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24 Pages
(Including Cover Sheet)

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CORONA "M" FLIGHT DATA BOOK

SYSTEM NO. 46

VEHICLE NO. 1129

MISSION NO. 9037

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Checked by: [REDACTED]

Approved by: [REDACTED]

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Approved by: [REDACTED]

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In Accordance with E. O. 12958

on NOV 26 1997

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SYSTEM NO. M6
VEHICLE NO. 1129
MISSION NO. 9037
CAMERA NOS. 80 81

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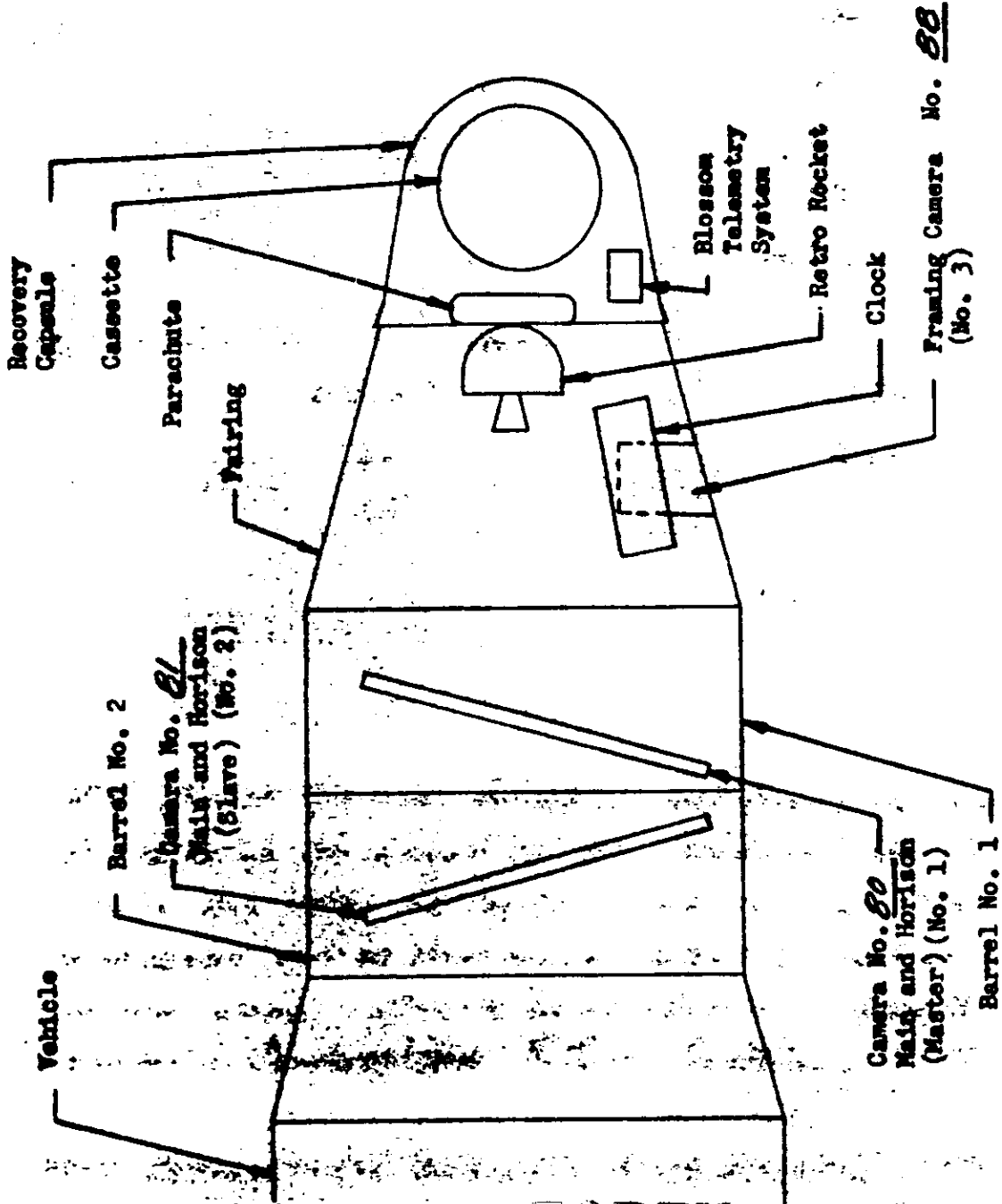
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SYSTEM NO. M6
VEHICLE NO. 1129
MISSION NO. 9037
CAMERA NOS. 80 81

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VEHICLE LAYOUT:



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GENERAL FLIGHT DATA

Discovery No. 94

Main Camera No. 1 Serial No. 80

Main Camera No. 2 Serial No. 81

Framing Camera Serial No. 88

Launch Date 6/22/62

Orbital Parameters (Est.)

Period 89.64 Min. Eccentricity 0.0765

Perigee 113 M Perigee Latitude 25.54 Deg. N

Apogee 168 M Inclination Angle 75.09 Deg. N

Recovery Parachute No. 50

Recovery Date 6/25/62

REMARKS:

M? Format Calibration Definitions and Dimensions are included to establish the format for the additional horizon format calibrations made on systems 949 and up. These dimensions will be transmitted in the operational TWX under item 4 of the payload (Regulator solution between cameras) for future systems.

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SI NO 116
SAD 129
DI NO 227
T NOS 52

AMOUNT

ITEM

Framing Camera

Film

Camera

Type

Cost

Qty of Sol

Emulsion

200 150 200
130 110 115 Sec.
530 156 18

1250
59 40 40
12 9 9

NO 37 Framing Camera
1523 (011) 1523 (012) 1512 (0130)
7800 7800 135
2 1 1
21-1-52 21-2-10-52 15-2-1-2

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SYSTEM NO. M-6
 VEHICLE NO. 1129
 MISSION NO. 9037
 CAMERA NOS. 80, 81
 FRAMING CAMERA NO. 88

REPORT
NO. 11

PERFORMANCE ESTIMATE

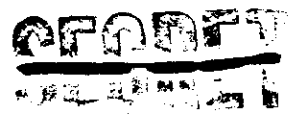
Pass No.	Frames			Feet			Latitude Degrees		Time On	Dur Sec.	Solar Angle		Exp. Time Millisec.		Ramp No.	Instr. On Sec
	80	81	88	80	81	88	On	Off			On	Off	On	Off		
P-L	107	109	15	282	287	3.0										
1DE	20	21	3	52	55	.6	55	52	23-0159	65	40	40	4.2	4.1	8	1256
3AXI	103	103	14	272	272	2.8	47	68	0440	380	19	32	5.3	4.6	5	78
3DXI	55	55	8	145	145	1.6	59	51	0457	155	40	39	3.8	3.6	5	1094
4AXI	53	53	8	140	140	1.6	72	75	0618	174	35	38	4.5	4.2	5	539
4DXI	43	43	6	113	113	1.2	54	47	0629	119	40	38	3.7	3.6	5	1196
5DXI	144	146	20	380	385	4.0	58	36	0757	389	40	34	3.7	3.4	5	1136
6DXI	31	31	5	82	82	1.0	73	71	0922	96	39	40	4.1	4.0	5	838
6DX2	67	68	9	177	179	1.8	59	49	0926	188	40	39	3.8	3.6	5	1125
6DX3	59	60	9	156	158	1.8	42	32	0931	155	36	32	3.5	3.4	5	1411
7DXI	184	186	26	485	490	5.1	68	39	1053	508	41	35	3.9	3.4	5	995
8DYI	108	110	15	285	290	3.0	67	50	1223	311	41	39	3.9	3.6	10	1023
9AE	11	11	2	29	29	.4	36	38	1335	48	11	13	5.5	5.5	5	—
9DXI	91	93	13	240	245	2.6	59	44	1355	253	40	37	3.8	3.5	5	1147
13AYI	55	55	8	145	145	1.6	50	61	1938	203	21	27	5.1	4.7	10	240
14AYI	61	62	9	161	163	1.8	49	56	2105	232	16	24	5.3	4.8	10	141
15AYI	41	41	6	108	108	1.2	50	58	2237	152	21	25	5.1	4.8	10	258
15DE	17	17	2	45	45	.4	36	34	2259	46	33	33	3.4	3.3	10	1596
16AYI	51	52	7	134	137	1.4	53	63	24-0007	187	23	29	5.0	4.7	10	295
17AYI	28	28	4	74	74	.8	46	51	0135	112	18	21	5.4	5.2	10	86
17AY2	39	40	6	103	105	1.2	56	62	0137	143	23	28	5.5	4.8	10	234

SYSTEM NO. M-6
 VEHICLE NO. 1129
 MISSION NO. 2037
 CAMERA NOS. 80, 81
 FRAMING CAMERA NO. 88

PERFORMANCE ESTIMATE

Pass No.	Frame			Foot			Latitude		Time		Solar		Exp. Time		Instr.	
	80	81	88	80	81	88	On	Off	Hr.	Min.	Sec.	On	Off	On	Off	No.
17AYS	32	32	4	84	84	.8	68	72	0142	11	32	36	4.6	4.5	10	485
18AX1	133	134	19	350	353	3.8	46	71	0305	472	18	34	5.1	4.4	5	183
23DY1	55	56	8	145	148	1.6	62	54	1050	156	41	40	3.8	3.6	10	1147
23DY2	44	45	7	116	119	1.4	51	44	1053	120	39	37	3.6	3.5	10	1342
24DY1	109	110	15	287	290	3.0	63	47	1219	300	41	38	3.8	3.5	10	1133
25AE	11	11	2	28	29	.4	35	37	1330	48	11	12	5.5	5.5	5	—
25DX1	68	68	9	179	179	1.8	56	46	1351	187	40	38	3.7	3.5	5	1192
29AX1	35	35	5	92	92	1.0	54	60	1933	127	23	27	4.9	4.7	5	311
30AX1	84	85	12	220	224	2.4	38	56	2059	312	13	24	5.2	4.7	5	139
31AY1	42	42	6	111	111	1.2	34	44	2227	164	10	17	5.3	5.0	10	95
31AY2	32	32	5	84	84	1.0	48	55	2231	118	20	24	4.9	4.7	10	320
31DE	17	18	3	44	47	.6	37	35	2322-53	46	34	33	3.3	3.3	10	1655
32AY1	48	48	7	126	126	1.4	51	61	2400-02	170	21	27	4.8	4.6	10	374
35AX1	58	59	9	153	156	1.8	49	61	0430	206	20	27	4.8	4.5	5	330
35AX2	44	44	6	116	116	1.2	63	71	0434	145	29	34	4.5	4.3	5	576
36DX1	98	99	14	258	261	2.8	58	41	0616	261	40	36	3.6	3.4	5	1264
37DX1	29	30	4	76	79	.8	75	73	0739	91	38	39	4.1	4.0	5	858
37DX2	69	70	10	182	185	2.0	60	48	0745	189	40	39	3.7	3.5	5	1224
37DX3	79	81	11	208	213	2.2	45	32	0749	204	37	32	3.5	3.3	5	1468
38DX1	52	53	8	137	140	1.4	62	65	0915	153	39	41	3.9	3.8	5	995
38DX2	116	117	16	311	314	2.4	65	43	2604	306	36	32	3.7	3.5	5	1014

SYSTEM NO. M-6
VEHICLE NO. 1129
MISSION NO. 9037
CAMERA NOS. 80 81
FRAMING CAMERA NO. 88



PERFORMANCE ESTIMATE

Pass No.	Frame			Roll			Latitude Degrees		Time On	Dir Sec	Solar Angle		Exp. Time MilliSec		Instr. On Sec In Fram	
	80	81	88	80	81	88	On	Off	Hr.		Min.	On	Off	On		Off
41DXI	59	59	9	155	155	18	56	47	24-13-45	158	40	38	3.6	3.5	5	1288
47AYI	58	58	8	153	153	26	49	61	22-23	209	20	27	4.8	4.5	10	380
47DE	18	18	3	47	47	6	38	36	22-48	46	35	33	3.3	3.2	10	1698
48AYI	63	63	9	166	166	18	47	60	24-23-54	220	18	27	4.8	4.5	10	367
49AXI	72	73	10	190	192	2.0	47	62	25-01-24	257	18	28	4.9	4.5	5	289
49DXI	57	34	8	150	90	1.6	70	65	25-01-37	163	40	41	3.8	3.7	5	1092

STOP
ONLY

SYSTEM NO. M6
 VEHICLE NO. 1129
 MISSION NO. 9037
 CAMERA NOS. 801A

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PRE-FLIGHT CYCLE PERIOD: (CAMERA NO. 80)

Y/H Ramp	Cycle Period Seconds	FMC Rate		Scan Rate		
		Rad. Per Second	In. Per Second	Rad. Per Second	In. Per Second	Exposure Millisec
B Start	5.13	.016	.395	1.225	29.3%	6.80
B End	2.44	.035	.830	2.575	61.804	3.24
5 Start	4.06	.021	.498	1.547	37.143	5.38
5 End	2.38	.035	.851	2.640	63.362	3.15
10 Start	4.09	.021	.495	1.536	36.871	5.42
10 End	2.40	.035	.844	2.618	62.834	3.18

IN-FLIGHT CYCLE PERIOD: (CAMERA NO. 80)

Rev. No.	Y/H Ramp	Cycle Period Seconds	FMC Rate		Scan Rate		
			Rad. Per Second	In. Per Second	Rad. Per Second	In. Per Second	Exposure Millisec
9	5 Start	4.05	.021	.500	1.551	37.234	5.37
25	5 Start	4.09	.021	.495	1.536	36.871	5.42

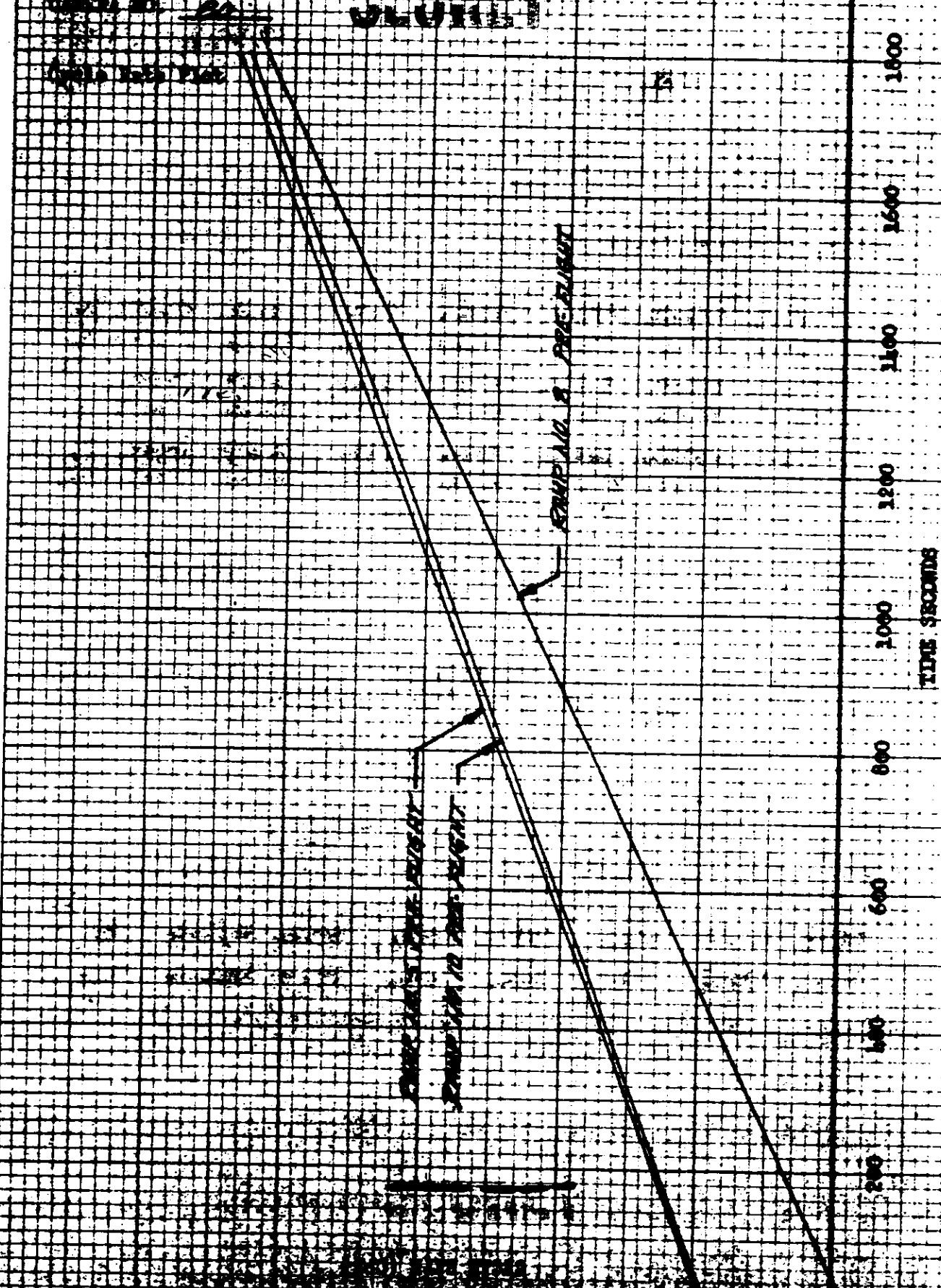
KUBENS DESIGN CO.
MADE IN U.S.A.

10 X 10 PER INCH



SCOTT SCOTT

DATE: 11/16/54
TIME: 11:20
ALTITUDE: 24,000
SPEED: 1,200
DIRECTION: 180



AIRCRAFT NO. M6
 AIRCRAFT NO. 1129
 MISSION NO. 9037
 CAMERA NOS. 80 & 81

PRE-FLIGHT CYCLE PERIOD: (CAMERA NO. 81)

V/H Ramp	Cycle Period Seconds	FNC Rate		Scan Rate		
		Rad. Per Second	In. Per Second	Rad. Per Second	In. Per Second	Exposure MilliSec
B Start	6.10	.017	.397	1.232	29.569	6.76
B End	2.39	.035	.847	2.629	63.097	3.17
5 Start	4.02	.021	.504	1.563	37.513	5.33
5 End	2.33	.036	.869	2.697	64.721	3.09
10 Start	4.05	.021	.500	1.551	37.235	5.37
10 End	2.35	.036	.862	2.674	64.171	3.117

IN-FLIGHT CYCLE PERIOD: (CAMERA NO. 81)

Rev. No.	V/H Ramp	Cycle Period Seconds	FNC Rate		Scan Rate		
			Rad. Per Second	In. Per Second	Rad. Per Second	In. Per Second	Exposure MilliSec
9	5 Start	4.05	.021	.500	1.551	37.235	5.57
25	5 Start	4.09	.021	.495	1.536	36.871	5.42

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SUBMARINE DESIGNER CO. MADE IN U.S.A.

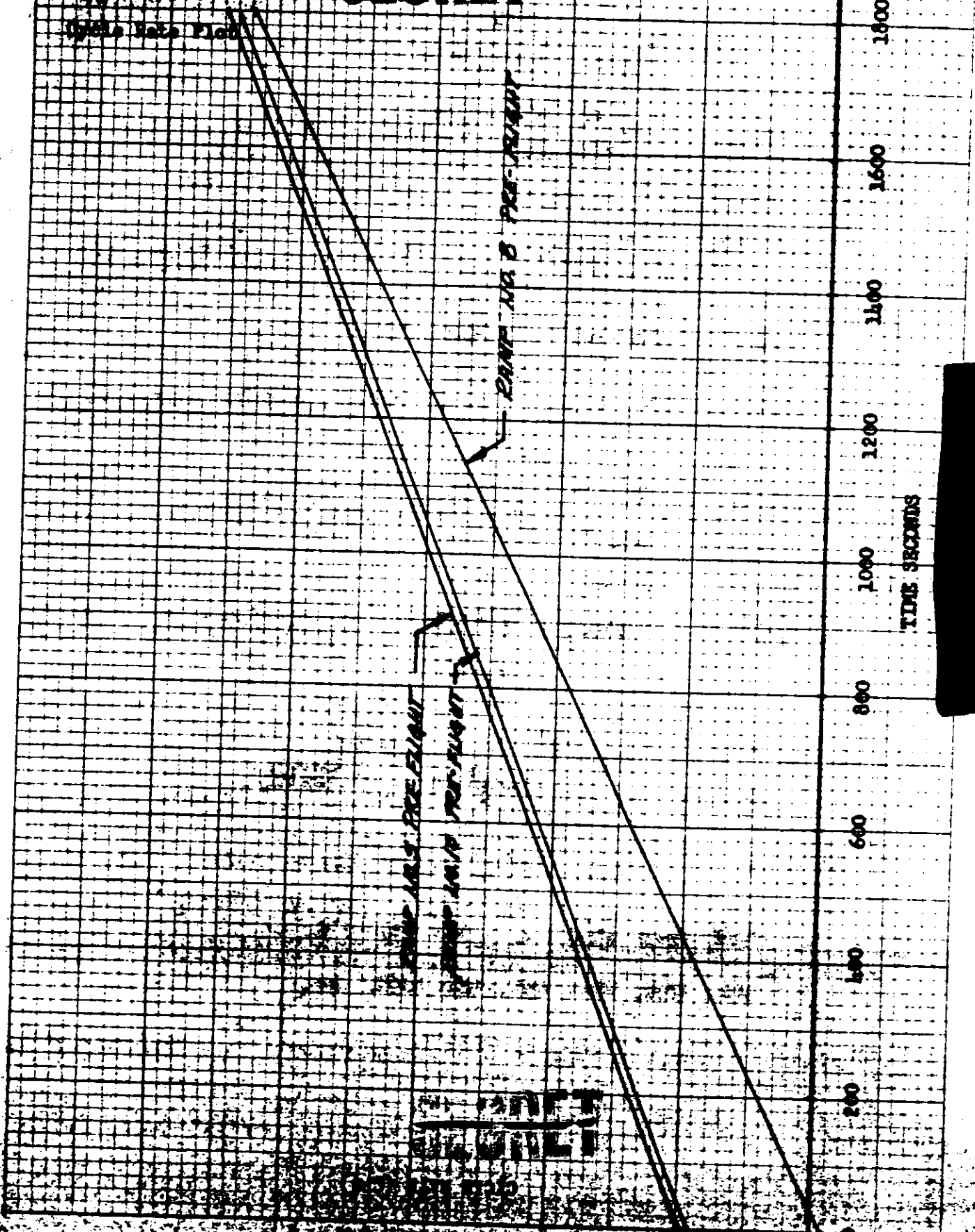
10 X 10 PER INCH

STATION NO. 111
SOUNDING NO. 112
DATE 11/21/51

CHART

ULUIT

Scale Rate Plot



MODEL NO. N/A
 SERIAL NO. 172
 PART NO. 903
 DATE 20/1/51

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LENS DATA SUMMARY: (Horicon Cameras For Main Camera No. 80)

	Take-Up	Supply
Lens Serial No.	<u>80388</u>	<u>806800</u>
Exposure Time	<u>1/50</u> Sec.	<u>1/50</u> Sec.
Filter Type	<u>WRITTEN 25</u>	<u>WRITTEN 25</u>
Aperture	<u>F8.0</u>	<u>F8.0</u>
Operational Focal Length	<u>89.5</u> MM	<u>89.05</u> MM
Radial Distortions:		
10° off Axis	<u>.005</u> MM	<u>.012</u> MM
20° off Axis	<u>.042</u> MM	<u>.056</u> MM
Tangential Distortion (Horicon Factor)	<u>.136</u> MM	<u>.171</u> MM
Resolution:		

Angle off Axis Deg.	0	5	10	15	20	25	27.5	0	5	10	15	20	25
Radial Resolution	51	49	44	42	38	32	29	51	49	44	42	32	32
Tangential Resolution	51	49	44	40	34	25	20	51	49	44	40	34	31

4.6 Lines/MM Avg. 4.6 Lines /MM Avg.

Notes:

1. Distortion and resolution are read at equivalent operational focal length.
2. Resolution is read at high contrast.

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