04	32	52	0948	16372	11047	
			OFF	2 16 44	082 43E	663952	688159	20	04	36	33	1007	16593	11048	



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24	9	1	35	ON	2	25	06	058	0CE	669779	694205	20	06	04	14	0956	21854	11049
				OFF	2	19	34	059	24E	665157	689409	20	06	05	39	1003	21939	11050
25	6	0	12	ON	1	38	40	117	57W	996590	1033519	20	07	05	51	2314	25551	11051
				OFF	1	41	31	116	48W	989142	1025781	20	07	06	37	2319	25597	11052
25	6	1	90	ON	2	23	05	035	52E	667660	692006	20	07	34	35	0958	27275	11053
				OFF	2	08	40	039	10E	664941	689185	20	07	38	15	1014	27495	11054
26	2	1	24	ON	2	71	59	032	05W	811354	841152	20	08	50	38	0642	31838	11055
				OFF	2	68	50	020	45W	793993	823129	20	08	51	52	0728	31912	11056
26	2	2	80	ON	3	05	44	019	28E	683371	708309	20	09	11	43	1029	33103	11057
				OFF	3	19	20	022	26E	719038	745324	20	09	15	10	1044	33310	11058
27	6	1	22	ON	2	27	06	010	29W	671630	696127	20	10	33	12	0951	37992	11059
				OFF	2	23	37	009	33W	667847	692200	20	10	34	05	0955	38045	11060
30	9	1	44	ON	3	31	53	064	47W	767104	795213	20	15	17	40	1058	55060	11061
				OFF	3	40	23	061	46W	804351	833880	20	15	19	52	1112	55192	11062
32	9	0	15	ON	2	37	46	127	10W	688354	713482	20	17	59	33	0930	64773	11063
				OFF	2	35	20	126	17W	683472	708415	20	18	00	11	0934	64811	11064
34	8	1	51	ON	2	72	18	145	01E	807998	837667	20	20	49	03	0629	74943	11065
				OFF	2	65	25	165	36E	773437	801790	20	20	51	34	0754	75094	11066
35	8	1	31	ON	2	63	29	146	09E	764967	792997	20	22	21	59	0806	80519	11067
				OFF	2	58	19	152	31E	745531	772822	20	22	23	30	0833	80610	11068
35	8	2	20	ON	3	16	03	177	47E	711599	737603	20	22	42	42	1033	81762	11069
				OFF	3	19	35	178	36E	722793	749221	20	22	43	36	1038	81816	11070
37	8	1	33	ON	2	46	39	115	38E	708246	734125	21	01	26	18	0908	05178	11071
				OFF	2	41	15	118	11E	694666	720032	21	01	27	43	0920	05263	11072
37	8	2	49	ON	3	12	01	131	35E	700819	726416	21	01	41	18	1027	06078	11073
				OFF	3	20	31	133	31E	726765	753344	21	01	43	28	1037	06208	11074
41	5	1	39	ON	2	62	37	011	30E	758437	786219	21	07	21	07	0807	26467	11075
				OFF	2	56	19	018	29E	735925	762852	21	07	22	56	0836	26576	11076
41	5	2	45	ON	3	03	53	039	16E	683124	708053	21	07	38	30	1015	27510	11077
				OFF	3	11	30	040	51E	700823	726420	21	07	40	26	1023	27626	11078
42	9	1	68	ON	3	06	51	017	13E	689682	714858	21	09	09	03	1017	32943	11079
				OFF	3	18	21	019	44E	721624	748008	21	09	11	58	1030	33118	11080
42	9	2	52	ON	3	24	50	021	20E	744474	771724	21	09	13	38	1039	33218	11081
				OFF	3	34	25	024	10E	783541	812276	21	09	16	06	1052	33366	11082
43	5	1	22	ON	2	26	02	012	40W	668612	692994	21	10	30	31	0939	37831	11083
				OFF	2	22	25	011	43W	665768	690044	21	10	31	26	0944	37886	11084
45	5	1	58	ON	2	57	43	073	24W	738914	765954	21	13	21	46	0828	48106	11085
				OFF	2	48	16	066	27W	710076	736024	21	13	24	21	0858	48261	11086
46	9	1	60	ON	3	32	02	067	12W	775251	803670	21	15	14	43	1045	54883	11087
				OFF	3	43	33	062	52W	827572	857988	21	15	17	43	1106	55063	11088
48	9	0	14	ON	2	37	52	129	39W	684941	709940	21	17	56	30	0917	64590	11089
				OFF	2	35	29	128	48W	680603	705438	21	17	57	07	0921	64627	11090
50	2	1	20	ON	2	65	34	162	52E	765294	793337	21	20	48	29	0740	74909	11091
				OFF	2	62	25	167	54E	753068	780646	21	20	49	27	0801	74967	11092
51	2	1	32	ON	2	63	39	143	28E	757163	784897	21	22	18	53	0752	80333	11093
				OFF	2	58	21	150	03E	738168	765180	21	22	20	26	0820	80426	11094
55	8	1	66	ON	2	28	57	074	41E	670197	694639	22	04	27	25	0926	16045	11095
				OFF	2	18	27	077	24E	663965	688173	22	04	30	06	0939	16206	11096
56	5	1	53	ON	2	25	00	053	08E	666565	690870	22	05	58	13	0930	21493	11097
				OFF	2	16	27	055	13E	663977	688185	22	06	00	24	0941	21624	11098
57	8	1	85	ON	2	22	01	031	14E	664828	689068	22	07	28	47	0933	26927	11099
				OFF	2	08	32	034	17E	668022	692382	22	07	32	12	0949	27132	11100
58	3	1	73	ON	3	05	47	014	35E	691299	716536	22	09	05	38	1003	32738	11101
				OFF	3	18	24	017	19E	727486	754092	22	09	08	50	1018	32930	11102

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59	9	1	54	ON	2	17	05	012	52W	663956	688163	22	10	29	38	0938	37778	11103
				OFF	2	08	33	011	00W	668214	692581	22	10	31	48	0947	37908	11104
62	3	1	78	ON	2	60	43	101	42W	740990	768110	22	14	47	31	0800	53251	11105
				OFF	2	48	15	091	30W	703956	729673	22	14	50	57	0844	53457	11106
62	3	2	19	ON	2	37	11	086	30W	680481	705311	22	14	53	51	0907	53631	11107
				OFF	2	34	04	085	25W	675586	700231	22	14	54	39	0912	53679	11108
62	3	3	19	ON	2	10	19	079	19W	667010	691332	22	15	00	43	0943	54043	11109
				OFF	2	07	13	078	40W	669898	694328	22	15	01	30	0946	54090	11110
64	4	0	15	ON	2	37	51	132	03W	681201	706059	22	17	53	16	0905	64396	11111
				OFF	2	35	22	131	09W	677165	701871	22	17	53	55	0909	64435	11112
65	4	1	20	ON	2	69	28	173	57E	773690	802053	22	19	14	07	0649	69247	11113
				OFF	2	66	29	178	38W	760849	788722	22	19	15	08	0720	69308	11114
66	5	1	21	ON	2	70	56	146	20E	780286	808899	22	20	43	21	0628	74601	11115
				OFF	2	68	08	154	58E	767184	795299	22	20	44	23	0704	74663	11116
66	5	2	36	ON	2	65	06	161	19E	754948	782598	22	20	45	22	0730	74722	11117
				OFF	2	59	21	169	15E	734599	761477	22	20	47	05	0804	74825	11118
67	5	1	24	ON	2	62	41	142	30E	745495	772786	22	22	15	54	0745	80154	11119
				OFF	2	58	50	147	09E	732489	759286	22	22	17	01	0805	80221	11120
69	5	1	41	ON	2	30	55	117	01E	670595	695052	23	01	24	00	0912	05040	11121
				OFF	2	24	21	118	52E	665333	689593	23	01	25	41	0921	05141	11122
69	5	2	38	ON	3	13	49	127	09E	716156	742333	23	01	35	22	1003	05722	11123
				OFF	3	20	30	128	41E	738696	765727	23	01	37	04	1011	05824	11124
70	2	1	39	ON	2	56	45	081	14E	724699	751201	23	02	46	58	0811	10018	11125
				OFF	2	50	20	086	03E	706675	732495	23	02	48	43	0832	10123	11126
70	2	2	22	ON	2	42	23	090	13E	688331	713457	23	02	50	49	0851	10249	11127
				OFF	2	38	52	091	40E	681723	706601	23	02	51	44	0858	10304	11128
71	8	1	79	ON	2	25	00	073	24E	665567	689835	23	04	25	05	0918	15905	11129
				OFF	2	12	29	076	22E	666207	690499	23	04	28	16	0933	16096	11130
72	6	1	60	ON	2	25	00	050	45E	665521	689787	23	05	54	52	0917	21292	11131
				OFF	2	15	30	053	03E	664724	688960	23	05	57	17	0929	21437	11132
73	4	1	99	ON	2	29	03	026	59E	668312	692684	23	07	23	37	0911	26617	11133
				OFF	2	13	26	030	52E	665774	690049	23	07	27	36	0931	26856	11134
74	6	1	60	ON	3	08	50	012	51E	703114	728798	23	09	03	01	0954	32581	11135
				OFF	3	19	19	015	10E	736251	763189	23	09	05	41	1006	32741	11136
74	6	2	28	ON	3	27	49	017	21E	769202	797391	23	09	07	52	1017	32872	11137
				OFF	3	33	17	019	00E	792748	821833	23	09	09	17	1025	32957	11138
75	7	1	41	ON	2	15	02	014	45W	665087	689337	23	10	26	45	0927	37605	11139
				OFF	2	08	30	013	21W	670084	694522	23	10	28	24	0934	37704	11140
79	9	1	28	ON	2	33	45	110	19W	672571	697103	23	16	21	06	0859	58866	11141
				OFF	2	29	19	108	57W	668001	692361	23	16	22	14	0906	58934	11142
																		11143



OPERATIONS SUMMARY

														10020				
														10021				
AFT	PAN	CAMERA	NUMBER	166											10022			
OPN NO	FRA	Q	LAT	LONG	HEIGHT	RANGE	DA	H	M	S	LTIM	S-TIM	10023					
PRE-FLT 162																		
1	8	0	14	ON	2	53	C1	152	39W	739549	766614	18	19	31	00	0920	70260	12001
				OFF	2	50	42	151	04W	731608	758371	18	19	31	38	0927	70298	12002
2	1	1	20	ON	2	72	06	151	02E	823378	853635	18	20	54	52	0659	75292	12003
				OFF	2	69	30	161	00E	807996	837666	18	20	55	55	0739	75355	12004
2	1	2	20	ON	2	54	11	176	11W	743201	770404	18	21	00	32	0915	75632	12005
				OFF	2	50	48	173	48W	731520	758281	18	21	01	27	0926	75687	12006
6	7	1	17	ON	3	05	07	112	27E	679164	703943	19	03	15	11	1044	11711	12007
				OFF	3	08	11	113	05E	685264	710274	19	03	15	58	1048	11758	12008
9	7	0	10	ON	1	37	20	116	01W	1008475	1045865	19	07	08	34	2324	25714	12009
				OFF	1	40	18	114	52W	1000978	1038078	19	07	09	22	2329	25762	12010
9	7	1	33	ON	2	30	C0	036	27E	676934	701630	19	07	35	47	1001	27347	12011
				OFF	2	24	28	037	59E	669263	693670	19	07	37	12	1009	27432	12012
9	7	2	63	ON	2	17	C4	039	48E	663589	687782	19	07	39	04	1018	27544	12013
				OFF	2	06	33	042	04E	664979	689225	19	07	41	44	1030	27704	12014
10	5	1	48	ON	3	05	47	021	56E	681459	706326	19	09	14	42	1042	33282	12015
				OFF	3	14	20	023	45E	701578	727203	19	09	16	53	1051	33413	12016
11	6	1	21	ON	2	29	02	008	34W	675344	699980	19	10	35	42	1001	38142	12017
				OFF	2	25	31	007	35W	670528	694983	19	10	36	36	1006	38196	12018
13	7	1	54	ON	3	04	55	046	12W	680755	705594	19	13	43	59	1039	49439	12019
				OFF	3	14	27	044	11W	703073	728755	19	13	46	25	1049	49585	12020
16	7	1	31	ON	2	59	34	138	23W	756645	784359	19	17	56	46	0843	64606	12021
				OFF	2	54	14	133	28W	737449	764434	19	17	58	15	0904	64695	12022
16	7	0	14	ON	2	38	52	125	08W	693396	718713	19	18	02	20	0941	64940	12023
				OFF	2	36	25	124	13W	687998	713112	19	18	02	58	0946	64978	12024
17	1	1	24	ON	2	75	C1	136	11E	850315	881603	19	19	19	54	0424	69594	12025
				OFF	2	74	14	155	53E	831549	862119	19	19	21	13	0544	69673	12026
18	1	1	26	ON	2	72	03	148	42E	813057	842920	19	20	52	17	0647	75137	12027
				OFF	2	68	26	161	27E	793133	822236	19	20	53	41	0739	75221	12028
20	3	1	39	ON	2	51	36	137	47E	726969	753556	19	23	58	17	0909	86297	12029
				OFF	2	45	C7	141	30E	707826	733689	19	24	00	01	0926	86401	12030
21	3	1	20	ON	2	53	40	113	40E	733211	760035	20	01	27	33	0902	05253	12031
				OFF	2	50	14	116	01E	722280	748690	20	01	28	29	0912	05309	12032
21	3	2	35	ON	2	01	C3	131	18E	672561	697092	20	01	41	07	1026	06067	12033
				OFF	3	04	36	132	27E	681872	706753	20	01	42	33	1032	06153	12034
21	3	3	50	ON	3	10	58	133	47E	696142	721563	20	01	44	10	1039	06250	12035
				OFF	3	19	29	135	42E	721043	747405	20	01	46	21	1049	06381	12036
22	3	1	20	ON	2	58	C5	087	13E	748024	775410	20	02	56	09	0845	10569	12037
				OFF	2	54	40	090	14E	736091	763025	20	02	57	06	0858	10626	12038
22	3	2	22	ON	2	43	42	096	51E	703351	729045	20	03	00	02	0927	10802	12039
				OFF	2	40	06	098	25E	694481	719840	20	03	00	58	0934	10858	12040
22	3	3	28	ON	2	02	57	108	15E	670304	694750	20	03	10	27	1023	11427	12041
				OFF	3	01	38	109	11E	676796	701486	20	03	11	37	1028	11497	12042
22	3	4	22	ON	3	04	58	109	52E	682850	707768	20	03	12	28	1032	11548	12043
				OFF	3	08	37	110	38E	690709	715924	20	03	13	24	1035	11604	12044
23	6	1	21	ON	2	48	59	071	27E	717681	743917	20	04	28	28	0914	16108	12045
				OFF	2	45	37	073	16E	708104	733978	20	04	29	22	0922	16162	12046
23	6	2	93	ON	2	32	06	078	36E	678280	703027	20	04	32	52	0947	16372	12047
				OFF	2	17	41	082	26E	663952	688159	20	04	36	33	1006	16593	12048

~~TOP SECRET~~

24	9	1	36	ON	2	26	C3	057	42E	669779	694205	20	08	04	14	0955	21854	12049
				OFF	2	20	31	059	06E	665157	689409	20	06	05	39	1002	21939	12050
25	6	0	12	ON	1	37	17	118	34W	996590	1033519	20	07	05	51	2311	25551	12051
				OFF	1	40	09	117	28W	989142	1025781	20	07	06	37	2316	25597	12052
25	6	1	93	ON	2	24	02	035	34E	667660	692006	20	07	34	35	0956	27275	12053
				OFF	2	09	36	038	54E	664941	689185	20	07	38	15	1013	27495	12054
26	2	1	24	ON	2	72	36	035	26W	811354	841152	20	08	50	38	0628	31838	12055
				OFF	2	69	38	023	10W	793993	823129	20	08	51	52	0719	31912	12056
26	2	2	82	ON	3	04	46	019	12E	683371	708309	20	09	11	43	1028	33103	12057
				OFF	3	18	19	022	08E	719038	745324	20	09	15	10	1043	33310	12058
27	6	1	21	ON	2	28	C3	010	49W	671630	696127	20	10	33	12	0949	37992	12059
				OFF	2	24	34	009	52W	667847	692200	20	10	34	05	0954	38045	12060
30	9	1	45	ON	3	30	49	065	11W	767104	795213	20	15	17	40	1056	55060	12061
				OFF	3	39	16	062	18W	804351	833880	20	15	19	52	1110	55192	12062
32	9	0	15	ON	2	38	44	127	35W	688354	713482	20	17	59	33	0929	64773	12063
				OFF	2	36	17	126	41W	683472	708415	20	18	00	11	0933	64811	12064
34	8	1	51	ON	2	72	54	141	34E	807998	837667	20	20	49	03	0615	74943	12065
				OFF	2	66	18	163	51E	773437	801790	20	20	51	34	0746	75094	12066
35	8	1	32	ON	2	64	24	144	39E	764967	792997	20	22	21	59	0800	80519	12067
				OFF	2	59	16	151	28E	745531	772822	20	22	23	30	0829	80610	12068
35	8	2	21	ON	3	15	C3	177	29E	711599	737603	20	22	42	42	1032	81762	12069
				OFF	3	18	34	178	18E	722793	749221	20	22	43	36	1036	81816	12070
37	8	1	34	ON	2	47	37	115	03E	708246	734125	21	01	26	18	0906	05178	12071
				OFF	2	42	12	117	42E	694666	720032	21	01	27	43	0918	05263	12072
37	8	2	50	ON	3	11	02	131	18E	700819	726416	21	01	41	18	1026	06078	12073
				OFF	3	19	29	133	12E	726765	753344	21	01	43	28	1036	06208	12074
41	5	1	39	ON	2	63	32	010	06E	758437	786219	21	07	21	07	0801	26467	12075
				OFF	2	57	16	017	33E	735925	762852	21	07	22	56	0833	26576	12076
41	5	2	46	ON	3	02	55	039	00E	683124	708053	21	07	38	30	1014	27510	12077
				OFF	3	10	30	040	35E	700823	726420	21	07	40	26	1022	27626	12078
42	9	1	68	ON	3	05	52	016	57E	689682	714858	21	09	09	03	1016	32943	12079
				OFF	3	17	20	019	26E	721624	748008	21	09	11	58	1029	33118	12080
42	9	2	52	ON	3	23	47	021	00E	744474	771724	21	09	13	38	1037	33218	12081
				OFF	3	33	19	023	44E	783541	812276	21	09	16	06	1051	33366	12082
43	5	1	22	ON	2	26	59	012	59W	668612	692994	21	10	30	31	0938	37831	12083
				OFF	2	23	21	012	01W	665768	690044	21	10	31	26	0943	37886	12084
45	5	1	59	ON	2	58	40	074	25W	738914	765954	21	13	21	46	0824	48106	12085
				OFF	2	49	14	067	05W	710076	736024	21	13	24	21	0856	48261	12086
46	9	1	60	ON	3	30	57	067	36W	775251	803670	21	15	14	43	1044	54883	12087
				OFF	3	42	25	063	27W	827572	857988	21	15	17	43	1103	55063	12088
48	9	0	15	ON	2	38	50	130	05W	684941	709940	21	17	56	30	0916	64590	12089
				OFF	2	36	26	129	12W	680603	705438	21	17	57	07	0920	64627	12090
50	2	1	19	ON	2	66	26	161	06E	765294	793337	21	20	48	29	0732	74909	12091
				OFF	2	63	20	166	31E	753068	780646	21	20	49	27	0755	74967	12092
51	2	1	34	ON	2	64	33	141	57E	757163	784897	21	22	18	53	0746	80333	12093
				OFF	2	59	17	149	00E	738168	765180	21	22	20	26	0816	80426	12094
55	8	1	66	ON	2	29	53	074	21E	670197	694639	22	04	27	25	0924	16045	12095
				OFF	2	19	24	077	07E	663965	688173	22	04	30	06	0938	16206	12096
56	5	1	55	ON	2	25	56	052	49E	666565	690870	22	05	58	13	0929	21493	12097
				OFF	2	17	23	054	56E	663977	688185	22	06	00	24	0940	21624	12098
57	8	1	87	ON	2	22	58	030	57E	664828	689068	22	07	28	47	0932	26927	12099
				OFF	2	09	29	034	01E	668022	692382	22	07	32	12	0948	27132	12100
58	3	1	75	ON	3	04	48	014	19E	691299	716536	22	09	05	38	1002	32738	12101
				OFF	3	17	22	017	01E	727486	754092	22	09	08	50	1016	32930	12102

59	9	1	54	ON	2	18	01	013	09W	663956	688163	22	10	29	38	0937	37778	12103
				OFF	2	09	30	011	16W	668214	692581	22	10	31	48	0946	37908	12104
62	3	1	80	ON	2	61	38	102	55W	740990	768110	22	14	47	31	0755	53251	12105
				OFF	2	49	12	092	07W	703956	729673	22	14	50	57	0842	53457	12106
62	3	2	19	ON	2	38	08	086	55W	680481	705311	22	14	53	51	0906	53631	12107
				OFF	2	35	00	085	48W	675586	700231	22	14	54	39	0911	53679	12108
62	3	3	19	ON	2	11	16	079	35W	667010	691332	22	15	00	43	0942	54043	12109
				OFF	2	08	10	078	56W	669898	694328	22	15	01	30	0945	54090	12110
64	4	0	16	ON	2	38	47	132	28W	681201	706059	22	17	53	16	0903	64396	12111
				OFF	2	36	18	131	33W	677165	701871	22	17	53	55	0907	64435	12112
65	4	1	22	ON	2	70	13	171	28E	773690	802053	22	19	14	07	0640	69247	12113
				OFF	2	67	19	180	32W	760849	788722	22	19	15	08	0713	69308	12114
66	5	1	21	ON	2	71	36	143	26E	780286	808899	22	20	43	21	0617	74601	12115
				OFF	2	68	56	152	47E	767184	795299	22	20	44	23	0655	74663	12116
66	5	2	37	ON	2	65	59	159	38E	754948	782598	22	20	45	22	0723	74722	12117
				OFF	2	60	17	168	09E	734599	761477	22	20	47	05	0759	74825	12118
67	5	1	24	ON	2	63	35	141	07E	745495	772786	22	22	15	54	0740	80154	12119
				OFF	2	59	46	146	05E	732489	759286	22	22	17	01	0801	80221	12120
69	5	1	42	ON	2	31	52	116	40E	670595	695052	23	01	24	00	0910	05040	12121
				OFF	2	25	17	118	33E	665333	689593	23	01	25	41	0919	05141	12122
69	5	2	38	ON	3	12	48	126	52E	716156	742333	23	01	35	22	1002	05722	12123
				OFF	3	19	27	128	22E	738696	765727	23	01	37	04	1010	05824	12124
70	2	1	41	ON	2	57	41	080	18E	724699	751201	23	02	46	58	0808	10018	12125
				OFF	2	51	17	085	23E	706675	732495	23	02	48	43	0830	10123	12126
70	2	2	22	ON	2	43	19	089	44E	688331	713457	23	02	50	49	0849	10249	12127
				OFF	2	39	48	091	14E	681723	706601	23	02	51	44	0856	10304	12128
71	8	1	80	ON	2	25	56	073	05E	665567	689835	23	04	25	05	0917	15905	12129
				OFF	2	13	26	076	06E	666207	690499	23	04	28	16	0932	16096	12130
72	6	1	61	ON	2	25	57	050	26E	665521	689787	23	05	54	52	0916	21292	12131
				OFF	2	16	27	052	47E	664724	688960	23	05	57	17	0928	21437	12132
73	4	1	101	ON	2	29	59	026	39E	668312	692684	23	07	23	37	0910	26617	12133
				OFF	2	14	23	030	36E	665774	690049	23	07	27	36	0930	26856	12134
74	6	1	61	ON	3	07	50	012	34E	703114	728798	23	09	03	01	0953	32581	12135
				OFF	3	18	17	014	51E	736251	763189	23	09	05	41	1005	32741	12136
74	6	2	29	ON	3	26	45	016	59E	769202	797391	23	09	07	52	1015	32872	12137
				OFF	3	32	11	018	34E	792748	821833	23	09	09	17	1023	32957	12138
75	7	1	41	ON	2	15	58	015	02W	665087	689337	23	10	26	45	0926	37605	12139
				OFF	2	09	27	013	37W	670084	694522	23	10	28	24	0933	37704	12140
79	9	1	28	ON	2	34	41	110	41W	672571	697103	23	16	21	06	0858	58866	12141
				OFF	2	30	15	109	17W	668001	692361	23	16	22	14	0905	58934	12142
																		12143





PHOTOGRAPHIC SUMMARY

FWD PAN CAMERA NO		167	0.2500	SLIT	W/25	FILTER	4404	FILM		
OPN NO	FRA	FEET	ET	S-EL	S-DIR	EV	FULL	INT	PRI	
PRE-FLT	113	298.9								10030
1 8 0	14	37.0	ON 214	46.1	-31.9	11.59	12.10	11.50	10.90	10031
			OFF 217	48.2	-33.4	11.61	12.10	11.50	10.90	10032
2 1 1	20	52.9	ON 186	24.6	-22.6	11.39	11.88	11.28	10.68	10033
			OFF 190	28.4	-23.9	11.42	11.95	11.35	10.75	13001
2 1 2	20	52.9	ON 213	44.9	-31.4	11.59	12.09	11.49	10.89	13002
			OFF 217	48.0	-33.6	11.62	12.10	11.50	10.90	13003
6 7 1	17	45.0	ON 230	59.0	-131.6	11.70	12.10	11.50	10.90	13004
			OFF 227	56.8	-135.3	11.68	12.10	11.50	10.90	13005
9 7 0	11	29.1	ON 146	-31.1	332.9	11.04	0.	0.	0.	13006
			OFF 146	-28.3	333.7	11.05	0.	0.	0.	13007
9 7 1	33	87.3	ON 236	62.7	-59.2	11.74	12.10	11.50	10.90	13008
			OFF 238	65.2	-69.9	11.75	12.10	11.50	10.90	13009
9 7 2	63	166.6	ON 239	66.7	-86.9	11.76	12.10	11.50	10.90	13010
			OFF 237	65.0	-111.2	11.74	12.10	11.50	10.90	13011
10 5 1	49	129.6	ON 229	58.0	-131.3	11.69	12.10	11.50	10.90	13012
			OFF 220	51.6	-140.2	11.64	12.10	11.50	10.90	13013
11 6 1	21	55.5	ON 237	62.9	-61.3	11.74	12.10	11.50	10.90	13014
			OFF 238	64.4	-68.0	11.75	12.10	11.50	10.90	13015
13 7 1	57	150.8	ON 242	58.2	-129.4	11.77	12.10	11.50	10.90	13016
			OFF 234	51.3	-139.5	11.73	12.10	11.50	10.90	13017
16 7 1	32	84.6	ON 213	38.5	-31.6	11.59	12.06	11.46	10.86	13018
			OFF 220	43.6	-34.6	11.64	12.09	11.49	10.89	13019
16 7 0	15	39.7	ON 238	56.1	-47.9	11.75	12.10	11.50	10.90	13020
			OFF 240	57.7	-51.0	11.76	12.10	11.50	10.90	13021
17 1 1	25	66.1	ON 184	14.6	-23.2	11.38	11.47	10.87	10.27	13022
			OFF 189	19.4	-24.3	11.41	11.72	11.12	10.52	13023
18 1 1	27	71.4	ON 194	23.8	-25.9	11.45	11.86	11.26	10.66	13024
			OFF 199	28.8	-27.7	11.49	11.96	11.36	10.76	13025
20 3 1	39	103.2	ON 225	45.5	-37.3	11.66	12.09	11.49	10.89	13026
			OFF 232	50.7	-42.2	11.71	12.10	11.50	10.90	13027
21 3 1	20	52.9	ON 222	43.6	-36.1	11.65	12.09	11.49	10.89	13028
			OFF 226	46.6	-38.5	11.67	12.10	11.50	10.90	13029
21 3 2	34	89.9	ON 246	60.6	-118.7	11.79	12.10	11.50	10.90	13030
			OFF 242	57.4	-126.9	11.77	12.10	11.50	10.90	13031
21 3 3	50	132.2	ON 237	53.1	-134.2	11.74	12.10	11.50	10.90	13032
			OFF 228	46.5	-141.3	11.69	12.10	11.50	10.90	13033
22 3 1	20	52.9	ON 216	39.5	-33.7	11.61	12.06	11.46	10.86	13034
			OFF 221	42.6	-35.7	11.64	12.08	11.48	10.88	13035
22 3 2	22	58.2	ON 234	51.7	-44.2	11.72	12.10	11.50	10.90	13036
			OFF 237	54.4	-47.9	11.74	12.10	11.50	10.90	13037
22 3 3	28	74.1	ON 247	61.3	-115.3	11.80	12.10	11.50	10.90	13038
			OFF 244	59.0	-122.6	11.79	12.10	11.50	10.90	13039
22 3 4	22	58.2	ON 242	57.0	-127.1	11.77	12.10	11.50	10.90	13040
			OFF 239	54.6	-131.5	11.75	12.10	11.50	10.90	13041
23 6 1	20	52.9	ON 228	47.4	-39.9	11.69	12.10	11.50	10.90	13042
			OFF 232	50.1	-42.7	11.71	12.10	11.50	10.90	13043
23 6 2	91	240.7	ON 244	59.3	-58.6	11.78	12.10	11.50	10.90	13044
			OFF 250	64.0	-85.5	11.82	12.10	11.50	10.90	13045



[REDACTED]

24	9	1	35	92.6	ON 248	61.9 -68.8	11.80	12.10	11.50	10.90	13049
					CFF 249	63.5 -79.6	11.81	12.10	11.50	10.90	13050
25	6	0	12	31.7	ON 156	-30.6 329.4	11.14	0.	0.	0.	13051
					CFF 156	-27.9 330.3	11.14	0.	0.	0.	13052
25	6	1	90	238.0	ON 248	62.4 -72.7	11.81	12.10	11.50	10.90	13053
					CFF 249	63.1-102.3	11.81	12.10	11.50	10.90	13054
26	2	1	24	63.5	ON 194	22.5 -27.2	11.46	11.83	11.23	10.63	13055
					CFF 199	26.9 -28.8	11.49	11.93	11.33	10.73	13056
26	2	2	80	211.6	ON 241	56.6-125.9	11.77	12.10	11.50	10.90	13057
					CFF 228	47.0-139.2	11.69	12.10	11.50	10.90	13058
27	6	1	22	58.2	ON 247	60.6 -65.8	11.80	12.10	11.50	10.90	13059
					CFF 248	61.9 -72.0	11.81	12.10	11.50	10.90	13060
30	9	1	44	116.4	ON 212	36.3-145.5	11.58	12.04	11.44	10.84	13061
					CFF 201	28.8-148.7	11.50	11.96	11.36	10.76	13062
32	9	0	15	39.7	ON 240	53.9 -51.7	11.76	12.10	11.50	10.90	13063
					CFF 242	55.4 -54.6	11.77	12.10	11.50	10.90	13064
34	8	1	51	134.9	ON 194	21.6 -28.6	11.46	11.80	11.20	10.60	13065
					CFF 205	30.3 -32.0	11.53	11.98	11.38	10.78	13066
35	8	1	31	82.0	ON 207	32.2 -33.2	11.55	12.00	11.40	10.80	13067
					CFF 215	37.2 -35.8	11.60	12.05	11.45	10.85	13068
35	8	2	20	52.9	ON 229	48.6-134.5	11.69	12.10	11.50	10.90	13069
					CFF 225	45.9-137.3	11.67	12.10	11.50	10.90	13070
37	8	1	33	87.3	ON 230	46.9 -44.1	11.70	12.10	11.50	10.90	13071
					CFF 235	50.9 -49.0	11.73	12.10	11.50	10.90	13072
37	8	2	49	129.6	ON 233	51.2-130.4	11.72	12.10	11.50	10.90	13073
					CFF 224	45.0-137.5	11.66	12.09	11.49	10.89	13074
41	5	1	39	103.2	ON 210	32.7 -34.8	11.56	12.01	11.41	10.81	13075
					CFF 219	38.5 -38.3	11.62	12.06	11.46	10.86	13076
41	5	2	45	119.0	ON 240	55.5-120.2	11.76	12.10	11.50	10.90	13077
					CFF 233	51.0-128.9	11.72	12.10	11.50	10.90	13078
42	9	1	68	179.9	ON 237	53.7-123.6	11.74	12.10	11.50	10.90	13079
					CFF 226	46.2-134.7	11.67	12.10	11.50	10.90	13080
42	9	2	52	137.5	ON 217	41.2-139.2	11.62	12.07	11.47	10.87	13081
					CFF 205	33.4-144.0	11.53	12.01	11.41	10.81	13082
43	5	1	22	58.2	ON 246	58.2 -69.8	11.80	12.10	11.50	10.90	13083
					CFF 247	59.3 -75.8	11.80	12.10	11.50	10.90	13084
45	5	1	58	153.4	ON 218	36.9 -38.3	11.62	12.05	11.45	10.85	13085
					CFF 229	44.7 -44.5	11.69	12.09	11.49	10.89	13086
46	9	1	60	158.7	ON 207	35.1-142.1	11.55	12.03	11.43	10.83	13087
					CFF 194	25.2-146.4	11.45	11.89	11.29	10.69	13088
48	9	0	14	37.0	ON 240	51.5 -54.8	11.76	12.10	11.50	10.90	13089
					CFF 241	52.9 -57.5	11.77	12.10	11.50	10.90	13090
50	2	1	20	52.9	ON 206	29.0 -35.2	11.54	11.96	11.36	10.76	13091
					CFF 211	32.1 -36.8	11.58	12.00	11.40	10.80	13092
51	2	1	32	84.6	ON 210	30.9 -36.4	11.57	11.99	11.39	10.79	13093
					CFF 217	35.8 -39.2	11.62	12.04	11.44	10.84	13094
55	8	1	66	174.6	ON 246	55.0 -67.1	11.79	12.10	11.50	10.90	13095
					CFF 248	57.8 -83.2	11.81	12.10	11.50	10.90	13096
56	5	1	53	140.2	ON 248	56.2 -72.9	11.81	12.10	11.50	10.90	13097
					CFF 249	57.8 -86.5	11.81	12.10	11.50	10.90	13098
57	8	1	85	224.8	ON 249	56.8 -77.6	11.81	12.10	11.50	10.90	13099
					CFF 247	57.2 -99.4	11.80	12.10	11.50	10.90	13100
58	3	1	73	193.1	ON 237	52.0-119.2	11.74	12.10	11.50	10.90	13101
					CFF 224	44.4-131.3	11.66	12.09	11.49	10.89	13102

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59	9	1	54	142.8	ON 249	57.2	-85.5	11.81	12.10	11.50	10.90	13103
					CFF 247	56.8	-99.2	11.80	12.10	11.50	10.90	13104
62	3	1	78	206.3	ON 217	32.8	-40.1	11.61	12.01	11.41	10.81	13105
					OFF 233	42.8	-48.1	11.71	12.08	11.48	10.88	13106
62	3	2	19	50.3	ON 243	49.9	-58.2	11.78	12.10	11.50	10.90	13107
					OFF 244	51.5	-61.7	11.79	12.10	11.50	10.90	13108
62	3	3	19	50.3	ON 247	56.5	-96.3	11.80	12.10	11.50	10.90	13109
					OFF 246	56.0	-101.0	11.79	12.10	11.50	10.90	13110
64	4	0	15	39.7	ON 242	49.2	-57.8	11.77	12.10	11.50	10.90	13111
					CFF 244	50.5	-60.5	11.78	12.10	11.50	10.90	13112
65	4	1	20	52.9	ON 203	23.8	-36.3	11.52	11.86	11.26	10.66	13113
					OFF 208	27.1	-37.8	11.55	11.93	11.33	10.73	13114
66	5	1	21	55.5	ON 201	21.9	-35.7	11.51	11.81	11.21	10.61	13115
					CFF 206	25.2	-37.2	11.54	11.89	11.29	10.69	13116
66	5	2	36	95.2	ON 212	28.4	-38.7	11.58	11.95	11.35	10.75	13117
					OFF 220	33.6	-41.7	11.64	12.02	11.42	10.82	13118
67	5	1	24	63.5	ON 216	30.6	-40.1	11.61	11.98	11.38	10.78	13119
					CFF 221	34.0	-42.2	11.64	12.02	11.42	10.82	13120
69	5	1	41	108.4	ON 248	51.8	-66.6	11.81	12.10	11.50	10.90	13121
					CFF 250	54.0	-75.2	11.82	12.10	11.50	10.90	13122
69	5	2	38	100.5	ON 229	45.9	-125.3	11.69	12.10	11.50	10.90	13123
					CFF 221	41.7	-130.5	11.64	12.08	11.48	10.88	13124
70	2	1	39	103.2	ON 225	35.4	-44.0	11.67	12.03	11.43	10.83	13125
					CFF 233	40.3	-48.1	11.71	12.07	11.47	10.87	13126
70	2	2	22	58.2	ON 241	45.7	-54.5	11.76	12.09	11.49	10.89	13127
					CFF 243	47.7	-57.9	11.78	12.10	11.50	10.90	13128
71	8	1	79	209.0	ON 250	53.5	-74.5	11.82	12.10	11.50	10.90	13129
					CFF 249	55.0	-92.7	11.81	12.10	11.50	10.90	13130
72	6	1	60	158.7	ON 250	53.3	-74.6	11.82	12.10	11.50	10.90	13131
					OFF 250	54.8	-88.2	11.82	12.10	11.50	10.90	13132
73	4	1	99	261.9	ON 249	51.9	-69.4	11.81	12.10	11.50	10.90	13133
					CFF 249	54.6	-91.2	11.81	12.10	11.50	10.90	13134
74	6	1	60	158.7	ON 233	48.0	-119.6	11.72	12.10	11.50	10.90	13135
					OFF 221	41.9	-128.7	11.64	12.08	11.48	10.88	13136
74	6	2	28	74.1	ON 210	36.0	-134.1	11.57	12.04	11.44	10.84	13137
					CFF 203	31.9	-136.9	11.52	12.00	11.40	10.80	13138
75	7	1	41	108.4	ON 249	54.2	-88.9	11.81	12.10	11.50	10.90	13139
					CFF 247	53.8	-98.2	11.80	12.10	11.50	10.90	13140
79	9	1	28	74.1	ON 247	48.9	-64.7	11.80	12.10	11.50	10.90	13141
					CFF 249	50.7	-69.9	11.81	12.10	11.50	10.90	13142
												13143



PHOTOGRAPHIC SUMMARY

OPN NO	FRA	FEET	ET	S-EL	S-DIR	FILTER EV	4404 FULL	FILM INT	PRI	
AFT PAN CAMERA NO	166	0.1750	SLIT	W/21						10040
PRE-FLT	162	428.5								10041
1 8 0	14	37.0	ON 302	45.1	-32.0	12.09	12.74	12.14	11.54	10042
			CFF 306	47.3	-33.4	12.11	12.75	12.15	11.55	10043
2 1 1	20	52.9	ON 262	23.5	-25.5	11.89	12.50	11.90	11.30	14001
			CFF 267	27.3	-26.0	11.92	12.58	11.98	11.38	14002
2 1 2	20	52.9	ON 301	43.9	-31.6	12.08	12.74	12.14	11.54	14003
			CFF 307	47.1	-33.5	12.11	12.75	12.15	11.55	14004
6 7 1	17	45.0	ON 324	59.6	-130.2	12.19	12.75	12.15	11.55	14005
			CFF 321	57.5	-134.1	12.18	12.75	12.15	11.55	14006
9 7 0	10	26.5	ON 205	-32.4	332.0	11.54	0.	0.	0.	14007
			CFF 206	-29.6	332.8	11.54	0.	0.	0.	14008
9 7 1	33	87.3	ON 334	62.1	-57.8	12.24	12.75	12.15	11.55	14009
			CFF 337	64.8	-68.1	12.25	12.75	12.15	11.55	14010
9 7 2	63	166.6	ON 338	66.6	-84.7	12.25	12.75	12.15	11.55	14011
			CFF 335	65.2	-109.2	12.24	12.75	12.15	11.55	14012
10 5 1	48	127.0	ON 323	58.7	-130.0	12.19	12.75	12.15	11.55	14013
			CFF 311	52.4	-139.2	12.13	12.75	12.15	11.55	14014
11 6 1	21	55.5	ON 335	62.3	-59.8	12.24	12.75	12.15	11.55	14015
			CFF 336	64.0	-66.3	12.25	12.75	12.15	11.55	14016
13 7 1	54	142.8	ON 343	58.8	-128.0	12.27	12.75	12.15	11.55	14017
			CFF 331	52.0	-138.5	12.22	12.75	12.15	11.55	14018
16 7 1	31	82.0	ON 300	37.6	-32.1	12.08	12.70	12.10	11.50	14019
			CFF 311	42.6	-34.7	12.13	12.73	12.13	11.53	14020
16 7 0	14	37.0	ON 336	55.3	-47.2	12.25	12.75	12.15	11.55	14021
			CFF 339	57.1	-50.1	12.26	12.75	12.15	11.55	14022
17 1 1	24	63.5	ON 259	13.5	-27.8	11.87	12.04	11.44	10.84	14023
			CFF 266	18.3	-28.2	11.91	12.32	11.72	11.12	14024
18 1 1	26	68.8	ON 274	22.8	-28.7	11.95	12.48	11.88	11.28	14025
			CFF 281	27.8	-29.5	11.99	12.59	11.99	11.39	14026
20 3 1	39	103.2	ON 325	44.6	-37.2	12.20	12.74	12.14	11.54	14027
			CFF 336	49.9	-41.8	12.25	12.75	12.15	11.55	14028
21 3 1	20	52.9	ON 321	42.7	-36.2	12.18	12.73	12.13	11.53	14029
			CFF 328	45.7	-38.4	12.21	12.75	12.15	11.55	14030
21 3 2	35	92.6	ON 356	61.0	-117.0	12.33	12.75	12.15	11.55	14031
			CFF 351	58.0	-125.5	12.31	12.75	12.15	11.55	14032
21 3 3	50	132.2	ON 343	53.8	-133.1	12.27	12.75	12.15	11.55	14033
			CFF 330	47.3	-140.4	12.22	12.75	12.15	11.55	14034
22 3 1	20	52.9	ON 313	38.5	-34.1	12.14	12.71	12.11	11.51	14035
			CFF 319	41.7	-35.9	12.17	12.73	12.13	11.53	14036
22 3 2	22	58.2	ON 339	50.9	-43.7	12.26	12.75	12.15	11.55	14037
			CFF 344	53.6	-47.2	12.28	12.75	12.15	11.55	14038
22 3 3	28	74.1	ON 357	61.7	-113.6	12.33	12.75	12.15	11.55	14039
			CFF 354	59.5	-121.1	12.32	12.75	12.15	11.55	14040
22 3 4	22	58.2	ON 350	57.6	-125.8	12.30	12.75	12.15	11.55	14041
			CFF 346	55.3	-130.3	12.29	12.75	12.15	11.55	14042
23 6 1	21	55.5	ON 330	46.6	-39.7	12.22	12.75	12.15	11.55	14043
			CFF 336	49.3	-42.3	12.24	12.75	12.15	11.55	14044
23 6 2	93	246.0	ON 354	58.7	-57.4	12.32	12.75	12.15	11.55	14045
			CFF 361	63.9	-83.6	12.35	12.75	12.15	11.55	14046

24	9	1	36	95.2	ON 359	61.5 -67.3	12.34	12.75	12.15	11.55	14049
					CFF 361	63.2 -77.8	12.35	12.75	12.15	11.55	14050
25	6	0	12	31.7	ON 225	-31.8 328.5	11.67	0.	0.	0.	14051
					CFF 226	-29.2 329.4	11.67	0.	0.	0.	14052
25	6	1	93	246.0	ON 360	62.1 -71.1	12.34	12.75	12.15	11.55	14053
					CFF 361	63.2-100.4	12.35	12.75	12.15	11.55	14054
26	2	1	24	63.5	ON 281	21.4 -30.2	11.99	12.44	11.84	11.24	14055
					CFF 288	25.8 -30.8	12.02	12.56	11.96	11.36	14056
26	2	2	82	216.9	ON 350	57.2-124.6	12.30	12.75	12.15	11.55	14057
					CFF 331	47.8-138.3	12.22	12.75	12.15	11.55	14058
27	6	1	21	55.5	ON 358	60.1 -64.4	12.33	12.75	12.15	11.55	14059
					CFF 360	61.5 -70.4	12.34	12.75	12.15	11.55	14060
30	9	1	45	119.0	ON 306	37.2-144.8	12.11	12.70	12.10	11.50	14061
					CFF 290	29.8-148.0	12.03	12.62	12.02	11.42	14062
32	9	0	15	39.7	ON 348	53.2 -50.9	12.29	12.75	12.15	11.55	14063
					CFF 350	54.8 -53.7	12.31	12.75	12.15	11.55	14064
34	8	1	51	134.9	ON 282	20.5 -31.7	11.99	12.41	11.81	11.21	14065
					CFF 298	29.3 -33.3	12.07	12.62	12.02	11.42	14066
35	8	1	32	84.6	ON 303	31.3 -34.2	12.10	12.64	12.04	11.44	14067
					CFF 314	36.3 -36.3	12.15	12.69	12.09	11.49	14068
35	8	2	21	55.5	ON 336	49.3-133.5	12.24	12.75	12.15	11.55	14069
					CFF 330	46.7-136.4	12.22	12.75	12.15	11.55	14070
37	8	1	34	89.9	ON 337	46.1 -43.8	12.25	12.75	12.15	11.55	14071
					CFF 345	50.2 -48.4	12.28	12.75	12.15	11.55	14072
37	8	2	50	132.2	ON 341	51.8-129.2	12.27	12.75	12.15	11.55	14073
					CFF 328	45.8-136.6	12.21	12.75	12.15	11.55	14074
41	5	1	39	103.2	ON 303	31.7 -35.8	12.10	12.65	12.05	11.45	14075
					CFF 316	37.6 -38.6	12.16	12.70	12.10	11.50	14076
41	5	2	46	121.7	ON 347	56.0-118.8	12.29	12.75	12.15	11.55	14077
					CFF 338	51.6-127.8	12.25	12.75	12.15	11.55	14078
42	9	1	68	179.9	ON 344	54.3-122.4	12.28	12.75	12.15	11.55	14079
					CFF 327	46.9-133.8	12.20	12.75	12.15	11.55	14080
42	9	2	52	137.5	ON 315	42.0-138.3	12.15	12.73	12.13	11.53	14081
					CFF 297	34.3-143.2	12.06	12.67	12.07	11.47	14082
43	5	1	22	58.2	ON 357	57.8 -68.5	12.33	12.75	12.15	11.55	14083
					CFF 358	59.0 -74.3	12.34	12.75	12.15	11.55	14084
45	5	1	59	156.1	ON 315	36.0 -38.7	12.15	12.69	12.09	11.49	14085
					CFF 332	43.9 -44.3	12.23	12.74	12.14	11.54	14086
46	9	1	60	158.7	ON 300	36.0-141.3	12.08	12.69	12.09	11.49	14087
					CFF 280	26.2-145.6	11.98	12.56	11.96	11.36	14088
48	9	0	15	39.7	ON 347	50.9 -54.1	12.29	12.75	12.15	11.55	14089
					CFF 350	52.3 -56.7	12.30	12.75	12.15	11.55	14090
50	2	1	19	50.3	ON 299	28.1 -36.5	12.08	12.60	12.00	11.40	14091
					CFF 306	31.2 -37.7	12.11	12.64	12.04	11.44	14092
51	2	1	34	89.9	ON 304	30.0 -37.4	12.10	12.62	12.02	11.42	14093
					CFF 315	34.9 -39.6	12.15	12.68	12.08	11.48	14094
55	8	1	66	174.6	ON 356	54.5 -66.1	12.33	12.75	12.15	11.55	14095
					CFF 359	57.6 -81.8	12.34	12.75	12.15	11.55	14096
56	5	1	55	145.5	ON 364	55.9 -71.7	12.36	12.75	12.15	11.55	14097
					CFF 365	57.7 -85.1	12.36	12.75	12.15	11.55	14098
57	8	1	87	230.1	ON 365	56.5 -76.3	12.36	12.75	12.15	11.55	14099
					CFF 362	57.3 -97.9	12.35	12.75	12.15	11.55	14100
58	3	1	75	198.4	ON 348	52.4-118.0	12.29	12.75	12.15	11.55	14101
					CFF 328	45.0-130.3	12.21	12.74	12.14	11.54	14102

59	9	1	54	142.8	ON 365	57.0	-84.1	12.36	12.75	12.15	11.55	14103
					CFF 362	56.9	-97.8	12.35	12.75	12.15	11.55	14104
62	3	1	80	211.6	ON 318	31.9	-40.8	12.17	12.65	12.05	11.45	14105
					CFF 341	42.0	-47.9	12.27	12.73	12.13	11.53	14106
62	3	2	19	50.3	ON 356	49.3	-57.5	12.33	12.75	12.15	11.55	14107
					CFF 359	51.0	-60.9	12.34	12.75	12.15	11.55	14108
62	3	3	19	50.3	ON 362	56.5	-94.8	12.35	12.75	12.15	11.55	14109
					CFF 361	56.1	-99.6	12.35	12.75	12.15	11.55	14110
64	4	0	16	42.3	ON 355	48.6	-57.2	12.32	12.75	12.15	11.55	14111
					CFF 357	50.0	-59.8	12.33	12.75	12.15	11.55	14112
65	4	1	22	58.2	ON 297	22.9	-38.4	12.07	12.49	11.89	11.29	14113
					CFF 305	26.1	-39.2	12.10	12.56	11.96	11.36	14114
66	5	1	21	55.5	ON 293	21.0	-38.2	12.05	12.43	11.83	11.23	14115
					CFF 300	24.3	-38.9	12.08	12.52	11.92	11.32	14116
66	5	2	37	97.9	ON 308	27.5	-39.9	12.12	12.59	11.99	11.39	14117
					CFF 320	32.8	-42.2	12.18	12.66	12.06	11.46	14118
67	5	1	24	63.5	ON 314	29.7	-41.0	12.15	12.62	12.02	11.42	14119
					CFF 322	33.1	-42.7	12.18	12.66	12.06	11.46	14120
69	5	1	42	111.1	ON 361	51.4	-65.6	12.35	12.75	12.15	11.55	14121
					CFF 363	53.7	-74.1	12.36	12.75	12.15	11.55	14122
69	5	2	38	100.5	ON 333	46.5	-124.2	12.23	12.75	12.15	11.55	14123
					CFF 321	42.3	-129.6	12.18	12.73	12.13	11.53	14124
70	2	1	41	108.4	ON 327	34.6	-44.3	12.21	12.68	12.08	11.48	14125
					CFF 338	39.6	-48.1	12.25	12.71	12.11	11.51	14126
70	2	2	22	58.2	ON 350	45.0	-54.1	12.30	12.74	12.14	11.54	14127
					CFF 354	47.2	-57.3	12.32	12.75	12.15	11.55	14128
71	8	1	80	211.6	ON 363	53.2	-73.4	12.36	12.75	12.15	11.55	14129
					CFF 362	55.0	-91.3	12.35	12.75	12.15	11.55	14130
72	6	1	61	161.3	ON 363	53.0	-73.5	12.36	12.75	12.15	11.55	14131
					CFF 363	54.7	-86.9	12.36	12.75	12.15	11.55	14132
73	4	1	101	267.1	ON 362	51.5	-68.5	12.35	12.75	12.15	11.55	14133
					CFF 362	54.6	-89.9	12.35	12.75	12.15	11.55	14134
74	6	1	61	161.3	ON 340	48.5	-118.5	12.26	12.75	12.15	11.55	14135
					CFF 322	42.5	-127.8	12.18	12.73	12.13	11.53	14136
74	6	2	29	76.7	ON 305	36.8	-133.3	12.11	12.69	12.09	11.49	14137
					CFF 295	32.7	-136.1	12.06	12.66	12.06	11.46	14138
75	7	1	41	108.4	ON 363	54.2	-87.6	12.36	12.75	12.15	11.55	14139
					CFF 360	53.9	-96.9	12.34	12.75	12.15	11.55	14140
79	9	1	28	74.1	ON 360	48.5	-64.0	12.34	12.75	12.15	11.55	14141
					CFF 362	50.3	-68.9	12.35	12.75	12.15	11.55	14142
												14143

[REDACTED]



STELLAR-INDEX SUMMARY

CAMERA DATA	ET	FILM	FILTER	GRID	ASSEMBLY NO	D63
STELLAR	2.0	4401	NONE	69		
INDEX	1/500	4400	w/21	69		

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PERFORMANCE SUMMARY

OPN NO	FR	STEL FEET	INDX FEET	H	M	S	Q	ON LAT	ON LONG	Q	OFF LAT	OFF LONG	SEC DUR
PRE-FLT	23	2.28	4.55										
1 8 0	2	0.20	C.40	19	31	00	2	52	151W	2	49	150W	38
2 1 1	3	0.30	0.59	20	54	52	2	71	154E	2	68	163E	63
2 1 2	2	0.20	C.40	21	00	32	2	53	175W	2	49	173W	55
6 7 1	3	0.30	0.59	03	15	11	3	06	112E	3	09	113E	47
9 7 0	1	0.10	C.20	07	08	34	1	38	115W	1	41	114W	48
9 7 1	5	0.50	C.99	07	35	47	2	29	036E	2	23	038E	85
9 7 2	9	0.89	1.78	07	39	04	2	16	040E	2	05	042E	160
10 5 1	7	0.69	1.39	09	14	42	3	06	022E	3	15	024E	131
11 6 1	3	0.30	0.59	10	35	42	2	28	008W	2	24	007W	54
13 7 1	8	0.79	1.58	13	43	59	3	05	045W	3	15	043W	146
16 7 1	5	0.50	C.99	17	56	46	2	58	137W	2	53	132W	89
16 7 0	2	0.20	C.40	18	02	20	2	37	124W	2	35	123W	38
17 1 1	4	0.40	C.79	19	19	54	2	75	141E	2	73	160E	79
18 1 1	3	0.30	0.59	20	52	17	2	71	151E	2	67	163E	84
20 3 1	6	0.59	1.19	23	58	17	2	50	138E	2	44	142E	104
21 3 1	3	0.30	0.59	01	27	33	2	52	114E	2	49	116E	56
21 3 2	5	0.50	C.99	01	41	07	2	00	131E	3	05	132E	86
21 3 3	7	0.69	1.39	01	44	10	3	11	134E	3	20	136E	131
22 3 1	3	0.30	0.59	02	56	09	2	57	088E	2	53	091E	57
22 3 2	3	0.30	0.59	03	00	02	2	42	097E	2	39	098E	56
22 3 3	4	0.40	C.79	03	10	27	2	02	108E	3	02	109E	70
22 3 4	3	0.30	0.59	03	12	28	3	05	110E	3	09	110E	56
23 6 1	3	0.30	0.59	04	28	28	2	48	072E	2	44	073E	54
23 6 2	13	1.29	2.57	04	32	52	2	31	078E	2	16	082E	221
24 9 1	5	0.50	C.99	06	04	14	2	25	058E	2	19	059E	85
25 6 0	2	0.20	C.40	07	05	51	1	38	117W	1	41	116W	46
25 6 1	12	1.19	2.38	07	34	35	2	23	035E	2	08	039E	220
26 2 1	4	0.40	C.79	08	50	38	2	71	032W	2	68	020W	74
26 2 2	11	1.09	2.18	09	11	43	3	05	019E	3	19	022E	207
27 6 1	3	0.30	C.59	10	33	12	2	27	010W	2	23	009W	53
30 9 1	7	0.69	1.39	15	17	40	3	31	064W	3	40	061W	132
32 9 0	2	0.20	C.40	17	59	33	2	37	127W	2	35	126W	38
34 8 1	7	0.69	1.39	20	49	03	2	72	145E	2	65	165E	151
35 8 1	5	0.50	C.99	22	21	59	2	63	146E	2	58	152E	91
35 8 2	2	0.20	0.40	22	42	42	3	16	177E	3	19	178E	54
37 8 1	5	0.50	C.99	01	26	18	2	46	115E	2	41	118E	85
37 8 2	7	0.69	1.39	01	41	18	3	12	131E	3	20	133E	130
41 5 1	6	0.59	1.19	07	21	07	2	62	011E	2	56	018E	109
41 5 2	6	0.59	1.19	07	38	30	3	03	039E	3	11	040E	116
42 9 1	10	0.99	1.98	09	09	03	3	06	017E	3	18	019E	175
42 9 2	7	0.69	1.39	09	13	38	3	24	021E	3	34	024E	148
43 5 1	3	0.30	C.59	10	30	31	2	26	012W	2	22	011W	55
45 5 1	9	0.89	1.78	13	21	46	2	57	073W	2	48	066W	155
46 9 1	8	0.79	1.58	15	14	43	3	32	067W	3	43	062W	180





48	9	0	2	0.20	0.40	17	56	30	2	37	129W	2	35	128W	37	15045
50	2	1	3	0.30	0.59	20	48	29	2	65	162E	2	62	167E	58	15046
51	2	1	5	0.50	0.99	22	18	53	2	63	143E	2	58	150E	93	15047
55	8	1	9	0.89	1.78	04	27	25	2	28	074E	2	18	077E	161	15048
56	5	1	8	0.79	1.58	05	58	13	2	25	053E	2	16	055E	131	15049
57	8	1	12	1.19	2.38	07	28	47	2	22	031E	2	08	034E	205	15050
58	3	1	10	0.99	1.98	09	05	38	3	05	014E	3	18	017E	192	15051
59	9	1	8	0.79	1.58	10	29	38	2	17	012W	2	08	011W	130	15052
62	3	1	11	1.09	2.18	14	47	31	2	60	101W	2	48	091W	206	15053
62	3	2	3	0.30	0.59	14	53	51	2	37	086W	2	34	085W	48	15054
62	3	3	3	0.30	0.59	15	00	43	2	10	079W	2	07	078W	47	15055
64	4	0	2	0.20	0.40	17	53	16	2	37	132W	2	35	131W	39	15056
65	4	1	3	0.30	0.59	19	14	07	2	69	173E	2	66	178W	61	15057
66	5	1	3	0.30	0.59	20	43	21	2	70	146E	2	68	154E	62	15058
66	5	2	5	0.50	0.99	20	45	22	2	65	161E	2	59	169E	103	15059
67	5	1	3	0.30	0.59	22	15	54	2	62	142E	2	58	147E	67	15060
69	5	1	6	0.59	1.19	01	24	00	2	30	117E	2	24	118E	101	15061
69	5	2	5	0.50	0.99	01	35	22	3	13	127E	3	20	128E	102	15062
70	2	1	6	0.59	1.19	02	46	58	2	56	081E	2	50	086E	105	15063
70	2	2	3	0.30	0.59	02	50	49	2	42	090E	2	38	091E	55	15064
71	8	1	11	1.09	2.18	04	25	05	2	25	073E	2	12	076E	191	15065
72	6	1	9	0.89	1.78	05	54	52	2	25	050E	2	15	053E	145	15066
73	4	1	14	1.39	2.77	07	23	37	2	29	026E	2	13	030E	239	15067
74	6	1	9	0.89	1.78	09	03	01	3	08	012E	3	19	015E	160	15068
74	6	2	4	0.40	0.79	09	07	52	3	27	017E	3	33	019E	85	15069
75	7	1	6	0.59	1.19	10	26	45	2	15	014W	2	08	013W	99	15070
79	9	1	4	0.40	0.79	16	21	06	2	33	110W	2	29	108W	68	15071
																15072



[REDACTED]

- NOTE - THE CYCLE COUNTER FOR INSTRUMENT 166 APPEARED TO BE DROPPING CYCLES RANDOMLY IN THE EARLY PORTION OF THE MISSION, BUT NOW APPEARS TO BE OPERATING CORRECTLY. ALL CONSUMPTION FIGURES REPRESENT CYCLE COUNTER READINGS IN FLIGHT. 10060
- NOTE - THE LAST FIVE FRAMES OF OPERATION 079-09-1 ARE IN THE SECOND MISSION RECOVERY BUCKET. 10061
- NOTE - MISSION 1021 IS BEING FLOWN WITH THE AGENA MOVING NOSE-FIRST THROUGH ORBIT INSTEAD OF THE USUAL TAIL-FIRST FLIGHT. 10062
- AS A RESULT OF THIS CHANGE IN AGENA ORIENTATION THE FOLLOWING VARIATIONS IN NORMAL SYSTEM PARAMETERS SHOULD BE NOTED - 10063
- (1) AT THE DESCENDING NODE THE STELLAR CAMERA NOW LOOKS WESTWARD INSTEAD OF EASTWARD. 10064
- (2) THE MASTER PAN CAMERA, INSTRUMENT 166, IS THE AFT LOOKING CAMERA AND THE SLAVE PAN CAMERA, INSTRUMENT 167, IS THE FORWARD LOOKING CAMERA. 10065

[REDACTED]

- A. 1021-1 LAUNCH 1802Z 05/18/65
- B. DRY
- . PERFORMANCE ESTIMATE, PART 2

20004
20005
20006

[REDACTED]

E ESTIMATE

												20010
PAN CAMERA NUMBER 167												20011
N	NO	FR	R	A	TUR/ DUR	INST CPS	INST ANG VEL	SCAN R/SEC	RATE I/SEC	PCT CALIB	RATE REQD	
8	0	14	7	6 ON	1348	0.3556	0.03001	2.234	53.62	-4.6	-1.9	21001
				OFF	38	0.3601	0.03038	2.263	54.30	-4.6	-1.8	21002
1	1	20	7	6 ON	996	0.3085	0.02603	1.938	46.52	-4.6	-4.7	21003
				OFF	63	0.3151	0.02659	1.980	47.52	-4.6	-4.6	21004
1	2	20	7	6 ON	1336	0.3540	0.02987	2.224	53.38	-4.6	-1.8	21005
				OFF	55	0.3608	0.03044	2.267	54.40	-4.6	-1.6	21006
7	1	17	7	6 ON	2263	0.3814	0.03218	2.397	57.52	-4.6	-4.0	21007
				OFF	47	0.3773	0.03183	2.370	56.89	-4.6	-4.1	21008
7	0	11	7	6 ON	99	0.2426	0.02047	1.525	36.59	-4.6	-6.6	21009
				OFF	48	0.2435	0.02055	1.530	36.72	-4.6	-7.1	21010
7	1	33	7	6 ON	1731	0.3926	0.03313	2.467	59.20	-4.6	-1.4	21011
				OFF	85	0.3960	0.03341	2.488	59.71	-4.6	-1.8	21012
7	2	63	7	6 ON	1929	0.3975	0.03354	2.498	59.95	-4.6	-2.3	21013
				OFF	160	0.3936	0.03322	2.473	59.36	-4.6	-3.0	21014
5	1	49	7	6 ON	2279	0.3799	0.03206	2.387	57.29	-4.6	-4.0	21015
				OFF	131	0.3663	0.03090	2.301	55.23	-4.6	-4.6	21016
6	1	21	7	6 ON	1750	0.3935	0.03320	2.473	59.34	-4.6	-1.4	21017
				OFF	54	0.3956	0.03338	2.485	59.65	-4.6	-1.7	21018
7	1	57	6	6 ON	2209	0.4028	0.03398	2.531	60.74	-4.6	1.8	21019
				OFF	146	0.3894	0.03285	2.446	58.71	-4.6	1.8	21020
7	1	32	6	6 ON	1212	0.3535	0.02983	2.221	53.31	-4.6	-0.0	21021
				OFF	89	0.3657	0.03086	2.298	55.15	-4.6	0.6	21022
7	0	15	6	6 ON	1546	0.3954	0.03336	2.484	59.62	-4.6	1.8	21023
				OFF	38	0.3986	0.03364	2.505	60.11	-4.6	1.8	21024
1	1	25	6	6 ON	812	0.3057	0.02579	1.921	46.10	-4.6	-2.0	21025
				OFF	79	0.3136	0.02646	1.971	47.30	-4.6	-1.9	21026
1	1	27	6	6 ON	968	0.3222	0.02719	2.025	48.59	-4.6	-1.6	21027
				OFF	84	0.3312	0.02795	2.081	49.94	-4.6	-1.5	21028
3	1	39	6	6 ON	1352	0.3733	0.03150	2.345	56.29	-4.5	1.1	21029
				OFF	104	0.3857	0.03255	2.424	58.16	-4.5	1.5	21030
3	1	20	6	6 ON	1320	0.3690	0.03113	2.318	55.64	-4.5	0.9	21031
				OFF	56	0.3759	0.03172	2.362	56.69	-4.5	1.1	21032
3	2	34	6	6 ON	2133	0.4084	0.03446	2.566	61.58	-4.5	1.9	21033
				OFF	86	0.4026	0.03397	2.530	60.71	-4.5	1.9	21034
3	3	50	6	6 ON	2316	0.3934	0.03320	2.472	59.33	-4.5	1.8	21035
				OFF	131	0.3789	0.03197	2.380	57.13	-4.5	1.8	21036
3	1	20	6	6 ON	1248	0.3590	0.03029	2.256	54.14	-4.5	0.3	21037
				OFF	57	0.3666	0.03093	2.303	55.28	-4.5	0.6	21038
3	2	22	6	6 ON	1481	0.3889	0.03282	2.444	58.65	-4.5	1.7	21039
				OFF	56	0.3946	0.03329	2.479	59.50	-4.5	1.8	21040
3	3	28	6	6 ON	2106	0.4099	0.03458	2.575	61.81	-4.5	1.9	21041
				OFF	70	0.4058	0.03424	2.550	61.20	-4.5	1.9	21042
3	4	22	6	6 ON	2227	0.4017	0.03390	2.524	60.58	-4.5	1.8	21043
				OFF	56	0.3971	0.03351	2.495	59.88	-4.5	1.9	21044
6	1	20	6	6 ON	1398	0.3792	0.03200	2.383	57.18	-4.5	1.3	21045
				OFF	54	0.3853	0.03251	2.421	58.10	-4.5	1.5	21046
6	2	91	6	6 ON	1662	0.4055	0.03422	2.548	61.15	-4.5	2.0	21047
				OFF	221	0.4145	0.03498	2.604	62.51	-4.5	2.0	21048

9	1	35	6	6 ON	1763	0.4113	0.03470	2.584	62.02	-4.5	2.1	21049
				OFF	85	0.4139	0.03493	2.601	62.42	-4.5	2.0	21050
6	0	12	6	6 ON	71	0.2593	0.02188	1.629	39.10	-4.5	-1.1	21051
				OFF	46	0.2599	0.02193	1.633	39.20	-4.5	-1.7	21052
6	1	90	6	6 ON	1795	0.4126	0.03481	2.592	62.21	-4.5	2.1	21053
				OFF	220	0.4135	0.03489	2.598	62.36	-4.5	1.9	21054
2	1	24	6	6 ON	970	0.3228	0.02724	2.028	48.68	-4.5	-1.7	21055
				OFF	74	0.3307	0.02790	2.078	49.87	-4.5	-1.6	21056
2	2	80	6	6 ON	2235	0.4010	0.03384	2.520	60.47	-4.5	1.8	21057
				OFF	207	0.3795	0.03202	2.384	57.22	-4.5	1.7	21058
6	1	22	6	6 ON	1737	0.4101	0.03460	2.576	61.83	-4.5	2.1	21059
				OFF	53	0.4123	0.03479	2.590	62.17	-4.5	2.0	21060
9	1	44	6	6 ON	2641	0.3518	0.02968	2.210	53.04	-4.5	1.0	21061
				OFF	132	0.3337	0.02816	2.097	50.32	-4.5	0.8	21062
9	0	15	6	6 ON	1580	0.3990	0.03366	2.507	60.16	-4.5	2.0	21063
				OFF	38	0.4020	0.03392	2.526	60.61	-4.5	1.9	21064
8	1	51	6	6 ON	973	0.3231	0.02727	2.030	48.73	-4.5	-2.0	21065
				OFF	151	0.3405	0.02873	2.140	51.35	-4.5	-1.5	21066
8	1	31	6	6 ON	1162	0.3439	0.02902	2.161	51.87	-5.2	-1.6	21067
				OFF	91	0.3566	0.03009	2.240	53.77	-5.2	-0.8	21068
8	2	20	6	6 ON	2406	0.3807	0.03212	2.392	57.40	-5.2	0.9	21069
				OFF	54	0.3744	0.03159	2.353	56.46	-5.2	0.9	21070
8	1	33	6	6 ON	1448	0.3823	0.03226	2.402	57.65	-5.2	0.7	21071
				OFF	85	0.3912	0.03301	2.458	58.99	-5.2	1.0	21072
8	2	49	6	6 ON	2348	0.3871	0.03266	2.432	58.38	-5.2	0.9	21073
				OFF	130	0.3721	0.03140	2.338	56.11	-5.2	0.9	21074
5	1	39	6	6 ON	1191	0.3482	0.02938	2.188	52.50	-5.2	-1.3	21075
				OFF	109	0.3631	0.03064	2.281	54.75	-5.2	-0.3	21076
5	2	45	6	6 ON	2233	0.3981	0.03359	2.502	60.04	-5.2	1.0	21077
				OFF	116	0.3874	0.03269	2.434	58.41	-5.2	1.0	21078
9	1	68	6	6 ON	2281	0.3939	0.03324	2.475	59.40	-5.2	1.0	21079
				OFF	175	0.3748	0.03163	2.355	56.52	-5.2	0.8	21080
9	2	52	6	6 ON	2556	0.3613	0.03048	2.270	54.48	-5.2	0.5	21081
				OFF	148	0.3405	0.02873	2.139	51.34	-5.2	0.0	21082
5	1	22	6	6 ON	1783	0.4090	0.03451	2.570	61.68	-5.2	1.4	21083
				OFF	55	0.4106	0.03465	2.580	61.92	-5.2	1.3	21084
5	1	58	6	6 ON	1284	0.3614	0.03050	2.271	54.50	-5.2	-0.4	21085
				OFF	155	0.3810	0.03214	2.394	57.45	-5.2	0.6	21086
9	1	60	6	6 ON	2675	0.3442	0.02904	2.162	51.90	-5.2	-0.0	21087
				OFF	180	0.3221	0.02718	2.024	48.58	-5.2	0.4	21088
9	0	14	6	6 ON	1608	0.3984	0.03361	2.503	60.07	-5.2	1.3	21089
				OFF	37	0.4010	0.03384	2.520	60.47	-5.2	1.3	21090
2	1	20	6	6 ON	1155	0.3429	0.02894	2.155	51.71	-5.2	-1.9	21091
				OFF	58	0.3509	0.02961	2.205	52.92	-5.2	-1.3	21092
2	1	32	6	6 ON	1193	0.3484	0.02940	2.189	52.54	-5.2	-1.5	21093
				OFF	93	0.3611	0.03047	2.269	54.46	-5.2	-0.6	21094
8	1	66	6	6 ON	1761	0.4081	0.03444	2.564	61.54	-5.2	1.4	21095
				OFF	161	0.4116	0.03473	2.586	62.07	-5.2	1.3	21096
5	1	53	6	6 ON	1824	0.4120	0.03476	2.588	62.12	-4.8	1.8	21097
				OFF	131	0.4131	0.03486	2.596	62.29	-4.8	1.7	21098
8	1	85	6	6 ON	1871	0.4129	0.03484	2.594	62.27	-4.8	1.7	21099
				OFF	205	0.4099	0.03459	2.576	61.82	-4.8	1.5	21100
3	1	73	6	6 ON	2297	0.3940	0.03324	2.475	59.41	-4.8	1.2	21101
				OFF	192	0.3721	0.03140	2.338	56.11	-4.8	1.0	21102

9	1	54	6	6	ON	1950	0.4131	0.03486	2.596	62.30	-4.8	1.7	21103
					OFF	130	0.4098	0.03457	2.575	61.79	-4.8	1.5	21104
3	1	78	6	6	ON	1267	0.3605	0.03042	2.265	54.36	-4.8	-0.3	21105
					OFF	206	0.3865	0.03261	2.428	58.28	-4.8	1.2	21106
3	2	19	6	6	ON	1648	0.4030	0.03401	2.532	60.78	-4.8	1.8	21107
					OFF	48	0.4061	0.03427	2.552	61.24	-4.8	1.8	21108
3	3	19	6	6	ON	2060	0.4105	0.03464	2.579	61.90	-4.8	1.5	21109
					OFF	47	0.4085	0.03447	2.567	61.60	-4.8	1.5	21110
4	0	15	6	6	ON	1639	0.4024	0.03395	2.528	60.67	-4.8	1.7	21111
					OFF	39	0.4049	0.03416	2.544	61.05	-4.8	1.7	21112
4	1	20	6	6	ON	1104	0.3368	0.02842	2.116	50.78	-4.8	-2.5	21113
					OFF	61	0.3454	0.02914	2.170	52.08	-4.8	-1.8	21114
5	1	21	6	6	ON	1073	0.3348	0.02825	2.104	50.49	-4.3	-2.2	21115
					OFF	62	0.3427	0.02892	2.153	51.68	-4.3	-1.7	21116
5	2	36	6	6	ON	1194	0.3519	0.02969	2.211	53.07	-4.3	-0.8	21117
					OFF	103	0.3661	0.03089	2.301	55.21	-4.3	0.3	21118
5	1	24	6	6	ON	1241	0.3587	0.03026	2.254	54.09	-4.3	-0.2	21119
					OFF	67	0.3677	0.03102	2.310	55.44	-4.3	0.4	21120
5	1	41	6	6	ON	1757	0.4118	0.03474	2.587	62.09	-4.3	2.3	21121
					OFF	101	0.4149	0.03501	2.607	62.56	-4.3	2.3	21122
5	2	38	6	6	ON	2440	0.3801	0.03207	2.388	57.31	-4.3	1.4	21123
					OFF	102	0.3670	0.03097	2.306	55.35	-4.3	1.2	21124
2	1	39	6	6	ON	1351	0.3738	0.03154	2.349	56.37	-4.3	0.9	21125
					OFF	105	0.3865	0.03261	2.428	58.28	-4.3	1.6	21126
2	2	22	6	6	ON	1582	0.3999	0.03374	2.512	60.30	-4.3	2.2	21127
					OFF	55	0.4042	0.03410	2.540	60.95	-4.3	2.2	21128
8	1	79	6	6	ON	1853	0.4149	0.03500	2.607	62.56	-4.3	2.3	21129
					OFF	191	0.4134	0.03488	2.597	62.34	-4.3	2.1	21130
6	1	60	6	6	ON	1855	0.4149	0.03501	2.607	62.56	-4.3	2.3	21131
					OFF	145	0.4146	0.03499	2.605	62.52	-4.3	2.1	21132
4	1	99	6	6	ON	1795	0.4133	0.03487	2.597	62.32	-4.3	2.4	21133
					OFF	239	0.4137	0.03491	2.600	62.39	-4.3	2.1	21134
6	1	60	6	6	ON	2375	0.3877	0.03272	2.436	58.47	-4.3	1.4	21135
					OFF	160	0.3679	0.03104	2.311	55.47	-4.3	1.1	21136
6	2	28	6	6	ON	2666	0.3487	0.02943	2.191	52.59	-4.3	0.5	21137
					OFF	85	0.3368	0.02842	2.116	50.79	-4.3	0.2	21138
7	1	41	6	6	ON	2014	0.4142	0.03495	2.603	62.46	-4.3	2.1	21139
					OFF	99	0.4104	0.03463	2.579	61.88	-4.3	2.0	21140
9	1	28	6	6	ON	1732	0.4106	0.03464	2.580	61.91	-4.3	2.4	21141
					OFF	68	0.4134	0.03488	2.597	62.34	-4.3	2.3	21142
													21143

[REDACTED]



E ESTIMATE											20020
PAN CAMERA NUMBER 166											20021
N NO	FR	R	A	TUR/ DUR	INST CPS	INST ANG VEL	SCAN R/SEC	RATE I/SEC	PCT CALIB	RATE REQU	20022
8 0	14	7	6 ON	1348	0.3512	0.02964	2.207	52.96	-5.9	-3.2	20023
			OFF	38	0.3557	0.03001	2.235	53.64	-5.9	-3.1	22001
1 1	20	7	6 ON	996	0.3044	0.02568	1.913	45.90	-5.9	-6.1	22002
			OFF	63	0.3110	0.02624	1.954	46.89	-5.9	-6.0	22003
1 2	20	7	6 ON	1336	0.3496	0.02950	2.197	52.72	-5.9	-3.1	22004
			OFF	55	0.3563	0.03007	2.239	53.74	-5.9	-2.9	22005
7 1	17	7	6 ON	2263	0.3769	0.03180	2.368	56.83	-5.9	-5.2	22006
			OFF	47	0.3728	0.03145	2.342	56.21	-5.9	-5.4	22007
7 0	10	7	6 ON	99	0.2389	0.02016	1.501	36.02	-5.9	-8.3	22008
			OFF	48	0.2397	0.02023	1.506	36.15	-5.9	-8.8	22009
7 1	33	7	6 ON	1731	0.3880	0.03274	2.438	58.51	-5.9	-2.6	22010
			OFF	85	0.3914	0.03302	2.459	59.01	-5.9	-3.0	22011
7 2	63	7	6 ON	1929	0.3929	0.03315	2.469	59.25	-5.9	-3.5	22012
			OFF	160	0.3891	0.03283	2.445	58.67	-5.9	-4.3	22013
5 1	48	7	6 ON	2279	0.3754	0.03168	2.359	56.61	-5.9	-5.3	22014
			OFF	131	0.3618	0.03053	2.273	54.56	-5.9	-5.9	22015
6 1	21	7	6 ON	1750	0.3889	0.03282	2.444	58.65	-5.9	-2.6	22016
			OFF	54	0.3910	0.03299	2.457	58.96	-5.9	-2.9	22017
7 1	54	6	6 ON	2209	0.3982	0.03360	2.502	60.04	-5.9	0.6	22018
			OFF	146	0.3848	0.03247	2.418	58.03	-5.9	0.7	22019
7 1	31	6	6 ON	1212	0.3492	0.02947	2.194	52.66	-5.9	-1.3	22020
			OFF	89	0.3614	0.03049	2.270	54.49	-5.9	-0.6	22021
7 0	14	6	6 ON	1546	0.3908	0.03298	2.456	58.93	-5.9	0.7	22022
			OFF	38	0.3941	0.03325	2.476	59.42	-5.9	0.7	22023
1 1	24	6	6 ON	812	0.3016	0.02545	1.895	45.48	-5.9	-3.4	22024
			OFF	79	0.3095	0.02612	1.945	46.68	-5.9	-3.2	22025
1 1	26	6	6 ON	968	0.3181	0.02684	1.999	47.97	-5.9	-2.9	22026
			OFF	84	0.3270	0.02759	2.055	49.31	-5.9	-2.8	22027
3 1	39	6	6 ON	1352	0.3781	0.03190	2.375	57.01	-3.5	2.4	22028
			OFF	104	0.3907	0.03297	2.455	58.92	-3.5	2.8	22029
3 1	20	6	6 ON	1320	0.3737	0.03153	2.348	56.35	-3.5	2.1	22030
			OFF	56	0.3807	0.03213	2.392	57.41	-3.5	2.4	22031
3 2	35	6	6 ON	2133	0.4138	0.03492	2.600	62.40	-3.5	3.2	22032
			OFF	86	0.4079	0.03442	2.563	61.52	-3.5	3.2	22033
3 3	50	6	6 ON	2316	0.3986	0.03363	2.504	60.11	-3.5	3.1	22034
			OFF	131	0.3837	0.03238	2.411	57.87	-3.5	3.0	22035
3 1	20	6	6 ON	1248	0.3635	0.03067	2.284	54.82	-3.5	1.5	22036
			OFF	57	0.3712	0.03132	2.332	55.98	-3.5	1.9	22037
3 2	22	6	6 ON	1481	0.3940	0.03325	2.476	59.42	-3.5	3.0	22038
			OFF	56	0.3998	0.03373	2.512	60.28	-3.5	3.1	22039
3 3	28	6	6 ON	2106	0.4153	0.03505	2.610	62.63	-3.5	3.2	22040
			OFF	70	0.4112	0.03470	2.584	62.01	-3.5	3.2	22041
3 4	22	6	6 ON	2227	0.4071	0.03435	2.558	61.38	-3.5	3.1	22042
			OFF	56	0.4023	0.03395	2.528	60.67	-3.5	3.2	22043
6 1	21	6	6 ON	1398	0.3841	0.03241	2.413	57.92	-3.5	2.6	22044
			OFF	54	0.3903	0.03293	2.452	58.86	-3.5	2.7	22045
6 2	93	6	6 ON	1662	0.4109	0.03467	2.582	61.96	-3.5	3.3	22046
			OFF	221	0.4201	0.03545	2.640	63.35	-3.5	3.3	22047
											22048



24	9	1	36	6	6	ON	1763	0.4168	0.03517	2.619	62.85	-3.5	3.4	22049
						OFF	85	0.4195	0.03540	2.636	63.26	-3.5	3.3	22050
25	6	0	12	6	6	ON	71	0.2619	0.02210	1.645	39.49	-3.5	-0.1	22051
						OFF	46	0.2625	0.02215	1.650	39.59	-3.5	-0.7	22052
25	6	1	93	6	6	ON	1795	0.4181	0.03528	2.627	63.05	-3.5	3.4	22053
						OFF	220	0.4191	0.03536	2.633	63.20	-3.5	3.2	22054
26	2	1	24	6	6	ON	970	0.3266	0.02756	2.052	49.25	-3.5	-0.5	22055
						OFF	74	0.3347	0.02824	2.103	50.46	-3.5	-0.4	22056
26	2	2	82	6	6	ON	2235	0.4063	0.03429	2.553	61.28	-3.5	3.0	22057
						OFF	207	0.3844	0.03243	2.415	57.96	-3.5	2.9	22058
27	6	1	21	6	6	ON	1737	0.4155	0.03506	2.611	62.66	-3.5	3.4	22059
						OFF	53	0.4178	0.03525	2.625	63.00	-3.5	3.3	22060
30	9	1	45	6	6	ON	2641	0.3561	0.03005	2.238	53.70	-3.5	2.2	22061
						OFF	132	0.3377	0.02849	2.122	50.92	-3.5	2.0	22062
32	9	0	15	6	6	ON	1580	0.4043	0.03411	2.540	60.96	-3.5	3.2	22063
						OFF	38	0.4073	0.03437	2.559	61.42	-3.5	3.2	22064
34	8	1	51	6	6	ON	973	0.3282	0.02769	2.062	49.49	-3.1	-0.4	22065
						OFF	151	0.3460	0.02920	2.174	52.18	-3.1	0.2	22066
35	8	1	32	6	6	ON	1162	0.3522	0.02972	2.213	53.11	-3.1	0.7	22067
						OFF	91	0.3652	0.03081	2.295	55.07	-3.1	1.6	22068
35	8	2	21	6	6	ON	2406	0.3900	0.03291	2.451	58.82	-3.1	3.3	22069
						OFF	54	0.3836	0.03237	2.410	57.85	-3.1	3.3	22070
37	8	1	34	6	6	ON	1448	0.3918	0.03306	2.461	59.08	-3.1	3.1	22071
						OFF	85	0.4009	0.03383	2.519	60.46	-3.1	3.4	22072
37	8	2	50	6	6	ON	2348	0.3967	0.03347	2.493	59.82	-3.1	3.3	22073
						OFF	130	0.3812	0.03217	2.395	57.48	-3.1	3.2	22074
41	5	1	39	6	6	ON	1191	0.3526	0.02975	2.216	53.17	-4.2	-0.1	22075
						OFF	109	0.3679	0.03104	2.311	55.47	-4.2	1.0	22076
41	5	2	46	6	6	ON	2233	0.4036	0.03405	2.536	60.86	-4.2	2.3	22077
						OFF	116	0.3926	0.03313	2.467	59.20	-4.2	2.3	22078
42	9	1	68	6	6	ON	2281	0.3993	0.03369	2.509	60.21	-4.2	2.3	22079
						OFF	175	0.3798	0.03205	2.387	57.28	-4.2	2.1	22080
42	9	2	52	6	6	ON	2556	0.3660	0.03088	2.300	55.19	-4.2	1.8	22081
						OFF	148	0.3448	0.02909	2.166	51.99	-4.2	1.3	22082
43	5	1	22	6	6	ON	1783	0.4147	0.03499	2.605	62.53	-4.2	2.7	22083
						OFF	55	0.4163	0.03513	2.616	62.78	-4.2	2.7	22084
45	5	1	59	6	6	ON	1294	0.3661	0.03089	2.300	55.21	-4.2	0.9	22085
						OFF	155	0.3861	0.03258	2.426	58.22	-4.2	2.0	22086
46	9	1	60	6	6	ON	2675	0.3485	0.02941	2.190	52.56	-4.2	1.2	22087
						OFF	180	0.3261	0.02751	2.049	49.17	-4.2	1.6	22088
48	9	0	15	6	6	ON	1608	0.4038	0.03407	2.537	60.89	-4.2	2.6	22089
						OFF	37	0.4065	0.03430	2.554	61.30	-4.2	2.6	22090
50	2	1	19	6	6	ON	1155	0.3473	0.02930	2.182	52.37	-4.2	-0.6	22091
						OFF	58	0.3554	0.02999	2.233	53.60	-4.2	-0.0	22092
51	2	1	34	6	6	ON	1193	0.3528	0.02977	2.217	53.21	-4.2	-0.2	22093
						OFF	93	0.3659	0.03087	2.299	55.17	-4.2	0.7	22094
55	8	1	66	6	6	ON	1761	0.4137	0.03491	2.600	62.39	-4.2	2.8	22095
						OFF	161	0.4173	0.03521	2.622	62.93	-4.2	2.6	22096
56	5	1	55	6	6	ON	1824	0.4228	0.03567	2.656	63.75	-2.6	4.3	22097
						OFF	131	0.4239	0.03577	2.664	63.93	-2.6	4.2	22098
57	8	1	87	6	6	ON	1871	0.4237	0.03575	2.662	63.90	-2.6	4.2	22099
						OFF	205	0.4206	0.03549	2.643	63.43	-2.6	4.0	22100
58	3	1	75	6	6	ON	2297	0.4042	0.03410	2.540	60.95	-2.6	3.7	22101
						OFF	192	0.3816	0.03220	2.398	57.55	-2.6	3.4	22102

59	9	1	54	6	6 ON	1950	0.4239	0.03577	2.664	63.93	-2.6	4.2	22103
					OFF	130	0.4205	0.03548	2.642	63.41	-2.6	4.0	22104
62	3	1	80	6	6 ON	1267	0.3696	0.03119	2.322	55.73	-2.6	2.1	22105
					OFF	206	0.3964	0.03345	2.491	59.78	-2.6	3.6	22106
62	3	2	19	6	6 ON	1648	0.4135	0.03489	2.598	62.36	-2.6	4.3	22107
					OFF	48	0.4167	0.03516	2.618	62.84	-2.6	4.3	22108
62	3	3	19	6	6 ON	2060	0.4212	0.03554	2.647	63.52	-2.6	4.0	22109
					OFF	47	0.4192	0.03537	2.634	63.21	-2.6	4.0	22110
64	4	0	16	6	6 ON	1639	0.4128	0.03483	2.594	62.25	-2.6	4.2	22111
					OFF	39	0.4154	0.03505	2.610	62.65	-2.6	4.2	22112
65	4	1	22	6	6 ON	1104	0.3451	0.02912	2.169	52.04	-2.6	-0.1	22113
					OFF	61	0.3540	0.02987	2.224	53.38	-2.6	0.7	22114
66	5	1	21	6	6 ON	1073	0.3404	0.02872	2.139	51.33	-2.9	-0.5	22115
					OFF	62	0.3485	0.02941	2.190	52.55	-2.9	0.0	22116
66	5	2	37	6	6 ON	1194	0.3579	0.03020	2.249	53.97	-2.9	0.9	22117
					OFF	103	0.3725	0.03143	2.340	56.17	-2.9	2.0	22118
67	5	1	24	6	6 ON	1241	0.3648	0.03078	2.292	55.01	-2.9	1.5	22119
					OFF	67	0.3740	0.03156	2.350	56.40	-2.9	2.1	22120
69	5	1	42	6	6 ON	1757	0.4192	0.03537	2.634	63.21	-2.9	4.1	22121
					OFF	101	0.4224	0.03564	2.654	63.70	-2.9	4.0	22122
69	5	2	38	6	6 ON	2440	0.3867	0.03263	2.430	58.32	-2.9	3.1	22123
					OFF	102	0.3734	0.03151	2.346	56.31	-2.9	2.9	22124
70	2	1	41	6	6 ON	1351	0.3803	0.03209	2.390	57.35	-2.9	2.6	22125
					OFF	105	0.3933	0.03319	2.471	59.31	-2.9	3.3	22126
70	2	2	22	6	6 ON	1582	0.4070	0.03434	2.557	61.37	-2.9	3.9	22127
					OFF	55	0.4114	0.03472	2.585	62.04	-2.9	3.9	22128
71	8	1	80	6	6 ON	1853	0.4224	0.03564	2.654	63.69	-2.9	4.0	22129
					OFF	191	0.4209	0.03551	2.644	63.46	-2.9	3.8	22130
72	6	1	61	6	6 ON	1855	0.4224	0.03564	2.654	63.70	-2.9	4.0	22131
					OFF	145	0.4221	0.03562	2.652	63.65	-2.9	3.9	22132
73	4	1	101	6	6 ON	1795	0.4208	0.03550	2.644	63.45	-2.9	4.1	22133
					OFF	239	0.4212	0.03554	2.647	63.52	-2.9	3.8	22134
74	6	1	61	6	6 ON	2375	0.3946	0.03329	2.479	59.50	-2.9	3.2	22135
					OFF	160	0.3743	0.03158	2.351	56.44	-2.9	2.8	22136
74	6	2	29	6	6 ON	2666	0.3547	0.02993	2.228	53.48	-2.9	2.1	22137
					OFF	85	0.3425	0.02890	2.152	51.64	-2.9	1.9	22138
75	7	1	41	6	6 ON	2014	0.4217	0.03558	2.650	63.59	-2.9	3.8	22139
					OFF	99	0.4178	0.03525	2.625	63.00	-2.9	3.7	22140
79	9	1	28	6	6 ON	1732	0.4180	0.03527	2.626	63.03	-2.9	4.1	22141
					OFF	68	0.4208	0.03551	2.644	63.46	-2.9	4.1	22142
													22143



RAMP PROFILE

TUR	PER	CPS	ANG V
R- 7 A- 6		PERIOD= 3840	
= 0.3351	A=	C.0816	
-0	3.945	0.2535	C.02293
100	3.932	0.2543	C.02300
200	3.894	0.2568	C.02323
300	3.833	0.2609	C.02360
400	3.752	0.2665	C.02411
500	3.656	0.2735	C.02474
600	3.549	0.2818	C.02549
700	3.435	0.2912	C.02633
800	3.318	0.3014	C.02726
900	3.201	0.3124	C.02825
1000	3.088	0.3238	C.02928
1100	2.980	0.3355	C.03035
1200	2.849	0.3510	C.03175
1300	2.733	0.3659	C.03310
1400	2.634	0.3797	C.03434
1500	2.552	0.3918	C.03544
1600	2.488	0.4019	C.03635
1700	2.441	0.4096	C.03705
1800	2.412	0.4146	C.03750
1900	2.400	0.4166	C.03768
2000	2.405	0.4158	C.03760
2100	2.428	0.4119	C.03726
2200	2.467	0.4053	C.03666
2300	2.524	0.3962	C.03583
2400	2.599	0.3848	C.03480
2500	2.691	0.3716	C.03361
2600	2.801	0.3571	C.03230
2700	2.926	0.3418	C.03091
2800	3.045	0.3284	C.02970
2900	3.156	0.3169	C.02866
3000	3.271	0.3057	C.02765
3100	3.388	0.2952	C.02670
3200	3.504	0.2854	C.02582
3300	3.614	0.2767	C.02503
3400	3.715	0.2692	C.02434
3500	3.803	0.2630	C.02379
3600	3.872	0.2583	C.02336
3700	3.920	0.2551	C.02308
3800	3.943	0.2536	C.02294

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RAMP PROFILE

R- 6 A- 6 PERIOD= 3840
R= 0.3527 A= 0.0816

TUR	PER	CPS	ANG V
-0	3.689	0.2711	C.02452
100	3.677	0.2719	C.02460
200	3.644	0.2744	C.02482
300	3.591	0.2785	C.02519
400	3.520	0.2841	C.02570
500	3.435	0.2911	C.02633
600	3.340	0.2994	C.02708
700	3.239	0.3088	C.02793
800	3.135	0.3190	C.02885
900	3.031	0.3300	C.02984
1000	2.929	0.3414	C.03088
1100	2.832	0.3531	C.03194
1200	2.713	0.3686	C.03334
1300	2.607	0.3835	C.03469
1400	2.517	0.3973	C.03593
1500	2.442	0.4094	C.03703
1600	2.384	0.4195	C.03795
1700	2.341	0.4272	C.03864
1800	2.314	0.4322	C.03909
1900	2.303	0.4342	C.03927
2000	2.308	0.4334	C.03919
2100	2.328	0.4295	C.03885
2200	2.365	0.4229	C.03825
2300	2.417	0.4138	C.03742
2400	2.485	0.4024	C.03639
2500	2.569	0.3892	C.03520
2600	2.669	0.3747	C.03389
2700	2.783	0.3594	C.03250
2800	2.890	0.3460	C.03130
2900	2.990	0.3345	C.03025
3000	3.093	0.3233	C.02924
3100	3.197	0.3128	C.02829
3200	3.300	0.3030	C.02741
3300	3.398	0.2943	C.02662
3400	3.487	0.2868	C.02594
3500	3.564	0.2806	C.02538
3600	3.625	0.2759	C.02495
3700	3.667	0.2727	C.02467
3800	3.687	0.2712	C.02453

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CLOCK SUMMARY

PRELIMINARY CLOCK CORRELATION

ORDER FIT 1

SYS TIME I/P	CL TIME I/P	CGMP SYS TM	DELTA ST	REV	STA
65372.950	290912.72790	65372.96400	-0.01305	0	1
25699.317	337639.08490	25699.31530	0.00269	9	1
65021.080	376960.85690	65021.08240	-0.00148	16	1
25535.225	423874.99890	25535.21870	0.00728	25	1
64736.122	463075.90190	64736.11690	0.00609	32	1
25365.034	510104.82290	25365.03210	0.00286	41	1
59165.455	7034.33490	59165.45190	0.00401	47	1
25176.237	59445.12590	25176.23650	0.00145	57	1
59132.610	93401.50390	59132.61030	0.00062	63	1
19470.042	140138.94590	19470.04660	-0.00365	72	1
58803.432	179472.34390	58803.43980	-0.00682	79	1

20040
20041
20042
20043
24001
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24003
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24008
24009
24010
24011

A0=-0.2255397282D 06 A1= 0.999999877228D 00

SIGMA=0.00545 NO. POINTS= 11

RATIO OF CLOCK TIME TO SYS TIME= 0.100000012277D 01

24400
24401
24402
24403

ORDER FIT 2

SYS TIME I/P	CL TIME I/P	CGMP SYS TM	DELTA ST	REV	STA
65372.950	290912.72790	65372.95540	-0.00445	0	1
25699.317	337639.08490	25699.31220	0.00576	9	1
65021.080	376960.85690	65021.08300	-0.00201	16	1
25535.225	423874.99890	25535.22220	0.00371	25	1
64736.122	463075.90190	64736.12190	0.00103	32	1
25365.034	510104.82290	25365.03770	-0.00273	41	1
59165.455	7034.33490	59165.45710	-0.00111	47	1
25176.237	59445.12590	25176.23950	-0.00155	57	1
59132.610	93401.50390	59132.61100	-0.00009	63	1
19470.042	140138.94590	19470.04300	-0.00003	72	1
58803.432	179472.34390	58803.43150	0.00149	79	1

20044
20045
24501
24502
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24511

A0=-0.2255398018D 06 A1= 0.100000019077D 01

A2=-0.3105837684071D-12

SIGMA=0.00266 NO. POINTS= 11

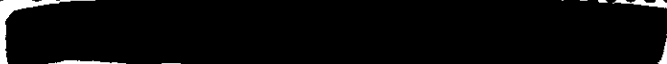
24900
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24902
24903





CLOCK OPERATIONS

OPN	NU	FR	H	M	S	DEC	BINARY		
1	8	0	14	ON	19	31	00-155278	01001010000010101101010110000	20050
				OFF	19	31	38-155240	01001010000001100011001000000	20051
2	1	1	20	ON	20	54	52-150246	01000111101001001001001110000	25001
				OFF	20	55	55-150183	01000111100111001110001011000	25002
2	1	2	20	ON	21	00	32-149907	01000111011110110011000111000	25003
				OFF	21	01	27-149852	01000111011101000111101100000	25004
6	7	1	17	ON	03	15	11-127428	00111100110000110010110100000	25005
				OFF	03	15	58-127381	00111100101111010111000001000	25006
9	7	0	11	ON	07	08	34-113425	00110110000101011101001101000	25007
				OFF	07	09	22-113377	00110110000011111111011101000	25008
9	7	1	33	ON	07	35	47-111792	00110101010011100111110000000	25009
				OFF	07	37	12-111707	00110101010001000001101111000	25010
9	7	2	63	ON	07	39	04-111594	00110101001101100101000010000	25011
				OFF	07	41	44-111434	00110101001000101100100010000	25012
10	5	1	49	ON	09	14	42-105856	00110010011110011110000000000	25013
				OFF	09	16	53-105725	00110010011010011110001001000	25014
11	6	1	21	ON	10	35	42-100997	00110000001010001011110001000	25015
				OFF	10	36	36-100943	00110000001000100010010011000	25016
13	7	1	57	ON	13	43	59-89699	00101010110001011001010111000	25017
				OFF	13	46	25-89553	00101010101100111100001101000	25018
16	7	1	32	ON	17	56	46-74533	00100011100010100100010001000	25019
				OFF	17	58	15-74444	00100011011111110110011100000	25020
16	7	0	15	ON	18	02	20-74199	00100011011000010111111011000	25021
				OFF	18	02	58-74161	00100011010111001101101101000	25022
17	1	1	25	ON	19	19	54-69545	00100001001010010110000101000	25023
				OFF	19	21	13-69466	00100001000111111011110010000	25024
18	1	1	27	ON	20	52	17-64002	00011110100001001011111010000	25025
				OFF	20	53	41-63918	00011110011110100111110110000	25026
20	3	1	39	ON	23	58	17-52842	00011001001100100111000010000	25027
				OFF	24	00	01-52738	00011001001001011011111010000	25028
21	3	1	20	ON	01	27	33-47486	00010110101001001010000110000	25029
				OFF	01	28	29-47430	00010110100111011100101110000	25030
21	3	2	34	ON	01	41	07-46672	00010110010000010100010000000	25031
				OFF	01	42	33-46586	00010110001101101100010010000	25032
21	3	3	50	ON	01	44	10-46489	00010110001010101110110101000	25033
				OFF	01	46	21-46358	00010110000110101110111110000	25034
22	3	1	20	ON	02	56	09-42169	00010100000110111001010101000	25035
				OFF	02	57	06-42112	00010100000101001010000000000	25036
22	3	2	22	ON	03	00	02-41937	000100111111111110100001101000	25037
				OFF	03	00	58-41881	00010011111110000110110101000	25038
22	3	3	28	ON	03	10	27-41311	00010011101100101101100011000	25039
				OFF	03	11	37-41241	00010011101010100100110101000	25040
22	3	4	22	ON	03	12	28-41191	00010011101001000011001011000	25041
				OFF	03	13	24-41135	00010011100111010101110011000	25042
23	6	1	20	ON	04	28	28-36631	00010001011101111000111011000	25043
				OFF	04	29	22-36577	00010001011100001111011101000	25044
23	6	2	91	ON	04	32	52-36367	00010001010101110101010011000	25045
				OFF	04	36	33-36146	00010001001111000101101010000	25046
24	9	1	35	ON	06	04	14-30884	00001110101110100000010100000	25047
				OFF	06	05	39-30799	00001110101011111010010011000	25048
									25049
									25050



25	6	0	12	ON	07	05	51	-27188	00001100111101101101100100000	25051
				OFF	07	06	37	-27142	00001100111100010011101110000	25052
25	6	1	90	ON	07	34	35	-25464	00001100001001000110011000000	25053
				OFF	07	38	15	-25244	00001100000010011000101100000	25054
26	2	1	24	ON	08	50	38	-20900	00001001111101110100010100000	25055
				OFF	08	51	52	-20826	00001001111011100011110010000	25056
26	2	2	80	ON	09	11	43	-19636	0000100101010111001111100100000	25057
				OFF	09	15	10	-19429	00001001010000111011010001000	25058
27	6	1	22	ON	10	33	12	-14747	00000111000010000010101111000	25059
				OFF	10	34	05	-14694	00000111000000011011001110000	25060
30	9	1	44	ON	15	17	40	2320	00000001000110110011010000000	25061
				OFF	15	19	52	2452	00000001001010110101000100000	25062
32	9	0	15	ON	17	59	33	12033	00000101101111001101111101000	25063
				OFF	18	00	11	12071	00000101110000011000010110000	25064
34	8	1	51	ON	20	49	03	22203	00001010100101100101001111000	25065
				OFF	20	51	34	22354	00001010101010001100001010000	25066
35	8	1	31	ON	22	21	59	27779	00001101001111101111110111000	25067
				OFF	22	23	30	27870	00001101010010100001100110000	25068
35	8	2	20	ON	22	42	42	29022	00001101110101101011100110000	25069
				OFF	22	43	36	29076	00001101110111010101000100000	25070
37	8	1	33	ON	01	26	18	38838	00010010100001001111011110000	25071
				OFF	01	27	43	38423	00010010100011110101011111000	25072
37	8	2	49	ON	01	41	18	39739	00010010111100101111001111000	25073
				OFF	01	43	28	39869	00010011000000101101001001000	25074
41	5	1	39	ON	07	21	07	60128	00011100101010111101100000000	25075
				OFF	07	22	56	60237	000111001011110010010011001000	25076
41	5	2	45	ON	07	38	30	61170	00011101001010110000101010000	25077
				OFF	07	40	26	61286	00011101001110010011001110000	25078
42	9	1	68	ON	09	09	03	66604	00011111110000100101111100000	25079
				OFF	09	11	58	66779	00011111110101111011101111000	25080
42	9	2	52	ON	09	13	38	66878	00011111110001111010001100000	25081
				OFF	09	16	06	67026	00011111111010111100010100000	25082
43	5	1	22	ON	10	30	31	71491	00100010000101101101101110000	25083
				OFF	10	31	26	71546	00100010000111011010010010000	25084
45	5	1	58	ON	13	21	46	81767	00100110111111010101001011000	25085
				OFF	13	24	21	81922	00100111000100000011111010000	25086
46	9	1	60	ON	15	14	43	88543	00101010001110000111100011000	25087
				OFF	15	17	43	88723	00101010010011100111000111000	25088
48	9	0	14	ON	17	56	30	98250	00101110110110010110100010000	25089
				OFF	17	57	07	98287	00101110110111011110110011000	25090
50	2	1	20	ON	20	48	29	108569	00110011110001010000110101000	25091
				OFF	20	49	27	108627	00110011110011000010000111000	25092
51	2	1	32	ON	22	18	53	113993	00110110010110110010100101000	25093
				OFF	22	20	26	114086	00110110011001101000001110000	25094
55	8	1	66	ON	04	27	25	136105	01000000111001100110000101000	25095
				OFF	04	30	06	136266	01000000111110100000100010000	25096
56	5	1	53	ON	05	58	13	141554	01000011011111111000101010000	25097
				OFF	06	00	24	141685	01000011100011111000100001000	25098
57	8	1	85	ON	07	28	47	146987	01000110000101101011111111000	25099
				OFF	07	32	12	147192	01000110001011111100011000000	25100
58	3	1	73	ON	09	05	38	152798	01001000110111000001100110000	25101
				OFF	09	08	50	152990	01001000111100111000100110000	25102
59	9	1	54	ON	10	29	38	157838	01001011010000110101010110000	25103
				OFF	10	31	48	157968	01001011010100011001101000000	25104

62	3	1	78	ON	14	47	51	173311	01010010101001000010000011000	25105
				OFF	14	50	57	173517	010100101011111010100011001000	25106
62	3	2	19	ON	14	53	51	173692	01010010110100101010001100000	25107
				OFF	14	54	39	173740	01010010110110000111111100000	25108
62	3	3	19	ON	15	00	43	174104	01010011000001001110111000000	25109
				OFF	15	01	30	174151	01010011000010101010101011000	25110
64	4	0	15	ON	17	53	16	184457	01010111111101001011100101000	25111
				OFF	17	53	55	184496	01010111111110010111110000000	25112
65	4	1	20	ON	19	14	07	189307	01011010010001001100001111000	25113
				OFF	19	15	08	189368	01011010010011000011011000000	25114
66	5	1	21	ON	20	43	21	194661	01011100110100100101010001000	25115
				OFF	20	44	23	194723	01011100110110011110010111000	25116
66	5	2	36	UN	20	45	22	194782	01011100111000010001100110000	25117
				OFF	20	47	05	194885	01011100111011011010110001000	25118
67	5	1	24	UN	22	15	54	200214	01011111011110000010111110000	25119
				OFF	22	17	01	200281	01011111100000000101110101000	25120
69	5	1	41	ON	01	24	00	211500	01100100110110011101111100000	25121
				OFF	01	25	41	211601	01100100111001100011001101000	25122
69	5	2	38	UN	01	35	22	212182	01100101001011010001111110000	25123
				OFF	01	37	04	212284	01100101001110011001001100000	25124
70	2	1	39	ON	02	46	58	216478	01100111001110011000100110000	25125
				OFF	02	48	43	216583	01100111010001100101101011000	25126
70	2	2	22	ON	02	50	49	216709	01100111010101011011110001000	25127
				OFF	02	51	44	216764	01100111010111000111001100000	25128
71	8	1	79	UN	04	25	05	222366	01101010000010000100100110000	25129
				OFF	04	28	16	222557	01101010000111111001101001000	25130
72	6	1	60	ON	05	54	52	227752	01101100100110011100001000000	25131
				OFF	05	57	17	227897	0110110010101010110111010101000	25132
73	4	1	99	ON	07	23	37	233077	01101111001000111100100001000	25133
				OFF	07	27	36	233316	01101111010000001111010100000	25134
74	6	1	60	ON	09	03	01	239042	01110001111110111110111010000	25135
				OFF	09	05	41	239202	01110010000011110111011010000	25136
74	6	2	28	ON	09	07	52	239332	01110010000111110101010100000	25137
				OFF	09	09	17	239417	01110010001010011011010101000	25138
75	7	1	41	ON	10	26	45	244065	01110100011000010001011101000	25139
				OFF	10	28	24	244164	01110100011011010010110100000	25140
79	9	1	28	ON	16	21	06	265327	01111110100001001000110011000	25141
				OFF	16	22	14	265395	01111110100011001101100111000	25142
										25143



NOTE - THE CYCLE COUNTER FOR INSTRUMENT 166 APPEARED TO BE DROPPING CYCLES RANDOMLY IN THE EARLY PORTION OF THE MISSION, BUT NOW APPEARS TO BE OPERATING CORRECTLY. ALL CONSUMPTION FIGURES REPRESENT CYCLE COUNTER READINGS IN FLIGHT.	20060 20061 20062 20063 20064
NOTE - THE LAST FIVE FRAMES OF OPERATION 079-09-1 ARE IN THE SECOND MISSION RECOVERY BUCKET.	20065 20066 20067
NOTE - MISSION 1021 IS BEING FLOWN WITH THE AGENA MOVING NOSE-FIRST THROUGH ORBIT INSTEAD OF THE USUAL TAIL-FIRST FLIGHT. AS A RESULT OF THIS CHANGE IN AGENA ORIENTATION THE FOLLOWING VARIATIONS IN NORMAL SYSTEM PARAMETERS SHOULD BE NOTED -	20068 20069 20070 20071
(1) AT THE DESCENDING NODE THE STELLAR CAMERA NOW LOOKS WESTWARD INSTEAD OF EASTWARD.	20072 20073
(2) THE MASTER PAN CAMERA, INSTRUMENT 166, IS THE AFT LOOKING CAMERA AND THE SLAVE PAN CAMERA, INSTRUMENT 167, IS THE FORWARD LOOKING CAMERA.	20074 20075 20076

[REDACTED]