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21 Pages
(Including Cover Sheet)

CORONA "M" FLIGHT DATA BOOK

SYSTEM NO. M26

VEHICLE NO. 1168

MISSION NO. 9062

Prepared by: [redacted]

Checked by: _____

Approved by: _____
(Engineering Manager)

Approved by: _____
(Project Manager)

Approved by: _____
(SETD)

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SYSTEM NO. M26
VEHICLE NO. 1168
MISSION NO. 9062
CAMERA NOS. 130, 131

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SYSTEM NO. M26
VEHICLE NO. 1163
MISSION NO. 9 ONLY
CAMERA NOS. 130, 131

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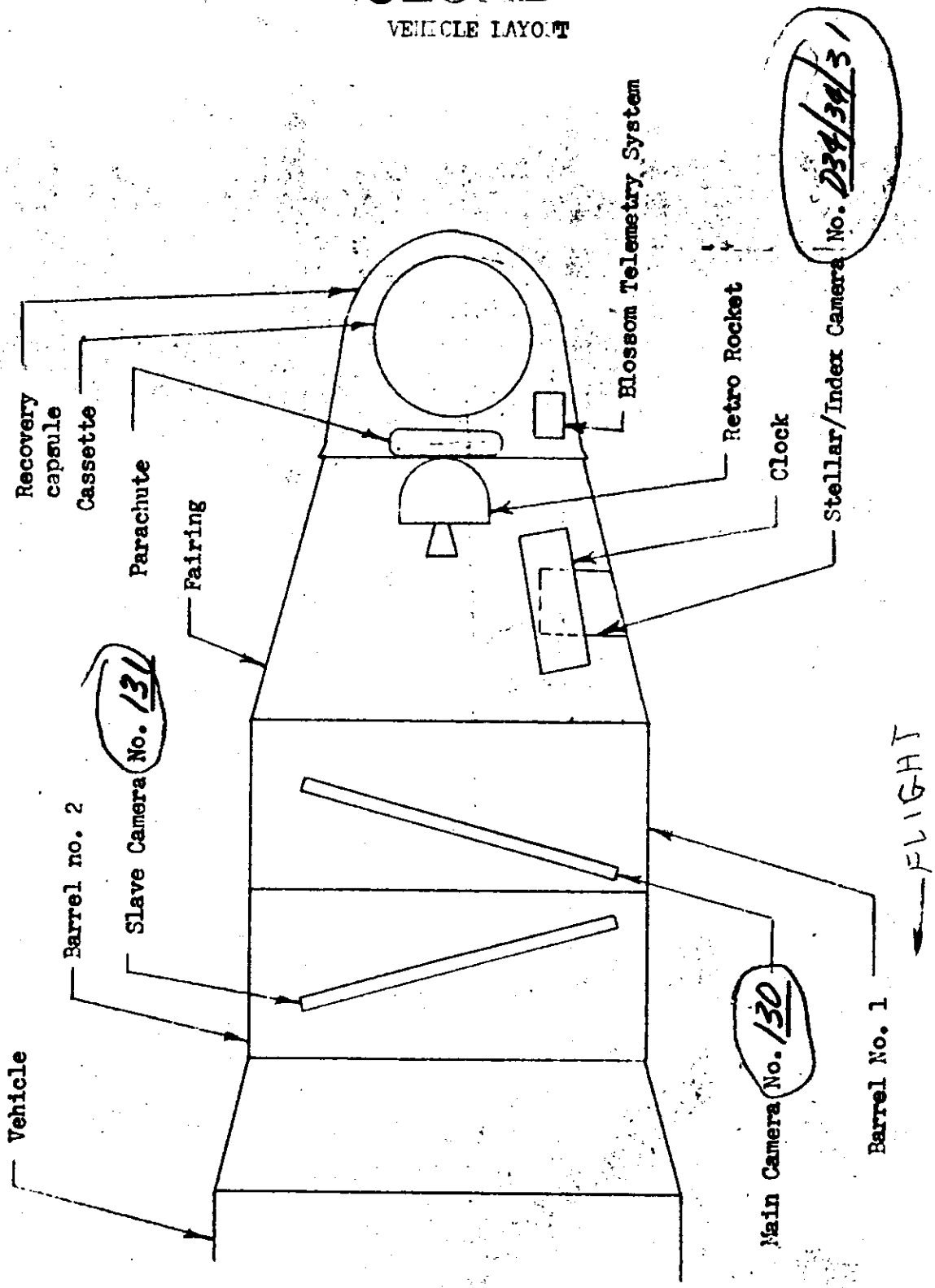
VEHICLE LAYOUT



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SYSTEM NO. M26
VEHICLE NO. 1168
MISSION NO. 9062
CAMERA NOS. 130 & 131

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GENERAL FLIGHT DATA:

Master Camera Serial No. 130

Slave Camera Serial No. 131

Stellar Index Camera Serial No. D34/34/31

Launch Date 12/21/63

Orbital Parameters: (Rev. 57)

Period 89.89 Min. Eccentricity 0.0135

Perigee 99.57 NM Perigee Latitude 27.12 Deg. N

Apogee 196.71 NM Inclination Angle 64.87 Deg. N

Recovery Orbit No. 81

Recovery Date 12/26/63

REMARKS:

[redacted]

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SYSTEM NO. M26
VEHICLE NO. 116B
MISSION NO. 9062
CAMERA NOS. 130 & 131

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LENS SETTINGS AND FILM TYPES:

Panoramic Camera Settings:	Camera No. 130	Camera No. 131
Panoramic Optics Slit Width	0.250 in.	0.250 in.
Panoramic Optics Filter Type	WRATTEN 21	WRATTEN 21
Horizon Optics Exp. Time	1/100 sec.	1/100 sec.
Horizon Optics Aperture	F8.0 T.U. F6.8 S	F6.8 T.U. F8.0 S
Horizon Optics Filter Type	WRATTEN 25	WRATTEN 25

Stellar Index Camera Settings:

	Stellar	Index
Exposure Time	2 SEC	1/500 Sec
Aperture Setting	F1.9	F 4.5
Filter Type	NONE	WRATTEN 21

Ratio: One Stellar Index Frame Per 7 Master Camera Frames.

Film:

Panoramic Cameras:	Camera No. 130	Camera No. 131
Type	SO132	SO132
Length	7800 ft.	7800 ft.
Splices	2	1
Emul. Data	46-2-11-3	46-2-11-3

Stellar Index Cameras:

	Stellar	Index
Type	SO102	SO130
Emul. Data	5-61-8-3	9-3-63

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SYSTEM NO. M26
VEHICLE NO. 468
MISSION NO. 9062
CAMERA NOS. 130 & 131

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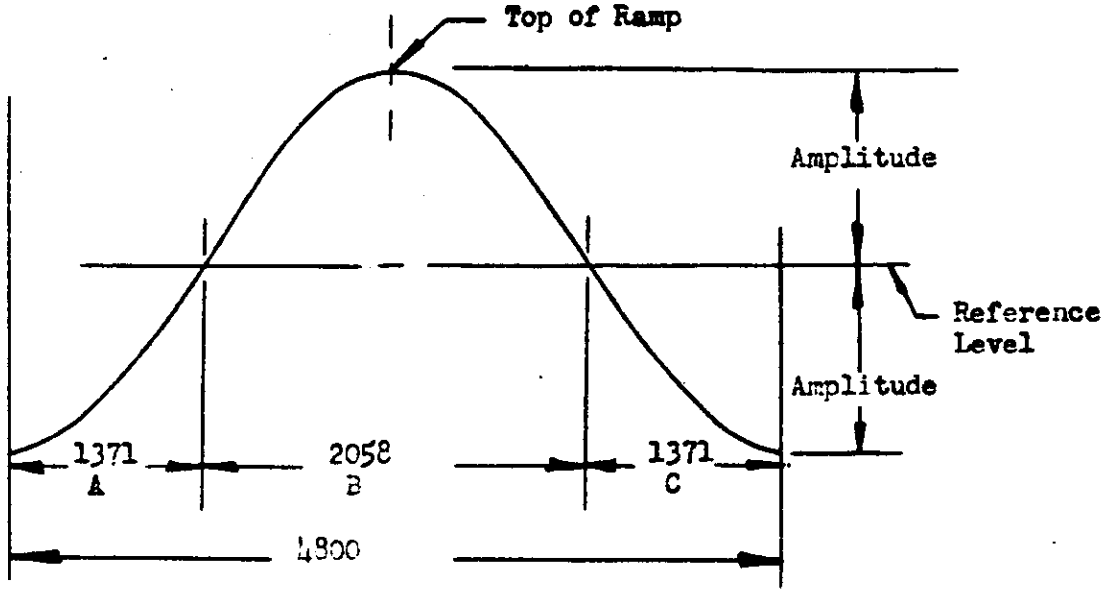
V/H RAMP CONFIGURATION AND CONSTANTS:



Cycle Rate Computation:

A. 0 to 1371 Sec Up Ramp: CPS=R+A Sin (1.5 X -1.5707963)

B. 1372 to 3429 Sec Up Ramp: CPS=R+A Sin (2 X -2.0943951) ≤ .4625

C. 3430 to 4800 Sec Up Ramp: CPS=R+A Sin (1.5 X - 0.7853982)

FMC Rate Computation:

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

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

Scan Velocity Computation:

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

Scan Velocity (Radians/Sec) = $\frac{48\pi}{2L\ CP}$ = 6.28319 x CPS

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

WHERE: X = $\frac{\text{Time Up Ramp (Seconds)}}{1309.4179}$ R = $\frac{1}{2}$ (CPS (top) + CPS (bottom))

A = $\frac{1}{2}$ (CPS top - CPS bottom) CP = Camera Cycle Period in Sec/Cycle

CPS = Camera Cycle Rate in Cycles/Sec

SLIT = Slit Width in Inches

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SYSTEM NO. M26
VEHICLE NO. 1168
MISSION NO. 9062
CAMERA NOS. 130 & 131

[redacted]

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	2	2.14	2.14	0
7	2	2.16	2.16	2400

IN-FLIGHT CYCLE PERIODS

V/H Ramp Level	V/H Ramp Amplitude	Cycle Period Seconds		Orbit No.	Time Up Ramp Sec
		Master	Slave		
7	2	5.31	5.31	10	700
7	2	4.97	4.99	16	785
7	2	2.27	2.27	47	2300
7	2	4.93	4.92	73	800
7	2	2.24	2.24	79	2300

[redacted]

SYSTEM NUMBER M-26
VEHICLE NUMBER 1168
MISSION NUMBER 9062
PANORAMIC CAMERA NUMBERS 130 AND 131

M 26 RAMP

REF. LEVEL= .2962 A= .1561 L= 4800.0 R- 7 A- 2

T	CYC/SEC	PERIOD	RATIO	CYCLES	INST.NO. 130
	.1401	7.137	.0126	0	
100	.1411	7.086	.0127	14	
200	.1441	6.935	.0130	28	
300	.1492	6.701	.0134	43	
400	.1562	6.401	.0141	58	
500	.1650	6.060	.0149	74	
600	.1755	5.696	.0158	91	
700	.1876	5.328	.0169	109	
800	.2011	4.970	.0181	129	
900	.2159	4.630	.0195	150	
1000	.2318	4.313	.0209	172	
1100	.2484	4.024	.0224	196	
1200	.2657	3.762	.0240	222	
1300	.2834	3.527	.0256	249	
1400	.3030	3.299	.0274	279	
1500	.3267	3.060	.0295	310	
1600	.3496	2.859	.0316	344	
1700	.3713	2.692	.0335	380	
1800	.3913	2.555	.0353	418	
1900	.4090	2.444	.0369	458	
2000	.4241	2.357	.0383	500	
2100	.4362	2.292	.0394	543	
2200	.4451	2.246	.0402	587	
2300	.4505	2.219	.0407	632	
2400	.4524	2.210	.0409	677	
2500	.4505	2.219	.0407	722	
2600	.4451	2.246	.0402	767	
2700	.4362	2.292	.0394	811	
2800	.4241	2.357	.0383	854	
2900	.4090	2.444	.0369	896	
3000	.3913	2.555	.0353	936	
3100	.3713	2.692	.0335	974	
3200	.3496	2.859	.0316	1010	
3300	.3267	3.060	.0295	1044	
3400	.3030	3.299	.0274	1075	
3500	.2834	3.527	.0256	1105	
3600	.2657	3.762	.0240	1132	
3700	.2484	4.024	.0224	1158	
3800	.2318	4.313	.0209	1182	
3900	.2159	4.630	.0195	1204	
4000	.2011	4.970	.0181	1225	
4100	.1876	5.328	.0169	1244	
4200	.1755	5.696	.0158	1263	
4300	.1650	6.060	.0149	1280	
4400	.1562	6.401	.0141	1296	
4500	.1492	6.701	.0134	1311	
4600	.1441	6.935	.0130	1326	
4700	.1411	7.086	.0127	1340	
4800	.1401	7.137	.0126	1354	

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SYSTEM NO. M-26
VEHICLE NO. 1168
MISSION NO. 9062
CAMERA NOS. 130 & 131

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LENS DATA SUMMARY: Panoramic Camera No. 130

Lens Serial No. 1052435 (I-45)

Slit Width 0.250 Inch

Filter Type WRATTEN 21

Equivalent Operational Focal Length 609.602 MM

Resolution:

Static:

	Lines/MM	Film Type	Target Contrast
Bench Test	261	SO132	HIGH
~~Other~~	144	SO132	LOW

Dynamic:

Itek [redacted]	191	SO132	HIGH
Itek [redacted]	136	SO132	LOW
AP	178	SO132	HIGH
AP	91	SO132	LOW
Other			

Note: Itek [redacted] Resolution of 191 lines/MM Reported In Message No. _____ dated _____

Distortion - Positive (Pincushion)

Angle Off Axis Deg.	3	2	1	0	359	358	357		
Distortion Millimeters	0	0	0	0	0	0	0		

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[redacted]

[redacted]

SYSTEM NO. M76
VEHICLE NO. 1168
MISSION NO. 9062
CAMERA NOS. 130 & 131

SECRET

LENS DATA SUMMARY: (Horizon Cameras for Panoramic Camera No. 130)

	Take-Up	Supply (Port)
Lens Serial No.	813532	813531
Exposure Time	1/100 Sec.	1/100 Sec.
Filter Type	Wratten 25	Wratten 25
Aperture	F8.0	F6.8
Operational Focal Length	54.98 MM	54.68 MM
Radial Distortion:		
10° off Axis	.003 MM	.001 MM
20° off Axis	.009 MM	.007 MM
Tangential Distortion (Maximum Vector)	.006 MM	.003 MM

Resolution:

Angle off Axis Deg.	0	10	15	20	25	27.5		0	10	15	20	25	27.5	
Radial Resolution	170	139	101	89	92	63		170	140	97	89	92	71	
Tangential Resolution	170	123	95	84	62	48		170	116	95	75	55	42	

105 Lines/MM Avg. 101 Lines/MM Avg.

Note:

1. Distortion and resolution are read at equivalent operational focal length.
2. Resolution in lines per mm on SO132 film and High contrast target.

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[redacted]

SYSTEM NO. M26
VEHICLE NO. 1168
MISSION NO. 9062
CAMERA NOS. 130 & 131

LENS DATA SUMMARY: Panoramic Camera No. 131

Lens Serial No. 1062435 (I-44)

Slit Width 0.250 Inch

Filter Type WRATTEN 21

Equivalent Operational Focal Length 609.602 MM

Resolution:

Static:

	Lines/MM	Film Type	Target Contrast
Bench Test	244	SO132	HIGH
~~Other~~	159	SO132	Low

Dynamic:

Itek [redacted]	189	SO132	HIGH
Itek [redacted]	125	SO132	Low
AP	192	SO132	HIGH
AP	99	SO132	Low
Other			

Note: Itek [redacted] Resolution of 189 lines/MM Reported In

Message No. _____ dated _____

Distortion - Positive (Pincushion)

Angle Off Axis Deg.	3	2	1	0	359	358	357		
Distortion Millimeters	0	0	0	0	0	0	0		

[redacted]

SYSTEM NO. M-26
VEHICLE NO. 1168
MISSION NO. 9062
CAMERA NOS. 130 & 131

LENS DATA SUMMARY: (Horizon Cameras for Panoramic Camera No. 131)

	Take-Up	Supply
Lens Serial No.	813537	813522
Exposure Time	1/100 Sec.	1/100 Sec.
Filter Type	WRATTEN 25	WRATTEN 25
Aperture	F6.8	F8.0
Operational Focal Length	55.08 MM	54.93 MM
Radial Distortion:		
10° off Axis	.000 MM	.005 MM
20° off Axis	.004 MM	.018 MM
Tangential Distortion (Maximum Vector)	.008 MM	.003 MM

Resolution:

Angle off Axis Deg.	0	10	15	20	25	27.5		0	5	10	15	20	25	27.5
Radial Resolution	170	105	87	75	82	67		164	145	128	105	97	105	97
Tangential Resolution	170	110	89	75	52	42		164	137	119	108	86	60	51

93 Lines/MM Avg. 112 Lines/MM Avg.

Note:

1. Distortion and resolution are read at equivalent operational focal length.
2. Resolution in lines per mm on SO132 film and ~~High~~ contrast target.

SYSTEM NO. M26
VEHICLE NO. 1168
MISSION NO. 9062
CAMERA NOS. 130 & 131

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 ±5" of arc so positioned to form an angle of -15.00° ±5" to the mechanical interface for master camera calibrations and an angle of +15.00° ±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° ±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 Xvo and Yvo are the offsets of Target 1 from the indicated center of format of the panoramic cameras as defined in Paragraph 3.

6.0 Xs, Ys and Xt, Yt 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 Dmx and Dmy 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 Dtx, Dty, Dsx and Dsy are the offsets of these measurements.

SYSTEM NO. M26
VEHICLE NO. 1168
MISSION NO. 9062
CAMERA NOS. 130 & 131

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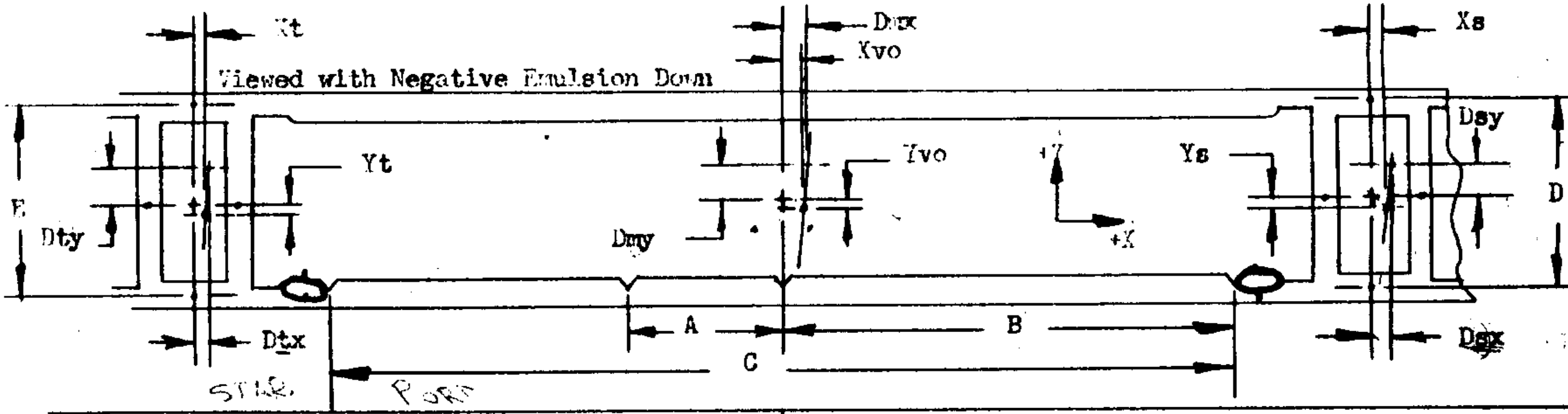
FORMAT DIMENSIONS: (PANORAMIC CAMERAS)



Camera No. 130		Vehicle Motion ↓		Scan Direction →	
A	76.1	Xt	+0.667	Dtx	+0.014
B	355.6	Yt	+0.171	Dty	-3.000
C	711.0	Xs	-0.267	Dsx	-0.005
D	56.473	Ys	-0.018	Dsy	+2.000
E	56.481	Xvo	+1.328	Dmx	+0.010
		Yvo	+1.566	Dmy	-3.000

Format Dimensions:

	Panoramic	Take-Up	Supply
Height	757.6	——	——
Width	55.4	——	——

Camera No. 131		Vehicle Motion ↑		Scan Direction →	
A	76.2	Xt	+0.718	Dtx	+ 0.002
B	355.5	Yt	-0.325	Dty	+ 2.000
C	711.5	Xs	0.805	Dsx	- 0.00[illegible]
D	56.485	Ys	+0.054	Dsy	-1.000
E	56.500	Xvo	-0.892	Dmx	- 0.004
		Yvo	-0.128	Dmy	+ 3.000

CABLE ∴ -.805 = Ds

$\tan^{-1}\left(\frac{D_s - X}{D_{sy} + Y}\right)$

Format Dimensions:

	Panoramic	Take-Up	Supply
Height	757.3	——	——
Width	55.5	——	——

Note: 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. Dt, Dm, Ds, X and Y dimensions are taken 10MM above point defining target center. Implying +Y direction
4. Format Sign Convention

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

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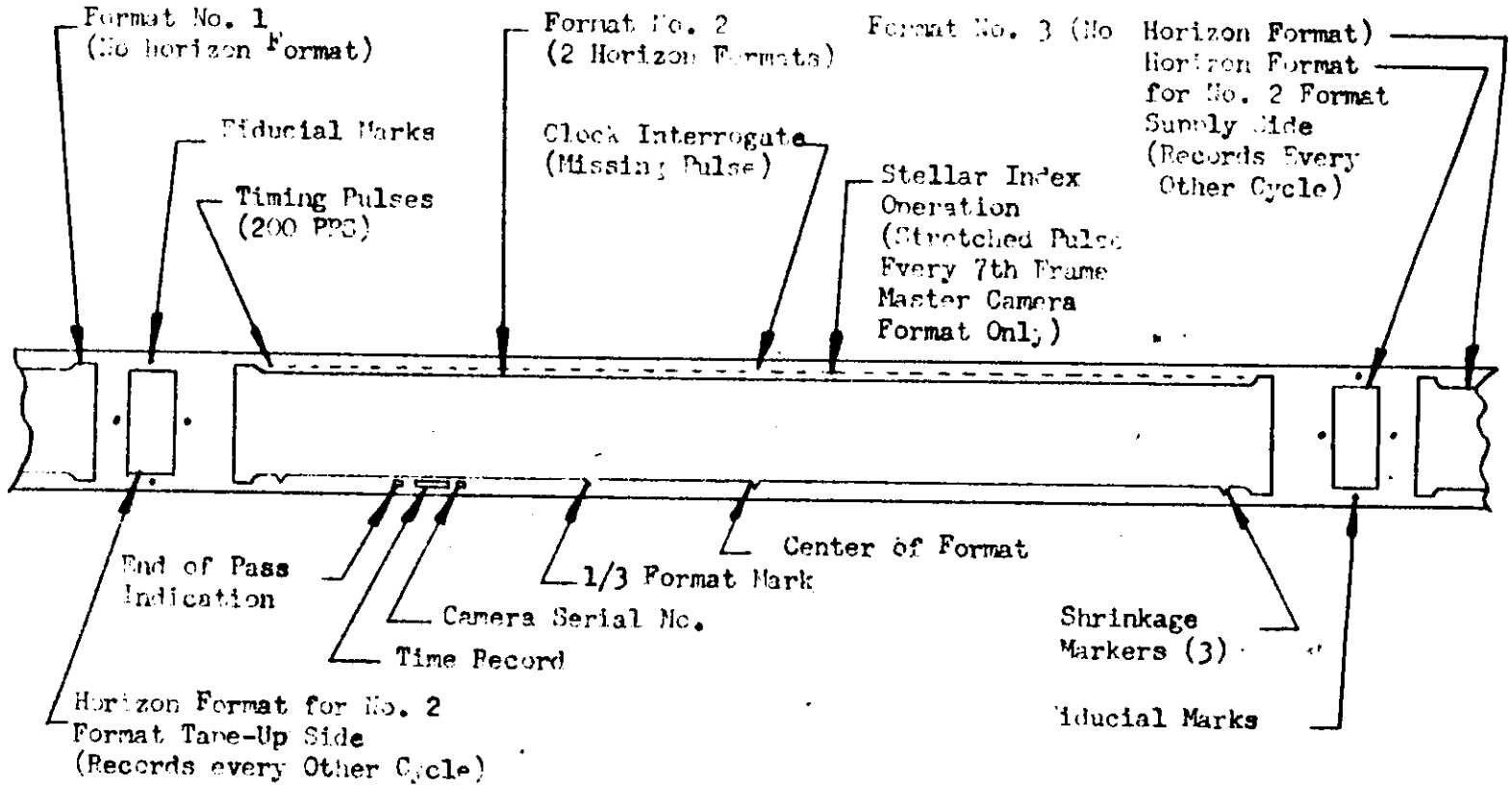
FORMAT LAYOUT: (PANORAMIC CAMCAS)



Panoramic Camera No. 130

Viewed With Negative Emulsion Down

Direction of Film Transport ←

Direction of Scan →

Direction of Vehicle Motion ↓

Panoramic Camera No. 131

Viewed With Negative Emulsion Down

Direction of Film Transport ←

Direction of Scan →

Direction of Vehicle Motion ↑

SYSTEM NO. M26
VEHICLE NO. 116B
MISSION NO. 9062
CAMERA NOS. 150 & 151

[redacted]

LENS DATA SUMMARY STELLAR INDEX 234/34/31 :

	Stellar	Index
Lens Serial No.	10402	811902
Reseau Serial No.	31	34
Filter Type	NONE	WRATTEN 21
Aperture	F1.9	F4.5
Exposure Time	2 Sec.	1/500 Sec.
Operational Focal Length	84.0255 MM	38.2052 MM
Equivalent Focal Length	_____ MM	_____ MM

Resolution:

Angle off axis										
Resolution L/MM High Contrast										
Resolution L/MM Low Contrast										

Note: Index Resolution of _____ Lines/MM AWAR
Read From _____ Film.

Distortion:

Angle off Axis Deg.										
Distortion Millimeters										

Perpendicularity of Reseau to Optical Axis _____ _____

Location of Principal Point: X_____MM X_____MM

Y_____MM Y_____MM

[redacted]

[redacted]

SYSTEM NO. M26
VEHICLE NO. 168
MISSION NO. 9062
CAMERA NOS. 130 & 131

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PRELIMINARY CLOCK CORRELATION:

ORBIT	SYSTEM TIME	CLOCK TIME	DIFFERENCE
12/22/63			
10	44695.427	42297.771	———
16	78583.927	76186.271	+.001
26	44705.476	128707.821	+.002
31	73013.214	157015.554	-.005
41	39089.768	209492.111	+.003
47	73095.675	243498.016	-.002
57	38997.170	295799.519	+.008
73	39024.860	382227.211	+.002
79	72867.150	416069.506	+.005

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SYSTEM NUMBER M-26
VEHICLE NUMBER 1168
MISSION NUMBER 9062
PANORAMIC CAMERA NUMBERS 130 AND 131
STELLAR/INDEX CAMERA NUMBER D34/34/31

PERFORMANCE ESTIMATE

SUB	PROG		CAM NO.	PAN FR.	SI FR	LAT. ON	LAT. OFF	TIME ON ZD	TIME ON ST	NO		TUR SEC.	DUR SEC	SOLAR ON	SOLAR OFF	EXPOS. ON	EXPOS. OFF
LAUNCH			130	109	15												
LAUNCH			131	111													
3	3	1	130	71	10	259	250	22	7877	7	2	1635	194	7	16	4.8	4.3
3	3	1	131	71		260	251	22	7877	7	2	1635	194	6	15	4.8	4.3
4	3	1	130	39	06	253	248	2213	414	7	2	1771	100	13	18	4.4	4.2
4	3	1	131	38		254	249	2213	414	7	2	1771	100	12	17	4.5	4.3
4	3	2	130	39	05	245	240	2213	568	7	2	1925	94	20	24	4.2	4.0
4	3	2	131	38		246	241	2213	568	7	2	1925	94	19	23	4.2	4.0
5	3	1	130	46	07	254	248	2218	795	7	2	1749	121	12	18	4.5	4.2
5	3	1	131	46		255	249	2218	795	7	2	1749	121	12	17	4.5	4.3
5	3	2	130	45	06	242	236	2219	024	7	2	1978	109	22	27	4.1	3.9
5	3	2	131	45		243	236	2219	024	7	2	1978	109	22	26	4.1	4.0
7	3	1	130	65	10	260	253	2229	435	7	2	1585	180	5	13	4.9	4.4
7	3	1	131	64		261	254	2229	435	7	2	1585	180	4	13	4.9	4.5
7	3	2	130	60	08	250	242	2229	676	7	2	1826	151	16	23	4.3	4.0
7	3	2	131	60		251	242	2229	676	7	2	1826	151	15	22	4.3	4.1
8	8	1	130	54	08	253	246	2235	018	7	2	1793	137	14	20	4.4	4.1
8	8	1	131	53		253	246	2235	018	7	2	1793	137	13	19	4.4	4.2
10	8	0	130	12	02	139	143	2244	688	7	2	668	63-32-30			9.6	9.2
10	8	0	131	12		137	141	2244	688	7	2	668	63-33-31			9.6	9.2
14	9	1	130	81	11	243	232	2267	590	7	2	1980	193	22	29	4.1	3.9
14	9	1	131	80		244	232	2267	590	7	2	1980	193	21	29	4.1	3.9
18	3	1	130	40	06	260	255	23	2432	7	2	1639	110	6	11	4.8	4.5
18	3	1	131	40		260	256	23	2432	7	2	1639	110	5	10	4.8	4.5
18	3	2	130	54	08	313	321	23	3692	7	2	2898	137	47	45	4.2	4.4
18	3	2	131	53		312	320	23	3692	7	2	2898	137	47	45	4.2	4.5
19	3	1	130	42	06	262	257	23	7774	7	2	1585	119	3	9	4.9	4.6
19	3	1	131	42		262	258	23	7774	7	2	1585	119	2	8	5.0	4.6
20	3	1	130	106	15	255	241	2313	340	7	2	1753	268	11	24	4.5	4.0
20	3	1	131	105		256	242	2313	340	7	2	1753	268	11	24	4.5	4.0
21	3	1	130	63	09	259	251	2318	648	7	2	1664	168	7	15	4.7	4.3
21	3	1	131	62		259	252	2318	648	7	2	1664	168	6	15	4.7	4.3
21	3	2	130	53	07	243	236	2318	965	7	2	1981	126	22	28	4.0	3.9
21	3	2	131	53		244	237	2318	965	7	2	1981	126	22	27	4.1	3.9

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[redacted]

22	3	1	130	87	13	260	249	2324019	7	2	1641	234	6	17	4.7	4.2
22	3	1	131	87		260	250	2324019	7	2	1641	234	5	17	4.8	4.2
23	2	1	130	53	07	249	242	2329648	7	2	1921	132	17	23	4.3	4.1
23	2	1	131	53		250	243	2329648	7	2	1921	132	16	23	4.3	4.1
24	3	1	130	64	10	258	250	2334864	7	2	1743	165	8	16	4.5	4.2
24	3	1	131	63		258	251	2334864	7	2	1743	165	7	16	4.5	4.2
24	3	2	130	61	08	246	238	2335104	7	2	1983	145	20	26	4.1	3.9
24	3	2	131	61		247	238	2335104	7	2	1983	145	19	26	4.1	3.9
25	9	1	130	46	07	234	228	2340712	7	2	2189	105	29	34	3.9	3.8
25	9	1	131	45		235	228	2340712	7	2	2189	105	29	33	3.9	3.9
26	9	0	130	13	02	139	142	2344643	7	2	724	63-36-34			8.9	8.5
26	9	0	131	13		137	141	2344643	7	2	724	63-37-35			9.0	8.6
34	9	1	130	41	06	260	255	24 2375	7	2	1695	111	5	11	4.7	4.4
34	9	1	131	41		260	256	24 2375	7	2	1695	111	4	10	4.7	4.4
36	2	1	130	70	10	249	240	2413399	7	2	1927	167	17	26	4.1	3.9
36	2	1	131	69		250	240	2413399	7	2	1927	167	17	25	4.2	3.9
37	2	1	130	88	12	259	248	2418587	7	2	1721	228	6	18	4.5	4.1
37	2	1	131	88		259	248	2418587	7	2	1721	228	6	18	4.6	4.1
38	2	1	130	58	08	260	253	2423957	7	2	1695	153	5	13	4.6	4.3
38	2	1	131	58		260	254	2423957	7	2	1695	153	4	13	4.6	4.3
39	5	1	130	149	22	261	244	2429299	7	2	1642	383	2	22	4.7	3.9
39	5	1	131	148		262	244	2429299	7	2	1642	383	1	22	4.7	4.0
40	3	1	130	97	14	259	247	2434773	7	2	1721	247	6	19	4.5	4.0
40	3	1	131	97		259	247	2434773	7	2	1721	247	6	19	4.5	4.0
46	2	1	130	39	05	233	228	2467628	7	2	2212	89	31	35	3.9	3.8
46	2	1	131	38		234	229	2467628	7	2	2212	89	31	35	4.0	3.9
47	1	1	130	53	08	236	229	2472971	7	2	2162	123	29	35	3.9	3.9
47	1	1	131	53		237	230	2472971	7	2	2162	123	28	34	3.9	3.9
50	2	1	130	39	05	256	251	25 2384	7	2	1793	101	9	15	4.4	4.2
50	2	1	131	39		256	252	25 2384	7	2	1793	101	9	14	4.5	4.3
52	2	1	130	54	08	255	248	2513192	7	2	1815	138	11	18	4.4	4.1
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54	2	1	130	59	08	261	254	2523837	7	2	1674	160	2	11	4.7	4.4
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55	3	1	130	50	08	260	254	2529258	7	2	1703	132	4	12	4.6	4.3
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55	3	2	130	61	08	252	244	2529432	7	2	1877	152	14	22	4.3	4.0
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56	3	1	130	96	14	258	246	2534705	7	2	1706	243	7	21	4.5	4.0
56	3	1	131	96		258	246	2534705	7	2	1706	243	6	20	4.5	4.0
66	2	1	130	40	06	255	250	26 2295	7	2	1819	100	10	16	4.3	4.2
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67	2	1	130	78	11	255	245	26 7688	7	2	1821	195	10	21	4.3	4.0
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68	2	1	130	56	08	255	248	2613080	7	2	1819	140	10	18	4.3	4.1
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69	2	1	130	41	06	259	254	2618384	7	2	1731	108	5	11	4.5	4.3
69	2	1	131	41		259	255	2618384	7	2	1731	108	4	10	4.6	4.3
70	2	1	130	85	12	253	242	2623907	7	2	1862	209	12	25	4.2	4.0
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71	5	1	130	125	18	261	247	2629089	7	2	1651	327	0	19	4.7	4.1
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72	4	1	130	104	15	259	246	2634560	7	2	1732	267	5	20	4.5	4.0
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73	9	0	130	13	01	139	143	2638961	7	2	741	63-47-44			8.8	8.4
73	9	0	131	13		137	141	2638961	7	2	741	63-48-45			8.7	8.3
74	2	1	130	38	06	230	224	2645884	7	2	2274	89	36	41	4.0	3.9
74	2	1	131	38		231	225	2645884	7	2	2274	89	35	40	4.0	4.0
77	3	1	130	61	09	243	235	2661836	7	2	2051	145	23	32	4.0	3.9
77	3	1	131	61		244	235	2661836	7	2	2051	145	23	31	4.0	3.9
79	1	1	130	91	13	241	229	2672654	7	2	2087	210	25	37	3.9	3.8
79	1	1	131	91		242	229	2672654	7	2	2087	210	25	36	3.9	3.8
AAA	BB	C	DDD	EEE	FF	GHH	GII	JJKKKKK	L	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 (QUAD 1 IS NORTHBOUND FROM ASCENDING NODE)
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 2.658, STELLAR X 0.099, INDEX X 0.198

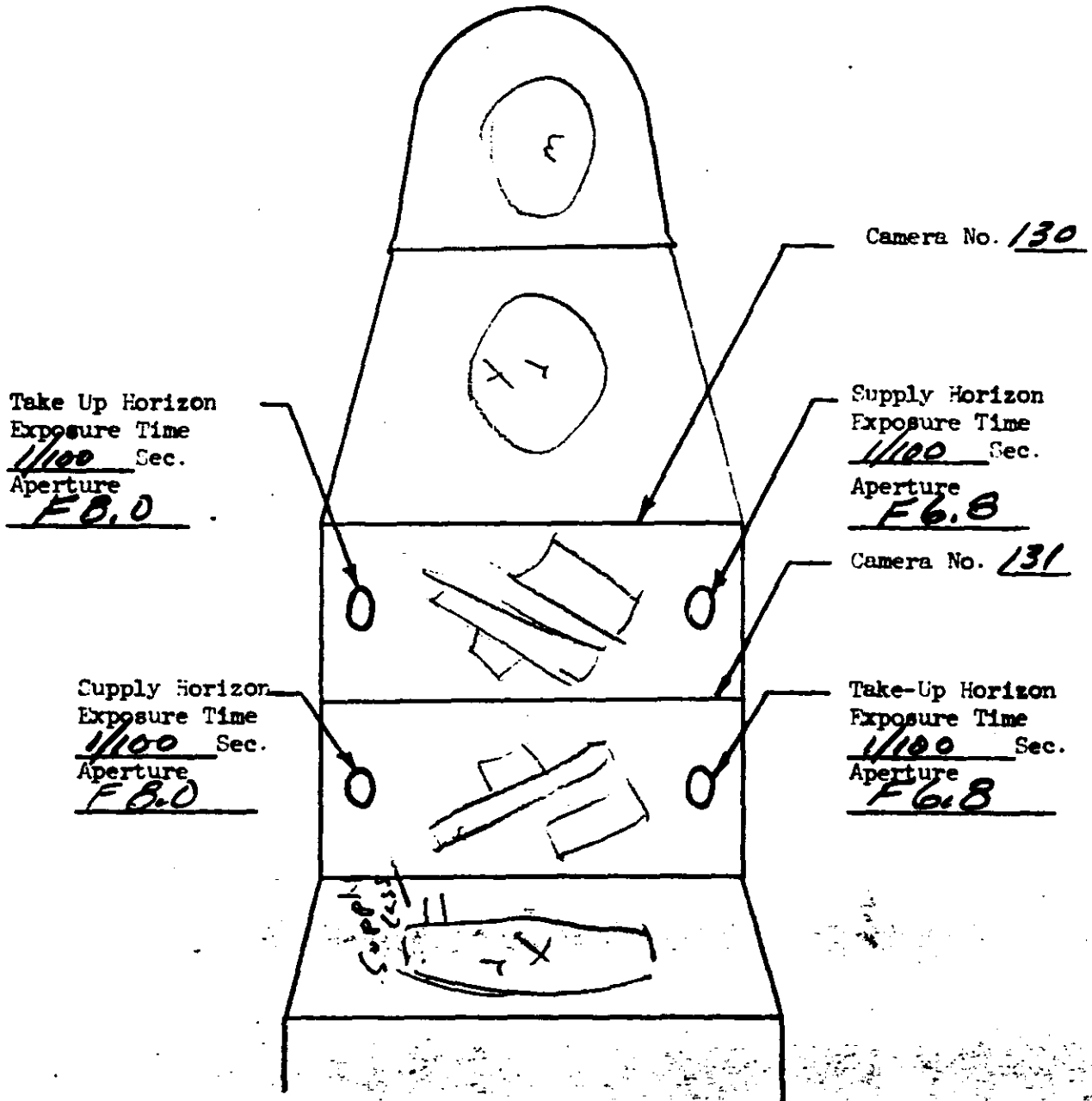
[redacted]

SYSTEM NO. M26
VEHICLE NO. 1168
MISSION NO. 9062
CAMERA NOS. 130 & 131

[redacted]

TOP SECRET

HORIZON LENS SETTINGS (Viewed from top of vehicle inflight)



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TOP SECRET